

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM170


ACTUAL COORDINATES(N) 1,045,129.550 (E) 1,083,117.340

DATE START13-SEP-2020

CASING O. D. 6 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE STA

FH-B-170

OFFSETft

SURF. ELEV.606.29

DEPTH TO WATER20.9

CASING BLOWS/ft

DEPTH ft BELOW SURFACE

SAMPLE NO.

BLOWS ON SAMPLER in

061218

6121824

MOIST. CONT. (%)

DESCRIPTION OF SOIL AND ROCK

0.0

J1

0%

(0.00) Gray Sandy GRAVEL (D-NW)

5.0

J2

17

13

60

14%

(5.00) Black SILT W/ Gravel, Root Fibr, Creosote & Asphalt (FILL) (M-NPL)

10.0

J3

20

17

50

14%

(10.00) Black CINDERS (Possible Fill) (M-NPL)

15.0

J4

5

6

25

15%

(15.00) Brown Clayey SILT With Pockets Of Pulverized Asphalt (P.F.) (M-LPL)

20.0

J5

1

3

1

17%

(20.00) Brown Clayey SILT W/ Gravel Pcs & Pockets Of Pulverized Asphalt (Fil (M-PL)

25.0

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORLarry Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED22-DEC-2020

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3

HOLE FH-B-170

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM170

DATE START13-SEP-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb


WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG



HOLE LINE

STA

OFFSETft

SURF. ELEV.606.29

DEPTH TO WATER20.9

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	20	20	50		34%	(25.00) Brown Silty CLAY With Large Wood Pieces (P.F.) (M-PL)
	30.0	J7	20	25	30		40%	(30.00) Gray Silty CLAY With Large Wood Pieces (Possible Fill) (M-PL)
	35.0	J8	1	1	1		40%	(35.00) Brown Clayey SILT (Strong Chemical Odor) (Possible Fill) (M-LPL)
	40.0	J9	1	1	1		26%	(40.00) Brown And Gray Layered Silty CLAY/ Clayey SILT W/ Gravel (STRONG Chem. Odor) (FILL) (M-PL)
	45.0	R1						(45.00) Run #1 Drilled from 45'0" To 50'0" ROCK REC. 56.4" 94% 7 pieces, no Rqd info
	50.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORLarry Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED22-DEC-2020

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 3

HOLE FH-B-170

SM 282 E 12/02

PSN

12794

BORNUM

170

REGION

5

COUNTY

ERIE

PIN

5134.48

PROJECT

BUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,045,129.550 (E) 1,083,117.340

DATUM

NAD83

DATE START

13-SEP-2020

DATE FINISH

13-SEP-2020

CASING

O. D.

6 5/8

in

I. D.

3 1/4

in

WT OF HAMMER-CASING

140

lb

HAMMER FALL-CASING

30

in

SAMPLER

O. D.

2

in

I. D.

1 3/8

in

WT OF HAMMER-SAMPLER

140

lb

HAMMER FALL-SAMPLER

30

in

CASING BLOWS/ft

DEPTH ft BELOW SURFACE

SAMPLE NO.

BLOWS ON SAMPLER in

061218

6121824

MOIST. CONT. (%)

DESCRIPTION OF SOIL AND ROCK

50.0

R2

(50.00) Run #2 Drilled from 50'0" To 55'0" ROCK
REC. 45.6" 76% 7 pieces and fragments, no Rqd info

55.0

BOTTOM OF HOLE AT 55.00 ft

1. Automatic hammer used.

2. First sample taken from augers.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
13-Jul-20	10:00	55.00	45.00	20.90		

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

SOIL & ROCK DESCRIPTION

REG GEOTECHNICAL

ENGINEER

DATE APPROVED

RESIDENT ENGINEER

STRUCTURE NAME

Larry Muhammad

A. Zerebovich / D. Landau

Todd E. Nelson

22-DEC-2020

B.I.N.

SHEET 3 OF 3

HOLE FH-B-170

SM 282 E 12/02

PSN12794

BORNUM172

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,045,108.310 (E) 1,082,929.730

DATUMNAD83

DATE START18-AUG-2020

DATE FINISH

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

LINE

STA

OFFSET

SURF. ELEV.

DEPTH TO WATER

FH-B-172

ft

607.9

SEE NOTE

CASINGO. D.6 5/8 inI. D.3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D.2 inI. D.1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					0%	(0.00) Gray Crushed CONCRETE With Asphalt Pieces (Possible Fill) (D-NW)
	5.0	J2	11	11	11		8%	(5.00) Brown Gravelly SAND, Silty With Asphalt Pieces (Possible Fill) (M-NPL)
	10.0	J3	10	10	10		8%	(10.00) Brown Silty GRAVEL, Sandy (M-NPL)
	15.0	J4	10	8	9		11%	(15.00) Brown Sandy SILT With Gravel Pieces (M-NPL)
	20.0	J5	2	2	2		25%	
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED14-DEC-2020

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3

HOLE FH-B-172

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM172

DATE START18-AUG-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-172

LINE

STA

OFFSET ft

SURF. ELEV.607.9

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	9	6	7		26%	(25.00) Brown Silty CLAY With Gravel Pieces, Creosote And Root Fiber (P.F.) (M-PL)
	30.0	J7	7	7	7		27%	(30.00) Brown Layered Silty CLAY / Clayey SILT (M-PL)
	35.0	J8	WOH	1	2		34%	
	40.0	J9	3	6	3		35%	
	45.0	R1						(43.40) Run #1 Drilled from 43'5" To 48'5" ROCK REC. 60" 100% no piece count
	50.0	R2						(48.40) Run #2 Drilled from 48'5" To 53'5" ROCK REC. 60" 100% 18 pieces

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED14-DEC-2020

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 3

HOLE FH-B-172

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM176

DATE START13-JUL-2020

CASING O. D.8 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE LINE STA

OFFSETft

SURF. ELEV.609.21

DEPTH TO WATER25

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	25.0	J6	WOH	2	3		29%	(25.00) Brown Silty CLAY With Cinders, Slag And Creosote (Possible Fill) (M-PL)
	30.0	J7	9	9	9		98%	(30.00) Black WOOD (POSSIBLE Fill) (M-NPL)
	35.0	J8	1	2	2		28%	(35.00) Brown Layered Silty CLAY / Clayey SILT With Wood Pieces (M-PL)
	40.0	R1						(37.80) At 37.8' POSSIBLE ROCK, Refusal W/ Augers Use Rollerbit To Wash Out To 38' (38.00) Run #1 Drilled from 38'0" To 43'0" ROCK REC. 60" 100% 9 pieces and fragments NWD4 DOUBLE TUBE SWIVEL
	45.0	R2						(43.00) Run #2 Drilled from 43'0" To 47'0" ROCK REC. 48" 100% 5 pieces and fragments NWD4 DOUBLE TUBE SWIVEL
BOTTOM OF HOLE AT 47.00 ft								
1. Automatic hammer used. 2. Wash water added 37'8". 3. Run #1 ran out of water only got 4' of 5' run. End of day.								

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CONTRACT CONTRACTOR

DRILL RIG OPERATORE. Dorn

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED22-DEC-2020

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 2

HOLE FH-B-176

SM 282 E 12/02

PSN12794

BORNUM178

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,044,981.690 (E) 1,082,403.750

DATUMNAD83

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLEFH-B-178

LINE

STA

OFFSETft

SURF. ELEV.612.33

DEPTH TO WATERSEE NOTE

CASINGO. D.6 5/8 inI. D.3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D.2 inI. D.1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1					5%	(0.00) Gray Crushed CONCRETE (Possible Fill) (M-NPL)
	5.0	J2	15	15	15		13%	(5.00) Brown And Black Clayey Cinders CINDERS With Gravel Pieces, Asphalt Lumps And Slag (P.F.) (M-LPL)
	10.0	J3	10	17	25		16%	(10.00) Brown Sandy CINDERS, Silty With Gravel Pieces And Wood Pieces (P.F.) (M-NPL)
	15.0	J4	13	15	20		12%	(15.00) Brown And Gray Gravelly SILT, Clayey With Cinders And Wood (P.F.) (M-LPL)
	20.0	J5	10	5	10		15%	(20.00) Brown Gravelly SILT, Sandy With Cinders (Possible Fill) (M-LPL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3

HOLE FH-B-178

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM178

DATE START26-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLEFH-B-178

LINE

STA

OFFSETft

SURF. ELEV.612.33

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	10	8	7		20%	(25.00) Brown And Gray Clayey SILT With Cinders (Possible Fill) (M-NPL)
	30.0	J7	10	15	15		20%	(30.00) Brown Layered Silty CLAY/ Clayey SILT (M-PL)
	35.0	J8	5	15	10		27%	(35.00) Brown Silty CLAY (M-PL)
	40.0	J9	2	17	19		31%	
	45.0	R1						(42.00) Run #1 Drilled from 42'0" To 47'0" ROCK REC. 60" 100% 5 pieces and fragements
	50.0	R2						(47.00) Run #2 Drilled from 47'0" To 52'0" ROCK REC. 60" 100% 10 pieces and fragments

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 3

HOLE FH-B-178

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM183

DATE START17-JUL-2020

CASING O. D. 8 5/8 in

SAMPLER O. D. 2 in

I. D. 3 1/4 in

I. D. 1 3/8 in

WT OF HAMMER-CASING 140 lb


WT OF HAMMER-SAMPLER 140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG



HOLE LINE

STA

OFFSETft

SURF. ELEV.606.09

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0							(0.00) 1' BLACKTOP
		J1	14	20	9		12%	(1.00) Brown And Black Sandy SILT W/ Gravel Pcs, Concrete Pcs & Coal (Possible Fill) (M-NPL)
	5.0	J2	17	25	19		12%	(5.00) Brown And Black Sandy CINDERS With Slag (Possible Fill) (M-NPL)
	10.0	J3	5	5	6		17%	(10.00) Gray Silty CLAY With Gravel Pieces, Cinders, Slag (Possible Fill) (M-PL)
	15.0	J4	3	3	3		15%	(15.00) Brown Sandy SILT With Gravel Pieces And Cinders (Possible Fill) (M-NPL)
	20.0	J5	5	6	8		15%	(20.00) Brown Sandy SILT (M-NPL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORE. Backer

SOIL & ROCK DESCRIPTIONA .Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-183

SM 282 E 12/02

PSN

12794

BORNUM

183

REGION

5

COUNTY

ERIE

PIN

5134.48

PROJECT

BUFFALO SKYWAY

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

FH-B-183

LINE

STA

OFFSET

ft

SURF. ELEV.

606.09

DEPTH TO WATER

SEE NOTE

ACTUAL COORDINATES

(N) 1,045,131.850

(E) 1,081,787.580

DATUM

NAD83

DATE START

17-JUL-2020

DATE FINISH

17-JUL-2020

CASING

O. D.

8 5/8

in

I. D.

3 1/4

in

WT OF HAMMER-CASING

140

lb

HAMMER FALL-CASING

30

in

SAMPLER

O. D.

2

in

I. D.

1 3/8

in

WT OF HAMMER-SAMPLER

140

lb

HAMMER FALL-SAMPLER

30

in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	25.0	J6	WOR				25%	(25.00) Brown Layered Silty CLAY/ Clayey Silt (M-PL)
			WOR		3			
	30.0	J7						
		R1	50				16%	(30.00) Brown Layered Silty CLAY/ Clayey Silt With Angular Gravel (M-PL) (30.50) Pieces Run #1 Drilled from 30'6" To 35'6" ROCK REC. 58.8" 98% 7 pieces NWD4 DOUBLE TUBE SWIVEL
	35.0							
		R2						(35.50) Run #2 Drilled from 35'6" To 40'6" ROCK REC. 60" 100% 8 pieces and fragments NWD4 DOUBLE TUBE SWIVEL
	40.0							

BOTTOM OF HOLE AT 40.50 ft

1. Automatic hammer used.

2. At 30.5' refusal, auger to 30.5 and wash out with rollerbit to 30.5

3. Run 1 no RQD info.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
17-Jul-20	09:00	30.50	30.00	26.90		

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

E. Backer

SOIL & ROCK DESCRIPTION

A .Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEER

Todd E. Nelson

DATE APPROVED

01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME

B.I.N.

SHEET 2 OF 2

HOLE FH-B-183

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM185

DATE START25-JUN-2020

CASING O. D.7 5/8 in

SAMPLER O. D.2 in

I. D.4 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-185

LINE

STA

OFFSET ft

SURF. ELEV.603.62

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1					16%	(0.00) Gray Crushed CONCRETE With Pieces Of Asphalt (Possible Fill) (M-NPL)
	5.0	J2	5	5	5		10%	(5.00) Dark Brown Sandy GRAVEL, Silty With Cinders (Possible Fill) (M-NPL)
	10.0	J3	2	2	27		14%	(10.00) Brown And Black Clayey SILT With Gravel Pieces, Red Brick And Cinders (P.F.) (M-LPL)
	15.0	J4	5	10	11		22%	(15.00) Brown Silty CLAY (M-PL)
	20.0	J5	15	10	10		10%	(20.00) Brown Clayey SILT With Gravel Pieces (M-LPL)

BOTTOM OF HOLE AT 22.70 ft

1. Automatic hammer used.

2. At 22.7' rock and bottom of hole.

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 1

HOLE FH-B-185

SM 282 E 12/02

PSN12794

BORNUM188

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,045,499.900 (E) 1,080,651.480

DATUMNAD83

DATE START14-JUL-2020

DATE FINISH14-JUL-2020

CASINGO. D. 8 5/8 inI. D. 3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D. 2 inI. D. 1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLEFH-B-188

LINE

STA

OFFSETft

SURF. ELEV.606.57

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0							(0.00) .8' BLACKTOP
		J1	27	50			11%	(1.00) Brown Sandy Concrete PIECES, Silty With Root Fibers (M-NPL) (POSSIBLE Fill)
	5.0	J2	14	11	10		15%	(5.00) Brown Sandy Concrete PIECES, Silty (Possible Fill) (M-LPL)
	10.0	J3	6	6	10		13%	(10.00) Brown Clayey SILT, Sandy With Gravel Pieces (M-LPL)
	15.0	J4	9	10	11		10%	(15.00) Brown Gravelly SILT, Clayey With Concrete Pieces (Possible Fill) (M-LPL)
	20.0	J5	WOH	6	9		20%	(20.00) Brown And Black CINDERS With Pocket Of Silty Clay (M-PL)
	25.0							

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACTCONTRACTOR

DRILL RIG OPERATORT. Hill

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2HOLE FH-B-188

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM188


ACTUAL COORDINATES(N) 1,045,499.900 (E) 1,080,651.480

DATE START14-JUL-2020

CASING O. D. 8 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-188

LINE

STA

OFFSET ft

SURF. ELEV. 606.57

DEPTH TO WATER NONE

DATE FINISH14-JUL-2020

WT OF HAMMER-CASING 140 lb

WT OF HAMMER-SAMPLER 140 lb

HAMMER FALL-CASING 30 in

HAMMER FALL-SAMPLER 30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	10	9	12		22%	(25.00) Brown Layered Silty CLAY / Clayey SILT (M-PL)
	30.0	J7	1	1	1		25%	
	35.0	J8	50				6%	(35.00) Gray Silty GRAVEL, Clayey (M-EPL)
		R1						(35.20) Run #1 Drilled from 35'2" To 40'2" ROCK REC. 60" 100% 12 pieces and fragments
	40.0							
		R2						(40.20) Run #2 Drilled from 40'2" To 45'2" ROCK REC. 57.6" 96% 12 pieces and fragments
	45.0							

BOTTOM OF HOLE AT 45.20 ft

1. Automatic hammer used.

2. At 35.2 wash water added.

3. At 35', 50 blows for .2' penetration.

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR T. Hill

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 2 OF 2

HOLE FH-B-188

SM 282 E 12/02

PSN12794

BORNUM189

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,045,472.170 (E) 1,080,392.820

DATUMNAD83

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLEFH-B-189

LINE

STA

OFFSETft

SURF. ELEV.604.64

DEPTH TO WATER20.7

CASINGO. D. 6 5/8 inI. D. 3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D. 2 inI. D. 1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1					1%	(0.00) Brown Crushed CONCRETE With Asphalt Pieces (Possible Fill) (D-NW)
	5.0	J2	9	10	30		14%	(5.00) Black And Gray Sandy CINDERS, Gravelly With Pockets Of Clayey SILT (P.F.) (M-LPL)
	10.0	J3	7	8	16		18%	
	15.0	J4	7	9	16		16%	(15.00) Brown Clayey SILT With Gravel Pieces And Cinders (Possible Fill) (M-LPL)
	20.0	J5	10	12	14		17%	(20.00) Brown Clayey SILT With Gravel Pieces, Wood Pieces And Cinders (P.F.) (M-LPL)
	25.0							

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DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

CONTRACT

CONTRACTOR

SHEET 1 OF 2

HOLE FH-B-189

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM189

DATE START17-JUL-2020

CASING O. D. 6 5/8 in

SAMPLER O. D. 2 in

I. D. 3 1/4 in

I. D. 1 3/8 in

WT OF HAMMER-CASING 140 lb

WT OF HAMMER-SAMPLER 140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-189

LINE

STA

OFFSET ft

SURF. ELEV. 604.64

DEPTH TO WATER 20.7

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	10	10	20		20%	(25.00) Brown Silty CLAY With Gravel Pieces And Cinders (Possible Fill) (M-PL)
	30.0	J7	8	10	15		22%	(30.00) Brown Silty CLAY (M-PL)
	35.0	J8	1	1	1		27%	(35.00) Brown Varved Silty CLAY/ Clayey SILT (M-PL)
	40.0	J9	31	37			26%	

BOTTOM OF HOLE AT 42.00 ft

1. Automatic hammer used.

2. At 42.0' rock and bottom of hole.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
17-Jul-20	07:30	42.00	42.00	20.70		

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR L. Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich/D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 2 OF 2

HOLE FH-B-189

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM192

DATE START14-JUL-2020

CASING O. D.8 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE LINE

STA

OFFSETft

SURF. ELEV.601.14

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24		
	0.0							(0.00) .8' BLACKTOP Auger Through Pavement
		J1	23	25	7		17%	(1.00) Brown And Black Sandy CONCRETE PIECES , Silty With Cinders (Possible Fill) (M-NPL)
	5.0	J2	11	12	7		13%	(5.00) Brown And Black Silty SLAG With Cinders (Possible Fill) (M-NPL)
	10.0	J3	10	7	7		17%	(10.00) Gray Silty CLAY, Sandy W/ Gravel Pcs, Concrete Pcs & Cinders (P.F.) (M-PL)
	15.0	J4	5	7	9		15%	(15.00) Brown Silty CLAY With Gravel Pieces And Cinders (Possible Fill) (M-PL)
	20.0	J5	2	5	6		19%	(20.00) Brown Layered Clayey SILT / Silty CLAY With Gravel Pieces And Cinders (P.F.) (M-PL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORE. Backer

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3

HOLE FH-X-192

SM 282 E 12/02

PSN12794

BORNUM192

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,045,654.710 (E) 1,080,017.050

DATE START14-JUL-2020

CASING O. D. 8 5/8 in I. D. 3 1/4 in

WT OF HAMMER-CASING140 lb


HAMMER FALL-CASING30 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

WT OF HAMMER-SAMPLER140 lb

HAMMER FALL-SAMPLER30 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE

STA

OFFSETft

SURF. ELEV.601.14

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK																
			0	6	12	18																		
			6	12	18	24																		
	50.0	J11	16	18	50	6%	(50.00) Gray Silty GRAVEL, Sandy (M-NPL)																	
BOTTOM OF HOLE AT 51.50 ft																								
<div>1. Automatic hammer used.</div> <div>2. At 51', 50 blows for .5' penetration.</div> <div>3. Refusal at 51.5'.</div>																								
<table><thead><tr><th rowspan="2">DATE</th><th rowspan="2">TIME</th><th colspan="3">DEPTH ft</th><th rowspan="2">ARTESIAN HEAD HEIGHT ABOVE GROUND</th><th rowspan="2">FILLED WITH WATER AT END OF DAY</th></tr><tr><th>HOLE</th><th>CASING</th><th>WATER</th></tr></thead><tbody><tr><td>14-Jul-20</td><td>16:30</td><td>51.50</td><td>50.00</td><td>27.90</td><td></td><td></td></tr></tbody></table>								DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY	HOLE	CASING	WATER	14-Jul-20	16:30	51.50	50.00	27.90		
DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY																		
		HOLE	CASING	WATER																				
14-Jul-20	16:30	51.50	50.00	27.90																				

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CONTRACT CONTRACTOR

DRILL RIG OPERATORE. Backer

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 3 OF 3HOLE FH-X-192

SM 282 E 12/02

PSN12794

BORNUM193

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,045,701.490 (E) 1,079,439.930

DATUMNAD83


DATE START16-JUL-2020

DATE FINISH16-JUL-2020

CASINGO. D. 8 5/8 inI. D. 3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D. 2 inI. D. 1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLEFH-B-193

LINE

STA

OFFSETft

SURF. ELEV.606.73

DEPTH TO WATER15.5

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0							(0.00) Auger Through Pavement .8' BLACKTOP
		J1	10	17	28		4%	(1.00) Gray Sandy GRAVEL (M-NPL)
	5.0	J2	6	3	3		18%	(5.00) Brown Sandy SILT, Clayey W/ Cinders & Gravel Pieces (Possible Fill) (M-LPL)
	10.0	J3	3	49	16		7%	(10.00) Gray Pulverized CONCRETE With Pockets Of Brown Sandy Silt (POSSIBLE Fill) (M-LPL)
	15.0	J4	1	1	2		17%	(15.00) Brown And Black Silty CLAY With Cinders, Gravel Pieces & Wood (Possible Fill) (M-PL)
	20.0	J5	WOH	WOH	3		23%	(20.00) Brown Layered Silty CLAY / Clayey SILT With Gravel Pieces (M-PL)
	25.0							

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACTCONTRACTOR

DRILL RIG OPERATORT. Hill

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL


ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3HOLE FH-B-193

SM 282 E 12/02				STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION GEOTECHNICAL ENGINEERING BUREAU SUBSURFACE EXPLORATION LOG						HOLE FH-B-193	
PSN 12794		BORNUM 193						LINE			
REGION 5								STA			
COUNTY ERIE								OFFSET ft			
PIN 5134.48								SURF. ELEV. 606.73			
PROJECT BUFFALO SKYWAY								DEPTH TO WATER 15.5			
ACTUAL COORDINATES		(N) 1,045,701.490		(E) 1,079,439.930		DATUM NAD83					
		DATE START 16-JUL-2020		DATE FINISH 16-JUL-2020							
CASING	O. D.	8 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140 lb	HAMMER FALL-CASING	30 in			
SAMPLER	O. D.	2 in	I. D.	1 3/8 in	WT OF HAMMER-SAMPLER	140 lb	HAMMER FALL-SAMPLER	30 in			
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK			
			0	6	12	18					
			6	12	18	24					
	25.0	J6	WOH	1	5		23%	(25.00) Gray, Black And Brown Layered Silty CLAY / Clayey SILT (M-PL)			
	30.0	J7	6	10	12		24%	(30.00) Brown And Gray Layered Silty CLAY / Clayey SILT (M-PL)			
	35.0	J8	WOH	WOH	2		29%	(35.00) Brown Silty CLAY With Layers Of Clayey SILT (M-PL)			
	40.0	J9	WOH	WOH	2		29%	(40.00) Brown Silty CLAY (M-PL)			
	45.0	J10	WOR	WOH	1		31%				
	50.0										
<p>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</p>								<p>DRILL RIG OPERATOR T. Hill</p> <p>SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau</p> <p>REG GEOTECHNICAL</p> <p>ENGINEER Todd E. Nelson</p> <p>DATE APPROVED 01-FEB-2021</p> <p>RESIDENT ENGINEER</p> <p>STRUCTURE NAME B.I.N.</p>			
CONTRACT				CONTRACTOR				SHEET 2 OF 3		HOLE FH-B-193	

SM 282 E 12/02

PSN

12794

BORNUM

193

REGION

5

COUNTY

ERIE

PIN

5134.48

PROJECT

BUFFALO SKYWAY

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

FH-B-193

LINE

STA

OFFSET

ft

SURF. ELEV.

606.73

DEPTH TO WATER

15.5

ACTUAL COORDINATES

(N) 1,045,701.490

(E) 1,079,439.930

DATUM

NAD83

DATE START

16-JUL-2020

DATE FINISH

16-JUL-2020

CASING

O. D.

8 5/8

in

I. D.

3 1/4

in

WT OF HAMMER-CASING

140

lb

HAMMER FALL-CASING

30

in

SAMPLER

O. D.

2

in

I. D.

1 3/8

in

WT OF HAMMER-SAMPLER

140

lb

HAMMER FALL-SAMPLER

30

in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	50.0	J11	WOR				30%	(50.00) Brown Silty CLAY (M-PL)
			WOH					
					WOH			
	55.0	J12	WOR				21%	(55.00) Brown Layered Silty CLAY / Clayey SILT (M-PL)
			WOR					
					WOR			
		R1						(56.70) Run #1 Drilled from 56'8" To 61'8" ROCK REC. 60" 100% 3 pieces
	60.0							
		R2						(61.70) Run #2 Drilled from 61'8" To 66'8" ROCK REC. 60" 100% 3 pieces
	65.0							

BOTTOM OF HOLE AT 66.70 ft

1. Automatic hammer used.

2. 56.7' top of rock, and wash water added.

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

T. Hill

SOIL & ROCK DESCRIPTION

A. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEER

Todd E. Nelson

DATE APPROVED

01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME

B.I.N.

SHEET 3 OF 3

HOLE FH-B-193

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM197


ACTUAL COORDINATES(N) 1,045,845.650 (E) 1,079,230.370

DATE START14-JUL-2020

CASING O. D. 6 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE STA

FH-B-197

OFFSETft

SURF. ELEV.612.08

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					1%	(0.00) Gray Sandy Angular GRAVEL With Wood And Asphalt (Possible Fill) (D-NW)
	5.0	J2	20	20	21		3%	(5.00) Black And Gray ASPHALT With Concrete Pieces (Possible Fill) (M-NPL)
	10.0	J3	25	37	25		7%	(10.00) Brown Crushed CONCRETE (Possible Fill) (M-NPL)
	15.0	J4	6	10	20		15%	(15.00) Brown Clayey SILT W/ Gravel Pcs., Asphalt, Cinders & Wood Pcs (P.F.) (M-LPL)
	20.0	J5	5	5	7		15%	(20.00) Brown Clayey SILT With Gravel Pieces And Cinders (POSSIBLE Fill) (M-LPL)
	25.0							

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACT CONTRACTOR

DRILL RIG OPERATOR L. Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich/D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 1 OF 3 HOLE FH-B-197

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM197

DATE START14-JUL-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

O. D.6 5/8 in

2 in

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE LINE STA

FF-B-197

FF-B-197

FF-B-197

OFFSET

ft

SURF. ELEV.

612.08

DEPTH TO WATER

SEE NOTE

DATUM

NAD83

DATE FINISH

14-JUL-2020

WT OF HAMMER-CASING

140 lb

HAMMER FALL-CASING

30 in

WT OF HAMMER-SAMPLER

140 lb

HAMMER FALL-SAMPLER

30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	10	15	15		17%	
	30.0	J7	12	6	11		50%	(30.00) Gray And Black Sandy GRAVEL, Silty With Cinders (Possible Fill) (M-NPL)
	35.0	J8	12	15	20		26%	(35.00) Brown Layered Silty CLAY/ Clayey Silt (M-PL)
	40.0	J9	1	10	10		29%	(40.00) Brown Silty CLAY (M-PL)
	45.0	J10	1	1	1		23%	(45.00) Brown And Gray Silty CLAY (M-PL)
	50.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

SOIL & ROCK DESCRIPTION

REG GEOTECHNICAL

ENGINEER

DATE APPROVED

RESIDENT ENGINEER

STRUCTURE NAME

L. Muhammad

A. Zerebovich/D. Landau

Todd E. Nelson

01-FEB-2021

B.I.N.

SHEET 2 OF 3

HOLE FF-B-197

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM197


ACTUAL COORDINATES(N) 1,045,845.650 (E) 1,079,230.370

DATE START14-JUL-2020

CASING O. D. 6 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE STA

FH-B-197

OFFSETft

SURF. ELEV.612.08

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in					MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18			
			6	12	18	24			
	50.0	J11	1	1	5			29%	(50.00) Brown Silty CLAY (M-PL)
	55.0	J12	1	3	5			27%	
	60.0	R1							(60.00) Run #1 Drilled from 60'0" To 65'0" ROCK REC. 60" 100% 7 pieces and fragments
	65.0	R2							(65.00) Run #2 Drilled from 65'0" To 70'0" ROCK REC. 60" 100% 9 pieces and fragments
	70.0								

BOTTOM OF HOLE AT 70.00 ft

1. First sample taken from auger.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
14-Jul-20	00:00	70.00	60.00	42.80		

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL
ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 3 OF 3

HOLE FH-B-197

SM 282 E 12/02

PSN12794

BORNUM205

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,046,076.020 (E) 1,078,339.530

DATUMNAD83

DATE START18-AUG-2020

DATE FINISH

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

LINE

STA

OFFSET

SURF. ELEV.

DEPTH TO WATER

FH-B-205

ft

607.38

SEE NOTE

CASING	O. D.	6 5/8	in	I. D.	3 1/4	in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30	in
SAMPLER	O. D.	2	in	I. D.	1 3/8	in	WT OF HAMMER-SAMPLER	140	lb	HAMMER FALL-SAMPLER	30	in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					2%	(0.00) Brown Gravelly SAND, Silty (D-NW)
	5.0	J2	10	10	10		7%	(5.00) Brown Gravelly SILT, Clayey With Pieces Of Asphalt (POSSIBLE Fill) (M-LPL)
	10.0	J3	1	2	14		9%	(10.00) Brown Clayey SILT, Gravelly With Traces Of Asphalt (Possible Fill) (M-LPL)
	15.0	J4	7	14	19		10%	(15.00) Brown Clayey SILT, Gravelly (M-LPL)
	20.0	J5	10	10	20		11%	
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

SOIL & ROCK DESCRIPTION

REG GEOTECHNICAL

ENGINEER

DATE APPROVED

RESIDENT ENGINEER

STRUCTURE NAME

L. Muhammad

A. Zerebovich/D. Landau

Todd E. Nelson

01-FEB-2021

B.I.N.

SHEET 1 OF 3

HOLE FH-B-205

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM205

DATE START18-AUG-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-205

LINE

STA

OFFSET ft

SURF. ELEV.607.38

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	50	50	50		17%	(25.00) Brown Layered Silty CLAY/ Clayey SILT With Gravel Pieces (M-PL)
	30.0	J7	15	20	20		22%	(30.00) Brown Layered Silty CLAY/ Clayey SILT (M-PL)
	35.0	J8	2	3	3		23%	(35.00) Brown Silty CLAY With Creosote (Possible Fill) (M-PL)
	40.0	J9	WOH	WOH	WOH		36%	(40.00) Brown Silty CLAY (M-PL)
	45.0	J10	1	1	1		36%	(45.00) Brown Layered Silty CLAY/ Clayey SILT (M-PL)
BOTTOM OF HOLE AT 49.00 ft								
<div><div>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</div></div>					<div><div>DRILL RIG OPERATORL. Muhammad</div><div>SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau</div><div>REG GEOTECHNICAL ENGINEERTodd E. Nelson</div><div>DATE APPROVED01-FEB-2021</div><div>RESIDENT ENGINEER</div><div>STRUCTURE NAMEB.I.N.</div></div> <div><div>CONTRACT</div><div>CONTRACTOR</div></div> <div><div>SHEET 2 OF 3</div><div>HOLE FH-B-205</div></div>			

SM 282 E 12/02

PSN 12794 BORNUM 205

REGION 5

COUNTY ERIE

PIN	<u>5134.48</u>
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PROJECT BUFFALO SKYWAY

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-205

LINE _____

STA _____

OFFSET ft

SURF. ELEV. 607.38

ACTUAL COORDINATES (N) 1,046,076.020 (E) 1,078,339.530 **DATUM** NAD83 **DEPTH TO WATER** SEE NOTE

DATE START 18-AUG-2020

DATE FINISH _____

CASING	O. D.	6 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30	in
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SAMPLER	O. D.	2	in	I. D.	1 3/8	in	WT OF HAMMER-SAMPLER	140	lb	HAMMER FALL-SAMPLER	30	in
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[illegible]

1. Automatic hammer used.
2. At 49.0' rock and bottom of hole.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
16-Aug-20	10:00	49.00	49.00	NONE		

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DRILL RIG OPERATOR L. Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME	B.I.N.
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CONTRACT	CONTRACTOR
1	1
2	2
3	3
4	4
5	5
6	6
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12	12
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94	94
95	95
96	96
97	97
98	98
99	99
100	100

SHEET 3 OF 3 HOLE FH-B-205

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM206.1


ACTUAL COORDINATES(N) 1,045,915.520 (E) 1,078,181.670

DATE START12-JUN-2020

CASING O. D. 6 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE STA

FH-B-206A

DEPTH TO WATERSEE NOTE

DATE FINISH12-JUN-2020

WT OF HAMMER-CASING 140 lb

WT OF HAMMER-SAMPLER 140 lb

OFFSETft

SURF. ELEV.583.8

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0							(0.00) ASPHALT
		J1					17%	(0.30) CONCRETE
								(1.00) Brown Clayey SILT With Gravel Pieces (M-LPL)
	5.0	J2	6				22%	(5.00) Brown Clayey SILT (M-LPL)
				11				
					11			
	10.0	J3	2				28%	(10.00) Brown Silty CLAY (M-PL)
				4				
					11			
	15.0	J4	WOH				28%	(15.00) Brown Silty CLAY With Gravel Pieces (M-PL)
				WOH				
					1			
	20.0	J5	WOH				34%	(20.00) Brown Silty CLAY (M-PL)
				WOH				
					1			
	25.0							

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CONTRACT CONTRACTOR

DRILL RIG OPERATOR L. Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 1 OF 2 HOLE FH-B-206A

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM209

DATE START25-JUN-2020

CASING O. D. 6 5/8 in

SAMPLER O. D. 2 in

I. D. 3 1/4 in

I. D. 1 3/8 in

WT OF HAMMER-CASING 140 lb

WT OF HAMMER-SAMPLER 140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-209

LINE

STA

OFFSET ft

SURF. ELEV. 605.34

DEPTH TO WATER NONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1					0%	(0.00) Black And Gray Pulverized ASPHALT (Possible Fill) (D-NW)
	5.0	J2	13	16	17		5%	(5.00) Brown Clayey SILT With Gravel Pieces And Asphalt Chunks (Poss. Fill) (M-LPL)
	10.0	J3	5	4	6		12%	(10.00) Brown Silty CLAY With Gravel Pieces And Asphalt (Possible Fill) (M-PL)
	15.0	J4	12	25	20		17%	(15.00) Brown Layered Silty CLAY/ Clayey SILT With Pieces Of Slag (P.F.) (M-PL)
	20.0	J5	6	7	5		10%	(20.00) Brown Silty GRAVEL, Sandy (M-NPL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR L. Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich/D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 1 OF 2

HOLE FH-B-209

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM209

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLEFH-B-209

LINE

STA

OFFSETft

SURF. ELEV.605.34

DEPTH TO WATERNONE

CASINGO. D.6 5/8 inI. D.3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D.2 inI. D.1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	5	15	20		24%	(25.00) Black And And Brown Layered Silty CLAY/ Clayey SILT With Pockets Of Cinders (M-PL)
	30.0	J7	6	6	5		26%	(30.00) Brown Silty CLAY (M-PL)
	35.0	J8	2	2	6		25%	(35.00) Brown Silty CLAY With Pockets Of Pulverized Asphalt (Possible Fill) (M-PL)
	40.0							

BOTTOM OF HOLE AT 40.10 ft

1. Automatic hammer used.

2. At 40.1' rock and bottom of hole.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
25-Jun-20	00:00	40.10	40.00	NONE		

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL
ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 2

HOLE FH-B-209

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM210

DATE START29-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE LINE

STA

OFFSETft

SURF. ELEV.608.87

DEPTH TO WATERSEE NOTE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					6%	(0.00) Brown Silty GRAVEL, Clayey With Cinders (Possible Fill) (M-LPL)
	5.0	J2	7	10	5		16%	(5.00) Brown Layered Silty CLAY / Clayey SILT W/Gravel Pcs, Root Fiber & Cinder (P.F) (M-PL)
	10.0	J3	2	4	4		21%	(10.00) Brown Layered Silty CLAY/ Clayey SILT With Gravel Pieces And Asphalt (P.F.) (M-PL)
	15.0	J4	5	10	12		16%	(15.00) Brown Silty CLAY With Gravel Pieces And Unknown Deposit (P.F.) (M-PL)
	20.0	J5	5	5	10		18%	(20.00) Brown Clayey SILT With Gravel Pieces, Slag And Cinders (P.F.) (M-LPL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D.Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED01-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-210

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM211

DATE START16-JUL-2020

CASING O. D.6 1/4 in

SAMPLER O. D.2 in

I. D.2 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb


WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG



HOLE LINE

STA

OFFSETft

SURF. ELEV.609.7

DEPTH TO WATER3.9

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1					0%	(0.00) Gray Sandy Crushed CONCRETE With Asphalt Pieces (P.F.) (D-NW)
	5.0	J2	50	50	50		0%	(5.00) Black And Gray Crushed ASPHALT CONCRET (Possible Fill) (D-NW)
	10.0	J3	50	50	50		18%	(10.00) Brown Adn Gray Silty CLAY With Root Fibers (M-PL)
	15.0	J4	20	15	20		11%	(15.00) Brown Clayey SILT With Gravel Pieces And Wood (M-LPL)
	20.0	J5	3	1	21		15%	(20.00) Brown And Black Clayey SILT With Gravel Pieces, Cinders And Creosote (P.F.) (M-LPL)
	25.0							

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad Sr.

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3

HOLE FH-B-211

SM 282 E 12/02

PSN

12794

BORNUM

211

REGION

5

COUNTY

ERIE

PIN

5134.48

PROJECT

BUFFALO SKYWAY

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

FH-B-211

LINE

STA

OFFSET

ft

SURF. ELEV.

609.7

DEPTH TO WATER

3.9

ACTUAL COORDINATES

(N) 1,046,334.130

(E) 1,077,386.580

DATUM

NAD83

DATE START

16-JUL-2020

DATE FINISH

16-JUL-2020

CASING

O. D.

6 1/4

in

I. D.

2 1/4

in

WT OF HAMMER-CASING

140

lb

HAMMER FALL-CASING

30

in

SAMPLER

O. D.

2

in

I. D.

1 3/8

in

WT OF HAMMER-SAMPLER

140

lb

HAMMER FALL-SAMPLER

30

in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in					MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18	24		
			6	12	18	24			
	25.0	J6	7	12	20		25%	(25.00) Brown And Dark Brown Layered Silty CLAY/ Clayey SILT (M-PL)	
	30.0	J7					24%	(30.00) Brown Layered Silty CLAY/ Clayey SILT (M-PL)	
	35.0	J8					23%	(35.00) Brown Silty CLAY With Gravel Pieces (M-PL)	
	40.0	R1						(36.50) Run #1 Drilled from 36'6" To 41'6" ROCK (37.00) REC. 60" 100% 16 pieces and fragments, no RQD info Run #1 Drilled From 37'0" To 41'6" ROCK	
	45.0	R2						(41.50) Run #2 Drilled from 41'6" To 46'0" ROCK REC. 54" 100% 3 pieces and fragments, no RQD info	
BOTTOM OF HOLE AT 46.00 ft									
1. Automatic hammer used. 2. Diamond bit no. 244038-3. 3. J1 off auger. 4. No sampler blows listed for J7 and J8									

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

L. Muhammad Sr.

SOIL & ROCK DESCRIPTION

A. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED

17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME

B.I.N.

SHEET 2 OF 3

HOLE FH-B-211

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM214

DATE START29-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-214

LINE

STA

OFFSET ft

SURF. ELEV.607.89

DEPTH TO WATER1

HAMMER FALL-CASING30 in

HAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24		
	0.0	J1					2%	(0.00) Brown Sandy Angular GRAVEL With Asphalt Pieces (Possible Fill) (D-NW)
	5.0	J2	5	5	5		11%	(5.00) Brown Sandy SILT, Clayey With Gravel Pieces (M-LPL)
	10.0	J3	6	38	10		11%	
	15.0	J4	9	18	17		18%	(15.00) Brown Silty CLAY With Asphalt Pieces (Possible Fill) (M-PL)
	20.0	J5	3	5	7		19%	(20.00) Brown Silty CLAY With Asphalt Pieces And Broken Glass (Possible Fil) (M-PL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED16-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-214

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM214

DATE START29-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-214

LINE

STA

OFFSET ft

SURF. ELEV.607.89

DEPTH TO WATER1

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK																	
			0	6	12	18																			
			6	12	18	24																			
	25.0	J6	2	5	5		23%																		
	30.0	J7	20	25	20		25%	(30.00) Brown Layered Silty CLAY/ Clayey SILT (M-PL)																	
	35.0	J8	8	10	10		19%	(35.00) Brown Fine Sandy SILT With Pockets Of Brown Silty CLAY (M-LPL)																	
BOTTOM OF HOLE AT 37.30 ft																									
<div><div>1. Automatic hammer used.</div><div>2. At 37.3' rock and bottom of hole.</div></div> <table><thead><tr><th rowspan="2">DATE</th><th rowspan="2">TIME</th><th colspan="3">DEPTH ft</th><th rowspan="2">ARTESIAN HEAD HEIGHT ABOVE GROUND</th><th rowspan="2">FILLED WITH WATER AT END OF DAY</th></tr><tr><th>HOLE</th><th>CASING</th><th>WATER</th></tr></thead><tbody><tr><td>29-Jun-20</td><td>14:38</td><td>37.30</td><td>37.30</td><td>1.00</td><td></td><td>NO</td></tr></tbody></table>									DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY	HOLE	CASING	WATER	29-Jun-20	14:38	37.30	37.30	1.00		NO
DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY																			
		HOLE	CASING	WATER																					
29-Jun-20	14:38	37.30	37.30	1.00		NO																			

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED16-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 2

HOLE FH-B-214

SM 282 E 12/02

PSN12794

BORNUM216

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,046,549.900 (E) 1,076,743.090

DATUMNAD83

DATE START15-JUL-2020

DATE FINISH15-JUL-2020

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLEFH-B-216

LINE

STA

OFFSETft

SURF. ELEV.603.36

DEPTH TO WATERNONE

CASINGO. D. 6 5/8 inI. D. 3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D. 2 inI. D. 1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					1%	(0.00) Gray Angular GRAVEL With Asphalt Chunks (Possible Fill) (D-NW)
	5.0	J2	8	12	14		13%	(5.00) Gray Clayey SILT With Gravel Pieces And Asphalt Chunks (Poss. Fill) (M-LPL)
	10.0	J3	6	12	14		14%	(10.00) Brown Clayey SILT With Gravel Pieces And Asphalt (Poss. Fill) (M-LPL)
	15.0	J4	6	9	25		22%	(15.00) Black Silty CLAY W/ Creosote, Red Brick And Gravel Pcs (P.F) (M-PL)
	20.0	J5	11	11	15		12%	(20.00) Brown Sandy SILT With Gravel Pieces And Red Brick (Possible Fill) (M-NPL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED16-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-216

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM217

DATE START30-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-217

LINE

STA

OFFSET ft

SURF. ELEV.603.29

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					14%	(0.00) Gray Pulverized CONCRETE (Possible Fill) (M-NPL)
	5.0	J2	10	10	10		1%	(5.00) Black ASPHALT (Possible Fill) (D-NW)
	10.0	J3	5	6	35		22%	(10.00) Brown Silty CLAY With Asphalt (Possible Fill) (M-PL)
	15.0	J4	2	4	37		15%	(15.00) Brown Silty CLAY (M-PL)
	20.0	J5	10	10	10		17%	(20.00) Brown Layered Silty CLAY/ Clayey SILT W Gravel Pcs, Asphalt & Root Fbrs (P.F) (M-PL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR L. Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 16-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 1 OF 2

HOLE FH-B-217

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM220

DATE START20-JUL-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE LINE STA

OFFSETft

SURF. ELEV.604.49

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					1%	(0.00) Brown Sandy GRAVEL, Silty With Gravel Pieces (Possible Fill) (M-NPL)
	5.0	J2	6	6	8		10%	(5.00) Brown Silty CLAY, Gravelly (M-PL)
	10.0	J3	3	8	24		10%	(10.00) Brown Silty CLAY Fine Gravelly (M-PL)
	15.0	J4	6	12	12		10%	(15.00) Brown Silty CLAY, Gravelly (M-PL)
	20.0	J5	4	8	20		18%	(20.00) Brown Silty CLAY With Gravel Pieces (M-PL)
BOTTOM OF HOLE AT 24.00 ft								
<div><div>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</div><div>CONTRACT CONTRACTOR</div></div>					<div><div>DRILL RIG OPERATORL Muhammad</div><div>SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau</div><div>REG GEOTECHNICAL ENGINEERTodd E. Nelson</div><div>DATE APPROVED16-FEB-2021</div><div>RESIDENT ENGINEER</div><div>STRUCTURE NAMEB.I.N.</div></div> <div><div>SHEET 1 OF 2</div><div>HOLE FH-B-220</div></div>			

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM222

DATE START20-JUL-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE LINE

STA

OFFSETft

SURF. ELEV.606.78

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1					1%	(0.00) Gray Gravelly SAND, Silty With Large Asplhalt Pieces (Possible Fill) (D-NW)
	5.0	J2	5	7	8		7%	(5.00) Brown Angular Gravelly SILT With Asplhalt Pieces (Possible Fill) (M-NPL)
	10.0	J3	10	20	20		10%	(10.00) Brown Angular Gravelly SILT, Clayey (M-LPL)
	15.0	J4	5	15	5		10%	
	20.0	J5	10	15	20		13%	(20.00) Brown Clayey SILT With Gravel Pieces (M-LPL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED16-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-222

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM226


ACTUAL COORDINATES(N) 1,046,982.070 (E) 1,075,200.150

DATE START30-JUN-2020

CASING O. D. 6 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE STA

FH-B-226

OFFSETft

SURF. ELEV.606.36

DEPTH TO WATER12.8

CASING WT OF HAMMER-CASING 140 lb

SAMPLER WT OF HAMMER-SAMPLER 140 lb

HAMMER FALL-CASING 30 in

HAMMER FALL-SAMPLER 30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J7	8	13	15		18%	(25.00) Brown And Black Silty GRAVEL, Sandy With Cinders (Possible Fill) (M-NPL)
	30.0	J8	4	9	11		25%	(30.00) Brown Silty CLAY, Sandy (M-PL)
	35.0	J9	3	4	6		24%	(35.00) Brown Silty CLAY (M-PL)
	40.0	J10	WOH	WOH	WOH		26%	(40.00) Brown Layered Silty CLAY / Clayey SILT (M-PL)
	45.0	J11	WOR	WOH	WOH		31%	(45.00) Brown Silty CLAY (M-PL)
	50.0	R1						(49.50) Run #1 Drilled from 49'6" To 54'6" ROCK

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CONTRACT CONTRACTOR

DRILL RIG OPERATOR V. Tompkins

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 2 OF 3 HOLE FH-B-226

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM227

DATE START09-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-227

LINE

STA

OFFSET ft

SURF. ELEV.579.5

DEPTH TO WATERNONE

DATE FINISH09-JUN-2020

DATUMNAD83

HAMMER FALL-CASING30 in

HAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					21%	(0.00) Dark Brown Clayey SILT With Wood, Red Brick & Plastic Pcs (P.F.) (M-LPL)
	5.0	J2	8	10	19		18%	(5.00) Brown Silty CLAY (M-PL)
	10.0	J3	5	13	13		23%	(10.00) Dark Brown Silty CLAY (M-PL)
	15.0	J4	2	2	2		29%	(15.00) Brown Silty CLAY With A Thin SILT Layer (M-PL)
	20.0	J5	1	4	7		27%	
BOTTOM OF HOLE AT 21.90 ft								
<div>1. Automatic hammer used.</div> <div>2. J1 off auger</div> <div>3. At 21.9' rock and bottom of hole.</div>								

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL. Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEERTodd E. Nelson

DATE APPROVED17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-227

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM228

DATE START15-JUL-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-228

LINE

STA

OFFSET ft

SURF. ELEV.605.36

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					1%	(0.00) Gray Crushed CONCRETE With Asphalt Chunks (Possible Fill) (D-NW)
	5.0	J2	36	40	50		13%	(5.00) Brown Crushed CONCRETE With A Layer Of Silty CLAY (Possible Fill) (M-PL)
	10.0	J3	11	20	20		17%	(10.00) Brown Clayey SILT With Gravel Pieces And Rusted Metal (Possible Fill) (M-LPL)
	15.0	J4	8	10	10		15%	(15.00) Brown Silty CLAY With Gravel Pieces (M-PL)
	20.0	J5	3	6	5		22%	
	25.0							

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACT

CONTRACTOR

DRILL RIG OPERATOR L Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

SHEET 1 OF 2

HOLE FH-B-228

SM 282 E 12/02

PSN 12794 BORNUM 228

REGION 5

COUNTY ERIE

PIN	5134.48
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PROJECT BUFFALO SKYWAY

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



ACTUAL COORDINATES	(N) 1,046,932.670	(E) 1,075,008.900	DATUM	NAD83	DEPTH TO WATER	NONE
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DATE START	15-JUL-2020	DATE FINISH	15-JUL-2020
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CASING	O. D.	6 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140 lb	HAMMER FALL-CASING	30 in
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SAMPLER O. D. 2 in I. D. 1 3/8 in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in

[illegible]

BOTTOM OF HOLE AT 42.50 ft

1. Automatic hammer used.
2. J1 off auger.
3. At 42.5' rock and bottom of hole.

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
15-Jul-20	09:30	42.50	42.50	NONE		NO

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

DRILL RIG OPERATOR L Muhammad

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 17-FEB-2021

DATE APPROVED 11 FEB 2024
RESIDENT ENGINEER

CONTRACT	CONTRACTOR
1	1
2	2
3	3
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99	99
100	100

SHEET 2 OF 2 HOLE FH-B-228

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM230

DATE START15-JUL-2020

CASING O. D.8 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-230

LINE

STA

OFFSET ft

SURF. ELEV.603.05

DEPTH TO WATER20

CASING O. D.8 5/8 in

SAMPLER O. D.2 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

HAMMER FALL-CASING30 in

HAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24		
	0.0							(0.00) Auger Through Pavement 1.0' Of BLACKTOP
		J1	3	11	7		2%	(1.00) Brown Sandy GRAVEL, Silty (M-NPL)
	5.0	J2	10	21	21		7%	(5.00) Gray Sandy CONCRETE PIECES (Possible Fill) (M-NPL)
	10.0	J3	10	12	12		12%	(10.00) Brown Silty Fine SAND, Gravelly, (M-NPL)
	15.0	J4	6	9	7		9%	
	20.0	J5	5	6	8		13%	
	25.0							

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CONTRACT CONTRACTOR

DRILL RIG OPERATORE. Dorn

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 3HOLE FH-B-230

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM230


SCALED COORDINATES(N) 1,047,017.470 (E) 1,074,652.690

DATE START15-JUL-2020

CASING O. D. 8 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-230

LINE

STA

OFFSET ft

SURF. ELEV. 603.05

DEPTH TO WATER 20

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in					MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18			
			6	12	18	24			
	25.0	J6	7	10	8			13%	(25.00) Brown Silty Fine SAND, Gravelly, (M-NPL)
	30.0	J7	2	9	15			22%	(30.00) Brown Silty CLAY (M-PL)
	35.0	J8	5	5	5			25%	
	40.0	J9	WOH	1	1			23%	(40.00) Brown Layered Silty CLAY / Clayey SILT With Gravel Pieces (M-PL)
	45.0	J10	WOH	2				26%	
		R1			2				(46.20) Run #1 Drilled from 46'2" To 51'2" ROCK REC. 60" 100% 4 pieces and fragments 3.5ppm
	50.0								

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORE. Dorn

SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson


DATE APPROVED17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 2 OF 3

HOLE FH-B-230

SM 282 E 12/02				STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION GEOTECHNICAL ENGINEERING BUREAU SUBSURFACE EXPLORATION LOG						HOLE FH-B-230	
PSN 12794		BORNUM 230						LINE			
REGION 5								STA			
COUNTY ERIE								OFFSET		ft	
PIN 5134.48								SURF. ELEV.		603.05	
PROJECT BUFFALO SKYWAY								DEPTH TO WATER		20	
SCALED COORDINATES		(N) 1,047,017.470 (E) 1,074,652.690		DATUM NAD83							
		DATE START 15-JUL-2020		DATE FINISH 15-JUL-2020							
CASING	O. D.	8 5/8	in	I. D.	3 1/4	in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30 in
SAMPLER	O. D.	2	in	I. D.	1 3/8	in	WT OF HAMMER-SAMPLER	140	lb	HAMMER FALL-SAMPLER	30 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK			
			0	6	12	18					
			6	12	18	24					
	50.0	R2						(51.20) Run #2 Drilled from 51'2" To 56'2" ROCK REC. 57.6" 96% 2 pieces and fragments 12.2ppm			
	55.0										
BOTTOM OF HOLE AT 56.20 ft											
<div>1. Automatic hammer used. 2. J10 to 46.5' with 2 blows from 46.0' but refusal with auger @ 46.2. 3. Washout with rollerbit to 46.2'. 4. Use NWD4 core barrel. 5. Diamond bit 154381F10-Copper 6. Wash water added at 46.2'. 7. Water encountered at 20', no time or other depths given.</div>											
<div>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</div>							DRILL RIG OPERATOR E. Dorn				
							SOIL & ROCK DESCRIPTION A. Zerebovich/D. Landau				
							REG GEOTECHNICAL				
							ENGINEER Todd E. Nelson				
							DATE APPROVED 17-FEB-2021				
							RESIDENT ENGINEER				
							STRUCTURE NAME B.I.N.				
CONTRACT CONTRACTOR							SHEET 3 OF 3 HOLE FH-B-230				

SM 282 E 12/02

PSN12794

BORNUM232

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,047,322.820 (E) 1,074,183.190

DATUMNAD83

DATE START30-JUN-2020

DATE FINISH30-JUN-2020


CASING O. D. 6 5/8 in I. D. 3 1/4 in WT OF HAMMER-CASING 140 lb

SAMPLER O. D. 2 in I. D. 1 3/8 in WT OF HAMMER-SAMPLER 140 lb

HAMMER FALL-CASING 30 in

HAMMER FALL-SAMPLER 30 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-232

LINE

STA

OFFSET ft

SURF. ELEV. 594.85

DEPTH TO WATER NONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24		
	0.0	J1					9%	(0.00) Brown Silty GRAVEL, Sandy (M-NPL)
	5.0	J2	6	15	20		21%	(5.00) Brown And Black Sandy SILT With Gravel Pieces, Glass Pieces & Creosote (P.F.) (M-NPL)
	10.0	J3	12	20	20		13%	(10.00) Brown Silty Crushed CONCRETE With Red Brick And Gravel Pieces (P.F.) (M-NPL)
	15.0	J4	12	10	13		9%	(15.00) Brown Gravelly SAND, Silty With Red Brick, Glass And Creosote (P.F.) (M-NPL)
	20.0	J5	2	51			25%	(20.00) Brown And Black Silty CLAY With Organics (M-PL)
BOTTOM OF HOLE AT 21.00 ft								
1. Automatic hammer used. 3. At 21.0' rock and bottom of hole.								
<div><div>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</div><div>CONTRACT CONTRACTOR</div></div>					<div><div>DRILL RIG OPERATOR L. Muhammad Sr.</div><div>SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau</div><div>REG GEOTECHNICAL ENGINEER Todd E. Nelson</div><div>DATE APPROVED 17-FEB-2021</div><div>RESIDENT ENGINEER</div><div>STRUCTURE NAME B.I.N.</div><div>SHEET 1 OF 2 HOLE FH-B-232</div></div>			

SM 282 E 12/02

PSN12794

BORNUM233

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,047,512.100 (E) 1,073,964.660

DATUMNAD83


DATE START30-JUN-2020

DATE FINISH30-JUN-2020

CASINGO. D. 6 5/8 inI. D. 3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D. 2 inI. D. 1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLEFH-B-233

LINE

STA

OFFSETft

SURF. ELEV.590.55

DEPTH TO WATERNONE

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					3%	(0.00) Gray GRAVEL (M-NPL)
	5.0	J2	50	50	50		13%	(5.00) Dark Brown Angular Gravelly SILT, Clayey With Pieces Of Coal And Root Fibers (P.F.) (M-LPL)
	10.0	J3	6	20	25		28%	(10.00) Black Sandy CINDERS With Glass, Red Brick, Slag And Root Fibers (P.F.) (M-NPL)
	15.0	J4	3	4	6		165%	(15.00) Dark Brown Decomposed WOOD CHIPS (Possible Fill) (M-NPL)
	20.0	J5	10	6	15		23%	(20.00) Brown Silty CLAY (M-PL)
	25.0							

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CONTRACT

CONTRACTOR

DRILL RIG OPERATORL Muhammad

SOIL & ROCK DESCRIPTIONA. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED17-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-233

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM235

DATE START24-JUN-2020

CASING O. D.6 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-235

LINE

STA

OFFSET ft

SURF. ELEV.582.68

DEPTH TO WATER3.8

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					5%	(0.00) Gray Silty Angular GRAVEL, Sandy With Root Fibers (M-NPL)
	5.0	J2	2	2	5		24%	(5.00) Brown Silty CLAY With Gravel Pieces, Root Fbrs & Wood Pcs (P.F.) (M-PL)
	10.0	J3	WOH	WOH	3		30%	(10.00) Brown Silty CLAY With Wood Pieces (Possible Fill) (M-PL)
	15.0	J4	3	6	7		70%	(15.00) Brown And Gray Layered Silty CLAY/ Clayey SILT With Organic Matter (M-PL)
	20.0	J5	5	5	6		22%	(20.00) Brown And Gray Silty CLAY (M-PL)
BOTTOM OF HOLE AT 21.60 ft								
1. Automatic hammer used. 2. At 21.6' rock and bottom of hole.								
<div><div>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</div></div>					<div><div>DRILL RIG OPERATORL. Muhammad</div><div>SOIL & ROCK DESCRIPTIONA. Zerebovich/D. Landau</div><div>REG GEOTECHNICAL</div><div>ENGINEERTodd E. Nelson</div><div>DATE APPROVED18-FEB-2021</div><div>RESIDENT ENGINEER</div><div>STRUCTURE NAMEB.I.N.</div></div> <div><div>CONTRACT</div><div>CONTRACTOR</div></div> <div><div>SHEET 1 OF 2</div><div>HOLE FH-B-235</div></div>			

SM 282 E 12/02

PSN 12794 BORNUM 235

REGION 5

COUNTY ERIE

PIN	5134.48
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PROJECT	BUFFALO SKYWAY
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STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-235

LINE _____

STA _____

OFFSET _____ ft

SURF. ELEV. 582.68

ACTUAL COORDINATES	(N) 1,047,660.150	(E) 1,073,564.090	DATUM	NAD83	DEPTH TO WATER	3.8
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DATE START	24-JUN-2020	DATE FINISH	24-JUN-2020
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CASING	O. D.	6 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30	in
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SAMPLER	O. D.	2	in	I. D.	1 3/8	in	WT OF HAMMER-SAMPLER	140	lb	HAMMER FALL-SAMPLER	30	in
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[illegible]

DATE	TIME	DEPTH ft			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
24-Jun-20	00:00	21.60	20.00	3.80		NO

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DRILL RIG OPERATOR	L. Muhammad
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SOIL & ROCK DESCRIPTION	A. Zerebovich/D. Landau
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REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 18-FEB-2021

DATE APPROVED: NOV 23 2024
RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

CONTRACT	CONTRACTOR
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97	97
98	98
99	99
100	100

SHEET 2 OF 2 HOLE FH-B-235

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM237


ACTUAL COORDINATES(N) 1,047,786.100 (E) 1,073,272.860

DATE START24-JUN-2020

CASING O. D. 6 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-237

LINE

STA

OFFSET ft

SURF. ELEV. 579.39

DEPTH TO WATER SEE NOTE

WT OF HAMMER-CASING 140 lb

WT OF HAMMER-SAMPLER 140 lb

HAMMER FALL-CASING 30 in

HAMMER FALL-SAMPLER 30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1	WOH	5	5		8%	(0.00) Brown Sandy GRAVEL, Silty With Organics (M-NPL)
	5.0	J2	2	2	5		21%	(5.00) Brown Gravelly SILT, Clayey With Brick Pieces And Cinders (P.F.) (M-LPL)
	10.0	J3	6	3	3		24%	(10.00) Brown Silty CLAY With Gravel Pcs, Creosote & Wood (P.F.) (M-PL)
	15.0	J4	3	2	9		16%	(15.00) Brown And Gray Silty Fine SAND W/ Wood Pcs & Pockets Of Brown Silty CLAY (P.F.) (M-LPL)
		J5	2	5			22%	(16.50) Brown Gravelly CLAY, Silty With Wood Pieces And Slag (Possible Fill) (M-LPL)
	20.0	R1			REF			(17.40) Run #1 Drilled from 17'5" To 22'5" ROCK REC. 58.8" 98% 7 pieces, no RQD info
		R2						(22.40) Run #2 Drilled from 22'5" To 24'6" ROCK REC. 25.2" 100% 3 pieces
	25.0	R3						(24.50) Run #3 Drilled from 24'6" To 26'6" ROCK

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOR V. Tompkins

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL ENGINEER Todd E. Nelson

DATE APPROVED 18-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME B.I.N.

BIN 5512290

SHEET 1 OF 2

HOLE FH-B-237

SM 282 E 12/02

PSN 12794 BORNUM 237

REGION 5

COUNTY ERIE

PIN	<u>5134.48</u>
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PROJECT	BUFFALO SKYWAY
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ACTUAL COORDINATES	(N) 1,047,786.100	(E) 1,073,272.860	DATUM	NAD83	DEPTH TO WATER	SEE NOTE
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DATE START 24-JUN-2020 **DATE FINISH** 24-JUN-2020

CASING	O. D.	6 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30	in
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SAMPLER O. D. 2 in I. D. 1 3/8 in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		

25.0								REC. 24" 100% 3 pieces

BOTTOM OF HOLE AT 26.50 ft

1. Automatic hammer used.
2. At 17.4' auger refusal, suspect rock.
3. Water on sampler from 5.0'-6.5'.
4. Water in sampler at 15.0'-16.5'.

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CONTRACT	CONTRACTOR
1	1
2	2
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90	90
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93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

DRILL RIG OPERATOR V. Tompkins

SOIL & ROCK DESCRIPTION A. Zerebovich / D. Landau

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 18-FEB-2021

RESIDENT ENGINEER

STRUCTURE NAME	B.I.N.

BIN 5512290

SHEET 2 OF 2 HOLE FH-B-237

SM 282 E 12/02

PSN12794

BORNUM239

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,047,990.210 (E) 1,072,949.950

DATUMNAD83

DATE START21-JUL-2020

DATE FINISH21-JUL-2020

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

LINE

STA

OFFSET

SURF. ELEV.

DEPTH TO WATER

FH-B-239

ft

585.79

4.5

CASINGO. D.6 5/8 inI. D.3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D.2 inI. D.1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					0%	(0.00) Gray Sandy GRAVEL With Asphalt Pieces (Possible Fill) (D-NW)
	5.0	J2	10	10	10		11%	(5.00) Brown Crushed CONCRETE With Asphalt Pieces (Possible Fill) (M-NPL)
	10.0	J3	1	3	10		28%	(10.00) Brown Gravelly Fine SAND With Pockets Of Black Clayey SILT (M-LPL)
	15.0	J4	5	3	12		24%	(15.00) Brown And Black Silty Angular GRAVEL, Sandy (M-NPL)
	20.0	J5	7	7	22		22%	(20.00) Gray Angular Gravelly SILT (M-NPL)
BOTTOM OF HOLE AT 21.50 ft								
<div>1. Automatic hammer used.</div> <div>2. At 22.0' rock and bottom hole.</div>								
<div>The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.</div>								<div>DRILL RIG OPERATORL. Muhammad Sr.</div> <div>SOIL & ROCK DESCRIPTIOND. Landau / T. Kaufmann</div> <div>REG GEOTECHNICAL</div> <div>ENGINEERTodd E. Nelson</div> <div>DATE APPROVED18-FEB-2021</div> <div>RESIDENT ENGINEER</div> <div>STRUCTURE NAMEB.I.N.</div>
CONTRACTCONTRACTOR								SHEET 1 OF 2HOLE FH-B-239

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM240

DATE START07-JAN-2020

CASING O. D.7 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-240

LINE

STA

OFFSET ft

SURF. ELEV.581.49

DEPTH TO WATER21

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1	3	3	7		13%	(0.00) Brown Sandy GRAVEL, Silty With Root Fibers And A Rusy Nail (P.F.) (M-NPL)
	5.0	J2	4	3	2		15%	(5.00) Red Silty CLAY With Concrete Pieces (Possible Fill) (M-PL)
	10.0	J3	50				14%	(10.00) Brown Silty CLAY With Red Brick Pieces And Concrete Pieces (P.F.) (M-PL)
	15.0	J4	15	9	7		21%	(15.00) Brown Silty CLAY (M-PL)
	20.0	J5	7	28	42		6%	(20.00) Gray Gravelly SILT (M-NPL)
	25.0	R1						(21.50) Run #1 Drilled from 21'6" To 26'6" ROCK REC. 57.6" 96% 3 pieces NWD4 DOUBLE TUBE SWIVEL

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOREric Albert

SOIL & ROCK DESCRIPTIOND. Landau / T. Kaufmann

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED10-FEB-2020

REVISION #1

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-240

SM 282 E 12/02

PSN 12794 BORNUM 240

REGION 5

COUNTY ERIE

PIN	<u>5134.48</u>
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PROJECT	BUFFALO SKYWAY
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STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-240

LINE _____

STA _____

OFFSET ft

SURF. ELEV. 581.49

ACTUAL COORDINATES (N) 1,047,972.680 (E) 1,072,566.220 **DATUM** NAD83 **DEPTH TO WATER** 21

DATE START 07-JAN-2020 **DATE FINISH** 07-JAN-2020

CASING	O. D.	7 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30	in
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SAMPLER	O. D.	2	in	I. D.	1 3/8	in	WT OF HAMMER-SAMPLER	140	lb	HAMMER FALL-SAMPLER	30	in
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CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	R2						(26.50) Run #2 Drilled from 26'6" To 31'6" ROCK REC. 60" 100% 5 pieces NWD4 DOUBLE TUBE SWIVEL
	30.0							

BOTTOM OF HOLE AT 31.50 ft

1. Automatic hammer used, and auger
2. At 10.0', 50 blows for .5' penetration.
3. South side of I-190; 300ft east of Chicago St

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DRILL RIG OPERATOR	Eric Albert
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SOIL & ROCK DESCRIPTION D. Landau / T. Kaufmann

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 10-FEB-2020 **REVISION #** 1

RESIDENT ENGINEER

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SHEET 2 OF 2 HOLE FH-B-240

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM241

DATE START06-JAN-2020

CASING O. D.7 5/8 in

SAMPLER O. D.2 in

I. D.3 1/4 in

I. D.1 3/8 in

WT OF HAMMER-CASING140 lb

WT OF HAMMER-SAMPLER140 lb

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE FH-B-241

LINE

STA

OFFSET ft

SURF. ELEV.580.32

DEPTH TO WATER15.5

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1	6	15	20		11%	(0.00) Brown Sandy SILT With Red Brick Pieces And Root Fibers (P.F.) (M-NPL)
	5.0	J2	23	50			12%	(5.00) Dark Brown Sandy SILT, Gravelly With Red Brick Pieces (P.F.) (M-NPL)
	10.0	J3	4	12	15		17%	(10.00) Brown And Gray Silty CLAY (M-PL)
	15.0	J4	26				8%	(15.00) Tan Clayey SILT, Gravelly (M-LPL)
	20.0	R1						(15.50) Run #1 Drilled from 15'6" To 20'6" ROCK REC. 60" 100% 5 pieces NWD4 DOUBLE TUBE SWIVEL
	25.0	R2						(20.50) Run #2 Drilled from 20'6" To 25'6" ROCK REC. 60" 100% 4 pieces NWD4 DOUBLE TUBE SWIVEL

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOREric Albert

SOIL & ROCK DESCRIPTIOND. Landau / T. Kaufmann

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED10-FEB-2020

REVISION #1

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-241

SM 282 E 12/02

PSN12794

BORNUM242

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

ACTUAL COORDINATES

(N) 1,048,028.700 (E) 1,072,339.880

DATUMNAD83

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

LINE

STA

OFFSET

SURF. ELEV.

DEPTH TO WATER

FH-B-242

ft

580.15

11

CASINGO. D.7 5/8 inI. D.3 1/4 inWT OF HAMMER-CASING140 lbHAMMER FALL-CASING30 in

SAMPLERO. D.2 inI. D.1 3/8 inWT OF HAMMER-SAMPLER140 lbHAMMER FALL-SAMPLER30 in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
	0.0	J1	3	5	6		17%	(0.00) Brown Silty GRAVEL, Sandy W/Red Brick Pieces And Concrete Pieces(P.F.) (M-NPL)
	5.0	J2	2	2	2		21%	
	10.0	J3	1	1	1		33%	(10.00) Black Silty GRAVEL, Sandy With Cinders (POSSIBLE Fill) (M-NPL)
	15.0	J4	7	50			12%	(15.00) Brown Clayey SILT, Gravelly (M-LPL)
	20.0	R1						(16.00) Run #1 Drilled from 16'0" To 20'6" ROCK REC. 50.4" 93.3% 2 pieces NWD4 DOUBLE TUBE SWIVEL
	25.0	R2						(20.50) Run #2 Drilled from 20'6" To 25'6" ROCK REC. 60" 100% 4 pieces NWD4 DOUBLE TUBE SWIVEL

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CONTRACT

CONTRACTOR

DRILL RIG OPERATOREric Albert

SOIL & ROCK DESCRIPTIONT. Kaufmann / M. Heiser

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED10-FEB-2020

REVISION #1

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2

HOLE FH-B-242

SM 282 E 12/02

PSN 12794 BORNUM 243

REGION 5

COUNTY ERIE

PIN	5134.48
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PROJECT BUFFALO SKYWAY

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE FH-B-243

LINE

STA _____

OFFSET ft

SURF. ELEV. 579.44

ACTUAL COORDINATES	(N) 1,048,169.370	(E) 1,072,252.960	DATUM	NAD83	DEPTH TO WATER	14
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DATE START	07-JAN-2020	DATE FINISH	07-JAN-2020
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CASING	O. D.	in	I. D.	in	WT OF HAMMER-CASING	lb	HAMMER FALL-CASING	in
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SAMPLER	O. D.	in	I. D.	in	WT OF HAMMER-SAMPLER	lb	HAMMER FALL-SAMPLER	in
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CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		

1. Automatic hammer used.
2. Refusal at 14.0'.
3. North side of I-190, 50ft west of Chicago St.

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DRILL RIG OPERATOR	Eric Albert
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SOIL & ROCK DESCRIPTION	D. Landau / T. Kaufmann
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REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 10-FEB-2020 REVISION # 1

DATE APPROVED: 10/25/2019 REVISION # 1
RESIDENT ENGINEER _____

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SHEET 2 OF 2 HOLE FH-B-243

SM 282 E 12/02

PSN 12794 BORNUM 244

REGION 5

COUNTY ERIE

PIN	<u>5134.48</u>
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PROJECT	BUFFALO SKYWAY
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STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



ACTUAL COORDINATES	<u>(N) 1,048,084.660</u>	<u>(E) 1,072,124.710</u>	DATUM	<u>NAD83</u>	DEPTH TO WATER	<u>21</u>
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DATE START 10-JAN-2020 **DATE FINISH** 10-JAN-2020

CASING	O. D.	7 5/8 in	I. D.	3 1/4 in	WT OF HAMMER-CASING	140 lb	HAMMER FALL-CASING	30 in
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SAMPLER O. D. 2 in I. D. 1 3/8 in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in

[illegible]

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DRILL RIG OPERATOR	Eric Albert
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SOIL & ROCK DESCRIPTION T. Kaufmann / M. Heiser

REG GEOTECHNICAL

ENGINEER Todd E. Nelson

DATE APPROVED 10-FEB-2020 **REVISION #** 1

RESIDENT ENGINEER

CONTRACT	CONTRACTOR
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SHEET 1 OF 2 HOLE FH-B-244

SM 282 E 12/02

PSN12794

REGION5

COUNTYERIE

PIN5134.48

PROJECTBUFFALO SKYWAY

BORNUM245


ACTUAL COORDINATES(N) 1,048,224.840 (E) 1,072,023.090

DATE START11-JAN-2020

CASING O. D. 7 5/8 in I. D. 3 1/4 in

SAMPLER O. D. 2 in I. D. 1 3/8 in

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING BUREAU
SUBSURFACE EXPLORATION LOG



HOLE LINE STA

FH-B-245

OFFSETft

SURF. ELEV.579.71

DEPTH TO WATER10.2

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24		
	0.0	J1	4	2	11		14%	(0.00) Brown And Gray Sandy GRAVEL, Silty With Pieces Of Concrete (Possible Fill) (M-NPL)
	5.0	J2	3	2	3		22%	(5.00) Dark Gray Clayey SILT With Red Brick Pieces (Possible Fill) (M-LPL)
	10.0	J3	1	4	6		24%	(10.00) Dark Gray Clayey SILT, Sandy With Asphalt Pieces (Possible Fill) (M-LPL)
	15.0	J4	1	9	11		23%	(15.00) Red, Gray And Black Silty CLAY With Gravel Pieces (M-PL)
	20.0	J5	5	30	47		6%	(20.00) Gray Fine Sandy SILT, Clayey With Gravel Pieces (M-LPL)
	25.0							

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CONTRACT CONTRACTOR

DRILL RIG OPERATOREric Albert

SOIL & ROCK DESCRIPTIOND. Landau / T. Kaufmann

REG GEOTECHNICAL

ENGINEERTodd E. Nelson

DATE APPROVED10-FEB-2020REVISION # 1

RESIDENT ENGINEER

STRUCTURE NAMEB.I.N.

SHEET 1 OF 2HOLE FH-B-245

PSN	12794	BORNUM	245
REGION	5		
COUNTY	ERIE		
PIN	5134.48		
PROJECT	BUFFALO SKYWAY		

HOLE	FH-B-245
LINE	
STA	
OFFSET	ft
RF. ELEV.	579.71
DEPTH TO WATER	10.2

				DATE START		11-JAN-2020		DATE FINISH		11-JAN-2020		
CASING	O. D.	7 5/8	in	I. D.	3 1/4	in	WT OF HAMMER-CASING	140	lb	HAMMER FALL-CASING	30	in
SAMPLER	O. D.	2	in	I. D.	1 3/8	in	WT OF HAMMER-SAMPLER	140	lb	HAMMER FALL-SAMPLER	30	in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	25.0	J6	21	20	33		(25.00) Sample NOT RECEIVED	
		R1					(28.50) Run #1 Drilled from 28'6" To 33'6" ROCK REC. 60" 100% 6 pieces NWD4 DOUBLE TUBE SWIVEL	
	30.0							
		R2					(33.50) Run #2 Drilled from 33'6" To 38'6" ROCK REC. 60" 100% 7 pieces NWD4 DOUBLE TUBE SWIVEL	
	35.0							

BOTTOM OF HOLE AT 38.50 ft

1. Automatic hammer used.
2. J6 Driller's visual: Gray Gravelly SILT, Sandy
3. Refusal 28.5'
4. North side of I-190. 400ft west of Chicago St.

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DRILL RIG OPERATOR	Eric Albert
SOIL & ROCK DESCRIPTION	D. Landau / T. Kaufmann
REG GEOTECHNICAL ENGINEER	Todd E. Nelson
DATE APPROVED	10-FEB-2020
REVISION #	1
RESIDENT ENGINEER	
STRUCTURE NAME	B.I.N.

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SHEET 2 OF 2 HOLE FH-B-245

SM 282 E 12/02

PSN

12794

REGION

5

COUNTY

ERIE

PIN

5134.48

PROJECT

BUFFALO SKYWAY

BORNUM

245.1

DATE START

26-FEB-2020

DATE FINISH

26-FEB-2020

STATE OF NEW YORK

DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

SUBSURFACE EXPLORATION LOG

HOLE

LINE

STA

OFFSET

SURF. ELEV.

DEPTH TO WATER

FH-B-245A

ft

580.02

CASING

O. D.

6 5/8

in

I. D.

3 1/4

in

WT OF HAMMER-CASING

140

lb

HAMMER FALL-CASING

30

in

SAMPLER

O. D.

2

in

I. D.

1 3/8

in

WT OF HAMMER-SAMPLER

140

lb

HAMMER FALL-SAMPLER

30

in

CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER in				MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18		
			6	12	18	24		
	0.0	J1					11%	(0.00) Brown Silty GRAVEL, Sandy With Root Fibers (M-NPL)
	5.0	J2	2	2	2		19%	(5.00) Brown Gravelly CLAY, Silty With Creosote (Possible Fill) (M-NPL)
	10.0	J3	4	6	9		24%	(10.00) Brown And Black Clayey SILT With Gravel Pieces And Slag (Possible Fill) (M-LPL)
		J4	20	30	34		21%	(11.50) Brown Silty CLAY (M-PL)
		J5	20	36	60		17%	
	15.0	J6	WOH	3	4		22%	(14.50) Brown Layered Silty CLAY/ Clayey SILT (M-PL)
		J7	7	7	14		12%	(16.00) Brown And Gray Gravelly CLAY, Silty (M-PL)
		J8	7	15	12		10%	(17.50) Gray Gravelly CLAY, Silty (M-PL)
	20.0	J9	42	49	53		8%	(19.00) Brown Gravelly SILT, Sandy (M-NPL)

BOTTOM OF HOLE AT 20.50 ft

1. Automatic hammer used.

2. Diamond Bit. No. 244038-3

3. J1 off auger.

*Revised to correct Regional Hole Number from FH-B-245.1 to FH-B-245A

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACT

CONTRACTOR

DRILL RIG OPERATOR

SOIL & ROCK DESCRIPTION

REG GEOTECHNICAL ENGINEER

DATE APPROVED

RESIDENT ENGINEER

STRUCTURE NAME

L. Muhammad

A. Zerebovich / D. Landau

Todd E. Nelson

28-SEP-2022

B.I.N.

SHEET 1 OF 2

HOLE FH-B-245A

