CITY OF LOS ANGELES
CALIFORNIA

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

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

JOHN WEIGHT
EXECUTIVE OFFICER

GEOLOGY AND SOILS REPORT APPROVAL LETTER

June 27, 2023

LOG # 124921-01
SOILS/GEOLOGY FILE - 2
LIQ

Chaminade College Preparatory
7500 Chaminade Avenue
West Hills, CA 91304

TRACTS:	26072 // 2500	// 25773	
LOTS:	1 // 19 & 35	// 1 (Arbs. 2, 3 & 4)	
LOCATION:	7500 N. Chaminade Avenue, 23241 W. Cohasset Street // 23260 W. Saticoy Street // 23217-23255 W. Saticoy Street, 7619-7629 N. Woodlake Avenue		

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Response Report	W1547-06-01	Rev. 05/08/2023	Geocon West, Inc.
Oversized Doc(s).	``	``	``

PREVIOUS REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Dept. Review Letter	124921	02/24/2023	LADBS
Geology/Soils Report	W1547-06-01	01/12/2023	Geocon West, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced reports that provide recommendations for the proposed demolition of existing site improvements and construction of a 3-level administrative/classroom structure, accessory structures, pedestrian bridge, pool house, pool and retaining walls, as shown on the Site Plan (Figure 1) and Geologic Maps (Figures 2A & 2B) in the 05/08/2023 report.

The earth materials at the subsurface exploration locations consist of up to 7 feet of uncertified fill underlain by up to 3 feet of colluvium, up to 40 feet of alluvium and Monterey Formation siltstone and sandstone bedrock that dips 10 degrees to the northeast and 12 to 30 degrees to the southeast. According to the consultants, groundwater was encountered at a depth of 14.6 feet in boring 12 and 32 feet in boring 1. Historic High Groundwater is mapped as less than 10 feet bgs in the areas of the pool house, pool, and generally the areas outside of the proposed administration building.

The consultants recommend to support the proposed structures on conventional and/or drilled-pile foundations bearing in competent bedrock or on mat foundations bearing on a blanket of properly placed fill (see pg. 6 of the 05/08/2023 report). According to the consultants, the upper 5 feet

within the proposed structures is recommended to be excavated and compacted for support of the mat foundation (see pg. 6 of the 05/08/2023 report).

According to the consultants, the proposed swimming pool is recommended to derive support from newly placed fill and/or competent alluvial soils found at or below a depth of 5 feet, as recommended on page 8 of the 05/08/2023.

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 05/08/2023 report demonstrates that the site soils for the North Campus (boring B-1 by the pool house) are subject to liquefaction. The earthquake induced total and differential settlements are calculated to be 2.9 and 1.5 inches, respectively (based on 2/3rd the PGA_M). To mitigate the earthquake induced settlements it is proposed to use a mat foundation. The requirements of the 2023 City of Los Angeles Building Code have been satisfied.

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 05/08/2023 report demonstrates that the site soils for the North Campus (boring B-3 by the pedestrian bridge) are subject to liquefaction. The earthquake induced total and differential settlements are calculated to be 0.4 and 0.2 inches, respectively (based on 2/3rd the PGA_M). To mitigate the earthquake induced settlements it is proposed to use a pile foundation system bearing in bedrock. The requirements of the 2023 City of Los Angeles Building Code have been satisfied.

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 2023 City of LA Building Code. P/BC numbers refer to the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. Conformance with the Zoning Code Section 12.21 C8, which limits the heights and number of retaining walls, will be determined during structural plan check.

2. Approval shall be obtained from the Department of Public Works, Bureau of Engineering, Development Services and Permits Program where removal of support and/or retaining of slopes adjoining to a public way is proposed (3307.3.2).

   6262 Van Nuys Blvd. Ste 351, Van Nuys (818) 374-4605

3. Secure the notarized written consent from all owners upon whose property proposed grading/construction access is to extend, in the event off-site grading and/or access for construction purposes is required (7006.6). The consent shall be included as part of the final plans.

4. In the event temporary tie-back anchors are utilized for shoring purposes, then provide a notarized letter from all adjoining property owners allowing tie-back anchors on their property (7006.6).

5. 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).

6. 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.

7. 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.

8. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).

9. All graded, brushed or bare slopes shall be planted with low-water consumption, native-type plant varieties to protect slopes against erosion (7012).

10. All new graded slopes shall be no steeper than 2H:1V (7010.2 & 7011.2).

11. 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.

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. Compacted fill shall extend beyond the mat foundations a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet, whichever is greater, as recommended (7011.3).

14. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).

15. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).

16. 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).

17. All loose foundation excavation material shall be removed prior to commencement of framing. Slopes disturbed by construction activities shall be restored (7005.3).

18. Controlled Low Strength Material, CLSM (slurry) if proposed to be used shall satisfy the requirements specified in P/BC 2020-121.

19. 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).

20. 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)

21. 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).

22. The soils engineer shall review and approve the shoring plans prior to issuance of the permit (3307.3.2).

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. Unsurcharged temporary excavations exposing unsupported geology and/or unsupported bedding planes shall be trimmed back at a 2H:1V slope inclination up to 15 feet or shored, as recommended.

25. Unsurcharged temporary excavation may be cut vertical up to 5 feet in fill, soil and favorably orientated bedrock as determined by the project geologist. Excavations over 5 feet up to 10 feet shall be trimmed back at a uniform gradient not exceeding 1.5H:1V, from top to bottom of excavation, as recommended on pages 39 and 40 of the 01/12/2023 report.

26. Shoring shall be designed for the lateral earth pressures specified in the section titled "8.22 Shoring-Soldier Pile Design and Installation" starting on page 40 of the 01/12/2023 report; all surcharge loads shall be included into the design. Total lateral load on shoring piles shall be determined by multiplying the recommended EFP by the pile spacing.

27. Shoring shall be designed for a maximum lateral deflection of 1 inch, provided there are no structures within a 1:1 plane projected up from the base of the excavation. Where a structure is within a 1:1 plane projected up from the base of the excavation, shoring shall be designed for a maximum lateral deflection of ½ inch, or to a lower deflection determined by the consultant that does not present any potential hazard to the adjacent structure.

28. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.

29. All foundations shall derive entire support from a blanket of properly placed fill or competent bedrock, as recommended and approved by the geologist and soils engineer by inspection (see pg. 6 of the 05/08/2023 report for a summary of the proposed foundations and bearing materials).

30. The building design in the eastern portion of the North Campus (boring B-1 by the pool house) shall incorporate provisions for total anticipated differential settlements of 2 inches, which include 0.5 and 1.5 inches for static and seismic-induced loads, respectively. (1808.2)

31. Special provisions such as flexible or swing joints shall be made for buried utilities and drain lines to allow for differential vertical displacement.

32. Footings for miscellaneous small outlying structures, such as property line walls and trash enclosures, not to be tied-in to the proposed building, shall derive entire support from properly placed fill soils or native undisturbed soils, as recommended on page 21 of the 01/12/2023 report.

33. Piles shall be designed for the down drag forces as specified and recommended on page 27 of the 01/12/2023 report.

34. Foundations adjacent to a descending slope steeper than 3:1 (horizontal to vertical) in gradient shall be a minimum distance of one-third the vertical height of the slope but need not exceed 40 feet measured horizontally from the footing bottom to the face of the slope (1808.7.2); for pools the foundation setback shall be one-sixth the slope height to a maximum of 20 feet (1808.7.3).

35. Buildings adjacent to ascending slopes steeper than 3H:1V in gradient shall be setback from the toe of the slope a level distance measured perpendicular to slope contours equal to one-half the vertical height of the slope, but need not exceed 15 feet (1808.7.1).

36. All continuous footings shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing, as recommended.

37. The foundation/slab design shall satisfy all requirements of the Information Bulletin P/BC 2017-116 "Foundation Design for Expansive Soils" (1803.5.3).

38. Pile caisson and/or isolated foundation ties are required by LAMC Sections 91.1809.13 and/or 91.1810.3.13. Exceptions and modification to this requirement are provided in Information Bulletin P/BC 2020-030.

39. The design passive pressure shall be neglected for a portion of the pile with a horizontal setback distance less than five feet from the face of the slope, or as recommended in the soils report, whichever is greater.

40. When water is present in drilled pile holes, the concrete shall be tremied from the bottom up to ensure minimum segregation of the mix and negligible turbulence of the water (1808.8.3).

41. Existing uncertified fill shall not be used for lateral support of deep foundations (1810.2.1).

42. The Code requires analysis for the group effects on lateral behavior where the center-to-center spacing of deep foundation elements in the direction of lateral force is less than eight times the least horizontal dimension of an element, and the Code also requires analysis for the group effects on axial behavior where the center-to-center spacing of deep foundation elements is less than three times the least horizontal dimension of an element. Where this occurs for the proposed pile layout, a supplemental report shall be submitted that contains said analysis and recommendations for reduction factors as appropriate. (1810.2.5)

43. Slabs on uncertified fill shall be designed as a structural slab (7011.3).

44. Slabs placed on approved compacted fill shall be at least 4 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way, as recommended.

45. Concrete floor slabs placed on expansive soil shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane. The slabs shall be at least 4 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.

46. The seismic design shall be based on a Site Class C for the Main Campus structure and Site Class D for the North Campus structures, as recommended on page 3 of the 05/08/2023 report. All other seismic design parameters shall be reviewed by LADBS building plan check. According to ASCE 7-16 Section 11.4.8, for structures on Site Class D sites with S1 greater than or equal to 0.2, the parameter SM1 determined by EQ. (11.4-2) shall be increased by 50%. 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.

47. Retaining walls with a level backfill shall be designed for the lateral earth pressures specified in the section titled "8.16 Retaining Wall Design" starting on page 36 of the 01/12/2023 report. All surcharge loads shall be included into the design.

48. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on page 38 of the 01/12/2023 report (1803.5.12).

    Note: Lateral earth pressure due to earthquake motions shall be in addition to static lateral earth pressures and other surcharge pressures. The height of a stacked retaining wall shall be considered as the summation of the heights of each wall.

49. 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).

50. 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).

51. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).

52. 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).

53. The use of acceptable prefabricated drainage composites (also known as geosynthetic subdrain systems), as an alternative to traditionally accepted methods of draining retained earth, shall be determined during structural plan check.

54. 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)

55. The pool shall be designed for expansive soil conditions in accordance with Information Bulletin P/BC 2020-014.

56. The proposed swimming pool shall be designed for a freestanding condition, as recommended on page 8 of the 05/08/2023.

57. The structure shall be connected to the public sewer system per P/BC 2020-027.

58. All concentrated 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; water shall not be dispersed on to descending slopes without specific approval from the Grading Division and the consulting geologist and soils engineer (7013.10).

59. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended.

60. 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 use in the field (7008.2, 7008.3).

61. 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 & 1705.8).

62. All friction pile or caisson drilling and excavations shall be performed under the inspection and approval of the geologist and soils engineer. The geologist shall indicate the distance that friction piles or caissons penetrate into competent bedrock in a written field memorandum. (1803.5.5, 1705.1.2)

63. 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)

64. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; shoring; pile installation; protection fences; and, dust and traffic control will be scheduled (108.9.1).

65. 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).

66. 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]

67. A supplemental report shall be provided in the event any deviation to the currently proposed project configuration, as presented and as shown in the plans and cross sections included in the approved reports, is made. This shall include but not limited to: relocation, change in any dimension, change in the number of stories above or below grade of any of the proposed structures; addition of any structure(s), such as retaining walls, decks, swimming pools, driveways, access roads, living quarters, etc.; or, additional permanent grading or temporary grading for construction purposes that are not described and not shown in the plans and cross sections included in the approved reports.

68. 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).

69. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.

FOR

CASEY LEE JENSEN
Engineering Geologist Associate III

GLEN RAAD
Geotechnical Engineer I

CLJ/GR:clj/gr
Log No. 124921-01
213-482-0480

cc: Geocon West, Inc., Project Consultant
VN District Office

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
Grading Division

District VN | Log No. 124921-1

APPLICATION FOR REVIEW OF TECHNICAL REPORTS

INSTRUCTIONS

A. Address all communications to the Grading Division, LADBS, 201 N. Figueroa St., 3rd Fl., Los Angeles, CA 90012 Telephone No. (213)482-0480.
B. Submit two copies (three for subdivisions) of reports, one "pdf" copy of the report on a CD-Rom or flash drive, and one copy of application with items "1" through "10" completed.
C. Check should be made to the City of Los Angeles.

1. LEGAL DESCRIPTION
Tract: 2607 / 2500 / 25733
Block: ____ Lots: LT1 / 19 / LT1 ARB: 1-4
3. OWNER: Chaminade College Preparatory
Address: 7500 Chaminade Avenue
City: West Hills Zip: 91304
Phone (Daytime): ____

2. PROJECT ADDRESS: 7500 Chaminade Avenue, 23255 Saticoy Street, 7621 and 7629 Woodlake Avenue
4. APPLICANT Geocon West Inc.
Address: 500 N. Victory Boulevard
City: Burbank Zip: 91502
Phone (Daytime): 818-841-8388
E-mail address: berliner@geoconinc.com

5. Report(s) Prepared by: Geocon West, Inc. No. W1547-06-01
6. Report Date(s): May 8, 2023

7. Status of project: ☐ Proposed ☑ Under Construction ☐ Storm Damage
8. Previous site reports? ☑ YES if yes, give date(s) of report(s) and name of company who prepared report(s)
Geocon West Inc. Project Numbers: W1547-06-01 dated 01/12/23
9. Previous Department actions? ☑ YES if yes, provide dates and attach a copy to expedite processing.
Dates: Log No. 124921 (02/24/23)
10. Applicant Signature: Kelsey Filban (Kelsey Filban) Position: Admin

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
☐ Soils Engineering		No. of Lots	
☐ Geology		No. of Acres	
☐ Combined Soils Engr. & Geol.		☐ Division of Land	
☐ Supplemental		Other	
☐ Combined Supplemental		☒ Expedite	$ 181.50
☐ Import-Export Route		☒ Response to Correction	$ 363.00
Cubic Yards:		☐ Expedite ONLY	
		Sub-total	$544.50
		One-Stop Surcharge	$ 129.80
		TOTAL FEE	$674.30

Fee Due: $674.30
Fee Verified By: AR Date: 5/23/2023
(Cashier Use Only)

Receipt #1589087 AR 5/23/23

ACTION BY:

THE REPORT IS: ☐ NOT APPROVED
☐ APPROVED WITH CONDITIONS ☐ BELOW ☐ ATTACHED

For Geology ____ Date ____

For Soils ____ Date ____