50 0 50 100
Scale in Feet

TRUE N

LEGEND

APPROXIMATE BORING LOCATION

NOTES:

1. EXPLORATION LOCATION PLAN PREPARED FROM IMAGERY FROM STATE OF MAINE AERIAL ORTHOPHOTOS ENTITLED "GEOLIBRARY_3IN_2012," PROVIDED BY THE STATE OF MAINE, MAINE OFFICE OF GIS AND MAINE GEOLIBRARY BOARD.
2. THE BORINGS WERE LOCATED IN THE FIELD BY S. W. COLE ENGINEERING, INC. USING A MAPPING GRADE TRIMBLE GPS RECEIVER AND OVERLAID ON THE ABOVE IMAGERY.
3. CONCEPTUAL BUILDING ENVELOPE AND PARKING AREA FROM A 1"=60' SCALE PLAN OF THE SITE ENTITLED "SITE PLAN," PREPARED BY ALBERT FRICK ASSOCIATES, INC., DATED 4/18/2016.
4. PARCEL LINES FROM MAINE LIBRARY OF GEOGRAPHIC INFORMATION (MLGI), MAINE OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS (MEGIS) (COMP., ED.)
5. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
6. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

S.W.COLE ENGINEERING, INC.

AVESTA HOUSING

EXPLORATION LOCATION PLAN

PROPOSED HOUSING
977 BRIGHTON AVENUE
PORTLAND, MAINE

Job No.	16-0368	Scale	1"=50'
Date:	05/18/2016	Sheet	1

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S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.:	**B-101**
SHEET:	1 OF 1
PROJECT NO.:	16-0368
DATE START:	5/12/2016
DATE FINISH:	5/12/2016
ELEVATION:	
SWC REP.:	P. OTTO

PROJECT / CLIENT: PROPOSED 3-STORY HOUSING BUILDING / AVESTA
LOCATION: 977 BRIGHTON AVENUE
DRILLING CO. : GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4"		
SAMPLER:	SS	1 3/8"	140 LBS.	30"
CORE BARREL:				

WATER LEVEL INFORMATION
SOILS WET AT 6'

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	DARK BROWN SAND Y SILT WITH ORGANICS (TOPSOIL)
	1D	24"	15"	2.0'	2	2	3	8	2.0'	GRAY-BROWN CLAYEY SILT
	2D	24"	18"	4.0'	6	14	15	19		BROWN SILTY CLAY WITH SAND PARTINGS q_p = 8 to 9 ksf ~HARD TO VERY STIFF~
	3D	24"	18"	7.0'	6	7	11	11		q_p = 5.5 to 7.5 ksf
									9.0'	
	4D	24"	20"	12.0'	W O H / 12"		1	1		GRAY SILTY CLAY q_p = < 0.5 ksf
	1V			16.0'	3 5/8" X 7" TVANE					S_v = 0.35 / 0.0 ksf ~SOFT~
	1V'			16.7'	3 5/8" X 7" TVANE					S_v = 0.39 / 0.0 ksf
	2V			25.7'	3 5/8" X 7" TVANE					S_v = 0.28 / 0.0 ksf
	2V'			26.4'	3 5/8" X 7" TVANE					S_v = 0.33 / 0.0 ksf
										HYDRAULIC PUSH ROD PROBE FROM 26.4' - 70'
										PROBABLE GRAY SILTY CLAY

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.:	**B-101**
SHEET:	1 OF 1
PROJECT NO.:	16-0368
DATE START:	5/12/2016
DATE FINISH:	5/12/2016
ELEVATION:	
SWC REP.:	P. OTTO

PROJECT / CLIENT: PROPOSED 3-STORY HOUSING BUILDING / AVESTA
LOCATION: 977 BRIGHTON AVENUE
DRILLING CO. : GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4"		
SAMPLER:	SS	1 3/8"	140 LBS.	30"
CORE BARREL:				

WATER LEVEL INFORMATION
SOILS WET AT 6'

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
										HYDRAULIC PUSH ROD PROBE FROM 26.4' - 70'
										PROBABLE GRAY SILTY CLAY
									60.0'	
										PROBABLE GRAY SILTY CLAY WITH FREQUENT SAND LAYERS
									70.0'	25 BLOWS FOR 0"
										REFUSAL AT 70.0'
										PROBABLE BEDROCK

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.:	**B-102**
SHEET:	1 OF 1
PROJECT NO.:	16-0368
DATE START:	5/13/2016
DATE FINISH:	5/13/2016
ELEVATION:	
SWC REP.:	P. OTTO

PROJECT / CLIENT: PROPOSED 3-STORY HOUSING BUILDING / AVESTA
LOCATION: 977 BRIGHTON AVENUE
DRILLING CO. : GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4"		
SAMPLER:	SS	1 3/8"	140 LBS.	30"
CORE BARREL:				

WATER LEVEL INFORMATION
FREE WATER AT 1.5 - 2'

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
										BROWN GRAVELLY SILTY SAND (FILL)
	1D	24"	5"	2.0'	8	7	7	5	1.5'	~MEDIUM DENSE~
										BROWN-GRAY SILTY SAND, SOME GRAVEL (FILL)
	2D	24"	4"	4.0'	4	2	3	2		~LOOSE~
									4.5'	
										BROWN SILTY CLAY
	3D	24"	18"	7.0'	6	10	12	14		~VERY STIFF TO HARD BECOMING… q_p = 8 to 9 ksf
	4D	24"	12"	9.0'	8	8	4	4	9.0'	...STIFF~ q_p = 3 to 4 ksf
										GRAY SILTY CLAY
	5D	24"	4"	12.0'	2	2	1	2		q_p = < 0.5 ksf
	1S	24"	24"	17.0'	PISTON SAMPLER					
	1V			17.7'	3 5/8" X 7" TVANE					S_v = 0.33 / 0.0 ksf ~SOFT~
	1V'			18.4'	3 5/8" X 7" TVANE					S_v = 0.33 / 0.0 ksf
	2S	24"	24"	27.0'	PISTON SAMPLER					
	2V			27.7'	3 5/8" X 7" TVANE					S_v = 0.43 / 0.0 ksf
	2V'			28.4'	3 5/8" X 7" TVANE					S_v = 0.41 / 0.0 ksf
										HYDRAULIC PUSH ROD PROBE FROM 28.4' - 53'
										PROBABLE GRAY SILTY CLAY

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.:	**B-102**
SHEET:	1 OF 1
PROJECT NO.:	16-0368
DATE START:	5/13/2016
DATE FINISH:	5/13/2016
ELEVATION:	
SWC REP.:	P. OTTO

PROJECT / CLIENT: PROPOSED 3-STORY HOUSING BUILDING / AVESTA
LOCATION: 977 BRIGHTON AVENUE
DRILLING CO. : GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4"		
SAMPLER:	SS	1 3/8"	140 LBS.	30"
CORE BARREL:				

WATER LEVEL INFORMATION
FREE WATER AT 1.5 - 2'

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
										HYDRAULIC PUSH ROD PROBE FROM 28.4' - 53'
										PROBABLE GRAY SILTY CLAY
									45.0'	
										PROBABLE GRAY SILTY CLAY WITH FREQUENT SAND LAYERS
									53.0'	25 BLOWS FOR 0"
										REFUSAL AT 53.0'
										PROBABLE BEDROCK

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.:	**B-103**
SHEET:	1 OF 1
PROJECT NO.:	16-0368
DATE START:	5/12/2016
DATE FINISH:	5/12/2016
ELEVATION:	
SWC REP.:	P. OTTO

PROJECT / CLIENT: PROPOSED 3-STORY HOUSING BUILDING / AVESTA
LOCATION: 977 BRIGHTON AVENUE
DRILLING CO. : GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	SSA	2 1/4"		
SAMPLER:	SS	1 3/8"	140 LBS.	30"
CORE BARREL:				

WATER LEVEL INFORMATION
FREE WATER AT 5.0' ON 5/12/2016
FREE WATER AT 2.0' ON 5/13/2016

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
	1D	24"	15"	2.0'	4	8	7	8	3.5'	BROWN SILTY GRAVELLY SAND (FILL) ~MEDIUM~
	2D	24"	18"	4.0'	7	8	7	3	5.5'	DARK GRAY SANDY SILT AND CLAYEY SANDY SILT ~MEDIUM~
	3D	24"	20"	7.0'	4	7	8	11	9.0'	BROWN SILTY CLAY ~VERY STIFF TO HARD~ q_p = 7 to 8 ksf
	4D	24"	24"	12.0'	2	2	1	2	12.0'	GRAY SILTY CLAY ~SOFT~ q_p = ≤ 1.0 ksf q_p = < 0.5 ksf
										BOTTOM OF EXPLORATION AT 12.0'

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

KEY TO NOTES & SYMBOLS
Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	½" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: **Test Boring Explorations** - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: **Test Pit Explorations** - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.