

Phase II Environmental Site Assessment Preliminary Geotechnical Evaluation with Environmental Confirmation Sampling

Location:

196 Smith Street Rochester, New York

Prepared for:

Phoenix Graphics 464 State Street Rochester, New York 14614

LaBella Project No. 209126

March 2009

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1.0 Introduction and Background

LaBella Associates, P.C. ("LaBella") conducted a Phase II Environmental Site Assessment (ESA) with Environmental Confirmation Sampling and Preliminary Geotechnical Evaluation at 196 Smith Street, Rochester, New York, hereinafter referred to as the "Site". A Site Location Map is included as Figure 1.

A Phase I ESA Report dated January 2008 by LaBella identified four (4) Recognized Environmental Conditions (RECs) in connection to the Site, which are listed below.

1. Historic Use of the Site as a Former Railroad Yard and a Waste Disposal Site:

The Phase I ESA indicated that the Site was utilized as a railroad yard from at least 1892 until the mid-1970s. The railroad operations are depicted on Sanborn maps dated 1892, 1911 and 1950 and these have been overlaid on a current aerial photograph and included as Figures 2 through 4. The Site is also a Monroe County Environmental Management Council (MCEMC) listed local waste disposal site (ID # RO-176) which reportedly contains C&D debris. In addition, the City of Rochester installed fencing surrounding the Site in August 2006 to prevent further illegal dumping which was reported to have occurred at the Site.

2. Stained Soil, Stressed Vegetation, and Solid Waste Observed at the Site During the Site Visit:

At the time of the Phase I ESA site visit, stained soil, stressed vegetation, and solid waste were observed at the Site. The stained soil appeared to be due to the high content of solid waste mixed in with the soil including cinders, coal fragments and dust, concrete, brick and scrap metal. The presence of stressed vegetation appears to be due to the fill material incorporated into the soil as well as the lack of adequate topsoil at the Site. At the time of the site visit, a partially buried railroad track was observed in the soil at the Site. The presence of this remaining track could also indicate the presence or creosote treated historic railroad ties in the subsurface at the Site.

3. Off-Site Spills and Regulatory Listings to the South:

The Phase I ESA indicated that the property adjoining to the south and southeast of the Site is a former manufactured gas plant (MGP) and a former coal fired power plant. As such, it is a listed United States Environmental Protection Agency (USEPA) Comprehensive Environmental Response Compensation and Liability Act (CERCLA) No Further Remedial Action Planned (NFRAP) site, a New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP) site, and a NYSDEC Spill site with multiple closed and inactivated spills.

4. Historic Use of Off-Site Properties to the West:

The Phase I ESA determined that adjoining properties to the west of the Site beyond South Vincent Street (which appear to be upgradient of the Site) have included gas stations, factories, auto and boat sales and a drug and chemical distributor. Groundwater flow in the vicinity of these facilities appears to be to the east-northeast and toward the Site.

LaBella was retained to conduct a preliminary subsurface evaluation in order to evaluate potential subsurface impacts at the Site associated with the two (2) on-site RECs described above as part of due diligence activities for a real estate transaction. It is understood that if purchased by Phoenix Graphics the Site would be developed with an approximate 12,000 square foot building for commercial use. LaBella was provided a site sketch that indicates the proposed subdivision of the larger parcel, the proposed building and proposed parking lot areas. This site sketch was subsequently overlaid on aerial photography and is included as Figure 5.

2.0 Objective

The objective of this project was to conduct a limited Phase II ESA with Environmental Confirmation Sampling for evaluating the on-site RECs identified in the Phase I ESA and to conduct a Preliminary Geotechnical Evaluation in order to evaluate general subsurface conditions at the Site.

3.0 Scope of Work

The following Scope of Work was undertaken in accordance with our discussions:

- 1. An Underground Facilities Protection Organization (UFPO) was conducted at the Site, to locate subsurface utilities in the areas where the subsurface assessment would take place.
- 2. LaBella Associates retained the services of Trec Environmental, Inc. (TREC), a specialized environmental contractor, to implement one day (i.e., 8-hours) of test pitting excavations at the Site.
- 3. Soils from the test pits were continuously assessed for visible impairment, olfactory indications of impairment, and/or indications of detectable volatile organic compounds (VOCs) on a Photo-Ionization Detector (PID) total VOC meter. Positive indications from any of these screening methods were collectively referred to as "evidence of impairment." Evidence of impairment gathered at the time of the fieldwork was used to determine the soil sampling locations.
- 4. LaBella retained Foundation Design, P.C. (Foundation Design) to provide geotechnical services on the project. Foundation Design provided:
 - Review of the available soil information to prepare an exploration program.
 - Observed the test pitting work and logged the subsurface profiles.
 - Reviewed the soil samples collected.
 - Evaluated the soil and bedrock conditions encountered during the test pits.
 - Preliminarily assessed the earthwork required to support floors and foundations.
 - Developed a list of geotechnical considerations for developing the parcel in lieu of a 'green' parcel.

5. Soil samples were collected in laboratory supplied bottleware and sent under Chain of Custody procedures to Paradigm Environmental Services, Inc. (Paradigm). Paradigm is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the parameters tested.

4.0 Test Pitting Evaluation

In order to evaluate subsurface conditions at the Site, an exploratory test pit investigation was performed at the Site on January 23, 2009. Test pits were excavated throughout the Site to evaluate the general condition of the Site.

The excavation of test pits allows for visual observation of subsurface conditions and for the collection of subsurface soil samples.

Initially, a UFPO stakeout was conducted at the Site to locate subsurface utilities in the areas where test pits were excavated. A "Kubota KX121-3 Super Series" excavator and operator were mobilized to the Site, and fifteen test pits were excavated. The test pits were backfilled with excavated materials and compacted with the bucket of the excavator.

Soils from the test pits were continuously assessed for evidence of impairment. A brief description of each test pit follows.

TP-100

TP-100 was excavated on the western portion of the Site near Vincent Street, in order to evaluate general subsurface conditions on-site in the area of the proposed building. No evidence of impairment was observed in TP-100. Fill materials were encountered in TP-100 from approximately 2.0' bgs to 3.0' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 6.0' bgs.

TP-101

TP-101 was excavated on the southern most portion of the Site to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-101. Fill materials were encountered in TP-101 from approximately 0.3' bgs to 2.0' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 5.5' bgs.

TP-102

TP-102 was excavated on the southern portion of the Site north of TP-101, in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-102. Fill materials were encountered in TP-102 from approximately 1.8' bgs to 2.2' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 2.7' bgs.

TP-103

TP-103 was excavated on the southeastern portion of the Site within the proposed parking lot in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-103. Fill materials were encountered in TP-103 from approximately 0.0' bgs to 1.6' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.3' bgs.

TP-104

TP-104 was excavated on the southern portion of the Site, in order to evaluate general subsurface conditions on-site. No evidence of impairment was observed in TP-104. Fill materials were encountered in TP-104 from approximately 0.4' bgs to 1.9' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.0' bgs.

TP-105

TP-105 was excavated on the eastern portion of the Site in the proposed building footprint, in order to evaluate general subsurface conditions on-site. No evidence of impairment was observed in TP-105. Fill materials were encountered in TP-105 from approximately 0.0' bgs to 3.0' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.0' bgs.

TP-106

TP-106 was excavated on the eastern portion of the Site slightly east of the proposed building footprint, in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-106. Fill materials were encountered in TP-106 from approximately 0.3' bgs to 1.0' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.3' bgs.

TP-107

TP-107 was excavated on the eastern portion of the Site in the proposed parking lot area, in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-107. Fill materials were encountered in TP-107 from approximately 0.0' bgs to 2.5' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 5.0' bgs.

TP-108

TP-108 was excavated on the northwestern portion of the Site near Vincent Street slightly west of the proposed building footprint in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-108. Fill materials were encountered in TP-108 from approximately 0.0' bgs to 1.0' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 4.0' bgs.

TP-109

TP-109 was excavated on the northwestern portion of the Site near Vincent Street slightly west of the proposed parking lot, in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-109. Fill materials were encountered in TP-109 from approximately 0.7' bgs to 1.7' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.2' bgs.

TP-110

TP-110 was excavated on the northwestern portion of the Site near Vincent Street slightly north of TP-109 and west of the proposed parking lot, in order to evaluate the historic railroad operations that were identified on Sanborn maps for this area. No evidence of impairment was observed in TP-110. Fill materials were encountered in TP-110 from approximately 0.6' bgs to 1.7' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 2.9' bgs.

TP-111

TP-111 was excavated on the central portion of the Site within the proposed parking lot, in order to evaluate general subsurface conditions on-site. No evidence of impairment was observed in TP-111. Fill materials were encountered in TP-111 from approximately 2.0' bgs to 2.8' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 6.0' bgs.

TP-112

TP-112 was excavated on the central portion of the Site within the proposed building footprint, in order to evaluate general subsurface conditions on-site. No evidence of impairment was observed in TP-112. Fill materials were encountered in TP-112 from approximately 0.0' bgs to 1.7' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 4.9' bgs.

TP-113

TP-113 was excavated on the central portion of the Site within the proposed parking lot, in order to evaluate general subsurface conditions on-site. No evidence of impairment was observed in TP-113. Fill materials were encountered in TP-113 from approximately 0.0' bgs to 1.7' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.0' bgs.

TP-114

TP-114 was excavated on the northeastern portion of the Site within the proposed parking lot, in order to evaluate general subsurface conditions on-site. No evidence of impairment was observed in TP-114. Fill materials were encountered in TP-114 from approximately 1.0' bgs to 1.5' bgs. Groundwater was not encountered within this test pit. Bedrock was encountered at approximately 3.5' bgs.

No evidence of impairment was observed in the test pits excavated at the Site other than fill materials (i.e., cinders, coals, and slag). Fill materials were encountered in each of the fifteen test pits excavated.

Test Pit Logs are included in Appendix 1 and a Photo Log of the test pits is included in Appendix 2, and the test pit locations are depicted on Figures 2 through 5.

Soil Type (Geology)

Based upon the field observations, the subsurface conditions at the Site were found to be relatively consistent throughout the Site. Test pits were excavated to depths ranging from approximately 2.7' below ground surface (BGS) to 6.0' BGS. Depending upon the area of the Site, the ground surface was observed to either be asphalt covered or topsoil. Immediately below this surface layer, a layer of reworked soil was generally encountered. This layer of re-worked soil was observed to consist mainly of medium to coarse grained sand with little to trace silt. A fill materials layer was observed to underlay this re-worked soil layer. The fill materials generally consisted of finely crushed cinders, coals, and slag. This layer was observed to range in thickness from approximately 0.4' to 2.0'. The layer of fill materials was observed to be underlain by native soil. The native soil at the Site is a glacial till deposit. This glacial till primarily consists of silt with some medium to fine grained sand and some small cobbles and/or gravel. Bedrock was encountered immediately beneath the native soil deposit in each test pit. The bedrock is of the lower Lockport Dolomite/upper Rochester shale formation. The surface of the bedrock was observed to be uneven with areas of slightly weathered rock.

The fill materials consisting mainly of cinders, coals, and slag are typically considered to be Regulated Solid Waste by the New York State Department of Environmental Conservation (NYSDEC). As such, these types of materials will require proper management and, if required, disposal off-site.

Groundwater was not encountered in any of the test pits during the exploratory test pitting program.

5.0 Analytical Testing and Results

A total of three (3) soil samples were submitted for laboratory analysis from the test pits excavated at the Site. The samples were delivered under standard chain of custody control to Paradigm Environmental Services, Inc. (Paradigm) of Rochester, New York. Paradigm is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the parameters tested. The soil samples submitted for analysis are identified below. Laboratory analytical reports are included in Appendix 3.

- TP-107 (2.0'): analyzed for United States Environmental Protection Agency (USEPA)
 Resource Conservation and Recovery Act (RCRA) Metals using USEPA Methods 6010 and
 7471 and New York State Department of Environmental Conservation (NYSDEC) Spills
 Technology and Remediation Series (STARS)-list Semi-volatile organic compounds (SVOCs)
 using USEPA Method 8270C;
- TP-108 (0.0'-1.0'): analyzed for RCRA Metals using USEPA Methods 6010 and 7471, NYSDEC STARS-list SVOCs using USEPA Method 8270C and Polychlorinated biphenyls (PCBs) using USEPA Method 8082; and,

• TP-111 (2.0'-2.5'): analyzed for RCRA Metals using USEPA Method 6010/7471, NYSDEC STARS-list SVOCs using USEPA Method 8270C, and PCBs using USEPA Method 8082.

Laboratory analytical reports are included in Appendix 3.

Table 1 presents a summary of the metals detected in the soil samples submitted for laboratory analysis of RCRA Metals.

Table 1
Summary of Detected Metals in Soil Samples
Test Results in Milligrams per Kilogram (mg/Kg) or about Parts per Million (ppm)

Metal	TP-107 (2.0')	TP-111 (2.0'-2.5')	TP-108 (0.0'-1.0')	NYSDEC TAGM 4046 Recommended Soil Cleanup Objective (RSCO)	NYSDEC Eastern USA Background Levels
Arsenic	2.15	7.74	15	7.5	3 to 12 ¹
Barium	38.7	38.1	54.5	300	15 to 600
Cadmium	2.04	ND<0.582	0.855	1	0.1 to 1
Chromium	6.23	6.51	16.9	10	1.5 to 10 ¹
Lead	206	12.8	147	SB	200 to 500 ²
Mercury	0.0616	ND<0.0054	0.237	0.1	0.001 to 0.2
Selenium	1.02	1.21	3.41	2	0.1 to 3.9
Silver	ND<0.925	ND<1.16	ND<0.743	SB	NA

Notes:

- (1) All results shown in milligrams per Kilogram which is approximately equivalent to parts per million (ppm)
- (2) I denotes New York State Background
- (3) ² denotes average background levels in metropolitan or suburban areas or near highways
- (4) SB denotes site background [Note: A Site Background sample was not collected as part of this evaluation.]
- (5) ND denotes not detected above the reported laboratory method detection limit (MDL)
- (6) NA denotes not applicable
- (7) Bold type denotes that the constituent exceeds the NYSDEC TAGM 4046 Recommended Soil Cleanup Objective.
- (8) Bold and Highlighted type denotes that the constituent exceeds the Eastern USA Background level.

As presented in Table 1 above, multiple metals were detected above the reported laboratory method detection limits (MDLs) in each of the three (3) soil samples submitted for laboratory analysis. Of the detected metals only Cadmium in sample TP-107 (2.0') and arsenic, chromium, and mercury in sample TP-108 (0.0'-1.0') were reported at concentrations above the NYSDEC TAGM 4046 Recommended Soil Cleanup Objective (RSCO) and NYSDEC Eastern USA Background Levels. In addition, selenium in sample TP-108 (0.0'-1.0') and arsenic in sample TP-111 (2.0' – 2.5') were reported at concentrations above the NYSDEC TAGM 4046 RSCO but below their respective NYSDEC Eastern USA Background Levels.

Table 2 presents a summary of the SVOCs detected in the soil samples submitted for laboratory analysis of SVOCs.

Table 2
Summary of Detected SVOCs in Soil Samples
Analytical Results in Micrograms per Kilogram (μg/Kg) or about Parts Per Billion (ppb)

Parameter	TP-107 (2.0')	TP-111 (2.0'-2.5')	TP-108 (0.0'-1.0')	NYSDEC TAGM #4046: Recommended Soil Cleanup Objectives (1)
Acenaphthylene	ND<329	ND<386	1,740	41,000
Anthracene	ND<329	ND<386	1,670	50,000
Benzo (a) anthracene	ND<329	ND<386	4,880	224
Benzo (a) pyrene	ND<329	ND<386	4,060	61
Benzo (b) fluoranthene	ND<329	ND<386	4,840	1,100
Benzo (g,h,i) perylene	ND<329	ND<386	2,450	50,000
Benzo (k) fluoranthene	ND<329	ND<386	4,050	1,100
Chrysene	348	ND<386	4,760	400
Dibenz (a,h) anthracene	ND<329	ND<386	1,260	14
Fluoranthene	624	ND<386	5,750	50,000*
Indeno (1,2,3-cd) pyrene	ND<329	ND<386	2,630	3,200
Naphthalene	ND<329	ND<386	406	13,000
Phenanthrene	340	ND<386	1,130	50,000*
Pyrene	461	ND<386	4,890	50,000*
TOTAL SVOCs	1,773	ND<386	44,516	<500,000*

Notes:

As presented in Table 2 above, four (4) SVOCs were reported at concentrations above the laboratory MDLs in soil sample TP-107 (2.0'); however, the concentrations of these SVOCs were below the NYSDEC TAGM 4046 RSCOs. SVOCs were not detected above the laboratory method detection limits in soil sample TP-111 (2.0'-2.5'). Soil sample TP-108 (0.0'-1.0') detected fourteen SVOCs above the laboratory MDLs and six (6) of these SVOCs were at concentrations above the NYSEC TAGM 4046 RSCOs.

⁽¹⁾ All results shown in micrograms per Kilogram which is approximately equivalent to parts per billion (ppb).

⁽²⁾ ND denotes not detected above laboratory method detection limit (MDL).

⁽³⁾ **Bold type** denotes that the constituent was found to exceed the NYSDEC TAGM 4046 RSCO.

Soil sample TP-111 (2.0'-2.5') and TP-108 (0.0'-1.0') were submitted for laboratory analysis of polychlorinated biphenyls (PCBs). However, PCBs were not reported above the laboratory MDLs for these samples.

6.0 Preliminary Geotechnical Evaluation

Foundation Design provided preliminary findings in a memo which is included as Appendix 4. Below are some of the pertinent Foundation Design conclusions for development at this Site:

- "It is our preliminary assessment that the in-place fill material is not suitable to support floors or foundations. We recommend removing this material from the proposed building areas; budget to replace the fill to the sub-floor elevation with an imported crusher run stone (NYSDOT Item 304.03). Some of the on-site fill material may be 'salvageable' for reuse as fill in parking areas or in the surrounding 'green' areas."
- "The fills described above extend under likely parking lot and loading dock pavements. Complete removal and replacement of the fill material are not economical in these areas. A thicker than 'normal' pavement section will be recommended in lieu of removing and replacing the fill material to prolong the pavement life."

The memo included in Appendix 4 provides additional information.

7.0 Summary of Findings, Conclusions and Recommendations

This Phase II ESA with Environmental Confirmation Sampling and Preliminary Geotechnical Evaluation was conducted to evaluate subsurface conditions at the Site. Specifically, the work consisted of excavating fifteen test pits and collecting/analyzing three (3) soil samples. Based on field observations and analytical results from soil samples the following findings are presented:

Summary of Findings

- Evidence of impairment was not encountered in the test pits excavated with the exception of fill materials.
- Fill materials were observed in each of the test pits excavated and consisted of coals, cinders, slag and ash.
- Two of the three soil samples detected one or more metals at concentrations above the NYSDEC TAGM 4046 RSCOs and Eastern USA Background Levels.
- One of the three soil samples detected concentrations of SVOCs above the NYSDEC TAGM 4046 RSCOs.
- The two soil samples submitted for PCB analysis did not detect PCBs above the reported laboratory MDLs.

• Groundwater was not encountered in any of the test pits excavated during this subsurface evaluation.

Conclusions

Based on the above findings, the fill materials observed in each of the test pits excavated would likely be considered Regulated Solid Waste by the NYSDEC. As such, these fill materials will require proper management on-site or, if required, disposal off-site at an approved landfill. Groundwater was not encountered during this subsurface investigation. [Note: Since the test pits were not able to extend into the uppermost water bearing zone and evaluate groundwater conditions it is unknown what if any impacts exist in groundwater. However, based on the lack of overburden impacts (other than fill material), it does not appear warranted to conduct an evaluation of the groundwater since the proposed development does not appear to require significant disturbances beneath the bedrock.]

Recommendations

Based on the work completed the following recommendations are presented:

1.) Soil and Groundwater Management Plan:

A soil and groundwater management plan (SGMP) should be developed for the Site in the event that the fill materials are disturbed in the future (e.g., during redevelopment). The SGMP would include proper management/handling and/or characterization and disposal procedures should these materials be encountered in the future. [Note: As indicated above, there does not appear to be a need to investigate groundwater at this time; however, it should be noted that if in the future groundwater is determined to be impacted (e.g., by an off-site source of volatile organic compounds), then there may be a need to mitigate sub-slab soil vapors beneath any buildings at the Site. Mitigation of such vapors can be completed on an existing building; however, it may be more cost effective and efficient to conduct such work as part of a new building construction.]

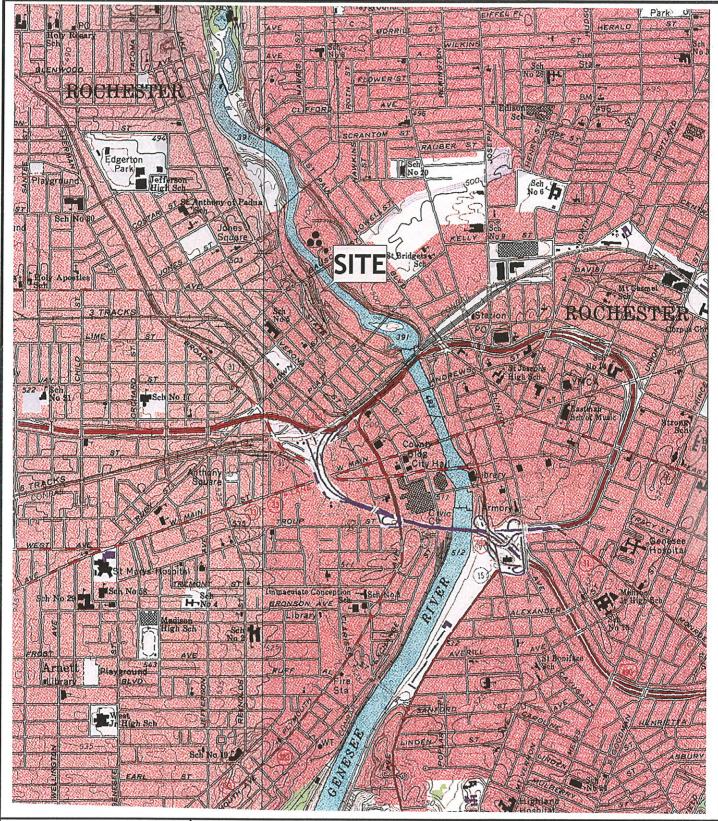
A copy of all information collected during this assessment, including photographs, maps, notes, analytical data and other material will be kept on file at the offices of LaBella Associates, P.C. This information is available at your request.

Y:\ROCHESTER, CITY\209126\REPORTS\R09D22DN2.DOC



300 State Street
Rochester, New York 14614

Figures



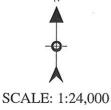


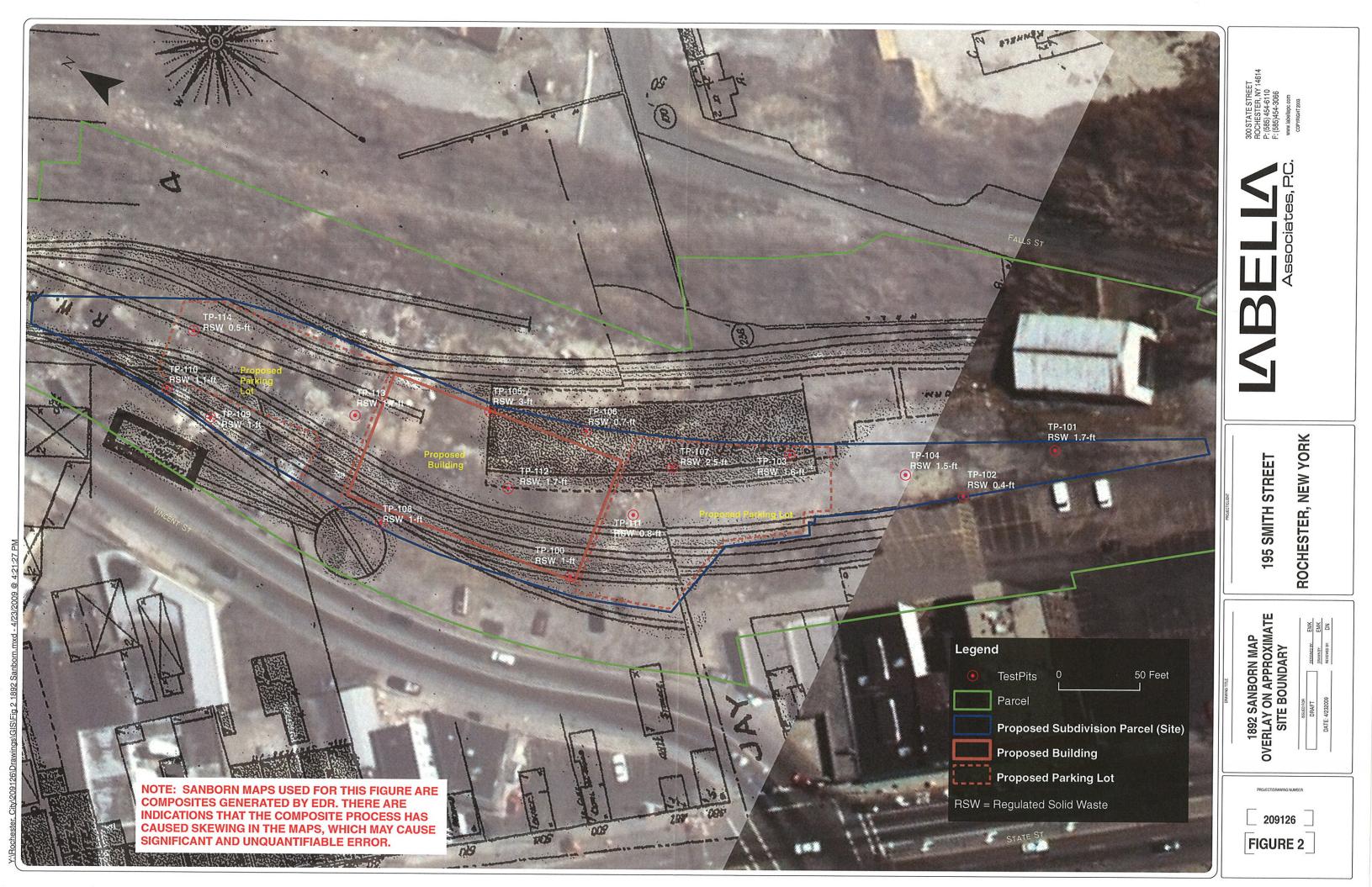
FIGURE 1 SITE LOCATION MAP

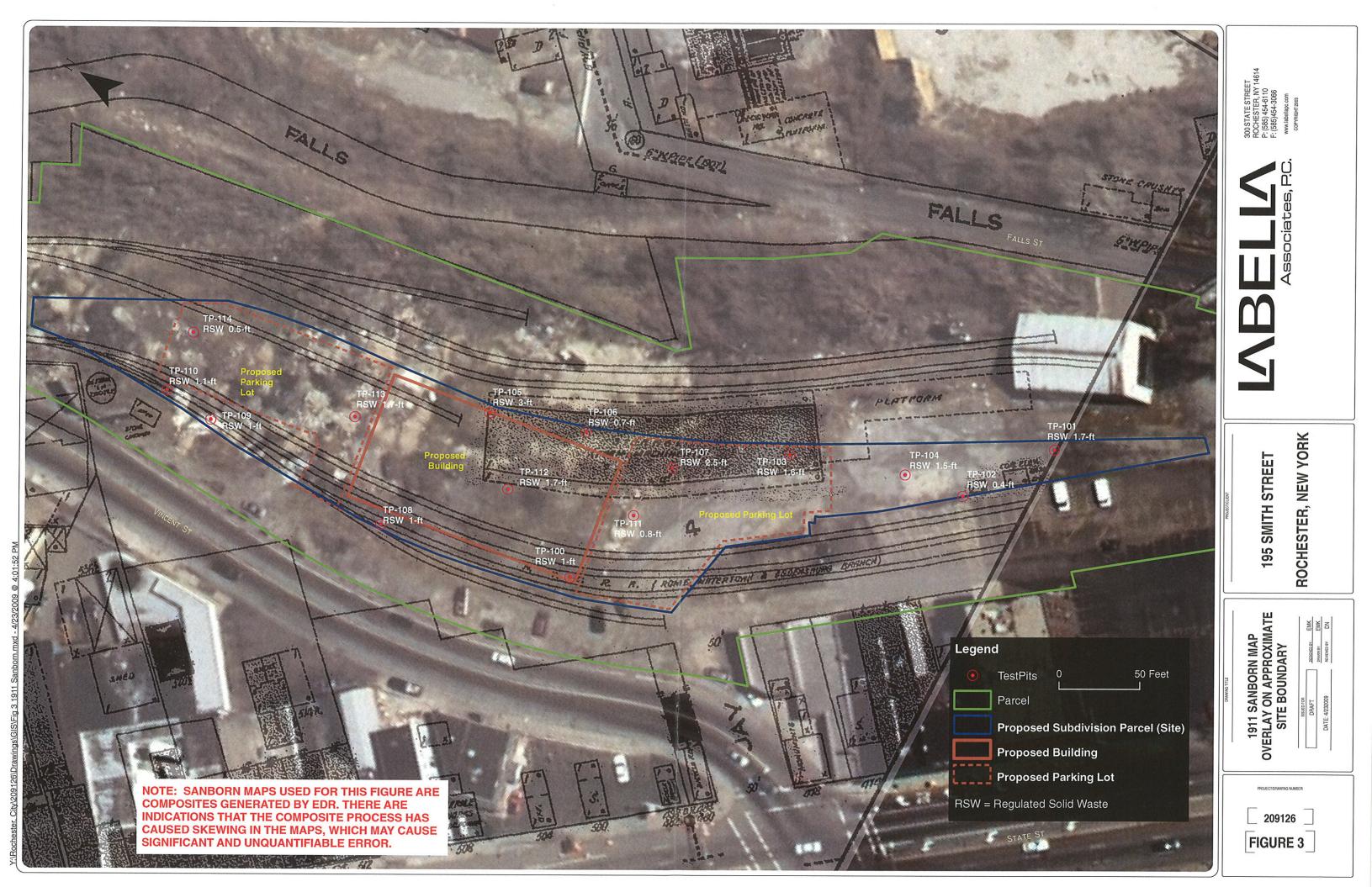
Phase II ESA Preliminary Geotechnical Evaluation with Environmental Confirmation Sampling

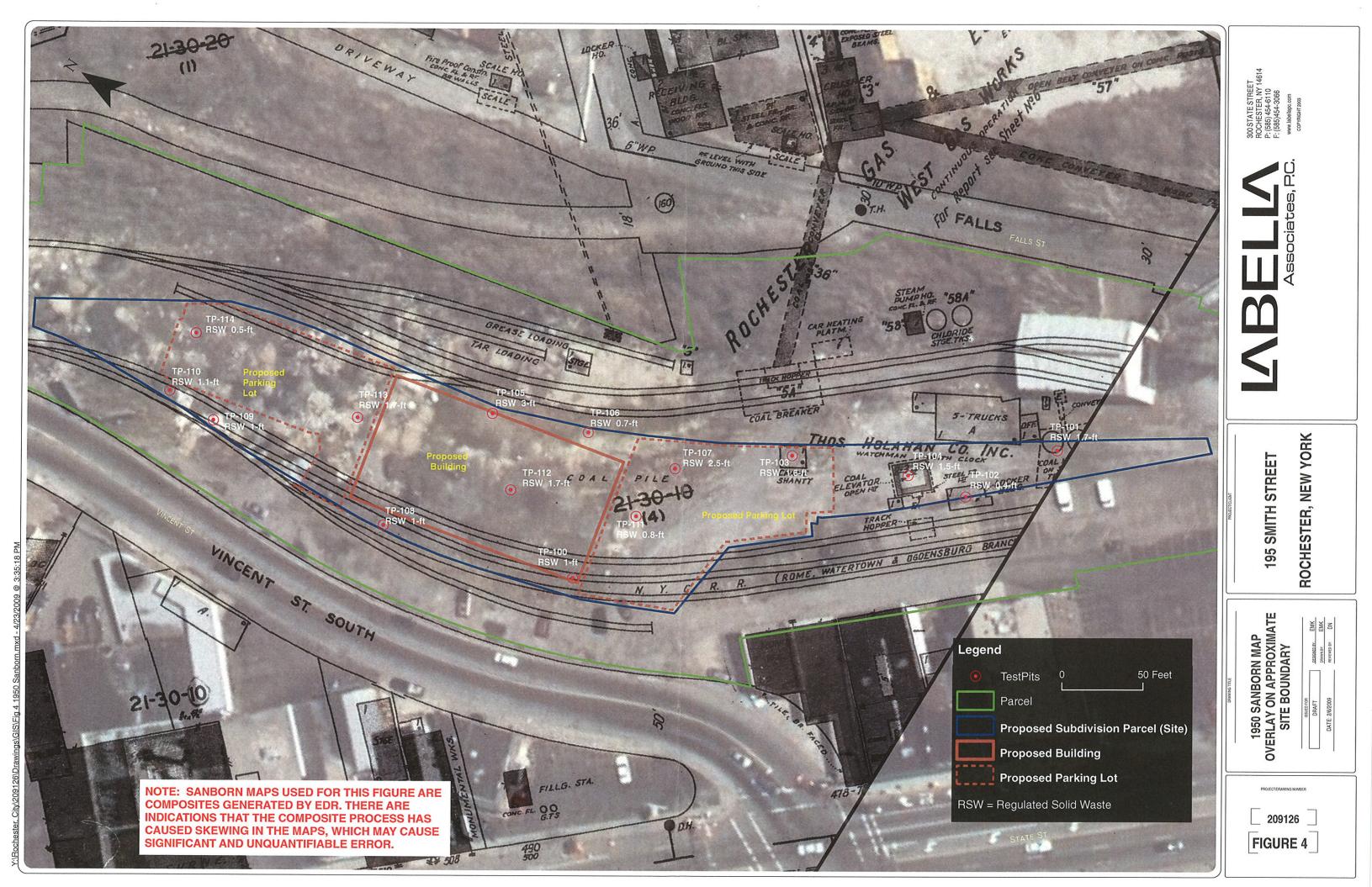
196 Smith Street Rochester, New York

MBELLA

PROJECT NO. 209126











Appendix 1 Test Pit Field Logs

Associates, P.C.

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-100

SHEET 1 OF

209126 JOB:

CHKD BY: ED

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

Kubota KX121-3 Super Series

CONTRACTOR: EXCAVATOR:

TREC Environmental

TEST PIT LOCATION: TP-100

GROUND SURFACE ELEVATION: NA

TIME:

1100 TO 1130

DATUM: NA

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

END DATE: 1/23/09

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

	1			T	
D E P	SAM	PLE		PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0' 0.3'	TOPSOIL Grey to black, medium to coarse grained SAND, trace Silt, moist, No odors	0.0	
				0.0	
•			FILL MATERIALS		
2		2.0'	Black, cinders and coals, finely crushed	0.0	
			NATIVE SOIL		
		3.0'	Light brown, SILT, little medium to fine grained Sand, moist, No odors	0.0	
4		4.0'	As above	0.0	
		5.0'	As above, some large pieces of weathered bedrock	0.0	
6		6.0'	BEDROCK Dolomite bedrock encountered at ~6.0' BGS		
8					
10					
12					
	WATER LEVEL		BOTTOM OF GROUNDWATER NOTES:		
DATE	TIME	ELAPSED TIME	TEST PIT ENCOUNTERED		
	1		6.0' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 % some = 20 to 35% c = coarsem = medium

BGS = Below the Ground Surface

little = 10 to 20%trace = 1 to 10%

f = finevf = very fine NA = Not Applicable

BORING:

LABELLA Associates, P.C.

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York BORING: TP-101

SHEET 1 OF

ЈОВ: 209126

CHKD BY: ED

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

Kubota KX121-3 Super Series

CONTRACTOR: EXCAVATOR: TREC Environmental

TEST PIT LOCATION: TP-101

GROUND SURFACE ELEVATION: NA

TIME:

815 TO 845

1

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

END DATE: 1/23/09

DATUM: NA

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

OVER	BURDEN SAM	PLING MET	HOD: Direct Grab OT HEK:		
D E P T	SAM	STRATA	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
H	AND DEPTH				
0		0.0	Asphalt		
		0.3'	FILL MATERIALS Dark brown to black, medium to coarse grained SAND, some Silt, some rock fragments, moist, no odors	0.0	
		0.5	Zena oto na to otata, nastanito sonos grantes ota 2, sona ota, con a egiment, nasta, no esta	0.0	
				0.0	
2			NATIVE SOIL		
		2.0'	Light brown, SILT, some medium to fine grained Sand, moist, some rock fragments, some fill materials (crushed bricks), no	0.0	
		2.01			
		3.0'	As above	0.0	
4	ļ	4.0'	Anabaya	- 00	
		4.0	As above	0.0	
		5.0'	BEDROCK	0.0	
		5.5'	Dolomite bedrock encountered at ~5.5' BGS	0.0	
6					
8					

10					
12					
	WATER LEVEL I	DATA	BOTTOM OF GROUNDWATER NOTES:		
DATE	TIME	ELAPSED	TEST PIT ENCOUNTERED		
		TIME			
			5.5' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 % some = 20 to 35%

trace = 1 to 10%

c = coarse m = medium

 $BGS = Below \ the \ Ground \ Surface$

little = 10 to 20%

f = fine vf = very fine NA = Not Applicable

BORING:

LABELLA

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York BORING: TP-102

SHEET I OF

јов: 209126

CHKD BY: ED

, New York

TIME:

845 TO

915

EXCAVATOR: Kubota KX121-3 Super LABELLA REPRESENTATIVE: E. Dumrese

CONTRACTOR:

TREC Environmental Kubota KX121-3 Super Series TEST PIT LOCATION: TP-102

GROUND SURFACE ELEVATION: NA START DATE: 1/23/09

END DATE: 1/23/09

DATUM: NA

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

UTE	COCOLI SAN	II EII O MET	HOD. Driect Grab OTHER:		
D E P	SAM			PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0' 0.7' 1.8'	Asphalt Granite block roadway running north and south in area of TP-102 FILL MATERIALS Dark brown to black medium to coarse grained SAND and SILT with trace cinders and coals, moist, no odors	0.0	Sample of Fill Materials collected
		2.2'	NATIVE SOIL Light brown, SILT, some medium to fine grained Sand, moist, little coarse jagged rock and brick fragments, moist, no odors	0.0	Conceita
2		2.0'	As above BEDROCK Dolomite bedrock encountered at ~2.7' BGS	0.0	
4				-	
6					
8					
10			•		
12					
	VATED LEVE:		POTTOM OT COOLDINATED MOTTO.		
DATE	VATER LEVEL D	ELAPSED TIME	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED		
			2.7' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %

some = 20 to 35%

m = medium f = fine

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

vf = very fine

NA = Not Applicable

BORING: TP-102

MBELLA

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-103

SHEET 1 OF

јов: 209126 CHKD BY: ED

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: EXCAVATOR:

TREC Environmental Kubota KX121-3 Super Series TEST PIT LOCATION: TP-103

GROUND SURFACE ELEVATION: NA

TIME:

945 TO

1015

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

END DATE: 1/23/09 DATUM: NA

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

	SAMPLE NO.	STRATA	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
Н	AND DEPTH						
0		0.0'	FILL MATERIALS Dark brown to black, medium to coarse grained SAND, little Silt, some fill materials (i.e., bricks, coals, cinders, and slag), moist, no odors	0.0			
		1.6'	NATIVE SOIL Light brown SILT, some medium to fine grained Sand, moist, no odors	0.0			
2		2.0'	As above	0.0			
		3.3'	BEDROCK Dolomite bedrock encountered at ~3.3' BGS				
4							
6							
8							
10							
12							
			·				
1	VATER LEVEL		BOTTOM OF GROUNDWATER NOTES:				
DATE	TIME	ELAPSED TIME	TEST PIT ENCOUNTERED				
			3.3' BGS Not encountered		 		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %some = 20 to 35% c = coarse m = medium

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

f = finevf = very fine NA = Not Applicable

BORING: TP-103

300 STATE STREET, ROCHESTER, NY

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-104

SHEET 1 OF

JOB: 209126

CHKD BY: ED

ENVIRONMENTAL ENGINEERING CONSULTANTS CONTRACTOR: TREC Environmental EXCAVATOR:

TEST PIT LOCATION: TP-104 Kubota KX121-3 Super Series

GROUND SURFACE ELEVATION: NA

TIME:

915 TO 945

1

DATUM: NA

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

OTHER:

END DATE:

1/23/09

OVERBURDEN SAMPLING METHOD: Direct Grab

	SAMPLE			PID FIELD	
	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	SCREEN (PPM)	REMARKS
		0.0' 0.4'	Asphalt FILL MATERIALS Dark brown to black, medium to coarse grained SAND, little Silt, some fill materials (i.e., cinders, coals, and slag), moist, no odors	0.0	
		1.9'	NATIVE SOIL Light brown, SILT, some medium to fine grained Sand, moist, no odors	0.0	
		2.0'	As above	0.0	
		3.0	BEDROCK Dolomite bedrock encountered at ~3.0' BGS		
		· · · · · · · · · · · · · · · · · · ·			
_	WATER I PUEL T	ATA	BOTTOM OF GROUNDWATER NOTES:		·····
E	VATER LEVEL D	ELAPSED TIME	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %some = 20 to 35%

c = coarsem = medium

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

f = finevf = very fine NA = Not Applicable

BORING:

LABELLAAssociates PC

PROJ

TEST PIT LOG PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York BORING: TP-105

SHEET I OF

JOB: 209126

CHKD BY: ED

TIME:

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS
CONTRACTOR: TREC Environmental TEST

TREC Environmental
Kubota KX121-3 Super Series

TEST PIT LOCATION: TP-105

GROUND SURFACE ELEVATION: NA START DATE: 1/23/09

1015 TO

1045

DATUM: NA

OVERBURDEN SAMPLING METHOD: Direct Grab

LABELLA REPRESENTATIVE: E. Dumrese

EXCAVATOR:

OTHER:

END DATE: 1/23/09

OVER	RBURDEN SAM	PLING MET	HOD: Direct Grab OTHER:		
D E P	SAM			PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0'	FILL MATERIALS Grey to light brown, SILT and medium to coarse grained SAND, some fill materials (i.e., bricks and crushed gravel), moist, no odors	0.0	
2		2.0'	As above	0.0	
		3.0'	BEDROCK Dolomite bedrock encountered at ~3.0' BGS		
4					
6					
8					
10					
12	VATED INC.				#11 8 # 1 M F F F F F F F F F F F F F F F F F F
DATE	TIME	ELAPSED	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED		
		TIME			
	NEDAL MOTES		3.0' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations
- and = 35 to 50 %

trace = 1 to 10%

c = coarse m = medium

BGS = Below the Ground Surface

some = 20 to 35%little = 10 to 20%

f = fine vf = very fine NA = Not Applicable

BORING:

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-106

SHEET 1 OF

JOB: 209126

CHKD BY: ED

 $300\,\mathrm{STATE}\,\mathrm{STREET},\mathrm{ROCHESTER},\mathrm{NY}$ ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: EXCAVATOR:

TREC Environmental Kubota KX121-3 Super Series TEST PIT LOCATION: TP-106

GROUND SURFACE ELEVATION: NA

TIME:

1045 TO 1115

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

END DATE: 1/23/09

DATUM:

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

UVER	OVERABORDER SARVIFER OF MILET ROD. Direct Glab						
D E P T H	SAMPLE NO.		VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	AND DEPTH	0.0'	TOPSOIL				
0		0.0	FILL MATERIALS				
ı		0.3'	Fill materials (i.e., bricks, coals, and cinders)	0.0			
			NATIVE SOIL	,			
İ		1.0'	Light brown, SILT, some medium to fine grained Sand, moist, no odors	0.0			
1							
2		2.0'	As above	0.0			
			BEDROCK				
		3.3'	Dolomite bedrock encountered at ~3.3' BGS				
4							
1							
6							
1							
8		**************************************					
10					•		
10							
12							
-	WATER LEVEL I	DATA	BOTTOM OF GROUNDWATER NOTES:				
DATE	TIME	ELAPSED TIME	TEST PIT ENCOUNTERED				
			3.3' BGS Not encountered				

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 %some = 20 to 35% c = coarsem = medium

BGS = Below the Ground Surface

little = 10 to 20%trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

BORING:

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-107

SHEET 1 OF

JOB: 209126

CHKD BY: ED

TIME:

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS CONTRACTOR: TREC Environmental

EXCAVATOR: LABELLA REPRESENTATIVE: E. Dumrese

Kubota KX121-3 Super Series

TEST PIT LOCATION: TP-107

START DATE:

GROUND SURFACE ELEVATION: NA 1/23/09

END DATE: 1/23/09

DATUM:

1115 TO 1145

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

OVER	.DONDER OIL		Titol. Dilect diab		· · · · · · · · · · · · · · · · · · ·
D E P	SAM			PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0'	FILL MATERIALS Dark brown to black, medium to coarse grained SAND, little Silt, some fill materials (i.e., bricks, coals, cinders, and slag), moist, no odors	0.0	
		1.0'	As above	0.0	
2		2.0'	White to grey ash layer	0.0	Sample collected (2.0')
		2.5'	NATIVE SOIL Light brown, SILT, little medium to fine grained Sand, moist, no odor	0.0	
		3.0'	As above	0.0	
4		4.0'	As above, weathered bedrock pieces	0.0	
		5.0'	BEDROCK Dolomite bedrock encountered at ~5.0' BGS	0.0	
		3.0	politime bedick encountered at ~3.0 bgs	0.0	
6					
8					
10					
12					
,	WATER LEVEL I	DATA	BOTTOM OF GROUNDWATER NOTES:		Lumana
DATE	TIME	ELAPSED	TEST PIT ENCOUNTERED		
		TIME			
			5.0' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER c = coarse

3) Abbreviations

and = 35 to 50 %some = 20 to 35%

BGS = Below the Ground Surface

little = 10 to 20%trace = 1 to 10%

m = medium f = finevf = very fine

NA = Not Applicable

BORING:

300 STATE STREET, ROCHESTER, NY

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-108

SHEET 1 OF

JOB: 209126

CHKD BY: ED

ENVIRO	NMENTAL ENGINEERING	CONSULTANTS

EXCAVATOR:

TREC Environmental Kubota KX121-3 Super Series

TEST PIT LOCATION: TP-108

GROUND SURFACE ELEVATION: NA

TIME:

1145 TO 1215

1

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

END DATE: 1/23/09

DATUM:

NA

OVERRIGIDEN SAMPI ING METHOD: Direct Grob

OVER	OVERBURDEN SAMPLING METHOD: Direct Grab OTHER:					
D E P T	SAMI	PLE STRATA	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS	
H	AND DEPTH	CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS	
0		0.0'	FILL MATERIALS Black fill materials (cinders and coals, finely crushed)	0.0	Sample collected from 0.0'-1.0'	
		1.0'	NATIVE SOIL Light brown, SILT, little medium to fine grained Sand, moist, no odors	0.0		
2		2.0'	As above	0.0	Sample collected from 2.0'-3.0'	
		3.0'	As above	0.0	·	
4		4.0'	BEDROCK Dolomite bedrock encountered at ~4.0' BGS			
6						
8	·					
10						
10						
12						
DATE	VATER LEVEL D	ELAPSED	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED			
		TIME				
GEI	VERAL NOTES		4.0' BGS Not encountered		· · · · · · · · · · · · · · · · · · ·	

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %

c = coarse m = medium

BGS = Below the Ground Surface

some = 20 to 35% little = 10 to 20%trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

BORING:

LABELLA

Associates, P.C.

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York BORING: TP-109

SHEET 1 OF

JOB: 209126

CHKD BY: ED

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: TREC Environmental TEST

TREC Environmental
Kubota KX121-3 Super Series

TEST PIT LOCATION: TP-109

TIME:

1215 TO

1245

LABELLA REPRESENTATIVE: E. Dumrese

EXCAVATOR:

GROUND SURFACE ELEVATION: NA START DATE: 1/23/09

END DATE: 1/23/09

DATUM: NA

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

OVER	OVERBURDEN SAMPLING METHOD: Direct Grab OTHER:						
D E P T	SAMPLE NO.	PLE STRATA	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
Н	AND DEPTH	CHANGE					
0		0.0'	Grey to black, medium to coarse grained SAND, little Silt, moist, no odors	0.0			
		0.7'	FILL MATERIALS Black, finely crushed cinders and coals	0.0			
		1.0'	As above	0.0			
		1.7'	NATIVE SOIL Light brown, SILT, little medium to fine grained Sand, moist, no odors	0.0	: -		
2	<u> </u>	2.0'	As above	0.0			
			BEDROCK				
		3.2'	Dolomite bedrock encountered at ~3.2' BGS				
4							
*							
6							
ŀ							
8							
10							
12							
DATE	TIME	ELAPSED	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED				
DATE	TIME	TIME	3.2' BGS Not encountered				
	<u> </u>		3.2 2000 Not circonnected				

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations
- and = 35 to 50 %

trace = 1 to 10%

c = coarse m = medium

BGS = Below the Ground Surface

some = 20 to 35%little = 10 to 20%

f = fine vf = very fine NA = Not Applicable

BORING:

LABELLA

300 STATE STREET, ROCHESTER, NY

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-110

SHEET

1 OF

јов: 209126

CHKD BY: ED

ENVIRONMENTAL ENGINEERING CONSULTANTS CONTRACTOR: TREC Environmental EXCAVATOR:

TEST PIT LOCATION: TP-110 Kubota KX121-3 Super Series

GROUND SURFACE ELEVATION: NA

TIME: DATUM: 1245 TO

1315

LABELLA REPRESENTATIVE: E. Dumrese

1/23/09 START DATE:

END DATE: 1/23/09 NA

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

UVE	CONDEN SALV	IF EING MET	HOD: Direct Glab Grines:		
D E P T H	SAMPLE NO.	STRATA	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	AND DEFTH	0.0'	Grey to black, medium to coarse grained SAND, little Silt, trace fill materials (i.e., brick, coals, and slag), moist no odors	0.0	
			FILL MATERIALS		
ł		0.6'	Black, finely crushed cinders and coals	0.0	
		1.0'	As above	0.0	
		1.7'	NATIVE SOIL Light brown, medium to coarse grained SAND, little Silt, moist, no odor	0.0	
2	-	2.0'	As above	0.0	
		2.3'	Crushed weathered bedrock BEDROCK	0.0	
		2.9'	Dolomite bedrock encountered at ~2.9' BGS		
4					
1					
6					
`					•
8					
10					
12					
12					
DATE	WATER LEVEL	ELAPSED	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED		
DATE	TIVLE	TIME		-	
<u></u>	<u> </u>		2.9' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 %some = 20 to 35% c = coarse m = medium

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

f = finevf = very fine NA = Not Applicable

BORING:

LABELL

 $300\,STATE\,STREET,\,ROCHESTER,\,NY$ ENVIRONMENTAL ENGINEERING CONSULTANTS **TEST PIT LOG**

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street

BORING: TP-111

SHEET 1 OF

JOB: 209126

CHKD BY: ED

Rochester, New York

TIME:

1315 TO

1345

CONTRACTOR: EXCAVATOR: LABELLA REPRESENTATIVE: E. Dumrese

TREC Environmental

Kubota KX121-3 Super Series

TEST PIT LOCATION: TP-111 GROUND SURFACE ELEVATION: NA

1/23/09 START DATE:

END DATE: 1/23/09

DATUM:

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

<u> </u>				· · · · · · · · · · · · · · · · · · ·	
D E P	SAM	PLE		PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.8'	TOPSOIL Granite roadway encountered running north and south (Moved TP-111 ~10' west of original location - found west edge of roadway and excavated underneath roadway)	0.0	
		1.0'	As above	0.0	
		1.5'	Light brown, medium to fine grained SAND, moist, no odors FILL MATERIALS	0.0	
2		2.0'	Black slag NATIVE SOIL	0.0	
		2.8'	Light brown, SILT, little medium to fine grained Sand, moist, no odors	0.0	
		3.0'	As above	0.0	
4		4.0'	As above, large angular boulders	0.0	
		5.0'	As above	0.0	
6			BEDROCK		
		6.0'	Dolomite bedrock encountered at ~6.0' BGS		
8					
10					
12					
L v	VATER LEVEL I		BOTTOM OF GROUNDWATER NOTES:		
DATE	TIME	ELAPSED TIME	TEST PIT ENCOUNTERED		
			6.0' BGS Not encountered		
l CE	MEDAL MOTES				

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %some = 20 to 35%

m = medium

BGS = Below the Ground Surface

little = 10 to 20%trace = 1 to 10%

f = finevf = very fine NA = Not Applicable

BORING:

LABELL

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street

BORING: TP-112

SHEET 1 OF

јов: 209126

Rochester, New York

CHKD BY: ED

CONTRACTOR: EXCAVATOR:

TREC Environmental

ENVIRONMENTAL ENGINEERING CONSULTANTS Kubota KX121-3 Super Series

300 STATE STREET, ROCHESTER, NY

TEST PIT LOCATION: TP-112

GROUND SURFACE ELEVATION: NA

TIME:

1345 TO 1415

LABELLA REPRESENTATIVE: E. Dumrese

START DATE:

1/23/09

END DATE: 1/23/09

DATUM:

OVERBURDEN SAMPLING METHOD: Direct Grab

OTHER:

	COOLDEN GAM	I LE TO MET	HOD. Differ Glab		
D E P	SAM			PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0'	FILL MATERIALS Grey, medium to coarse grained SAND, little Silt, trace fill materials (i.e., bricks, cinders, and coals), moist, no odors	0.0	Sample collected
		1.0'	As above NATIVE SOIL	0.0	
		1.7'	Light brown, medium to fine grained SAND, little Silt, moist, no odors	0.0	
2		2.0'	As above	0.0	
		3.0'	As above	0.0	
4		4.0'	As above	0.0	
		4.9'	BEDROCK Dolomite bedrock encountered at ~4.9' BGS		
			·		
6					
8					
10					
12					
DATE	TIME	DATA . ELAPSED TIME	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED		
			4.9' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

3) Abbreviations

and = 35 to 50 %

c = coarse m = medium

BGS = Below the Ground Surface

some = 20 to 35% little = 10 to 20% trace = 1 to 10%

f = fine vf = very fine NA = Not Applicable

BORING:

LABELLAAssociates PC

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York BORING: TP-113

SHEET 1

1 OF

1515

JOB: 209126 CHKD BY: ED

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: EXCAVATOR:

TREC Environmental Kubota KX121-3 Super Series TEST PIT LOCATION: TP-113

GROUND SURFACE ELEVATION: NA

TIME: DATUM: 1415 TO NA

LABELLA REPRESENTATIVE: E. Dumrese

OVERBURDEN SAMPLING METHOD: Direct Grab

START DATE:

1/23/09

END DATE: 1/23/09

OTHER:

L				,	•
D E P	SAM	PLE		PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0'	FILL MATERIALS Grey to black, medium to coarse grained SAND, some fill materials (i.e., brick, coals, and cinders), moist, no odor	0.0	
		¢ 1.0'	Rail road ballast NATIVE SOU <u>.</u>	0.0	Sample collected 1.0'-1.7'
		1.7'	Light brown, SILT, little medium to fine grained Sand, moist, no odors	0.0	1.0 1.7
2		2.0'	As above	0.0	
		3.0'	BEDROCK Dolomite bedrock encountered at ~3.0' BGS		
4					
6					
8					
			,		
10					
12					
12					
l	WATER LEVEL I	ΣΑΤΑ	BOTTOM OF GROUNDWATER NOTES:	L	
		ELAPSED	1 1		
DATE	TIME	TIME	TEST PIT ENCOUNTERED		
	<u> </u>		3.0' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %

some = 20 to 35%

c = coarse m = medium f = fine

BGS = Below the Ground Surface

little = 10 to 20% trace = 1 to 10%

vf = very fine

NA = Not Applicable

BORING:

TEST PIT LOG

PROJECT

Phase II ESA: Test Pit Soil Sampling 196 Smith Street Rochester, New York

BORING: TP-114

SHEET 1 OF

JOB: 209126

CHKD BY: ED

300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: EXCAVATOR:

TREC Environmental

Kubota KX121-3 Super Series

TEST PIT LOCATION: TP-114

GROUND SURFACE ELEVATION: NA START DATE:

1/23/09

END DATE: 1/23/09

TIME: DATUM:

1515 TO

1545

OVERBURDEN SAMPLING METHOD: Direct Grab

LABELLA REPRESENTATIVE: E. Dumrese

OTHER:

0124	DUNDENSAM	I ELITO MET	HOD: Diject Glab OT HEK.		
D E P	SAM			PID FIELD SCREEN	
T H	SAMPLE NO. AND DEPTH	STRATA CHANGE	VISUAL CLASSIFICATION	(PPM)	REMARKS
0		0.0° 0.5°	TOPSOIL Sandstone block roadway running north and south no odor	0.0	
		1.0'	FILL MATERIALS Black fill materials (i.e., coals, cinders, and slag), moist, no odor NATIVE SOIL	0.0	Sample collected 1.0'-1.7'
		1.5'	Light brown, SILT, and medium to fine grained Sand, moist, no odor	0.0	1.0-1.7
2		2.0'	As above	0.0	
		3.0'	Weathered bedrock BEDROCK	0.0	
4		3.5'	Dolomite bedrock encountered at ~3.5' BGS		
6					
8					
10					
12					
		····			
DATE	WATER LEVEL I	DATA ELAPSED TIME	BOTTOM OF GROUNDWATER NOTES: TEST PIT ENCOUNTERED		
			3.5' BGS Not encountered		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations

and = 35 to 50 %

some = 20 to 35%

c = coarse m = medium f = fine

BGS = Below the Ground Surface

little = 10 to 20%trace = 1 to 10%

vf = very fine

NA = Not Applicable

BORING:



Appendix 2 Test Pit Photo Log



View of the TP-100 showing distinct black fill materials layer



View of the TP-101 with weathered bedrock pieces





View of the TP-102 showing top of bedrock



View of the TP-103 showing excavator scrapes on top of bedrock





View of the TP-104 showing light brown native soil and weathered bedrock



View of the TP-105





View of the TP-106 showing top of bedrock



View of the TP-107 showing paver stones from former roadway on-site and white to grey ash layer





View of the TP-108 showing depth to and thickness of fill materials layer



View of the TP-109 showing fill materials layer and native soil layer





View of the TP-110 featuring shallow depth to top of bedrock



View of the TP-111 featuring pavers of former roadway underlain by coarse sand, fill materials layer, and native soil

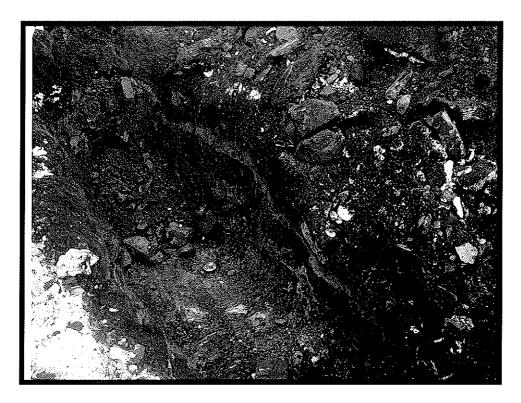




View of the TP-112 showing top of bedrock



View of the TP-113



View of the TP-114 showing black fill materials layer and top of bedrock



Appendix 3 Analytical Data Reports



Analytical Report Cover Page

LaBella Associates, PC

For Lab Project # 09-0373
Issued February 4, 2009
This report contains a total of 7 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

- "ND" = analyzed for but not detected.
- "E" = Result has been estimated, calibration limit exceeded.
- "D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client:

LaBella Associates, PC

Lab Project No.:

09-0373

Client Job Site:

Phoenix Graphics

Lab Sample No.:

1748

196 Smith Street, Rochester, NY

Sample Type:

Soil

Client Job No.:

209056

Field Location: TP-107 (2.0')

Date Sampled:

01/23/2009

Field ID No.:

Date Received:

01/28/2009

Laboratory Report for RCRA Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	02/04/2009	EPA 6010	2.15
Barium	02/04/2009	EPA 6010	38.7
Cadmium	02/04/2009	EPA 6010	2.04
Chromium	02/04/2009	EPA 6010	6.23
Lead	02/04/2009	EPA 6010	206
Mercury	01/30/2009	EPA 7471	0.0616
Selenium	02/04/2009	EPA 6010	1.02
Silver	02/04/2009	EPA 6010	<0.925

ELAP ID No.:10958

Comments:

Approved By:



Client:

LaBella Associates, PC

Lab Project No.:

09-0373

Lab Sample No.:

1750

Client Job Site: Phoenix Graphics

196 Smith Street, Rochester, NY

Sample Type:

Soil

Client Job No.:

209056

Field Location:

TP-111 (2.0'-2.5')

Date Sampled:

01/23/2009

Field ID No.:

Date Received:

01/28/2009

Laboratory Report for RCRA Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	02/04/2009	EPA 6010	7.74
Barium	02/04/2009	EPA 6010	38.1
Cadmium	02/04/2009	EPA 6010	<0.582
· Chromium	02/04/2009	EPA 6010	6.51
Lead	02/04/2009	EPA 6010	12.8
Mercury	01/30/2009	EPA 7471	<0.0054
Selenium	02/04/2009	EPA 6010	1.21
Silver	02/04/2009	EPA 6010	<1.16

ELAP ID No.:10958

Comments:

Approved By:



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates, PC

Client Job Site:

Phoenix Graphics

196 Smith Road, Rochester, NY

Lab Project Number: 09-0373 Lab Sample Number: 1748

Client Job Number:

Field Location:

209056

Date Sampled:

01/23/2009

Field ID Number:

TP-107 (2.0') N/A

Date Received:

01/28/2009

Date Analyzed:

Sample Type:

Soil

01/30/2009

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 329
Acenaphthylene	ND< 329
Anthracene	ND< 329
Benzo (a) anthracene	ND< 329
Benzo (a) pyrene	ND< 329
Benzo (b) fluoranthene	ND< 329
Benzo (g,h,i) perylene	ND< 329
Benzo (k) fluoranthene	ND< 329
Chrysene	348
Dibenz (a,h) anthracene	ND< 329
Fluoranthene	624
Fluorene	ND< 329
Indeno (1,2,3-cd) pyrene	ND< 329
Naphthalene	ND< 329
Phenanthrene	340
Pyrene	461

ELAP Number 10958

Method: EPA 8270C

Data File: S43914.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates, PC

Client Job Site: Phoenix Graphics

196 Smith Road, Rochester, NY

Lab Sample Number: 1750

Lab Project Number: 09-0373

Client Job Number:

209056

01/23/2009

Field Location: Field ID Number: TP-111 (2.0'-2.5')

Date Sampled: Date Received:

01/28/2009

N/A

Sample Type:

Soil

Date Analyzed:

01/30/2009

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 386
Acenaphthylene	ND< 386
Anthracene	ND< 386
Benzo (a) anthracene	ND< 386
Benzo (a) pyrene	ND< 386
Benzo (b) fluoranthene	ND< 386
Benzo (g,h,i) perylene	ND< 386
Benzo (k) fluoranthene	ND< 386
Chrysene	ND< 386
Dibenz (a,h) anthracene	ND< 386
Fluoranthene	ND< 386
Fluorene	ND< 386
Indeno (1,2,3-cd) pyrene	ND< 386
Naphthalene	ND< 386
Phenanthrene	ND< 386
Pyrene	ND< 386

ELAP Number 10958

Method: EPA 8270C

Data File: S43915.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates, PC

Phoenix Graphics Client Job Site:

196 Smith Street, Rochester, NY

Lab Sample Number: 1750

Lab Project Number: 09-0373

Client Job Number:

Field Location:

209056

Date Sampled:

01/23/2009

Field ID Number:

TP-111 (2.0'-2.5') N/A

Date Received:

01/28/2009

Sample Type:

Soil

Date Analyzed:

02/02/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.352
Aroclor 1221	ND< 0.352
Aroclor 1232	ND< 0.352
Aroclor 1242	ND< 0.352
Aroclor 1248	ND< 0.352
Aroclor 1254	ND< 0.352
Aroclor 1260	ND< 0.352
Aroclor 1260	ND< 0.352

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:

PARADIGM

CHAIN OF CUSTODY

	Hold Comments:	Pres	Comments:	Recei	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	13	13	12	_ <u>.</u>	10	9	8	7	6	5	4	3 23-Jan-09	2 23-Jan-09	1 23-Jan-09	DATE	198 Smith Street, Rochader, NY	PROJECT NAME/SITE NAME:	(585) 647-2530 * (800) 724-1997	Rochester, NY 14608	179 Lake Avenue	SERVICES, INC.	
Temperature:	Holding Time:	Preservation:	Container Type:	Receipt Parameter	Per NELA						_						1300	1200	1100	TIME	ochester, NY		0) 724-199	œ		INC.	ENTA
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Elitera	Received By	Relinquished By	Evan P. Dumrese														Soil 1	Soil 1	Soil 1	X-2->-2 \u03a \u03a \u0	o Dnoil@labellapc.com	ATTN	(585) 454-3066 PHONE:	ZIP: 14614	201 ADDRESS:	COMPANY	
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Analytical Report Cover Page

LaBella Associates, PC

For Lab Project # 09-0373R
Issued February 6, 2009
This report contains a total of 6 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client:

LaBella Associates, PC

Lab Project No.: Lab Sample No.: 09-0373R 1749R

Client Job Site:

Phoenix Graphics

196 Smith Street Rochester NY

Sample Type:

Soil

Client Job No.:

209056

Field Location:

TP-108 (0.0'-1.0')

Date Sampled:

01/23/2009

Field ID No.:

N/A

Date Received:

01/30/2009

Laboratory Report for RCRA Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	02/04/2009	EPA 6010	15.0
Barium	02/04/2009	EPA 6010	54.5
Cadmium	02/04/2009	EPA 6010	0.855
Chromium	02/04/2009	EPA 6010	16.9
Lead	02/04/2009	EPA 6010	147
Mercury	02/06/2009	EPA 7471	0.237
Selenium	02/06/2009	EPA 6010	3.41 B
Silver	02/04/2009	EPA 6010	<0.743

ELAP ID No.:10958

Comments:

Approved By:



Client:

LaBella Associates, PC

Lab Project No.:

09-0373R

Lab Sample No.:

Method Blank

Client Job Site:

Phoenix Graphics

196 Smith Street Rochester NY

Sample Type:

Soil

Client Job No.: 209056

Field Location: N/A

Date Sampled:

N/A

Field ID No.:

N/A

Date Received:

N/A

Laboratory Report for RCRA Metals Analysis

Parameter	Date Analyzed	. Analytical Method	Result (mg/kg)
Arsenic	02/04/2009	EPA 6010	<0.484
Barium	02/04/2009	EPA 6010	<1.93
Cadmium	02/04/2009	EPA 6010	<0.484
Chromium	02/04/2009	EPA 6010	<0.967
Lead	02/04/2009	EPA 6010	<0.484
Mercury	02/06/2009	EPA 7471	<0.0070
Selenium	02/06/2009	EPA 6010	0.499
Silver	02/04/2009	EPA 6010	<0.967

ELAP ID No.:10958

Comments:

Approved By: _



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates, PC

Client Job Site:

Phoenix Graphics

Lab Project Number: 09-0373R

Client Job Number:

209056

Lab Sample Number: 1749R

Field Location:

TP-108 (0.0'-1.0')

Date Sampled:

01/23/2009

Field ID Number:

N/A

Date Received:

01/30/2009

Sample Type: Soil

196 Smith Street, Rochester, NY

Date Analyzed:

02/02/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.337
Aroclor 1221	ND< 0.337
Aroclor 1232	ND< 0.337
Aroclor 1242	ND< 0.337
Aroclor 1248	ND< 0.337
Aroclor 1254	ND< 0.337
Aroclor 1260	ND< 0.337
ELAP Number 10958	Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates, PC

Client Job Site: Phoenix Graphics

196 Smith Street, Rochester, NY

Lab Sample Number: 1749R

Lab Project Number: 09-0373R

Client Job Number:

209056

Field Location:

TP-108 (0.0'-1.0')

Date Sampled:

01/23/2009

Field ID Number:

N/A

Date Received:

01/30/2009

Sample Type:

Soil

Date Analyzed:

02/03/2009

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 326
Acenaphthylene	1,740
Anthracene	1,670
Benzo (a) anthracene	4,880
Benzo (a) pyrene	4,060
Benzo (b) fluoranthene	4,840
Benzo (g,h,i) perylene	2,450
Benzo (k) fluoranthene	4,050
Chrysene	4,760
Dibenz (a,h) anthracene	1,260
Fluoranthene	5,750
Fluorene	ND< 326
Indeno (1,2,3-cd) pyrene	2,630
Naphthalene	406
Phenanthrene	1.130
Pyrene	4,890

ELAP Number 10958

Method: EPA 8270C

Data File: S43934.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

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CHAIN	HERØRITTON	LaBella Associates, PC	300 State Street, Suite 201	GITY: Rochester STATE: N.Y. ZIP: 14614 CITY:	(585) 295-6611 FAX: (585) 454-3066	ATTN: Mr. Dan Noll	COMMENTS: Please e-mail results to Dnoll@labellapc.com		A SAMPLE LOCATION/FIELD ID A B B X X X X X X X X X X X X X X X X X	X TP-107 (2.0') Soil	X TP-108 (0.0'-1.0') Soil 1	X TP-111 (2.0'-2.5') Soil 1												(IUH)S/II/UE-1 787 AP 210/241/242/243/244
PARADIGM	ENVIRONMENTAL	SERVICES, INC.	179 Lake Avenue	Rochester, NY 14608	(585) 647-2530 * (800) 724-1997	PROJECT NAME/SITE NAME:	Phoenix 196 Smith Stree		DATE TIME O O O O O O O O O O O O O O O O O O O	1 23-Jan-09 1100	2 23-Jan-09 1200	3 23-Jan-09 1300	4	5	9	7	8	6	10	11	12	13	13	Sample Condition: Per NELAC/ELAP 210/241/242/243/244

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Total Cost:

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P.I.F.



Appendix 4 Foundation Design Memo



MEMO

	_ ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `		
Date:	January	70	2000
Date:	January.	20.	/\KIY

To: Daniel Noll, P.E. – LaBella Associates

From: Jeffrey D Netzband, PE/Shawn Allen, EIT

Job Name: Phoenix Graphics, 195 Smith Street, Rochester

Job No.: 3323.0 **Page:** 1 of 2



JAN 28 2000

ે પૂછે ઇક્પોલ્ટક્રિંગ દેવા ક્લાકોઇઇક્સ સાગ્રેલ

This memo is intended to provide an update on our geotechnical findings and conclusions. We completed the test pit exploration work last week. Attached are DRAFT test pit logs. Per your request, we have delayed the start of our laboratory testing work until we hear back from you.

We encountered a subsurface profile consisting of asphalt or topsoil over debris-laden earth fills, buried cinders and/or topsoil, glacial till, then bedrock. An old paving stone roadway was encountered within a foot of the surface at multiple locations. The stone roadway appears to run the length of the parcel. Fills were generally reworked native soil with trace amounts of building debris and cinders. Black slag or cinders were located at multiple locations. The fill depths ranged from 1.3 to 3.5 feet below the ground surface.

The underlying native soils consist of firm to compact silts, sands, and gravels. Numerous cobbles and small boulders (less than 24 inches) were located within the native soil. We believe that the test pits terminated on bedrock at all test pit locations. The bedrock depths ranged from 2.7 to 6.0 feet below the ground surface. Generally, the bedrock had an irregular surface. Some pieces of cap rock were removed from the surface with the mini excavator. Groundwater was not encountered during exploration.

Based on this background, we have drawn the following preliminary conclusions:

- It is our preliminary assessment that the in-place fill material is not suitable to support floors or foundations. We recommend removing this material from the proposed building areas; budget to replace the fill to the sub-floor elevation with an imported crusher run stone (NYSDOT Item 304.03). Some of the on-site fill material may be 'salvageable' for reuse as fill in parking areas or in the surrounding 'green' areas.
- For preliminary planning, assume that the building foundations will bear on the bedrock. We expect higher than 'normal' bearing pressures for foundations bearing on the bedrock. Exterior foundations bearing on 'sound'/approved bedrock will not need to extend four feet below the ground surface. This will result in foundation elevations and foundation wall heights being adjusted in the field.



- We identify the site as having a seismic site classification of A (Hard Rock profile). The site specific seismic mapping indicates this site may experience short dynamic period spectral accelerations (S_S) of 0.21g and 1-second period spectral response accelerations (S₁) of 0.06g at the bedrock surface (site class B). The Code provides methods for adjusting the S_S and S₁ values.
- The fills described above extend under likely parking lot and loading dock pavements.
 Complete removal and replacement of the fill material are not economical in these areas. A thicker than 'normal' pavement section will be recommended in lieu of removing and replacing the fill material to prolong the pavement life.
- The rock encountered is expected to be the lower Lockport Dolomite/upper Rochester shale. These formations contain thin layers of dolomite; where encountered in underground utility trenches, this hard rock will require mechanical fracturing to remove.

Below we outline some potential premium costs associated with the development of this parcel.

Structural/Design Costs

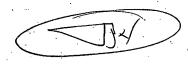
- Removal of fill required for slab-on-grade/spread footing construction
- Off-site disposal of excavated materials
- Importing of new structural fill to develop building pad
- Rock excavation for utilities
- Thicker than 'normal' pavement sections due to in-place fill conditions

Geotechnical Construction Oversight Costs

- Periodic site presence during fill removal operations
- Periodic site presence during new structural fill placement
- Periodic site visits during the pavement/sidewalk subgrade preparation work

This concludes our preliminary thoughts. We will proceed with a laboratory testing program and drafting of the design report when we are authorized. We require the following information in order to complete our report.

- Site plan showing proposed building footprint
- Estimated column and wall loads for foundations
- Tolerances to settlement/floor movement recorded for printing equipment
- Number of cars, delivery trucks, and tractor-trailers expected daily/weekly for pavement design



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