

REPORT TRANSMITTAL

April 24, 2023

- To: Nick Piekarski, PE, CFM Hampton Lenzini and Renwick 380 Shepard Drive Elgin, IL 60123
- Re: Abbreviated Structure Geotechnical Report Proposed McLean Blvd. Noise Walls and Traffic Signal South Elgin, Illinois

Rubino Report No. G23.044

Via email: <u>npiekarski@hlreng.com</u>

Dear Mr. Piekarski,

Rubino Engineering, Inc. (Rubino) is pleased to submit our Structure Geotechnical Report for the proposed McLean Boulevard Noise Walls in South Elgin, Illinois.

Report Description

Enclosed is the Structure Geotechnical Report including results of field and laboratory testing, as well as recommendations for foundation design, noise wall construction, and general site development.

Authorization and Correspondence History

 Rubino Proposal No. Q23.142g dated March 28, 2023; Authorized via signed contract from Hampton Lenzini and Renwick dated March 29, 2023.

Closing

Rubino appreciates the opportunity to provide geotechnical services for this project and we look forward to continued participation during the design and in future construction phases of this project.

If you have questions pertaining to this report, or if Rubino may be of further service, please contact our office at (847) 931-1555.

Respectfully submitted, **RUBINO ENGINEERING, INC.**

Michelle A. Lipinski, PE President

michelle.lipinski@rubinoeng.com MAL/file/ Enclosures



Abbreviated Structure Geotechnical Report (SGR)

> Drilling Laboratory Testing Geotechnical Analysis

PREPARED BY:

SABINA SCHMID



Michelle A. Lipinski, PE President IL No. 062-061241, Exp. 11/30/21 **PREPARED FOR:**

HAMPTON LENZINI AND RENWICK, INC.

380 SHEPARD DRIVE

ELGIN, ILLINOIS 60123

APRIL 24, 2023

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PROJECT DESCRIPTION AND SCOPE

Rubino Engineering, Inc. (Rubino) understands that Hampton Lenzini and Renwick, Inc. is planning to design noise walls along McLean Boulevard for South Elgin. Rubino previously completed a Roadway Geotechnical Report (RGR) under Rubino project number G21.165 dated June 16, 2022. After review of the reports, IDOT has requested a noise wall SGR and borings for the proposed noise walls and traffic signals along McLean Blvd in South Elgin, Illinois.

Project/Proposed Structure Information:

• Drawing – "McLean_Prelim Noise Wall Boring Locations"

The proposed noise walls are located along the east side of McLean Boulevard from Stearns Rd to Sunbury Rd. The proposed traffic signals are located at the intersection of McLean Blvd and N Lancaster Cir in South Elgin, Illinois. There is an existing residence located north of Pleasant Lane and east of proposed noise wall. On the east side of McLean Blvd along the length of the project are existing residential neighborhoods. On the west side of McLean Blvd along the length of the project are open fields.

The geotechnical recommendations presented in this report are based on the available project information and the subsurface materials described in this report. If any of the information on which this report is based is incorrect, please inform Rubino in writing so that we may amend the recommendations presented in this report (if appropriate, and if desired by the client). Rubino will not be responsible for the implementation of our recommendations if we are not notified of changes in the project.

This report briefly outlines the following:

- Project Description and Scope
- Field Exploration
- Geotechnical Evaluations and Recommendations
 - Traffic Signal Recommendations
 - Noise Wall Design Soil Parameters
- Construction Considerations
- Appendices (Supporting Documentation): location map, boring plan

FIELD EXPLORATION

Subsurface Exploration and Testing

Hampton Lenzini and Renwick, Inc. selected the number of borings and the boring depths. Rubino located the borings in the field by measuring distances from known fixed site features. Rubino mobilized to the site on April 14, 2023 through April 19, 2023. The borings were advanced using



a Geoprobe 7822DT with 3 ¼ inch inside-diameter hollow stem augers and automatic hammer. Soil samples were routinely obtained during the drilling process. Rubino's scope included the following drilling program:

BORING NUMBERS	DEPTH (FEET BEG*)	LOCATION
NWB-01 through NWB-27	15	Noise Wall Borings (Drill Rig)
NWB-24-HA through NWB-27-HA	5 – 7	Noise Wall Borings (DCP and Hand Auger)
TSB-01 and TSB-02	25	Traffic Signal Borings (Drill Rig)

*BEG = Below existing grade

Representative soil samples obtained during the field exploration program were transported to the Rubino laboratory on April 14, 2023 through April 19, 2023 for additional classification and laboratory testing.

Selected soil samples were tested in the laboratory to determine material properties for this report. Drilling, sampling, and laboratory tests were accomplished in general accordance with AASHTO procedures. The following items are further described in the Appendix of this report.

- Field Penetration Tests and Split-Barrel Sampling of Soils (AASHTO T 206)
- Field Water Level Measurements
- Laboratory Determination of Water (Moisture) Content of Soil by Mass (AASHTO T 265-15)
- Laboratory Determination of Atterberg Limits (AASHTO 89-13 and T 90-15)
- Laboratory Organic Content by Loss on Ignition (AASHTO T 267-86)

The laboratory testing program was conducted in general accordance with applicable AASHTO specifications. The results of these tests are to be found on the accompanying boring logs located in the Appendix.

Subsurface Conditions

The geotechnical-related recommendations in this report are presented based on the subsurface conditions encountered and Rubino's understanding of the project. Should changes in the project criteria occur, a review must be made by Rubino to determine if modifications to our recommendations will be necessary.

The Site Vicinity Map and Boring Location Plans, showing the boring locations are shown in Appendix. Detailed information regarding the nature and thickness of the soils encountered, and the results of the field sampling and laboratory testing are shown on the Boring Logs in Appendix.

Beneath the existing surficial pavement, subbase stone, and undocumented fill, subsurface conditions generally consisted of brown, black, and/or gray clay, silty clay, high plasticity clay, loam, and sand. More detailed descriptions of the soils encountered in the soil borings are presented in the



attached Boring Logs in Appendix D.

- Surface conditions consisted of topsoil
- The native **cohesive** soils ranged from very soft to very stiff in consistency
- The granular soils were loose to very dense in apparent density

*BEG = Below existing grade

Groundwater Conditions

Groundwater was encountered in the boring during drilling operations. The following table summarizes groundwater observations from the field:

BORING NUMBER	GROUNDWATER LEVEL DURING DRILLING (FEET BEG)	GROUNDWATER LEVEL UPON AUGER REMOVAL (FEET BEG)	24-HR GROUNDWATER READING (FEET BEG)
	Noise Wall #3 (STA	42+28 to STA 62+07)	
NWB-01	N/A	N/A	11.4
NWB-02	11	N/A	9.2
NWB-03	6	N/A	8.3
NWB-04	N/A	N/A	9.4
NWB-05	13 ½	N/A	9.7
NWB-06	N/A	N/A	8.2
NWB-07	N/A	N/A	8.7
NWB-08	8 1/2	N/A	7.1
NWB-09	11	N/A	7.8
NWB-10	6	N/A	9.3
NWB-11 / TSB-01	16	N/A	N/A
	Noise Wall #2 (STA	A 18+60 to STA 40+93)	
NWB-12	N/A	N/A	11.2
NWB-13	N/A	N/A	Dry
NWB-14	N/A	N/A	Dry
NWB-15	N/A	N/A	Dry
NWB-16	N/A	N/A	Dry
NWB-17	N/A	N/A	10.9
NWB-18	8 1⁄2	N/A	8
NWB-20	N/A	N/A	3.3

Table 2: Groundwater Observation Summary



BORING NUMBER	GROUNDWATER LEVEL DURING DRILLING (FEET BEG)	GROUNDWATER LEVEL UPON AUGER REMOVAL (FEET BEG)	24-HR GROUNDWATER READING (FEET BEG)
NWB-22	N/A	N/A	4.5
NWB-23	N/A	N/A	Dry
	Noise Wall #1 (STA	A 11+50 to STA 17+50)	
NWB-24	N/A	N/A	8.5
NWB-25	N/A	N/A	10
NWB-26	N/A	N/A	7
TSB-02	18 ½	N/A	N/A

It should be noted that fluctuations in the groundwater level should be anticipated throughout the year depending on variations in climatological conditions and other factors not apparent at the time the borings were performed. The possibility of groundwater level fluctuation should be considered when developing the design and construction plans for the project. When bidding this project, the contractor should anticipate that groundwater will be present.

GEOTECHNICAL EVALUATIONS AND RECOMMENDATIONS

Noise Wall Recommendations

Vertical loads for noise walls are typically anticipated to be minimal. Lateral loads for noise walls are more significant due to wind and traffic safety requirements.

The proposed noise walls are anticipated to range 600 to 2,233 feet in length. Rubino recommends using driven or drilled soldier pile and lagging to support the noise walls. Resistance factor values for drilled shafts can be found in Table 12-1 of the Federal Highway Administration Construction Procedures and LRFD Design Method (2010). Maximum moment and lateral deflection analyses will require lateral soil modulus and soil strain parameters. The values for these parameters on the soil for this project can be found on the following table.

Table 3: Undrained Soil Parameters for Lateral Load Analysis

Estimated shear strengths of soils are based on empirical correlations using N-values, moisture content, and unconfined compressive strength.



Depth Range (feet BEG)*	GENERAL SOIL DESCRIPTION	Estimated Unit Weight	AVERAGE UNDRAINED SHEAR STRENGTH, Cu (PSF)	ESTIMATED FRICTION ANGLE, ¢ (°)	ESTIMATED LATERAL SOIL MODULUS PARAMETER, K (PCI)	ESTIMATED SOIL STRAIN PARAMETER, 850
6 - 11	Very soft to soft, blueish gray SILTY CLAY (NWB-02)	100 - 110	250	n/a	n/a	n/a
Varies	Medium Stiff brown / gray SILTY CLAY	110 – 115	700	n/a	75	0.010
Varies	Stiff, brown / gray SILTY CLAY	115 - 120	1,500	n/a	400	0.008
Varies	Very Stiff Silty Clay	120 – 130	2,500	n/a	820	0.006
Varies	Loose to Medium dense SAND / GRAVEL	120	0	28°	85	n/a

See boring logs for soil profiles and strength characteristics at each boring locations.

Traffic Signal Foundations

Design – IDOT District 1 Standard Traffic Signal Design Details Foundation Requirements

Rubino understands that traffic signal structures will be installed at the Northeast and Southwest corners of the intersection of McLean Blvd and Lancaster Cir. Rubino anticipates that the foundation designs will adhere to the requirements of *IDOT District 1 Standard Traffic Signal Design Details* and will consist of drilled shaft foundations.

Table 4: Foundation	Requirements p	per IDOT District	1 Standard Traffic
	Signal Desig	gn Details	

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0'' (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6'' (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
40' (12.2 m)	11'-0'' (3.4 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42'' (1060mm)	36'' (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0'' (7.6 m)	42'' (1060mm)	36" (900mm)	16	8(25)



NOTES:

- 1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Ou) > 1.0 tsf (IOO kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
- 2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
- Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm diameter foundations.
- 4. For most arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

Table 5: Soil Type and Average Qu by Boring

Boring	Proposed Location	Soil Type Within the Upper 11 feet	Average Unconfined Compressive Strength of Cohesive Soils in the Upper 11 feet (Qp and Qr in tsf)
TSB-01	Northeast Corner	Cohesive soils with a layer of silty loam (approximately 3 ½ - 6 feet BEG*)	1.4 tsf
TSB-02	Southwest Corner	Cohesive soils	1.6 tsf

Rubino's subsurface exploration revealed that cohesive soils were encountered along the length of the shafts down to the proposed 11 feet below existing grade bearing depth at borings TSB-01 and TSB-02 except for a silty loam layer encountered in TSB-01 at approximately 3 ½ to 6 feet below existing grade.

If granular soils are encountered along the shaft length at the time of construction, the Bureau of Bridges & Structures should be contacted for a revised design.

CONSTRUCTION CONSIDERATIONS

Construction Considerations

During shaft installation, temporary casing or slurry may be used to mitigate the effects of saturated soils, granular soils caving in, and/or the flow of water into a shaft. Sump pumps should be used to remove excess water encountered during construction.

Site Preparation

Rubino recommends that unsuitable soils or fill be removed from the site, as applicable. Unsuitable soils or fills include but are not limited to the following: organic soil, topsoil, vegetation, frozen soil, existing pavement sections, existing foundations, building debris, and existing curbs.

Operations should be monitored and documented by a representative of the geotechnical engineer at the time of construction.



Recommendations for Additional Testing

Once the structural loads, site plan and grading plans are finalized, please notify Rubino so that we can review our recommendations for the direct use of the structure and development of the site. Changes in building location, foundation depth, and structural loading can affect the geotechnical recommendations for this site.

During construction, Rubino recommends that one of our representatives be onsite for typical **observations and documentation** of exposed subgrade for support of foundations, and pavements, including proofrolling and penetrometer testing.

CLOSING

The recommendations submitted are based on the available subsurface information obtained by Rubino Engineering, Inc. and design details furnished by Hampton Lenzini and Renwick, Inc. for the proposed project. If there are any revisions to the plans for this project or if deviations from the subsurface conditions noted in this report are encountered during construction, Rubino should be notified immediately to determine if changes in the foundation recommendations are required. If Rubino is not retained to perform these functions, we will not be responsible for the impact of those conditions on the project.

The scope of services did not include an environmental assessment to determine the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater or air on, below, or around this site. Any statements in this report and/or on the boring logs regarding odors, colors, and/or unusual or suspicious items or conditions are strictly for informational purposes.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At this time, it may be necessary to submit supplementary recommendations. This report has been prepared for the exclusive use of Hampton Lenzini and Renwick, Inc. and their consultants for the specific application to the proposed McLean Blvd Noise Walls and Traffic Signal installation in Elgin, Illinois.



Appendix A - Drilling, Field, and Laboratory Test Procedures

AASHTO T 206 Penetration Tests and Split-Barrel Sampling of Soils

During the sampling procedure, Standard Penetration Tests (SPT's) were performed at regular intervals to obtain the standard penetration (N-value) of the soil. The results of the standard penetration test are used to estimate the relative strength and compressibility of the soil profile components through empirical correlations to the soils' relative density and consistency. The split-barrel sampler obtains a soil sample for classification purposes and laboratory testing, as appropriate for the type of soil obtained.

Water Level Measurements

Water level observations were attempted during and upon completion of the drilling operation using a 100-foot tape measure. The depths of observed water levels in the boreholes are noted on the boring logs presented in the appendix of this report. In the borings where water is unable to be observed during the field activities, in relatively impervious soils, the accurate determination of the groundwater elevation may not be possible even after several days of observation. Seasonal variations, temperature and recent rainfall conditions may influence the levels of the groundwater table and volumes of water will depend on the permeability of the soils.

Ground Surface Elevations

At this time, no site-specific elevations were available to Rubino. The depths indicated on the attached boring logs are relative to the existing ground surface for each individual boring at the time of the exploration. Copies of the boring logs are located in the Appendix of this report.

AASHTO T 265-15 Water (Moisture) Content of Soil by Mass (Laboratory)

The water content is an important index property used in expressing the phase relationship of solids, water, and air in a given volume of material and can be used to correlate soil behavior with its index properties. In fine grained cohesive soils, the behavior of a given soil type often depends on its natural water content. The water content of a cohesive soil along with its liquid and plastic limits as determined by Atterberg Limit testing are used to express the soil's relative consistency or liquidity index.

AASHTO T 267-86 Standard Test Method for Organic Soils using Loss on Ignition (Laboratory)

These test methods cover the measurement of moisture content, ash content, and organic matter in peats and other organic soils, such as organic clays, silts, and mucks. Ash content of a peat or organic soil sample is determined by igniting the oven-dried sample from the moisture content determination in a muffle furnace at 440°C (Method C) or 750°C (Method D). The substance remaining after ignition is the ash. The ash content is expressed as a percentage of the mass of the oven-dried sample. 2.4 Organic matter is determined by subtracting percent ash content from 100.



Appendix B – Report Limitations

Subsurface Conditions:

The subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the appendix should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data as well as water level information. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition between layers may be gradual. The samples, which were not altered by laboratory testing, will be retained for up to 60 days from the date of this report and then will be discarded.

Geotechnical Risk:

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. The analytical tools that geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free, and more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as planned. The engineering recommendations, presented in the preceding section, constitute Rubino's professional estimate of the necessary measures for the proposed structure to perform according to the proposed design based on the information generated and reference during this evaluation, and Rubino's experience in working with these conditions.

Warranty:

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

Federal Excavation Regulations:

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P". This document was issued to better ensure the safety of workmen entering trenches or excavations. This federal regulation mandates that all excavations, whether they be utility trenches, basement excavation or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person," as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. Rubino is providing this information solely as a service to our client. Rubino is not assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.



Appendix C – Soil Classification General Notes

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1 3/8" I.D., 2" O.D., unless otherwise noted	PS:	Piston Sample
ST:	Thin-Walled Tube - 3" O.D., Unless otherwise noted	WS:	Wash Sample
PM:	Pressuremeter	HA:	Hand Auger
RB:	Rock Bit	HS:	Hollow Stem Auger
DB:	Diamond Bit - 4", N, B	BS:	Bulk Sample

Standard "N" Penetration: Blows per foot of a 140-pound hammer falling 30 inches on a 2-inch O.D. split spoon sampler (SS), except where noted.

WATER LEVEL MEASUREMENT SYMBOLS:

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of ground water levels is not possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION:

Soil Classification is based on the Unified Soil Classification System as defined in ASTM D-2487 and D-2488. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; they are described as: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are described as: clays, if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse grained soils are defined on the basis of their relative in-place density and fine-grained soils on the basis of their consistency. Example: Lean clay with sand, trace gravel, stiff (CL); silty sand, trace gravel, medium dense (SM).

CONSISTENCY OF FINE-GRAINED SOILS:

RELATIVE DENSITY OF COARSE-GRAINED SOILS

GRAIN SIZE TERMINOLOGY

Size Range

Over 12 in. (300mm)

12 in. To 3 in. (300mm to 75mm)

3 in. To #4 sieve (75mm to 4.75mm)

#4 to #200 sieve (4.75mm to 0.75mm)

Unconfine Stren	ed Con gth, Qເ	npressive ı (tsf)	N-Blows	s/ft.	Consistency	N-E	Blow	/s/ft.	Relative Density	,
	<	0.25	< 2		Very Soft	0	-	3	Very Loose	
0.25	-	0.5	2 -	4	Soft	4	-	9	Loose	
0.5	-	1	4 -	8	Medium Stiff	10	-	29	Medium Dense	
1	-	2	8 -	15	Stiff	30	-	49	Dense	
2	-	4	15 -	30	Very Stiff	50	-	80	Very Dense	
4	-	8	30 -	50	Hard			80+	Extremely Dense	
>	<	8	> 50	∇	Very Hard					

RELATIVE PROPORTIONS OF SAND & GRAVEL

Descriptive Term % of Dry Weight							
Trace	15	<	15				
With		-	29				
Modifier		>	30				

RELATIVE PROPORTIONS OF FINES

Descriptive Term	% of I	Dry W	eight
Trace		<	5
With	5	-	12
Modifier		>	12

*Descriptive Terms apply to components also present in sample



G23.044 Proposed McLean Blvd. Noise Walls and Traffic Signal – Lombard, Illinois

Major Component

Boulders Cobbles

Gravel

Sand





Appendix E – Site Vicinity Map & Boring Location Plan













Appendix F – Boring Logs



E	NGI	NEEF		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	g, Inc. 31-1555	L	OG (OF	BO	RIN	IG N	WB-01
Rubino Project Locatic City, Si Client:	Job N :: on: tate:	No.:	G2 Mc Mc Sou Hai	3.04 Lear Lear uth E mptc	4 i Blvd i Boule Elgin, Il on Len:	Noise Walls evard llinois zini and Renwick Inc.	Drilling Meth Sampling Me Hammer Typ Boring Locat	od: 2 ¼ H ethod:Split \$ be: Auton tion: NB R ~1 foo	follow Ste Spoon natic OW of Mc ot E from o	m Aug Lean I	er Blvd f should	er _	WATE ✓ While Dr ✓ Upon Co ✓ 24-hr De	R LEVELS*** illing N/A ompletion N/A ilay 11.4 ft
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A MATERIAL DES Surface Elev.: 808 49 ft	CRIPTION		SPT Blows per 6-inch	Moisture, %	STANE	DARD PE TEST [© oisture 25 25 CTRENG	INETRATION DATA PL LL ITH, tsf c) #Qp/Qr	Additional End Remarks
005	- 0- 		X	1	8	Approximately 12 inches of T and black silty clay, with roots Medium stiff to stiff, brown ar trace gravel	OPSOIL: dark s and organic n nd gray SILTY (brown natter CLAY,	4-4-4 N=8	15		×	>	4.0 >₩ Qp=4.5 tsf
805-	- 5 - - 5 -		X	2	5				3-3-4 N=7 4-5-6 N=11	14 13		<	>	→
800—	 - 10 -		X	4	14 15 x	Stiff to very stiff, gray SILTY	CLAY, trace gr	avel	3-4-5 N=9	15		×	*	Qr=3.0 tsf
795—			X	6	14		V		N=9 4-4-7 N=11	16 17		× ×	*	Qr=2.8 tsf Qr=2.8 tsf
Comple	– 15 -	Depth:			15.0	End of boring at approximate grade. Hole collapse at approximate existing grade after 24 hours. above hole collapse.	ly 15 feet below Water observe	v existing ow ed just	remeter	Latituc	le: 41.9	932589		
Date B Date B Logged	oring oring I By: Contr	Started Compl actor:	d: leteo	d:	4/19/ 4/19/ P.P. Rubi	/23 /23 Auger X Split-S Rock Rock	r Cutting Spoon Core	Shelby Grab Sa No Rec	Tube ample overy	Longiti Drill Ri Remai Log Er Check	ude: -88 ig: Geo rks: Off ntry: J. Ig ed Rv: 4	o.31646 probe 7 set ~6 f gnarski	822DT t W due to	utilities.

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								0.1/ 1						
Rubino) Job I	No.:	G2	3.04	4 NDIVA		Drilling Method:	Z 1/4 F	10110W Ste Snoon	m Aug	er	-		R LEVELS
			Mo	Lear		Noise Walls	Hammer Type	Δutor	natic				⊥ While Dr	illing 11 ft
City S	n. tate		So	uth F	I Douie Flain I	llinois	Boring Location	: NB R	OW of Mc	l ean l	Blvd		👤 Upon Co	mpletion N/A
Client	iuio.		На	moto	n l en	izini and Renwick Inc	j	~15 f	eet E from	n edae	of sho	ulder	🗴 24-hr Del	ay 9.2 ft
Onom.				mpre		Station: N/A		-			OTA			
					<u> </u>	Offset: N/A			ç		SIA	NDARD P	'ENETRATION DATA	
et)	Ŧ	0	e	÷	hes				6-in			1201	⊙	
(fe	fee	2	Ž	ž	inc				Der	°,	×	Moisture	🖬 PL	
ion	, Ļ	hic	e	ple	2	MATERIAL DESC	CRIPTION		s	sture	0	2	🛉 LL	50 Additional
evat	ept	l ap	ang	am	ove				Blo	Mois	-			
Ē		0	Ň	0)	e c				ЪТ			STRENG	GTH, tsf	
						Surface Elev: 808 10 ft			S			Qu (Rim	ac) ₩Qp/Qr	
	0	N 14. N				Approximately 8 inches of TO	PSOIL · dark brow	/n and			0	2	.0 4	.0
	L.			1	2	black silty clay, with roots and	l organic matter	// und	3-3-3		6		*	
			M			Soft to medium stiff, brown SI	LTY CLAY, trace	sand	N=6	22	ĬĬ			
			20			and gravel								Qp=3.0 ISI
805-		\////												
				2	7				1-2-1		¢¥			
			ŧХП						N-3	17		X		Qr=0.3 tsf
	- 5 -		21											-
				3	9	Vory ooff to ooff, blueich grov	SILTY CLAY tro	20	0-1-1		©ж			
			1)/H			gravel roots observed	SILTY CLAY, ITAC	Je	N=2	23		×		Or=0.4 tsf
			<u>/</u> Д			g,								QI-0.4 131
800-		\////			10									
	L .		$\overline{\mathbf{M}}$	4	13				1-0-1 N=1		ЮЖ I			
			1ÅH			+ 1-inch root layer observed at a	approximately 9 te	et		22				Qr=0.3 tsf
	- 10 -		[]											-
				5	2	V T Very loose, gray rounded GR.			1-1-1		d.			
	L.	•••	XI						N=2					
			\mathbb{P}								$ \rangle$			
795-				6	10				5-6-9					
		$\left\{ \left \right \right\}$	М	0		Very stiff, gray SILT, trace sa	nd and gravel		N=15	23		ľ v		0
	- 15 -		М							25		^		Qp=1.3 tsr
						End of boring at approximatel	y 15 feet below ex	kisting						
						Hole collapse at approximatel	v 9.8 feet below							
						existing grade after 24 hours.	Water observed j	ust						
						above hole collapse.								
												1		
												1		
												1		
												1		
												1		
												1		
												1		
Comple	etion I	Depth:			15.0	ft Sample T	ypes:	Pressu	remeter	Latituc	le: 41	.992825	6	
Date B	oring	Starte	d:		4/19/	/23	Cutting	Shelhv	Tube		ude: -	88.3165	152 78220T	
Date B	oring	Comp	lete	d:	4/19/	/23	Spoon M	Grah S	ample	Rema	rks: Ω	ffset ~1	2 ft W due to	utilities.
Logged	d By:				P.P.					Log E	ntry: J	Ignarsk	i	
Drilling	Cont	actor:			Rubi	no Engineering, Inc. 📙 ROCK 🤇		INO KEC	overy	Check	ed Bv	A. Tom	aras	

E	NGI	NEEI			NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	ı, Inc. 1-1555	L	OG	OF	BC	RI	NG N		-03
						Fax: 847-931-1560								Shee	et 1 of 1
Rubino	o Job I	No.:	G2	3.04	4		Drilling Method:	2 ¼ ⊦	Iollow Ste	m Aug	er		WAT	ER LEV	'ELS***
Projec	t:		Mc	Lear	n Blvd	Noise Walls	Sampling Metho	d:Split S	Spoon				\sum While	Drilling	6 ft
Locatio	on: toto:		MC	Lear	I Boule	evard	Boring Location		natic OW of Mc	l oon l	Blvd		👤 Upon (Completio	n N/A
Client	iaic.		Ha	mnto	n Len	zini and Renwick Inc	Boning Ecoution	~15 fe	eet E from	edae	of sho	ulder	👿 24-hr [Delay	8.3 ft
Onorit.				mpic		Station: N/A									
_					(c)	Offset: N/A			Jch		STA	TEST	DATA		
set)	et)	D	be	o.	, her				6-ir	~			0		
n (fe	(fee	C L	Ţ	S	(ind				per	é.	×	Moisture	PL		dditional
atio	jt,	ihdi	ple	Jdu	ery				swo	istu	0		25 🕈 LL	50 F	Remarks
leva	Dep	Gra	San	Sar	CO				L BIC	Δ					
ш					Re				SP-			STREN	GTH, tsf		
						Surface Elev.: 809.38 ft					0	Qu (Rim	1 ac) ≭Qp/Q 2.0	r 4.0	
	0	7 <u>11</u>				Approximately 10 inches of T	OPSOIL: dark bro	wn							
		V////		1	6	Soft, brown SILTY CLAY, trac	e sand and grave		1-1-1 N-2		◎ *				
						Possible Fill		-	IN-Z	18		X		Qr=0.	8 tsf
	L.														
			1	2	11	Soft gray SILTY CLAY trace	sand and gravel		0-1-1		• *				
805-							cana ana graver		N=2	30			X	Qr=0.	6 tsf
	- 5 -		\mathcal{P}								+-				
	Ļ .			3	9 7				0-2-3						
		\$ • •	X			Loose, brown SAND and GRA	WEL		N=5	17		X			
			βΔI												
				4	12	¥			224						
	Ļ -		:M	4	12				2-3-4 N=7	10	Ĭ	\downarrow			
800-	10		M							13		↑			
	[10 -														
		1////	\$Л	5	14	Very stiff, gray SILTY CLAY, 1	race sand and gra	avel	3-3-7		9		₩		
									N-10	15		X		Qr=2.	1 tsf
	L.		71												
				6	17				6-8-9			6	*		
795-									N=17	13		×		Qr=2.	3 tsf
	- 15 -	<i>\////</i>	1 H			End of boring at approximatel	y 15 feet below ex	isting							
						grade.		Ũ							
						Hole collapse at approximatel	y 8.3 feet below Water observed i	ust							
						above hole collapse.	Water observed j	401							
Compl	l etion ^r)enth:			15.0	ft Sample T	vnes.			Latitud	le: 41	1 992226	1 50		
Date B	orina	Starte	d:		4/19/	/23		Pressur	emeter	Longit	ude: -	88.3165	5631		
Date B	oring	Comp	lete	d:	4/19/	/23 Auger	Cutting	Shelby	I ube	Drill R	ig: Ge	oprobe	7822DT	o utilitios	
Logged	d By:				P.P.	Split-S	poon 🌇	Grab Sa	ample	Log F	ntrv:.l	lanarsi	ri vv due t ki	o utilities.	
Drilling	Cont	actor:			Rubi	no Engineering, Inc.	Core 🛛	No Rec	overy	Check	ed Bv:	A. Ton	naras		

E	NGI	NEER		GI	NC.	Rubino Engineerin 425 Shepard Drive Elgin, IL 60123 Telephone: 847-9	g, Inc. 31-1555	L	OG	OF	BC	DRI	NG	NV	VB-04
						Fax: 847-931-156	0								Sheet 1 of 1
Rubinc	Job I	No.:	G23	3.044	4		Drilling Meth	od: 2 ¼ ł	Hollow Ste	m Aug	er		WA	ATER	LEVELS***
Project	:		Mcl	Lean	Blvd	Noise Walls	Sampling Me	ethod:Split	Spoon				\sum Wh	ile Drilli	ng N/A
Locatio	on:		Mcl	Lean	Boule	evard	Hammer Typ	tion: NR R	matic	loon	Dlvd		🗶 Upo	on Com	pletion N/A
Clip, 5	lale.		30L	un ⊏ moto	n Lon	ninois zini and Ronwick Inc	Bonng Local	~30 f	eet F from		of sho	ulder	▼ 24-	hr Dela	v 94 fi
Client.			i iai	npto		Station: N/A				l		araor			
					- 	Offset: N/A			б		STA	NDARD F		ATION	
et)	ţ,	D	e		hes				6-ir			1201	0		
) (fe	(fee	L C	Ţ	Ž	(inc				per	e	X	Moisture		PL	A -1 -1:4: 1
ation	Ę,	phid	ple	nple	ery		CRIPTION		SWC	istur	0		25	LL 50	Remarks
eva	Dep	Gra	Sam	Sar) Š				B	ъ					
			0)		Rec				LdS			STRENG	GTH, tsf		
						Surface Elev.: 810.69 ft						Qu (Rim	ac)	p/Qr 4.0	
910	0	7 <u>11</u> 7				Approximately 12 inches of T	OPSOIL: dark	brown							
010-				1	0	Soft to medium stiff brown a	s and organic n	CLAY	2-2-2		P				
			®2			trace sand and gravel		OLAT,	N=4	22		×			
						Possible Fill					$ \rangle$				
	- -			2	6				3-3-4					ж	
			ΧН						N=7	15	/	×			Qp=3.3 tsf
	- 5 -		\square								<i></i>				
805-				2	5				111						
			M	3	5	Soft, brown SILTY LOAM, litt	le gravel		N=2	16	ľ				
			MI							10					
	L _		$\overline{\Lambda}$	4	11				0-1-1		Q				
			ХH			¥			IN-2	29	$ \rangle$		$ \times$		
	- 10 -										\vdash				-
800-				5	10	Very stiff gray SILTY CLAY	trace sand and	aravel	6-4-5		\alpha		*		
	L _		ΧН				liace saile and	graver	N=9	14		\mathbf{k}			Qr=2.3 tsf
			\square						2						
				6	11				6-8-16				» *		
			X	Ũ		Blow counts may be elevated	due to gravel /	cobbles	N=24	14		×	1		Or=2.3 tef
	- 15 -		Δ			observed at approximately 14	1/2 feet below e.	xisting	_						- <u>-</u> 2.0 131
						\grade	1, 15 foot bolow	v ovioting							
						grade.	ity 15 leet belov	vexisting							
						Hole collapse at approximate	ly 9.4 feet belo	w,							
						existing grade after 24 hours	. Water observe	ed just							
						abore noie conapce.									
							-		L	1 - 4''		00470			
Comple	etion [Depth:	J.		15.0	tt Sample	Types:	P Pressu	remeter	Latituo	ae: 41. ude: -	.991724 88.3165	4		
Date B	oring	Startec	ator Ator	4.	4/19/	Auge	r Cutting	Shelby	Tube	Drill R	ig: Ge	oprobe	7822D	Г	
	l Bv	Comple	616(<i>.</i> .	+/19/ PP	Split-	Spoon	😗 Grab S	ample	Rema	rks: O	ffset ~6	ft W du	le to ut	ilities.
Drilling	Conti	actor:			Rubi	no Engineering, Inc. 🛛 🔲 Rock	Core	O No Rec	covery	Log El Check	ntry: J.	Ignarsk A. Torr	u naras		

E	NGI	NEER		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Eav: 847-931-1560	ı, Inc. 1-1555	L	OG	OF	BC	DRII	NG N	NB-05
						T ax. 047-931-1300								
Rubino	Job ľ	No.:	G2	3.044 Loon	4 NDVd I		Drilling Method	1: 2 1/4 F	Hollow Ste	m Aug	ler			
	 nn·		Mc	Lean	n Boule		Hammer Type	· Autor	matic					illing 13.5 ft
City. S	tate:		So	uth E	Elain. II	llinois	Boring Locatio	n: NBR	OW of Mo	Lean	Blvd		Upon Co	mpletion N/A
Client:			Ha	mpto	n Lenz	zini and Renwick Inc.		~25 f	eet E from	ı edge	of sho	ulder	🕎 24-hr De	lay 9.7 ft
						Station: N/A			_		STA		ENETRATION	
					(se	Offset: N/A			inch			TEST	DATA	
feet	et)	_Q	/pe	ġ	che				r 6-	%		(0	
l) u	, (fe	ic L	É.	le ⊳	(in	MATERIAL DESC	CRIPTION		s be	Ţe,	X	Moisture	I PL ■ II	Additional
atic	pth	aph	du	dm	/er/				ŇO	oistu	0	2	25	50 Remarks
	De	Ğ	Sal	Sa	SCO				В	Σ				_
					Å				SP				\Rightarrow I H, ISI ac) \oplus Op/Or	
	0					Surface Elev.: 809.80 ft					0	2	2.0 4	4.0
		<u></u>				and black silty clay with roots	OPSOIL: dark bi	rown atter	0.0.4					
			\mathbb{M}	1	0	Stiff, brown SILTY CLAY, trac	e gravel, with ro	ots	3-3-4 N=7	00	۱Ÿ			
			M							22	\			Qp=3.0 tsf
	L _			2	6	Stiff to very stiff, brown SILTY	CLAY LOAM, li	ttle	5-4-6		ļ) *		
905						sand and gravel			N-10	24			₹	Qp=1.3 tsf
805-	- 5 -													-
				3	9				6-4-5		6		>	>*
	L _		IXH						N=9	11	ÌÌ	6		Qp=4.5 tsf
												1		
				Δ	14				5-7-8					¥
			М	7	'-	_			N=15	12		١.		
800-	- 10 -		\square		7	¥				12		1		
				_								l		
			M	5	13	Stiff, brown SILTY LOAM, trad	ce gravel		5-5-7 N=12		· ·	9¥ I		
			W							18		×		Qp=1.0 tsf
						7			2					
			Λ	6	18-4	Medium dense, brown SAND	Y LOAM, trace g	ravel	7-7-6			ø		
705			X				-		N=13	13		*		
/95-	- 15 -		1			End of boring at approximatel	y 15 feet below	existing	-					_
						grade.	v 0.7 faat balow							
						existing grade after 24 hours.	Water observed	liust						
						above hole collapse.		,						
						*								
Comple	tion [) Depth:			15.0	ft Sample T	ypes: F	Brocow	romotor	Latitud	de: 41	.991118	6	-
Date B	oring	Starte	d:		4/19/	/23	Cutting	Challer	Tuka	Longit	ude: -	88.3166	406	
Date B	oring	Compl	lete	d:	4/19/	/23 Auger			amula	Drill R	ig: Ge rks∙ ∩	oprobe	/822DT 1 ft W/ due to	utilities
Logged	By:				P.P.		poon 🕅	g Grab S	ample	Log E	ntry: J.	Ignarsk	i ir vv due lC	, uunues.
Drilling	Contr	actor:			Rubii	no Engineering, Inc. 🛛 🚺 Rock 🤇	Jore C	ار No Rec	overy	Check	ed Bv	A. Tom	aras	

E	NGI	NEEI		IG I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Fax: 847-931-1560	, Inc. 1-1555	L	OG	OF	BC	RI	NG	NV	VB-06 Sheet 1 of 1
Rubinc	Job	No.:	G2	3.04	4		Drilling Metho	od: 2 ¼ F	- Hollow Ste	m Aug	er		W	ATER	LEVELS***
Project	t:		Mc	Lear	n Blvd	Noise Walls	Sampling Me	thod:Split	Spoon	0			\	ile Drill	ina N/A
Locatio	on:		Мс	Lear	n Boule	evard	Hammer Typ	e: Autor	natic				T ⊔n	on Com	nletion N/A
City, S	tate:		So	uth E	Elgin, I	llinois	Boring Locati	ion: NB R	OW of Mo	Lean I	Blvd				
Client:			Ha	mptc	n Len	zini and Renwick Inc.		~30 f	eet E fron	1 edge	of sho	ulder	⊻ 24-	hr Dela	y 8.2 ft
						Station: N/A			-F		STAN	NDARD F	PENETR	ATION	
et)		_	a		les)	Olisel N/A			-inc			TEST	DATA		
(fee	eet	Ľ	Ž	Ň	L L L				er 6	, %				PL	
u	, (hic	le l	ple	(i) ح	MATERIAL DESC	RIPTION		dsv	ture		vioisture	•	LL	Additional
vati	eptl	rap	du	am	ovel					Aois	0		25	50	Remarks
Ele		0	တိ	S	lec lec				L T T	2		STREN	GTH, tsf		
						Surface Elev: 807.8 ft			N N			Qu (Rim	nac) ЖC)p/Qr	
	0	1. 1. 1.				Approximately 12 inches of TC	OPSOIL: dark b	orown			0	:	2.0	4.0	
	L _			1	10	and black silty clay, with roots	and organic m	atter	3-2-4		6			*	
			\mathbb{N}			Medium stiff to stiff, black to b	rown SILTY Cl	_AY,	N=6	27	Ĭ		×		On=3.3 tef
		V///	[1]			Visible Organics from approxin	nately 1 to 6 fee	et					ĺ`.		Qp=0.0 tsi
805-				~	-	below existing grade		•	0.0.4						
	L _			2	′				3-3-4 N=7		Ÿ	*			
	_		Ŵ							29			X		Qr=1.2 tsf
	- 5 -	V///	[]												1
		<i>\////</i>		3	17				2-2-3		¢	*			
	L _								N=5	16		X			Qr=1.2 tsf
800-			μ												
800				4	14	¥			5-5-7		}			>>>	¥
		V///	М	4	'4	Stiff to very stiff, brown SILTY	CLAY, trace s	and and	N=12	12		ľ			
	L 10 -		\square			graver				13		Γ.			Qr=4.2 tst
	- 10 -														
		V///		5	12	Color transitions to gray at app	roximately 11 fe	eet	3-5-6						
		\////	IXH			below existing grade.			N-11	16		\×			
795-												Ν			
	–			6	7	Modium donso grav SANDV	OAM trace of	avol	5-7-8			6			
			:XH			Medium dense, gray SANDT		avei	N=15	15		X			
	- 15 -		ДΙ			End of boring at approximately	15 feet below	ovisting	-						+
						grade.	y to leet below	Chisting							
						Hole collapse at approximatel	y 10.5 feet belo	w.							
						existing grade after 24 hours.	Water observe	d just							
						abore nois comapoe.									
Comple	etion [Depth:			15.0	ft Sample T	ypes:		remeter	Latitud	le: 41.	990566	64		•
Date B	oring	Starte	d:		4/19/	/23	Cutting	Shelby	Tube	Longit	ude: -8	88.3166	5999	T	
Date B	oring	Comp	lete	d:	4/19/	/23	noon	Croh C	ample	Rema	ഴ. Ge rks: റ	oprobe ffset ~5	i ozzD i ft W di	i Je to ut	ilities.
Logged	d By:				P.P.		oro			Log E	ntry: J.	Ignars	ki		
Drilling	Contr	actor:			Rubi	no Engineering, Inc. 📙 KOCK 🤇			overy	Check	ed Bv:	A. Ton	naras		

Γ

E	NGI	NEEI			NC.	Rubino Engineerin; 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	g, Inc. 1-1555	.OG (OF	BO	RIN	ig nv	VB-07
						Fax: 847-931-1560	0						Sheet 1 of 1
Rubino	Job	No.:	G2	3.04	4		Drilling Method: 2 1/4	Hollow Ste	m Aug	jer		WATER	LEVELS***
Projec	t:		Мс	Lear	Blvd	Noise Walls	Sampling Method:Split	Spoon			Ž	\underline{Z} While Drill	ing N/A
Locatio	on:		Mc	Lear	Boule	evard	Hammer Type: Auto	omatic	loon	Blud	<u> </u>	Upon Com	pletion N/A
Cliv, S	lale.		Ha	uın ⊏ moto	n Len:	zini and Renwick Inc	~30	feet E from	edae	of should	ler 🛛	24-hr Dela	y 8.7 ft
- Onoric				mpre		Station: N/A				STAND			
					(s	Offset: N/A		nch			TEST D	ATA	
feet	iet)	D,	/pe	ol Io	che			r 6-i	%		Ø		
h) nd	, (fe	ic L	e T	le N	(in	MATERIAL DES	CRIPTION	s be	'e l	X Mo	isture	I PL ■ II	Additional
/atic	pth	aph	ldm	dme	very			No	loist	0	25	- <u>-</u> 50	Remarks
Ele	صّ	Q	Sa	ů	eco			L H	Σ	SI		'H tsf	
					Ř	Surface Elever 206 56 ft		L R		Q.	ı (Rimac	;) ₩Qp/Qr	
	0	1 1 1 × 1				Approximately 12 inches of T	OPSOIL · dark brown		_	0	2.0	4.0	
	L .			1	8	and black silty clay, with roots	s and organic matter	5-6-3			¥		
805-	-		1)/H	•		Medium stiff to stiff, black and	d brown SILTY CLAY,	N=9	26	ĬĬ	` k		Or=1.2 tsf
	F -		20			Possible Fill					1		Gr - 1.2 (3)
				2	4			1-2-3			4	¥	
			\mathbb{M}	2	-			N=5	33	ĬĬ		X	Op-2.3 tof
	- 5 -		\mathbb{Z}										- -
				2	11			222					
800-	[]		M	ა	14	Medium stiff to stiff, brown ar	nd gray SILTY CLAY,	- 2-2-3 N=5	28	♥ ★			0.0016
			\mathbb{A}			liace sand and graver			20				Qr=0.8 tst
					40.5	-		0.5.0		I J I			
	L .		M	4	13	¥		3-5-3 N=8	10		$\mathbf{\nabla}$		
	10								18				Qr=0.5 tsf
	[10 -												
705-				5	15			3-4-5 N=9		∣®€∣.			
195								11-3	16		×		Qr=0.7 tsf
	L -		T										
	L.		х л	6	9			3-4-5		∲¥			
			1XI					11-9	15	>	<		Qr=0.9 tsf
	- 15 -												
700			1	7	16			3-5-6		¢	ж		
/90-		¥////						IN-11					Qr=1.4 tsf
	L .		r										
				8	17	Color transitions to grav at ap	proximately 18½ feet	3-4-8		∰∢			
	F -					below existing grade	,, ,	N=12					Qr=1.0 tsf
	- 20 -										\mathbf{X}^{+}		-
				9	5	Medium dense, grav SAND a	Ind GRAVEI	9-10-12			þ		
785-			XI					N=22					
											N		
	[<u>.</u>		10	12	Medium dense, grav SAND I	ittle gravel	11-11-14	L I		\$		
			XL					N=25					
	- 25 -	• • • • •	14			End of boring at approximate	ly 25 feet below existing	-					-
						grade.							
						existing grade after 24 hours.	Water observed just						
						above hole collapse.	···· ····						
Compl	etion I	Depth:			25.0	ft Sample	Types: Press	uremeter	Latitud	de: 41.99	00388	'	•
Date B	oring	Starte	d:		4/19/	/23 Auger	Cutting	/ Tube	Longit Drill R	ude: -88 ia: Geon	.316763 robe 79	33 322DT	
Date B	oring	Comp	lete	d:	4/19/	/23	Spoon 🛛 🕅 Grab S	Sample	Rema	rks: Offs	et ~6 ft	W due to ut	ilities.
	и ву: I Conti	ractor.			P.P. Rubi		Core O No Re	covery	Log E	ntry: J. Ig	narski Toma	ras	

E	NGII	NEEF		IG I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Fax: 847-931-1560	g, Inc. 31-1555	L	OG (OF	BC	DRIN	NG NV	VB-08 Sheet 1 of 1
Rubing			62	3.04	1		Drilling Metho	nd 2 1/4 F	Hollow Ste	m Auo	er		WATER	RIEVELS***
Project	: 3001	NU	Mc	Lean	+ Blvd	Noise Walls	Sampling Metho	thod:Split	Spoon	in Aug		,		lling 85 ft
Locatio	n:		Мс	Lean	Boule	evard	Hammer Typ	e: Autor	natic			-		ming 0.5 ft
City, S	tate:		So	uth E	lgin, II	llinois	Boring Locati	ion: NB R	OW of Mo	Lean	Blvd	-		npietion N/A
Client:			На	mpto	n Lenz	zini and Renwick Inc.		~30 f	eet E from	edge	of sho	ulder _	⊻ 24-hr Del	ay 7.1 ft
						Station: N/A			ے		STAN	IDARD PE	ENETRATION	
et)	(a		les)	Oliset. N/A			-inc			TEST I	DATA	
(fee	feet	Ľ	Typ	ñ	inch				ber (s, %	× .	Aoisturo	PL	
tion	th, (hic	ble	ple) 2	MATERIAL DES	CRIPTION		sw	sture	0	25	, 🕈 LL	
eva	Jepi	Grap	am	San	DV6				Blo	Moi				
Ē			S S	0,	Rec				PT T			STRENG	TH, tsf	
						Surface Elev .: 806.4 ft						Qu (Rima	lic) ₩Qp/Qr	0
	-0-	<u>7 1/</u> . <u>7</u>				Approximately 10 inches of T	OPSOIL: dark b	orown						
805-				1	14	Stiff. brown SILTY CLAY. trac	e sand and gra		6-3-4		P	*		
			Ň			A-6	5		IN-7	17		$ \times $		Qr=1.6 tsf
			F											
				2	12				2-3-3		🍳	*		
			1XH						IN-0	27			× 🕈	Qr=1.5 tsf
	- 5 -		[]											PL = 19
800-				3	11	Loose to medium dense, brow	vn SANDY LOA	M, little	2-4-6		þ			
800			iχμ		Ī	gravel 🤺			N=10	15		×		
					_						T			
				4	9 7	¥			3-2-3		6			
			XH						N=5	18		\searrow		
	- 10 -		Щ											-
705				5	13	Dense to very dense, brown S	SAND and GRA	VEL	15-13-28	5				
/95-			X						N=41	11	>	4		
				6	9				15-20-33	3			>>	•
			XF						N=53	10	×			
	- 15 -	• <u>.</u> •.•				End of boring at approximatel	y 15 feet below	existing	+					-
						grade.	v74 foot bolov	.,						
						existing grade after 24 hours.	Water observe	v d just						
						above hole collapse.								
Comple	etion E) Depth:			15.0	ft Sample 1	ypes:		remeter	Latitud	le: 41.	9895377	7	-
Date B	oring	Starte	d:		4/18/	/23	Cutting	Shelby	Tube	Longit	ude: -{	38.31682	273 דח229	
Date B	oring	Compl	ete	d:	4/18/	/23	Spoon	😗 Grab S	ample	Rema	rks: Of	fset ~8 f	ft W due to u	itilities.
Drilling	i By: Contr	actor.			P.P. Rubii	no Engineering Inc 👖 Rock	Core		overy	Log El	ntry: J.	Ignarski	aras	

Γ

E	NGI	NEER		GI	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	g, Inc. 31-1555	L	OG	OF	BC	DRII	NG NI	NB-09
						Fax: 847-931-1560)							Sheet 1 of 1
Rubino	Job I	No.:	G23	3.044	4		Drilling Meth	od: 2 ¼ F	Hollow Ste	em Aug	er	-	WATE	R LEVELS***
Project	:		Mcl	_ean	Blvd	Noise Walls	Sampling Me	ethod:Split	Spoon				$\underline{\nabla}$ While Dr	illing 11 ft
Locatio	on:		Mcl	Lean	Boule	evard	Hammer Typ	tion: NR P	natic	aloon	Dive		Upon Co	mpletion N/A
Clipht	lale.	•	30l Har	un ⊏ moto	n Lon	zini and Renwick Inc	Bonng Local	~20 f	eet F from	edde	of sho	ulder	V 24-hr De	lav 7.8 ft
Cilent.				npto		Station: N/A		201		lougo				
					<i>•</i>	Offset: N/A			Б		STA	NDARD P	PENETRATION	
eet)	ţ)	D	e		hes				6-in			1201	©	
) (fe	(fee	LC	Ţ	Ž	(inc				per	é.	×	Moisture	PL	A stalid a stal
ttior	Ļ,	phic	ple	nple	- Sec	IVIA I ERIAL DESU	SRIPTION		SWC	istur	0	2	25 🕈 LL	50 Remarks
eva	Cep	Gra	Sam	San	No:				Be	Mo				_
			0		Rec				SPT			STRENG	GTH, tsf	
						Surface Elev.: 807.01 ft						Qu (Rim	ac) 米Qp/Qr	4.0
	0	7 <u>1</u> 1 .7				Approximately 10 inches of T	OPSOIL: dark	brown			-			
			$\overline{\Lambda}$	1	12	And black slity clay, with roots	s and organic n	natter	2-2-4		P	*		
805-			XН			Possible Fill		graver	N=6	26			×	Qp=1.8 tsf
						Visible Organics								
	- -			2	13	Modium stiff to stiff brown SI	TV CLAV tra	co gravol	2-3-4		∲€			
			XII					ce graver	N=7	15	$ \rangle$	×		Qr=0.6 tsf
	- 5 -		Δη								-+			_
	L -		_	3	12				2-6-5			5 ×		
			M	Ũ	12				N=11	16				Or=1.9 tof
800-			Δ		7									
					-	¥-								
	L -			4	0				3-3-3 N=6					
			5							16		×		
	- 10 -		-1											-
			$\overline{\Lambda}$	5	9 -	¥ T Loose, brown LOAM, little gra	vel		1-4-4		🔄			
795-			XH						N=8	14	`	\mathbf{k}		
				6	9	Madium danaa brown SAND		~	4-12-7					
			ХН			Medium dense, brown SAND			N=19	13		*		
	- 15 -	P\$0:0	\square			End of boring at approximate	v 15 feet below	vexistina						_
						grade.	y to tool bolo	roxioting						
						Hole collapse at approximate	ly 9.6 feet belo	W						
						above hole collapse.		eu just						
												1		
												1		
												1		
												1		
												1		
												1		
												1		
												1		
												1		
Comple)enth:			15.0	ft Sample 7	Types:		I	Latitur	le: <u>/</u> 1	988008	5	
Date R	orina	Started	:		4/18/		ypes.	P Pressu	remeter	Longit	ude: -	88.3160	910	
Date B	orina	Comple	 etec	d:	4/18/	/23 Auger	Cutting	Shelby	Tube	DrillR	ig: Ge	oprobe	7822DT	
Logged	By:				P.P.	Split-S	Spoon	Grab Sa	ample	Kema	rкs: О ntrv: I	lanarek	nt vv due to i di	uuiities.
Drilling	Conti	actor:			Rubi	no Engineering, Inc. Rock	Core	O No Rec	overy	Check	ed By	A Tom	aras	

E	NGI	NEEI			NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	ı, Inc. 1-1555	L	OG (OF	BC	RII	NG NV	VB-10
						Fax: 847-931-1560								Sheet 1 of 1
Rubinc	Job I	No.:	G2	3.04	4		Drilling Metho	od: 2 ¼ H	Iollow Ste	m Aug	er		WATER	LEVELS***
Project	:		Мс	Lear	Blvd	Noise Walls	Sampling Met	thod:Split	Spoon				$\underline{\nabla}$ While Dril	ing 6 ft
Locatio	on:		Mc	Lear	Boule	evard	Hammer Type	e: Autor	natic	laan	Dlud		Upon Con	pletion N/A
Cliy, S	lale:		50 Ha	uin E moto	igin, ii n Len:	ilinois zini and Renwick Inc		~30 f	eet E from	edae	of shoi	ulder	24-hr Dela	ay 9.3 ft
Olicint.				mpic		Station: N/A				l	STAN			
					(s	Offset: N/A			nch		STAN	TEST	DATA	
eet	et)	bo	/pe	<u>o</u>	che				r 6-i	%			0	
n (f	, (fe	ic L	e J	le N	(in	MATERIAL DESC	RIPTION		e be	é	× 1	Noisture	I PL ■ II	Additional
/atic	pth	aph	du	dme	very				ion i	oisti	0	2	25 5	Remarks
Ele	De	ں آ	Sa	s	eco					Σ		STRENC	TH tsf	
					Ř	Surface Flows 000 00 ft			SF			Qu (Rim	ac) 米Qp/Qr	
	0	14.5				Approximately 10 inches of T(OPSOIL · dark b	rown		_	0	2	2.0 4.0)
				1	0	and black silty clay, with roots	and organic m	atter	3-3-4		0			
			m			Stiff to very stiff, dark brown S	SILTY CLAY, tra	ace	N=7	21		X		
			ĮЦ			giavei								
				2	11				2-1-3			*		
805-			\mathbb{M}	-		Color transitions to brown at ap	proximately 3½	a feet	N=4	17	$ $ \langle	X		Or=1.2 tsf
	- 5 -		Д								-+			
				3	12	Z			2-5-5				*	
			\mathbb{M}	0	12 -	-			N=10	17	ľ	×		On=2.3 tof
			[M]											Qp=2.5 tsi
				4	12				245					
800-			M	4	7				2-4-5 N=9	15	ľ			
	- 10 -		\mathbb{A}							15				Qr=1.2 tst
	10			_]]			
				5	13	Medium stiff to stiff, brown SIL	TY CLAY LOA	.М,	3-2-2 N=4	10				
			\mathbb{M}			trace gravel				18	$ \rangle$			Qr=0.7 tsf
											$ \rangle$			
795-				6	15				5-4-5 N=9		0	*.		
	15		\mathbb{M}							22				Qp=1.5 tsf
	- 15 -					End of boring at approximately	y 15 feet below	existing						
						Hole collapse at approximatel	y 11.8 feet belo	w						
						existing grade after 24 hours.	Water observe	d just						
						above hole collapse.								
Comple	etion [Depth:		_	15.0	ft Sample T	ypes:	P Pressui	remeter	Latituc	de: 41.	988339	13 1665	
Date B	oring	Starte	d:	d.	4/18/	Auger	Cutting	Shelby	Tube	Drill R	uuet ig: Ge	o.o.o oprobe	7822DT	
Date B	uring I Bv	Comp	iete	u:	4/18/ PP	23 Split-S	poon	😗 Grab Sa	ample	Rema	rks: O	fset ~4	ft W due to u	tilities.
Drillina	Conti	actor:			Rubii	no Engineering, Inc. 🛛 🔲 Rock (Core	O No Rec	overy	Log Ei Check	ntry: J.	Ignarsk A. Tom	(I Naras	

						Rubino Er 425 Shep Elgin, IL 6	ngineering ard Drive 0123	, Inc.	L	OG (DF	BC	DRI	NG	NW	/B-11/T
L	NOT	N la la l	X.LO		NO.	Fax: 847-	-931-1560	1-1000								Sheet 1 of 1
Rubinc	Jobl	No.:	G2	3.044	4			Drilling Metho	od: 2 ¼ F	Hollow Sten	n Aug	er		WA	TER	LEVELS***
'roject	:: nn·		Mc Mc	Lean Lean	ı Blvd I Boule	Noise Walls		Sampling Me	thod:Split≑ e [.] Autor	Spoon matic				\sum While	e Drilli	ng 16 ft
ity, S	tate:		So	uth E	Elgin, Il	linois		Boring Locati	on: NB R	OW of Mcl	_ean l	Blvd		Upor	ר Com	pletion N/A
lient:			Ha	mpto	n Lenz	zini and Renwick Inc.			~8 fe	et E from e	dge o	f shoul	der	<u>⊥</u> 24-h	r Dela	y Dry
						Station: N/A Offset: N/A				-5		STAN	IDARD		ΓΙΟΝ	
set)	et)	b D	be	o.	ches					.e-in	%		TL3	©		
n (t	, (fe	ic L	e Ty	le N	/ (ine	MATERIA	L DESC	RIPTION		s per	-Î.	X I	Moisture		PL	Additional
vatio	epth	raph	Idma	amp	very					Blow	Aoist	0		25	50	Remarks
Ele	Ď	G	လိ	S	Seco					L L L	2		STREN	GTH, tsf		
					^{LL}	Surface Elev.: 812.2	25 ft			S S			Qu (Rin	nac) ₩Qp	/Qr 4.0	
	0	<u>711</u> 7				Approximately 10 in	ches of TC	PSOIL: dark b	prown			0		2.0	4.0	
				1	4	Stiff, brown SILTY C	CLAY, trace	e gravel		1-3-3 N=6			*			
10-			\mathbb{M}								26					Qp=1.5 tsf
				2	12					115						
			M	2	12	Stiff, brown SILTY L	.OAM, little	e sand		N=9	12	ľ	k			
	- 5 -		μ									-+				
			: 	3	17	Stiff brown SILTY (AV trace	e sand and ara		2-3-4		6	*			
05								c sand and gra	IVCI	N=7	16		×			Qr=1.5 tsf
05-	L _															
				4	18					3-3-5		¢	*			
	10		\mathbb{N}							11-0	14		\mathbb{N}			Qr=1.3 tsf
	- 10 -			-	10					14 40 40						
			M	5	16	Medium dense, brow	wn SAND,	tra ce gravel		N=29	7					
00-			Δ								'			$ $ \setminus	< l>	
				6	16	Danaa ta yany danaa	brown C			18-22-24						
						Dense to very dense	e, brown S	AND, some gra	avei	N=46	6	×				
	- 15 -														_	-
				7	11	4				27-25-21					þ	
95-			M							IN-40	11		1			
				_												
			M	8	14					16-15-12 N=27	11					
	- 20 -		ЗM								'']		\geq	-
				9	18					24-32-38					>>@	>
				-						N=70	16		×			
90-																
	「 -			10	3					50/3"					>>@	»
											16		$ \times$			
	- 25 -	0	1			End of boring at app	proximately	25 feet below	existing	1						-
						Hole collapse at app	proximately	/ 11.2 feet belo	w							
						existing grade after : hole.	24 hours. I	No water obser	rved in							
mple	etion [Depth:			25.0	ft	Sample T	ypes:	P Pressu	remeter	atituc	le: 41.	98789	65 0462		
te B	oring	Starte	d: leta	4.	4/18/	23	Auger	Cutting	Shelby	Tube	Drill R	ig: Ge	oprobe	7822DT		
ggeo	By:	Comp	16160	J.	+/10/ P.P.	20	Split-S	poon	😗 Grab S	ample F	Rema	rks: Ot	ffset ~′	15 ft W du ki	ue to u	itilities.
rillina	Contr	actor.			Rubir	no Engineering Inc	Rock C	Core	O No Rec	overy	luy ⊏l `hock	nuy. J.		narae		

E	NGI	NEEF		G I	NC.	Rubino Engineerii 425 Shepard Driv Elgin, IL 60123 Telephone: 847-9 Fax: 847-931-156	ng, Inc. e 931-1555 60	L	OG	OF	BC	DRI	NG NV	VB-12 Sheet 1 of 1
Rubino	Job I	No.:	G2	3.044	4		Drilling Meth	od: 2 ¼ F	Hollow Ste	m Aug	er		WATEF	R LEVELS***
Project	t:		Мс	Lean	Blvd	Noise Walls	Sampling M	ethod:Split	Spoon	0			abla While Dri	lling N/A
Locatio	on:		Мс	Lean	Boule	evard	Hammer Ty	be: Autor	natic				− ▼ Upon Cor	mpletion N/A
City, S	tate:		So	uth E	lgin, l	llinois	Boring Loca	tion: NB R	OW of Mo	Lean I	Blvd	Idor	0pon 0on ▼ 24_hr Del	av 112 ft
Client:			Hai	mpto	n Len:	Zini and Renwick Inc.		~716						
						Offset: N/A			-5		STA	NDARD PI	ENETRATION	
set)	Ĵ.	D	e		hes				6-in	v 0		(
ר (fe	(fee	C LO	Ţ	Ž	(inc				per	e, %	×	Moisture	PL	Additional
atio	ġ,	ihdi	ple	hpl	ery				swo	oistu	0	2	5 🗣 LL	⁵⁰ Remarks
lec	Del	Ū.	San	Sa	COV				L BI	Ĕ				-
					R R				SP			Ou (Rima	n H, tst ac) ₩0p/0r	
	0					Surface Elev.: 811.63 ft	ith group				0	2.	<u>0 4</u>	0
				1	15	Dark brown Sill F CLAF, w	itri gravei		1_3_3			¥		
810-	-		M			Medium stiff to stiff, brown S	SILTY CLAY, tra	ce gravel	N=6	28	ĬĬ		×	Or=1.2 tef
			Ш											Gr - 1.2 (5)
				2	16				2-2-3					
			М	2					N=5	27			×	Or=0.6.tsf
	- 5 -										-+			
	L _			3	17				2-4-4		↓			
805-			M	Ũ					N=8	16	Ĩ	X		Or=0.5 tsf
				4	16				3-5-6			*		
			\mathbb{N}	·					N=11	16		\mathbf{k}		Or=1.5 tsf
	- 10 -		μ											
	L -			5	11 \				4-8-12					
800-			\mathbb{M}	Ũ		Stiff, brown SILTY CLAY, tra	ace gravel		N=20	26			×	Or=1.4 tsf
	– –		<u> </u> Ц											
				6	13	Madiana dana dana OANI			16-12-9					
			X	-		Medium dense, brown SANI	J and GRAVEL		N=21	9	×			
	- 15 -	••••°	μη			End of boring at approximate	elv 15 feet belov	v existina	-					-
						grade.								
						Hole collapse at approximat existing grade after 24 hours	ely 11.3 feet bel . Water observe	ow ed iust						
						above hole collapse.		,						
L														
Comple	etion [Depth:	d.		15.0	ft Sample	Types:	P Pressui	remeter	Latitud	le: 41. ude: -	987489 38 3170	3 687	
Date B	oring	Starte	d: eter	٩٠	4/18/ 4/19/	/23	er Cutting	Shelby	Tube	Drill R	ig: Ge	oprobe	7822DT	
	d Bv:	Jonipi	5180	u.		Split-	Spoon	Grab Sa	ample	Rema	rks: O	ffset ~15	5 ft W due to	utilities.
Drilling	Conti	actor:			Rubi	no Engineering, Inc. Rock	Core	O No Rec	overy	Check	ed Bv:	A. Tom	aras	

E	NGI	NEEF		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Fax: 847-931-1560	g, Inc. 31-1555	L	OG (DF	BC	RI	NG	NW	/B-13 Sheet 1	of 1
Rubino Project Locatio City, S Client:	o Job I t: on: tate:	No.:	G2 Mc Mc So Ha	3.04 Lear Lear uth E mptc	4 i Blvd i Boule ilgin, Il in Len:	Noise Walls ward linois zini and Renwick Inc.	Drilling Metho Sampling Met Hammer Type Boring Locatio	od: 2 ¼ H thod:Split \$ e: Autor on: NB R ~20 fe	Hollow Ster Spoon natic OW of Mcl eet E from	n Aug Lean I edge	er Blvd of shou	ulder	WA ∑ Whi ∑ Upc ∑ 24-t	ATER ile Drilli on Com nr Delay	LEVELS [*] ng pletion /	*** N/A N/A Dry
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A MATERIAL DESC Surface Elev.: 809.87 ft	CRIPTION		SPT Blows per 6-inch	Moisture, %		IDARD F TEST Moisture	PENETRA DATA © 25 CTH, tsf ac) XQ	PL LL 50 p/Qr	Addition Remar	nal ks
	- 0 			1	9	Approximately 10 inches of To _ and black silty clay, with roots Medium stiff to stiff, brown SI	OPSOIL: dark b and organic m LTY CLAY, trac	orown atter e gravel	3-3-3 N=6 2-1-4	26		*	X	*	Qr=1.4 tsf	
805-	- 5 - - 5 -		X	3	11	Medium dense, brown LOAM	, little gravel		N=5 2-3-15 N=18	14 13		×			Qp=3.3 tsf	
800-	 - 10 -			4 5	9 5	Medium dense to dense, brov	lium dense, brown LOAM, little gravel lium dense to dense, brown SAND and GRAVEL					d				
795-	 - 15 -		X X	6	13	Dense, brown SAND, trace gr	ravel	evisting	N=23 10-12-26 N=38	6 9	× ×			0		
Comple	etion [Depth:			15.0	ft Sample T	y 10.7 feet below No water obser	P Pressur	emeter	atituc	le: 41.	986884	-5			
Date B Date B Logged	oring oring d By: Contr	Started Compl	d: lete	d:	4/18/ 4/18/ P.P. Rubi	23 23 23 no Engineering, Inc.	Cutting Spoon Core	Shelby Grab Sa No Rec	Tube [ample f overy (Longit Drill Ri Remai Log Er Check	ude: -{ ig: Geo rks: Of ntry: J. ed Bv:	38.3171 oprobe fset ~8 Ignarsk A. Torr	321 7822DT ft W du ki paras	Г ıe to uti	lities.	

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E	NGI	NEEF		G 1	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Eav: 847-931-1560	g, Inc. 31-1555	L	OG	OF	BO	RIN	g nv	VB-14
Rubino Project Locatio City, S Client:	o Job N :: on: tate:	No.:	G2 Mc Mc Sor Ha	3.04 Lear Lear uth E mptc	4 i Blvd i Boule Elgin, I in Len:	Noise Walls evard llinois zini and Renwick Inc.	Drilling Metho Sampling Me Hammer Typ Boring Locat	od: 2 ¼ H thod:Split s e: Autor ion: NB R ~30 fe	Hollow Ste Spoon natic OW of Mo eet E from	em Aug cLean I n edge	er Blvd of shou	⊥ ⊥ Ider ⊥	WATER While Drill Upon Com	IEVELS*** ing N/A ppletion N/A py Dry
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A MATERIAL DES(CRIPTION		SPT Blows per 6-inch	Moisture, %	STANI × M 0 5 6 6	DARD PEN TEST DA © oisture 25 25 CTRENGTI	IETRATION ATA PL LL 50 H, tsf #Qp/Qr	Additional Remarks
	- 0 		X	1	13 8	Approximately 10 inches of T and black silty clay, with roots Stiff, brown SILTY CLAY, trac	OPSOIL: dark l and organic m a sand and gra	orown natter /~ avel	3-4-5 N=9 2-2-3	21		×	4.0	Qr=2.1 tsf
805—	- 5 - 		X	3	9	Loose to medium dense, brov	vn LOAM, trace	e gravel	N=5 4-3-3 N=6	17 12		×		Qp=1.8 tsf
800-	 - 10 - 			4	8	Medium dense, brown SAND Grinding/chattering observed of cobble/boulder encountered at feet BEG.	and GRAVEL due to possible approximately	10½	5-7-8 N=15 88-21-6 N=27	13	×			-
795-	 - 15 -).enth:		6	9	feet BEG.	y 15 feet below y 11.7 feet below No water obse	v existing ow rved in	7-9-10 N=19	8	×	© 863534		
Comple Date B Date B Logged Drilling	etion [oring s oring d By: Contr	Depth: Started Compl actor:	d: lete	d:	15.0 4/18/ 4/18/ P.P. Rubi	ft Sample T /23 /23 Auger X Split-S no Engineering, Inc.	⁻ypes: Cutting Spoon Core	 Pressur Shelby ♥ Grab Sa ○ No Rec 	remeter Tube ample overy	Latitud Longiti Drill Ri Remai Log Er Check	le: 41.9 ude: -8 ig: Geo rks: Off ntry: J. I ed Bv: 4	863534 8.317191 probe 78 set ~8 ft gnarski A. Tomar	5 22DT W due to ut as	ilities.

E	NGI	NEEF		GI	NC.	Rubino Engineerin 425 Shepard Drive Elgin, IL 60123 Telephone: 847-9 Fax: 847-931-156	g, Inc. 31-1555 0	L	OG (OF	BOF	RIN	IG NV	VB-15
Dubing	loh I		<u></u>	2 0 4	4		Drilling Moth	od: 21/1	Jollow Stor	m Aug	or			
Project	JOD I	NO.:	G2 Mc	3.044 Lean	H Blvd I	Noise Walls	Sampling Meth	ethod Split	Snoon	n Aug	er	5		
Locatio	n:		Mc	Lean	Boule	evard	Hammer Typ	pe: Autor	matic			<u> </u>		inng N/A
City, St	tate:		Soi	uth E	lgin, Il	llinois	Boring Loca	tion: NB F	ROW of Mc	Lean I	Blvd	1	Upon Cor	npletion N/A
Client:			Ha	npto	n Lenz	zini and Renwick Inc.		~45 f	eet E from	edge	of shoulde	er 🛛	24-hr Del	ay Dry
						Station: N/A					STANDA	RD PE	NETRATION	
÷					es)	Offset: N/A			inct		ד	EST D	ATA	
fee	set)	- S	ype	<u>ò</u>	che				er 6-	%		0		
) uc	, (f∈	lic	еT	le l	v (ir	MATERIAL DES	CRIPTION		s be	ure,	X Mois	ture		Additional
/atio	pth	apr	np.	gme	, ver				No	loist	0	25		Remarks
Ele	De	ڻ	Sa	ů	eco				E E	Σ	STE		'H tef	
_					Ř				R		A Qu	(Rimac	r), tsi ≿)	
	0	1.1 1.1 .1				Surface Elev.: 807.23 ft		brown		_	0	2.0	4.	0
				4	10	harpha and black silty clay, with root	s and organic r	natter ,	457					
			M	I	12	Stiff to very stiff, brown SILT	Y CLAY, trace :	sand and	4-5-7 N=12	10	Į Į.			*
805-		\////	\mathbb{M}			gravel	Topooil Visible			10		^		Qp=4.5 tst
						Organics	opsoli. Visible							
			1	2	7	Stiff to very stiff, brown SILT	Y CLAY, trace	sand and	6-4-6		\$		₩	
			XП			gravel			N=10	24		X		Qp=3.5 tsf
	- 5 -													-
				3	11				3-5-4				*	
			1)						N=9	16	$ $ $ \times$			Qr=3.1_tsf
800-		V////	[1]											
				4					276					
			M	4	0	Stiff, brown SILTY CLAY LO	AM, little sand a	and	N=13	45		\uparrow		
	10		\mathbb{N}			gravel				15	^			Qp=2.0 tsf
	- 10 -													
			1	5	9	Medium dense, brown SAND	Y LOAM, trace	gravel	16-5-5		()			
705			iχH					Ŭ.	N=10	12	*			
/95-											N			
				6	4	Madium danag drawn SAND	trace gravel		6-7-8					
			IХП			Medium dense, brown SANE	, trace graver		N=15	7				
	- 15 -	••••••				End of boring at approximate	ly 15 feet below	N ovictina	-					_
						grade.	iy to leet below	w existing						
						Hole collapse at approximate	ly 11.3 feet bel	low .						
						existing grade after 24 hours	. No water obse	erved in						
						noie.								
Comple	etion [Depth:			15.0	ft Sample	Types:	P Pressu	remeter	Latitud	le: 41.985	8175		-
Date B	oring	Starte	d:		4/18/		r Cutting	Shelby	Tube	Longit	ude: -88.3	31720	22 22	
Date B	oring	Compl	ete	d:	4/18/		Spoon	Crah S	ample	Rema	rks: Offse	t~8 ft	W due to u	tilities.
Logged	I By:				P.P.		Core			Log E	ntry: J. Ign	arski		
Drilling	Contr	actor:			Rubii	no Engineering, Inc. 🔲 🕬	0010		Jovery	Check	ed By: A.	Toma	ras	

E	NGI	NEEF		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	ı, Inc. 1-1555	L	OG	OF	BO	RIN	NG I	NN	/B-16	-f 1
Rubino Project Locatio City, S Client:	o Job I :: on: tate:	No.:	G2 Mc Mc Sou Hai	3.04 Lear Lear uth E mptc	4 n Blvd n Boule Elgin, I on Len	Noise Walls evard llinois zini and Renwick Inc.	Drilling Metho Sampling Met Hammer Type Boring Locatio	od: 2 ¼ H thod:Split \$ e: Auton on: NB R ~35 fe	lollow Ste Spoon natic OW of Mo eet E from	m Aug cLean I n edge	jer Blvd of shoul	der _	WA [™] ∑ While ⊈ Upon ⊈ 48-hr	TER Drillin Com Delay	LEVELS** ng pletion	N/A N/A Dry
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A MATERIAL DESC Surface Elev.: 804.05 ft	CRIPTION		SPT Blows per 6-inch	Moisture, %	STANE	DARD PE TEST I © oisture	ENETRAT DATA	10N PL _L _50	Addition Remark	al s
800-	 	1. IS	X	1 2	14 7	Approximately 8 inches of TO black silty clay, with roots and Medium stiff to stiff, brown SI and gravel A-6 Possible Fill	PSOIL: dark bro l organic matter LTY CLAY, trac	own and	2-2-2 N=4 2-1-2 N=3	23		× ×	*	4.0	Qp=2.5 tsf	
	- 5 - 		A	3	5	Loose, brown and gray GRAV	′EL, trace fines		3-3-3 N=6	13			•		QP=2.0 tsf LL = 31 PL = 19	
795—	 - 10 - 		X	5	12	Loose, brown SAND and GRA Medium dense to dense, brov	AVEL	RAVEL	9-10-10 N=20	8 10	×					
790-		Denth:		6	11	End of boring at approximatel grade. Hole collapse at approximatel existing grade after 48 hours. hole.	y 15 feet below y 7.7 feet below No water obser	existing ved in	10-12-18 N=30	3 7	×	853024				
Date B Date B Logged	oring oring d By: Conti	Started Compl	d: lete	d:	4/17/ 4/17/ P.P. Rubi	/23 /23 no Engineering, Inc.	Cutting Spoon Core	 Pressur Shelby Grab Sa ○ No Rec 	remeter Tube ample overy	Longit Drill R Rema Log Ei Check	ude: -88 ig: Geo rks: Off ntry: J. Ig ed Bv: 4	3.3172(probe 7 set ~7 1 gnarski)32 7822DT ft W due aras	to uti	lities.	

E	NGI	NEEF		IG I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Fax: 847-931-1560	g, Inc. 1-1555	LC)G (DF	BC	RIN	IG NV	VB-17
Dublin	1.1.1	1		0.04			Drilling Mathada	1/ 1/	llow Stor	~ ^~	<u></u>			
Rubino) JOD I 	NO.:	G2	3.044 Loon	4 Dvd		Sampling Method: 2	: 74 HOI Solit So	now Ster	n Aug	er	5		
	ι. 		Mc	Lean Lean	Boule	Noise Walls	Hammer Type:	utoma	atic				∠ While Drill	ing N/A
City S	tate [.]		So	uth F	lain II	llinois	Boring Location: N	IB ROV	W of Mc	Lean E	Blvd		Upon Con	npletion N/A
Client	lato.		На	mpto	nlen	zini and Renwick Inc	~	30 feet	t E from	edge	of shou	Ider 🔤	🛛 48-hr Dela	ay 10.9 ft
						Station: N/A				T	CTAN			
					ŝ	Offset: N/A			lch		STAN	TEST D)ATA	
et)	E	D	e		hei				6-ir	` 0		0		
) (fe	(fee	L L	Ţ	Ž	(inc				per	é é	X N	oisture	PL	
tior	Ę.	phic	ple	ple	∑.	MATERIAL DESC	RIPTION		SWS	stur	0	25	🕈 LL 5	Additional Remarks
eva	bep	<u> J</u> al	am	San	No.				Blc	Moi				
Ē			S	•,	Sec				ЪТ			STRENGT	ΓH, tsf	
					-	Surface Elev.: 799.68 ft			0)		▲ (Qu (Rima	c) ₩Qp/Qr	
	0	<u>7 1 1</u>				Approximately 8 inches of TO	PSOIL: dark brown a	nd			0	2.0	4.0	
				1	16	black silty clay, with roots and	l organic matter		2-2-3		Ø₩			
			1X			Medium stiff to stiff, brown SII	IY CLAY, trace san	d	N=5	32			×	Qr=0.6 tsf
	[μH											
				2	17				222	1		N	/	
			М	2					Z-2-3 N=5	21				
795-	- E		\mathbb{M}							21		$\mathbf{x}^{\mathbf{a}}$		Qr=2.1 tsf
	Г ^{э -}													
			1	3	11	Very stiff, brown SILTY CLAY	, trace gravel		3-7-16			Q	*	
	L -		IXH						N=23	20		$ \langle X \rangle$		Qp=3.3 tsf
	F -			4	13				7-7-8			6	>>	*
			\mathbb{N}	-					N=15	16		k		Or=5.0 tef
790-	- 10 -		24											
				_	<u> </u>	Z								
			М	5	9-	Very stiff, gray SILTY LOAM,	trace gravel		6-8-8 N=16		*			
			ŧЛП						11 10	15		×		Qp=1.0 tsf
	L -		[]								/			
				6	14	Loose brown SAND trace gr	avel		3-3-4		6			
705			X						N=7	18		\times		
/ 65-	- 15 -		μη			End of boring at approximatel	v 15 feet below existi	na						-
						grade.	,							
						Hole collapse at approximatel	y 11 feet below existi	ng						
						hole collapse.	bserved just above							
Compl	etion [Depth:			15.0	ft Sample T	ypes: D pre	ssuren	neter I	atitud	le: 41.9	846948		•
Date B	oring	Starte	d:		4/17/						ude: -8	8.31716	50 220T	
Date B	oring	Compl	lete	d:	4/17/			ah Cam		Zemai Remai	ig: Geo rks: Off	prope / set ~8 fi	o∠∠∪ i tW due to ut	tilities.
Logged	d By:				P.P.			au Sam		_og Er	ntry: J. I	gnarski		
Drilling	Conti	actor:			Rubi	no Engineering, Inc. 📘 Rock 🤇		Recov	/ery (Check	ed Bv:	Ā. Toma	iras	

E	NGI	NEEF		IG I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Fax: 847-931-1560	ı, Inc. 1-1555	L	OG	OF	BO	RII	١G	NW	/B-18	1
Pubine			62	3 04	1		Drilling Metho	d: 21/1	Hollow Ste	m Aug	or		\\//			÷
Project		NU	Mc	Lear	n Blvd	Noise Walls	Sampling Met	thod:Split	Spoon	in Aug		-	V Wh		ng 85	ft
Locatio	n:		Мс	Lear	n Boule	evard	Hammer Type	e: Autor	matic				<u> </u>		nig 0.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
City, S	tate:		So	uth E	Elgin, I	llinois	Boring Locati	on: NB R	ROW of Mo	Lean	Blvd			on Com	pieuon N	/A
Client:			Ha	mptc	n Len	zini and Renwick Inc.		~30 f	eet E fron	ı edge	of shoul	der	¥ 48-I	nr Dela	y 8	ft
						Station: N/A			_		STANE	DARD PI	ENETR/	TION		
Ţ,					es)	Offset: N/A			-inc			TEST	DATA			
fee	eet)	l g	ype	م	Lch				er Ó	%		() ∎	DI		
uo	, (f	jc	le T	ole I	V (j)	MATERIAL DESC	CRIPTION		d s	ture,		oisture	. Ŧ	LL	Additional	
vati	epth	rapl	dш	amp	Ver				<u>3lo</u>	loist	0	2	5	50	Remarks	
Ele	ŏ	Ū	လိ	Ő	ecc				L L	2	s	TRENG	TH. tsf			
						Surface Elever 702 19 ft			l IS		▲ c	u (Rima	ac) [′] ₩Q	p/Qr		
	0	1 1/2 1/2				Approximately 10 inches of T	OPSOIL · dark b	rown			0	2.	0	4.0		_
				1	13	and black silty clay, with roots	and organic m	atter _	2-3-4		0		ж			
				-		Medium stiff, brown SILTY CL	AY, trace sand	and	N=7	16	$ \setminus $	×			Or=2.3 tsf	
			247			giavei					N					
790-				2	11				578		l N	5				
			М	2	14	Medium dense, brown SAND	Y LOAM, little g	ravel	N=15	10		Ĭ				
	- 5 -		ĽΔ							10						
				•												
			M	3	9				/-/-/ N=14							
			ŴΠ							10						
795-					7	¥.										
105				4	10-	Medium dense, brown SAND	and GRAVEL		8-8-8			¢				
			İXH						N=16	10	$ \times $	/				
	- 10 -															
		.2.		5	13	Stiff to very stiff, gray SILTY (AV trace san	nd and	4-4-5				Ж			
						gravel	EAT, face sal		N=9	16		×			Qr=2.7 tsf	
			р													
780-				6	17				3-5-6			>	ĸ			
			\mathbb{X}						N=11	13					Qr=2.1 tsf	
	- 15 -	<i>[[]]]</i>	7 4			End of boring at approximately	v 15 feet below	ovisting	-						· ·	
						grade.	y 10 leet below	existing								
						Hole collapse at approximatel	y 8.5 feet below	V								
						above hole collapse.	vvaler observed	a just								
						· · · · · · · · · · · · · · · · · · ·										
Comple	tion [Depth:			15.0	ft Sample T	ypes:		remotor	Latitud	le: 41.9	84161	0			+
Date B	oring	Starte	d:		4/17/	/23	Cutting		Tubo	Longit	ude: -88	3.3171	338	-		
Date B	oring	Compl	lete	d:	4/17/	/23 Auger	noon			Drill R Rema	ig: Geo∣ rks: ∩ff∘	probe 7 set ~8	ו 822D) ft W לו	le to uti	lities	
Logged	l By:				P.P.				ampie	Log E	ntry: J. I	gnarski	i	.5 15 uli		
Drilling	Conti	actor:			Rubi	no Engineering, Inc.			overy	Check	ed Bv: A	A. Tom	aras			

E	NGI	NEEI		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	g, Inc. 31-1555	L	OG	OF	BC	RII	NG	NV	VB-19	
						Fax: 847-931-1560)								Sheet 1 of	1
Rubinc	Job I	No.:	G2	3.04	4		Drilling Meth	od: 2 ¼ F	Iollow Ste	m Aug	er		WA	TER	LEVELS***	
Project	:		Mc	Lear '	Blvd	Noise Walls	Sampling Me	ethod:Split S	Spoon				\sum Whi	le Drilli	ing N	J/A
Locatio	on: toto:		NIC	Lear	I Boule	evard	Boring Locat	tion NR R	natic OW of M	n oon l	Rivd		👤 Upo	n Com	pletion N	J/A
Client	lale.		Ha	mpto	n Len	zini and Renwick Inc	Bonnig Local			Lean	Jivu		X N/A		1	J/A
Onorn.				mpte		Station: N/A					OTAN			TION		
					s)	Offset: N/A			Jch		STAN	TEST				
eet	et)	B	be	ö	che				· 6-i	%			0			
n (f	(fe	ic L	e T	le N	(in	MATERIAL DESC	CRIPTION		e pe	Ţ,	× 1	loisture		PL	Additional	
atic	pth	aph	ldu	dm	very				iows	oistu	0	2	25	50	Remarks	
	De	Q	Sai	S	eco.				ΤB	Σ			TH tef		1	
_					Ř				SP			Qu (Rim	ac) XQ	p/Qr		
	0	1.1.1.1.1.1.1.1				Surface Elev.: 787.16 ft		dark		_	0	2	2.0	4.0		
		1,		1	8	brown and black silty clay, wit	th roots and or	ganic	2-4-6		6					
			M	•		matter			N=10	28]		X			
785-		1,	Ш								/					
				2	16	Medium stiff to stiff, brown an	d gray SILTY (CLAY,	1-2-2			*				
			\mathbb{M}	2		trace sand and gravel			N=4	21	Ĭ	X			Or=1.2 tef	
	- 5 -		\mathcal{V}								-+-					
	L -			3	18				3-3-5				¥			
			\mathbb{M}	U		Stiff to very stiff, brown and gi	ray SILTY CLA	Y, trace	N=8	16	Ĭ	× ´			Or=2.0 tef	
780-			Д			Sund and graver									QI-2.0 ISI	
				1	16				156				¥			
			\mathbb{M}	4					N=11	15	Ĭ	\mathbf{x}	*		Orrad D. tof	
	- 10 -		\square									\sum				
				5	11				5 5 10					¥		
	- -		\mathbb{N}	5	14	Color transitions to gray at app	proximately 11	feet	N=15	13	.	Ŭ,		木	Orm2 E tof	
775-			\square			Rock in tip of spoon. N-values	may be elevate	ed.	Ť		· ·]]			QI=3.5 ISI	
				6	10				467			Į –		¥		
			\mathbb{M}	0	10				N=13	17	`	×		ж	Or-2.4 tof	
	- 15 -	<i>[[]]</i>	\mathbb{N}			End of boring at approximatel	v 15 foot holow	vovicting								
						grade.	y 15 leet belov	vexisting								
Comple	etion 「)enth:			15.0	ft Sample T	Types:		. I	Latitur	le: 41	 983607	,			
Date B	orina	Starte	d:		4/14/	/23 T .			emeter	Longit	ude: -8	8.3170	91	_		
Date B	oring	Comp	lete	d:	4/14/	/23 Auger	Cutting	Shelby	Iube	Drill R	ig: Geo	probe	7822DT	- In to ut	ilities	
Logged	By:	-			J.W.		spoon Core		ample	Log E	ntry: J.	Ignarsk	i vv uu ki	ie io ul	ind 5 3.	
Drilling	Conti	actor:			Rubi	no Engineering, Inc.	Core		overy	Check	ed Bv:	Á. Tom	naras			

E	NGI	NEEF		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Fax: 847-931-1560	g, Inc. 31-1555)	L	OG	OF	BO	RI	١G	NW	VB-20 Sheet 1 of 1
Rubino Project Locatio City, S Client:	o Job I t: on: tate:	No.:	G2 Mc Mc Sor Ha	3.04 Lear Lear uth E mpto	4 n Blvd n Boule Elgin, Il on Len:	Noise Walls evard llinois zini and Renwick Inc.	Drilling Meth Sampling Me Hammer Typ Boring Locat	od: 2 ¼ H ethod:Split \$ be: Auton tion: NB R	Iollow Ste Spoon natic OW of Mo	m Aug cLean I	er Blvd		WA ∑ Whi ⊈ Upc ⊈ 120	ATER le Drilli on Com -hr Deli	LEVELS*** ng N/A pletion N/A ay 3.3 ft
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A MATERIAL DES(Surface Elev.: 784.56 ft	CRIPTION		SPT Blows per 6-inch	Moisture, %		DARD PI TEST © oisture 24 24 24 24 24 24 24 24 24 24 24 24 24	ENETRA DATA DATA	PL LL 50	Additional Remarks
	 		X	1	12	Approximately 6 inches of TC black silty clay, with roots and Medium stiff to stiff, brown an trace sand and gravel	PSOIL: dark b d organic matte d gray SILTY (rown and er / CLAY,	2-4-5 N=9	15		×	0	4.0	
780-	 - 5 -		X	2 3	18	Stiff to very stiff, gray SILTY (CLAY, trace gra	avel	2-3-4 N=7 2-4-7 N=11	13		*	*		Qr=1.9 tsf
775-	 - 10 -		X	4	18	Trace sand and increased gra at approximately 8½ to 11 feet	ery stiff, gray SILTY CLAY, trace gravel and and increased gravel content observed ximately 8½ to 11 feet below existing grade					×)		>>>	Qr=2.5 tsf € Qr=4.5 tsf
			X	5	10		mately 8½ to 11 feet below existing grade				© X	L	*		Qr=2.3 tsf
770-	– – – 15 –	Dopth:		6	18	End of boring at approximatel grade. Hole collapse at approximate existing grade after 120 hours above hole collapse.	ly 15 feet below ly 3.3 feet below s. Water observ	v existing w ved just	9-6-8 N=14	15			*	Κ	Qr=3.0 tsf
Date B Date B Logged	etion I oring oring d By: Conti	Started Started Compl	d: ete	d:	4/14/ 4/14/ J.W. Rubii	23 23 no Engineering, Inc.	rypes: Cutting Spoon Core	 P Pressur Shelby Grab Sa O No Rec 	remeter Tube ample overy	Longiti Drill Ri Remai Log Er	ude: -88 ig: Geo rks: Off ntry: J. I ed Bv: 4	3.3170 probe 7 set ~6 gnarski	16 7822DT ft W du i aras	- ie to uti	ilities.

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E	NGI	NEEI			NC.	Rubino Engineerin 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	g, Inc. 31-1555	L	OG	OF	BC	DRI	NG N	WB	-21
						Fax: 847-931-1560)							Shee	et 1 of 1
Rubinc	Job I	No.:	G2	3.04	4		Drilling Meth	nod: 2 ¼ F	Hollow Ste	m Aug	er		WATE	ER LEV	ELS***
Project	:		Мс	Lear	n Blvd	Noise Walls	Sampling M	ethod:Split	Spoon				∇ While [Drilling	N/A
Locatio	on:		Мс	Lear	n Boule	evard	Hammer Ty	pe: Autor	natic				-	Completie	
City, S	tate:		So	uth E	Elgin, Il	llinois	Boring Loca	tion: NB R	OW of Mo	Lean	Blvd			Jompietio	I IN/A
Client:			На	mptc	n Len	zini and Renwick Inc.							⊥ ⊻ N/A		N/A
						Station: N/A			_		STAN	NDARD P	ENETRATIO	N	
					(s	Offset: N/A			nct			TEST	DATA		
eet	et)	b	be	ö	che				6	%		(0		
n (f	(fe	U C	F	e N	(ju				bel	é	×	Moisture	PL		dditional
atio	Ę.	phi	ple	ldu	ery				SWC	istu	0	2	25 🕈 LL	A	Remarks
eva) ep	Gra	an	Sar	Š				Big	β					
Ē			0	•,	l e				L L			STRENG	GTH, tsf		
					^{LL}	Surface Elev : 782 99 ft			0			Qu (Rim	ac) ₩Qp/Qı	r	
	0	N 14. N				Approximately 14 inches of T	OPSOII · dark	brown			0	2	.0	4.0	
	L .	11.31		1	14	and black silty clay, with roots	and organic r	natter	3-3-4		6	¥			
		T	М		14	Stiff, brown and gray SILT, tra	ace sand and g	gravel	N=7	10	Ĭ				
		1111	M			A-4				10				Qr=1.3	s tst
780-															
				2	16				3-3-4		🖕)	₭		
		1111	X						N=7	15		×		Qr=2.1	1 tsf
	- 5 -		\square											LL = 2	3
	-			~										PL = 1	6
		1////	\$Л	3	14	Medium stiff to stiff, brown ar	d gray SILTY	CLAY,	4-4-5 N-0		Q	₹ N			
		\////				trace to little gravel			11-9	13		X		Qr=0.9	∋ tsf
775			\mathcal{P}												
//5-				4	5				24-11-12	,					
		\////	Jon -	-	ľ	Rock in tip of spoon. Possible	cobble/boulder		N=23	- 12	.	\downarrow $ ho$			
	10		M			N-values may be elevaled.				12	· ·	\uparrow /			
	- 10 -	V////	T												
				5	9	Stiff to very stiff, gray SILTY	CLAY trace to	little	6-6-6		(ф ж			
	L .		IXH			gravel, trace sand		intero	N=12	17		\times		Qr=1.8	3 tsf
			Ш									Ν			
770-		\////		~	10				400						
	L -		$\overline{\mathbf{M}}$	6	18				4-6-8 N=14			Ø,		>>*	
									11-14	17		X		Qr=4.5	5 tsf
	- 15 -					End of boring at approximate	y 15 feet below	w existing	-						
						grade.									
		L													
Comple	etion [Depth:			15.0	ft Sample	Гуреs:		remeter	Latitud	le: 41	982541	· · · · ·		
Date B	oring	Starte	d:		4/14/	/23	Cutting		Tuka	Longit	ude: -	88.3169	59		
Date B	oring	Comp	lete	d:	4/14/	/23 Auger	Culling	Shelby	i ube	Drill R	ig: Ge	oprobe	/822DT		
Logged	By:				J.W.	Split-S	spoon	Grab S	ample	Log	ntrv I	lanarel	n vv aue to i	o utilities.	
Drilling	Conti	actor:			Rubi	no Engineering, Inc. Rock	Core	O No Rec	overy	Check	ed Bv	A Tom	aras		

Γ

E	NGI	NEEI		G I	NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93 Eav: 847-93	ı, Inc. 1-1555	L	OG (DF	BC	RII	NG NV	VB-22
						Fax: 847-931-1560	, 							Sheet 1 of 1
Rubino) Job I	No.:	G2	3.04	4 . Divid		Drilling Method:	2 ¼ F	Hollow Stei Snoon	n Aug	er	-		LEVELS
Project	[])n·		Mc	Lear	1 BIVO	Noise Walls	Hammer Type	Autor	opoon matic				⊻ While Dril	ling N/A
City S	tate [.]		So	uth F	lain I	llinois	Boring Location	n: NB R	OW of Mc	Lean I	Blvd		Upon Con	npletion N/A
Client:			На	mpto	n Len	zini and Renwick Inc.	0	~25 f	eet E from	edge	of sho	ulder	48-hr Dela	ay 4.5 ft
						Station: N/A					STAN		ENETRATION	
					(s	Offset: N/A			inch			TEST	DATA	
eet	et)	_D	/pe	<u>o</u>	che				-0-	%		(o 0	
l) (l	(fe	ic L	Г Г	le ⊳	(i)	MATERIAL DESC	CRIPTION		be	ľe,	× ı	Noisture	PL	Additional
atic	pth	hde	ldu	dm	/ery				ŝŇO	oistu	0	2	25 - 5	Remarks
	De	Ŭ	Sar	Sa	00				E E	Σ				
					<u>م</u>				SP			Ou (Rim	ac) ¥0n/0r	
	0					Surface Elev.: 781.19 ft					0	2	.0 4.0)
		<u> </u>		4	-	and black silty clay, with roots	and organic mat	own ter	0.0.0					
780-		V///	\mathbb{M}	I	'	Medium stiff to stiff, brown SII	TY CLĂY LOAM	, little	N=5	25	Ĭ			
			\mathbb{N}			gravel				25		′		Qp=1.8 tst
				_										
	L.		М	2	9	Soft, brown SILTY LOAM, trad	ce gravel		3-4-3		*©			
	_		Юľ			¥				17		X		Qp=0.3 tsf
	- 5 -													
775-			АЛ	3	18	Stiff to very stiff, brown SILTY	CLAY, trace san	d and	3-5-6		ģ		>>	*
		\///				gravel	· ·		N=11	18		X		Qr=4.5 tsf
	[V///		4	14	Color transitions to grav at an	rovimately 81/ for	.+	3-5-7			\$	>>	*
						BEG	OXIIIIalely 0/2100	71	N=12	16		×		Qr=5.0 tsf
	- 10 -		μ											+
770	L.			5	18				3-6-8				>>	*
//0-	1		M	Ŭ					N=14	14		X		Or=6.4 tof
			Д									$\left[\right]$		
		\////		~	45				0.7.0					
			M	0	15				N=15	15				*
	15		\mathbb{A}							15		<u>^</u>		Qr=5.9 tst
						End of boring at approximatel	y 15 feet below e	xisting						
						Hole collapse at approximatel	y 4.5 feet below							
						existing grade after 48 hours.	Water observed j	ust						
						above hole collapse.								
0					45.0	A			l			001000	7	
Comple	etion [oring	Jepth:	d.		15.0	π Sample T	ypes:	Pressu	remeter	Latituc Longit	ude: 41. ude: -{	901929 38.3168	7 887	
	oring	Comp	u. Iete	d٠	4/1// <u>/</u> /17/	Auger	Cutting	Shelby	Tube	Drill R	ig: Ge	oprobe	7822DT	
	d Bv	Jourh		ч.	,/ PP	∠_⊂ Split-S	ipoon 👘	Grab S	ample	Rema	rks: Ot	fset ~8	ft W due to u	tilities.
Drilling	Cont	ractor:			Rubi	no Engineering, Inc.	Core 🛛	No Rec	overy	∟og ⊨i Check	ed Bv:	A. Tom	u Iaras	

E	NGI			G I	NC.	Rubino Engine 425 Shepard Elgin, IL 6012 Telephone: 8	eering Drive 23 947-93	, Inc. 1-1555	L	OG	OF	BOR	ING N	WB-23
						Fax: 847-931	-1560							Sheet 1 of 1
Rubino	Job I	No.:	G23	3.044	4			Drilling Meth	od: 2 ¼ H	Hollow Ste	m Aug	er	WATE	ER LEVELS***
Project	t:	I	McL	ean	Blvd	Noise Walls		Sampling Me	ethod:Split	Spoon			∑ While D	Drilling N/A
Locatio	on:	I	McL	ean	Boule	evard		Hammer Typ	e: Autor	matic			Upon C	ompletion N/A
City, S	tate:	:	Sou	ith E	lgin, ll	llinois		Boring Locat	ion: NBR	COW of Mo	Lean I	3lvd f.ourb	√ 48_br D	elav Drv
Client:			Har	npto	n Len:	ZINI and Renwick Inc.			~9 16				<u>_</u> 40-111 D	
						Offset: N/A				ъ		STANDARD	PENETRATIO	N
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leva	Dep	Gra	San	Sai	COV					L BI	Ĕ			
ш					Re					SP		STREI	NGTH, tsf maa) . ₩Ωn/Ωr	
						Surface Elev.: 778.62 ft			<u> </u>				2.0	4.0
					45	Approximately 6 inches	of TO ts and	PSOIL: dark b organic matte	rown and	0.4.5				
			\mathbf{V}	1	15	Stiff to very stiff, brown S	SILTY	CLAY, trace s	and and	6-4-5 N=9	25	Ψ		
			<u>A</u>			gravel					25		\uparrow	Qr=3.1 tsf
775-	L _		$\overline{\Lambda}$	2	14					2-4-5			*	
	_		ŇН								17			Qr=2.5 tsf
	- 5 -													
			$\overline{\Lambda}$	3	14					4-5-7		¢	:	>>*
			XI							N=12	18	X		Qr=5.3 tsf
	L.													
770-				4	16	Color transitions to grav	at ann	roximately 8½	feet	4-7-8			:	>>*
			XII			BEG	at app		,001	N=15	16	/×		Qr=5.1 tsf
	- 10 -													
				5	17					6-5-5		¢	*	
	L _		XII							N=10	14			Qr=3.4 tsf
										-				
765-				6	15				~	3-6-7			ж	
100			XII							N=13	15	×		Qr=3.4 tsf
	- 15 -					End of boring at approxi	matel	/ 15 feet below	vexistina	-				
						grade.			, even even i g					
						Hole collapse at approxi	imatel	y 9.7 feet belo No water obse	W arved in					
						hole.	iouro.							
					4= -	n					1			
Comple	etion [Depth:			15.0	tt San	nple T	ypes:	P Pressu	remeter	Latituc	ie: 41.98146 ude: -88.316	539 58146	
Date B	oring	Comple	i. eter	<u>I</u> -	4/17/	23 [] A	Auger	Cutting	Shelby	Tube	Drill R	ig: Geoprob	e 7822DT	
Logae	d Bv:	Comple		••	P.P.	-~ 🛛 s	Split-S	poon	😗 Grab S	ample	Rema	rks: http://www.second	eki	
Drillina	Cont	actor:			Rubi	no Engineering, Inc.	Rock (Core	O No Rec	overy	LUG El	ed By: A To	ski maras	

Singlet 1 of 1 Singlet 1 of 1 Singlet 1 of 1 Project: Control to Note: Control: <th< th=""><th>E</th><th>NGI</th><th>NEEF</th><th></th><th>GI</th><th>NC.</th><th>Rubino E 425 Shej Elgin, IL Telephor</th><th>Engineering pard Drive 60123 ne: 847-93</th><th>, Inc. 1-1555</th><th>L</th><th>OG (</th><th>OF</th><th>BOI</th><th>RIN</th><th>G NV</th><th>VB-24</th></th<>	E	NGI	NEEF		GI	NC.	Rubino E 425 Shej Elgin, IL Telephor	Engineering pard Drive 60123 ne: 847-93	, Inc. 1-1555	L	OG (OF	BOI	RIN	G NV	VB-24		
Rubing Job No.: 623.044 Declare Bive Noise Walls Location: McLane Boulevard Cy, State: Chert Hender Chert Hender H							Fax: 847	-931-1560								Sheet 1 of 1		
Project: MoLean Bouldward Sampang Bennya Hardon With the Charlon Molean Budg With the Charlon Molean Budg Convertient State Equations Sampang Bennya Hardon With the Charlon Molean Budg With the Charlon Molean Budg Optimized Sampang Bennya Hardon Mainteen Bennya Hardon	Rubino	Job I	No.:	G2	3.044	4			Drilling Meth	nod: $2\frac{1}{4}$ H	Hollow Ste	m Aug	er		WAIE	R LEVELS***		
Duration Competion Deptr: Definition inclusion and provide states in the provide in the provide state of the provide states in the provide states	Project	:		Mc	Lean	Blvd	Noise Walls			etnoa:Spiit : no: Autor	Spoon			ĮΫ	While Dri	lling N/A		
Completion Depth: Completion De	Locatio	n: tata:		IVICI Sou	Lean uth ⊑	BOUIE	linois		Boring Loca	tion [.] NB R	OW of Mc	l ean F	Slvd	Ţ	Upon Co	mpletion N/A		
Open of the second sector is a second sector in the second sector is a second sector is second second second second sector is a second sector is second s	Client	ale.		Hai	moto	n l en:	zini and Renwick Inc.		Doning 2000	~6 fe	et E from I	back o	f curb	V	48-hr Del	ay 8.5 ft		
Open upged	onone.				iipto		Station: N/A			-			STAND/					
and building and building and building building building <td></td> <td></td> <td></td> <td></td> <td></td> <td>(c)</td> <td>Offset: N/A</td> <td></td> <td></td> <td></td> <td>с Ч</td> <td></td> <td></td> <td>TEST DA</td> <td>ATA</td> <td></td>						(c)	Offset: N/A				с Ч			TEST DA	ATA			
and the second state of the second	eet)	et)	D	be	o.	, he					6-ir	<i></i>		0				
organ eb	ר (fe	(fee	L C	Ţ	Z O	(inc	MATEDI				per	e,	X Moi	sture	PL	Additional		
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u u	leva	Dep	Gra	San	Sar	0 S					Ē	Μ				-		
775 1 18 Surface Elve: 775.52 ft 10	ш	_				Ъ					SP1		ST	RENGTH	H, tsf			
775 0 1 18 Approximately 12 incles of TOPSOIL: dark brown and loaks ally leave, with roots and organic mattely 13 field organic mattely 14 (arg string roots), and loaks ally leave, with roots and organic mattely 14 (arg string roots), and loaks ally leave, with roots and organic mattely 14 (arg string roots), and loaks ally leave, with roots and organic mattely 15 (set below existing roots), and roots		0					Surface Elev.: 775.	52 ft						(Rimac) 2.0	₩Qp/Qr 4	.0		
Completion Depth: 15.0 fl Completion Depth: 15.0 fl Attract of collapse. Completion Depth: Attract of collapse. Completion Depth: Attract of collapse. Completion Depth: Attract of collapse. Attract of collapse. Completion Depth: Attract of collapse. Pressuremeter Attract of collapse. Attract of collapse. <td>775-</td> <td>0</td> <td>71 . 1</td> <td></td> <td></td> <td></td> <td>Approximately 12 in</td> <td>nches of TC</td> <td>OPSOIL: dark</td> <td>brown</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	775-	0	71 . 1				Approximately 12 in	nches of TC	OPSOIL: dark	brown								
770 6 18 X 0=4.2 laf 770 6 18 3.56 19 X 0=3.3 laf 766 10 4 177 3.4.5 19 X 0=2.5 laf 766 10 5 18 3.4.5 19 X 0=3.4 laf 766 6 18 3.4.5 19 X 0=2.5 laf 15 6 18 3.4.5 19 X 0=2.1 laf 16 17 5 18 3.4.5 19 X 0=2.1 laf 16 17 5 18 3.4.5 19 X 0=2.1 laf 16 18 3.4.6 15 X 0=2.1 laf 0=2.7 laf 16 15 X 0=2.7 laf 0=2.7 laf 0=2.7 laf 0=2.7 laf 16 15 X 0=2.7 laf 0=2.7 laf 0=2.7 laf 0=2.7 laf 0=2.7 laf 15 16 16 18 0 16 15 X 0=2.7 laf 16 17 1				М	1	18	Stiff to very stiff or	, with roots av SII TY C	And organic r	and and	3-4-5		P		>>	·¥		
Completion Depth: 15 0 ft Date Boring Started: 15 0 ft 15 0 ft				XI			gravel	uy 01211 0			N=9	16	>	<		Qr=4.2 tsf		
Completion Depth: 15.0 ft Date Boring Started: 11/723 Date Boring Started: 4/17/23 P.P. Sample Types: Marger Cutting Split-Spoon P.P. Date Boring Started: 4/17/23 Date Boring Started: 15.0 ft Date Boring Started: 11/7/23 Date Boring Started: 4/17/23 Date Boring Started: <td></td>																		
770 5 10 3 16 3.3.5 18 X 0r=3.3 tof 776 6 18 3.4.5 19 0 X 0r=2.5 tof 766 10 5 18 3.4.5 19 0 X 0r=2.9 tof 766 10 6 18 3.4.5 19 0 X 0r=2.9 tof 766 10 6 18 End of boring at approximately 15 feet below existing grade. 3.4.6 15 X 0r=2.7 tof 15 16 18 End of boring at approximately 3.5 feet below existing grade. 3.4.6 15 X 0r=2.7 tof 15 X 0r=2.7 tof 0 X 0r=2.7 tof 0 X 0r=2.7 tof 15 X 0r=1.1 15 X 0r=2.7 tof 0 0 X 0r=2.7 tof 15 15 18 Sample Types: Sample Types: N= Bacore Completed: 0 10 10 10 10 10 10 10 10 10 10 10 10 <					2	18					3-5-6		6		*			
770 6 3 16 3-3-5 N=8 18 X X Q=2.5 isf 765 10 4 17 X Q=2.5 isf 19 X X Q=2.5 isf 765 5 18 3-3-5 N=9 19 X X Q=2.5 isf 765 5 18 3-4-5 N=9 19 X X Q=2.9 isf 15 6 18 End of boring at approximately 15 feet below existing grade. Hole collapse at approximately 3.5 feet below existing grade after 48 hours. Water observed just above hole collapse. 3-4-6 15 X Q=2.7 isf 16 15 18 Sing Grade after 48 hours. Water observed just above hole collapse. Sing Grade after 48 hours. Water observed just above hole collapse. Sing Grade after 48 hours. Water observed just above hole collapse. Sing Grade after 41.98100060 Inglide: -88.31676877 Date Boring Completed: 4/17/23 Auger Cutting Split-Spoon Freesuremeter Shelby Tube Grade Sample Inglite: -88.31676877 Inglite: -88.316				XI							N=11	19		X		Qr=3.3 tsf		
700- 766- 10 3 16 3 16 3 3 16 X X Qr=2.5 laf 766- 15 10 5 18 3 3 16 X X Qr=2.5 laf 766- 15 5 18 3 4 17 X Qr=2.5 laf X Qr=2.5 laf 766- 15 18 Simple Types: 3 3 4 15 X Qr=2.7 laf 15 16 18 Product after 48 hours. Water observed just above hole collapse. 3 4 15 X Qr=2.7 laf Completion Depth: Date Boring Statted: 15 1 X Qr=2.7 laf Qr=2.7 laf Date Boring Completed: 4/17/23 P.P. Auger Cutting Split-Spoon Pressuremeter Shetby Tube Grab Sample Lattude: 41.9910060 Longtote - 883.0765757 Date Boring Completed: 4/17/23 P.P. Auger Cutting Split-Spoon Shetby Tube Grab Sample Unit Ris: Composer V Unit Ris: Composer V Date Boring Completed: P.P. P.P. No Recover V No Recover V Unit Ris: Composer V Unit Ris: Composer V Unit Ris: Com		- 5 -		И												_		
765 10 <t< td=""><td>770-</td><td></td><td></td><td></td><td>3</td><td>16</td><td></td><td></td><td></td><td></td><td>3-3-5</td><td></td><td></td><td></td><td>¥</td><td></td></t<>	770-				3	16					3-3-5				¥			
765 10 X 0 ¹² / ₂ 5 B ¹ 766 5 18 34.6 19 X 0 ¹² / ₂ 5 B ¹ 6 18 3.5.5 N=10 22 X 0 ¹² / ₂ 5 B ¹ 15 6 18 State Singarde State Si				М	5						N=8	10	Ĭ	\mathbf{v}	~	0.0516		
765 10 4 17 34.5 19 × 0r=3.4 tsf 765 5 18 3.5.5 3.5.5 22 × 0r=2.9 tsf 15 6 18 End of boing at approximately 15 feet below existing grade. 3.4.6 15 × 0r=2.7 tsf 15 15 End of boing at approximately 15 feet below existing grade. 15 × 0r=2.7 tsf 15 15 × 0r=2.7 tsf 15 × 0r=2.7 tsf 15 15 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 15 15 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 15 15 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 15 16 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 15 15 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 15 16 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 15 16 × 0r=2.7 tsf 0r=2.7 tsf 0r=2.7 tsf 16 17 16				\square								10		^		Qr=2.5 tst		
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765 10 5 18 0r=3.4 tsf 6 18 18 3.5.5 22 × 0r=2.9 tsf 15 6 18 End of boring at approximately 15 feet below existing grade. Hole collapse at approximately 25 feet below existing grade. Hole collapse. 3.4.6 15 × 0r=2.7 tsf Completion Depth: 15.0 ft 4/17/23 Pressuremeter Sample Types: Pressuremeter Shelby Tube Conglude: 41.9910000 Date Boring Statted: 4/17/23 P.P. Auger Cutting Shelby Tube Congueto: 48.3167657 Drink Georyper 7822DT Date Boring Completed: P.P. P.P. Cock Core Nettor Excervery Shelby Tube Carthy J. Ignarski					4	17 -					3-4-5				*			
765 10 5 18 6 18 End of boring at approximately 15 feet below existing grade. 3.4-6 15 × 0r=2.9 tef 15 15 × 0r=2.7 tef 0r=2.7 tef 0r=2.7 tef Provide relation of boring at approximately 15 feet below existing grade after 48 hours. Water observed just above hole collapse. 15 × 0r=2.7 tef Completion Depth: 15.0 ft x x 0r=2.7 tef 15 × 0r=2.7 tef Date Boring Started: 4/17/23 x 4/17/23 x x 0r=2.7 tef Auger Cutting Split-Spoon Split-Spoon Pressuremeter Shelby Tube Shelby Tube Shelby Tube Split-Spoon P.P. P.P. Split-Spoon P.P. Split-Spoon Split-Spanki Split-Spanki Split-Spanki				XI							N=9	19		×		Qr=3.4 tsf		
Completion Depth: 15.0 ft Date Boring Statted: 4/17/23 Auger Cutting P.P. Date Boring Statted: 4/17/23 Auger Cutting Split. Spoon Description 15.0 ft Auger Cutting Split. Spoon Pressuremeter Split. Spoon Date Boring Statted: 4/17/23 Auger Cutting Split. Spoon Date Boring Statted: 4/17/23 Auger Cutting Split. Spoon Date Boring Statted: P.P. Dubling Environe Inters	765	- 10 -														-		
Completion Depth: 15.0 ft Date Boring Started: 15.0 ft Auger Cutting Smith Specific Completion Date Boring Started: 4/17/23 Date Boring Completion: 15.0 ft Date Boring Completion: 15.0 ft Date Boring Completion: 15.0 ft Date Boring Completion: 17/723 Date Boring Completion: 17/723 Date Boring Completion: 17/723 Date Boring Completion: P.P. During Completion: P.P. During Completion: P.P. During Completion: Normal Started: Mining Completion: Normal Started: Date Boring Started: P.P. During Completion: Normal Started: During Completion: Normal Started: Date Boring Started: Normal Started: Date Soring Completed: Normal Started:	/05-				5	18					3-5-5		6		ж			
Completion Depth: 15 0 ft 26 18 Hole collapse at approximately 15 feet below existing Hole collapse at approximately 8.5 feet below existing grade after 48 hours. Water observed just above hole collapse. Completion Depth: Date Boring Started: Date Boring Completed: Date Boring				XI							N=10	22		X		Qr=2.9 tsf		
Completion Depth: 2000 Depth: Date Boring Started: 4/17/23 Logged By: Defined Completion Depth: Date Boring Started: Date Bo				И														
Completion Depth: 15.0 ft 4/17/23 Date Boring Complete: 4/17/23 P.P.P. P.P. P.P. P.P. P.P. P.P. P.P.					6	18					3-4-6				¥			
- 15 End of boring at approximately 15 feet below existing grade. Hole collapse at approximately 8.5 feet below existing state of the served just above hole collapse. Image: Completion Completin Completin Completin Completion Completin Completin Completin Co				М	0						N=10	15				Or-2 7 tof		
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						Fax: 847	-931-1560								Sheet 1 of 1
Rubino	o Job I	No.:	G2	3.04	4			Drilling Meth	nod: 2 ¼ F	Hollow Ste	m Aug	er		WATEF	R LEVELS***
Projec	t:		Mc	Lear	n Blvd	Noise Walls		Sampling M	ethod:Split	Spoon				\overline{V} While Dril	ling N/A
Locatio	on: tata		IVIC	Lear	I BOUIE	evard		Boring Loca	tion NB R	OW of Mo	l ean l	Rlvd		👤 Upon Cor	npletion N/A
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E	NGI	NEER		G I	NC.	Rubino Engir 425 Shepard Elgin, IL 601 Telephone: 4 Eav: 847.93	neering Drive 23 847-93 1-1560	, Inc. 1-1555	L	.0G (OF	BC	RI	NG	NV	VB-26	of 1
						Fax. 047-93	1-1500									Sneet I d	1 IC
Rubino	Job	No.:	G2:	3.044	4			Drilling Meth	od: $2\frac{1}{4}$	Hollow Ste	m Aug	er			AIER	LEVELS*	**
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Rubino	o Job I	No.:	G2	3.04	4			Drilling Meth	od: 21/4 F	Iollow Ste	m Aug	er	-			<u>^</u>
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Drilling	Conti	actor:			Rubi	no Engineering, Inc.		Jule		overy	Check	ed By:	A. Tom	aras		

E		NEEI			NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	, Inc. 1-1555	L	OG (DF	BC	RI	NG	TS	B-02	
						Fax: 847-931-1560)								Sheet 1 of 1	
Rubino	o Job I	No.:	G2	3.044	4		Drilling Metho	od: 2 ¼ F	Iollow Ster	n Aug	jer		WA	ATER	LEVELS***	
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Drilling	Cont	actor:			Rubi	no Engineering, Inc. 🛛 🔛 Rock 🤇	Core O No Recovery				ery Checked By: A. Tomaras					

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						Fax: 847-931-1560)						1	5	Sheet 1 of 1
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	L.			4	12				7-9					≥>®	Qp=4.5 tsf
						Maximum depth of DCP, adva	nced only with								
	- 5 -	¥////	N ²	6	24				PUSH)
						End of boring at approximatel	y 6 feet below								
						existing grade.									
									2						
	- 43	<u> </u>							L	1	 				
Compl	etion [Jepth:	ام		6.0 f	t Sample T	ypes:	_		Latitu	ide: 4'	1.98053 _88 214	802 86040		
Date B	oring	Starte	a: lot-	d.	4/22/	123 🗍 Hand .	Auger & DCP 🛛	Auger	Cutting	Drill F	Rig: Ja	ckham	mer Driv	ven Soil	Sampler
	oning	Comp	iele	u.	4/22/ LI C	Hand .	Auger	🛛 Split Sp	boon	Rem	arks:				•
Drilling	Conti	ractor:			Rubi	no Engineering, Inc.	Ċ		covery						

The stratification lines represent approximate boundaries. The transition may be gradual.

E	NGI	NEEI			NC.	Rubino Engineering 425 Shepard Drive Elgin, IL 60123 Telephone: 847-93	ı, Inc. 1-1555			LO	G O	F BC	ORIN	GN	WB-26-HA
						Fax: 847-931-1560)								Sheet 1 of 1
Rubino	o Job I	No.:	G2	3.04	4		Drilling Method	d: DCP	& Driven S	Soil Sa	ampler		V	ATEF	RLEVELS
Projec	t:		Мс	Lear	n Blvd	Noise Walls	Sampling Met	hod:Geop	orobe LB S	ample	er		$\overline{\nabla}$		
Locatio	on:		Мс	Lear	n Boule	evard	Hammer Type	: Autor	matic				T		
City, S	tate:		So	uth E	Elgin, I	Ilinois Tini and Danwick Inc.	Boring Locatio	n: NBR	COW OF MC	Lean	Bivd		V		
Client			на	mpic	n Len	Station: N/A					1		<u>+</u>		
						Offset: N/A			-G		STA	NDARD I	PENETRA	ATION	
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tior	Ę,	phic	ple	du	∑1€	MATERIAL DESC	RIPTION	Clas	SWG	istur	0		25	LL 50	Remarks
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	- 5 -		۲Ÿ	0	12	only soil sampling			PUSH					>>@)
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Compl	L etion I	Jepth [.]			5.0 ft	t Sample 1	vpes:		<u> </u>	Latitu	ude: 4	1.98008	361	I	
Date B	orina	Starte	d:		4/22/	/23 m				Long	itude:	-88.316	64538		
Date B	oring	Comp	lete	d:	4/22/	/23 Hand			Cutting	Drill F	Rig: Ja	ickham	mer Driv	ven Soil	Sampler
Logge	d By:	-			H.G.		Auger		noon	Rema	arks:				
Drilling	Cont	ractor:			Rubi	ino Engineering, Inc. 👗 DCP	C	J No Red	covery						

The stratification lines represent approximate boundaries. The transition may be gradual.

E	NGI	NEEF			NC.	Rubino 425 She Elgin, IL Telepho	Engineering epard Drive . 60123 one: 847-93	, Inc. 1-1555			LOO	g of	F BC	RIN	GN	IWB-27-HA
						Fax: 84	7-931-1560									Sheet 1 of 1
Rubinc Project Locatic City, S Client:) Job I :: on: tate:	No.:	G2 Mc Mc Sol Ha	3.04 Lear Lear uth E mptc	4 n Blvd n Boule Elgin, I on Len	Noise Walls evard Ilinois zini and Renwick Inc		Drilling Metho Sampling Me Hammer Typ Boring Locati	od: DCP thod:Geop e: Autor ion: NB R Top o	& Driven S probe LB S matic OW of Mc of Slope	Soil Sa ample Lean I	impler er Blvd		₩ ⊻ Į	/ATEF	RLEVELS
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A MATER	IAL DESC	RIPTION	USCS Classification	DCP Blows per 6-inch	Moisture, %		IDARD F TEST Moisture	PENETRA DATA O 25 CTH, tsf X2.0	ATION PL LL 50 Qp 4.0	Additional Remarks
	0	<u>71 1</u>		1	12	TOPSOIL: black s	ilty clay with	gravel and		5-5					>>@	
				2	12	Brown and gray, s	ilty CLAY, tr	ace gravel		3-3			*	*	>>@	Qp=1.8 tsf
				Ũ												-cip=2.0 toi
				4 6	12 24	Maximum depth of only soil sampling	DCP, advar	nced only with		10-11 PUSH					>>@ 	Dep=3.8 tsf
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Comple	Etion [Depth:			6.0 ft		Sample T	ypes:			Latitu	de: 41	.97959	49		
Date B Date B Logged	oring oring By: Contr	Starte Compl	d: lete	d:	4/22/ 4/22/ H.G. Rubi	/23 /23 no Engineering, Inc.	Hand A Hand A Hand A	Auger & DCP Auger	Auger (Split Sp O No Rec	Cutting boon covery	Longi Drill F Rema	itude: - Rig: Ja arks:	88.316 ckhamr	.0 3120 ner Driv	ven Soil	Sampler

The stratification lines represent approximate boundaries. The transition may be gradual.

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