Project No. 07516-42-02
May 10, 2023

Tri Pointe Homes
13520 Evening Creek Drive North, Suite 300
San Diego, California 92128

Attention: Mr. Allen Kashani

Subject: RESPONSE TO CITY OF SAN DIEGO REVIEW COMMENTS
NAKANO
SAN DIEGO, CALIFORNIA

References:
1. Project Issues Report, Nakano Discretionary Project, PRJ-1076302, City of San Diego, Geology Review Comments prepared by Kreg Mills, dated April 21, 2023.
2. *Update Geotechnical Investigation, Nakano Property, Chula Vista, California* prepared by Geocon Incorporated dated September 18, 2020 (Project No. 07516-42-02).
3. *Addendum Geotechnical Report and Response to City of San Diego Review Comments, Nakano, San Diego, California*, prepared by Geocon Incorporated, dated February 9, 2022 (07516-42-02).
4. *Nakano, Grading and Storm Drain*, prepared by Civil Sense, Inc., dated May 12, 2022.

Dear Mr. Kashani:

We prepared this letter to respond to City of San Diego LDR-Geology review comments for the subject project. The review comments pertaining to geotechnical aspects and our responses are presented below.

Issue 50: *The project's geotechnical consultant must submit a geotechnical addendum or update letter for the purpose of an environmental review that specifically addresses the proposed development plans, tentative map, and the following:*

Response: Based on our review of the referenced plans, the recommendations presented in our Update Geotechnical Investigation (Reference 2) remain applicable. This response serves as the requested addendum/update report.

Issue 51: *The limits of the proposed development appear to have changed since the submitted report was prepared. Provide an updated Geologic Map (Figure 2) that shows the current proposed development. Circumscribe the limits of anticipated remedial grading on the updated map to delineate the proposed footprint of the project.*

Response: Figure 1 is the requested updated geologic map using a CAD file of Reference 4 as the base map. Figure 1 shows the proposed development and the disturbance limits and limits of anticipated remedial grading. Cross sections are provided on Figures 2 and 3.

***Issue 52*:** *The project's geotechnical consultant should note that while the southern portion of the site is in Geologic Hazard Category 22 and 52, most of the site appears to be in GHC 32. Per the submitted Update Geotechnical Investigation, the northwest portion of the site is underlain by compressible surficial deposits consisting of undocumented fill, topsoil, colluvium, and alluvium that exceeds 18 feet thick and groundwater may be encountered on the north side of the property adjacent to the Otay River channel, clarify how the data from the geotechnical investigation demonstrations the site will not be impacted by liquefaction potential.*

Response: To evaluate the potential for liquefaction and groundwater impacting removals, we performed three large-diameter borings on the norther edge of the development at the locations shown on Figure 1 (Borings LD-3 through LD-5). We encountered undocumented fill overlying alluvium and terrace deposits. Seepage was encountered near a depth of 33 feet in boring LD-3. The seepage is below the expected removal bottom and within the underlying terrace deposits. Logs of the borings are appended.

Recommendations provided in Reference 2 are for complete removal of undocumented fill and young alluvial soils within the project limits and slopes supporting the project. Based on our exploratory borings, complete removal of undocumented fill and alluvium is possible within the project limits and along the northern property margin. As such, the site is not subject to liquefaction provided the grading recommendations provided in the referenced geotechnical reports are followed.

***Issue 53*:** *The project's geotechnical consultant indicated that landslides are not mapped on the property or at a location that could impact the site. However, per DMG Open-File Report 95-03, Imperial Beach Quadrangle, Plate 33G, the subject site is identified as Area 4 which is characterized as "most susceptible" to landslide hazards. Clarify how the data from the geotechnical investigation demonstrates the subject site will not be impacted by potential landslide hazards.*

Response: The potential for landslides was addressed in References 2 and 3. For Reference 3, we performed an additional large diameter boring and test pits in the southeast portion of the site to evaluate the potential for landslides within the project limits. No slide planes, bedding plane shears, or other geologic features indicative of landsliding have been encountered within exploratory borings and test pits performed on the property. It is our opinion there is a low risk for landslides impacting the project.

***Issue 54*:** *In general accordance with the Subdivision Map Act, the project's geotechnical consultant should indicate whether or not there are any soil conditions within the area of the Tentative Map which, if not corrected, would lead to structural defects.*

- Indicate if critically expansive soils or other soils problems are present which, if not corrected, would lead to structural defects.

-Indicate if rocks or liquids containing deleterious chemicals are present which, if not corrected, could cause construction materials such as concrete, steel, and ductile or cast iron to corrode or deteriorate.

- The project's geotechnical consultant should clarify if the property that is proposed of the tentative map is safe from geologic hazards.

Response: In general accordance with the Subdivision Map Act, we have performed a geotechnical investigation to address soil and geologic hazards on the property. Geotechnical

recommendations provided in the referenced geotechnical reports account for the soil conditions encountered on the property and geologic hazards identified on or near the property limits. Provided the recommendations in the geotechnical report are followed, there is a low risk for impacts to the property from soil or geologic hazards. Specifically, the grading and foundation recommendations in the referenced reports account for soil conditions encountered on the property, including expansive soils (which are generally low expansive). With respect to corrosion, laboratory testing performed during our geotechnical investigation indicate the site soils have an "S0" sulfate exposure class (not applicable severity) to concrete structures as defined by 2022 CBC and ACI 318. However, Geocon does not practice corrosion engineering.

***Issue 55*:** *The provided slope stability analyses indicate planned cut and fill slopes, and the existing native perimeter slope, will have a calculated factor of safety in excess of 1.5. The project's geotechnical consultant must also provide a professional opinion that the site will have a factor-of-safety of 1.5 or greater for both gross and surficial stability following project completion.*

Response: As indicated in our addendum report and response letter dated February 9, 2022 (Reference 3), based on the results of our stability analyses, the slopes in and adjacent to the proposed project have a factor of safety of 1.5 or greater for gross and surficial stability following completion of the project, provided the grading recommendations in Reference 2 are followed.

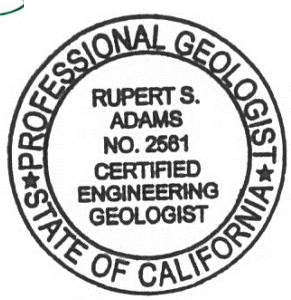
If there are any questions regarding this correspondence, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

Rodney C. Mikesell
GE 2533

Rupert S. Adams
CEG 2561



RCM:RSA:arm

(e-mail) Addressee
(e-mail) Civil Sense, Inc.
Attention: Ms. Maykia Vang

GRAPHIC SCALE
0' 30' 60' 90' 120' 180' 240'
SCALE 1"=60' (on 36x24)

GEOCON LEGEND

- Qudf ..... UNDOCUMENTED FILL
- Qaf ..... ARTIFICIAL FILL
- Qal ..... ALLUVIUM
- Qt ..... TERRACE DEPOSITS (Dotted Where Buried)
- Tsd_{cg} ..... SAN DIEGO FORMATION (Conglomerate)
- Tmv ..... MISSION VALLEY FORMATION
- ?2 ..... APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)
- LD-5 ..... APPROX. LOCATION OF BORING
- T-24 ..... APPROX. LOCATION OF TRENCH
- A-2 ..... APPROX. LOCATION OF INFILTRATION TEST
- (5) ..... APPROX. DEPTH OF REMEDIAL GRADING (In Feet, MSL)
- D D' ..... APPROX. LOCATIION OF GEOLOGIC CROSS SECTION

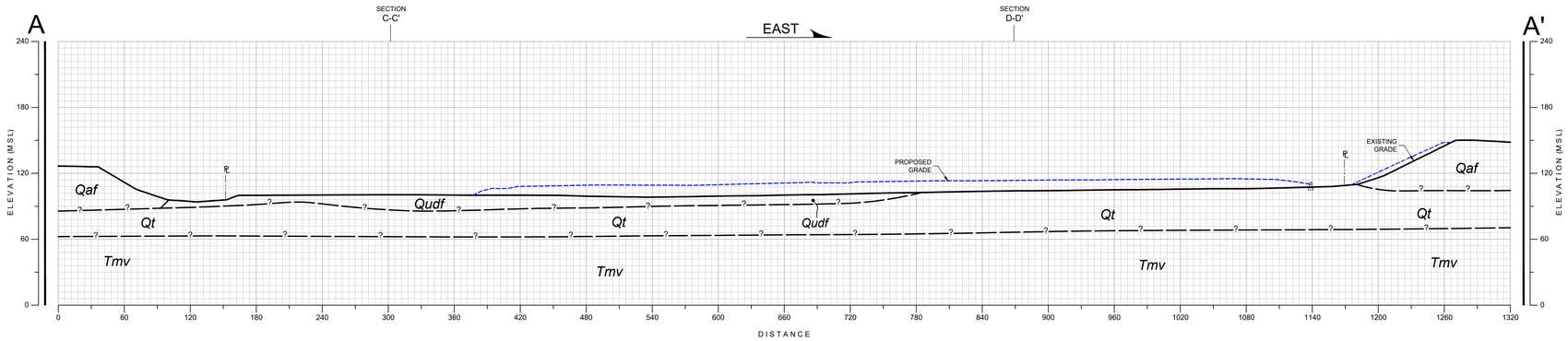
GEOLOGIC MAP

NAKANO
CHULA VISTA, CALIFORNIA

GEOCON INCORPORATED
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159

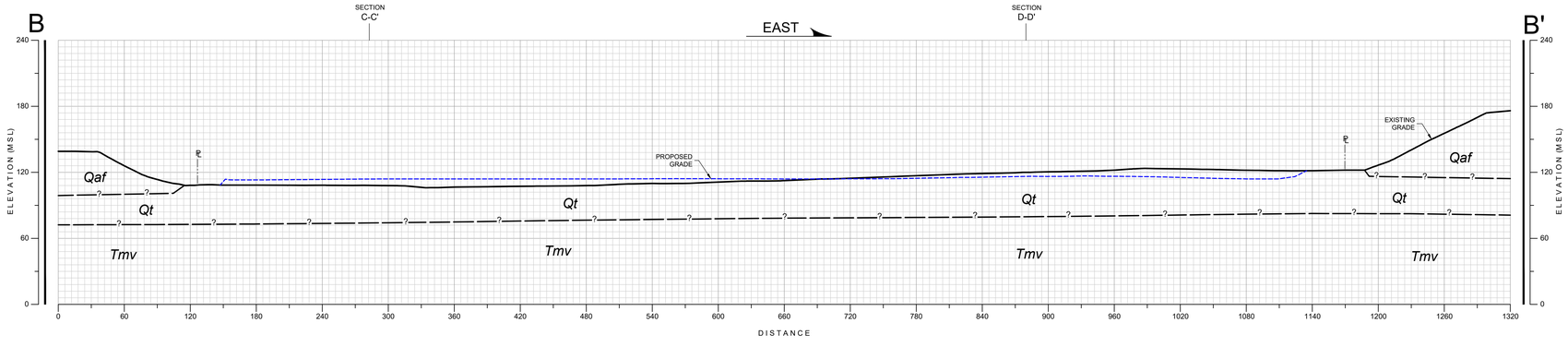
SCALE	1" = 60'	DATE	05 - 10 - 2023
PROJECT NO.	07516 - 42 - 02	FIGURE	1
SHEET	1 OF 1		

Plotted:05/10/2023 7:37AM | By:ALVIN LADRILLONO | File Location:Y:\PROJECTS\07516-42-02 (Nakano)\SHEETS\07516-42-02 Geo Map 60.dwg



GEOLOGIC CROSS-SECTION A-A'

SCALE: 1" = 60' (Vert. = Horiz.)



GEOLOGIC CROSS-SECTION B-B'

SCALE: 1" = 60' (Vert. = Horiz.)

GEOCON LEGEND

Qudf .....UNDOCUMENTED FILL

Qal .....ALLUVIUM

Qaf .....ARTIFICIAL FILL

Qt .....TERRACE DEPOSITS

Tmv .....MISSION VALLEY FORMATION

.....APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)

LD-6 .....APPROX. LOCATION OF BORING

GEOLOGIC CROSS SECTION

NAKANO
CHULA VISTA, CALIFORNIA

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6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
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SCALE 1" = 60'	DATE 05 - 10 - 2023		
PROJECT NO. 07516 - 42 - 02		FIGURE 2	
SHEET 1 OF 2			

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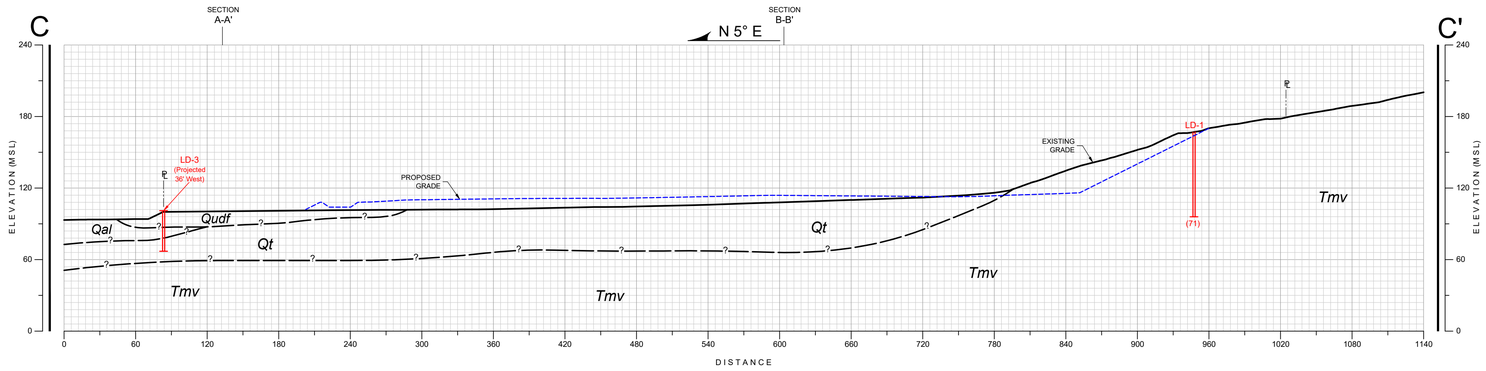
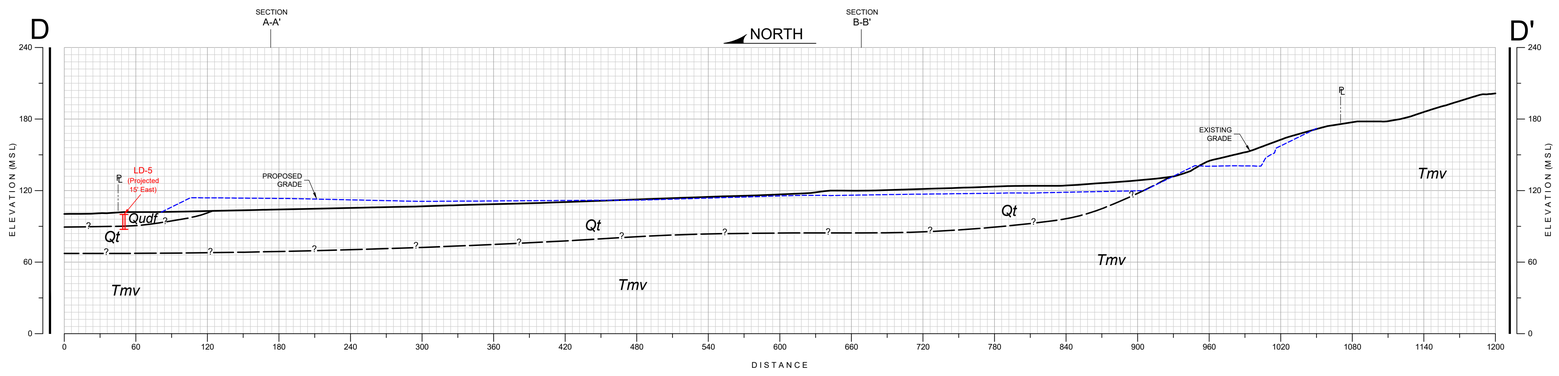


GEOLOGIC CROSS-SECTION C-C'

SCALE: 1" = 60' (Vert. = Horiz.)



GEOLOGIC CROSS-SECTION D-D'

SCALE: 1" = 60' (Vert. = Horiz.)

GEOCON LEGEND

- Qudf ..... UNDOCUMENTED FILL
- Qal ..... ALLUVIUM
- Qaf ..... ARTIFICIAL FILL
- Qt ..... TERRACE DEPOSITS
- Tmv ..... MISSION VALLEY FORMATION
- ~?~ ..... APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)
- LD-5 ..... APPROX. LOCATION OF BORING

GEOLOGIC CROSS SECTION

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SCALE	1" = 60'	DATE	05 - 10 - 2023
PROJECT NO.	07516 - 42 - 02	FIGURE	3
SHEET	2 OF 2		

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PROJECT NO. 07516-42-02

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	**BORING LD 3** ELEV. (MSL.) **101'** DATE COMPLETED **05-08-2023** EQUIPMENT **EZ-BORE** BY: **R. ADAMS** MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0				SM	**UNDOCUMENTED FILL (Qudf)** Medium dense, damp, light brown, Silty, fine SAND; trace clay			
2				CL	Firm, moist, brown, Sandy CLAY; trace rounded gravel			
4				SC	Loose to medium dense, damp, brown to olive brown, Clayey, medium grained SAND; some angular gravel. asphalt and brick fragments up to 6" in width. Plastic and metal also present			
6				SC	Loose to medium dense, dry to damp, reddish brown, Clayey, medium coarse SAND with cobble; cobble is subrounded, up to 10" in width; minor caving			
8				SM	Loose to medium dense, damp to moist, yellowish brown, Silty, fine to medium SAND; clear plastic debris present			
10								
12	LB3-1			CL	**TOPSOIL** Soft, moist, brownish black, Sandy CLAY; trace rounded gravel; some charcoal and organic debris			
14								
16				SC	**ALLUVIUM (Qal)** Loose to medium dense, moist to wet, olive brown, Clayey, fine to coarse SAND; few rounded gravel, trace cobble			
18								
20				SM/SC	Medium dense, moist, yellowish brown to grayish brown, Silty, fine SAND and Clayey SAND; few subrounded gravel and cobble			
22	LB3-2							
24								
26				SC	**TERRACE DEPOSITS (Qt)** Dense, moist, yellowish brown, Clayey, fine to medium SAND; some gravel and cobble up to 18" in width			
28	LB3-3							

Figure A-3,
Log of Boring LD 3, Page 1 of 2

07516-42-02 COMBINE.GPJ

SAMPLE SYMBOLS

... SAMPLING UNSUCCESSFUL ... STANDARD PENETRATION TEST ... DRIVE SAMPLE (UNDISTURBED)

... DISTURBED OR BAG SAMPLE ... CHUNK SAMPLE ... WATER TABLE OR ... SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 07516-42-02

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	**BORING LD 3** ELEV. (MSL.) **101'** DATE COMPLETED **05-08-2023** EQUIPMENT **EZ-BORE** BY: **R. ADAMS**	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					MATERIAL DESCRIPTION			
30	LB3-4							
32	LB3-5		▼		-Groundwater at 33.5 feet: cemented zone, very difficult drilling			
34					BORING TERMINATED AT 34 FEET REFUSAL ON CEMENTED ZONE Groundwater encountered at 33.5 feet Backfilled on 05/08/2023			

Figure A-3,
Log of Boring LD 3, Page 2 of 2

07516-42-02 COMBINE.GPJ

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ▼ ... WATER TABLE OR ▽ ... SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 07516-42-02

BORING LD 4

ELEV. (MSL.) **98'** DATE COMPLETED **05-08-2023**

EQUIPMENT **EZ-BORE** BY: **R. ADAMS**

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0				SM	**UNDOCUMENTED FILL (Qudf)** Loose, dry, light brown, Silty, fine SAND; trace cobble and gravel			
2								
				SM	**TOPSOIL** Loose, damp, dark brown to dark reddish brown, Silty, fine to medium SAND; trace clay, trace gravel, charcoal observed, some pinhole porosity -Switch to auger at 4 feet			
4				SC	**TERRACE DEPOSITS (Qt)** Dense, damp, dark reddish brown, Clayey, fine to coarse SAND; some gravel and cobble			
					BORING TERMINATED AT 5 FEET PRACTICAL REFUSAL WITH AUGER AT 5 FEET Groundwater not encountered Backfilled on 05/08/2023			

Figure A-4,
Log of Boring LD 4, Page 1 of 1

07516-42-02 COMBINE.GPJ

SAMPLE SYMBOLS

... SAMPLING UNSUCCESSFUL ... STANDARD PENETRATION TEST ... DRIVE SAMPLE (UNDISTURBED)

... DISTURBED OR BAG SAMPLE ... CHUNK SAMPLE ... WATER TABLE OR ... SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. 07516-42-02

BORING LD 5

ELEV. (MSL.) **100'** DATE COMPLETED **05-08-2023**

EQUIPMENT **EZ-BORE** BY: **R. ADAMS**

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0				SM	**UNDOCUMENTED FILL (Qudf)** Loose, dry, light brown, Silty, fine to medium SAND; trace cobble and gravel, some masonry and asphalt/concrete fragments			
2								
4					-At 4 feet: metal debris			
6								
					-At 7 feet: becomes moist			
8				CL	Soft to firm, moist, dark grayish brown, Sandy CLAY with cobble; some brick and clay pipe debris			
10								
				SC	**TERRACE DEPOSITS (Qt)** Dense, moist, dark reddish brown, Clayey, coarse SAND with cobble; cobble is subrounded, up to 12" in width			
12					BORING TERMINATED AT 12.5 FEET PRACTICAL REFUSAL ON COBBLE USING BOTH AUGER AND BUCKET Groundwater not encountered Backfilled on 05/08/2023			

Figure A-5,
Log of Boring LD 5, Page 1 of 1

07516-42-02 COMBINE.GPJ

SAMPLE SYMBOLS

... SAMPLING UNSUCCESSFUL ... STANDARD PENETRATION TEST ... DRIVE SAMPLE (UNDISTURBED)

... DISTURBED OR BAG SAMPLE ... CHUNK SAMPLE ... WATER TABLE OR ... SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON