NOTES:
1. SOURCE PLANS AND FEATURES PROVIDED BY GOOD DEEDS, INC. OF BELFAST, ME, AND MAINE GIS LIDAR.

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4. PORTIONS OF EX. TRAIL TO BE SLIGHTLY RELOCATED TO BE SLIGHTLY RELOCATED TO AVOID LOTS 39-43, INCLUSIVE

5. MARK HAMPTON ASSOCIATES, INC. WERE RESPONSIBLE FOR LOCATION AND EVALUATION OF TEST PITS AND REFER TO HIGH INTENSITY SOIL SURVEY DATED AUGUST 2022 AND PRELIMINARY SOIL EVALUATION LETTER REPORT DATED JANUARY 2023.

6. ALL WETLANDS SHOWN ON THE PLAN WERE DELINEATED BY MARK HAMPTON ASSOICATES, INC SEE LETTER REPORT DATED AUGUST 2022.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING SETBACK LINE
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- SD EXISTING STORMDRAIN
- S EXISTING SANITARY SEWER
- W EXISTING WATER LINE
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- EXISTING TREE LINE
- TP-A TEST PIT
- EXISTING VALVE
- EXISTING HYDRANT
- EXISTING TRANSFORMER
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- EXISTING SEWER MANHOLE
- EXISTING SIGN
- WETLAND AREA

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1-1	05/05/2023	PRELIMINARY COMMENTS	SEB/LMK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	AST	SEB
4	10/5/23	DEP COMMENTS	AST	SEB
5	10/9/23	DEP COMMENTS	AST	SEB
6	10/10/23	FINAL SUBMITTAL	AST	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915

SHEET NAME:
EXISTING CONDITIONS

PROJECT NO. 22098
DESIGNED:
DRAWN: LMK
DRAWING NO.
CHECKED: SEB
FIELDBOOK:
APPROVED: SEB
SCALE:
PLAN DATE: 10/10/23
DATE ISSUED:

CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

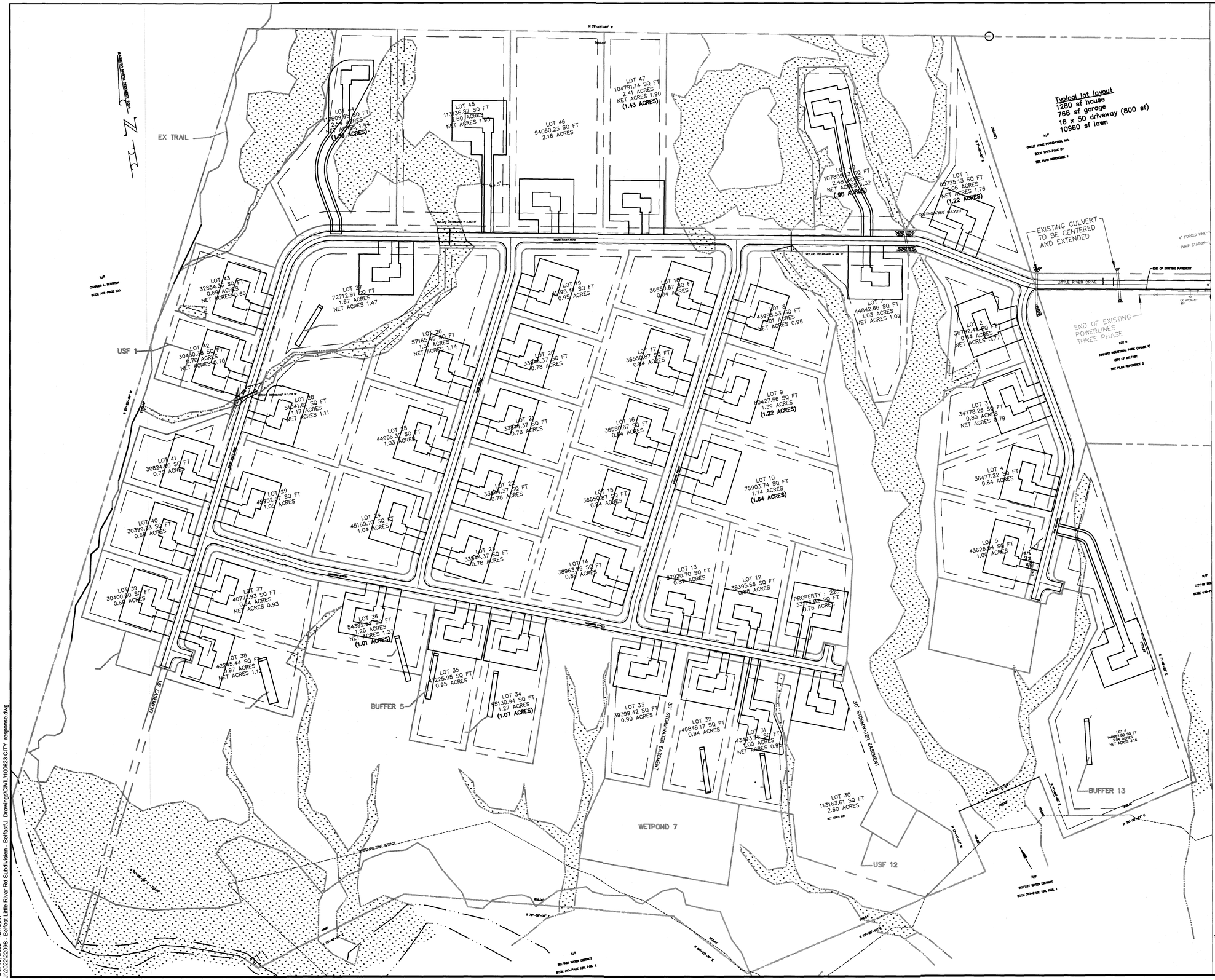
STATE OF MAINE
SCOTT E. BRALEY
6221
LICENSED PROFESSIONAL ENGINEER
10/10/23

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 1 OF 18

EX

Oct 10, 2023 - 12:10pm
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J Drawings\CIVIL\100823 CITY response.dwg



NOTES:

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BOUNDARY SURVEY
of a portion of the property of
COUNTY OF WALDO
WALDO COUNTY REGISTRY OF DEEDS
BOOK 2583– PAGE
LITTLE RIVER DRIVE
BELFAST, WALDO COUNTY, MAINE

PLAN REFERENCES:

1. THE PLAN OF THE BELFAST WATER COMPANY DATED DECEMBER 1913 AND RECORDED AT THE WALDO COUNTY REGISTRY OF DEED IN PLAN DRAWER 1, PAGE 32.

2.REVISED SUBDIVISION PLAN OF THE AIRPORT INDUSTRIAL PARK (PHASE II) DATED DECEMBER 17, 1990 AND REVISED FEBRUARY 4, 1991 BY GOOD DEEDS, INC. RECORDED IN THE WALDO COUNTY REGISTRY OF DEEDS IN PLAN DRAWER 16, PAGE 6 .

CERTIFICATION:

THIS SURVEY CONFORMS TO STANDARDS SET FORTH BY THE STATE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS WITH THE FOLLOWING EXCEPTIONS:

a. A SURVEYOR'S REPORT OF FINDINGS AND OPINIONS WAS NOT PREPARED.

STATE OF MAINE
WALDO, ss, REGISTRY OF DEEDS
Received ______________________
at _____ h____ m ___M, and recorded
in Plan File ______________

ATTEST:

____
REGISTER

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- EXISTING SETBACK LINE
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- S EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- FM EXISTING FORCEMAIN
- FM PROPOSED FORCEMAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- TP–A TEST PIT
- ⋈ EXISTING VALVE
- ⧓ PROPOSED VALVE
- EXISTING HYDRANT
- PROPOSED HYDRANT
- T EXISTING TRANSFORMER
- PROPOSED TRANSFORMER
- ☼ EXISTING LIGHT POLE
- ✷ PROPOSED LIGHT POLE
- ○ EXISTING UTILITY POLE
- ● PROPOSED UTILITY POLE
- ▤ EXISTING CATCH BASIN
- ■ PROPOSED CATCH BASIN
- Ⓢ EXISTING SEWER MANHOLE
- Ⓢ PROPOSED SEWER MANHOLE
- Ⓦ PROPOSED WELL
- EXISTING SIGN
- PROPOSED SIGN
- WETLAND AREA
- RIPRAP
- EXISTING PAVEMENT AREA
- PROPOSED PAVEMENT AREA

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915

SHEET NAME:
FINAL SUBDIVISION PLAN

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:

CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 257–2071 Fax: (207) 257–2130
info@plymouthengineering.com
www.plymouthengineering.com

SCOTT E. BRALEY
No. 6227
10/10/23

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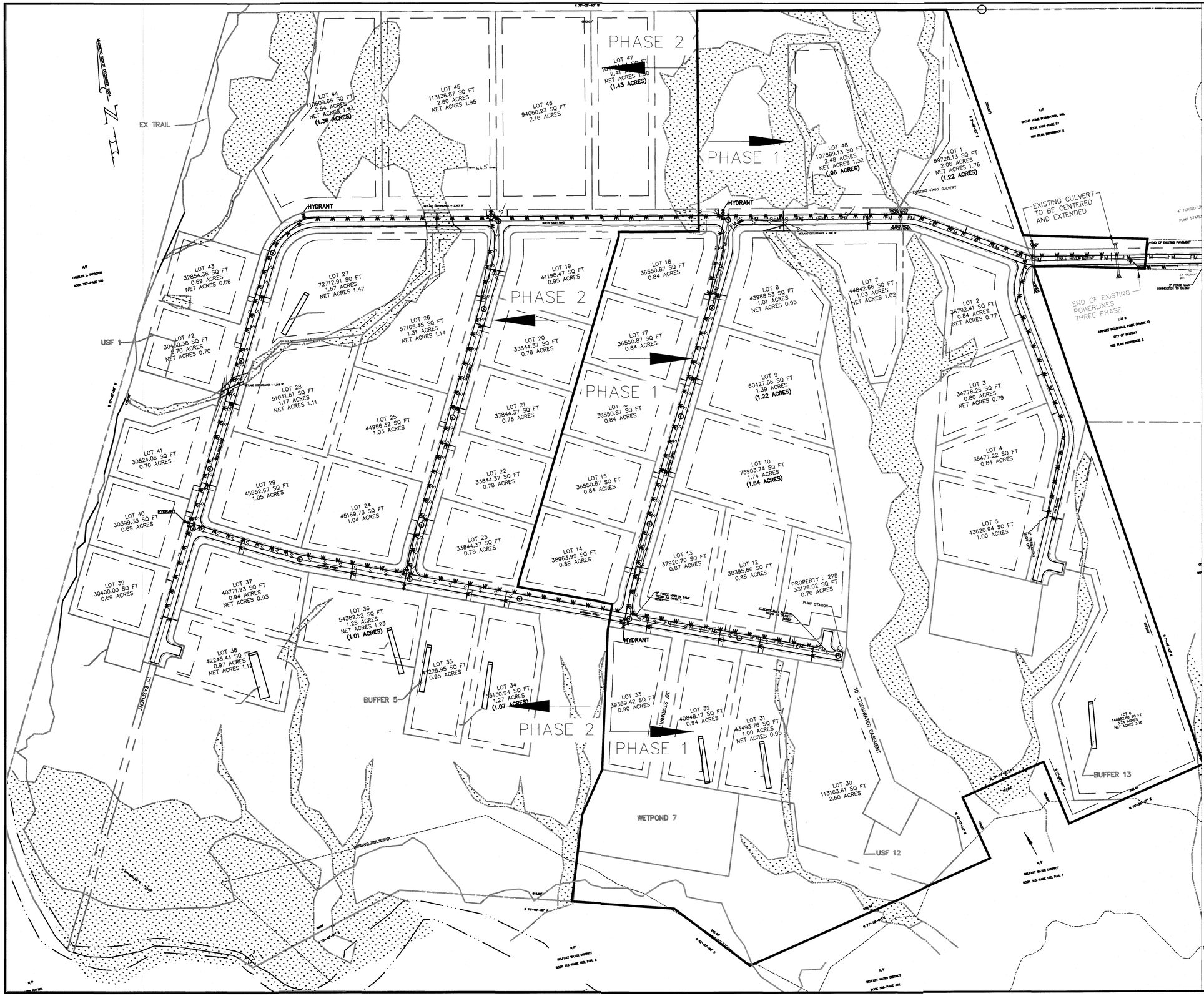
SHEET 2 OF 18

C1

Oct 10, 2023 - 12:10pm
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J_Drawings\CIVIL\100623 CITY response.dwg



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- RIPRAP
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- PROPOSED PAVEMENT AREA

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/2023	PRELIMINARY COMMENTS	AMC	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME: LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME: ROAD PLAN & PHASING

PROJECT NO.	22098
DRAWING NO.	
FIELDBOOK:	
SCALE:	
DATE ISSUED:	
CLIENT & OWNER:	8685 Midcoast Properties 8685 Route 1 #3 Monroe, ME 04951

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE SCOTT E. BRALEY 10/10/23 LICENSED PROFESSIONAL ENGINEER

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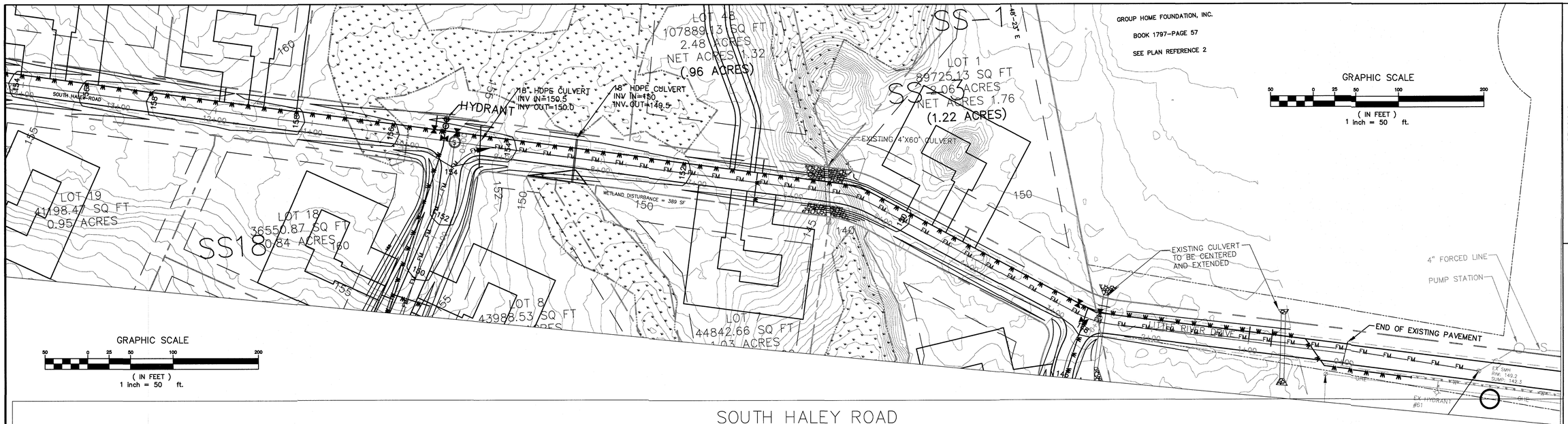
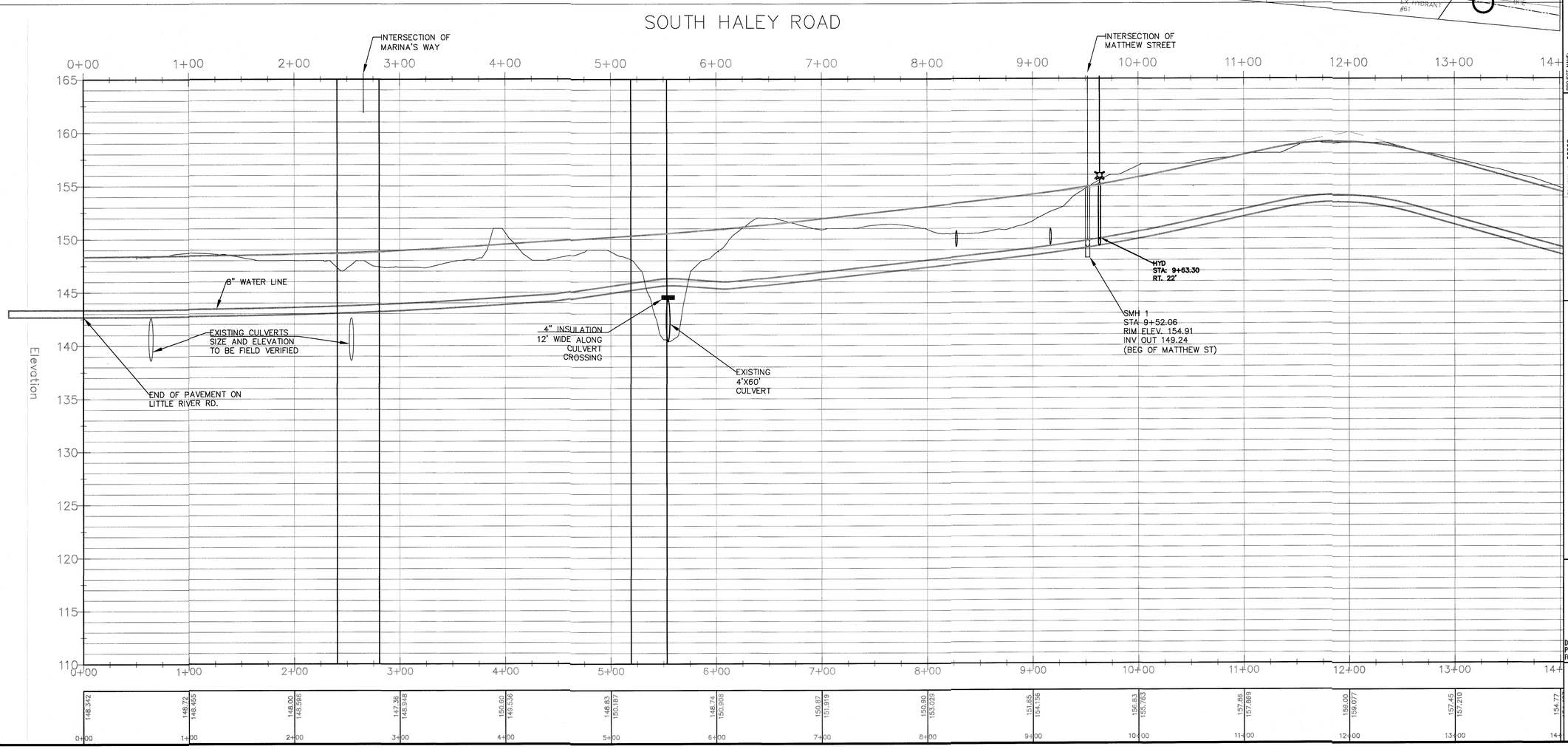
SHEET 3 OF 18

C2

Oct 10, 2023 - 12:10pm
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J. Drawings\CIVIL\100823 CITY response.dwg





REVISIONS

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4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
SOUTH HALEY ROAD PLAN & PROFILE

DESIGNED:
DRAWN: ASY
CHECKED: SEB
APPROVED:
PLAN DATE: 10/10/23
PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
CLIENT & OWNER:
Mid Midcoast Properties
855 Buck Brooks Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE
SCOTT E. BRALEY
No. 5227
REGISTERED PROFESSIONAL ENGINEER
10/10/23

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SHEET 4 OF 18

C3

Oct 10, 2023 - 12:04pm
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J. Drawings\CIVIL\100623 CITY response.dwg

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SOUTH HALEY ROAD

INTERSECTION OF JACOB STREET

INTERSECTION OF JACOB STREET

18" HDPE CULVERT
INV IN=149.5
INV OUT=147.0

18" HDPE CULVERT
INV IN=149.5
INV OUT=147.0

SMH 2
STA 14+66.29
RIM ELEV. 152.66
INV IN 146.99
INV OUT 146.89
(BEG OF JACOB ST)

8" SEWER MAIN

HYD
STA: 19+00.77
22' RT

SMH 3
STA 20+00.00
RIM ELEV. 139.95
INV IN 134.28
INV OUT 134.18

8" SDR 35 PVC SEWER
S: 2.24%
L: 246.00

24" HDPE CULVERT
INV IN=129.5
INV OUT=129.0

8" SDR 35 PVC SEWER
S: 1.57%
L: 246.00

SMH 4
STA 22+50.00
RIM ELEV. 134.26
INV IN 128.58
INV OUT 128.48

8" SDR 35 PVC

8" SDR 35 PVC SEWER
S: 1.54%
L: 134.15

8" WATER

SMH 5
STA 25+00.00
RIM ELEV. 130.51
INV IN 124.55
INV OUT 124.45

HYD
STA: 26+29.57
RT 22'

SMH 6
STA 26+38.15
RIM ELEV. 128.00
INV IN 122.32
INV OUT 122.22

2" WATER

2" PERMANENT BLOW OFF

ELEVATION

14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 29+53

154.77 154.423 | 151.63 151.580 | 148.13 149.419 | 149.00 147.062 | 148.00 144.705 | 144.43 142.348 | 139.63 139.991 | 137.47 137.634 | 135.54 135.294 | 126.38 133.384 | 131.80 131.603 | 131.87 130.435 | 129.00 128.739 | 126.59 126.694 | 124.48 124.302 | 122.53 121.758 | 120.41 120.406

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

Oct 10, 2023 - 12:04pm
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J. Drawings\CIVIL\100823 CITY response.dwg

REVISIONS

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2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/15/23	DEP COMMENTS	AST	SEB
4	10/3/23	DEP COMMENTS	AST	SEB
5	10/9/23	DEP COMMENTS	AST	SEB
6	10/10/23	FINAL SUBMITTAL	AST	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915

SHEET NAME:
SOUTH HALEY ROAD PLAN & PROFILE

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
CLIENT & OWNER:
B&B Midcoast Properties
856 Bock Brooks Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 269-3871 Fax: (207) 857-2130
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STATE OF MAINE
SCOTT E. BRALEY
10/10/23
LICENSED PROFESSIONAL ENGINEER

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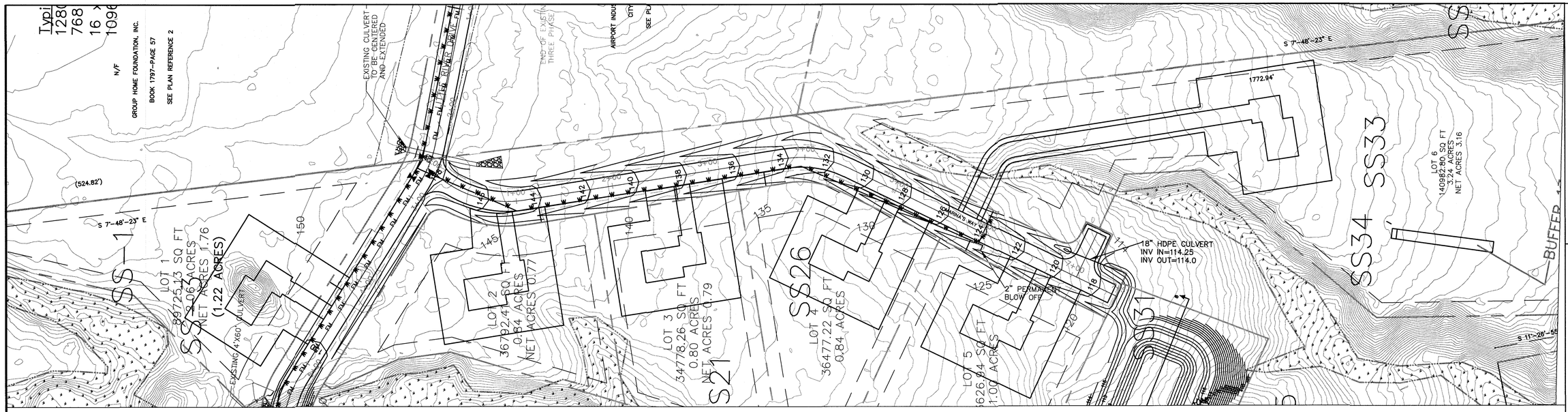
SHEET 5 OF 18

C4



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
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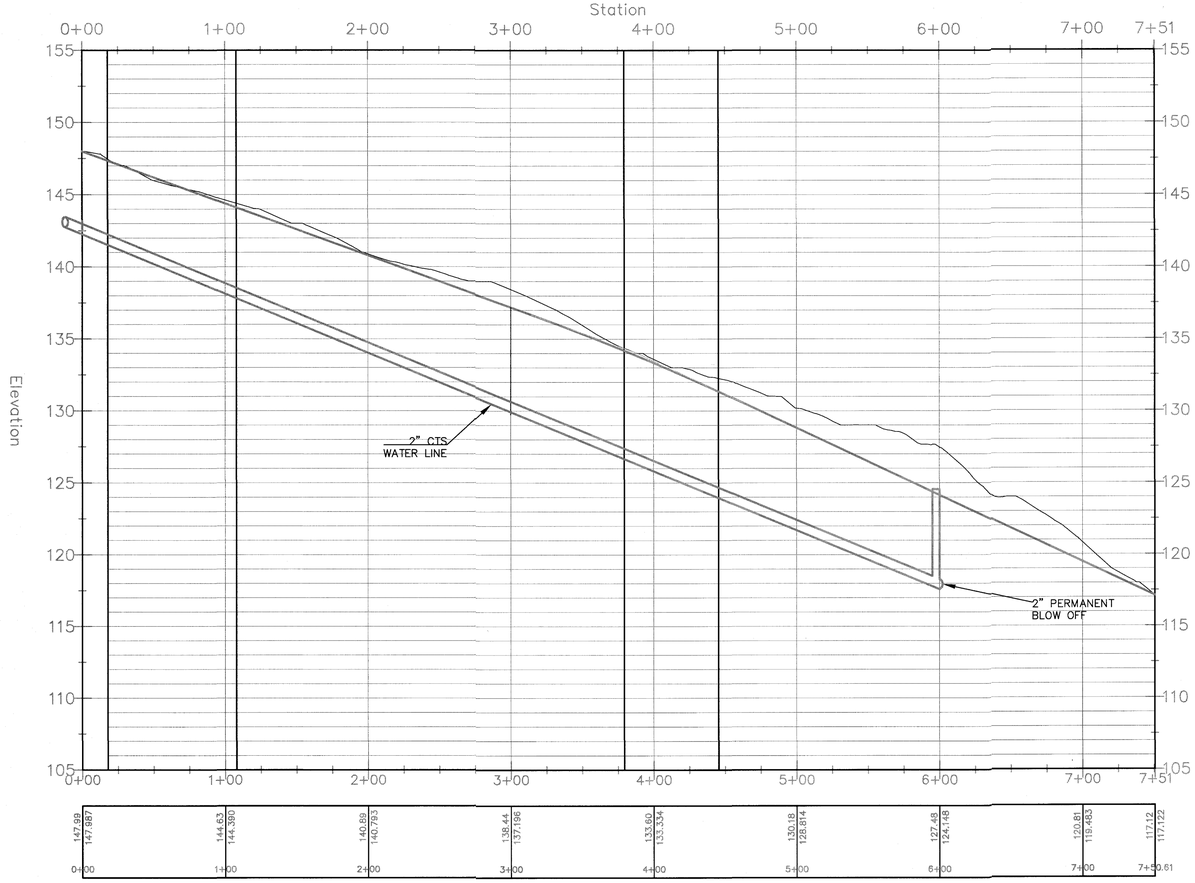

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Oct 10, 2023 - 12:05pm
J:\22022098 - Belfast Little River Rd Subdivision - Belfast\ Drawings\CIVIL\100923 CITY response.dwg

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	9/5/23	DEP COMMENTS	AST	SEB
4	10/3/23	DEP COMMENTS	AST	SEB
5	10/9/23	DEP COMMENTS	AST	SEB
6	10/10/23	FINAL SUBMITTAL	AST	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
MARINAS ROAD PLAN & PROFILE

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
CLIENT & OWNER:
B&B Midcoast Properties
858 Rock Brooks Rd.
Monroe, ME 04951

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
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info@plymouthengineering.com
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STATE OF MAINE
SCOTT E. BRALEY
No. 8227
10/10/23
LICENSED PROFESSIONAL ENGINEER

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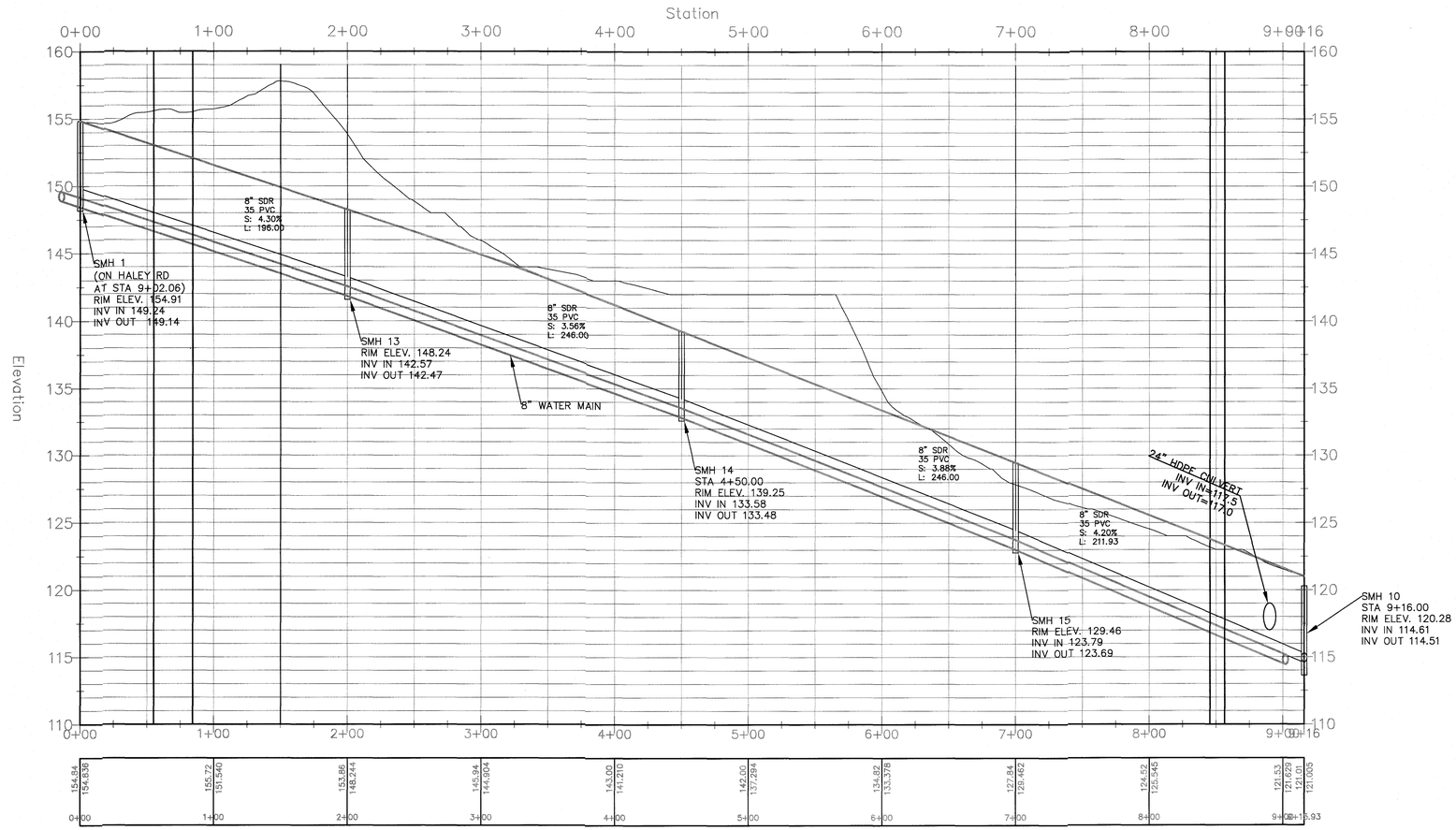
SHEET 6 OF 18

C5



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4	10/2/23	DEP COMMENTS	ASY	SEB
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PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
MATTHEW STREET PLAN & PROFILE

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
PLAN DATE:
DATE ISSUED:
CLIENT & OWNER:
B&B Midcoast Properties
866 Washington Rd.
Bath, ME 04530

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STATE OF MAINE
SCOTT E. BRALEY
22922
REGISTERED PROFESSIONAL ENGINEER
10/10/23

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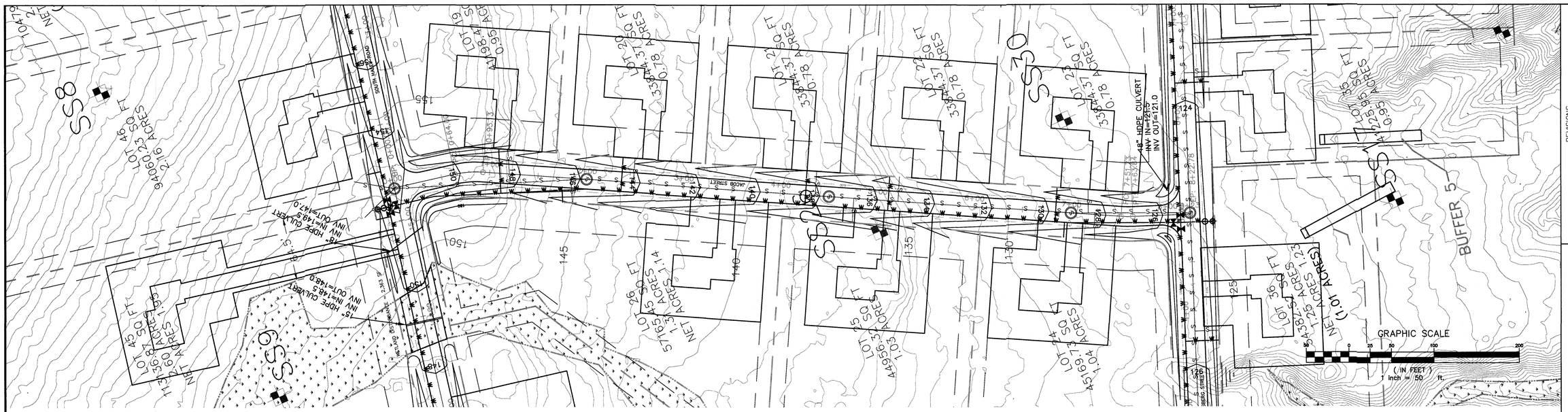
SHEET 7 OF 18

C6


SS8
SS9
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SS1
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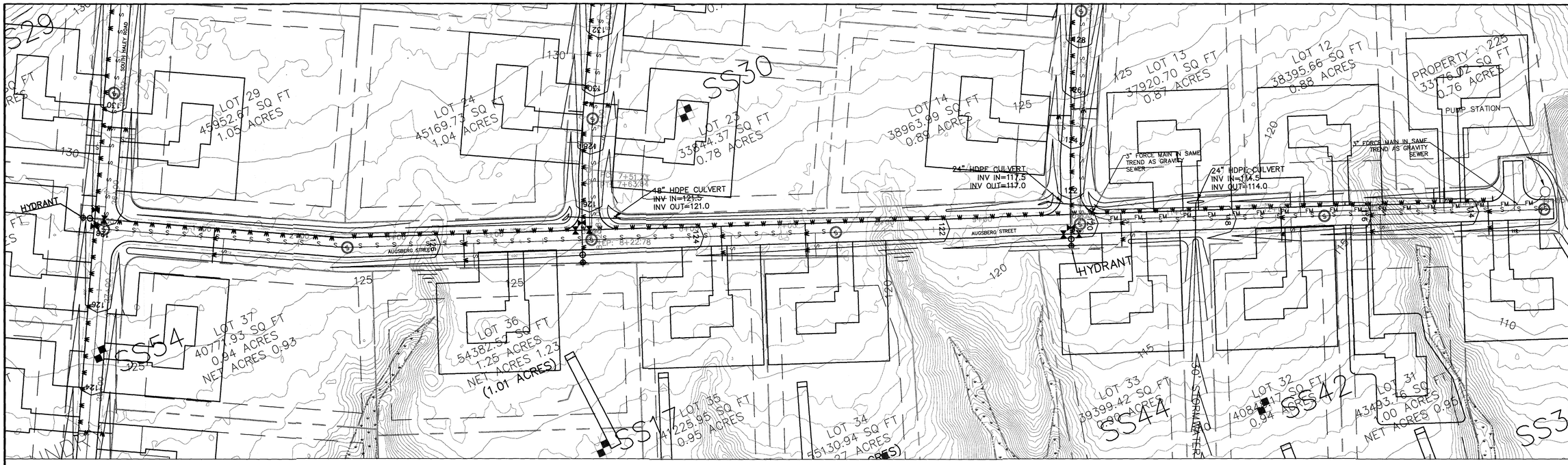

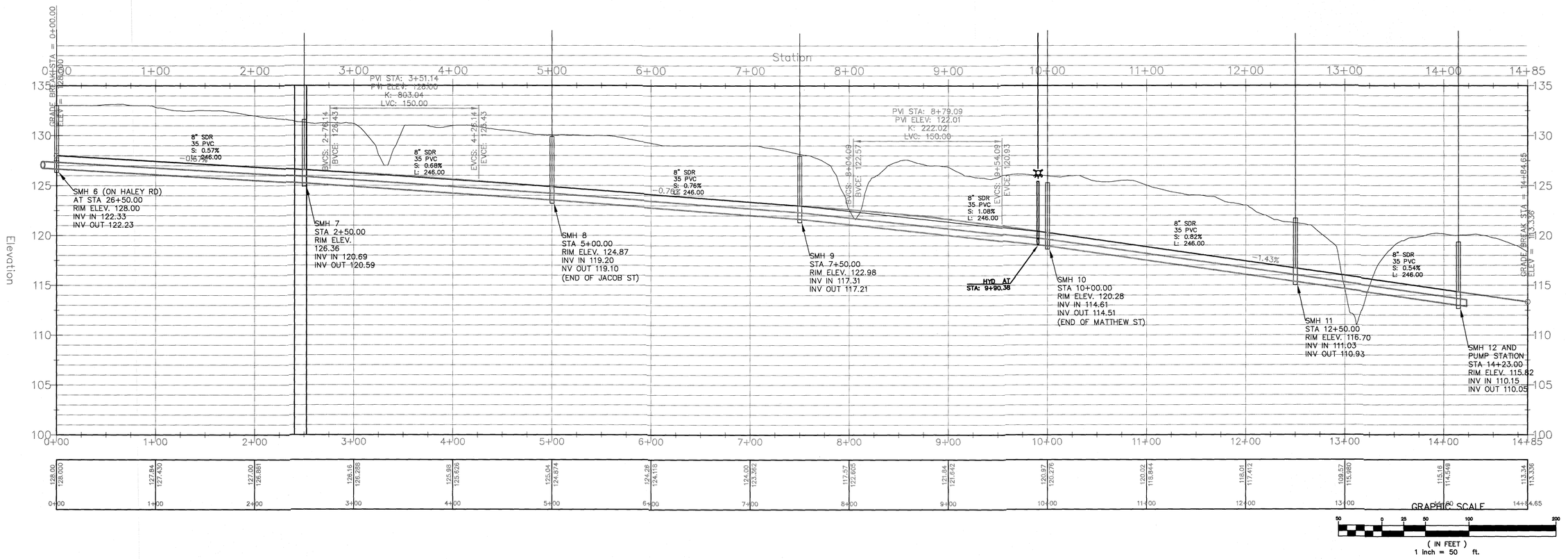

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME: LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME: AUGSBERG STREET PLAN & PROFILE

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
PROJECT NO: 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
CLIENT & OWNER: Midcoast Properties LLC 856 Brook Brooks Rd. Monroe, ME 04951

Plymouth Engineering, Inc.
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Tel: (207) 257-2071 Fax: (207) 257-2130
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STATE OF MAINE SCOTT E. BRALEY 5818 PROFESSIONAL ENGINEER LICENSED
10/10/23

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SHEET 9 OF 18

C8

Oct 10, 2023 - 12:05pm
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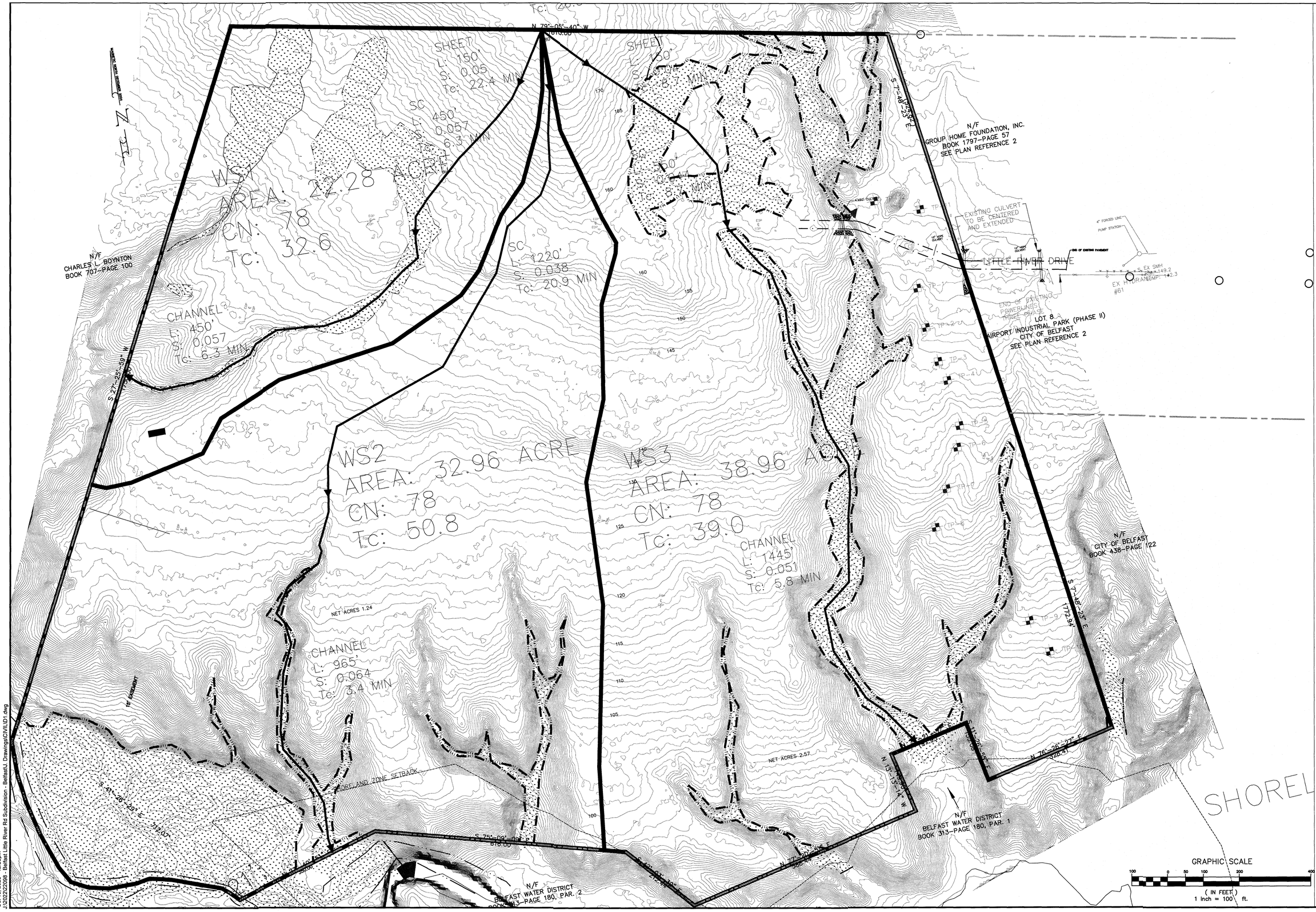

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2	09/18/23	LOT REVISIONS	AAK	SEB
3	8/23/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

REVISIONS

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915

SHEET NAME:
PRE-DEVELOPMENT STORMWATER

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:

CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

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STATE OF MAINE
SCOTT E. BRALEY
LICENSED PROFESSIONAL ENGINEER
10/10/23

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SHEET 10 OF 18

D1

Oct 10, 2023 - 12:36pm
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NOTES:
1. SOURCE PLANS AND FEATURES PROVIDED BY GOOD DEEDS, INC. OF BELFAST, ME, AND MAINE GIS LIDAR.

2. THE LOCATION SHOWN ON THIS PLAN FOR ABOVE AND UNDERGROUND UTILITIES, INCLUDING WATER, ELECTRICITY, TELEPHONE AND SANITARY SEWER ARE APPROXIMATE AND SHOULD BE VERIFIED BEFORE ANY EXCAVATION.

3. FEDERAL, STATE AND MUNICIPAL REGULATIONS AND LAWS REQUIRE ANYONE PERFORMING ANY SORT OF EXCAVATION, INCLUDING DIGGING, BORING, BACKFILLING OR GRADING TO NOTIFY "DIG SAFE", (1-888-344-7233), AND ANY APPLICABLE UTILITY COMPANY THAT IS NOT A PARTICIPANT IN "DIG-SAFE", AT LEAST 72 HOURS BEFORE THEY BEGIN WORK.

4. PORTIONS OF EX. TRAIL TO BE SLIGHTLY RELOCATED TO BE SLIGHTLY RELOCATED TO AVOID LOTS 39-43, INCLUSIVE

5. MARK HAMPTON ASSOCIATES, INC. WERE RESPONSIBLE FOR LOCATION AND EVALUATION OF TEST PITS AND REFER TO HIGH INTENSITY SOIL SURVEY DATED AUGUST 2022 AND PRELIMINARY SOIL EVALUATION LETTER REPORT DATED JANUARY 2023.

6. ALL WETLANDS SHOWN ON THE PLAN WERE DELINEATED BY MARK HAMPTON ASSOICATES, INC SEE LETTER REPORT DATED AUGUST 2022.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/2/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
POST-DEVELOPMENT STORMWATER

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
CLIENT & OWNER:
B&B Midcoast Properties
858 Beck Brooks Rd.
Monroe, ME 04951

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:

Plymouth Engineering, Inc.
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STATE OF MAINE
SCOTT E. BRADLEY
10/10/23
LICENSED PROFESSIONAL ENGINEER

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

SHEET 11 OF 18

D2

Oct 10, 2023 - 12:29pm
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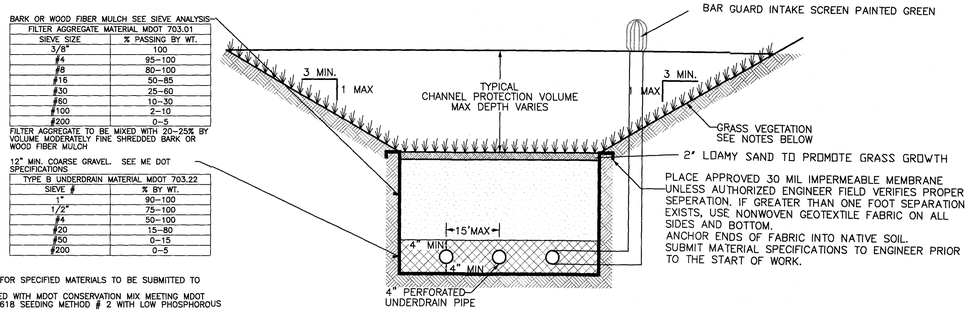
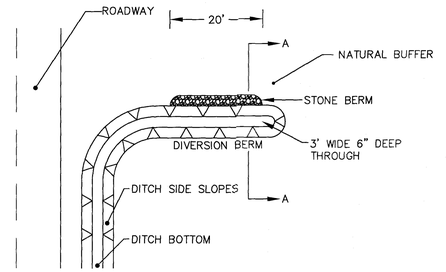
Grassed Underdrained Soil Filters

?Sediment Pretreatment: A pretreatment device such as a forebay, grassed swale, filter strip, and sediment trap should be provided to minimize the discharge of sediment to the filter basin. The pretreatment structure should be sized to hold an annual sediment volume as follow:
Assuming an average of 10 storm events per year, the volume of a sediment trap should be calculated as follow:
10 storms x Sanded Area x 500 lbs. ; 90 lbs. = annual cubic feet per year (acres) per acre–storm ft3 of collected sediment
?Sediment Forebay: A rock forebay is recommended to reduce flow velocity into the basin. All sediment should be removed after construction and the upgradient tributary area is fully stabilized.
?Access: Where needed, a maintenance access should be provided and maintained that is at least 10 feet wide with a maximum slope of 15% and a maximum cross slope of 3%. This access should never cross the emergency spillway, unless the spillway has been designed for that purpose. An easement for long–term access may be needed.
?Vegetation: The soil filter surface should be planted with a grass species that is tolerant of frequent inundation and well drained soils. Upon seeding, the soil filter should be mulched with hay or an erosion control mixture. A conservation type seed mixture is appropriate (or a 48 lbs/acre mixture containing 20 lbs/acre of Creeping red fescue and Tall fescue each plus 8 lbs/acre of Birdsfoot trefoil).
Filter Outlet: The channel protection volume must be discharged solely through a network of underdrain pipe having a single outlet with a diameter that is no greater than eight inches.
?Downgradient Discharge Area: Each underdrain system must discharge to an area capable of withstanding concentrated flows and saturated conditions without eroding.
?Underdrain Pipe: A proper layout of the pipe underdrain system is necessary to effectively drain the entire filter area. The pipes within the basin must be placed no further apart than 15 feet and should have a positive slope. The underdrain should be 4" to 6" diameter perforated, rigid schedule 40 PVC or SDR 35 pipe. Structure joints should be sealed and watertight.
?Outlet Discharge: Outflow of the filter basin underdrain can be controlled by a constrictive orifice or a valve (2 ?plastic ball valve, type 346, with a ball valve handle extension, type 615, with a three–piece valve box installed over the valve). Upon completion of the installation of the soil filter media and the establishment of 90% of grass cover over the filter media, the contractor should flood the vegetated basin to the design elevation with clean water and adjust the outflow to obtain the 24 to 48 hour release time.
Underdrain Layer: The perforated piping in the underdrain layer should be bedded in 12 inches of material, with at least 4 inches of material beneath the pipe and 4 inches above. Two options for the underdrain layer are provided below, but Option 1 is preferred by the DEP:
?Drainage Layer – OPTION 1: The underdrain material consists of well–graded, clean, coarse gravel meeting the Maine DOT specification 703.22 Underdrain Backfill for Type B Underdrain (see Table 7.1.1). This design is acceptable for areas where the depth to seasonal high groundwater is close to the bottom of the drainage layer.
?Drainage Layer with Transition Layer – OPTION 2: The underdrain material consists of 12 inches of crushed stone meeting the Maine DOT specification 703.22 Underdrain Backfill for Type C Underdrain (see Table 7.1.1). As a transition zone, a 6 inch layer of well graded, clean, coarse gravel meeting the Maine DOT specification 703.22 Underdrain Backfill for Type B Underdrain (Table 7.1.1) is needed above the bedding.
Soil Filter Bed: The soil filter over the gravel underdrain pipe bedding must be at least 18 inches deep and must extend across the entire filter area. This soil mixture should be a uniform mix, free of stones, stumps, roots, or other similar objects larger than two inches. No materials or substances that may be harmful to plant growth can be mixed within the filter. Except for agricultural sources, most organic sources may be acceptable for the organic component of the media. The soil filter may be omitted if the permeability of the in–situ soils is greater than the permeability of the soil filter and mounding will not be an issue. However, the basin will need to meet the requirements for infiltration per Chapter 6. Two options are available for the soil filter portion of the basin:
?Optional Hay Layer: A layer of hay can be placed to separate the drainage layer from the filter layer above to prevent subsidence or plugging of the sand/gravel/stone layer and/or pipe.
?Soil Filter Media – OPTION 1: Soil filter media consists of a silty sand soil or soil mixture combined with a mature, moderately fine shredded bark or wood fiber mulch 20% to 25% by volume (no less than 10% by dry weight). The resulting mixture should have 8% to 12% passing the No. 200 sieve and a clay content of less than 2%. The proportions of the mixture can be adjusted so it will contain sufficient fines and organic matter.
o As an example, the soil filter media may contain the following (by volume):
? 50% of sand (Maine DOT specification #703.01 is close but it contains insufficient fine material for the filter media)
? 20% of sandy loam to fine sandy loam (Table 7.1.2).
? 30 % of mature composted woody fibers and fine shredded bark, superhumus or equivalent (adjusted for mineral soil content).
?Layered System with Topsoil – OPTION 2 : Option 2 provides for a layered system that takes advantage of the characteristics of natural soils. A filter media mixed from different sources may lack nutrients, may be unable to retain moisture (because of its coarseness), and may be devoid of microorganisms (such as fungus, bacteria and nematodes) which are found in a natural soil and which benefit the germination and establishment of vegetation. Natural soils contain these important organisms and provide superior filtration. The different layers from the bottom up are:
o Filter Layer: A 12–inch layer of loamy coarse sand which is loosely installed and meets the grain size specification of Table 7.1.3.
o Topsoil: The surface of the basin should be covered with 6 inches of non–clayey, loamy topsoil such as USDA loamy sand topsoil with 5 to 8% humified organic content. Topsoil from the development site may be appropriate but should be tested for organic content and clay content (hydrometer test). The soil must be screened, loose,
friable, and shall be free from admixtures of subsoil, refuse, stones (greater than 2 inches in diameter),
clumps, root and other undesirable foreign matter. The topsoil should be gently mixed within the filter layer to
provide continuity for deep root penetration. The teeth of a backhoe, a hand rake, a shovel or rototilling 2–3 inches
may be used to create a loosened transition.
?Clay Content: The media mixture should have very little or no clay content as tested via hydrometer test. Soils with more than 2% clay content could cause failure of the system.
?Filter Permeability: The filter must be permeable enough to insure drainage within 24 to 48 hours, yet have sufficient fines to insure the filtration of fine particles and the removal of dissolved pollutants. The design may either rely on the soil permeability, if known, to provide the slow release of the water treatment volume, or may insure this rate by installing a constrictive orifice or valve on the underdrain outlet. In determining the permeability of the media, the amount of fines of the mixture and the level of compaction should be considered.
?Gradation testing: Gradation tests, including hydrometer testing for clay content, and permeability testing of the soil filter material, should be performed by a qualified soil testing laboratory and submitted to the DEP for review before placement.
?Seeding and Mulching: The filter bed should be seeded with a drought tolerant grass mix and mulched. Watering is recommended to establish a healthy vegetation base. Geotextile Fabric: A geotextile fabric may be placed between the sides of the filter layer and adjacent soil to prevent the surrounding soil from migrating into and clogging the filter or clogging the outlet. Seams should be overlapped a minimum of 12 inches. Do not wrap fabric over the pipe bedding as it may clog and prevent flows out of the filter. The geotextile fabric should be Mirafi 170N or equivalent.
Impermeable Liner: An impermeable liner may be required if the basin is located over highly permeable soils or with less than 18 inches of separation between the bottom of the underdrain and the top of bedrock or the high seasonal water table, if the basin drains an impervious area that is greater than one acre or greater than 2 acres of developed area, and the impervious area is considered a hot spot (public road, fuel handling facility, high use parking and drive–through lanes, industrial facility, vehicle maintenance facility, etc.). The liner must seamlessly extend up the sides of the basin and be anchored into the subgrade.
Construction: Erosion and sedimentation from unstable construction areas is the most common reason for filter failure. The soil filter media should not be installed until the area that drains to it has been permanently stabilized or unless the runoff is diverted around the filter
?Construction Components: Underdrained filters consist of (from bottom up):
o A geotextile fabric to separate the filter basin from the natural soils. An impermeable membrane may be required if groundwater impact or contamination is a concern, or if it may influence the effectiveness of the basin.
o A 12–inch base of coarse clean stone or coarse gravel in which a 4–inch to 6– inch perforated underdrain pipe system is bedded.
o A gravel transition layer, if necessary.
o An 18–inch layer of uncompacted soil filter media.
o A surface cover of grass and mulch.
?Basin Excavation: The basin area may be excavated for underdrain installation and can be used as a sediment trap during construction. After excavation of the basin, the outlet structure and piping system may be installed if protected with a sediment barrier.
?Sacrificial Mulch cover: If the basin will be used as a sediment trap, the sides of the embankments must be stabilized and maintained to prevent erosion. The basin will need to be restored for its planned purpose after construction. Before final stabilization of the drainage area to the basin, a 2– inch to 3–inch layer of sandy loam (with less than 2% clay content) may be spread on the surface of the soil filter media as a sacrificial protection layer. The sacrificial layer will need to be removed at the end of construction, and the soil filter media will need to be seeded and mulched.
?Compaction of Soil Filter: Filter soil media and underdrain bedding material should be applied to reach a bulk density of between 90% and 92% standard proctor. The soil filter media should be installed in at least two lifts of 9 inches to prevent pockets of loose media.
?Remedial Loam Cover: If vegetation is not established within the first year, the basin may be rototilled, reseeded and protected with a well–anchored erosion control blanket. Or, a 2–inch to 3–inch layer of fine sandy loam may be applied before seeding and mulching.
?Construction Oversight: Inspection of the filter basin must be provided for each phase of construction by the design engineer with required reporting to the DEP. All material intended for the filter basin must be approved by the design engineer after tests by a certified laboratory show that the material conforms to all DEP specifications. At a minimum, inspections will occur:
o After the preliminary construction of the filter grades and once the underdrain pipes are installed (not backfilled);
o After the drainage layer is constructed and prior to the installation of the soil filter media;
o After the soil filter media has been installed, seeded and mulched; and
o After one year, to inspect vegetation and make corrections.
Testing and Submittals: The source of each component of the soil filter media needs to be identified prior to construction. All results of field and laboratory testing must be submitted to the DEP for approval.
?Media Source: Samples of each type of material should be blended for the mixed filter media and underdrain bedding material. Samples must be a composite of three different locations (grabs) from the stockpile or pit face. Sample size requirements will be determined by the testing laboratory.
?Sieve Analysis: A sieve analysis conforming to ASTM C136 should be performed on each type of the sample material.
?Permeability Testing: Testing the permeability of the soil filter media mixture is recommended with the mixture at a measured bulk dry density of 90–92% based on ASTM D698.
Maintenance: The basin should be inspected semi–annually and following major storm events. Debris and sediment buildup should be removed from the forebay and basin as needed. Any bare area or erosion rills should be repaired with new filter media, seeded and mulched.
?Maintenance Agreement: A legal entity should be established with responsibility for inspecting and maintaining any underdrained filter. The legal agreement establishing the entity should list specific maintenance responsibilities (including timetables) and provide for the funding to cover long–term inspection and maintenance.
?Drainage: The filter should within 24 to 48 hours following a one–inch storm or greater. If the system drains too fast, an orifice may need to be added on the underdrain outlet or may need to be modified if already present.
?Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.
?Mowing: If mowing is desired, only hand–held string trimmers or push–mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.
?Fertilization: Fertilization of the underdrained filter area should be avoided unless absolutely necessary to establish vegetation.
?Harvesting and Weeding: Harvesting and pruning of excessive growth should be done occasionally. Weeding to control unwanted or invasive plants may also be necessary.
?Grass cover: Maintaining a healthy cover of grass will minimize clogging with fine sediments. If ponding exceeds 48 hours, the top of the filter bed should be rototilled to reestablish the soil ?i filtration capacity.
?Soil Filter Replacement: The top several inches of the filter can be replaced with fresh material if water is ponding for more than 72 hours, or the basin can be rototilled, seeded and mulched. Once the filter is mature, adding new material (a 1–inch to 2–inch cover of mature compost) can compensate for subsidence.

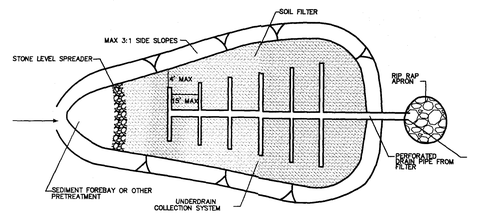


GENERAL NOTES:
1. SIEVE ANALYSIS RESULTS FOR SPECIFIED MATERIALS TO BE SUBMITTED TO ENGINEER PRIOR TO USE.
2. UNDERDRAIN TO BE SEEDED WITH MDOT CONSERVATION MIX MEETING MDOT STANDARD SPECIFICATION 618 SEEDING METHOD # 2 WITH LOW PHOSPHOROUS FERTILIZER.
3. FINAL MIXTURE OF COARSE LOAMY SAND AND SHREDDED BARK OR WOOD FIBER MULCH MUST HAVE NO LESS THAN 8% OR MORE THAN 12% PASSING THE #200 SIEVE. SUBMIT ANALYSIS RESULTS PRIOR TO USE.

TYPICAL UNDERDRAINED SOIL FILTER DETAIL
NOT TO SCALE

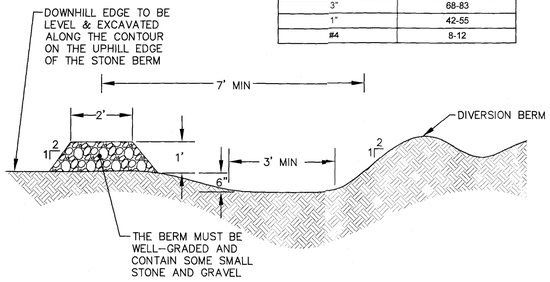


PLAN VIEW



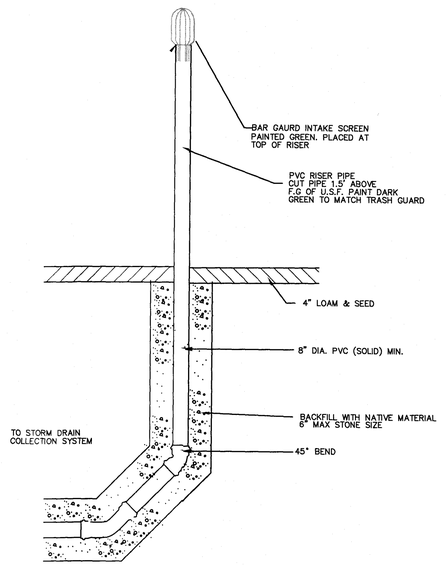
TYPICAL UNDERDRAINED SOIL FILTER PLAN VIEW
NOT TO SCALE

SIEVE DESIGNATION	% BY WEIGHT PASSING SQUARE MESH SIEVES
12"	100
6"	84-100
3"	68-83
1"	42-55
#4	8-12



SECTION A–A

TYPICAL LEVEL LIP SPREADER
NOT TO SCALE



TYPICAL UNDERDRAIN RISER DETAIL
NOT TO SCALE

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/5/23	DEP COMMENTS	AST	SEB
4	10/3/23	DEP COMMENTS	AST	SEB
5	10/9/23	DEP COMMENTS	AST	SEB
6	10/10/23	FINAL SUBMITTAL	AST	SEB

PROJECT NAME: LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME: UNDERDRAINED SOIL FILTER STANDARD DETAILS

PROJECT NO. 22098
DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
CLIENT & OWNER: B&B Midcoast Properties 856 Rock Brooks Rd. Monroe, ME 04951

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STATE OF MAINE SCOTT E. BRALEY 12227 REGISTERED PROFESSIONAL ENGINEER 10/10/23 consult

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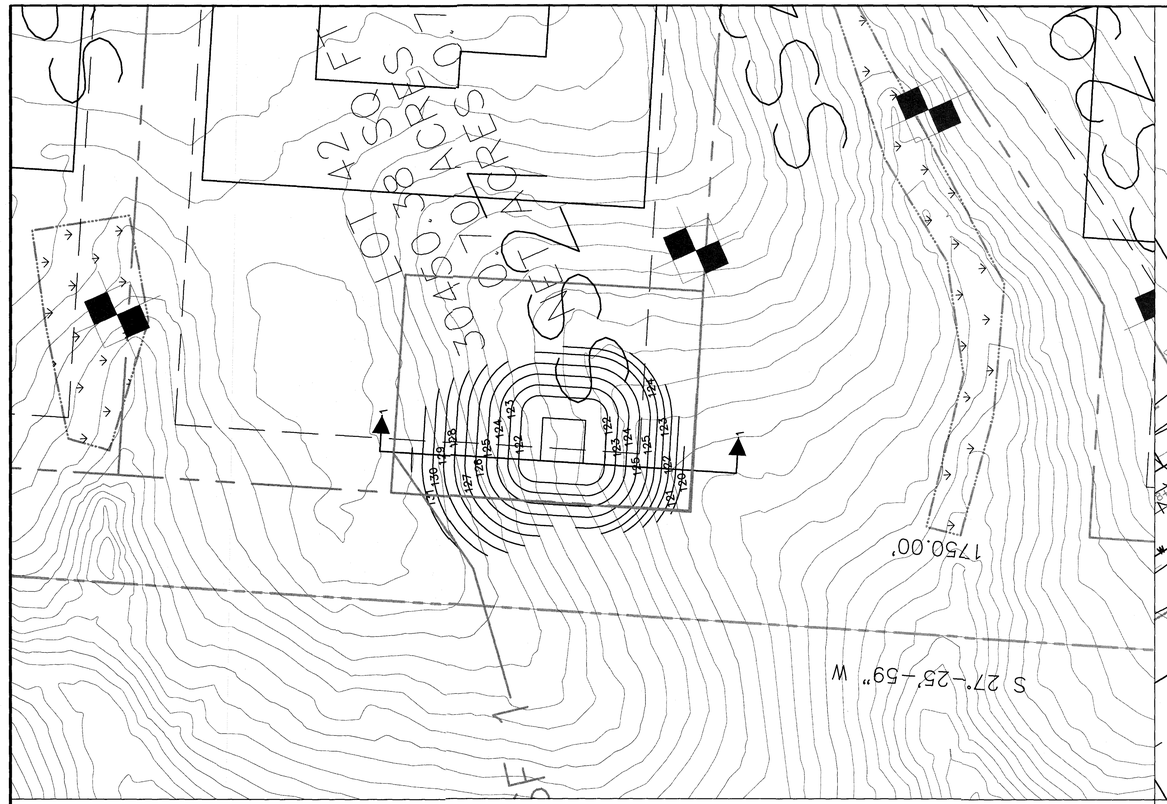
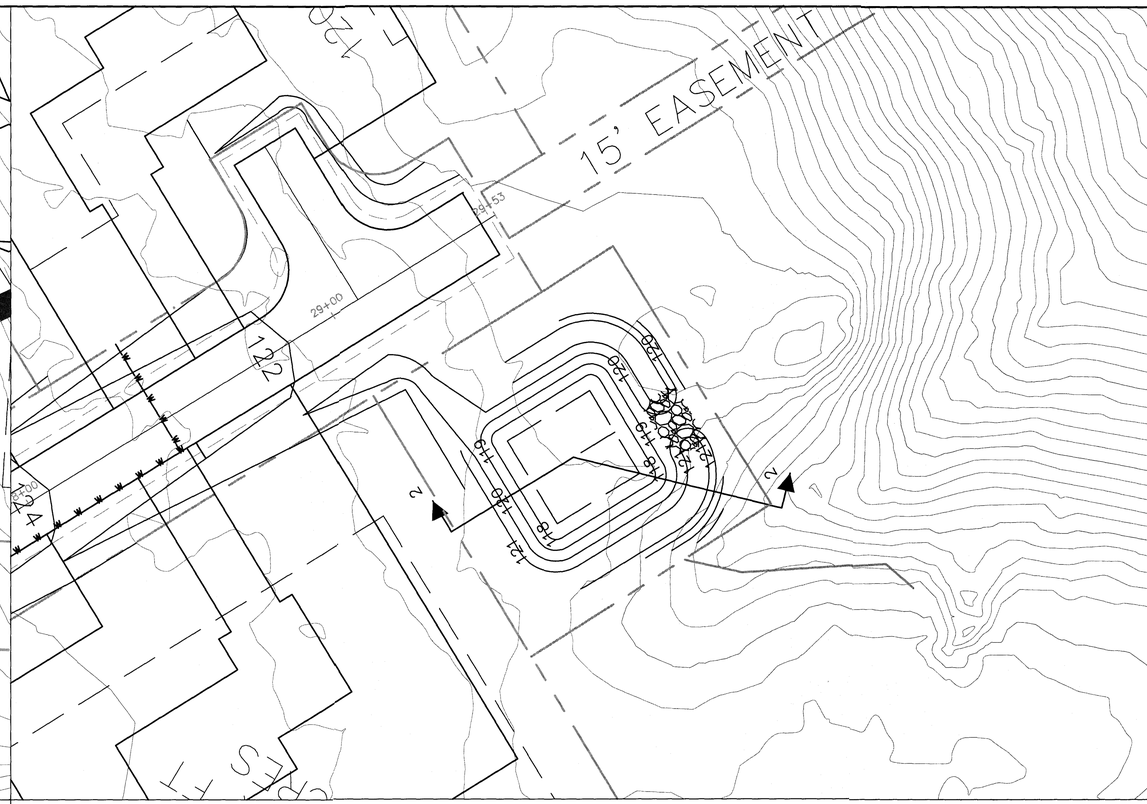
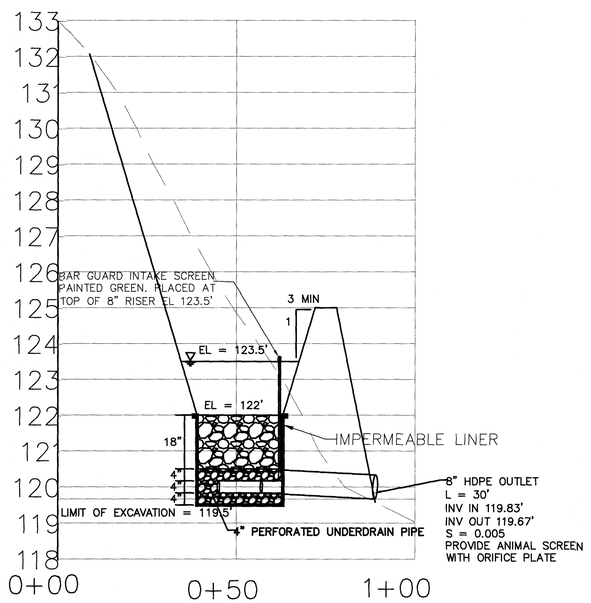
SHEET 12 OF 18

C9

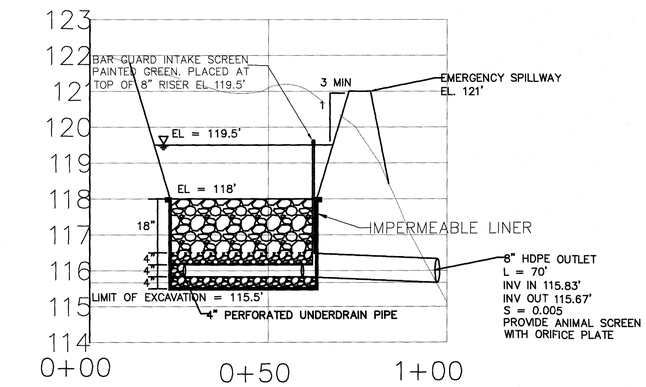
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J Drawings\CIVIL\usf detail.dwg







SECTION 1–1



SECTION 2–2

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
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5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:

LITTLE RIVER SUBDIVISION

LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915

SHEET NAME:

USF PLAN PROFILES

DESIGNED:
DRAWN:
CHECKED:
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PLAN DATE:
CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:

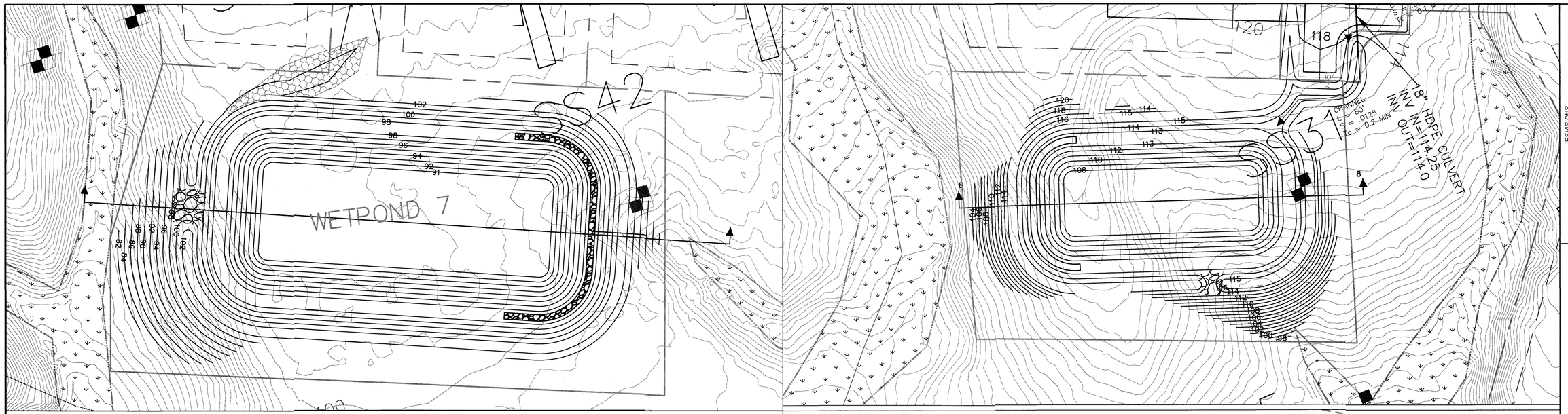
Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

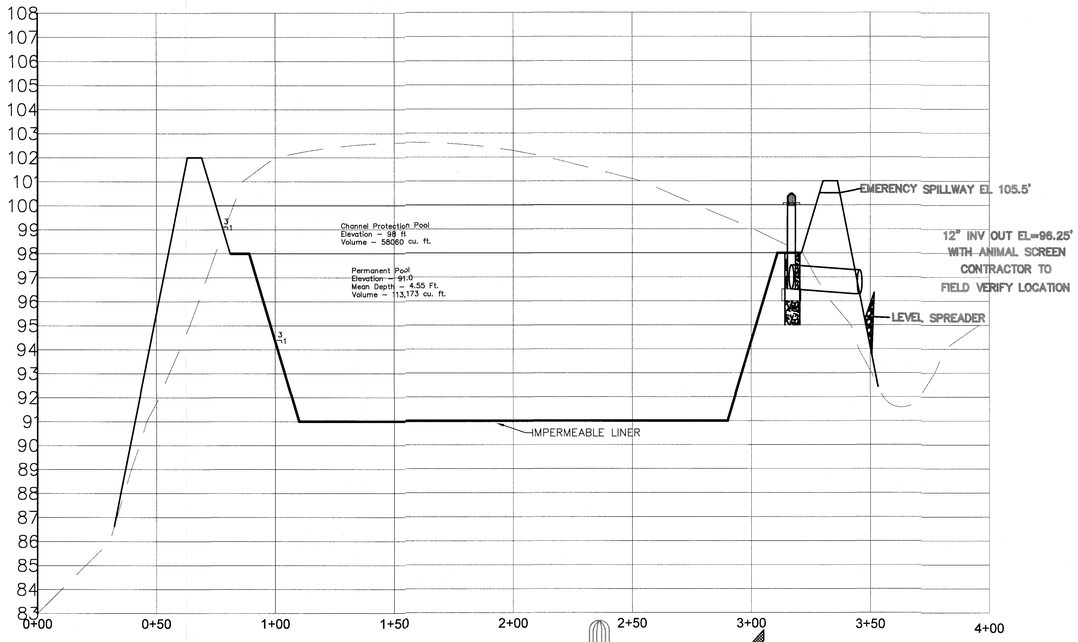
STATE OF MAINE
SCOTT E. BRALEY
No. 8277
LICENSED PROFESSIONAL ENGINEER
10/10/23

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

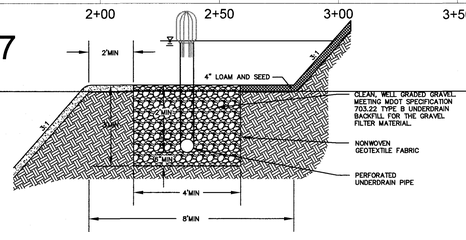
SHEET 13 OF 18

C10

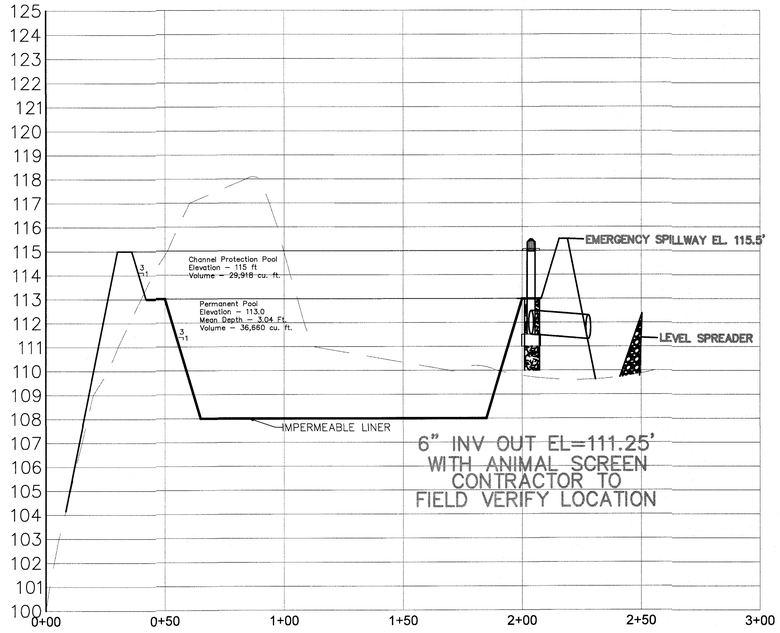




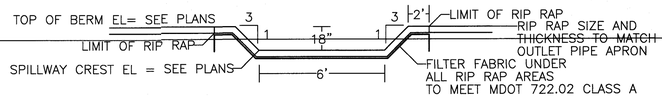
POND SECTION 7-7



POND BENCH UNDERDRAINED GRAVEL FILTER DETAIL
NOT TO SCALE



POND SECTION 8-8



EMERGENCY SPILLWAY DETAIL

NOTE: RIP RAP APRON TO EXTEND FROM 12" BELOW CREST INSIDE OF BASIN ACROSS CREST AND DOWN THE BACKSLOPE TO MEET THE EXISTING GRADE

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

REVISIONS

NO.	DATE:	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY. MAINE 04915
SHEET NAME:
POND PLAN PROFILES

PROJECT NO. 22098
DESIGNED:
DRAWN:
DRAWING NO.
CHECKED:
FIELDBOOK:
APPROVED:
SCALE:
PLAN DATE:
DATE ISSUED:
CLIENT & OWNER:
B&B Midcoast Properties
R59 Back River Rd.
Belfast, ME 04915

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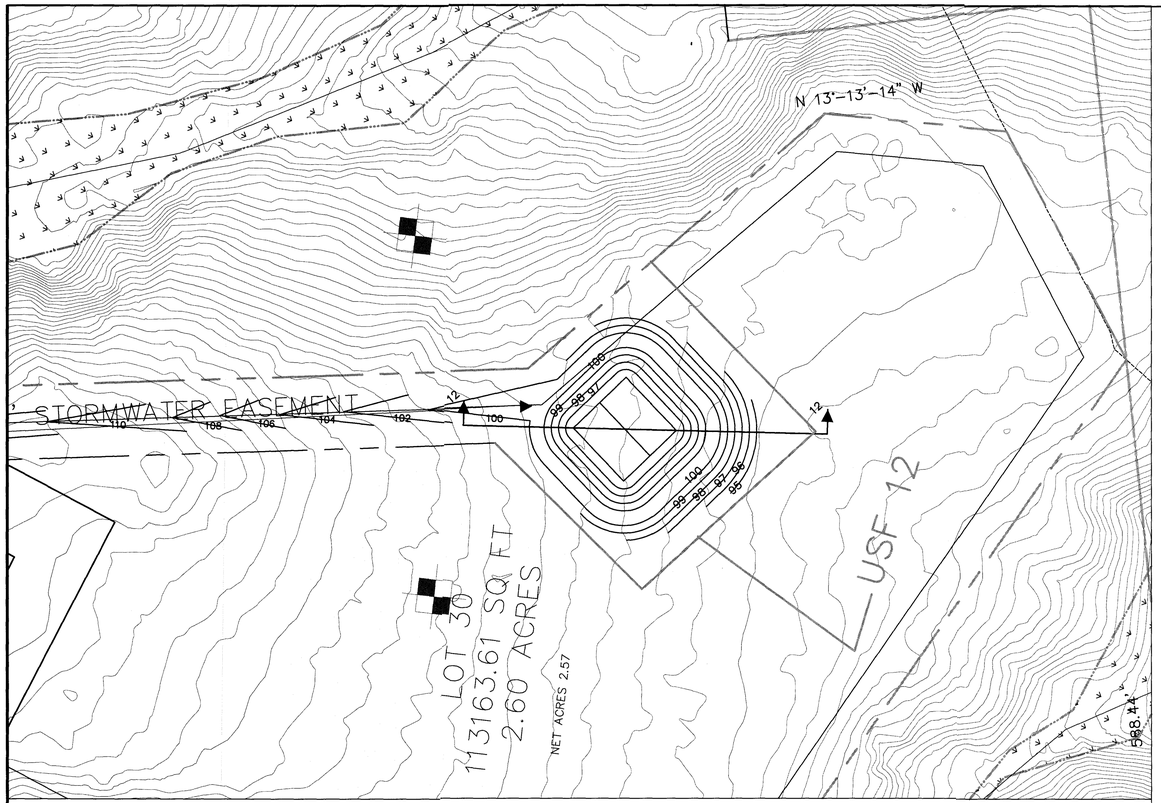
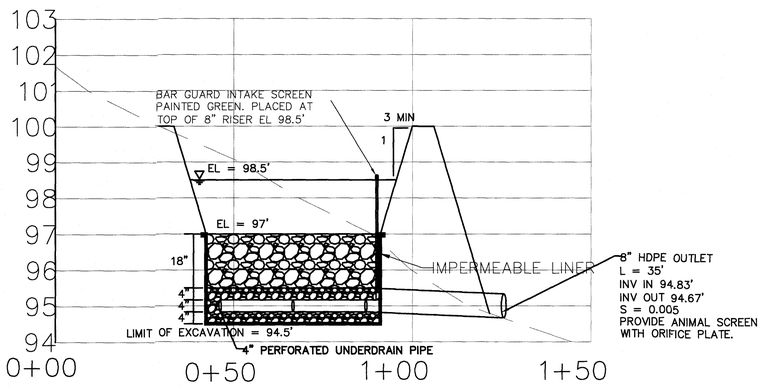
STATE OF MAINE
SCOTT E. BRALEY
No. 6927
REGISTERED PROFESSIONAL ENGINEER
10/10/23

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 14 OF 18

C11





SECTION 12–12

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
POND PLAN PROFILES

PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
CLIENT & OWNER:
Midcoast Properties
858 Belfast Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
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STATE OF MAINE
SCOTT E. BRALEY
10/10/23
LICENSED PROFESSIONAL ENGINEER

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 15 OF 18

C12

Oct 10, 2023 - 12:30pm
J:\2022\22098 - Belfast Little River Rd Subdivision - Belfast\J. Drawings\CIVIL\100823 CITY response.dwg

EROSION AND SEDIMENT CONTROL PLAN

Pre-Construction Phase
A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 MRSA § 480-B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken. The site must be maintained to prevent unreasonable erosion and sedimentation. Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable.

BMP Construction Phase
A. Sediment barriers. Prior to the beginning of any construction, properly install sediment barriers at the edge of any downgradient disturbed area and adjacent to any drainage channels within the proposed disturbed area. Maintain the sediment barriers until the disturbed area is permanently stabilized.

B. Construction entrance: Prior to any clearing or grubbing, a construction entrance shall be constructed at the intersection with the proposed access drive and the existing roadway to avoid tracking of mud, dust and debris from the site.

C. Riprap: Since riprap is used where erosion potential is high, construction must be sequenced so that the riprap is put in place with the minimum delay. Disturbance of areas where riprap is to be placed should be undertaken only when final preparation and placement of the riprap can follow immediately behind the initial disturbance. Where riprap is used for outlet protection, the riprap should be placed before or in conjunction with the construction of the pipe or channel so that it is in place when the pipe or channel begins to operate. Maintain temporary riprap, such as temporary check dams until the disturbed area is permanently stabilized.

D. Temporary stabilization. Stabilize with temporary seeding, mulch, or other non-erodable cover any exposed soils that will remain unworked for more than 14 days except, stabilize areas within 100 feet of a wetland or waterbody within 7 days or prior to a predicted storm event, whichever comes first. If hay or straw mulch is used, the application rate must be 2 bales (70-90 pounds) per 1000 sf or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90% of the ground surface. Hay mulch must be kept moist or anchored to prevent wind blowing. An erosion control blanket or mat shall be used at the base of grassed waterways, steep slopes (15% or greater) and on any disturbed soil within 100 feet of lakes, streams and wetlands. Grading shall be planned so as to minimize the length of time between initial soil exposure and final grading. On large projects this should be accomplished by phasing the operation and completing the first phase up to final grading and seeding before starting the second phase, and so on.

E. Vegetated waterway. Upon final grading, the disturbed areas shall be immediately seeded to permanent vegetation and mulched and will not be used as outlets until a dense, vigorous vegetative cover has been obtained. Once soil is exposed for waterway construction, it should be immediately shaped, graded and stabilized. Vegetated waterways need to be stabilized early during the growing season (prior to September 15). If final seeding of waterways is delayed past September 15, emergency provisions such as sod or riprap may be required to stabilize the channel. Waterways should be fully stabilized prior to directing runoff to them.

Permanent Stabilization Defined
A. Seeded areas. For seeded areas, permanent stabilization means an 90% cover of the disturbed area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

B. Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

C. Permanent mulch. For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

D. Riprap. For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

E. Agricultural use. For construction projects on land used for agricultural purposes (E.G., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.

F. Paved areas. For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed.

G. Ditches, channels, and swales. For open channels, permanent stabilization means the channel is stabilized with mature vegetation at least three inches in height, with well-graded riprap, or with another non-erosive lining capable of withstanding the anticipated flow velocities and flow depths without reliance on check dams to slow flow. There must be no evidence of slumping of the lining, undercutting of the banks, or down-cutting of the channel.

General Construction Phase
The following erosion control measures shall be followed by the contractor throughout construction of this project:

A. All topsoil shall be collected, stockpiled, seeded with rye at 3 pounds/1,000 sf and mulched, and reused as required. Silt fencing shall be placed down gradient from the stockpiled loam. Stockpile to be located by designation of the owner and inspecting engineer.

B. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

C. Erosion control mesh shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.

D. All graded or disturbed areas including slopes shall be protected during clearing and construction in accordance with the approved erosion and sediment control plan until they are adequately stabilized.

E. All erosion, and sediment control practices and measures shall be constructed, applied and maintained in accordance with the approved erosion and sediment control plan.

F. Areas to be filled shall be cleared, grubbed and stripped of topsoil to remove trees, vegetation, roots or other objectionable materials.

G. Areas shall be scarified to a minimum depth of 3 inches prior to placement of topsoil.

H. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc., shall be compacted in accordance with local requirements or codes.

I. All fills shall be placed and compacted in layers not to exceed 8 inches in thickness.

J. Except for approved landfills or non-structural fills, fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris and other objectionable materials that would interfere with or prevent construction of satisfactory lifts.

K. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.

L. Fill shall not be placed on a frozen foundation.

M. Seeps or springs encountered during construction shall be handled appropriately.

N. All graded areas shall be permanently stabilized immediately following finished grading.

O. Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

Permanent Vegetation
Permanent vegetative cover should be established on disturbed areas where permanent, long lived vegetative cover is needed to stabilize the soil, to reduce damages from sediment and runoff, and to enhance the environment.

Seedbed Preparation
A. Grade as feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance.

B. Apply limestone and fertilizer according to soil tests such as those offered by the University of Maine soil testing laboratory. Soil sample mailers are available from the local cooperative extension service office. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 800 pounds per acre or 18.4 pounds per 1,000 square feet using 10-20-20 (n-p2o5-k2o) or equivalent. Apply ground limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of 3 tons per acre (138 lb. Per 1,000 sq. Ft).

C. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring tooth harrow or other suitable equipment. The final harrowing operation should be on the general contour. Continue tillage until a reasonably uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to firm the seedbed wherever feasible.D. Remove from the surface all stones 2 inches or larger in any dimension. Remove all other debris, such as wire, cable, tree roots, concrete, clods, lumps or other unsuitable material.

E. Inspect seedbed just before seeding. If traffic has left the soil compacted; the area must be tilled and firmed as above.

F. Permanent seeding should be made 45 days prior to the first killing frost or as a dormant seeding with mulch after the first killing frost and before snowfall. When crown vetch is seeded in later summer, at least 35% of the seed should be hard seed (unscarified). If seeding cannot be done within the seeding dates, mulch according to the temporary mulching BMP and overwinter stabilization and construction to protect the site and delay seeding until the next recommended seeding period.

G. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs./1,000 s.F. With a mixture of 35% creeping red h. Fescue, 6% red top, 24% Kentucky bluegrass, 10% perennial ryegrass, 20% annual ryegrass and 5% white Dutch clover.

I. Areas which have been temporarily or permanently seeded shall be mulched immediately following seeding.

J. Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.

Winter Construction Phase
If an area is not stabilized with temporary or permanent measures by November 15, then the site must be protected with additional stabilization measures.

A. Permanent stabilization consists of at least 90% vegetation, pavement/gravel base or riprap.

B. Do not expose slopes or leave slopes exposed over the winter or for any other extended time of work suspension unless fully protected with mulch.

C. Apply hay mulch at twice the standard rate (150 lbs. Per 1,000 sf). The mulch must be thick enough such that the ground surface will not be visible and must be anchored.

D. Use mulch and mulch netting or an erosion control mulch blanket or all slopes greater than 8 % or other areas exposed to direct wind.

E. Install an erosion control blanket in all drainageways (bottom and sides) with a slope greater than 3 %.

F. See the vegetation measures for more information on seeding dates and types.

G. Winter excavation and earthwork shall be completed so that no more than 1 acre of the site is without stabilization at any one time.

H. An area within 100 feet of a protected natural resource must be protected with a double row of sediment barrier.

I. Temporary mulch must be applied within 7 days of soil exposure or prior to any storm event, but after every workday in areas within 100 feet from a protected natural resource.

J. Areas that have been brought to final grade must be permanently mulched that same day.

K. If snowfall is greater than 1 inch (fresh or cumulative), the snow shall be removed from the areas due to be seeded and mulched.

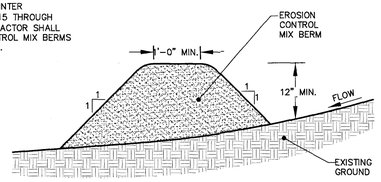
L. Loam shall be free of frozen clumps before it is applied.

M. All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the department.

Maintenance and Inspection Phase
A. Contractor shall inspect disturbed and impervious areas, and erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the parcel at least once a week and before and after a storm event, prior to completion of permanent stabilization. A person with knowledge of erosion and stormwater must conduct the inspection. This person must be identified in the inspection log. If best management practices (BMPs) need to be modified or if additional BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas are permanently stabilized.

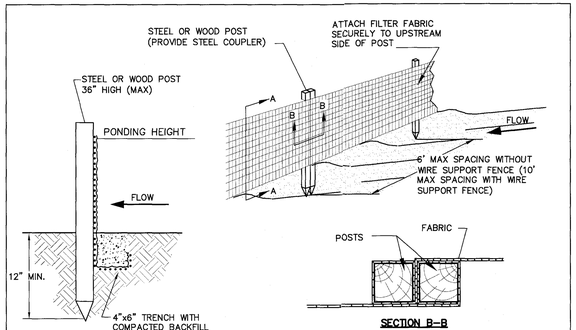
B. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMPs that need to be maintained; location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; and location(s) where additional BMPs are needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.

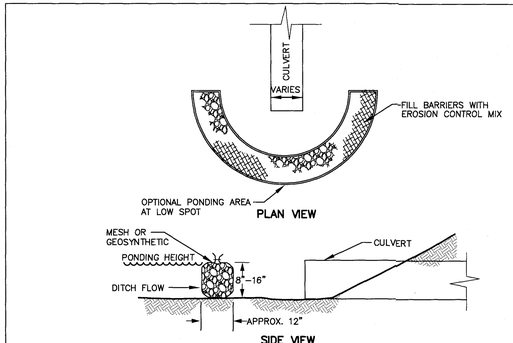


EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

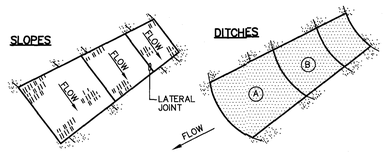
EROSION CONTROL MIX BERM
NOT TO SCALE



SILT FENCE
NOT TO SCALE



CULVERT INLET EROSION CONTROL
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET
NOT TO SCALE

CONSTRUCTION NOTES:

1. All work shall conform to the applicable codes and ordinances.

2. Contractor shall visit the site and familiarize him or herself with all conditions affecting the proposed work and shall make provisions as to the cost thereof. Contractor shall be responsible for familiarizing him or herself with all contract documents, field conditions and dimensions and confirming that the work may be accomplished as shown prior to proceeding with construction. Any discrepancies shall be brought to the attention of the engineer prior to the commencement of work.

3. Contractor shall notify engineer of all products or items noted as "existing" which are not found in the field.

4. Install all equipment and materials in accordance with manufacturer's recommendations and owner's requirements unless specifically otherwise indicated or where local codes or regulations take precedence.

5. Contractor shall verify all dimensions and conditions in the field prior to fabrication and erection of any material. Any unusual conditions shall be reported to the attention of the engineer.

6. Contractor shall clean and remove debris and sediment deposited on public streets, sidewalks, adjacent areas, or other public ways due to construction.

7. Contractor shall incorporate provisions as necessary in construction to protect existing structures, physical features, and maintain site stability during construction. Contractor shall restore all areas to original condition and as directed by design drawings.

8. Site contractor shall obtain all required permits prior to construction.

9. All erosion and sediment control measures shall be installed in accordance with "Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices" published by the Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection, March 2004 or latest edition. It shall be the responsibility of the contractor to possess a copy of the erosion control plan at all times.

10. The contractor is hereby cautioned that all site features shown hereon are based on field observations by the surveyor and by information provided by utility companies. The information is not to be relied on as being exact or complete. The contractor shall contact Dig Safe (1-888-digsafe) at least three (3) but not more than thirty (30) days prior to commencement of excavation or demolition to verify horizontal and vertical location of all utilities.

11. Contractor shall be aware that Dig Safe only notifies its "member" utilities about the dig. When notified, Dig Safe will advise contractor of member utilities in the area. Contractor is responsible for identifying and contacting non-member utilities directly. Non-member utilities may include town or city water and sewer districts and small local utilities, as well as USG public works systems.

12. Contractors shall be responsible for compliance with the requirements of 23 MRSA 3360-A. It shall be the responsibility of the contractor to coordinate with the appropriate utilities to obtain authorization prior to relocation of any existing utilities which conflict with the proposed improvements shown on these plans. If a utility conflict arises, the contractor shall immediately notify the owner, the municipality and appropriate utility company prior to proceeding with any relocation.

13. All pavement markings and directional signage shown on the plan shall conform to the Manual of Uniform Traffic Control Devices (MUTCD) standards.

14. All pavement joints shall be sawcut prior to paving to provide a durable and uniform joint.

15. No holes, trenches or structures shall be left open overnight in any excavation accessible to the public or in public rights-of-way.

16. All work within the public right-of-way shall require a M.D.O.T. Permit as well as permits from the town as applicable.

17. The proposed limits of clearing shown hereon are approximate based upon the proposed limits of site grading. The applicant reserves the right to perform normal forest management activities outside of the clearing limit as shown. Tree removal outside of the limits of clearing may be necessary to remove dead or dying trees or tree limbs. This removal is due to potential safety hazards and to promote proper forest growth.

18. Immediately upon completion of cuts/fills, the contractor shall stabilize disturbed areas in accordance with erosion control notes and as specified on plans.

19. The contractor shall be fully and solely responsible for the removal, replacement and rectification of all damaged and defective material and workmanship in connection with the contract work. The contractor shall replace or repair as directed by the owner all such damaged or defective materials which appear within a period of one year from the date of substantial completion.

20. All work performed by the general contractor and/or trade subcontractor shall conform to the requirements of local, state or federal laws, as well as any other governing requirements, whether or not specified on the drawings.

21. Where the terms "approved equal", "other approved", "equal to", "acceptable" or other general qualifying terms are used in these notes, it shall be understood that reference is made to the ruling and judgment of the owner and/or owner's engineer.

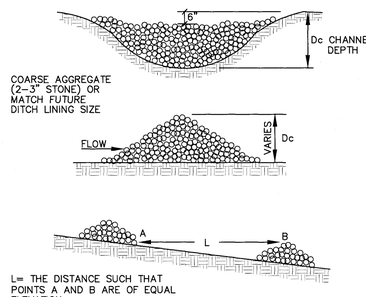
22. The general contractor shall provide all necessary protection for the work until turned over to the owner.

23. The general contractor shall maintain a current and complete set of construction drawings on site during all phases of construction for use of all trades.

24. The contractor shall take full responsibility for any changes and deviation of approved plans not authorized by the architect/engineer and/or client/owner.

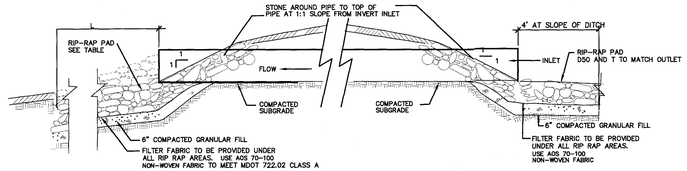
25. Details are intended to show end result of design. Any modification to suit field dimension and condition shall be submitted to the engineer for review and approval prior to any work.

26. Before the final acceptance of the project, the contractor shall remove all equipment and materials, repair or replace private or public property which may have been damaged or destroyed during construction, clean the areas within and adjacent to the project which have been obstructed by his/her operations, and leave the project area neat and presentable.



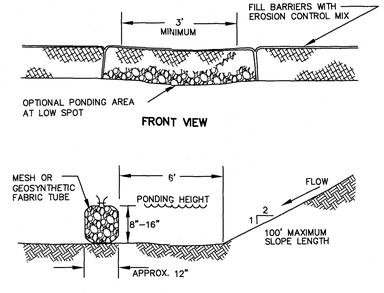
L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

STONE CHECK DAM
NOT TO SCALE



CULVERT INLET/OUTLET DETAIL
NOT TO SCALE

RIP RAP SCHEDULE			
DIA.	d50	t	L
15"	9"	21"	10'
18"	10"	24"	10'
24"	12"	27"	10'
36"	12"	27"	10'
48"	13"	30"	12'



FILTER SOCK DETAIL
NO SCALE

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	05/23/23	PRELIMINARY COMMENTS	AAK	SEB
2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	ASY	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
EROSION AND SEDIMENT CONTROL

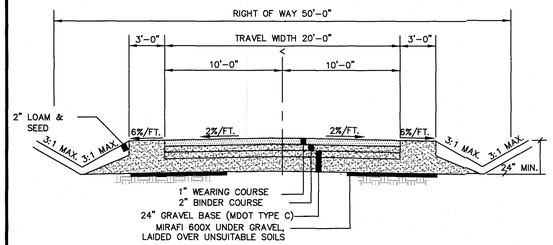
PROJECT NO. 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
PLAN DATE:
CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

Plymouth Engineering, Inc.
8 Main St. Ste. C
Plymouth, Maine 04969
Tel: (207) 257-2830
Info@plymouthengineering.com
www.plymouthengineering.com

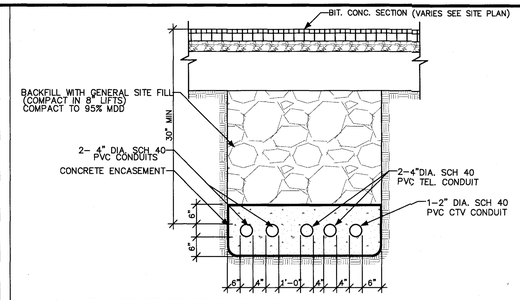
STATE OF MAINE SCOTT E. BRALEY 10710723 LICENSED PROFESSIONAL ENGINEER
DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 16 OF 18
C13



RURAL LANE (BELFAST ROAD STANDARD)

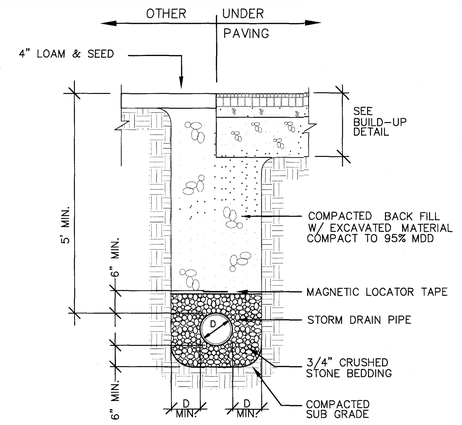
NOT TO SCALE



PAVEMENT CROSSING ELECTRICAL TRENCH DETAIL

NOT TO SCALE

NOTES:
NUMBER OF CONDUIT, MATERIAL, SIZE, & SEPARATION TO BE VERIFIED AT UTILITY PRECONSTRUCTION MEETING.

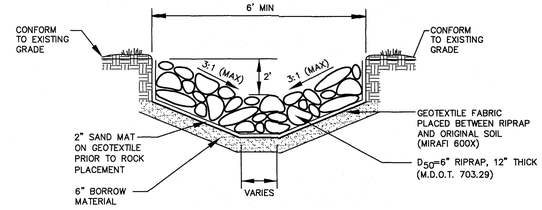


STORM DRAIN/ SANITARY SEWER TRENCH DETAIL

NOT TO SCALE

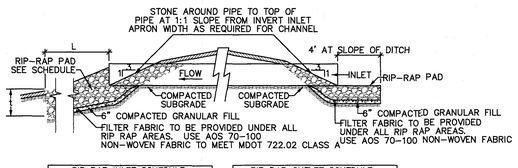
NOTES:

1. ALL BACKFILL PROCEDURES MUST BE PROVIDED USING MAXIMUM 8" LIFTS, LOOSE MEASURE
2. ANY LINE TO BE PLACED WITH LESS THAN 5' OF COVER MUST BE AUTHORIZED BY THE OWNER. ANY LINE PROVIDED WITH LESS THAN 4.5' OF COVER MUST BE INSULATED WITH 2" OF RIGID INSULATION, WIDTH TO BE DETERMINED DEPENDING UPON DEPTH & LOCATION.
3. ANY LINE CROSSING OF OTHER UTILITIES WHERE THE VERTICAL SEPARATION DISTANCE IS LESS THAN 2 FEET SHALL BE INSULATED WITH 2" OF RIGID INSULATION, IN ALL DIRECTIONS FOR A DISTANCE OF 2' FROM THE CROSSING. (SEE DETAIL).



RIPRAP SWALE

NOT TO SCALE



RIP RAP INLET SCHEDULE				
DIA.	d50	t	L	W
12"	4"	9"	3.5'	3.0'
15"	5"	12"	4.5'	3.75'
18"	6"	14"	5.25'	4.5'
24"	8"	14"	7.0'	6.0'
36"	10"	23"	10.5'	9.0'
48"	12"	27"	14.0'	12.0'

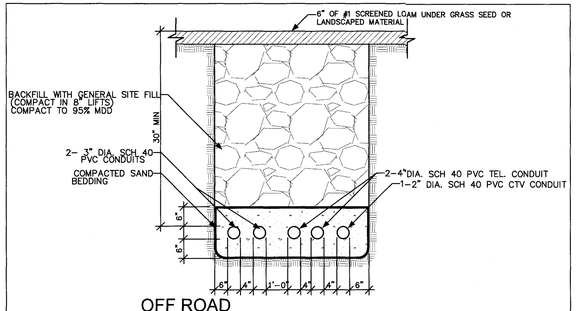
RIP RAP OUTLET SCHEDULE				
DIA.	d50	t	L	W
12"	4"	9"	5'	4'
15"	5"	12"	6.25'	5'
18"	6"	14"	7.5'	6'
24"	8"	14"	10'	8'
36"	10"	23"	15'	12'
48"	12"	27"	20'	16'

CULVERT INLET/OUTLET DETAIL

NOT TO SCALE

NOTE

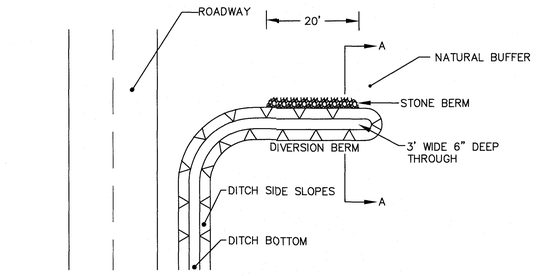
1. RIP RAP PROTECTION TO BE ANGULAR STONE



OFF ROAD ELECTRICAL TRENCH DETAIL

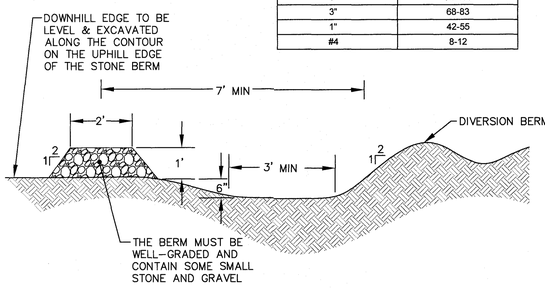
NOT TO SCALE

NOTES:
NUMBER OF CONDUIT, MATERIAL, SIZE, & SEPARATION TO BE VERIFIED AT UTILITY PRECONSTRUCTION MEETING.



PLAN VIEW

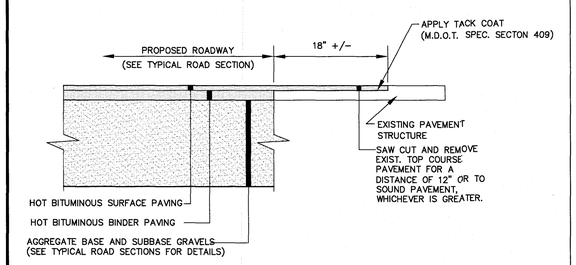
SIEVE DESIGNATION	% BY WEIGHT PASSING SQUARE MESH SIEVES
12"	100
6"	84-100
3"	68-83
1"	42-55
#4	8-12



SECTION A-A

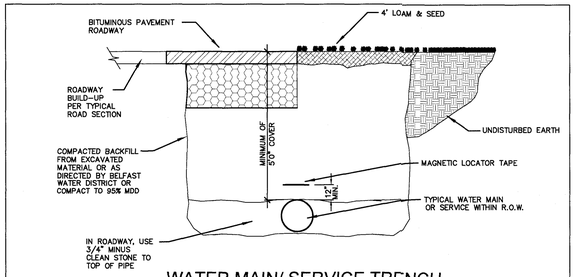
TYPICAL LEVEL LIP SPREADER

NOT TO SCALE



TYPICAL PAVEMENT JOINT

NOT TO SCALE

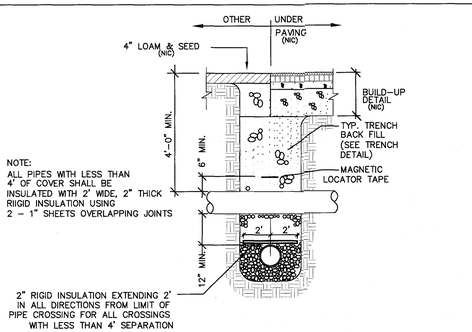


WATER MAIN/ SERVICE TRENCH

NOT TO SCALE

NOTES:

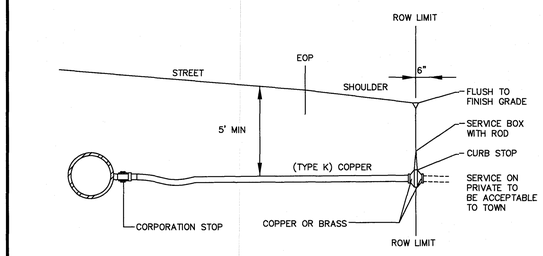
1. ALL BACKFILL PROCEDURES MUST BE COMPLETED USING MAXIMUM 12" COMPACTED LIFTS
2. ANY WATER LINE TO BE PLACED WITH LESS THAN 5' OF COVER MUST BE AUTHORIZED BY THE UTILITY. ANY WATER LINE PROVIDED WITH LESS THAN 4' OF COVER MUST BE INSULATED WITH 2" OF RIGID INSULATION. WIDTH TO BE DETERMINED DEPENDING UPON DEPTH & LOCATION.
3. ANY WATER LINE CROSSING OF OTHER UTILITIES WHERE THE VERTICAL SEPARATION DISTANCE IS LESS THAN 2 FEET SHALL BE INSULATED WITH 2" OF RIGID INSULATION, IN ALL DIRECTIONS FOR A DISTANCE OF 2' FROM THE CROSSING.



NOTE:
ALL PIPES WITH LESS THAN 4' OF COVER SHALL BE INSULATED WITH 2' WIDE, 2" THICK RIGID INSULATION USING 2 – 1" SHEETS OVERLAPPING JOINTS

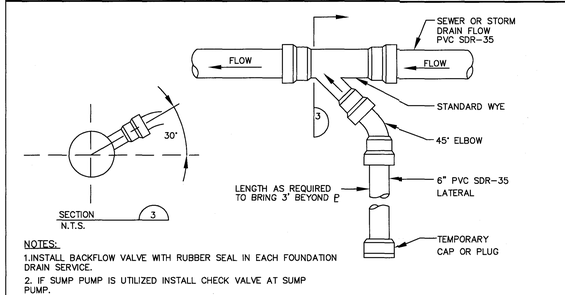
PIPE CROSSING DETAIL

NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE

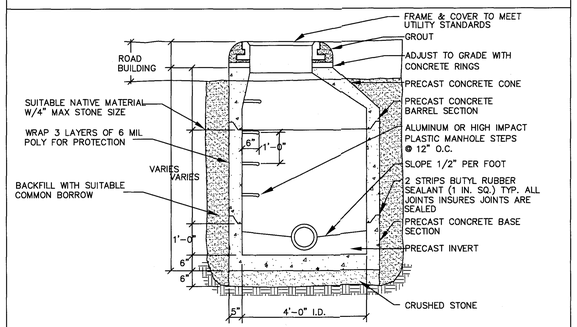


NOTES:

1.INSTALL BACKFLOW VALVE WITH RUBBER SEAL IN EACH FOUNDATION DRAIN SERVICE.
2. IF SUMP PUMP IS UTILIZED INSTALL CHECK VALVE AT SUMP PUMP.

SEWER SERVICE CONNECTION

NOT TO SCALE



PRECAST MANHOLE

NOT TO SCALE

NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
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2	06/16/23	LOT REVISIONS	AAK	SEB
3	8/3/23	DEP COMMENTS	AAK	SEB
4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915

SHEET NAME:
CONSTRUCTION DETAILS

PROJECT NO: 22098
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
PLAN DATE:

CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

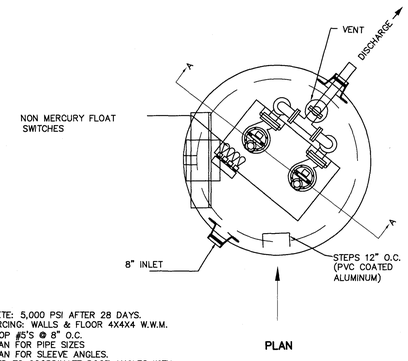
Plymouth Engineering, Inc.
9 Main St. Ste. 6
Plymouth, Maine 04969
Tel: (207) 269-2070 Fax: (207) 267-2130
info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE
SCOTT E. BRAUER
No. 8227
10/10/23
LICENSED PROFESSIONAL ENGINEER

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

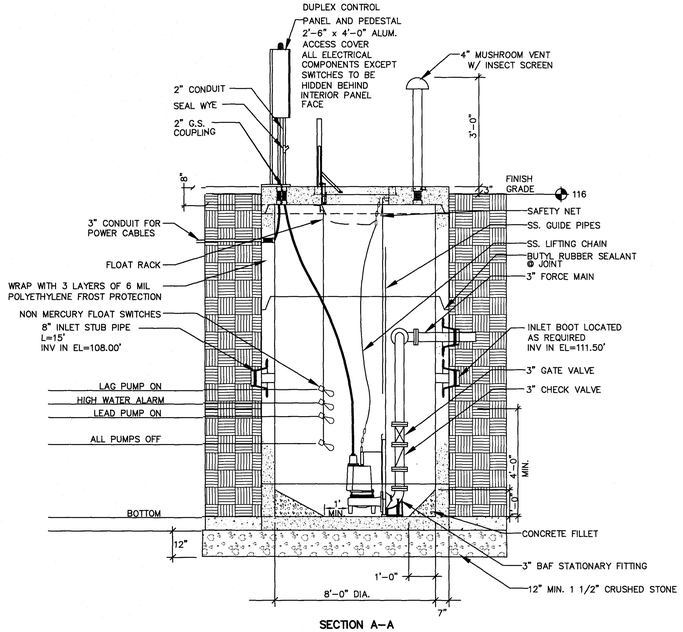
SHEET 17 OF 18

C14



PLAN

NOTES:
1. CONCRETE: 5,000 PSI AFTER 28 DAYS.
2. REINFORCING: WALLS & FLOOR 4X4X4 W.W.M. SLAB TOP #5'S @ 8" O.C.
3. SEE PLAN FOR PIPE SIZES.
4. SEE PLAN FOR SLEEVE ANGLES.
5. SUPPLIER TO COORDINATE BOOT ANGLES WITH CONTRACTOR TO CONFORM TO PIPE TRENCHES.



SECTION A-A

WASTEWATER PUMP STATION DETAIL (NTS)

NOTE:
1. MATERIAL SPECIFICATIONS MAY VARY DEPENDING ON PUMP, SLIDE RAIL AND CONTROL PANEL SUPPLIER. CONTRACTOR TO PROVIDE SUBMITTALS FOR REVIEW. MATERIALS SPECIFIED SHOULD BE CONSIDERED AS "OR EQUAL".
2. PUMP STATION HATCH TO BE PROVIDED WITH SAFETY NET ASSEMBLY THAT IS IN PLACE UPON OPENING HATCH.
3. ALL WORK AND MATERIALS TO BE PROVIDED TO MEET CITY OF BELFAST PUMP STATION SPECIFICATIONS. SPECIFICATIONS GOVERN IF IN CONFLICT WITH PLANS. FURTHERMORE, ALL SUBMITTALS AND CORRESPONDENCE SHALL BE WITH THE OWNER, NOT THE CITY OF BELFAST.
4. CONTRACTOR TO SUBMIT PUMP/SYSTEM CURVES AS PART OF STATION SUBMITTAL.

PUMP STATION ELEVATIONS	
INV IN EL.=	108.0
LAG PUMP ON EL.=	107.65
HIGH WATER ALARM EL.=	108.65
LEAD PUMP ON EL.=	103.93
ALL PUMPS OFF EL.=	102.50
INSIDE BOTTOM OF STA. EL=	101.85
3" DISCHARGE EL=	111.0

DESIGN CRITERIA

- FLOW (Q_P)=25 GPM PER PUMP
- FORCE MAIN LENGTH (L)=2490'
- FORCE MAIN TO BE 3" DIA.
- TOTAL DYNAMIC HEAD (H_S)=45.43' +/- FROM BOTTOM OF STATION
- POWER TO BE SINGLE PHASE
- PUMPS TO BE SUBMERSIBLE GRINDER PUMPS
- DISCHARGE TO GRAVITY FLOW MANHOLE

REVISIONS

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4	10/3/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
PUMP STATION DETAILS

PROJECT NO. 22098
DESIGNED:
DRAWN:
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PLAN DATE:
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SCALE:
DATE ISSUED:
CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
9 Main St., Ste. C
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE
SCOTT E. BRAILEY
No. 6272
LICENSED PROFESSIONAL ENGINEER
10/10/23

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SHEET 18 OF 18

C15

SOIL TYPE / SLOPE / DRAIN TYPE
PERU A SWD

DRAINAGE CLASS	
EWD	EXCESSIVELY WELL DRAINED
WD	WELL DRAINED
MWD	MODERATELY WELL DRAINED
SPD	SOMEWHAT POORLY DRAINED
PD	POORLY DRAINED
VPD	VERY POORLY DRAINED

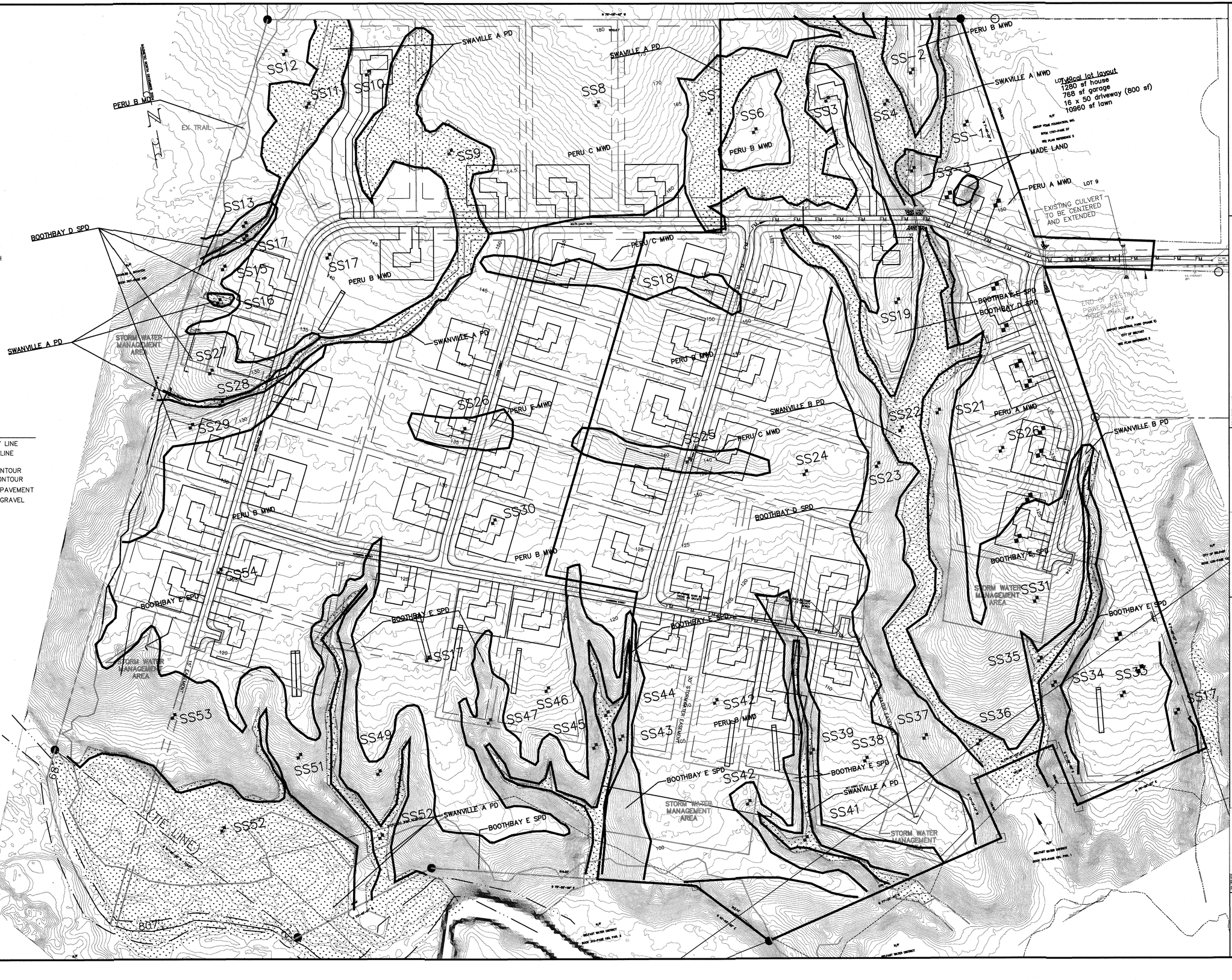
SLOPE DESIGNATION	
0-3%	A
3-8%	B
8-15%	C
15-25%	D
<25%	E

HIGH INTENSITY SOIL SURVERY HAS BEEN PREPARED BY MARK HAMPTON ASSOCIATES, INC. IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS, AND THE MAINE BOARD OF CERTIFICATION OF GEOLIGISTS AND SOIL SCIENTISTS

CLASS B HIGH INTENSITY SOILS SURVERY AND MAP AS DESCRIBED REPORT BY MARK J. HAMPTON DATED NOV. 10, 2022

LEGEND

- EXISTING PROPERTY LINE
- EXISTING SETBACK LINE
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- TP-A TEST PIT
- WETLAND AREA
- SS## TEST PIT LABEL



Typical lot layout
1280 sf house
768 sf garage
16 x 50 driveway (800 sf)
10960 sf lawn

REVISIONS				
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4	10/2/23	DEP COMMENTS	ASY	SEB
5	10/9/23	DEP COMMENTS	ASY	SEB
6	10/10/23	FINAL SUBMITTAL	ASY	SEB

PROJECT NAME:
LITTLE RIVER SUBDIVISION
LITTLE RIVER DR., BELFAST, WALDO CNTY MAINE 04915
SHEET NAME:
CLASS B HIGH INTESITY SOILS MAP

PROJECT NO. 22098
DRWG NO.
BOOK:
FILE:
ISSUED:

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
SCALE:
PLAN DATE:
DATE ISSUED:

CLIENT & OWNER:
B&B Midcoast Properties
856 Back Brooks Rd.
Monroe, ME 04951

Plymouth Engineering, Inc.
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STATE OF MAINE
MARK A. HAMPTON
10/10
SOIL SCIENTIST

SHEET 1 OF 1

S