BOARD OF BUILDING AND SAFETY COMMISSIONERS

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OSAMA YOUNAN, P.E. GENERAL MANAGER SUPERINTENDENT OF BUILDING

GEOLOGY AND SOILS REPORT APPROVAL LETTER

July 16, 2020

LOG # 113310-01 SOILS/GEOLOGY FILE - 2 LIQ

Talmia LLC & EAE Investment Holdings 8370 Wilshire Blvd., Suite 230 Beverly Hills, CA 90211

TRACT:	19363
LOT:	8
LOCATION:	6616 N. Reseda Blvd.

CURRENT REFERENCE <u>REPORT/LETTER(S)</u> Geology/Soils Report	REPORT <u>No.</u> 20008	DATE OF <u>DOCUMENT</u> 06/24/2020	<u>PREPARED BY</u> Geolotech, Inc.
PREVIOUS REFERENCE <u>REPORT/LETTER(S)</u> Dept. Review Letter Geology/Soils Report Laboratory Test Report	REPORT <u>No.</u> 113310 20008 20008	DATE OF <u>DOCUMENT</u> 06/19/2020 03/24/2020 03/16/2020	<u>PREPARED BY</u> LADBS – Grading Geolotech, Inc. Creative Geotechnical, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced reports dated June 24, 2020 and March 24, 2020, that provide recommendations for the proposed multi-level 7 stories building over 1 level subterranean parking, with basement retaining walls as depicted in the 03/24/2020 referenced report's Geotechnical Map and Geotechnical Cross Section A-A'. The existing subject site is essentially flat and occupied by a 1-story commercial building. Shoring piles shall be utilized for temporary support of the proposed 1 level basement.

Two borings to depths of 21 and 62 feet were performed. The earth materials at the subsurface exploration locations consist of up to 7.5 feet of uncertified fill. Underlying the fill was alluvium to the maximum depth explored of 62 feet below the ground surface. The existing uncertified fill is not suitable for support of the new structure per the consultant. Groundwater was encountered at a depth of 29 feet below the ground surface. The consultant's research found that the Historic High Groundwater level to be at 5 to 10 feet below the ground surface.

The consultants recommend to support the proposed structure on a mat-type foundation bearing in native undisturbed competent alluvium. According to the consultants, the mat foundation is to be designed to resist uplift hydrostatic pressures and the below-grade building walls shall be designed

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to resist the hydrostatic pressure that would develop if the groundwater level rose to the ground surface, as recommended on page 23 of the 03/24/2020 report.

The site is located in a designated liquefaction hazard zone as shown on the Seismic Hazard Zones map issued by the State of California. The Liquefaction study included as a part of the 03/24/2020 report demonstrates that the site soils are subject to liquefaction. The earthquake induced total and differential settlements are calculated to be 2.4 and 1.6 inches, respectively (based on $2/3^{rd}$ the PGA_M). To mitigate the earthquake induced settlements it is proposed to use a mat foundation. The requirements of the 2020 City of Los Angeles Building Code have been satisfied.

As of January 1, 2020, the City of Los Angeles has adopted the new 2020 Los Angeles Building Code (LABC). The 2020 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2020.

The referenced reports dated June 24, 2020 and March 24, 2020, are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2020 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. Approval shall be obtained from the Department of Public Works, Bureau of Engineering, Development Services and Permits Program for the proposed removal of support and/or retaining of slopes adjoining to public way (3307.3.2).

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- 2. In the event tie-back anchors are utilized for shoring purposes that extend beyond the property line, then provide a notarized letter from all adjoining property owners allowing tie-back anchors on their property. (7006.6)
- 3. The project engineering geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).
- 4. All recommendations of the report(s) that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
- 5. 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 (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.
- 6. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).
- 7. 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. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.

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- 8. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
- 9. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
- 10. 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 cubic yards (7007.1).

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- 11. All loose foundation excavation material shall be removed prior to commencement of framing (7005.3).
- 12. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).
- 13. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be supported by shoring, as recommended. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)
- 14. Prior to the issuance of any permit that 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).
- 15. The project engineering geologist and soils engineer shall review and approve the shoring plans prior to issuance of the permit (3307.3.2).
- 16. 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.
- 17. Unsurcharged temporary excavations over 4 feet exposing fill and alluvium shall be trimmed back at a gradient not exceeding 1(H):1(V), as recommended on page 13 of the 03/24/2020 report.
- 18. Temporary shoring shall be designed for the minimum EFP as recommended on page 16 of the March 24, 2020, referenced report; all surcharge loads shall be included into the design, as recommended. Total lateral load on shoring piles shall be determined by multiplying the recommended EFP by the pile spacing.
- 19. Shoring shall be designed for a maximum lateral deflection of 0.5 inches, as recommended.

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- 20. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.
- 21. Proposed shoring soldier piles shall utilize a minimum diameter of 18 inches, as recommended.
- 22. All foundations shall derive entire support from competent alluvium, as recommended and approved by the geologist and soils engineer by inspection.
- 23. The proposed Mat Foundation shall be designed for a minimum thickness of 12 inches, as recommended in the June 24, 2020, referenced report.
- 24. This letter approves exclusively the option in which the structure is designed to withstand hydrostatic pressures, as a measure to control groundwater under permanent conditions.
- 25. The structure shall be supported on a mat foundation designed to resist uplift hydrostatic pressures and the below-grade building walls shall be designed to resist the hydrostatic pressure that would develop if the groundwater level rose to the ground surface, as recommended on page 23 of the 03/24/2020 report.
- 26. The building design shall incorporate provisions for total anticipated differential settlements of 1.975 inches, which include 0.375 and 1.6 inches for static and seismic-induced loads, respectively. (1808.2)
- 27. Special provisions such as flexible or swing joints shall be made for buried utilities and drain lines to allow for differential vertical displacement.
- 28. Slabs on uncertified fill shall be designed as a structural slab (7011.3).
- 29. Slabs placed on approved alluvium shall be at least 3½ inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 12 inches on center each way, as recommended.
- 30. Concrete floor slabs placed on expansive soil shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane.
- 31. 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. According to ASCE 7-16 Section 11.4.8, the long period coefficient (Fv) may be selected per Table 11.4-2 in ASCE 7-16, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either Equation 12.8-3 for T greater than 1.5Ts and less than or equal to TL or Equation 12.8-4 for T greater than TL. Alternatively, a supplemental report containing a site-specific ground motion hazard analysis in accordance with ASCE 7-16 Section 21.2 shall be submitted for review and approval.
- 32. Retaining walls up to 12 feet in height shall be designed for the lateral earth pressures specified in the section titled "Retaining Walls" starting on page 22 of the 03/24/2020 report. All surcharge loads shall be included into the design.

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- 33. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on page 23 of the March 24, 2020, referenced report (1803.5.12).
- 34. Basement walls and other walls in which horizontal movement is restricted at the top shall be designed for at-rest pressure as specified on page 22 of the 03/24/2020 report (1610.1). All surcharge loads shall be included into the design.
- 35. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).
- 36. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).
- 37. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).
- 38. Basement walls and floors shall be waterproofed/damp-proofed with an LA City approved "Below-grade" waterproofing/damp-proofing material with a research report number (104.2.6).
- 39. Prefabricated drainage composites (Miradrain, Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.
- 40. Where the ground water table is lowered and maintained at an elevation not less than 6 inches below the bottom of the lowest floor, or where hydrostatic pressures will not occur, the floor and basement walls shall be damp-proofed. Where a hydrostatic pressure condition exists, and the design does not include a ground-water control system, basement walls and floors shall be waterproofed. (1803.5.4, 1805.1.3, 1805.2, 1805.3)
- 41. The structure shall be connected to the public sewer system per P/BC 2020-027.
- 42. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works (7013.10).
- 43. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended.
- 44. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
- 45. The project engineering 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 & 1705.8).

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- 46. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS 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)
- 47. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; shoring; pile excavation; protection fences; and, dust and traffic control will be scheduled (108.9.1).
- 48. Installation of shoring and/or pile excavations shall be performed under the inspection and approval of the soils engineer and deputy grading inspector (1705.6, 1705.8).
- 49. The installation and testing of tie-back anchors shall comply with the recommendations included in the report or the standard sheets titled "Requirement for Tie-back Earth Anchors", whichever is more restrictive. [Research Report #23835]
- 50. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS 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).

FOR

JEFFREY T. WILSON Engineering Geologist I

GLEN RAAD Geotechnical Engineer I

Log No. 113310-01 213-482-0480

cc: Land Use Developers, Applicant Geolotech, Inc., Project Consultant Creative Geotechnical, Inc., Project Consultant VN District Office

CITY OF LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY Grading Division

District

	7. 					
	APPL	ICATION FOR RE	VIEW OF	TECHNICA	L REPORTS	
		IN	ISTRUCTION	NS		
A. Address all communicatio Telephone No. (213)482-0		ng Division, LADBS, 2	21 N. Figue	eroa St., 12th I	Fl., Los Angeles, CA 90012	
B. Submit two copies (three f		s) of reports, one "pd	f" copy of	the report on	a CD-Rom or flash drive.	
and one copy of applicatio		and the state of t				
C. Check should be made to t						
1. LEGAL DESCRIPTION Tract: TR 19363 Block: None Lots: 8		2. PROJE	2. PROJECT ADDRESS:			
			4. APPLICANT Land use Derlopers Corp.			
		4. APPLI				
		E Investments, LLC	Add		7136 Haskell Ave. suite 34 320	
Address:				Van NU		
-	Zin:				(213) 457 -7178	
City:	Zip:					
	213)457-7	·1-+ &		nail address:	into a land used evelopers.com	
5. Report(s) Prepared by:	Geolotech	1000	6. Repor	t Date(s):	Jine 24.	
7 Charles of annula sta	Proposed	and the second		Construction	Storm Damage	
 7. Status of project: 8. Previous site reports? 	YES				company who prepared report(s)	
a. Trevious site reports:		in yes, give dute(s)	or reported,	, one name of		
9. Previous Department actio	ns?	VES	if yes, pro	ovide dates an	d attach a copy to expedite processing.	
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10. Applicant Signature:	Alun	upper 1050407	ACAT LICE	Chu M	Position: Agent	
	\mathcal{O}_{l}	(DEPART	MENT USE	ONLY)		
REVIEW REQUESTED	FEES	REVIEW REQUE	STED	FEES	Fee Due: 452.80	
Soils Engineering		No. of Lots			Fee Verified By: HUP Date: 7 7 70	
Geology		No. of Acres			(Cashier Use Only)	
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			Surcharges	89.80	Receipt Ref Nbr: 2020188001-31	
ACTION BY:		T	TOTAL FEE	452.80	Transaction ID: 2020188001-31-1	
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For	Soils			Date	Amount Paid: \$452.86	
					PCIS Number: NA	
					Job Address: 6616 N RESEDA BLVD	
					Owners Name: TALMIA LLC AND FAE	
					ESTMENTS LLC	