STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PLAN LEGEND

Town, County, State		Catch Basins	Existing / Proposed
Property Lines		Manholes	Existing / Proposed
R/W Lines-Existing		Proposed Underdrain	
R/W Lines-Proposed		Proposed Ditch	
Culvert-Existing		Existing Ditch	
Culvert Proposed		Utility Poles	Existing / Proposed
Curbing	Existing / Proposed	Fire Hydrants	Existing / Proposed
Type 1		Existing Water Line	
Type 3		Existing San. Sewer	
Type 5		Existing San. Sewer Manhole	
Outline of Bodies of Water		Guardrail-Existing	
Exposed Bedrock		Guardrail-Proposed	
Buildings		Centerline-Existing	
Trees	Conifer / Deciduous	Centerline-Proposed	10+00
Tree Line		Travelway-Existing	
Clearing Limit Line	CLL	Travelway-Proposed	
Railroad			

Boring HB-XXX-###
Pavement Core PC-#
Test Pit TP-XXX-###

Probe P-#.#X
#.# = Depth
X = W (Weathered Rock)
R (Refusal)
NR (No Refusal)

	Existing	Proposed
Accessible Pedestrian Signal (APS) Button		
Pedestrian Signal Head w/ Pushbutton		
Pedestrian Signal Post w/ equipment		
Mast Arm Pole		
Receiver		
Signal Head (w/ Backplate)		
Confirmation Strobe		
Mast Arm Mounted Sign		
Controller Cabinet		
Meter Pedestal		
Video Detection Camera		
Dual Mode DSRC/C-V2X (Dedicated Short Range Communications)		
Detection Zone (& ID)		

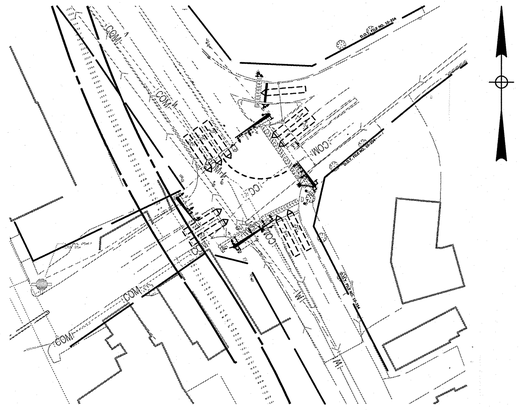
BREWER

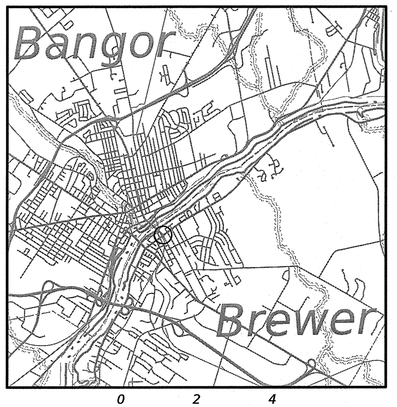
PENOBSCOT COUNTY

TRAFFIC SIGNAL AND FLASHING BEACON DESIGN

WIN: 28480.00

INDEX OF SHEETS





LOCATION MAP

TRAFFIC DATA

Current (2024) AADT	14,880
Future (2034) AADT	15,640
DHV - % of AADT	9.5%
Design Hour Volume	1408
% Heavy Trucks (AADT)	1 %
% Heavy Trucks (DHV)	2 %
Directional Distribution (DHV)	55 %
Design Speed (mph)	25
Corridor Priority	1

LAYOUT SCALE

300 0 300 600

Scale in Feet

PROJECT LOCATION:	BREWER - STATE STREET AT NORTH MAIN STREET
PROGRAM AREA:	MULTIMODAL
SCOPE OF WORK:	TRAFFIC SIGNAL UPGRADES AND OTHER INCIDENTAL WORK

BREWER
WIN 28480.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 3-11-24
CHIEF ENGINEER: DATE 3-10-26

STATE OF MAINE JASON READY No. 12844 REGISTERED PROFESSIONAL ENGINEER

PROJECT INFORMATION	
PROGRAM	Multimodal
PROJECT MANAGER	Joseph Stillwell
DESIGNER	Jason Ready
CONSULTANT	VHB
PROJECT RESIDENT	
CONTRACTOR	
COMPLETION DATE	

P.E. NUMBER 12844 DATE 02/17/26

BREWER
N MAIN ST
TITLE SHEET

SHEET NUMBER 1 OF 5

Username: jarobert Date: 2/19/2026

Filename: c:\bms\vhb-pw-01\d0210061\001_Title_Sheet.dgn

GENERAL NOTES:

1. WORK FOR THIS PROJECT WILL RESULT IN THE MODERNIZATION OF TRAFFIC CONTROL SIGNALS AND PEDESTRIAN CROSSING FACILITIES IN BREWER. EQUIPMENT INCLUDES BUT IS NOT LIMITED TO, FURNISHING AND INSTALLING NEW MAST ARMS POLES AND FOUNDATIONS, VEHICULAR AND PEDESTRIAN SIGNAL HEADS WITH COUNTDOWN TIMERS, NEW LIGHT-EMITTING DIODE INDICATIONS, RETROREFLECTIVE BACKPLATES ON VEHICLE SIGNAL HEADS, WIRING, SIGNAL CABLE, OVERHEAD MAST ARM MOUNTED SIGNS, NEW D-HARNESS FOR EMERGENCY VEHICLE PREEMPTION, AND ALL APPURTENANCES AND INCIDENTALS REQUIRED FOR COMPLETE FUNCTIONING INSTALLATIONS. IN ADDITION, THE PROJECT WILL MAINTAIN REMOTE COMMUNICATIONS TO THE TRAFFIC SIGNAL CONTROL CABINET EQUIPMENT BY EXISTING FIELD MONITORING UNIT WITH A CLOUD-BASED CENTRAL MANAGEMENT SYSTEM VIA A SECURE VIRTUAL PRIVATE NETWORK TUNNEL AND A REPLACEMENT OF SELECT EXISTING LOCAL WIRELESS RADIO INTERCONNECT EQUIPMENT. THE PROJECT ADDITIONALLY PROVIDES FOR DUAL MODE DEDICATED SHORT RANGE COMMUNICATIONS/4GLTE 5G ROAD SIDE UNITS PROVIDING SELECTED CONNECTED VEHICLE APPLICATIONS INTEGRATED INTO THE ADVANCED TRANSPORTATION CONTROLLER AND MAINEDOT TRAFFIC MANAGEMENT CENTER.

2. ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE LATEST REVISIONS OF THE STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, MAINEDOT STANDARD DETAILS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS FOR THIS CONTRACT, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE NATIONAL ELECTRIC CODE, AND ANY REQUIREMENTS OF THE POWER COMPANY.

3. LOCATIONS OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR FINDING EXACT LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. IN ACCORDANCE WITH MRSA TITLE 23 SECTION 3360-A, THE CONTRACTOR SHALL CONTACT DIG-SAFE AND APPROPRIATE AUTHORITIES PRIOR TO ANY SUBSURFACE ACTIVITIES.

4. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY OPERATIONS ARE CONDUCTED THAT COULD POTENTIALLY CONFLICT WITH AERIAL UTILITIES.

5. ANY RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITY FACILITIES WILL BE MADE BY THE RESPECTIVE UTILITIES IN COORDINATION WITH THE WORK OF THE CONTRACTOR.

6. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL AND/OR RELOCATION OF EXISTING POWER METERS AND PEDESTALS IF REQUIRED. THIS WORK WILL BE INCIDENTAL TO ITEM 643.71.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY OPENING PERMITS.

8. WHERE NOTED ON THE PLANS, ALL NEW VEHICULAR SIGNAL HEADS SHALL BE EQUIPPED WITH NEW LED LENSES 12 INCHES IN DIAMETER AND EQUIPPED WITH NEW 5-INCH LOUVERED BACK PLATES, INCLUDING 3-INCH RETROREFLECTIVITY.

9. ALL NEW SIGNAL HEADS SHALL BE FIX MOUNTED TO MAST ARMS WITH ASTROBRACKETS, MOUNTED TO MAST ARM POLES WITH BRACKET ARMS, OR MOUNTED TO EXISTING PEDESTAL POSTS.

10. PROPOSED TRAFFIC SIGNAL MOUNTING HEIGHTS SHALL BE CHECKED FOR MEETING VERTICAL CLEARANCE REQUIREMENTS IN CONFORMANCE TO MAINEDOT STANDARD SPECIFICATIONS AND DETAILS AND ADJUSTED WHERE NEEDED.

11. EXISTING LUMINAIRES ON MAST ARM POLES TO BE REPLACED SHALL BE RELOCATED TO PROPOSED MAST ARM POLES WITH PAYMENT INCIDENTAL TO ITEM 643.71.

12. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC.

13. ALL EXISTING DRIVEWAY ACCESSES SHALL BE MAINTAINED AT ALL TIMES.

14. ALL STOP LINES SHALL BE 24-INCHES WIDE.

15. THE CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER AND MAINEDOT WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE TRAFFIC IMPROVEMENTS AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF WORK.

16. THE CONTRACTOR SHALL PERFORM THE WORK IN A MANNER THAT WILL REQUIRE THE LEAST AMOUNT OF DOWNTIME TO THE TRAFFIC SIGNAL OPERATIONS.

17. ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED AND SEEDED, UNLESS OTHERWISE DIRECTED BY THE OWNER. ALL PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR. COSTS FOR REPAIR OF DISTURBED AREAS SHALL BE INCIDENTAL TO OTHER CONTRACT ITEMS.

18. TWO COPIES OF AS-BUILT PLANS, WIRING DIAGRAMS, BOX PRINTS, AND EQUIPMENT MANUALS SHALL BE LEFT IN THE CONTROLLER CABINET.

19. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULES BASED UPON THEIR PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.

20. TRAFFIC SIGNAL EQUIPMENT

    THE EQUIPMENT ITEMS SHOWN ON THE PLANS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SYSTEM START-UP AND SYSTEM LOADING, ACCEPTANCE TESTING, AND TRAINING. IN ADDITION, THE CONTRACTOR SHALL FURNISH AND INSTALL THE LIGHT-BASED EMERGENCY VEHICLE PREEMPTION SYSTEM, NOTING THAT THE SYSTEM SHALL BE CONFIGURED SUCH THAT PREEMPTION OR PRIORITY CONTROL CAN ALSO BE INITIATED THROUGH DEDICATED SHORT-RANGE COMMUNICATIONS (DSRC)/4GLTE 5G THROUGH A ROADSIDE UNIT BY WAY OF AN APPROACHING AUTHORIZED VEHICLE WITH AN ON-BOARD UNIT. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FURNISHING AND INSTALLING ALL OTHER EQUIPMENT DETAILED IN GENERAL NOTE 1 AND SHALL BE AWARE OF AND CONFORM TO ALL THE DETAILS FOR THE MATERIAL SPECIFICATIONS IN SPECIAL PROVISION 718.

21. COMMUNICATIONS

    THE SYSTEM SHALL SUPPORT COMMUNICATIONS TO ADVANCED TRANSPORTATION CONTROLLERS, ASSOCIATED EQUIPMENT, AND VEHICLE DETECTION AS SHOWN IN THE PLANS. ALL CONNECTIONS TO THE EXISTING MAINEDOT CLOUD-BASED CENTRAL MANAGEMENT SYSTEM SHALL BE VIA A SECURE VPN NETWORK. COMMUNICATIONS FROM THE CLOUD-BASED SYSTEM TO THE ON-STREET TRAFFIC SIGNAL CONTROLLER SHALL BE MADE THROUGH THE EXISTING WIRELESS NETWORK AND THE EXISTING FIELD MONITORING UNIT.

22. SALVAGE RIGHTS

    MAINEDOT SHALL HAVE FIRST RIGHTS TO ALL EQUIPMENT REMOVED OR REPLACED BY THE PROJECT (CONTACT BROOKE GLIDDEN AT BROOKE.GLIDDEN@MAINE.GOV). THE CITY OF BREWER SHALL HAVE SECOND SALVAGE RIGHTS TO ALL EQUIPMENT NOT CLAIMED BY MAINEDOT. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ALL EQUIPMENT CLAIMED BY EITHER MAINEDOT OR THE CITY FOR RETRIEVAL BY MAINEDOT OR THE CITY. THE STORAGE AREA SHALL BE SECURE AND ALL CONTROL EQUIPMENT REMOVED THAT HAS COMPUTER CHIP TECHNOLOGY SHALL BE STORED IN AN INTERIOR CLIMATE-CONTROLLED ENVIRONMENT.

    ANY EQUIPMENT NOT CLAIMED BY EITHER MAINEDOT OR THE CITY OF BREWER FOR SALVAGE SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE RESIDENT.

23. THE RESIDENT AND MAINEDOT SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED AND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.

24. THE MAINTENANCE OF TRAFFIC SIGNALS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY MAINEDOT.

25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING RED-LINE AS-BUILT DRAWINGS OF THE FINAL WORK TO THE RESIDENT. THOSE DRAWINGS SHALL BE ON A CLEAN SET OF PLANS SHOWING ALL CHANGES OR MODIFICATIONS TO THE BID PLANS.

26. THE CONTRACTOR IS DIRECTED TO PROJECT SPECIAL PROVISION 718 FOR ADDITIONAL INFORMATION RELATED TO THE FOLLOWING:

    -718.15 EMERGENCY VEHICLE PREEMPTION SYSTEM

    SPECIAL PROVISION 718 EXPANDS UPON THE INFORMATION FOUND IN THESE GENERAL NOTES, MAINEDOT STANDARD SPECIFICATIONS DATED MARCH 2020, AND MAINEDOT STANDARD DETAILS DATED MARCH 2020. AS SUCH, THE MORE RESTRICTIVE LANGUAGE BETWEEN THESE GENERAL NOTES, MAINEDOT STANDARD SPECIFICATIONS, MAINEDOT STANDARD DETAILS, AND SPECIAL PROVISION 718 SHALL GOVERN THE WORK TO BE PERFORMED UNDER THIS PROJECT.

27. RIGHT-OF-WAY

    RIGHT-OF-WAY WHERE NOTED IN THE PLANS IS APPROXIMATE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2848000

WIN
28480.00

vhb

PROJ MANAGER	J STILLWELL	BY	DATE
DESIGN-DETAILED	J READY	J. ROBERT	2/19/2026
CHECKED-REVIEWED	J READY	C. BOBAY	2/19/2026
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BREWER
N MAIN ST

GENERAL NOTES

SHEET NUMBER

2

OF 5

Date: 2/19/2026

Username: jarobert

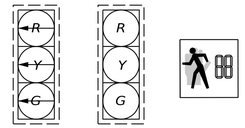
Filename: c:\bms\vhb-pw-01\d0210061\001_Title.dgn

LIST OF WORK ITEMS

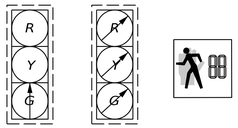
EQUIPMENT AND WORK ITEMS 643.71	QUANTITY
FURNISH AND INSTALL 4-CHANNEL PREEMPTION PHASE SELECTOR	1
FURNISH AND INSTALL LIGHT-BASED PREEMPTION RECEIVERS WITH DETECTOR CABLE	4
FURNISH AND INSTALL PREEMPTION CONFIRMATION RED STROBE WITH CABLE	1
FURNISH AND INSTALL MAST ARM MOUNTED SIGNS	12
FURNISH AND INSTALL POST MOUNTED SIGNS	8
FURNISH AND INSTALL 16-INCH L.E.D. COUNTDOWN PEDESTRIAN LENS IN NEW HOUSING	2
FURNISH AND INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) BUTTON WITH EXTENSION BRACKET AND 9"X15" R10-3e INFORMATIONAL SIGNS	2
FURNISH AND INSTALL ONE-WAY 3-SECTION, 12-INCH SIGNAL HEADS WITH LED MODULES, TUNNEL VISORS, 5-INCH LOUVERED BACK PLATE WITH 3-INCH RETROREFLECTIVITY	4
FURNISH AND INSTALL DUAL MODE DSRC/C-V2X ROADSIDE UNIT (ITEM 645.271)	1
IMPLEMENT LOCAL SIGNAL TIMINGS	-

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

EXISTING INDICATIONS



PROPOSED INDICATIONS



NOTE:
ALL INDICATIONS SHALL BE 12" LIGHT EMITTING DIODES (LED'S) WITH 5" LOUVERED RETROREFLECTIVE BACKPLATES

DETECTOR SCHEDULE

DETECTOR ZONE NO.	LOCATION	Ø CALLED	Ø EXT.	MODE A=ADVANCE B=STOPLINE	DELAY TIME	EXT. TIME
①	STATE ST NB THRU	2	2	B	-	-
②	STATE ST NB THRU-RIGHT	2	2	B	-	-
③	STATE ST SB LEFT	1	1	B	-	-
④	STATE ST SB LEFT	1	1	B	-	-
⑤	STATE ST SB THRU-RIGHT	6	6	B	-	-
⑥	N MAIN ST EB THRU	4	4	B	-	-
⑦	N MAIN ST EB THRU-RIGHT	4	4	B	-	-
⑧	N MAIN ST WB LEFT	3	3	B	-	-
⑨	N MAIN ST WB THRU	8	8	B	-	-
⑩	N MAIN ST WB RIGHT	8	8	B	5	-

STRUCTURE LIST

STRUCTURE	DESCRIPTION	FOUNDATION
A-M1	50' MAST ARM	3.5' DIA. x 17'
B-M1	30' MAST ARM	3.0' DIA. x 13'
C-M1	40' MAST ARM	3.0' DIA. x 13'
D-M1	30' MAST ARM W/ LUMINAIRE	3.0' DIA. x 8.5'

SIGNAL TIMING SCHEDULE

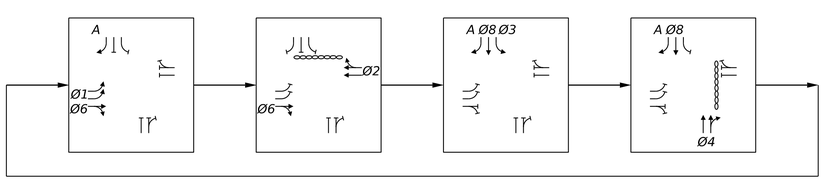
ITEM / PHASE	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
MOVEMENT	SB L	NB T	WB L	EB T	-	SB T	-	WB T
MINIMUM INITIAL	5	5	5	5	-	5	-	5
PASSAGE TIME	3.0	3.0	3.0	3.0	-	3.0	-	3.0
MAXIMUM 1	5	22	5	23	-	34	-	39
MAXIMUM 2	14	22	5	23	-	44	-	39
YELLOW	3.0	3.5	3.0	4.5	-	3.5	-	4.5
ALL RED	3.5	3.5	3.0	2.0	-	3.5	-	2.0
PED WALK	-	7	-	7	-	-	-	-
PED CLEAR	-	20	-	21	-	-	-	-
DYN MAX LIMIT	-	-	-	-	-	-	-	-
DYN MAX STEP	-	-	-	-	-	-	-	-
RECALL	O	S	O	O	-	S	-	O
DETECTOR	-	-	-	-	-	-	-	-
PRE-EMPT PRIORITY	-	-	-	-	-	-	-	-
FLASH	-	-	-	-	-	-	-	-
DUAL ENTRY	-	-	-	-	-	-	-	-

NOTES: S = SOFT RECALL Y = YELLOW
O = RECALL OFF R = RED
MAX 2 UNDER COORDINATION
IF APPLICABLE, COORDINATION PATTERNS AND TIME-OF-DAY PLANS SHALL BE PROVIDED AFTER CONTRACT AWARD.

PROPOSED PHASE SEQUENCE

NEMA RING AND BARRIER DIAGRAM

1 2 | 3 4
6 | 8



PHASING NOTES:
1. PEDESTRIAN PHASE UPON PUSH BUTTON ACTIVATION ONLY
2. OLA = 1+8

PLAN

25 0 25 50
Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2848000

WIN
28480.00

vhb

PROJ MANAGER	J STILLWELL		
DESIGN-DETAILED	J READY	J ROBERT	2/19/2026
CHECKED-REVIEWED	J READY	C BOBAY	2/19/2026
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BREWER
N MAIN ST

TRAFFIC SIGNAL PLAN

SHEET NUMBER
3
OF 5

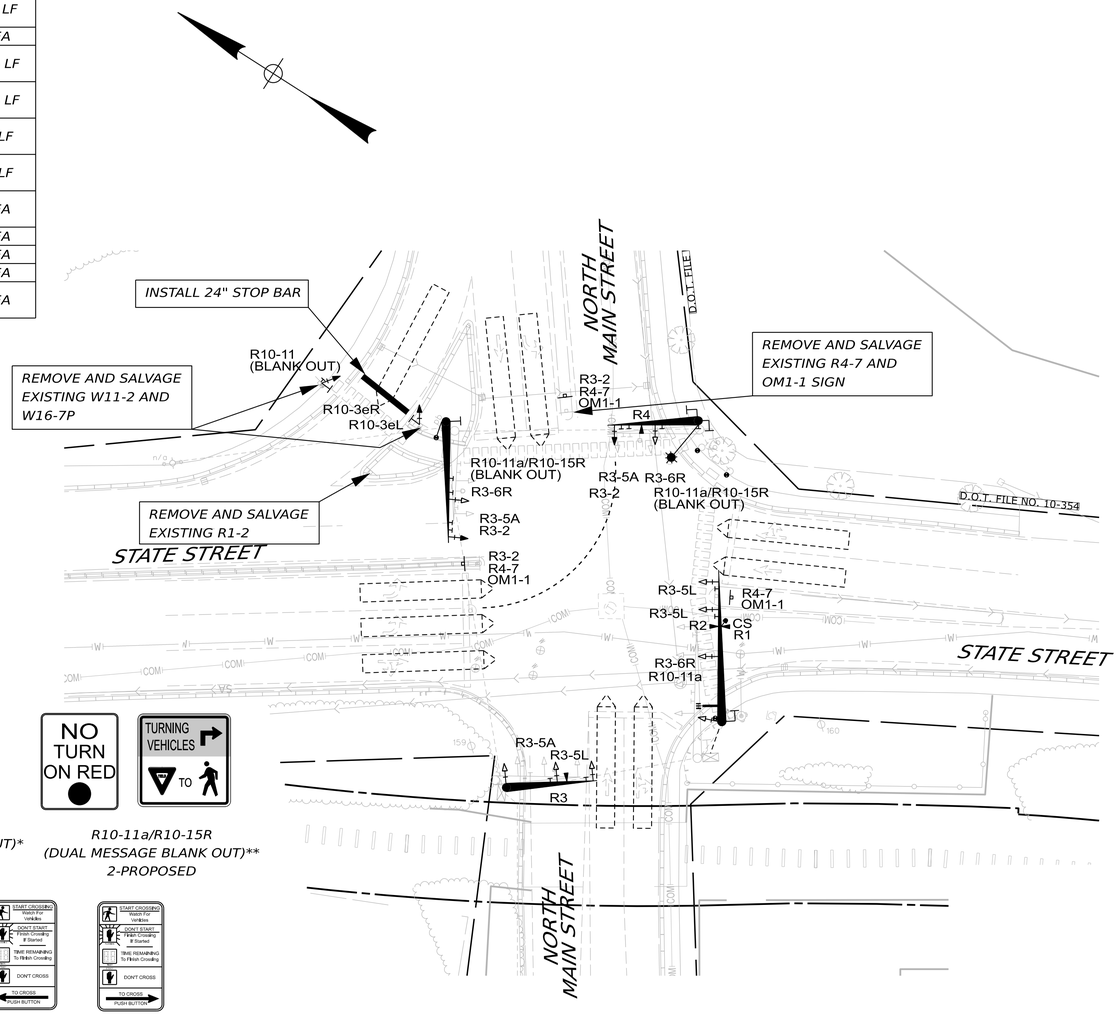
Date: 2/19/2026
Username: jarobert

Filename: c:\bms\vhb-pw-01\d0210061\001_Title.dgn

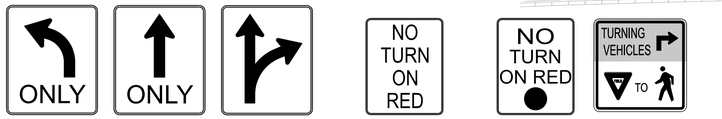
LIST OF WORK ITEMS

EQUIPMENT AND WORK ITEMS XXX.YYZ	QUANTITY
FURNISH AND INSTALL PRECAST CONCRETE JUNCTION BOX (ITEM 626.11)	1 EA
FURNISH AND INSTALL NON-METALLIC (3-INCH) CONDUIT (ITEM 626.22)	100 LF
REMOVE EXISTING CONCRETE FOUNDATION (ITEM 626.36)	4 EA
FURNISH AND INSTALL 36-INCH DIAMETER FOUNDATION (ITEM 626.44)	34.5 LF
FURNISH AND INSTALL 42-INCH DIAMETER FOUNDATION (ITEM 626.451)	17.0 LF
FURNISH AND INSTALL 4" WHITE OR YELLOW PAVEMENT MARKING LINE (ITEM 627.73)	90 LF
FURNISH AND INSTALL WHITE PAVEMENT AND CURB MARKING (ITEM 627.75)	38 LF
FURNISH AND INSTALL TRAFFIC SIGNAL BLANK-OUT SIGN (ITEM 643.88)	3 EA
FURNISH AND INSTALL 30' MAST ARM POLE (ITEM 643.91)	1 EA
FURNISH AND INSTALL 40' MAST ARM POLE (ITEM 643.91)	1 EA
FURNISH AND INSTALL 50' MAST ARM POLE (ITEM 643.91)	1 EA
FURNISH AND INSTALL DUAL PURPOSE POLE, W/30' ARM W/LUMINAIRE (ITEM 643.94)	1 EA

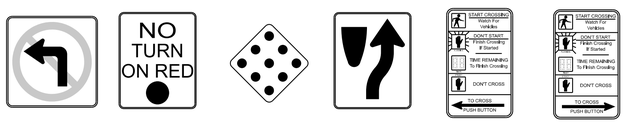
THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



PROPOSED SIGNS



R3-5L 30"x36" 3-PROPOSED | *R3-5A 30"x36" 3-PROPOSED* | *R3-6R 30"x36" 3-PROPOSED* | *R10-11(BLANK OUT)* 1-PROPOSED* | *R10-11a/R10-15R (DUAL MESSAGE BLANK OUT)** 2-PROPOSED*



R3-2 24"x24" 4-PROPOSED | *R10-11a 24"x30" 1-PROPOSED* | *OM1-1 18"x18" 3-PROPOSED* | *R4-7 24"x30" 3-PROPOSED* | *R10-3eL 9"x15" 1-PROPOSED* | *R10-3eR 9"x15" 1-PROPOSED*

* BLANK OUT SIGN SHALL OPERATE SUCH THAT ACTUATIONS TURN THE SIGN TO MUTCD R10-11a DURING WALK INDICATION AND THE ABSENCE OF ACTUATION SHALL CAUSE THE SIGN TO REMAIN UNLIT

** DUAL MESSAGE BLANK OUT SIGN SHALL OPERATE SUCH THAT ACTUATIONS TURN THE SIGN TO MUTCD R10-11a DURING WALK INDICATION AND COUNTDOWN AND THE ABSENCE OF ACTUATION SHALL TURN THE SIGN TO MUTCD R10-15R

EXISTING SIGNS

R3-5L 2-REMOVED | *R3-5A 3-REMOVED* | *R3-6R 3-REMOVED* | *R10-15R 2-REMOVED* | *R4-7 1-REMOVED* | *W11-2 2-REMOVED* | *W16-7p 2-REMOVED* | *R10-11b 2-REMOVED* | *R3-2 2-REMOVED* | *R10-3eL 2-RETAINED* | *R10-3eR 2-RETAINED* | *OM1-1 1-REMOVED* | *R1-2 1-REMOVED*

EMERGENCY VEHICLE PREEMPTION OPERATION

ID	PREEMPT ASSIGNMENT	RECEIVER PRIORITY	ACTIVE PHASE
	1	NOT USE/RESERVED	
	2	NOT USE/RESERVED	
R1	3	7	Ø2(NB)
R2	4	8	Ø1&Ø6(SB)
R3	5	9	Ø3&Ø8(WB)
R4	6	10	Ø4(EB)

PRE-EMPTION NOTES:

1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL EMITTERS (TYPICALLY EXISTING, BUT WHERE APPLICABLE PROVIDED BY OTHERS) AND/OR BY A DUAL MODE DSRC/C-V2X ON-BOARD UNIT (OBU) MOUNTED IN EMERGENCY VEHICLES COMMUNICATING WITH THE PROPOSED DUAL MODE DSRC/C-V2X ROAD SIDE UNIT (RSU) AND/OR RECEIVED BY OPTICAL DETECTORS LOCATED AT THE INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 4 = LOWEST)
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR AND/OR RSU, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.5 SECONDS YELLOW AND 3.5 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
4. MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
5. CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY PREEMPTION GREEN IS ON.

PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2848000

WIN 28480.00

vhb

PROJ MANAGER	J STILLWELL		
DESIGN-DETAILED	J READY	BY	J ROBERT
CHECKED-REVIEWED	J READY	BY	C BOBAY
DESIGN2-DETAILED2		DATE	2/19/2026
DESIGN3-DETAILED3		DATE	2/19/2026
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BREWER
N MAIN ST

TRAFFIC SIGNAL PLAN

SHEET NUMBER

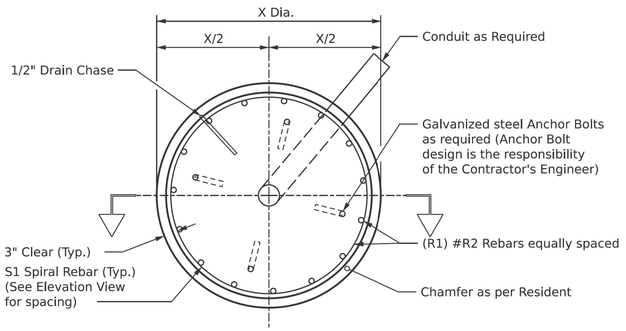
4

OF 5

Date: 2/19/2026

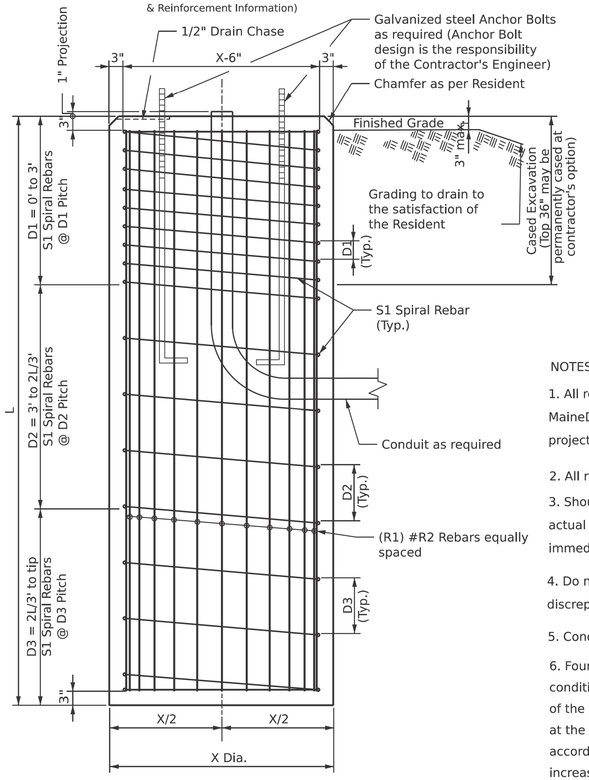
Username: jarobert

Filename: c:\bms\vhb-pw-01\d0210061\001_Title.dgn



Drilled Shaft Plan View

Not to Scale (See Table for Drilled Shaft Dimensions & Reinforcement Information)

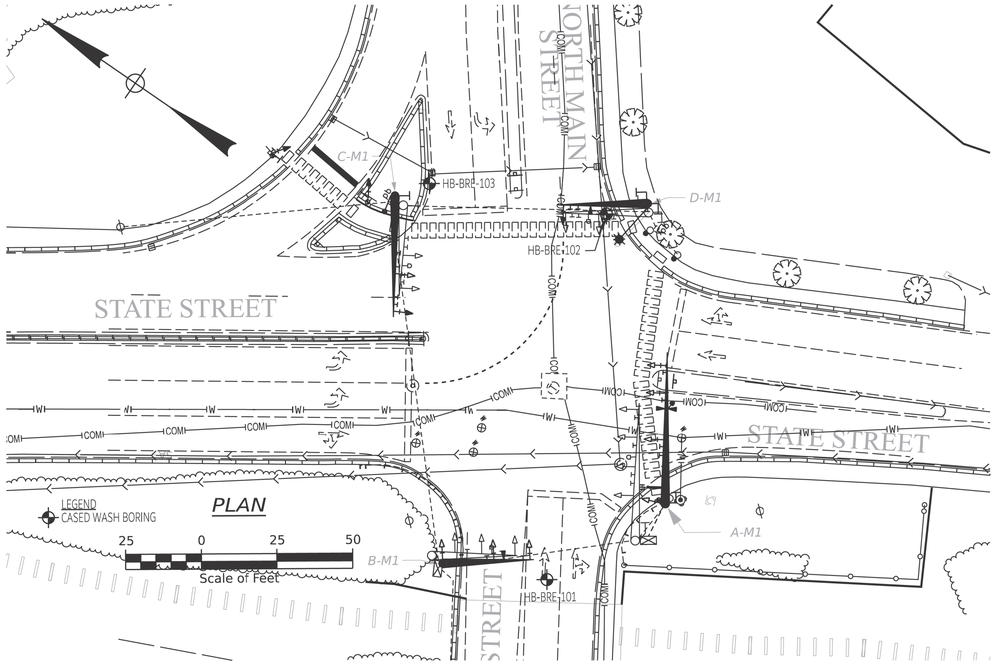


Drilled Shaft Elevation View

Not to Scale (See Table for Drilled Shaft Dimensions & Reinforcement Information)

MAST ARMS

A-M1, B-M1, C-M1 & D-M1



NOTES:

1. All reinforcing steel is to be grade 60 and conform to MaineDOT Standard Specification requirements along with any project specific Supplementals or Special Provisions.

2. All rebar shall have 3" cover unless otherwise noted.

3. Should there be a discrepancy between these Details and actual observed field conditions report it to the Resident immediately.

4. Do not proceed with dependent work until any such discrepancy is resolved to the satisfaction of the Resident.

5. Concrete to be Class LP with f'c = 5,000 PSI.

6. Foundation sizes are designed based on estimated loading conditions and are subject to change based on the design of the above-ground components and the actual loading conditions at the top of each foundation submitted by the Contractor in accordance with Standard Specification Section 626.034. Any increase in foundation size based on the submitted loading conditions shall be paid for at the unit price bid by the Contractor. Any reduction in foundation size shall be to the benefit of the Department at the unit price bid by the Contractor.

Designation	Drilled Shaft Dimensions		Reinforcing Steel		Spiral Bar Spacing			
	X	L	R1	R2	S1	D1 (in)	D2 (in)	D3 (in)
	Diameter (feet)	Length (feet)	Longitudinal Rebars Quantity	Longitudinal Rebars Size	Spiral Rebars Size	0 to 3 ft	3 ft to 2L/3 ft	2L/3 ft to tip
A-M1	3.5	17.0	18	#9	#5	4	4	12
B-M1	3.0	13.0	15	#8	#5	4	8	12
C-M1	3.0	13.0	15	#8	#5	4	8	12
D-M1	3.0	8.5	15	#8	#5	4	8	12

Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Intersection Improvements Route 98 (North Main St.) and State St. Location: Brewer, Maine

Boring No.: HB-BRE-101 — WIN: 28480.00

Driller:	MaineDOT	Elevation (ft.):	Undetermined
Operator:	Daggett/Andrie/Brooks	Datum:	NAVD88
Logged By:	B. Wilder	Rig Type:	CME 45C
Date Start/Finish:	9/15/2025: 22:10-23:30	Drilling Methods:	Cased Wash Boring
Boring Location:	See Boring Location Plan	Casing ID/OD:	NW-3"
Hammer Efficiency Factor: 0.92		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:	5" Solid Stem	Sampler:	Standard Split Spoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	N/A
Water Level*:	None Observed		

Definitions: D = Split Spoon Sample; HD = Unsuccessful Split Spoon Sample Attempt; W = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; VU = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of Hole; WOR = Weight of Rods or Casing; WOH = Weight of the Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u\ (LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Uncorrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%=uncorrected; S_t = Peak-Remolded Field Vane Shear Strength (psf); $S_{t\ (LAB)}$ = Peak-Remolded Lab Vane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Sample Information

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blow /6 in. Shear Strength (psf) or RQD (%)	Uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
							SSA			6" HMA.	
											-0.5-
	1D	24/20	1.00 - 3.00	20/22/14/22	36	55				Brown, damp, very dense, fine to coarse SAND, some gravel, trace silt. (Fill).	
5	2D	24/18	5.00 - 7.00	6/11/7/5	18	28	23			Brown, damp, medium dense, fine to coarse SAND, some gravel, little silt. (Fill).	
							24				
							22				
							19				
							30				
10	3D	24/10	10.00 - 12.00	9/7/5/7	12	18	16			Brown, wet, medium dense, fine to coarse SAND, little gravel, little silt. (Fill).	
							13				
							16				
							17				
15	4D	24/13	15.00 - 17.00	17/18/37/50	55	84	20				
							51				
							51				
							47				
							53				
20	5D	24/22	20.00 - 22.00	5/3/5/5	8	12					
											-19.0-
										Olive brown, wet, stiff, Clayey SILT, some fine sand.	
											-22.0-
25										Bottom of Exploration at 22.0 feet below ground surface. NO REFUSAL	

Remarks:

Stratification lines represent approximate boundaries between soil typesat transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-BRE-101

Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Intersection Improvements Route 98 (North Main St.) and State St. Location: Brewer, Maine

Boring No.: HB-BRE-102 — WIN: 28480.00

Driller:	MaineDOT	Elevation (ft.):	Undetermined
Operator:	Daggett/Andrie/Brooks	Datum:	NAVD88
Logged By:	B. Wilder	Rig Type:	CME 45C
Date Start/Finish:	9/15/2025: 19:30-22:00	Drilling Methods:	Cased Wash Boring
Boring Location:	See Boring Location Plan	Casing ID/OD:	NW-3"
Hammer Efficiency Factor: 0.92		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:	5" Solid Stem	Sampler:	Standard Split Spoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	N/A
Water Level*:	None Observed		

Definitions: D = Split Spoon Sample; HD = Unsuccessful Split Spoon Sample Attempt; W = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; VU = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of Hole; WOR = Weight of Rods or Casing; WOH = Weight of the Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u\ (LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Uncorrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%=uncorrected; S_t = Peak-Remolded Field Vane Shear Strength (psf); $S_{t\ (LAB)}$ = Peak-Remolded Lab Vane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Sample Information

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blow /6 in. Shear Strength (psf) or RQD (%)	Uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
							SSA			3" HMA. in sidewalk.	
											-0.3-
	1D	24/13	1.00 - 3.00	3/4/4/5	8	12				Brown, damp, medium dense, fine to coarse SAND, little gravel, trace silt. (Fill).	
5	2D	24/12	5.00 - 7.00	5/3/3/3	6	9	9			Brown, damp, loose, Gravelly fine to coarse SAND, little silt. (Fill).	
							14				
							10				
							9				
10	3D	24/24	10.50 - 12.50	WOH/WOH/1/2	1	2	OPEN HOLE				
	V1		11.13 - 11.50	Su=1321/246 psf						Grey, wet, soft, Clayey SILT. 55x110 mm vane row torque readings: V1: 29.6/5.5 ft-lbs.	
	V2		12.13 - 12.50	Su=1339/259 psf						V2: 30.0/5.8 ft-lbs.	
15	WV		15.00 - 15.00	Would not push						Failed 55x110 mm vane attempt. Washed ahead to 16.0 ft bgs.	
	4D V3	24/24	16.00 - 18.00 16.55 - 16.46	1/2/3/4 Su=3678/1210 psf	5	8				Grey, wet, medium stiff, Clayey SILT, trace fine sand. 15x32 mm vane row torque readings: V3: 23.4/7.7 in-lbs.	
20	5D V4	24/24	20.00 - 22.00 20.00 - 20.46	2/4/5/5 Su=4040/1257 psf	9	14				Grey, wet, stiff, Clayey SILT, trace fine sand. V4: 25.7/8.0 in-lbs	
											-22.0-
25										Bottom of Exploration at 22.0 feet below ground surface. NO REFUSAL	

Remarks:

Stratification lines represent approximate boundaries between soil typesat transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-BRE-102

Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Intersection Improvements Route 98 (North Main St.) and State St. Location: Brewer, Maine

Boring No.: HB-BRE-103 — WIN: 28480.00

Driller:	MaineDOT	Elevation (ft.):	Undetermined
Operator:	Daggett/Andrie/Brooks	Datum:	NAVD88
Logged By:	B. Wilder	Rig Type:	CME 45C
Date Start/Finish:	9/17/2025: 19:00-23:30	Drilling Methods:	Cased Wash Boring
Boring Location:	See Boring Location Plan	Casing ID/OD:	NW-3"
Hammer Efficiency Factor: 0.92		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:	5" Solid Stem	Sampler:	Standard Split Spoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	N/A
Water Level*:	12.0 ft bgs.		

Definitions: D = Split Spoon Sample; HD = Unsuccessful Split Spoon Sample Attempt; W = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; VU = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of Hole; WOR = Weight of Rods or Casing; WOH = Weight of the Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u\ (LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Uncorrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%=uncorrected; S_t = Peak-Remolded Field Vane Shear Strength (psf); $S_{t\ (LAB)}$ = Peak-Remolded Lab Vane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Sample Information

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blow /6 in. Shear Strength (psf) or RQD (%)	Uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
							SSA			6" HMA.	
											-0.5-
	1D	24/10	1.00 - 3.00	5/8/5/5	13	20				Brown, damp, medium dense, fine to coarse SAND, some gravel, trace silt. (Fill).	
5	2D	24/18	5.00 - 7.00	7/6/5/10	11	17				Brown, moist, medium dense, fine to coarse SAND, some gravel, little silt. (Fill).	
10	3D	24/18	10.00 - 12.00	1/WOH/2/2	2	3	HP			3D (10.5-12.0 ft bgs.) Grey, wet, soft, Clayey SILT, trace fine sand. HP = Hydraulic Push	-10.5-
	WV		12.00 - 12.10	Would not push						Failed 55x110 mm vane attempt.	
15	4D WV	24/10	14.00 - 16.00 14.00 - 14.10	4/5/5/7 Would not push	10	15	OPEN HOLE			Grey, wet, stiff, Clayey SILT, trace fine sand. Failed 55x110 mm vane attempt.	
20	WV 5D	24/17	20.00 - 20.10 20.00 - 22.00	Would not push 6/6/7/7	13	20				Failed 55x110 mm vane attempt. Grey, wet, very stiff, Clayey SILT, some fine sand.	
											-22.0-
25										Bottom of Exploration at 22.0 feet below ground surface. NO REFUSAL	

Remarks:

Stratification lines represent approximate boundaries between soil typesat transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-BRE-103

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2848000

28480.00

HIGHWAY PLANS

STATE OF MAINE — Cody A. Russell — 15866 — LICENSED PROFESSIONAL ENGINEER

	BY	DATE
SIGNATURE		
P.E. NUMBER	15866	
DATE	JAN 2026	2/3/2026

PROJ. MANAGER	
DESIGN-DETAILED	
CHECKED-REVIEWED	
DESIGN2-DETAILED2	C.RUSSELL
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

BREWER
NORTH MAIN ST. / STATE ST.

MAST ARM FOUNDATION & BORING LOCATION PLAN WITH BORING LOGS

SHEET NUMBER

5

OF 5

Date: 1/29/2026

Username: Terry.White

Filename: C:\Users\Terry.White\State of Maine\MaineDOT Work - 28480_00\GEOTECH\Sign and Lighting Foundations1.dgn