04/06/2017

DEPARTMENT OF ENVIRONMENTAL PROTECTION

PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Natural Resouces Protection Act- Permit by Rule Standards, Chapter 305)

PLEASE TYPE OR PRINT IN *BLACK INK ONLY*

APPLICANT INFORMATION (Owner)		AGENT INFORMATION (If Applying on Behalf of Owner)	
Name:		Name:	
Mailing Address:		Mailing Address:	
Town:		Town:	
State and Zip Code:		State and Zip Code:	
Daytime Phone #:		Daytime Phone #:	
Email Address:		Email Address:	

PROJECT INFORMATION

Part of a larger project? (check one):	❑ Yes ❑ No	After the Fact? (check one):	❑ Yes ❑ No	Project involves work below mean low water? (check one):	❑ Yes ❑ No	Name of waterbody:	
Project Town:		Project Location (Address):				Map & Lot Number:	
Brief Project Description:							
Brief Directions to Site:							

PERMIT BY RULE (PBR) SECTIONS (Check at least one): I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Rules, Chapter 305. **I and my agents, if any, have read and will comply with all of the standards in the Sections checked below.**

- ❑ **Sec. (2) Act. Adj. to Protected Natural Res.**
- ❑ **Sec. (3) Intake Pipes**
- ❑ **Sec. (4) Replacement of Structures**
- ❑ **Sec. (5) REPEALED**
- ❑ **Sec. (6) Movement of Rocks or Vegetation**
- ❑ **Sec. (7) Outfall Pipes**
- ❑ **Sec. (8) Shoreline stabilization**
- ❑ **Sec. (9) Utility Crossing**
- ❑ **Sec.(10) Stream Crossing**
- ❑ **Sec. (11) State Transportation Facil.**
- ❑ **Sec. (12) Restoration of Natural Areas**
- ❑ **Sec. (13) F&W Creation/Enhance/Water Quality Improvement**
- ❑ **Sec. (14) REPEALED**
- ❑ **Sec. (15) Public Boat Ramps**
- ❑ **Sec. (16) Coastal Sand Dune Projects**
- ❑ **Sec. (17) Transfers/Permit Extension**
- ❑ **Sec. (18) Maintenance Dredging**
- ❑ **Sec. (19) Activities in/on/over significant vernal pool habitat**
- ❑ **Sec. (20) Activities located in/on/over high or moderate value inland waterfowl & wading bird habitat or shorebird feeding & roosting areas**

NOTE: Municipal permits *may* also be required. Contact your local code enforcement office for more information. Federal permits may be required for stream crossings and for projects involving wetland fill. Contact the Army Corps of Engineers at the Maine Project Office for more information.

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS

- ❑ ***Attach* all required submissions for the PBR Section(s) checked above. The required submissions for each PBR Section are outlined in Chapter 305 and may differ depending on the Section you are submitting under.**
- ❑ ***Attach* a check for the correct fee made payable to: "Treasurer, State of Maine".The current fee for NRPA PBR Notifications can be found at the Department's website: http://www.maine.gov/dep/feesched.pdf**
- ❑ ***Attach* a location map that clearly identifies the site (U.S.G.S. topo map, Maine Atlas & Gazetteer, or similar).**
- ❑ ***Attach Proof of Legal Name* if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's *registration information* (available at http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x) Individuals and municipalities are not required to provide any proof of identity.**

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules.

I also understand that this PBR becomes effective 14 calendar days after receipt by the Department *unless the Department approves or denies the PBR prior to that date.*

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in the rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant:		Date:	

Keep a copy as a record of permit. Send the form with attachments via certified mail or hand deliver to the Maine Dept. of Environmental Protection **at the appropriate regional office listed below.** The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

AUGUSTA DEP
17 STATE HOUSE STATION
AUGUSTA, ME 04333-0017
(207)287-7688

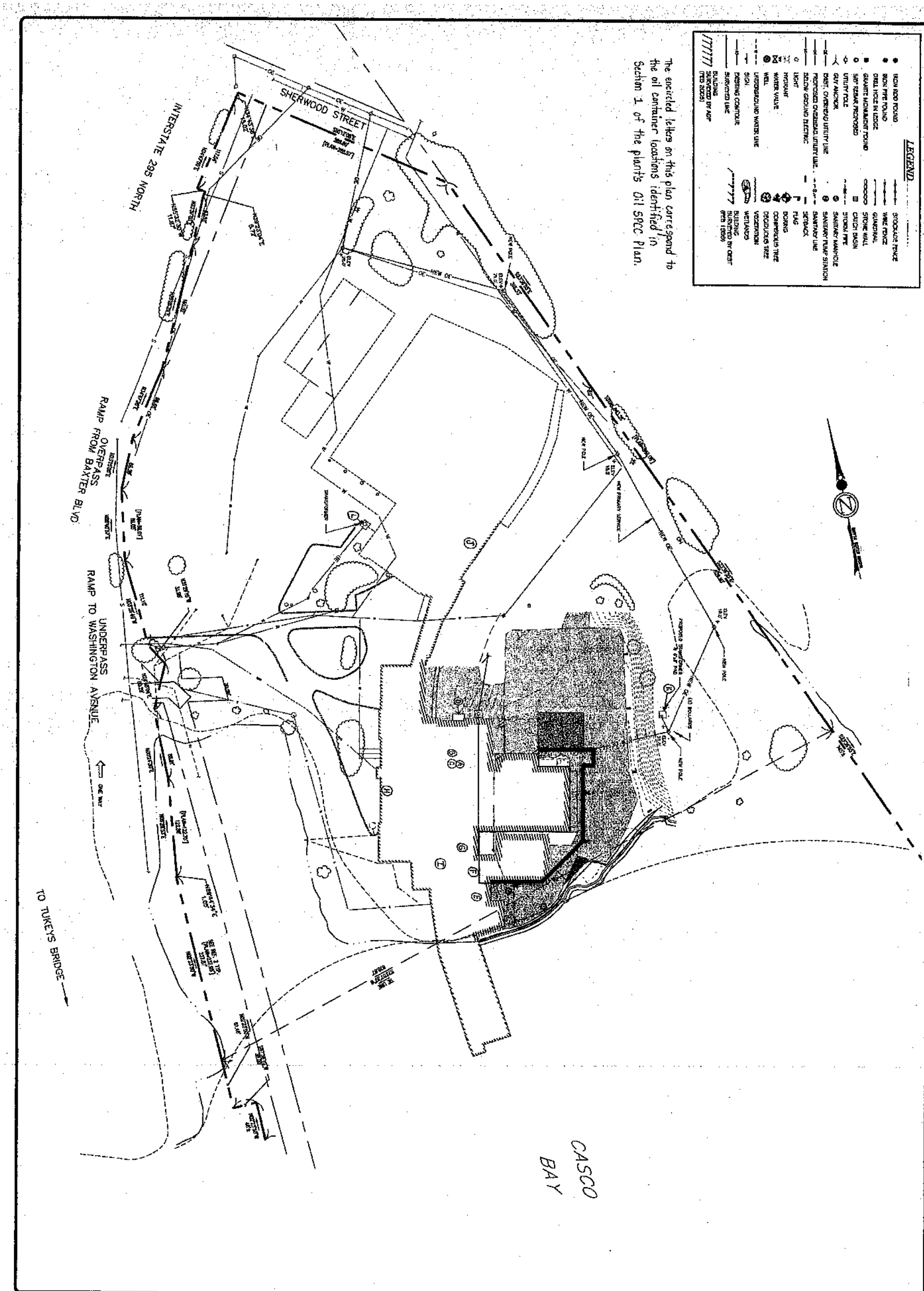
PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207)822-6300

BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207)941-4570

PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207)764-0477

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

PARCEL ID / TAX ACCT ID / OWNER INFORMATION	PROPERTY DESCRIPTIONS	VALUATION TYPE	AMOUNT	TAXABLE VALUE	TAX AMOUNT
133 - D-003-001 19598 HERIC JACOB & AMY K HERIC JTS 55 ALBA ST PORTLAND ME 04103	133-D-3 ALBA ST 57 5000 SF	LAND VALUE BUILDING VALUE HOMESTEAD EXEMPTIO **TAXABLE**	85,800 114,500 -18,800 **181,500**	181,500	3,929.48
447 - A-001-001 44808 HERITAGE ACQUISTION CORP 4 GATEHALL DR STE 110 PARSIPPANY NJ 07054	447-A-1-2 BEAN POT CIRCLE 1 SHERWOOD ST 40-60 F 575506 U 1036728	LAND VALUE BUILDING VALUE **TAXABLE**	1,488,100 4,663,000 **6,151,100**	6,151,100	133,171.32
156 - F-006-013 48638 HERLIHY ALEECE L TRUSTEE 13 PAYSON RD FALMOUTH ME 04105	156-F-6 158-A-5 159-J-6 BAXTER BLVD 610-656 BACK COVE ESTATES COND # 13	LAND VALUE BUILDING VALUE **TAXABLE**	31,900 120,900 **152,800**	152,800	3,308.12
056 - D-007-001 8830 HERLIHY EMILY D 30 CUSHMAN ST PORTLAND ME 04102	56-D-7 CUSHMAN ST 28-30 2880 SF	LAND VALUE BUILDING VALUE **TAXABLE**	125,600 150,500 **276,100**	276,100	5,977.58
056 - D-040-001 8900 HERLIHY EMILY D 30 CUSHMAN ST PORTLAND ME 04102	56-D-40 R CUSHMAN ST 28-30 2628 SF	LAND VALUE BUILDING VALUE **TAXABLE**	89,600 121,300 **210,900**	210,900	4,566.00
013 - H-001-001 1428 HERMANN ZARRA 28 MARION ST PORTLAND ME 04101	13-H-1 MARION ST 26-28 WASHINGTON AVE 85-87 2562 SF	LAND VALUE BUILDING VALUE **TAXABLE**	90,800 111,500 **202,300**	202,300	4,379.80
410 - D-022-001 51678 HERNANDEZ GUARIONEX 33 HUMBOLT PORTLAND ME 04103	410-D-22-23 HUMBOLDT ST 31-35 6508 SF LOT 1	LAND VALUE BUILDING VALUE **TAXABLE**	65,400 153,500 **218,900**	218,900	4,739.20
016 - F-009-001 2616 HERNANDEZ GUY A & STELLA HERNANDEZ JTS 12 ATLANTIC ST PORTLAND ME 04101	16-F-9 ATLANTIC ST 8-12 5000 SF	LAND VALUE BUILDING VALUE **TAXABLE**	159,800 166,500 **326,300**	326,300	7,064.40



DATE : 05-07-05
SCALE : 1"=50'-0"
DESIGN BY: RCA
DRAWN BY: ASB
FILE #:04075-C.DWG
PROJECT NUMBER: **04075**
SHEET NO: **C100**

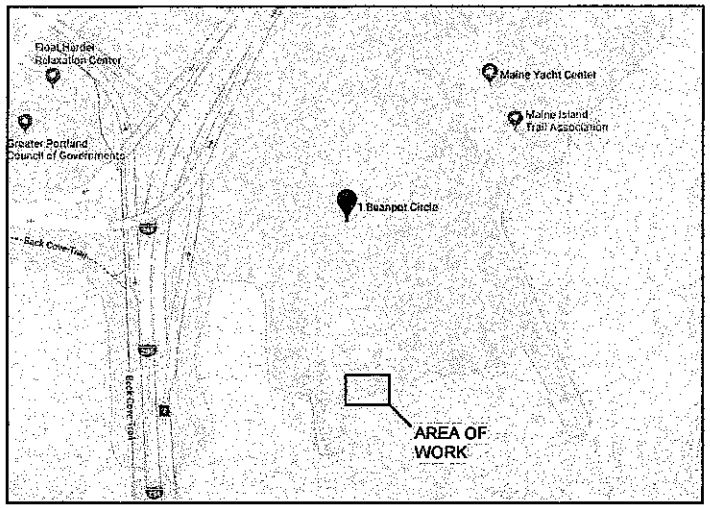
REVISIONS			
No.	BY	DESCRIPTION	DATE
1	RCA	FOR CONSTRUCTION	9-02-05
2	AJC	PER SITE REVIEW LETTER	6-24-05
3	RCA	BUILDING PERMIT APPLICATION	8-22-05
4	RCA	NEW PRIMARY ELECTRIC SERVICE	9-01-05

PROJECT: **B&M 2005 EXPANSION**
ONE BEANPOT CIRCLE
PORTLAND, MAINE
CUMBERLAND

SHEET TITLE: **SITE PLAN**

ASSOCIATED DESIGN PARTNERS INC.
80 Leighton Road
Falmouth, Maine 04105
Office: (207) 878-1751
Fax: (207) 878-1788
E-Mail: adp@adpengineering.com

THIS PLAN PRELIMINARY
STATE OF MAINE
ARTHUR J. COLVIN JR.
No. 6085
PROFESSIONAL ENGINEER
WITHOUT SIGNATURE



LOCATION MAP

CONCRETE:

1. CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".

2. CONCRETE SHALL BE:
   A. SEAWALL CAP: 3500 PSI AT (28) DAYS (W/C = 0.52) AIR ENTRAINED.

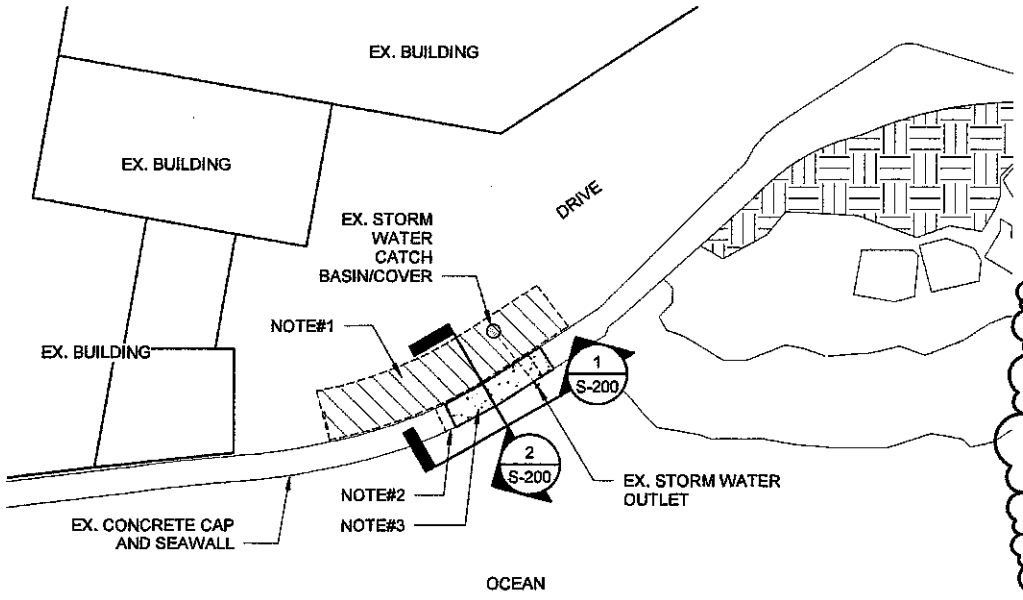
3. CONCRETE MATERIALS:
   A. PORTLAND CEMENT: ASTM C150, TYPE I OR II. USE ONE TYPE THROUGHOUT PROJECT.
   B. NORMAL WEIGHT AGGREGATE: ASTM C33. PROVIDE FROM SINGLE SOURCE FOR ENTIRE PROJECT. NO AGGREGATE CONTAINING SOLUBALE SALTS, IRON SULFIDES, PYRITE, MARCASITE OR OCHRE WHICH CAN CAUSE STAINS ON EXPOSED CONCRETE SURFACES.
   C. WATER: POTABLE.
   D. AIR-ENTRAINING ADMIXTURE: ASTM C260.

4. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS, AND SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 315-LATEST EDITION. REBAR AT SEAWALL CAP TO BE EPOXY COATED.

STATE OF MAINE
JAMES P. CURLEY
No. 8843
LICENSED
PROFESSIONAL ENGINEER

REVISED: 09-21-2018

160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com
Allied Engineering
Structural Mechanical Electrical Commissioning



PLAN VIEW

NOTES:

1. EXCAVATE ALONG DRIVE SIDE OF SEAWALL IN ORDER TO INSTALL SOILS AND GEOTEXTILE FABRIC AS SHOWN IN SECTION THRU WALL (APPROX. LENGTH OF EXCAVATION = 35')
2. REMOVE UPPER PORTION OF STONE WALL AT DAMAGED AREA DOWN TO AN ELEVATION WHERE THE STONE WALL IS IN GOOD CONDITION - REBUILD THE WALL TO MATCH EXISTING.
3. REMOVE DAMAGED PORTION OF CONCRETE CAP (APPROX LENGTH = 15' +/-) REPLACE AS SHOWN IN SECTION THRU WALL. REMOVE / REPLACE PORTION OF EXISTING FENCE / GATE IMPACTED BY FENCE REMOVAL.
4. STRUCTURAL FILL: BACKFILL ADJACENT TO FOUNDATIONS, SLAB BASE MATERIAL AND MATERIAL BELOW EXTERIOR ENTRANCES SLABS SHOULD BE CLEAN, NON-FROST SUSCEPTIBLE SAND AND GRAVEL MEETING THE GRADATION REQUIREMENTS FOR STRUCTURAL FILL AS GIVEN BELOW:

STRUCTURAL FILL	
SIEVE SIZE	PERCENT FINER BY WEIGHT
4 INCH	100
3 INCH	90 TO 100
1/4 INCH	25 TO 90
NO. 40	0 TO 30
NO. 200	0 TO 6

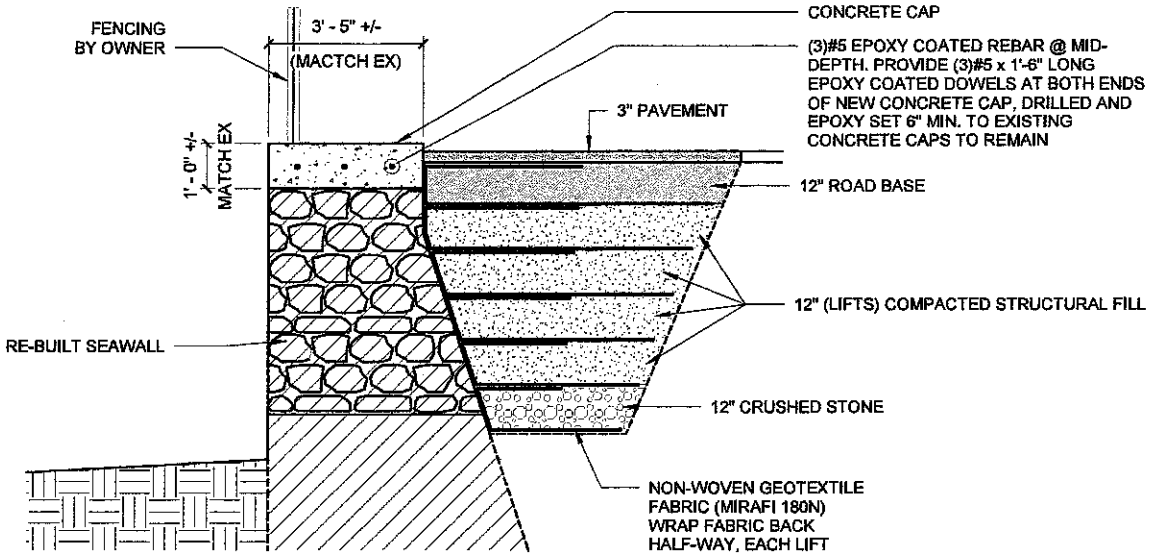
5. CRUSHED STONE: CRUSHED STONE, USED FOR DRAINAGE AGGREGATE SHOULD BE WASHED ¾-INCH CRUSHED STONE MEETING THE REQUIREMENTS OF 2014 MAINEDOT STANDARD SPECIFICATION 703.22 UNDERDRAIN BACKFILL MATERIAL TYPE C IS SUITABLE FOR USE AS CRUSHED STONE.

PLANVIEW

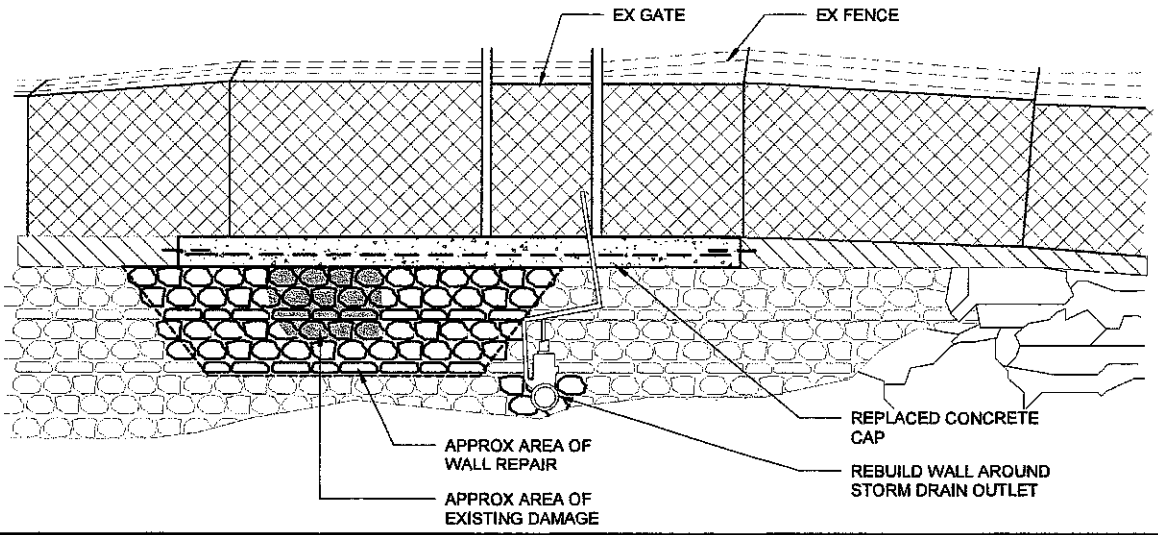
BURNHAM AND MORRIL RETAINING WALL REPLACEMENT
1 BEANPOT CIRCLE, PORTLAND, ME

Scale: As indicated | Date: 09-19-2018 | Project No: 18035 | CAD File: 18035_S.rvt

S-100



2 SECTION THRU WALL



1 ELEVATION VIEW

STATE OF MAINE
JAMES R. CURLEY
No. 8843
REGISTERED PROFESSIONAL ENGINEER
LICENSED

160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com
Allied Engineering
Structural Mechanical Electrical Commissioning

SEAWALL ELEVATION AND SECTION

BURNHAM AND MORRIL RETAINING WALL REPLACEMENT
1 BEANPOT CIRCLE, PORTLAND, ME

Scale: As indicated | Date: 09/19/18 | Project No: 18035 | CAD File: 18035_S.rvt

S-200

REPORT

September 6, 2018
18-0955 S

Explorations and Preliminary Geotechnical Services

Existing Sinkhole Investigation
B & M Baked Beans Facility
1 Beanpot Circle
Portland, Maine

PREPARED FOR:
Allied Engineering, Inc.
Attention: James Curley, P.E.
160 Veranda Street
Portland, Maine 04103

PREPARED BY:
S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039
207-657-2866

S.W.COLE ENGINEERING, INC.

- *Geotechnical Engineering*
- *Construction Materials Testing and Special Inspections*
- *GeoEnvironmental Services*
- *Test Boring Explorations*

www.swcole.com

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18-0955 S

September 6, 2018

Allied Engineering, Inc.
Attention: Jim Curley, P.E.
160 Veranda Street
Portland, Maine 04103

Subject: Explorations and Preliminary Geotechnical Services
Existing Sinkhole Investigation
B & M Baked Beans Facility
1 Beanpot Circle
Portland, Maine

Dear Jim:

In accordance with our Proposal, dated August 15, 2018, we have performed a subsurface exploration for the subject project. This report summarizes our findings and preliminary geotechnical assessment associated with the sinkhole. The contents of this report are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services is to document existing subsurface soil conditions in the area of the sinkhole and to provide general geotechnical considerations associated with the proposed repair. Our scope of services included one test pit exploration, a review of nearby test boring explorations made for previous project, a geotechnical assessment of the subsurface findings and preparation of this report.

1.2 Site and Exiting Conditions

The sinkhole is located in a paved area on the southerly side of the B&M Baked Beans' property along its border with Casco Bay. The paved area is supported by an existing rockery seawall. We understand the existing stacked stone seawall was constructed circa

late 1800's and supports a paved access road in the subject area. We understand within the past approximate 12 months, a sinkhole has developed in the pavement, adjacent to the seawall and near an existing storm water catch basin. The stacked stone has been dislodged, creating a void on the water side of the wall, in at least two locations near the sinkhole. The wall is on the order of 6 to 7 feet high from beach elevation to top of wall/pavement elevation in this area. The stone wall is capped with an approximate 12 inch thick concrete cap that is about 3.4 feet wide. The cap is cracked near the sinkhole. Based on observations made during exploration work, it appears the pavement adjacent to the wall has been previously removed and replaced adjacent to the wall in the subject area; likely indicating a previous repair.

The approximate test pit location is shown on the "Exploration Location Plan" attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

One backhoe-dug test pit (TP-1) was made at the site on August 23, 2018 by Shaw Earthworks. The exploration location was selected and established in the field by S.W.COLE based on measurements from existing site features. In 2005, five test borings were made for a proposed expansion project at the facility. Borings B-1 and B-2 were made just north of the subject area. The approximate exploration locations are shown on the "Exploration Location Plan" attached as Appendix B. Logs of the explorations and a key to the notes and symbols used on the logs are attached in Appendix C. Photographs of the site and test pit are also attached in Appendix D.

2.2 Testing

The exploration was completed using a small excavator. The soils in the test pit were sampled periodically. Soil samples obtained from the exploration were returned to our laboratory for further visual classification.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

In general, the test pit exploration encountered a subsurface soils profile consisting of about

3 inches of asphalt pavement overlying about 12 inches of gravelly sand with some silt (pavement base material) overlying granular fill consisting of about 3.5 feet of 1.5 inch crushed stone with some gravelly sand overlying a woven geotextile fabric overlying a mix of the crushed stone and the gravelly sand (fill) overlying what appears to be bay sediments. The bay sediment was encountered at a depth of about 6.5 to 7 feet below the pavement surface. The geotextile fabric also appeared to be placed up on the back side of the wall, but did not appear to be overlapped well. Bedrock was not encountered within the depth explored. We observed that the back side (north side) of the wall was near vertical for the top approximate 2 feet and then tapered out to the north with depth. The wall tapered out about 20 inches within the depth explored. The bottom of the wall was not observed. The test pit was terminated in the bay sediments at a depth of about 7 feet below the pavement surface. The test pit exploration could not be further advanced due to potential collapse of the wall where the larger void in the stone exists. The test pit was backfilled with the excavated soils.

The test boring explorations made north of the wall location generally encountered about 10 feet of loose miscellaneous fill overlying weathered bedrock.

Refer to the exploration logs in Appendix C for more detailed subsurface information at the explorations.

3.2 Groundwater

The test pit was made during approximate low tide. Saturated soils and free water were encountered at a depth of about 6.5 to 7 feet below the pavement surface at the time of the exploration. It should be anticipated that groundwater levels will fluctuate in response to tidal fluctuations, precipitation and snowmelt, as well as changes in site use.

4.0 EVALUATION AND RECOMMENDATIONS

Based on the subsurface findings and observations made at the site, we offer the following preliminary geotechnical considerations for planning:

1. Based on the findings at the test pit and observations made of the existing seawall in the subject area, it appears the sinkhole was caused by erosion and piping of the soils from behind the stone wall which created a void beneath the pavement and eventual collapse of the pavement.

2. Two locations were observed where the wall has lost a significant amount of stone; one larger location near the sinkhole and one location around the outlet pipe of the existing storm water catch basin, also near the sinkhole. It appears the soils are being eroded through these locations where the stone wall has failed. It appears there have been prior issues with the stone wall in this area since some stone is missing in other areas and some mortar has been used in an attempt to repair the wall. The length of wall in apparent need of repair or replacement is about 35 feet in length measured from the easterly end, but should be verified by the client.

3. The concrete cap has cracked and dropped a few inches in the subject area due to the loss of stone in the wall. It is our opinion the wall could collapse near the sinkhole area, if not repaired or replaced.

4. As discussed, the sinkhole area could be excavated and repaired with geotextile fabric, granular fill and crushed stone, but the wall would need to be repaired or replaced prior to placement of new fills and geotextile fabric.

5. As previously discussed, we offer the following options for consideration. Other options may also be feasible:
    - Totally remove the existing wall in the subject area and replace with a new stone or cast in place concrete wall with a thickened mat foundation. Supplemental test borings would be needed to assess deeper soil and bedrock conditions. The existing bay sediments may not be suitable for support of a new wall.

    - Remove the upper portion of the stone wall down to an elevation where the wall is still in good condition and have an experienced contractor/mason rebuild the wall to match the existing wall section. Granular fill, crushed stone and geotextile fabric would be needed as backfill.

    - Drive sheet piling on the outside face (south side) of the existing wall to encapsulate the existing wall and backfill soils to support the existing paved area. The sheet pile wall would likely need tiebacks or dead-man anchorage for lateral support. Supplemental test borings would be needed to assess deeper soil and bedrock conditions.

5.0 CLOSURE

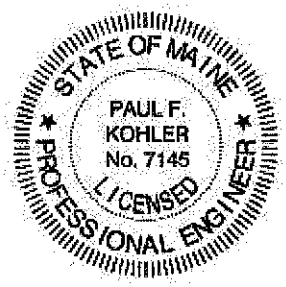
The evaluation and recommendations discussed herein are preliminary in nature for planning purposes. Supplemental explorations, laboratory testing and geotechnical evaluation may be needed, depending on the option chosen for repair or replacement. We look forward to working with you as the project progresses.

Sincerely,

S. W. Cole Engineering, Inc.

Paul F. Kohler, P.E.
Senior Geotechnical Engineer

PFK:rec/emw



Appendix A
Limitations

This report has been prepared for the exclusive use of Allied Engineering, Inc. for specific application to the existing sinkhole at the B & M Baked Beans Facility in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct the work in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

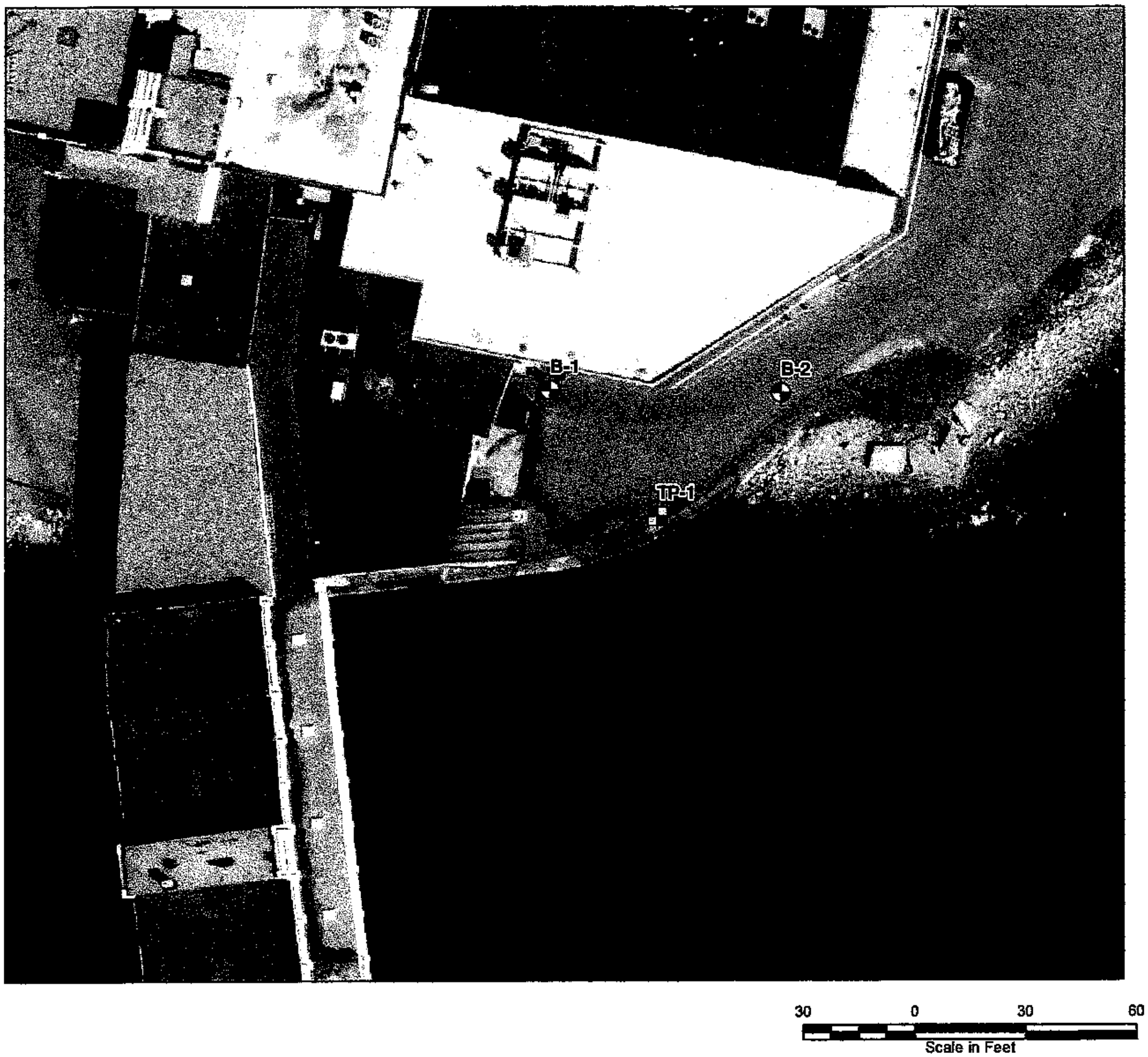
Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W. COLE's scope of work has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPENDIX B

Figures & Maps



LEGEND

- APPROXIMATE TEST PIT LOCATION
- 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. TEST PIT TP-1 WAS PERFORMED UNDER THE DIRECTION OF S. W. COLE ENGINEERING, INC. (SW COLE) IN AUGUST 2018 AND WAS LOCATED IN THE FIELD IN RELATION TO EXISTING SITE FEATURES OBSERVED.
3. BORINGS B-1 AND B-2 WERE PERFORMED UNDER THE DIRECTION OF SW COLE IN FEBRUARY 2005.
4. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
5. 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.

ALLIED ENGINEERING, INC.

EXPLORATION LOCATION PLAN

EXISITING SINKHOLE INVESTIGATION
B&M BAKED BEANS
1 BEANPOT CIRCLE
PORTLAND, MAINE

Job No.	18-0955	Scale	1" = 30'
Date:	09/06/2018	Sheet	1

R:\2018\18-0955\GIS\MXDs\18-0955 ELP.mxd, 9/6/2018 3:56:49 PM, 1:0,

APPENDIX C

Exploration Logs and Key

S.W.COLE ENGINEERING, INC.

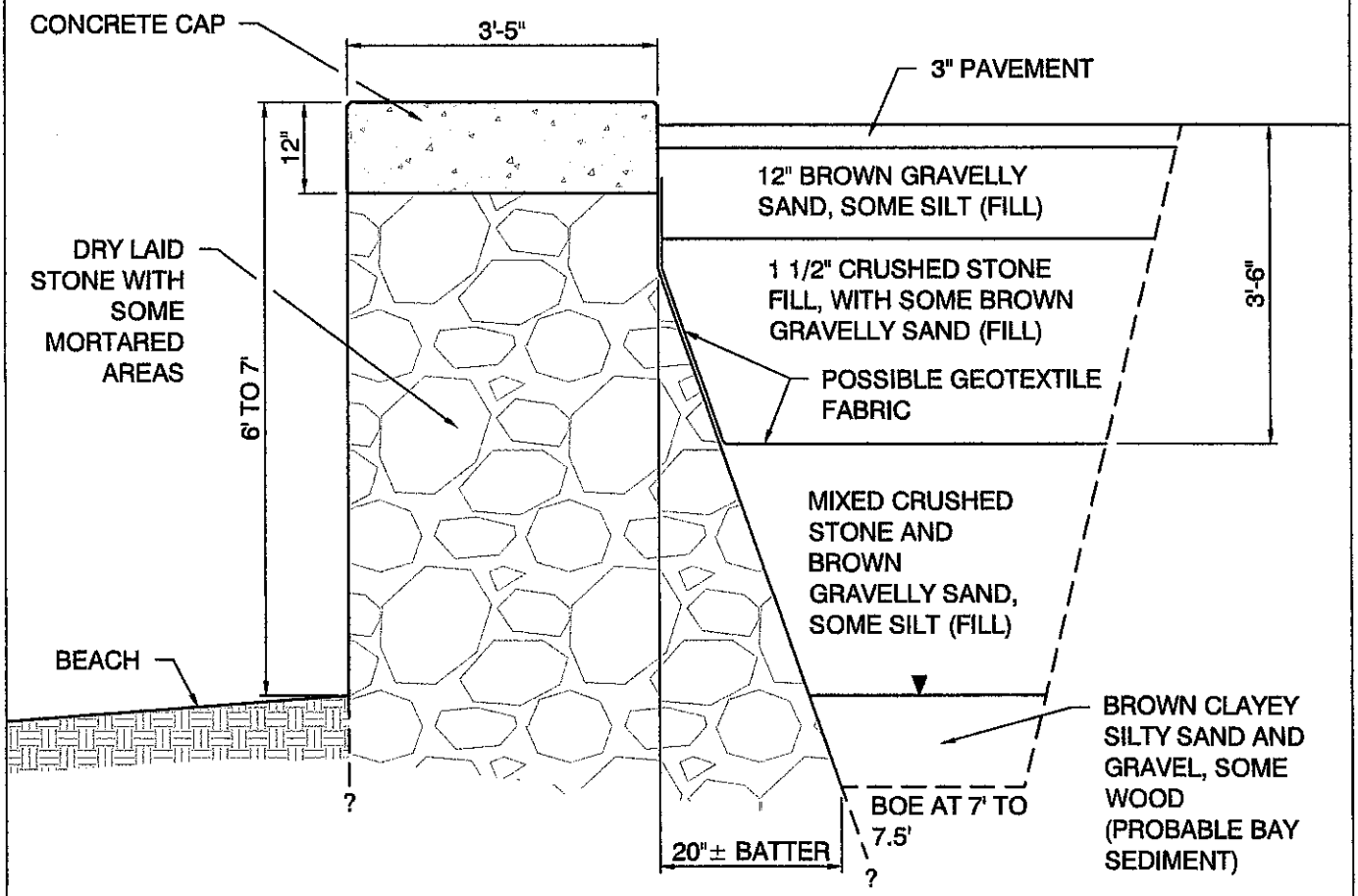
TEST PIT LOG

CLIENT: Allied Engineering, Inc.
PROJECT: Existing Sinkhole Investigation - B&M Baked Beans
LOCATION: 1 Beanpot Circle, Portland, Maine

PROJECT NO.: 18-0955
LOGGED BY: Paul Kohler
CONTRACTOR: Shaw Excavation
EQUIPMENT: Takeuchi TB290 Excavator

TEST PIT TP-1

DATE: 8/23/2018 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** **COMPLETION DEPTH (FT):** 7.5
WATER LEVEL DEPTHS (FT): Soils wet to saturated at 6.5' ±



NOTE: Test pit dug during low tide.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

qp = Pocket Penetrometer Strength, kips/sq.ft.
G.S. = G.S.
BOE = Bottom of Exploration

MAINE TEST BORINGS, INC. BREWER, MAINE 04412	CLIENT S.W. Cole Engineering, Inc.	SHEET 1 OF 1 HOLE NO. TB-1
DRILLER Brad Enos	PROJECT NAME B & M Baked Beans	LINE & STATION
M.T.B. JOB NUMBER 06-101	LOCATION Portland, ME.	OFFSET

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BARREL	DATE 5/3/06 Start	DATE 5/3/06 Finish
	TYPE	NW			SURFACE ELEVATION	
	SIZE I.D.	3"				
	HAMMER WT.	300#				
	HAMMER FALL	16"				

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	VANE READING	DEPTH	STRATUM DESCRIPTION
1												
1												
5												
5												
1												Brown Silty Gravelly Sand w/Organics
1												
WOH												
WOH												
5												
28												
77											11.0	
100*												Rock
											13.4	
												Bottom of Boring @ 13.4'

SAMPLES		SOIL CLASSIFIED BY:	REMARKS:
D = SPLIT SPOON	R = ROCK	[XX] DRILLER-VISUALLY	No spoon samples taken
C = 2" SHELBY TUBE	CORE	[ ] SOIL TECHNICIAN-VISUALLY	10.8' to Mudline; 24.2' from deck to Bottom of Boring.
S = 3" SHELBY TUBE	V = VANE	[ ] LABORATORY TESTS	100* for 0.4'
U = 3½" SHELBY TUBE	TEST		Washed ahead from 11.4' to 13.4'

HOLE NO. TB-1

MAINE TEST BORINGS, INC. BREWER, MAINE 04412	CLIENT S.W. Cole Engineering, Inc.	SHEET 1 OF 1 HOLE NO. TB-2
DRILLER Brad Enos	PROJECT NAME B & M Baked Beans	LINE & STATION
M.T.B. JOB NUMBER 06-101	LOCATION Portland, ME.	OFFSET

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BARREL	DATE 5/3/06 Start	DATE 5/3/06 Finish
	TYPE	NW			SURFACE ELEVATION	
	SIZE I.D.	3"				
	HAMMER WT.	300#				
	HAMMER FALL	16"				

CASING BLOWS PER FOOT	SAMPLE NO.	O.D.	PEN.	REC.	DEPTH @ BOT.	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	VANE READING	DEPTH	STRATUM DESCRIPTION
20												
1												
17												
3												
1												
1												
6												
9												Brown Silty Sand w/Gravel & Organics
11												
11												
19												
22												
101												
102												
87												
100*											15.4	
											17.8	Rock
												Bottom of Boring @ 17.8'

SAMPLES		SOIL CLASSIFIED BY:	REMARKS:
D = SPLIT SPOON	R = ROCK CORE	[XX] DRILLER-VISUALLY	No spoon samples taken
C = 2" SHELBY TUBE		[ ] SOIL TECHNICIAN-VISUALLY	12.7' to Mudline; 30.5' from deck to Bottom of Boring.
S = 3" SHELBY TUBE	V = VANE TEST	[ ] LABORATORY TESTS	100* for 0.8'
U = 3½" SHELBY TUBE			Washed ahead from 15.8' to 17.8'

HOLE NO. TB-2

S.W.COLE ENGINEERING, INC. • Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

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

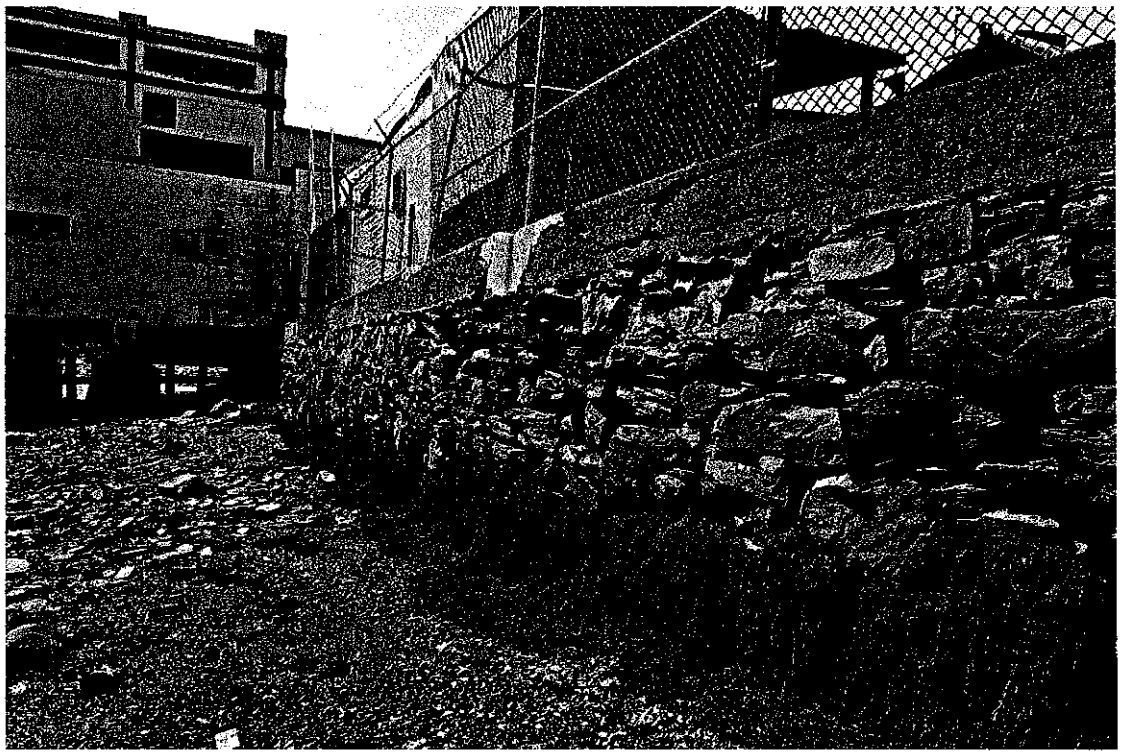
REFUSAL: **Test Boring Explorations** - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being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

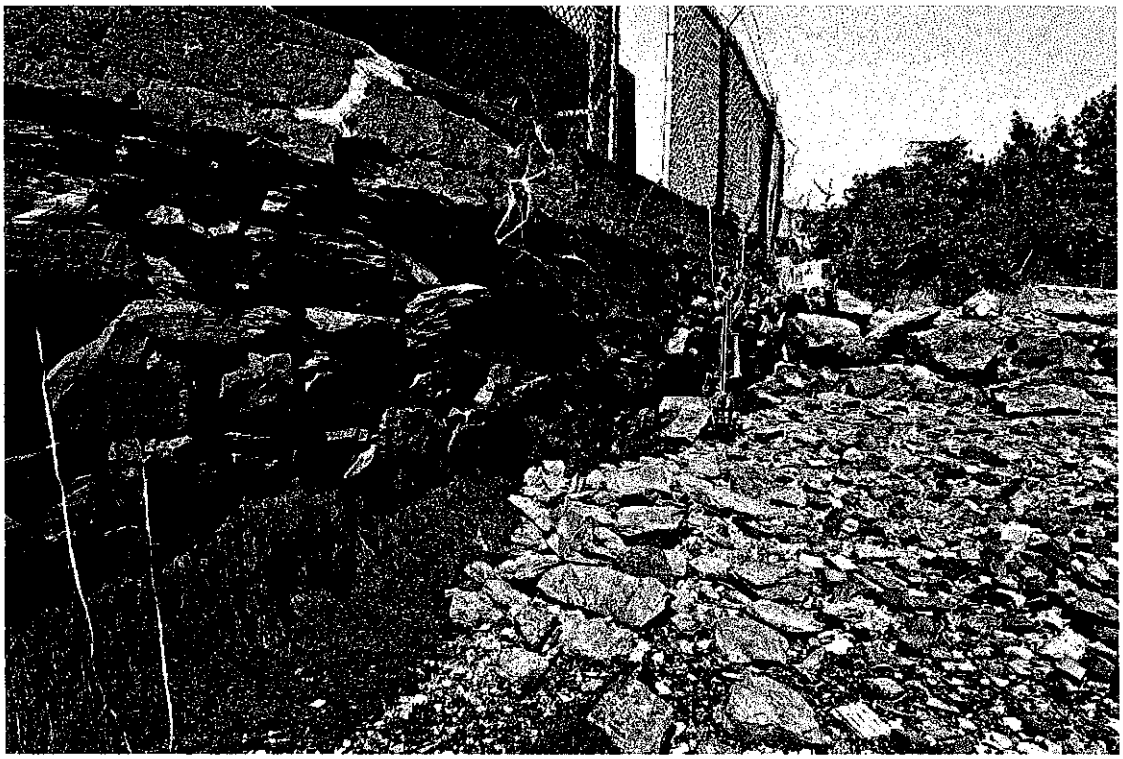
Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through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

APPENDIX D

Photographs

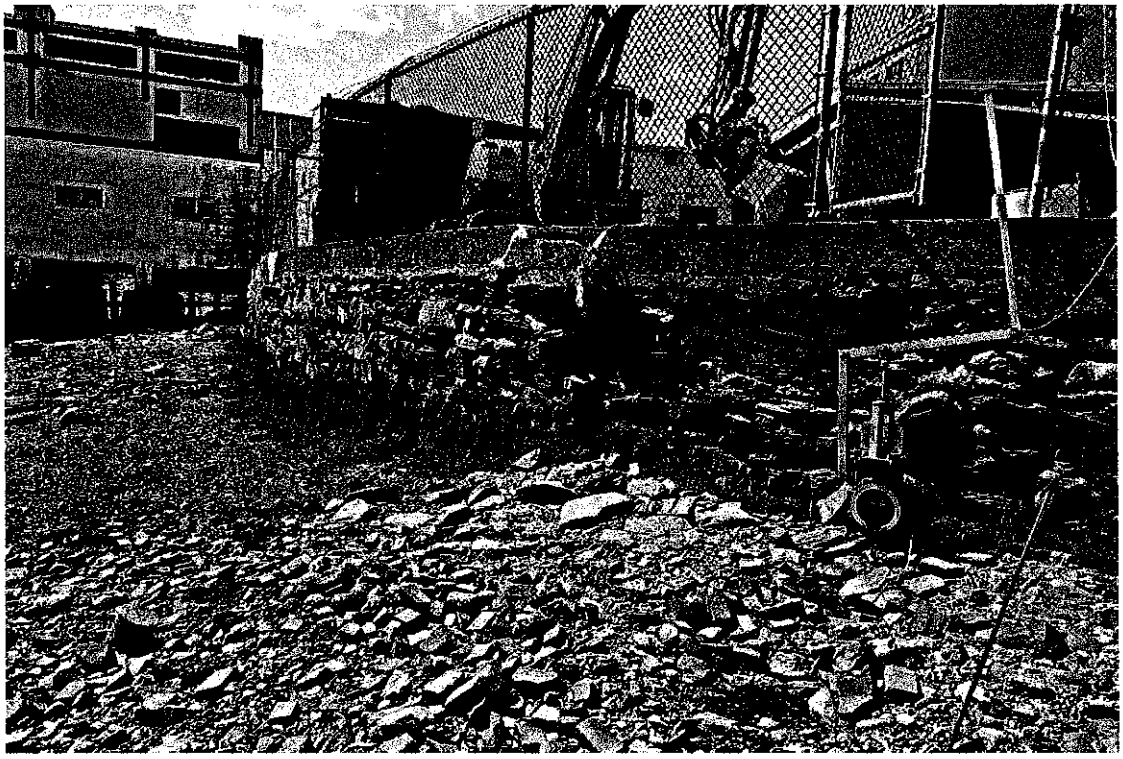


Wall

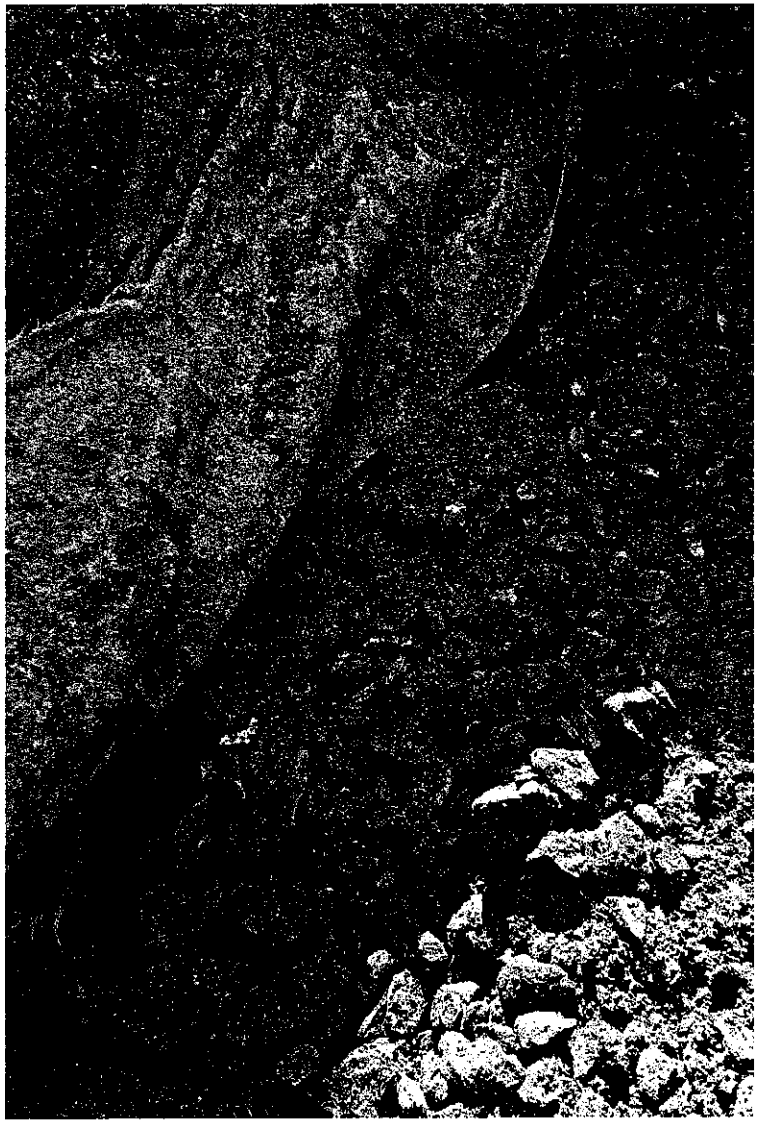


Wall

Wall



Test Pit



Test Pit

Test Pit