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INTER-DEPARTMENTAL CORRESPONDENCE

GEOLOGY AND SOILS REPORT APPROVAL LETTER

October 19, 2015

LOG # 83343-02
SOILS/GEOLOGY FILE - 2
AP

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

Tentative Tract: 72370
LOT(S): 1 Master Lot and 10 Airspace Lots
LOCATION: 8150 W. Sunset Boulevard

<u>CURRENT REFERENCE REPORT/LETTER(S)</u>	<u>REPORT No.</u>	<u>DATE(S) OF DOCUMENT</u>	<u>PREPARED BY</u>
Response Report	123-92034	08/10/2015	Golder Associates
Addendum No. 1 Report	123-92034	"	"
Laboratory Test Report	---	07/30/2015	HAI

<u>PREVIOUS REFERENCE REPORT/LETTER(S)</u>	<u>REPORT No.</u>	<u>DATE(S) OF DOCUMENT</u>	<u>PREPARED BY</u>
Dept. Correction Letter	83343-01	06/29/2015	LADBS
Soils Report	123-92034	05/18/2015	Golder Associates
Response Report	123-92034	"	"
Geology Report	123-92034-02	"	"
Dept. Correction Letter	83343	11/21/2014	LADBS
Geology Report	123-92034-02	01/27/2014	Golder Associates
Soils Report	123-92034	10/03/2014	"

The Grading Division of the Department of Building and Safety has reviewed the referenced reports that concern a proposed multi-level residential and commercial development, including one building with a 9-story and a 16-story portion and a separate 3 story building. Two subterranean levels are proposed. Cross-sections in the reports indicate that basement emanations are proposed up to the property lines on all sides, to depths of some 27 feet along Sunset and Crescent Heights Boulevards, and some 12 feet deep along the rear property line. According to the reports, the site gently slopes to

the south and is occupied by commercial developments. All of the existing structures are to be removed to accommodate the proposed development. The earth materials at the subsurface exploration locations consist of alluvium. Although not encountered in the exploration, some artificial fill is expected to be present on site related to existing retaining walls. All existing structures on the site are to be demolished. The consultants recommend to support the proposed structures on conventional, mat-type and/or drilled-pile foundations bearing on native undisturbed soils and/or properly placed fill.

The property is located within an Official Alquist-Priolo Earthquake Fault Zone (APEFZ) that was established (November 6, 2014) by the California Geological Survey for the Hollywood fault on the USGS 7.5 minute Hollywood Quadrangle. The fault investigation consisted of a transect of continuous core borings and CPT's within the street along the western edge of the site (Havenhurst Drive) and within the southwest portion of the site. Based on the continuity of stratigraphy, the consultants conclude that no active faults underlie the site. Because the exploration did not extend 50 feet beyond the northern part of the site, a reinforce foundation area is recommended at the northwest corner of the site to reduce the impact of minor off-fault deformation in the event that an active fault is located just beyond the site exploration.

The referenced reports are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2014 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The Department has concerns regarding the recommendations for drilled cast-in-place friction piles. In a discussion with the soil engineer, it was noted that current plans are to support the proposed building(s) on a mat foundation, and that piles are not currently proposed. Hence, this approval does not extend to piles at this time. If pile are to be considered later, a supplemental report shall be submitted for review to the Grading Division providing details of the analyses which support pile recommendations, in particular, justification of the OCRs that were utilized for determinations of K_0 for the Holocene age sands with SPT blow counts, N, averaging 15.
2. The geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permits. This approval shall be by signature on the plans that clearly indicates the geologist and soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in their reports. (7006.1)
3. All recommendations of the report by Golder Associates dated 08/10/2015 response report signed by Ryan Hillman, RCE 71988 and Alan Hull, CEG 2315, and the 05/18/2015 soils report and the 05/18/2015 response report signed by Anthony Augetto, RCE 55314 and Alan Hull, CEG 2315, which in addition to or more restrictive than the conditions contained herein shall also be incorporated into the plans for the project. (7006.1)
4. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans. Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit. (7006.1)
5. A grading permit shall be obtained. (106.1.2)

6. During construction, the project engineering geologist shall observe and log in detail the proposed basement excavations where the natural alluvial soils are exposed. The project engineering geologist shall post a notice on the job site for the City Grading Inspector/Geologist and the Contractor stating that the excavation (or portion thereof) has been observed and documented and meets the conditions of the report. No fill or lagging shall be placed until the LADBS geologist has verified the documentation. If evidence of active faulting is observed, the Grading Division shall be notified immediately. (Code Section 91.7009)
7. A supplemental report that summarizes the geologist's observations (including photographs and logs of excavations) shall be submitted to the Grading Division of the Department upon completion of the excavations.
8. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density (D1556). Placement of gravel in lieu of compacted fill is allowed only if complying with Section 91.7011.3 of the Code. (7011.3)
9. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill. (1809.2)
10. Compacted fill pads for the support of footings shall consist of removing all existing fill and unsuitable soils and replacing with properly compacted fill, as recommended. Compacted fill shall be placed on competent native soils approved for support by the soils engineer by bottom inspection.
11. Compacted fill for the support of foundations shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of 3 feet, whichever is greater. (7011.3)

Where lateral overexcavation cannot be carried out, a supplemental report providing alternative recommendations supported by appropriate analysis justifying bearing capacities and that total and differential settlements are within acceptable limits shall be submitted to the Grading Division for review.

12. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department, and obtained approval. (7008.2)
13. Drainage in conformance with the provisions of this Code shall be maintained during and subsequent to construction. (7013.12)
14. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cu yd. (7007.1)

15. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the State Construction Safety Orders enforced by the State Division of Industrial Safety. (3301.1)
16. Construction of trenches or excavations which are 5 feet or deeper and into which a person is required to descend requires a permit from the State Division of Industrial Safety prior to obtaining a grading permit. (3301.1)
17. Prior to the issuance of any permit which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation. (3307.1)
18. Where any excavation would remove lateral support (as defined in 3307.3.1) from a public way or adjacent property or structure, unshored excavations are not allowed and the excavation shall be shored as recommended.
19. Shoring shall be designed for lateral earth pressures no less than specified in the 08/10/2015 Addendum No. 1 for the corresponding conditions of wall restraint indicated therein; all surcharge loads shall be included into the design.
20. The soils engineer shall review and approve the shoring plans prior to issuance of the permit. (7006.1)
21. Installation of shoring, shall be performed under the inspection and approval of the soils engineer. (7008.2, 7009)
22. Where an excavation removes lateral support (as defined in 3307.3.1) from an adjacent structure, the shoring shall be designed for a maximum lateral deflection limit, specified by the soils engineer to prevent damage to the adjacent structures. A maximum lateral deflection limit greater than ½ inch shall be justified by analysis in a supplemental report submitted to the Grading Division for review. Where an excavation removes lateral support (as defined in 3307.3.1) from an adjacent public way or property, a maximum lateral deflection limit shall be specified by the soils engineer to prevent damage to the adjacent public way. A recommendation for more than 1 inch shall be justified by analysis in a supplemental report submitted to the Grading Division for review.
23. Prior to the issuance of the permits, the soils engineer and/or the structural designer shall evaluate the surcharge loads used in the report calculations for the design of the retaining walls and shoring. If the surcharge loads used in the calculations do not conform to the actual surcharge loads, the soil engineer shall submit a supplementary report with revised recommendations to the Department for approval.
24. End bearing foundations shall be supported in competent natural soils or approved compacted fill, as recommended and approved by the soils engineer by inspection.
25. The seismic design shall be based on a Site Class D as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.

26. Response 12 in the 05/18/2015 response report indicates that all retaining and basement walls exceeding 6 feet in height shall be designed for an EFP of no less than 57 pcf (for an FS=1.50 on retained earth). In the section titled "Lateral Earth Pressures for Retaining Walls" starting on page 15 of the 05/18/2015 geotechnical report it is noted that the at-rest pressure for the design of restrained walls is 57 pcf. All surcharge loads shall be incorporated into the design.
27. Retaining/basement walls shall be designed for additional loadings due to earthquake ground motions (in plf of wall) of $30H^2$ (H in feet) applied at 0.6H above the base of wall, as recommended on page 16 of the 05/18/2015 geotechnical report. (1803.5.12)
28. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted to the street in an acceptable manner and in a non-erosive device. (7013.11)
29. All retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall, as recommended. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soil report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record.
30. Prefabricated drainage composites (Miradrain) (Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth. The minimum accepted subdrain method allowed by the Department is 12" x 12" x 12" rock pockets with weep hole to daylight spaced no more than 8 feet on center.
31. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector. (7008.2 & 108.9)
32. Basement walls and floors shall be waterproofed/dampproofed with an L.A. City approved "Below-grade" waterproofing/dampproofing material with a research report number. (1703)
33. Where no hydrostatic pressure will occur, basement walls and floor slabs-on-grade shall be dampproofed (1805.2).
34. The structures shall be connected to the public sewer system. (P/BC 2014-027)
35. All roof and pad drainage shall be conducted to the improved street or other location in a manner that is acceptable to the Department and acceptable to the Department of Public Works. (7013.10)
36. Prior to excavation, an initial inspection shall be called with LADBS Inspector at which time sequence of shoring, protection fences and dust and traffic control will be scheduled.
37. Any recommendations prepared by the geologist and/or the soils engineer for correction of geological hazards found during grading shall be submitted to the Grading Division of the Department for approval prior to utilization in the field. (7008.3)
38. The geologist and soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading. (7008 & 1705.6)

39. A registered grading deputy inspector approved by and responsible to the soils engineer shall be required to provide inspection for shoring, tie-back, and pile installation. (1705.6)
40. All friction pile or caisson drilling and installation shall be performed under the inspection and approval of the geologist and soils engineer. The geologist/soils engineer shall indicate the distance that friction piles or caissons penetrate into competent alluvium in a written field memorandum. (1803.5.5, 1704.9)
41. Prior to the pouring of concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. He/She shall post a notice on the job site for the LADBS Building Inspector and the Contractor stating that the work so inspected meets the conditions of the report, but that no concrete shall be poured until the City Building Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)
42. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. He/She shall post a notice on the job site for the City Grading Inspector and the Contractor stating that the soil inspected meets the conditions of the report, but that no fill shall be placed until the LADBS Grading Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included. (7011.3)
43. No foundations or slabs-on-grade supported in new compacted fill shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.
44. The installation and testing of tie-back anchors shall comply with the recommendations included in the report or the standard sheets titled "Requirements For Temporary Tieback Earth Anchors", whatever is more restrictive. (Research Report #23835)

DCS 

DCS/CD:dcs/cd
Log No. 83343-02
213-482-0480

cc: AG SCH 8150 Sunset Boulevard, Owner
Michael Nytzen, Applicant
Golder Associates, Project Consultant
LA District Office