

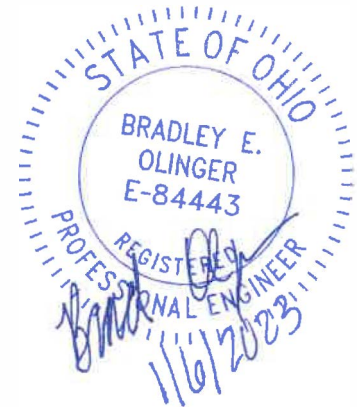
**CITY OF TORONTO
JEFFERSON COUNTY, OHIO**

MARA ROAD EXTENSION

ADDENDUM #2

JANUARY 6, 2023

THRASHER PROJECT #101-T30-11030



TO WHOM IT MAY CONCERN:

The following are clarifications and responses to questions posed by contractors for the above-referenced project. No additional questions will be accepted.

A. GENERAL

1. **Attachment 1** – the Index has been updated to include EXHIBIT I – Geotechnical Report. The report was added in Addendum #1, but the Index was not updated at that time.
2. **Attachment 2** - the Bid Form (section 5.01, pages BID 3-6) has been revised. All items in red text have been updated. You must use the revised bid form when preparing your bid package for this project.

B. DRAWINGS

Attachment 3 - the following sheets have been revised and are attached to this addendum. Please be sure to utilize the revised sheets when bidding and constructing the project.

REPLACE Sheet 5 included in this addendum.

C. QUESTIONS AND RESPONSES

QUESTION

1. *Is the excavation and drainage of the toe keys and bonding benches incidental to the 7171cy of excavation in item 20310000 as shown on the detail provided in the geotechnical at the various stations called out for them?*

RESPONSE

Yes, the excavation and drainage of the toe keys and benches will be incidental to Item 203 - Excavation.

QUESTION

2. *Are the boring logs available as part of the geotechnical report as well?*

RESPONSE

Attachment 4 – The boring logs for the Geotech. Report have been attached to this addendum.

QUESTION

3. *Can you please verify the quantity for the following bid item: Item 441 – Asphalt Concrete Surface Course, Type 1, (448), PG64-22*

RESPONSE

Quantity has been revised to 351 CY on the plans and bid form.

QUESTION

4. *Is the Geotech Report for “Information Only” or are we to install the benches, bench drains and bonding bench drains as recommended in the report?*

RESPONSE

See response to question 1.

QUESTION

5. *According to question #36 it appears we are to be removing all excavated material (7,171 CY) and importing off-site material for the proposed fills (9,974 CY), is this correct? If not, are we to assume 100% of onsite cut material will be usable for fill? How will we be paid for import material if unsuitable cut material is encountered?*

RESPONSE

Per section 203.01 of the ODOT CMS, “Use removed or excavated materials in the Work when the material conforms to the specifications; if not, then recycle or dispose of the material according to 105.16 and 105.17.” In addition, please review section 203.10 for the basis of payment for Item 203 – Roadway Excavation and Embankment.

QUESTION

6. *The boring logs (figures 5 to 37 on table of contents) appear to be left out of the geotechnical report included in addendum #1, can these be provided?*

RESPONSE

See response to question 2.

QUESTION

7. *The geotechnical report mentions under-drains around the seep & springs, will this be taken care of via change order?*

RESPONSE

If encountered during construction, this will be taken care of in the field.

QUESTION

8. *Do the project's earthwork calculation account for stripping of the on-site area or are the calculation from existing grade to proposed without accounting for stripping?*

RESPONSE

The earthwork was calculated using the average end area method. Cut and fill was measured using the cross-sectional areas between the existing and proposed grade lines in the cross sections.

QUESTION

9. *Will the owner provide water for testing of the waterline or dust control?*

RESPONSE

Owner will provide water for testing of the water line.

QUESTION

10. *Due to the extent of the changes in Addendum #1 can the bid date be extended?*

RESPONSE

The bid date will remain as advertised.

QUESTION

11. *Since the watermain has been changed from ductile iron to PVC and all the force main is HDPE can the water services be changed from copper to HDPE with a trace wire?*

RESPONSE

Services are to be bid as copper as shown in the plans.

QUESTION

12. *Is this project with Toronto city limits and are there any fees or permits we will be required to obtain for the project?*

RESPONSE

Yes, this project is located within the City limits. Contractor should plan for electrical permit for installation of power to the grinder pumps at each residence.

QUESTION

13. *Please clarify the type of pipe for the 1.5" conduit, Type C, 707.34.*

RESPONSE

Pipe shall be HDPE and follow pipe specification ASTM F714, joint specification ASTM F2620 or F1290, and installation specification ASTM D2321 or F1962.

QUESTION

14. *Please clarify the Type 1 asphalt quantity.*

RESPONSE

See response to question 3.

QUESTION

15. *Should milling of butt joints be included in pricing or does the city prefers to rake the edges down instead at each end of those sections?*

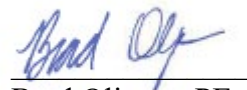
RESPONSE

Butt joints should be included.

If you have any questions or comments, please feel free to contact me by 10:00 am on January 6, 2023. As a reminder, bids will be received until 1:30 p.m. on Wednesday, January 11, 2023, at the Municipal Building located at 416 Clark Street, Toronto, OH 43964. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.



Brad Olinger, PE
Project Manager

**CITY OF TORONTO
JEFFERSON COUNTY, OHIO
FOR THE
MARA ROAD EXTENSION**

- I N D E X -

BIDDING DOCUMENTS

Advertisement for Bids	C-111
Engineer's Estimate	EST-1
Instructions to Bidders	C-200
Bid Opening Requirements	BOR 1-17
Bid Forms	BID 1-8

CONDITIONS OF WORK

Notice of Award	C-510
Agreement	C-520
Certificate of Owner's Attorney	COA-1
Certificate of Funds	COF-1
Performance Bond	C-610
Payment Bond	C-615
Notice to Proceed	C-550
Contractor's Estimate Form (OWDA)	CEF-1
Contractor's Application for Payment (EJCDC)	C-620
Change Order Form (OWDA)	COF-1
Change Order (EJCDC)	C-941
Memorandum of Negotiation	MEM-1
Field Order	C-942
Work Change Directive	C-940
Certificate of Substantial Completion	C-625

Notice of Acceptability	C-626
General, Supplementary, & Additional Supplementary Conditions	C-700

EXHIBITS

Exhibit A – Abnormal Weather Days	
Exhibit B – Listing of Duties, etc. of the Resident Project Representative	
Exhibit C – Call Before You Dig	
Exhibit D – Affidavit for Pay Estimates	
Exhibit E – Consent of Surety to Final Payment	
Exhibit F – Prevailing Wages	
Exhibit G – Insurance Provisions	
Exhibit H – Materials Testing	
Exhibit I – Geotechnical Report	

TECHNICAL SPECIFICATIONS

Summary	011000
Price and Payment Procedures	012000
Submittal Procedures	013300
Quality Requirements	014000
References	014200
Temporary Facilities and Controls	015000
Traffic Control	015700
Execution and Closeout Requirements	017000
Construction Waste Management and Disposal	017419
Operation and Maintenance Data	017823
Project Record Documents	017839

Video Recording	024010
Cast-in-Place Concrete	033000
Crystalline Concrete Waterproofing	033050
Grouting	036000
Basic Electrical Materials and Methods	260500
Conductors and Cables	260519
Grounding and Bonding	260526
Supporting Devices	260529
Raceways and Boxes	260533
Panelboards	262416
Wiring Devices	262762
Fuses	262813
Enclosed Switches and Circuit Breakers	262816
Soils for Earthwork	310513
Aggregates for Earthwork	310516
Clearing, Grubbing, and Restoration	311100
Excavation	312316
Trenching	312316.13
Dewatering	312319
Erosion and Sedimentation Controls	312500
Rubble-Stone Riprap	313716.13
Concrete Resurfacing, Crushed Stone Resurfacing and Asphalt Paving	321216
Stone Surfacing Material	321217
*Concrete Paving	321313
Pavement Markings	321723
Landscaping	329119

Seeding and Mulching Table	329119.01
Sewer and Manhole Testing	330130.13
Manholes and Structures	330513
Manhole Frames and Covers	330513.01
Precast Concrete Valve Vaults and Meter Boxes	330517
Utility Identification	330526
Water Distribution Piping	331113
Water Utility Distribution Equipment	331200
Water Service Connections	331213
Water Utility Distribution Valves	331216
Water Utility Distribution Fire Hydrants	331219
Disinfecting of Water Utility Distribution	331300
Small Package Sewer Grinder Pump	333101
Sanitary Utility Sewerage Force Mains	333400
Swing Check Valves	400565.23
Air/Vacuum Valves for Wastewater Service	400578.23

PLANS

**CITY OF TORONTO
JEFFERSON COUNTY, OHIO
MARA ROAD EXTENSION**

THRASHER PROJECT #101-T30-11030

BID FORM

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:
CITY OF TORONTO

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.

Addendum Date

_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the

cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

GENERAL

The Bidder shall take notice of and shall be responsible for any local or state taxes levied and applicable, and the cost for the same shall be included as part of the submitted Bid.

The total Bid cost stated includes a complete operating installation including furnishing and installation of any and all changes or additions in plans, piping, mechanical work, additional electrical work, accessories, controls, etc. necessary to accommodate alternative equipment systems or materials used in construction.

BID PROPOSAL

THE BIDDER AGREES TO PERFORM ALL REQUIRED WORK DESCRIBED IN THE DETAILED SPECIFICATIONS AND AS SHOWN ON THE PLANS FOR THE COMPLETE CONSTRUCTION AND PLACING IN SATISFACTORY OPERATION OF THE CONTRACT

The Project "Sequence of Construction" has been detailed in the Drawings and Specification Division 1, Project Summary, Section 1010, Part-2 Execution. The Bidder agrees to perform all the Work proposed for the total of the following Bid prices.

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

**PROPOSED
 MARA ROAD EXTENSION
 JEFFERSON COUNTY, OHIO**

BID SCHEDULE

ODOT							
Item #	ODOT #		DESCRIPTION	QTY.	UNIT	UNIT COST	COST
1	201	11000	Clearing & Grubbing	1	LS		
2	202	23000	Pavement Removed	176	SY		
3	202	53100	Mailbox Removed	3	EACH		
4	203	10000	Excavation	7,171	CY		
5	203	20000	Embankment	9,974	CY		
6	203	35110	Granular Material, Type B	362	CY		
7	204	10000	Subgrade Compaction	4,348	SY		
8	204	13000	Excavation of Subgrade	362	CY		
9	204	45000	Proof Rolling	2	HOUR		

ODOT							
Item #	ODOT #		DESCRIPTION	QTY.	UNIT	UNIT COST	COST
10	204	50000	Geotextile Fabric	1,087	SY		
11	608	52000	Curb Ramp	145	SF		
12	609	12000	Combination Curb & Gutter, Type 2	3,310	FT		
13	609	26000	Curb, Type 6	88	FT		
14	690	50100	Mailbox Support System, Single	3	EACH		
15	659	00300	Topsoil	1,394	CY		
16	659	00500	Seeding & Mulching, Class 1	12,553	SY		
17	659	14000	Repair Seeding & Mulching	628	SY		
18	659	15000	Inter-Seeding	628	SY		
19	659	20000	Commercial Fertilizer	1.7	TON		
20	659	31000	Lime	2.6	ACRE		
21	659	35000	Water	68	MGAL		
22	832	15000	Stormwater Pollution Prevention Plan	1	LS		
23	832	30000	Erosion Control	15,000	EACH		
24	895	10040	Manufactured Water Quality Structure, Type 4, in 96" Manhole	1	EACH		
25	601	32200	Rock Channel Protection, Type C with Filter	41	CY		
26	602	20000	Concrete Masonry	2	CY		
27	605	14000	6" Base Pipe Underdrains	3,103	FT		
28	611	00510	6" Conduit, Type F for Underdrain Outlets	80	FT		
29	611	01100	6" Conduit, Type C	14	FT		
30	611	04400	12" Conduit, Type B	879	FT		

ODOT							
Item #	ODOT #		DESCRIPTION	QTY.	UNIT	UNIT COST	COST
31	611	04600	12" Conduit, Type C	103	FT		
32	611	07400	18" Conduit, Type B	782	FT		
33	611	07600	18" Conduit, Type C	39	FT		
34	611	10600	24" Conduit, Type C	57	FT		
35	611	99574	Manhole, No. 3	2	EACH		
36	611	98150	Catch Basin, No. 3	16	EACH		
37	611	98470	Catch Basin, No. 2-2B	1	EACH		
38	301	46000	Asphalt Concrete Base, PG64-22	571	CY		
39	304	20000	Aggregate Base	411	CY		
40	407	20000	Non-Tracking Tack Coat	548	GAL		
41	441	50000	Asphalt Concrete Surface Course, Type 1, (448), PG64-22	351	CY		
42	441	50000	Asphalt Concrete Intermediate Course, Type 2, (448)	168	CY		
43	452	10050	6" Non-Reinforced Concrete Pavement, Class QC MS	22	SY		
44	452	13040	9" Non-Reinforced Concrete Pavement, Class QC MS	172	SY		
45	611	97910	Special – Sanitary Sewer Grinder Pumps	1	LS		
46	638	20736	1 1/2" Air Release Valve	5	EACH		
47	611	97400	Conduit Misc.: 1 1/2" Conduit, Type C, 707.34	7,490	FT		
48	202	62700	Septic Tank Removed – Cleaning & Demolishing	5	EACH		
49	638	01130	6" Water Main Polyvinyl Chloride Pipe and Fittings, AWWA C900, DR18	1,647	FT		
50	638	07800	6" Gate Valve & Valve Box	10	EACH		

ODOT							
Item #	ODOT #		DESCRIPTION	QTY.	UNIT	UNIT COST	COST
51	638	10200	6" Fire Hydrant	4	EACH		
52	630	08510	Street Name Sign Support, No. 2 Post	15.25	FT		
53	630	08600	Sign Post Reflector	1	EACH		
54	630	80100	Sign, Flat Sheet	6.25	SF		
55	630	80500	Sign, Double Faced, Street Name	2	EACH		
56	644	00500	Stop Line	9	FT		
57	644	01200	Parking Lot Stall Marking	30	FT		
58	614	11000	Maintaining Traffic	1	LS		
59	623	10000	Construction Layout Stakes & Surveying	1	LS		
60	624	10000	Mobilization	1	LS		

TOTAL BID ACTIVITY _____

NOTE: THE CONTRACTOR'S UNIT PRICES SHALL INCLUDE PURCHASE AND INSTALLATION, COMPLETE IN PLACE, PER BID ITEM IN ACCORDANCE WITH THE DETAILED SPECIFICATIONS.

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

METHOD OF AWARD

If at the time this contract is to be awarded, the lowest total bid submitted by a qualified, responsible Bidder does not exceed the amount of funds then estimated by the Owner, as available to finance the contract, the construction contract will be awarded. If such bids exceed such amount, the Owner may reject all bids.

The owner may award the contract for each Activity separately or on the Total Bid submitted by a qualified responsible Bidder less the amount(s) of the Deductive Alternate(s) subtracted in numerical order, as listed in the contract to produce the lowest bid within the funds available for financing.

- A. Unit prices have been computed in accordance with paragraph 13.03.A of the General Conditions.
- B. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Bid Opening Requirements
 - B. American Iron and Steel Requirements
 - C. Disadvantaged Business Enterprises (DBE) Utilization
 - D. EPA Contract Requirements

ARTICLE 8 – DEFINED TERMS

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By: _____
[Signature]

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
[Signature]

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
ROADWAY					
201	11000	LS		CLEARING AND GRUBBING	
202	23000	176	SY	PAVEMENT REMOVED	
202	53100	3	EACH	MAILBOX REMOVED	
203	10000	7,171	CY	EXCAVATION	
203	20000	9,974	CY	EMBANKMENT	
203	35110	362	CY	GRANULAR MATERIAL, TYPE B	3
204	10000	4,348	SY	SUBGRADE COMPACTION	
204	13000	362	CY	EXCAVATION OF SUBGRADE	3
204	45000	2	HOUR	PROOF ROLLING	3
204	50000	1,087	SY	GEOTEXTILE FABRIC	3
608	52000	145	SF	CURB RAMP	
609	12000	3,310	FT	COMBINATION CURB AND GUTTER, TYPE 2	
609	26000	88	FT	CURB, TYPE 6	
SPECIAL	69050100	3	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	4
EROSION CONTROL					
659	00300	1,394	CY	TOPSOIL	
659	00500	12,553	SY	SEEDING AND MULCHING, CLASS 1	
659	14000	628	SY	REPAIR SEEDING AND MULCHING	
659	15000	628	SY	INTER-SEEDING	
659	20000	1.7	TON	COMMERCIAL FERTILIZER	
659	31000	2.6	ACRE	LIME	
659	35000	68	MGAL	WATER	
832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
832	30000	15,000	EACH	EROSION CONTROL	
895	10040	1	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4, IN 96" MANHOLE	
DRAINAGE					
601	32200	41	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
602	20000	2	CY	CONCRETE MASONRY	
605	14000	3,103	FT	6" BASE PIPE UNDERDRAINS	
611	00510	80	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
611	01100	14	FT	6" CONDUIT, TYPE C	
611	04400	879	FT	12" CONDUIT, TYPE B	
611	04600	103	FT	12" CONDUIT, TYPE C	
611	07400	782	FT	18" CONDUIT, TYPE B	
611	07600	39	FT	18" CONDUIT, TYPE C	
611	10600	57	FT	24" CONDUIT, TYPE C	
611	99574	2	EACH	MANHOLE, NO. 3	
611	98150	16	EACH	CATCH BASIN, NO. 3	
611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
PAVEMENT					
301	46000	571	CY	ASPHALT CONCRETE BASE, PG64-22	
304	20000	411	CY	AGGREGATE BASE	
407	20000	548	GAL	NON-TRACKING TACK COAT	
441	50000	351	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
441	50300	168	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
452	10050	22	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS	
452	13040	172	SY	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS	

GENERAL SUMMARY	MARA ROAD
CALCULATED JMC	CHECKED BEO
5	50



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 1

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 837.3 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				ROCK FRAGMENTS with some sand			20-50/6"						
	5			- FILL -			7-4-7 (11)						
							20-21-12 (33)						
							26-20-16 (36)						
827.27	10				10.0								
				Brown and gray SANDY CLAY with rock fragments, moist, stiff to hard			7-7-8 (15)						
	15			- more plastic with gray mottling (15.0 - 16.5 ft.)			7-7-8 (15)						
							6-7-11 (18)						
				- COLLUVIUM -			8-13-11 (24)						
	20			- no recovery (20.0 - 21.5 ft.)			13-14-12 (26)						
812.27	25				25.0								
810.77				Brown and gray SANDY CLAY , moist, very stiff	26.5		6-9-15 (24)						
				Bottom of Test Boring @ 26.5 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	26.5 ft.
Date Boring Started:	5/16/22
Date Boring Completed:	5/16/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 2

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 832.1 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
827.05	5			Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to very stiff - mostly sandstone fragments and wood (2.5 - 4.0 ft.) - FILL -	5.0			5-4-4 (8)					
	10			Brown SILTY to SANDY CLAY , moist, stiff to very stiff - w/gray mottling (5.0 - 6.5 ft.)				5-6-9 (15)					
	15			- sandier, w/rock fragments (15.0 - 20.0 ft.)				5-7-11 (18)					
	20			- COLLUVIUM -				7-8-9 (17)					
	25			Brown SHALE , soft, weathered	25.0			6-10-12 (22)					
806.25				Bottom of Test Boring @ 25.8 ft.	25.8			10-9-11 (20)					
								9-13-14 (27)					
								8-10-12 (22)					
								24-50/3"					

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	25.8 ft.
Date Boring Started:	5/16/22
Date Boring Completed:	5/16/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 3

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 828.2 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown SILTY to SANDY CLAY with rock fragments, moist, medium stiff to stiff				4-5-7 (12)					
				- with brick fragments (2.5 - 4.0 ft.)				6-7-4 (11)					
	5							3-4-3 (7)					
				- FILL -				2-2-5 (7)					
818.21	10					10.0		7-10-18 (28)					
				Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to hard				10-14-12 (26)					
				- w/gray mottling (10.0 - 11.5 ft.)				8-9-15 (24)					
	15			- COLLUVIUM -				15-28-23 (51)					
				- w/sandstone fragments (17.5 - 19.0 ft.)				9-10-18 (28)					
	20			- wet, very sandy (20.0 - 21.5 ft.)				13-12-16 (28)					
	25												
801.71						26.5							
				Bottom of Test Boring @ 26.5 ft.									
	30												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	26.5 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Water was noted at a depth of 20.0 ft. during drilling operations and 17.9 ft. at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 4

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 805.1 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample	MATERIAL DESCRIPTION								
				Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to hard				5-7-6 (13)					
	5							9-10-18 (28)					
								13-20-28 (48)					
	10			- COLLUVIUM -				10-10-11 (21)					
								7-8-12 (20)					
790.1	15			Brown SANDY CLAY with rock fragments, moist, stiff		15.0		4-4-4 (8)					
787.6						17.5		4-5-6 (11)					
	20			Brown SILTY SAND , damp, medium dense to dense				4-6-7 (13)					
				- w/sandstone fragments (20.0 - 21.5 ft.) and (30.0 - 31.5 ft.)				5-6-7 (13)					
	25												
	30												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	36.0 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 4

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 805.1 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
770.1	35			Brown CLAYEY SAND , damp, medium dense to dense		35.0		13-15-17 (32)					
769.1				Gray and brown SHALE , soft to medium hard, weathered		36.0		18-50/1"					
				Bottom of Test Boring @ 36.0 ft.									
	40												
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	36.0 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 5

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 816.5 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown and gray SILTY to SANDY CLAY , moist, medium stiff to hard				3-3-4 (7)					
	5			- gray (5.0 - 10.0 ft.)				5-13-17 (30)					
				- very moist, very plastic (7.5 - 12.5 ft.)				5-6-7 (13)					
	10							4-4-4 (8)					
				- COLLUVIUM -				2-9-10 (19)					
	15							9-14-17 (31)					
				- no recovery (17.5 - 19.0 ft.)				11-12-9 (21)					
	20							5-7-9 (16)					
								6-8-13 (21)					
791.46	25			Brown SANDY SHALE , soft, weathered				28-50/2"					
								50/4"					
786.36	30			- sandstone @ 30.0 ft.				50/1"					
				Bottom of Test Boring @ 30.1 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT_6/10/22

Completion Depth:	30.1 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 6

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 812.0 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to hard				5-4-4 (8)					
	5			- COLLUVIUM -				4-3-6 (9)					
				- gray and brown from 7.5 ft.				9-22-23 (45)					
	10			- gray and more plastic (7.5 - 9.0 ft.)				7-6-7 (13)					
				- brown (10.0 - 11.5 ft.)				4-6-10 (16)					
	15			- wet @ 12.5 ft.				6-7-7 (14)					
								12-10-11 (21)					
	20							12-12-9 (21)					
								7-10-7 (17)					
	25			- very sandy @ 25.0 ft.				12-16-18 (34)					
	30												
781.98													
													30.0

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	34.0 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Water was noted at a depth of 12.5 ft. during drilling operations and 28.4 ft. at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 6

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 812.0 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown SANDSTONE , medium hard				50/2"					
777.98				- auger refusal @ 34.0 ft. 34.0				50/3"					
	35			Bottom of Test Boring @ 34.0 ft.									
	40												
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	34.0 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Water was noted at a depth of 12.5 ft. during drilling operations and 28.4 ft. at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 7

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 806.1 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
805.93				TOPSOIL				2-1-3 (4)					
				Brown SILTY to SANDY CLAY with rock fragments, moist, soft to hard									
	5			- w/ organics (0.0 - 5.0 ft.)				9-7-9 (16)					
				- dark gray (7.5 - 9.0 ft.)				13-16-15 (31)					
	10							7-5-7 (12)					
				- very moist, very plastic (12.5 - 17.5 ft.)				9-9-10 (19)					
	15							4-4-12 (16)					
				- wet @ 15.0 ft.				7-7-6 (13)					
	20			- COLLUVIUM -				6-10-12 (22)					
								9-10-16 (26)					
	25							14-16-21 (37)					
	30												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	35.5 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Water was noted at a depth of 15.0 ft. during drilling operations and 28.0 ft. at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 7

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 806.1 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
775.13				Brown and gray SILTY to SANDY CLAY , moist, stiff to hard	31.0			10-13-50/6"					
				Brown SILTY to SANDY CLAY with rock fragments, moist, soft to hard				50/6"					
770.63	35				35.5			50/6"					
				Bottom of Test Boring @ 35.5 ft.									
	40												
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT_6/10/22

Completion Depth:	35.5 ft.
Date Boring Started:	5/17/22
Date Boring Completed:	5/17/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Water was noted at a depth of 15.0 ft. during drilling operations and 28.0 ft. at boring completion.**

Depth to Water @ 24 hrs.: ---



**Project Name: Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: W22072

B- 8

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %	
				Surface El.: 814.9 ft.										
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample										
MATERIAL DESCRIPTION														
814.68				TOPSOIL					4-3-2 (5)					
				Brown SILTY to SANDY CLAY with rock fragments, moist, medium stiff to hard										
				- w/gray mottling from 2.5 ft.					4-4-3 (7)					
	5			- more plastic (2.5 - 4.0 ft.)					7-5-4 (9)					
									6-5-5 (10)					
	10								6-5-4 (9)					
									9-12-17 (29)					
	15			- COLLUVIUM -					7-7-8 (15)					
									4-3-3 (6)					
	20								3-3-4 (7)					
									6-8-7 (15)					
789.88	25			Brown SILTY SAND , damp, medium dense to dense										
	30													

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT_6/10/22

Completion Depth:	33.5 ft.
Date Boring Started:	5/18/22
Date Boring Completed:	5/18/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---

Novel Geo Environmental

The stratification lines represent approximate strata boundaries.
In situations, the transition may be gradual.



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B- 8

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 814.9 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
782.38				Brown SILTY SAND , with sandstone fragments, damp, medium dense to dense				12-13-16 (29)					
781.38				Brown SANDSTONE , hard - auger refusal @ 33.5 ft.				50/1"					
	35			Bottom of Test Boring @ 33.5 ft.									
	40												
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	33.5 ft.
Date Boring Started:	5/18/22
Date Boring Completed:	5/18/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-9

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 807.8 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample	MATERIAL DESCRIPTION								
806.29				TOPSOIL	1.5			3-4-6 (10)					
	5			Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to very stiff				6-5-6 (11)					
	10			- brown and gray from 10.0 ft.				4-6-8 (14)					
	15			- gray (12.5 - 17.5 ft.)				5-7-9 (16)					
	20			- COLLUVIUM -				7-8-12 (20)					
	25			- w/numerous sandstone fragments (17.5 - 19.0 ft.)				5-6-10 (16)					
787.79	20			Brown SILTY to SANDY CLAY , moist, very stiff	20.0			6-7-9 (16)					
	25			- w/residual shale from 25.0 ft.				5-10-14 (24)					
777.79	30			Brown SILTY SAND with sandstone fragments, damp	30.0			7-11-16 (27)					
776.79				Brown SANDSTONE , soft to medium hard, weathered	31.0			10-12-16 (28)					
775.79				- auger refusal @ 32.0 ft.	32.0			15-28-50/6"					
	35			Bottom of Test Boring @ 32.0 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth: 32.0 ft.	Remarks: Boring was noted to be dry during drilling operations and at boring completion.
Date Boring Started: 2/18/22	
Date Boring Completed: 5/18/22	
Engineer/Geologist: CEM	
Driller: NGE	
Depth to Water @ 24 hrs.: ---	



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-10

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 800.9 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
799.44				TOPSOIL	1.5			3-3-2 (5)					
	5			Brown SILTY to SANDY CLAY with rock fragments, moist, medium stiff to hard				4-5-7 (12)					
	10							7-9-12 (21)					
	15			- w/numerous sandstone fragments (12.5 - 17.5 ft.) - COLLUVIUM -				7-7-12 (19)					
783.44					17.5			8-12-15 (27)					
	20			Brown SILTY to SANDY CLAY with residual shale, moist, very stiff				11-14-17 (31)					
	25				25.0			10-12-15 (27)					
775.94				Brown SILTY SAND with sandstone fragments, damp, dense				11-13-9 (22)					
	30			Brown SANDSTONE , medium hard, weathered	28.0			10-12-10 (22)					
	32.6				32.6			19-18-21 (39)					
	35			Bottom of Test Boring @ 32.6 ft.				23-50/4"					
								50/2"					
								50/1"					

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	32.6 ft.
Date Boring Started:	5/18/22
Date Boring Completed:	5/18/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-11

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 807.0 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to very stiff				6-4-4 (8)					
	5			- w/gray mottling from 2.5 ft.				6-8-12 (20)					
								32-10-7 (17)					
	10			- COLLUVIUM -				7-8-9 (17)					
								9-10-13 (23)					
	15							6-6-8 (14)					
								8-11-14 (25)					
	20							6-8-12 (20)					
786.97	20			Brown SILTY SAND , damp, medium dense				5-5-6 (11)					
								50/2"					
781.97	25			Brown SANDSTONE , medium hard, weathered									
				- auger refusal @ 28.2 ft.				50/3"					
778.77													
	30			Bottom of Test Boring @ 28.2 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth: 28.2 ft.	Remarks: Boring was noted to be dry during drilling operations and at boring completion.
Date Boring Started: 5/19/22	
Date Boring Completed: 5/19/22	
Engineer/Geologist: CEM	
Driller: NGE	
Depth to Water @ 24 hrs.: ---	



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-12

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 801.1 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
800.77				TOPSOIL	0.3			6-7-9 (16)					
				Brown SILTY to SANDY CLAY , moist, stiff to hard									
				- w/gray mottling (2.5 - 4.0 ft.)				12-13-18 (31)					
	5							6-3-9 (12)					
								8-13-19 (32)					
	10							6-7-12 (19)					
								5-7-9 (16)					
	15							7-12-9 (21)					
				- w/sandstone fragments from 15.0 ft.				6-6-9 (15)					
	20							8-6-11 (17)					
				- COLLUVIUM -									
	25							5-6-11 (17)					
	30				30.0			50/2"					
771.07				Brown SANDSTONE , medium hard to hard, weathered									
768.47					32.6			50/1"					
				Bottom of Test Boring @ 32.6 ft.									
	35												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT_6/10/22

Completion Depth:	32.6 ft.
Date Boring Started:	5/19/22
Date Boring Completed:	5/19/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-13

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 793.6 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
792.12				TOPSOIL				4-5-7 (12)					
	5			Brown SILTY to SANDY CLAY with rock fragments, moist, stiff to very stiff				8-12-13 (25)					
	10							7-8-11 (19)					
	15							5-9-9 (18)					
	20			- COLLUVIUM -				6-7-11 (18)					
773.62	20			Brown SILTY to SANDY CLAY with residual shale, moist, stiff				5-7-10 (17)					
768.62	25							5-6-11 (17)					
	30			Brown SANDSTONE , medium hard to hard, weathered				12-7-8 (15)					
763.52	30							5-7-7 (14)					
				- auger refusal @ 30.1 ft.				50/3"					
								50/2"					
				Bottom of Test Boring @ 30.1 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth: **30.1 ft.**
 Date Boring Started: **5/19/22**
 Date Boring Completed: **5/19/22**
 Engineer/Geologist: **CEM**
 Driller: **NGE**

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

 Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-14

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 798.6 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
798.36				TOPSOIL	0.2			4-4-8 (12)					
				Brown SILTY to SANDY CLAY , moist, stiff to very stiff									
	5			- brown and gray, moist to very moist (0.0 - 5.0 ft.)				7-6-7 (13)					
								4-5-7 (12)					
	10							8-10-11 (21)					
				- COLLUVIUM -				7-8-10 (18)					
	15							5-6-9 (15)					
								7-8-11 (19)					
780.56				Brown CLAYEY to SILTY SAND with sandstone fragments, damp, medium dense	18.0			6-5-5 (10)					
	20							6-7-8 (15)					
								9-10-50/5"					
	25			- wet @ 25.0 ft.									
771.06				Brown SANDSTONE , medium hard to hard, weathered	27.5			50/2"					
	30							50/1"					
768.46				Bottom of Test Boring @ 30.1 ft.	30.1								

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	30.1 ft.
Date Boring Started:	5/19/22
Date Boring Completed:	5/19/22
Engineer/Geologist:	CEM
Driller:	NGE

Remarks: **Water was noted at a depth of 25.0 ft. during drilling operations and 28.1 ft. at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-15

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 792.9 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
790.37				Brown SANDY CLAY with rock fragments, wet, stiff				4-5-5 (10)					
				- FILL -		2.5							
	5			Brown SANDY CLAY with rock fragments, moist, stiff to very stiff				7-7-8 (15)					
				- thin, gray, highly plastic layer @ 6.0 ft.				9-12-11 (23)					
	10			- COLLUVIUM -				11-9-11 (20)					
				- with numerous sandstone rock fragments (12.5 - 14.0 ft.)				5-7-9 (16)					
	15							17-11-9 (20)					
								4-6-7 (13)					
	20							5-4-6 (10)					
								4-7-9 (16)					
767.87	25			Brown SANDSTONE , medium hard to hard, weathered		25.0		50/2"					
								50/3"					
762.57	30					30.3		50/3"					
				Bottom of Test Boring @ 30.3 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	30.3 ft.
Date Boring Started:	5/23/22
Date Boring Completed:	5/23/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-16

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 785.0 ft.									
				☒ Split Spoon ☒ Shelby Tube ☐ Rock Core ☐ Bag Sample									
MATERIAL DESCRIPTION													
784.72				TOPSOIL 0.3				3-3-4 (7)					
				Brown SANDY CLAY with rock fragments, moist, medium stiff to stiff									
				- brown and gray (0.0 - 1.5 ft.)				4-6-5 (11)					
	5			- COLLUVIUM -				5-6-10 (16)					
777.02				8.0				9-7-7 (14)					
				Brown SILTY CLAY , moist, very stiff to hard				12-11-16 (27)					
	10							16-11-17 (28)					
	15							20-21-19 (40)					
	20							12-9-9 (18)					
	25			25.0				10-11-14 (25)					
760.02				Brown SANDSTONE , medium hard to hard, weathered				50/2"					
								50/2"					
754.92				30.1				50/1"					
				Bottom of Test Boring @ 30.1 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	30.1 ft.
Date Boring Started:	5/23/22
Date Boring Completed:	5/23/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-17

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 782.4 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
779.86				Brown SANDY CLAY with numerous rock fragments, medium stiff, moist				2-2-3 (5)					
				- FILL -									
	5			Brown SANDY CLAY with rock fragments, moist, stiff to hard				3-3-5 (8)					
				- COLLUVIUM -									
	10			- silty (12.5 - 14.0 ft.)				4-7-10 (17)					
								8-9-9 (18)					
	15							7-9-12 (21)					
								3-5-6 (11)					
	20							7-8-13 (21)					
								8-12-9 (21)					
	25							7-10-11 (21)					
								8-12-13 (25)					
754.86								16-19-32 (51)					
				Brown SILTY SAND with residual sandstone, damp, very dense				50/1"					
752.36	30							50/2"					
				Brown SANDSTONE , medium hard to hard, weathered				50/1"					
								50/2"					
747.26	35							50/1"					
				Bottom of Test Boring @ 35.1 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE 1.GDT 6/10/22

Completion Depth:	35.1 ft.
Date Boring Started:	5/23/22
Date Boring Completed:	5/23/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-18

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 779.0 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown SANDY CLAY with rock fragments, moist, stiff to very stiff				2-3-6 (9)					
	5							8-10-11 (21)					
				- COLLUVIUM -				5-8-12 (20)					
	10			- brown and gray mottling (10.0 - 11.5 ft.)				7-9-11 (20)					
				- with few rock fragments (12.5 - 20.0 ft.)				8-8-10 (18)					
	15							4-6-6 (12)					
								5-7-9 (16)					
	20							8-5-6 (11)					
								7-7-13 (20)					
	25							21-50/1"					
753.51				Brown SANDSTONE , medium hard to hard									
				- auger refusal @ 28.3 ft.				50/2"					
750.71													
	30			Bottom of Test Boring @ 28.3 ft									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	28.3 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-19

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 748.6 ft.									
				☒ Split Spoon ☒ Shelby Tube ■ Rock Core □ Bag Sample									
MATERIAL DESCRIPTION													
748.3			☒	TOPSOIL	0.3			WOH-2-2 (4)					
				Brown SANDY CLAY with rock fragments, moist, soft									
	746.1			- POSSIBLE FILL -	2.5								
				Brown SANDY CLAY with numerous rock fragments, moist, stiff to very stiff				3-4-4 (8)					
	5							4-5-8 (13)					
				- with numerous rock fragments (7.5 - 9.0 ft.)				21-19-13 (32)					
	10			- COLLUVIUM -				7-9-11 (20)					
				- sandstone boulders (12.5 - 17.5 ft.)				50/3"					
	15							50/2"					
	731.1			Brown SILTY SAND , damp, loose to dense	17.5			8-5-3 (8)					
				- very silty (20.0 - 26.5 ft.)				4-8-6 (14)					
	20							6-7-7 (14)					
	25												
	30												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	41.5 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-19

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 748.6 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
707.1				Brown SILTY SAND , damp, loose to dense				27-19-13 (32)					
	35			- with few rock fragments from 30.0 ft.									
	40							5-7-6 (13)					
								6-9-5 (14)					
				Bottom of Test Boring @ 41.5 ft.									
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	41.5 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-21

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 748.7 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
748.53				TOPSOIL	0.2'			2-2-3 (5)					
				Brown SANDY CLAY with rock fragments, moist, medium stiff to very stiff				4-4-4 (8)					
	5			- with few rock fragments (0.0 - 7.5 ft.)				3-4-4 (8)					
								8-9-12 (21)					
								7-10-15 (25)					
								6-8-12 (20)					
								7-10-11 (21)					
								8-9-5 (14)					
								6-4-7 (11)					
								4-5-7 (12)					
723.73	25				25.0								
				Brown SILTY SAND with few rock fragments, damp, medium dense to dense									
	30												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	41.5 ft.
Date Boring Started:	5/25/22
Date Boring Completed:	5/25/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-21

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 748.7 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
				Brown SILTY SAND with few rock fragments, damp, medium dense to dense				6-12-21 (33)					
	35							11-9-11 (20)					
	40							6-8-7 (15)					
707.23													
				Bottom of Test Boring @ 41.5 ft.									
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	41.5 ft.	Remarks: Boring was noted to be dry during drilling operations and at boring completion.
Date Boring Started:	5/25/22	
Date Boring Completed:	5/25/22	
Engineer/Geologist:	NLS	
Driller:	NGE	
Depth to Water @ 24 hrs.: ---		



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-22

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 745.3 ft.									
				<input type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
744.98				TOPSOIL	0.3			2-3-6 (9)					
	5			Brown SANDY CLAY with rock fragments, moist, stiff to very stiff				3-6-8 (14)					
	10			- COLLUVIUM -				5-7-9 (16)					
								9-9-12 (21)					
								11-13-12 (25)					
732.78					12.5			9-6-5 (11)					
	15			Brown SANDY SILT with rock fragments, moist, medium stiff to stiff				5-5-6 (11)					
	20							5-3-4 (7)					
725.28					20.0			4-4-5 (9)					
	25			Brown SILTY SAND with rock fragments, damp, medium dense				7-7-8 (15)					
	30			- with rock fragments from 26.0 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	38.1 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-22

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 745.3 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
710.28	35			Brown SILTY SAND with rock fragments, damp, medium dense - dark gray @ 31.0 ft.		35.0		9-12-13 (25)					
707.18				Brown and gray SANDSTONE , hard - auger refusal @ 38.1 ft.		38.1		50/1"					
	40			Bottom of Test Boring @ 38.1 ft.									
	45												
	50												
	55												
	60												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	38.1 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
 Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-23

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 737.2 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
736.89				TOPSOIL				2-3-5 (8)					
	5			Brown SANDY CLAY with rock fragments, moist, stiff to very stiff				6-8-9 (17)					
				- COLLUVIUM -				11-12-16 (28)					
729.69													
	10			Brown SANDY SILT , moist, stiff to very stiff				7-5-9 (14)					
								8-8-11 (19)					
								6-5-5 (10)					
722.19	15												
				Brown SILTY SAND , damp, medium dense to dense - with rock fragments from 16.0 ft.				4-9-12 (21)					
	20							5-6-4 (10)					
								3-6-7 (13)					
	25							5-9-9 (18)					
	30												
706.19								12-35-50/4"					
				Gray SHALE , soft to medium hard, weathered				50/5"					
	35							50/3"					
701.89													
				Bottom of Test Boring @ 35.3 ft.									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	35.3 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-24

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 734.7 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
733.18				TOPSOIL	1.5			6-7-9 (16)					
	5			Brown SILTY SAND , damp, loose to medium dense				3-4-4 (8)					
				- with rock fragments (5.0 - 6.5 ft.)				7-5-6 (11)					
	10							6-9-5 (14)					
								5-6-6 (12)					
	15							6-4-5 (9)					
				- with rock fragments from 13.5 ft.				7-7-6 (13)					
	20							7-7-9 (16)					
								8-10-10 (20)					
	25												
								10-6-5 (11)					
704.68	30				30.0								

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	35.6 ft.
Date Boring Started:	5/25/22
Date Boring Completed:	5/25/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-24

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location:	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 734.7 ft.									
				<input type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Rock Core <input type="checkbox"/> Bag Sample									
MATERIAL DESCRIPTION													
699.18	35			Gray SHALE , soft to medium hard, weathered				18-22-50/6"					
								50/3"					
								50/6"					
				Bottom of Test Boring @ 35.5 feet									

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	35.6 ft.
Date Boring Started:	5/25/22
Date Boring Completed:	5/25/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-25

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Surface El.: 738.7 ft.	Offset:	Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				☒ Split Spoon ☒ Shelby Tube ■ Rock Core □ Bag Sample									
MATERIAL DESCRIPTION													
738.37				TOPSOIL	0.3			4-6-6 (12)					
	5			Brown SANDY CLAY with rock fragments, moist, stiff				5-5-4 (9)					
	10			- COLLUVIUM -				9-7-6 (13)					
	15			- very sandy from 10.0 ft.				4-5-7 (12)					
723.67	15				15.0			7-12-6 (18)					
	20			Brown SILTY SAND , damp, medium dense				4-5-5 (10)					
	25				25.0			21-14-13 (27)					
	27.5			Brown and gray SANDY SHALE , very soft				5-7-7 (14)					
711.17					27.5			6-8-9 (17)					
	30			Gray SANDSTONE , medium hard to hard				31-50/4"					
708.47					30.2			50/1"					
				Bottom of Test Boring @ 30.2 ft.				50/2"					

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	30.2 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---



Project Name: **Mara Road Extension
Toronto, Ohio**

BORING NO.

Project Number: **W22072**

B-26

Elevation, feet	Depth, feet	Sample Type	Symbol / USCS	Location: Offset:		Recovery %	RQD	Blow Count (N-Value)	Moisture %	Liquid Limit	Plasticity Index	Silt and Clay %	Sand %
				Surface El.: 733.2 ft.									
				TOPSOIL									
732.86				Brown SANDY CLAY with rock fragments, moist, stiff				3-5-5 (10)					
				- COLLUVIUM -									
728.16	5			Brown SANDY SILT , moist, stiff to very stiff				8-7-7 (14)					
				- very sandy from 7.5 ft.									
	10			- with rock fragments (10.0 - 11.5 ft.)				6-8-12 (20)					
								5-7-4 (11)					
								9-8-6 (14)					
								4-3-7 (10)					
718.16	15			Brown SILTY SAND , damp, medium dense				5-6-6 (12)					
				- with rock fragments from 18.5 ft.									
								5-8-8 (16)					
713.16	20			Gray to brown SANDSTONE , medium hard to hard				50/1"					
								50/1"					
707.96	25			Bottom of Test Boring @ 25.2 ft.				50/2"					
	30												

NGE BASIC LOG - NO PENETROMETER LOG REPORTS.GPJ NGE_1.GDT 6/10/22

Completion Depth:	25.2 ft.
Date Boring Started:	5/24/22
Date Boring Completed:	5/24/22
Engineer/Geologist:	NLS
Driller:	NGE

Remarks: **Boring was noted to be dry during drilling operations and at boring completion.**

Depth to Water @ 24 hrs.: ---