Appendix C
Remedial Investigation Soil Boring Logs

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-16/MW-1
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 4" Asphalt		
			4" to 12" Crushed Stone		1.5
1			*6" to 12" - Soil sample collected for lab analysis*		1.1
2	1	44"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.1
			Moist and compact		
3					1.1
4					1.1
5					1.1
6	2	42"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.1
			Damp and compact		
7					1.1
8					1.1
9					1.0
10	3	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.0
			Damp and compact		
11					1.0
12					1.0
13					1.0
14	4	48"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.2
			Damp to slightly moist; compact		
15					1.1
16					1.0
17					1.1
18	5	47"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.0
			Slightly moist; less compact		
19					1.1
20					1.0
21					1.0
22	6	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.9
			Slightly moist; less compact to pliable		
23			Drill rods are dry		0.9
			23' to 24' - Soil sample collectd for lab analysis		
24			**END OF BORING**		1.0

Depth to Water: Not encountered	Comments: **Converted to MW-1**	Boring No. **SB-16**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-17/MW-2

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt		
			6" to 12" Crushed Stone		0.8
1			***6" to 12" - Soil sample collected for lab analysis***		0.7
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.7
			Damp and compact		
3					0.7
4					0.7
5					0.7
6	2	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.7
			Dry to damp; very compact		
7					0.7
8					0.7
9					0.5
10	3	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.5
			Damp and compact		
11					0.5
12					0.5
13					0.5
14	4	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.4
			Damp and compact		
15					0.4
16					0.5
17					0.4
18	5	47"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.4
			Slightly moist; less compact at 19' to 20'		
19					0.4
20					0.4
21					0.4
22	6	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.4
			Moist; pliable to soft		
23			***23' to 24' - Soil sample collectd for lab analysis***		0.4
			23.5 to 24' Red brown **SILT**, some Clay, minor fine Sand, little Gravel		
24			**END OF BORING**		0.4

Depth to Water: Not encountered	**Comments: Converted to MW-2**	**Boring No. SB-17**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-18
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Sunny	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt		
			6" to 12" Crushed Stone		0
1			12" to 16" Black stained Sand		0
			12" to 18" - Soil sample collected for lab analysis		
2	1	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					0
6	2	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Dry to damp; very compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered_____	**Comments**: Groundwater not encountered in completed geoprobe boring.	Boring No. SB-18

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-19/MW-3

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt		
			6" to 12" Crushed Stone		0.4
1			***6" to 18" - Soil sample collected for lab analysis***		0.3
2	1	42"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.3
			Damp and compact		
3					0.3
4					0.3
5					0.2
6	2	43.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.2
			Damp; very compact		
7					0.2
8					0.2
9					0.2
10	3	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.2
			Damp; very compact		
11					0.2
12					0.2
13					0.1
14	4	46"	Red Brown **CLAY**, some Silt, very little fine Sand, very little Gravel		0.2
			Damp to moist; less compact		
15					0
16					0.1
17					0.1
18	5	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.1
			Slightly moist; less compact at 19' to 20'		
19					0.1
20					0.1
21					0
22	6	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.1
			Moist; pliable to soft		
23					0
			23' to 24' - Soil sample collected for lab analysis		
24			**END OF BORING**		0.1

Depth to Water: Not encountered	**Comments: Converted to MW-3**	**Boring No. SB-19**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-20

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~48°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt & crushed stone		
					0.2
1			6" to 18" Dark Brown stained **CLAY**		2.3
			6" to 18" - Soil sample collected for lab analysis		
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.1
			Damp and compact		
3					0.1
4					1.4
5					0.2
6	2	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.8
			Dry to damp; compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-20**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-21

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~48°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 8" Asphalt & crushed stone		
					0
1			8" to 20" Dark Brown stained **CLAY**		0
			12" to 20" - Soil sample collected for lab analysis		
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					0
6	2	44"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-21**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-22

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~48°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 10" Asphalt & crushed stone		
					0
1			10" to 19" Dark Brown stained **CLAY**		0
			6" to 18" - Soil sample collected for lab analysis		
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					0
6	2	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered_____	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-22**

EGMS	SUBSURFACE BORING LOG	Start Date:	Boring No. SB-23
		End Date:	

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 8" Dark grey coarse SAND		0.3
			8" to 10" Medium grey Coarse SAND		1.3
1			10" to 17" Light grey andgular GRAVEL (crushed stone)		0
			17" to 24" Dark grey stained CLAY ***Soil sample collected for lab analysis***		
2	1	40"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					1.7
6	2	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.7
			Damp and compact		
7			***6' to 7' - Soil sample collected for lab analysis***		1.6
8			**END OF BORING**		0.4

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No. SB-23**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 15-Oct	Boring No. SB-24/MW-4

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Dark grey angular GRAVEL (crushed stone)t		5.4
			6" to 12" Medium grey angular GRAVEL (crushed stone)		
1			12" to 14" Black coarse SAND (stained) ***Sample collected for analysis***		92.6
			14" to 24" Black CLAY (stained) some Silt, little fine Sand, very little		13.1
2	1	41"	Gravel; Damp and compact		
			24" to 48" Red brown **CLAY,** some Silt, little fine Sand, very little Gravel		
3			Damp and compact		0.3
4					0.3
5					9.3
6	2	43"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		49.6
			Damp; very compact		
7					64.2
8					39.4
9					48.3
10	3	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		66.1
			Damp; very compact		
11					132.1
12					Not recorded
13					25.8
14	4	43"	Red Brown **CLAY**, some Silt, very little fine Sand, very little Gravel		66
			Damp to moist; less compact		
15			***14' to 15' - Soil sample collected for lab analysis***		203
16					44.2
17					36.5
18	5	44"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		22.8
			Slightly moist; less compact at 17.5' to 20'		
19					8.3
20					43.5
21					50.8
22	6	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		22.7
			Moist; pliable to soft		
23					8.3
			23' to 24' - Soil sample collected for lab analysis		
24			**END OF BORING**		4.4

Depth to Water: Not encountered	**Comments: Converted to MW-4**	**Boring No. SB-24**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/16 16-Oct	Boring No. SB-25
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Sunny	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 3" Dark greyTopsoil		7.4
			3" to 16" Medium grey angular GRAVEL (crushed stone)		1.3
1			16" to 18" Dark black GRAVEL (crushed stone) ***Soil sample***		30.0
			18" to 22" Dark grey stained CLAY ***collected for analysis (16" to 20")***		885
2	1	39.5"	22" to 48' Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		
			Damp and compact		
3					69.2
4					0
5					188.8
6	2	40.0"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		122.4
			Damp and compact		
7			***6' to 7' - Soil sample collected for lab analysis***		393.4
8			**END OF BORING**		365.2

Depth to Water: Not encountered	Comments: Groundwater not encountered in completed geoprobe boring.	Boring No. SB-25

EGMS	SUBSURFACE BORING LOG	Start Date: 10/16 End Date: 10/16	Boring No. SB-26

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 3" Dark grey Topsoil		0.5
			3" to 16.5" Medium grey angular GRAVEL (crushed stone)		1.0
1					
			17" to 22" - Soil sample collected for lab analysis		
2	1	41.0"	16.5" to 48" Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		2
			Damp and compact		
3					1.9
4					0.7
5					188.8
6	2	46.0"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		122.4
			Damp and compact		
7					393.4
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		365.2

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No. SB-26**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-27/MW-5

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Dark grey Topsoil		0
			6" to 12" Medium grey angular GRAVEL (crushed stone)		0
1			***17" to 22" - Soil sample collected for lab analysis***		
			14" to 19" Dark grey CLAY (stained) some Silt, little fine Sand, very little		0
2	1	40"	Gravel; Damp and compact		
			19" to 48" Red brown **CLAY,** some Silt, little fine Sand, very little Gravel		0
3			Damp and compact		
4					0
5					0
6	2	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp; very compact		
7					0
8					0
9					0
10	3	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp; very compact		
11					0.5
12					0.2
13					0
14	4	39.5"	Red Brown **CLAY**, some Silt, very little fine Sand, very little Gravel		2.7
			Damp to moist; less compact		
15			***14' to 15' - Soil sample collected for lab analysis***		9.6
16					3.8
17					0
18	5	43"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Moist to wet; less compact at 17.5' to 20'		
19					0
20					0
21					0
22	6	40.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Mois to wet; pliable to soft		
23					0
			23' to 24' - Soil sample collected for lab analysis		
24			**END OF BORING**		0

Depth to Water: Not encountered	**Comments: Converted to MW-5**	**Boring No. SB-27**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/16 End Date:	Boring No. SB-28
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 2.5" Dark grey Topsoil		0.1
			2.5" to 17" Medium grey angular GRAVEL (crushed stone)		1.0
1					
			10" to 22" - Soil sample collected for lab analysis		
2	1	42.0"	17" to 48" Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		2.7
			Damp and compact		
3					0
4					0
5					0
6	2	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered	Comments: Groundwater not encountered in completed geoprobe boring.	Boring No. SB-28

EGMS	SUBSURFACE BORING LOG	Start Date:	Boring No. SB-29
		End Date:	

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 10" Medium grey angular GRAVEL (crushed stone)		1.1
			10" to 16" Light grey angular GRAVEL (crushed stone)		1.0
1			***17" to 22" - Soil sample collected for lab analysis***		
			16' to 26" Dark brown CLAY (stained) some Silt, little fine Sand, very		0.8
2	1	45.5"	Gravel; damp and compact		
			26" to 48" Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		
3			Damp and compact		3.0
4					5.7
5					2.2
6	2	44'	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		32.9
			Damp and compact		
7					21.5
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		51.1

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No. SB-29**