

ITEM 2

**Town of Kittery
Planning Board Meeting
February 9, 2023**

ITEM 2 – 39 Badgers Island, Sketch Plan Review – Minor Subdivision

Action: hold public hearing: Pursuant to §16.4 Land Use Regulations and §16.9.3 Shoreland Development Review requirements of the Town of Kittery Land Use and Development Code, owner applicant B.I.W. Group, LLC and agent Chris Atwood Otter Creek homes with Ambit Engineering propose to subdivide the 0.48-acre parcel identified as Lot 38 of Tax Map 1 into 4 residential condominiums. The property is located at 39 Badgers Island West, in the Mixed-Use Badgers Island Zoning District (MU-BI) and Shoreland Overlay Zone (OZ-SL-250’).

PROJECT TRACKING

REQ’ D	ACTION	COMMENTS	STATUS
YES	Sketch Plan – Minor Subdivision	Accepted as complete 1/12/23. Preliminary Subdivision Application not required for minor subdivisions.	Under Review
NO	Site Visit	Applicant presented Planning Board members and interested residents with location of future buildings, driveway, landscaping, and tree removal. Drainage, fencing, and off-site improvements were also discussed. No other actions were taken by the Board during this meeting.	Held 1/25/23
NO	Public Hearing	Pending	Scheduled 2/9/23
YES	Subdivision - Final Plan Review Shoreland Development Plan Review	N/A	N/A

Applicant: Plan Review Notes reflect comments and recommendations regarding applicability of Town Land Use Development Code, and standard planning and development practices. Only the PB makes final decisions on code compliance and approves, approves with conditions or denies final plans. Prior to the signing of the approved Plan any **Conditions of Approval related to the Findings of Fact along with waivers and variances (by the BOA) must be placed on the Final Plan and, when applicable, recorded at the York County Registry of Deeds. PLACE THE MAP AND LOT NUMBER IN 1/4” HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS.** As per Section 16.4.4.13 - Grading/Construction Final Plan Required. - Grading or construction of roads, grading of land or lots, or construction of buildings is prohibited until the original copy of the approved final plan endorsed has been duly recorded in the York County registry of deeds when applicable.

Project Introduction

39 Badgers Island West (“Property”) is a 21,029 square-foot (0.48 acres) property located along the middle portion of the looping road of Badger Island West, within the Mixed-Use Badgers

ITEM 2

19 Island (MU-BI) zoning district. The entire parcel is also within the Shoreland Overlay Zone (OZ-
20 SL-250).

21 The proposed project is to create (4) 1,037 sqft buildings noted on the plan as A, B, C, D. Each
22 building will contain 3 bedrooms/ 2 ½ baths with parking for 2 vehicles in enclosed garages,
23 driveway parking for 2 more vehicles, and walkways and patios surfaced with pavers.

24 This application was reviewed by the Planning Board during the January 12, 2023 meeting.
25 The packet for that meeting includes site photographs, property and soil data, site plans,
26 architectural renderings, and a deed which were provided with the applicant's submittal from
27 October 27, 2022. This packet is available at: [Planning Board Meeting | Kittery ME](#). The applicant
28 submitted updated plans with a drainage analysis, lighting specifications, a demolition plan, and
29 utility plans on December 15, 2022 and January 19, 2023. These submittals are included in the
30 packet for review during this meeting.

31

32 **Staff Review Notes: Title 16: Land Use and Development Code**

- 33 • Single family dwellings are a permitted use in MU-BI zoning districts per § 16.4.24(B)
- 34 • Plan complies with development standards for MU-BI zoning districts (unit density,
35 setbacks, open space) of § 16.4.24 (D) and (E) and with the OZ-SL Shoreland Overlay Zone
36 of § 16.4.28. Maximum devegetated area is 60% of lot; applicant proposes to achieve 45%
37 devegetated area.
- 38 • Plan complies with Net residential acreage, Dwellings in Shoreland Overlay Zones, of § 16.5
39 Performance Standards. Sprinkler systems are required in buildings three or more stories or
40 36 or more feet in height (§ 16.5.25)
- 41 • § 16.8 Subdivision Review. Review process § 16.8.9 outlined in above table. A subdivision
42 of 4 units comprises a Minor Subdivision per § 16.3.2. Minor subdivisions are reviewed via
43 Sketch and Final Subdivision applications. A public hearing is not required.
- 44 • The applicant provided a complete sketch plan submission including 10 detailed plan sheets
45 depicting existing conditions, utilities, grading, and lighting; a drainage analysis prepared by
46 a licensed engineer, a quitclaim deed and associated authorization letters, site photographs, a
47 soils report, lighting specifications, and perspective building drawings. The applicant is not
48 requesting any **waivers**.
- 49 • § 16.8.10 Performance Standards. Public water and sewer utilities available. Stormwater and
50 erosion control requirements to be reviewed by qualified peer review consultants. Staff and
51 consultant review of proposed driveway configuration (emergency vehicle access, curb cuts)
52 ongoing. Vehicular trip generation should be typical of residential uses. Snow storage
53 proposed in open space areas east of driveway and at driveway terminus.
- 54 • Applicant must demonstrate financial and technical capacity prior to project approval and
55 provide a financial guarantee prior to start of construction. Maintenance and inspection of
56 stormwater facilities is required after project completion. Easements may be required to
57 enable inspectors to access on-site facilities.
- 58 • Proposed exterior lighting is comprised of wall-mounted fixtures over driveways and one
59 12'-foot tall pole light located east of the driveway. Offsite light spillage or glare is
60 anticipated to be minimal and generally complies with applicable standards.
- 61 • Off-site improvements originally proposed were removed from plans per Town staff
62 direction. Invasive species were also removed from Landscape plans.

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- 63 • Vehicular access was revised in response to Fire Dept comments. The proposed development
64 is now proposed to be accessed from the south, where emergency responders can access an
65 existing fire hydrant. This driveway will also connect to Badgers Island West in the north,
66 where an emergency access gate will prevent thru-traffic for passenger vehicles but will
67 allow emergency vehicles to travel through the site, eliminating the need for an on-site
68 turnaround for emergency vehicles. A Fire Department approved knox box is required for
69 securing and opening the emergency access gate.

70
71

72 **Recommendations**

73 This proposal substantially complies with applicable standards. Staff recommend **approving** this
74 sketch minor subdivision plan or **continuing review** if additional information is needed from the
75 applicant, staff, or peer review consultants. The Planning Board may choose to decide on this
76 application during a separate meeting.

77

78 **Motions**

79

80 *Move to open/ close/ continue the public hearing*

81

82 *Move to approve/ deny/ continue review of sketch plan for minor subdivision.*

Move to approve/ deny/ continue sketch plan application from owner/applicant owner applicant B.I.W. Group, LLC and agent Chris Atwood Otter Creek homes with Ambit Engineering request approval to create a subdivision of 4 residential lots on a legally conforming lot located on real property with the address of 39 Badgers Island West, Tax Map 1, Lot 38, in the Mixed-Use Badgers Island Zone (MU-BI), Shoreland Overlay Zone (OZ-SL-250').

83



AMBIT ENGINEERING, INC.

A DIVISION OF HALEY WARD, INC. 

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

19 January 2023

Dutch Dunkelberger, Chair
Kittery Planning Board
Town of Kittery
200 Rogers Road
Kittery, ME 03904

**Re: Minor Subdivision Application; Residential Development
Tax Map 1, Lot 38
39 Badgers Island West
Kittery, ME**

Dear Dutch and Planning Board Members:

On behalf of BIW Group LLC – Owner and **Otter Creek Homes - Applicant** we submit herewith the attached package for Minor Subdivision Approval at the site. The project Sketch Plan was accepted at the January 12, 2023, Planning Board Meeting, and the application scheduled for the **February 9, 2023, Planning Board Meeting** In support thereof, we are submitting a revised Site Plan set with the associated exhibits and requirements. This proposal is to construct four free-standing Residential units. Currently the site served as parking and day care for the Green Pages office at the west end of Badgers Island. The proposed use we believe fits the predominately residential uses on Badgers Island. The Existing Conditions Plan reflects the state of the site today; however the building which existed on the site has been recently demolished.

The project conforms to the Kittery Land Use and Development Code for the zone it occupies for allowable number of dwelling units, open space (a reduction from the existing), and building setbacks. The entire lot is within the 250-foot Shoreland Zone. The Planning Board at Sketch Plan, and the town department's at TRC Review, noted a few concerns which the applicant has addressed in this submission. In addition, we understand there is a question regarding the drainage path(s) after leaving the site. Please find revised Subcatchment plans showing where the drainage travels after leaving the site, for clarification.

The following plans are included in our submission, with revisions to address concerns noted in **bold** text:

- Cover Sheet – This plan shows the design team, site location, and Legend. **Revised Date.**
- Condominium Site Plan - The plan is the plan that will be recorded for the creation of the Condominium at the site. The plan shows Common and Limited Common areas. **Revised entrance location.**
- Existing Conditions Plan C1 – This plan shows the current improvements on the property (including the recently demolished building) and the site boundary lines. **No change.**
- Shoreland Development Plan C2 – This plan shows the location of the proposed buildings, landscaping, parking, patios, walkways, signage, and driveway entrance. The building siting takes advantage of available views. The plan highlights the existing landscaping (trees) that will be retained. The plan contains the Devegetated Coverage Table. **Revised entrance location, secondary exit width, Spirea plant substitution, Note 8 regarding snow storage, added automatic gate at secondary exit.**
- Utility Plan C3 – This plan shows the utilities required to service the proposed buildings. The plan has tables with the proposed elevations. **Revised entrance location. Added Note 9 and revised water service notes to include sprinkler connection.**
- Grading Plan C4 – This plan shows the proposed site grading. **Revised entrance location and added spot grade.**
- Demolition Plan C5 – This plan shows the proposed demolition taking place on the property. **No change.**
- Lighting Plan L1 – This plan shows proposed site lighting with lighting intensities. **No change.**
- Detail Sheets D1 to D3 – These plans show the construction details for the project. **No change.**

Previously submitted in support of this proposal, and unchanged:

Minor Subdivision Application, Property Deed, Authorizations, USGS Map, Vicinity Map, Tax Map, Drainage Analysis, Site Photographs, Soil Report, Lighting Specs

Let me know if anything from the previous submission needs to be provided.

We look forward to your review of this submission and our in-person presentation at the Planning Board meeting. Thank you for your time and attention to this proposal. Please contact me if you have any questions or concerns regarding this application.

Sincerely,

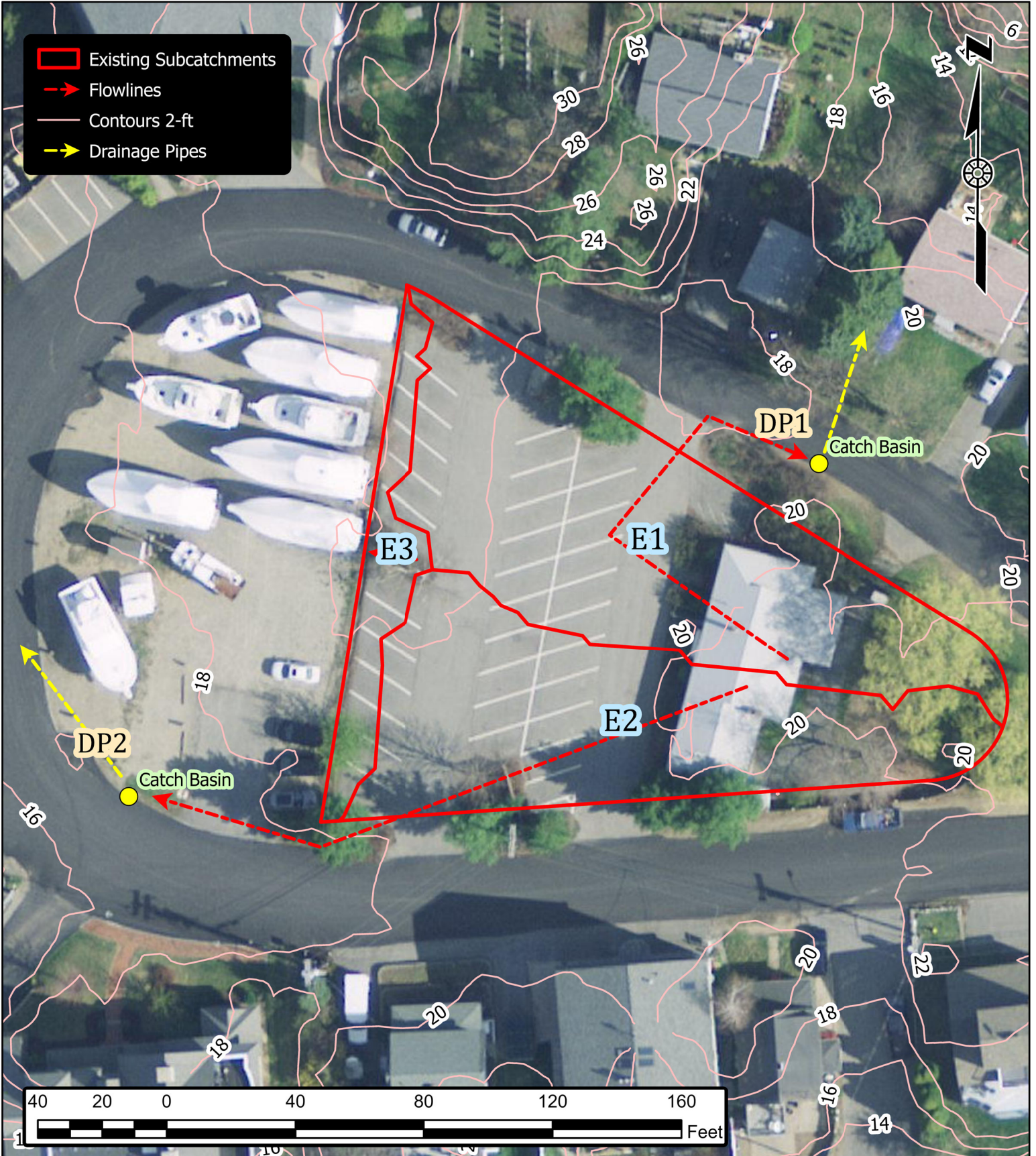
John R. Chagnon

John R. Chagnon, PE
Ambit Engineering, Inc.
CC: Project Team

J:\JOBS3\JN 3400\s\3430\s\3430\2022 Site Plan\Applications\Town of Kittery\Planning Board Letter 1-19-23.docx

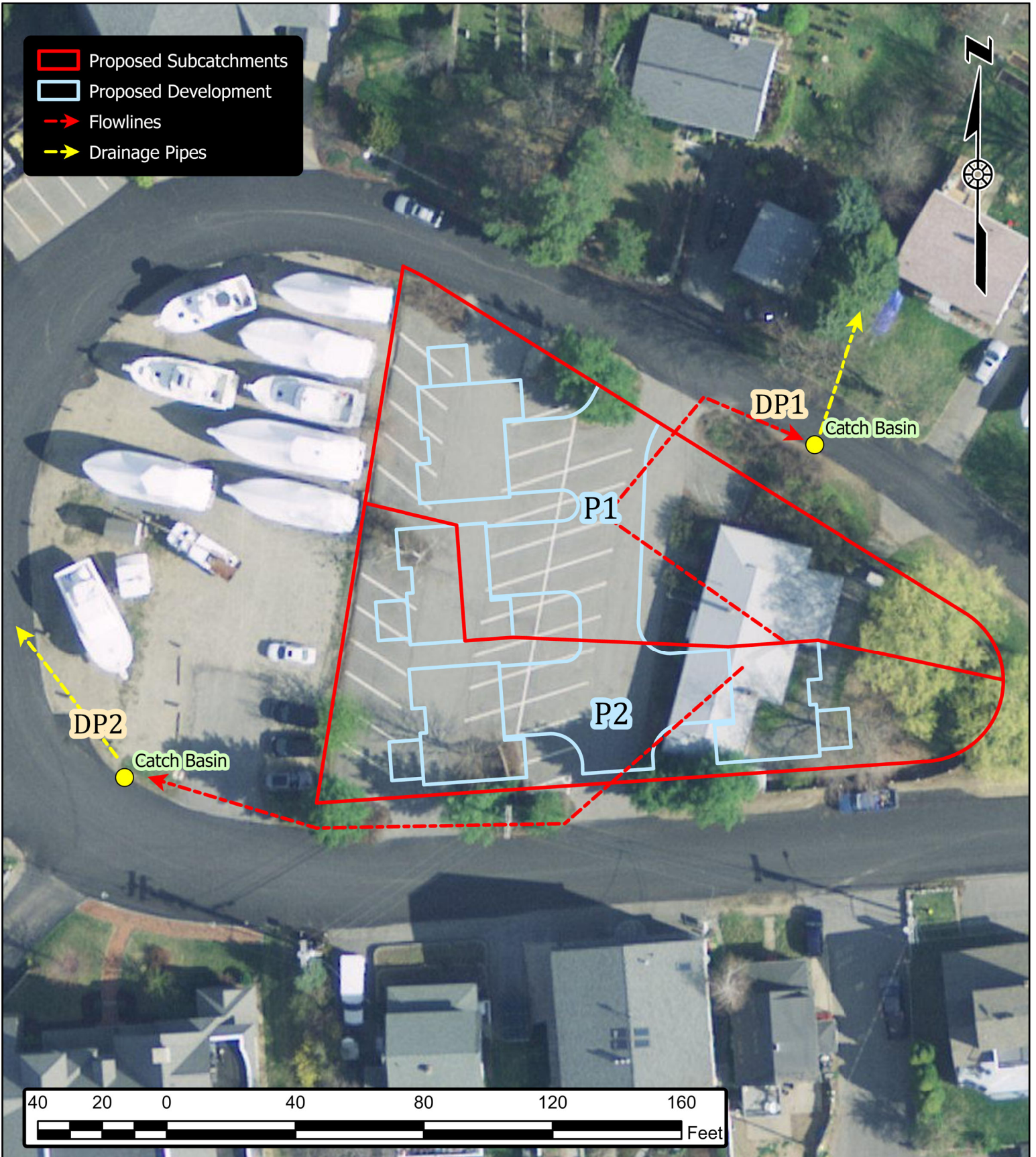
OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

JOB NUMBER: 3430.01
SCALE: 1" = 40'
SUBMITTED: 01-19-2023



OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

JOB NUMBER: 3430.01
SCALE: 1" = 40'
SUBMITTED: 01-19-2023



RESIDENTIAL DEVELOPMENT

39 BADGERS ISLAND WEST
KITTERY, MAINE

MINOR SUBDIVISION

SINGLE FAMILY DETACHED CONDOMINIUM

OWNER:
B.I.W. GROUP, LLC
41 INDUSTRIAL DRIVE, SUITE 20
EXETER, N.H. 03833

APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD, UNIT 1
NORTH HAMPTON, N.H. 03862
(603) 833-0784

CIVIL ENGINEER & LAND SURVEYOR:
AMBIT ENGINEERING,
A DIVISION OF HALEY WARD INC.
200 GRIFFIN ROAD, UNIT 3
PORTSMOUTH, N.H. 03801-7114
TEL: (603) 430-9282
FAX: (603) 436-2315

BUILDING DESIGN:
DESIGNS WORTH CALLING HOME
PO BOX 547
GREENLAND, NH 03840
(603) 767-3232

INDEX OF SHEETS

- CONDOMINIUM SITE PLAN
- C1 - EXISTING CONDITIONS PLAN
- C2 - SHORELAND DEVELOPMENT PLAN
- C3 - UTILITY PLAN
- C4 - GRADING PLAN
- C5 - DEMOLITION PLAN
- C6 - LIGHTING PLAN
- D1-D3 - DETAIL SHEETS

OWNER:

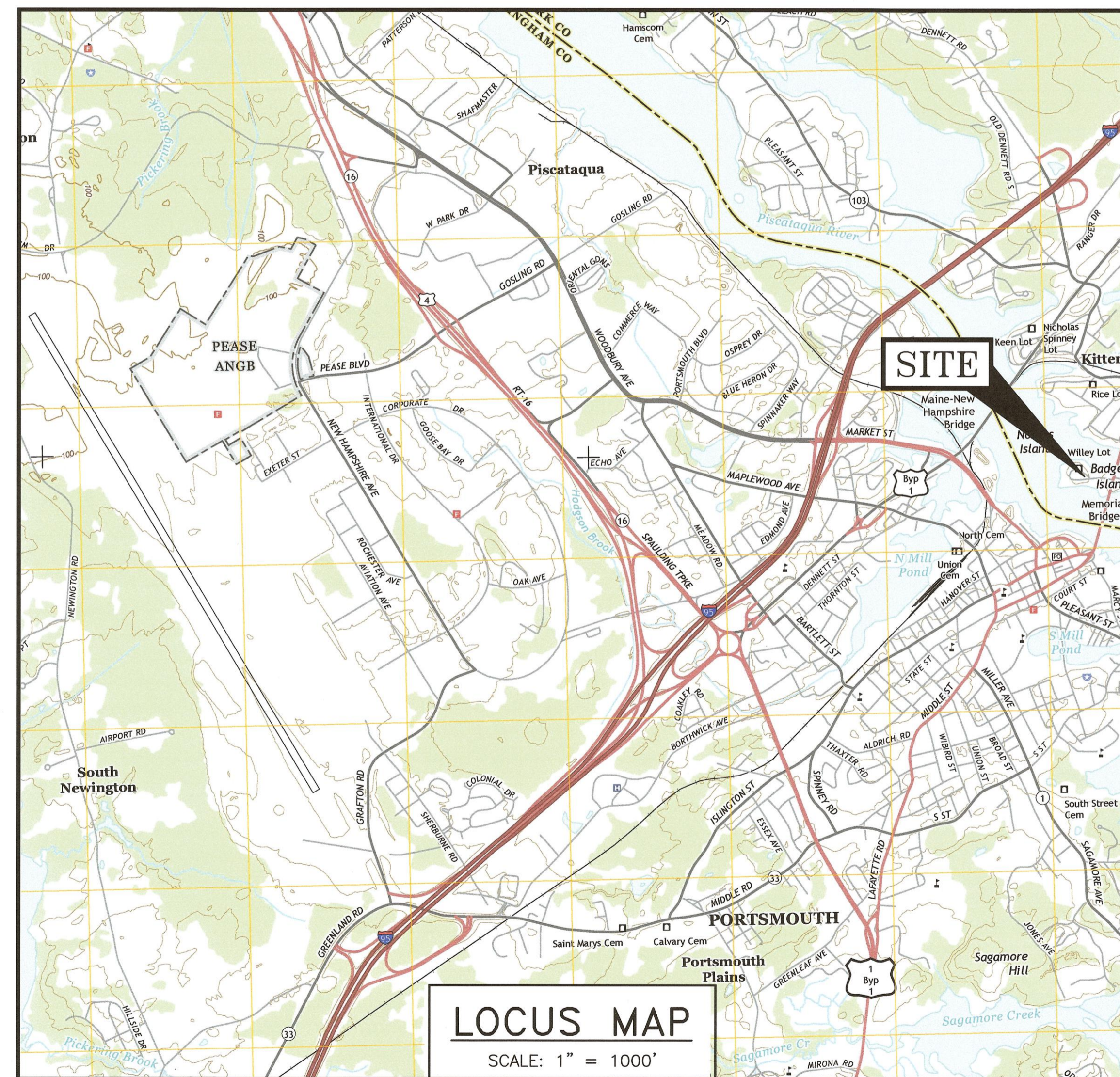
SIGNATURE

DATE

APPROVED BY THE KITTERY PLANNING BOARD

CHAIRMAN

DATE



LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
YCRD	YORK COUNTY REGISTRY
	OF DEEDS
(11/21)	MAP 11/LOT 21
RR SPK FND	RAILROAD SPIKE FOUND / SET
IR FND	IRON ROD FOUND / SET
IP FND	IRON PIPE FOUND / SET
DH FND	DRILL HOLE FOUND
BND w/DH	BOUND WITH DRILL HOLE
ST BND w/DH	STONE BOUND WITH DRILL HOLE
RR SPK SET	RAILROAD SPIKE FOUND / SET
IR SET	IRON ROD FOUND / SET
IP SET	IRON PIPE FOUND / SET
DH SET	DRILL HOLE FOUND
BND w/DH	BOUND WITH DRILL HOLE
ST BND w/DH	STONE BOUND WITH DRILL HOLE
EXISTING	PROPOSED
FM	FM
S	S
G	G
D	D
W	W
	FORCE MAIN
	SEWER LINE
	GAS LINE
	STORM DRAIN
	WATER LINE
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC/WIRES
	EDGE/¼ OF WATER BODY
	EDGE OF WETLAND
	EDGE OF RESOURCE PROTECTION AREA
	AREA OF WETLAND DISTURBANCE
	¼ OF DITCH/SWALE
100	CONTOUR
97x3	SPOT ELEVATION
	EDGE OF PAVEMENT (EP)
	WOODS / TREE LINE
	SECURITY FENCE
	WETLANDS
	SOIL SERIES
BuB	UTILITY POLE
	WATER SHUT OFF/CURB STOP
	GAS SHUT OFF
	GATE VALVE
HYD	HYDRANT
CB	CATCH BASIN
	TELEPHONE MANHOLE
	SEWER MANHOLE
	DRAIN MANHOLE
	WELL
AC	ASBESTOS CEMENT PIPE
CI	CENTERLINE
CMP	CAST IRON PIPE
COP	CORRUGATED METAL PIPE
CPP	COPPER PIPE
DI	CORRUGATED PLASTIC PIPE
EL	DUCTILE IRON PIPE
EP	ELEVATION
FF	EDGE OF PAVEMENT
INV	FINISHED FLOOR
PVC	INVERT
RCP	POLYVINYL CHLORIDE PIPE
TBD	REINFORCED CONCRETE PIPE
TBM	TO BE DETERMINED
TYP	TEMPORARY BENCH MARK
VC	TYPICAL
	VITRIFIED CLAY PIPE
	PARKING SPACE COUNT



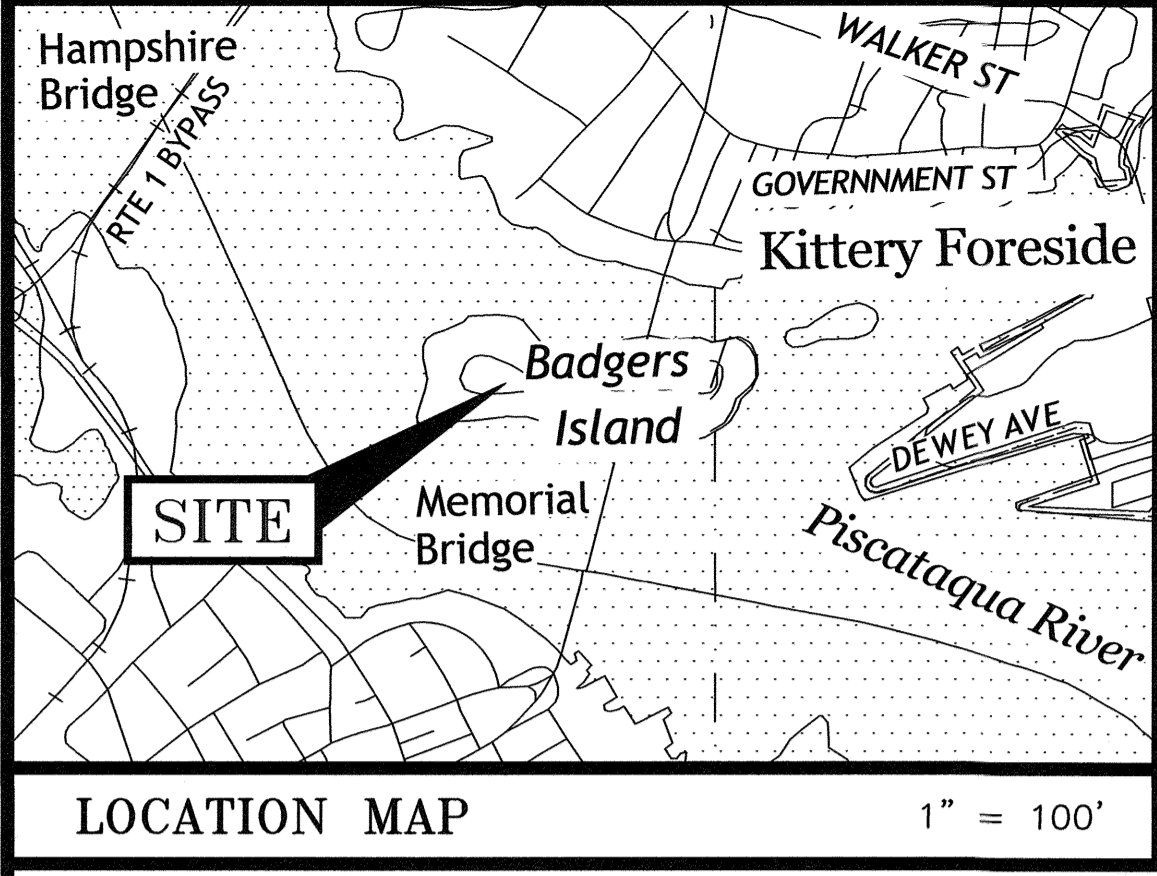
MINOR SUBDIVISION
TAX MAP 1, LOT 38
SINGLE FAMILY DETACHED CONDOMINIUM
39 BADGERS ISLAND WEST
KITTERY, MAINE



WWW.HALEYWARD.COM

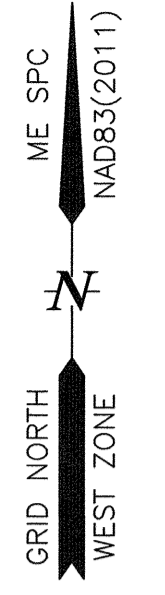
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.436.2315

PLAN SET SUBMITTAL DATE: 19 JANUARY 2023



PLAN REFERENCES:

- 1) "STANDARD BOUNDARY SURVEY OF TAX MAP 1, LOT 38 ON BADGERS ISLAND, KITTERY, MAINE, FOR LIL'S GREENDREAM, INC.," PREPARED BY DOUCET SURVEY, INC., DATED JUNE 16, 1995 AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 224 PAGE 42.
- 2) "PLAN OF LOTS BADGERS ISLAND, KITTERY, MAINE, OWNED BY JOSEPH W. THORNER", PREPARED BY JOHN W. DURGIN, DATED APRIL, 1936 AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 22 PAGE 31.
- 3) EXISTING CONDITIONS PLAN, 39 BADGERS ISLAND WEST, SCALE: 1"=10. DATED 4/19/22. PREPARED BY EASTERLY SURVEY (NOT RECORDED).

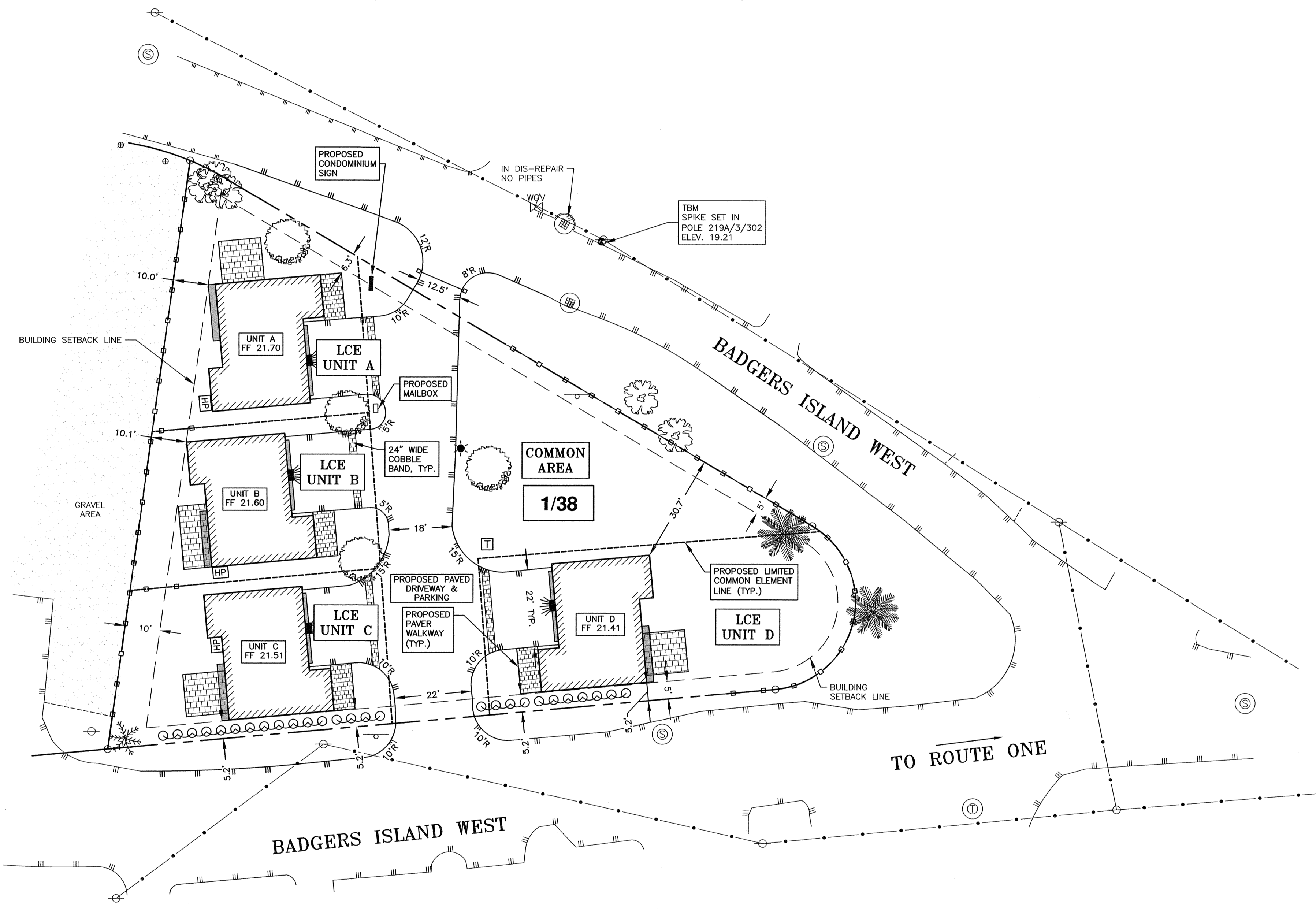


AMBIT ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 200 Griffin Road - Unit 3
 Portsmouth, N.H. 03801-7114
 Tel (603) 430-9282
 Fax (603) 436-2315

- NOTES:**
- 1) PARCEL IS SHOWN ON THE TOWN OF KITTERY ASSESSOR'S MAP 1 AS LOT 38.
 - 2) OWNER OF RECORD:
 BIW GROUP, LLC
 41 INDUSTRIAL DRIVE, SUITE 20
 EXETER, NH 03833
 18503/331
 - 3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD ZONE (ZONE C) AS SHOWN ON FIRM PANEL 2301710008D. EFFECTIVE DATE JULY 3, 1986.
 - 4) EXISTING LOT AREA (SUBMITTED LAND):
 21,029 S.F.
 0.4828 ACRES
 - 5) THE BOUNDARY SHOWN HEREON IS FROM PLAN REFERENCE 3.
 - 6) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW A RESIDENTIAL CONDOMINIUM ON ASSESSOR'S MAP 1 LOT 38 IN THE TOWN OF KITTERY.
 - 8) PARCEL IS SERVED BY MUNICIPAL SEWER & WATER.
 - 9) AS A CONDITION OF PLANNING BOARD APPROVAL THE CONDOMINIUM ASSOCIATION SHALL COORDINATE WITH THE TOWN OF KITTERY TO ESTABLISH AN AGREEMENT FOR THE PERMANENT MAINTENANCE OF THE SITE LANDSCAPING.

LEGEND:

- N/F NOW OR FORMERLY
- RP RECORD OF PROBATE
- RCRD YORK COUNTY REGISTRY OF DEEDS
- (11/21) MAP 11/LOT 21
- RR SPK FND RAILROAD SPIKE FOUND / SET
- IR FND IRON ROD FOUND / SET
- IP FND IRON PIPE FOUND / SET
- DH FND DRILL HOLE FOUND / SET
- MB MAINE D.O.T. BOUND FOUND
- TB TOWN BOUND FOUND
- BND w/DH BOUND WITH DRILL HOLE
- ST BND w/DH STONE BOUND WITH DRILL HOLE
- AC AIR CONDITIONER
- F.F. FINISH FLOOR
- LCA LIMITED COMMON ELEMENT
- LIMITED COMMON/LCE LINE

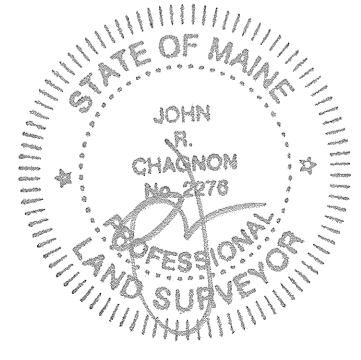


I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000.

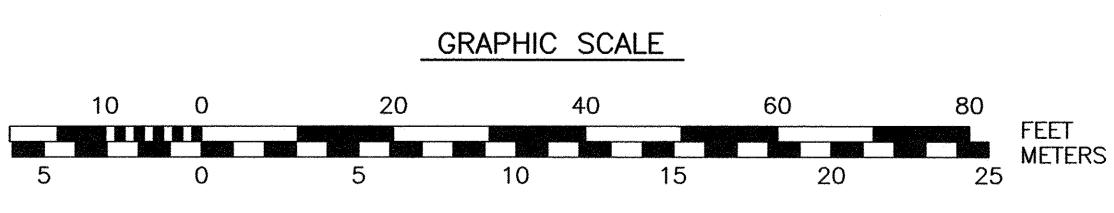
- I, JOHN R. CHAGNON, LICENSED LAND SURVEYOR, HEREBY CERTIFY:
- THAT THIS SITE PLAN ACCURATELY DEPICTS THE LOCATION AND DIMENSIONS OF THE IMPROVEMENTS SHOWN HEREON, SPECIFICALLY UNITS A,B,C, AND D.
 - THAT SAID UNITS ?, ?, & ? HAVE BEEN SUBSTANTIALLY COMPLETED, AND
 - THAT SAID UNIT ? IS NOT YET COMPLETED.

PURSUANT TO CHAPTER 90 PARTS 1 AND 2 OF THE SURVEY STANDARDS OF PRACTICE AS ADOPTED BY THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, THE FOLLOWING EXCEPTIONS TO PART 2 ARE NOTED:
 A) NO SURVEY REPORT HAS BEEN PREPARED.

THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CHAPTER 90 STANDARDS OF PRACTICE, EFFECTIVE DATE APRIL 1, 2001 EXCEPT AS NOTED ON THIS PLAN.



Signature of John R. Chagnon
 JOHN R. CHAGNON, PLS #2276
 DATE: 1-19-23



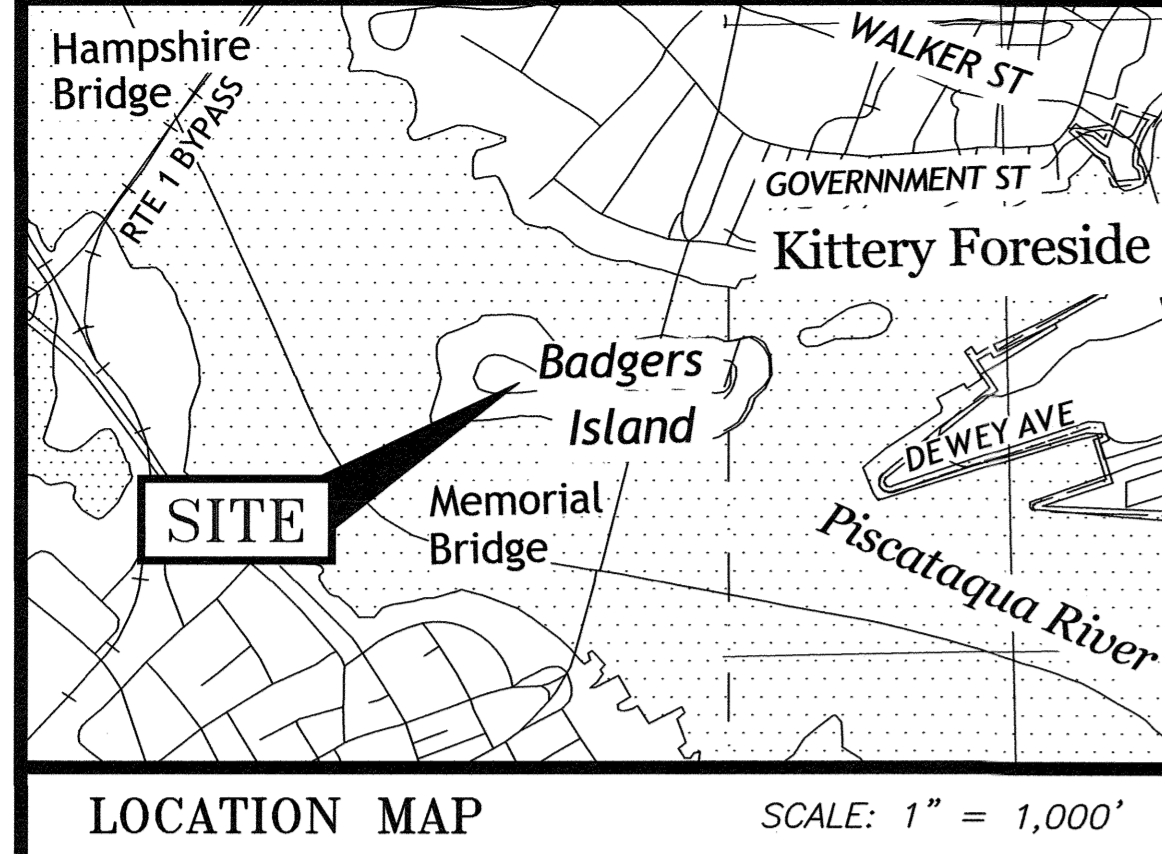
OWNER & DECLARANT:
 BIW GROUP, LLC
 41 INDUSTRIAL DRIVE
 SUITE 20
 EXETER, NH 03833

PREPARED BY:
 AMBIT ENGINEERING
 200 GRIFFIN ROAD UNIT 3
 PORTSMOUTH, N.H. 03801

NO.	DESCRIPTION	DATE
1	LANDSCAPE, ENTRANCE, SIGN	1/19/23
0	ISSUED FOR COMMENT	12/8/22

**CONDOMINIUM SITE PLAN
 39 BADGERS ISLAND WEST
 CONDOMINIUM**

FOR OWNER/DECLARANT:
BIW GROUP, LLC
 PROPERTY LOCATED AT
TAX MAP 1 LOT 38
 39 BADGERS ISLAND WEST
 TOWN OF KITTERY
 COUNTY OF YORK
 STATE OF MAINE



PLAN REFERENCES:

- "STANDARD BOUNDARY SURVEY OF TAX MAP 1, LOT 38 ON BADGERS ISLAND, KITTERY, MAINE, FOR LIL'S GREENDREAM, INC.," PREPARED BY DONET SURVEY, INC., DATED JUNE 16, 1995 AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 224 PAGE 42.
- "PLAN OF LOTS BADGERS ISLAND, KITTERY, MAINE, OWNED BY JOSEPH W. THORNER", PREPARED BY JOHN W. DURGIN, DATED APRIL, 1936 AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 22 PAGE 31.
- EXISTING CONDITIONS PLAN, 39 BADGERS ISLAND WEST, SCALE: 1"=10', DATED 4/19/22. PREPARED BY EASTERLY SURVEY (NOT RECORDED).

NOTES:

- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE MAINE D.E.P. IN 2014.

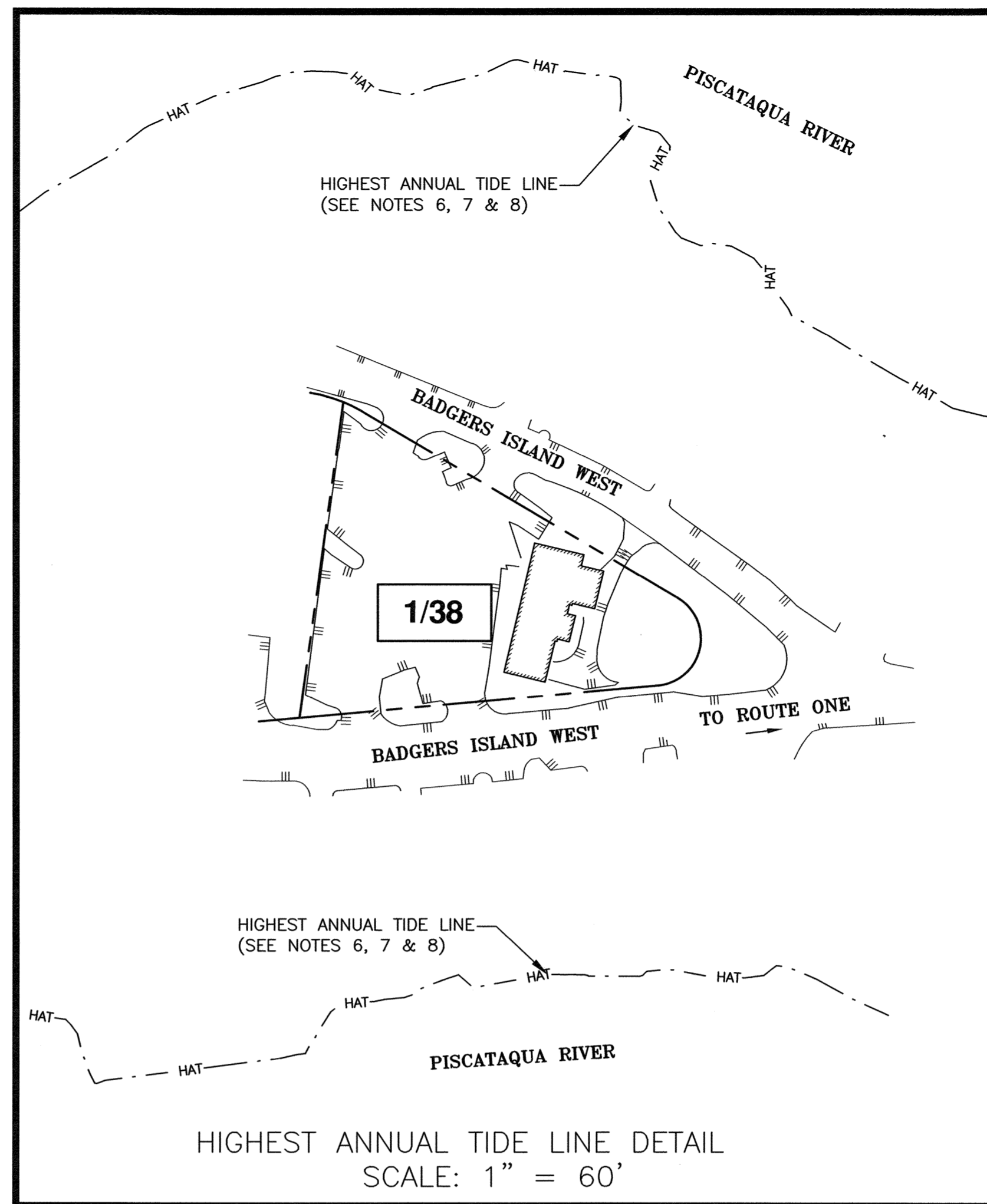
SEWER STRUCTURE SCHEDULE

STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT	DIRECTION
SMH 127	EX	21.97	8" PVC	7.82	7.42	E
			8" PVC	7.82	7.82	NW
			8" PVC	7.52		W
SMH 128	EX	20.43	8" PVC	8.83	8.58	SE
			8" PVC	8.83	8.83	NW
			6" PVC	12.53		NW
SMH 129	EX	21.86	8" PVC	13.56	13.56	SW
			6" PVC	13.61		NE
SMH 216	EX	19.69	8" PVC	8.09	7.99	E
			8" PVC	8.09	8.09	W
SMH 217	EX	16.30	8" PVC	8.95	8.80	E
			6" PVC	8.95		NW
			4" PVC	8.85		W

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT	DIRECTION
CB 159	EX	18.9	10" PVC		17.1	NE

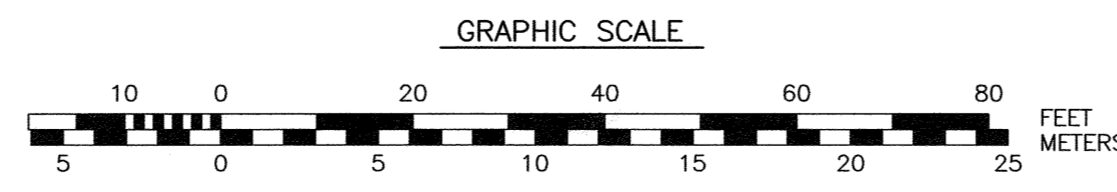
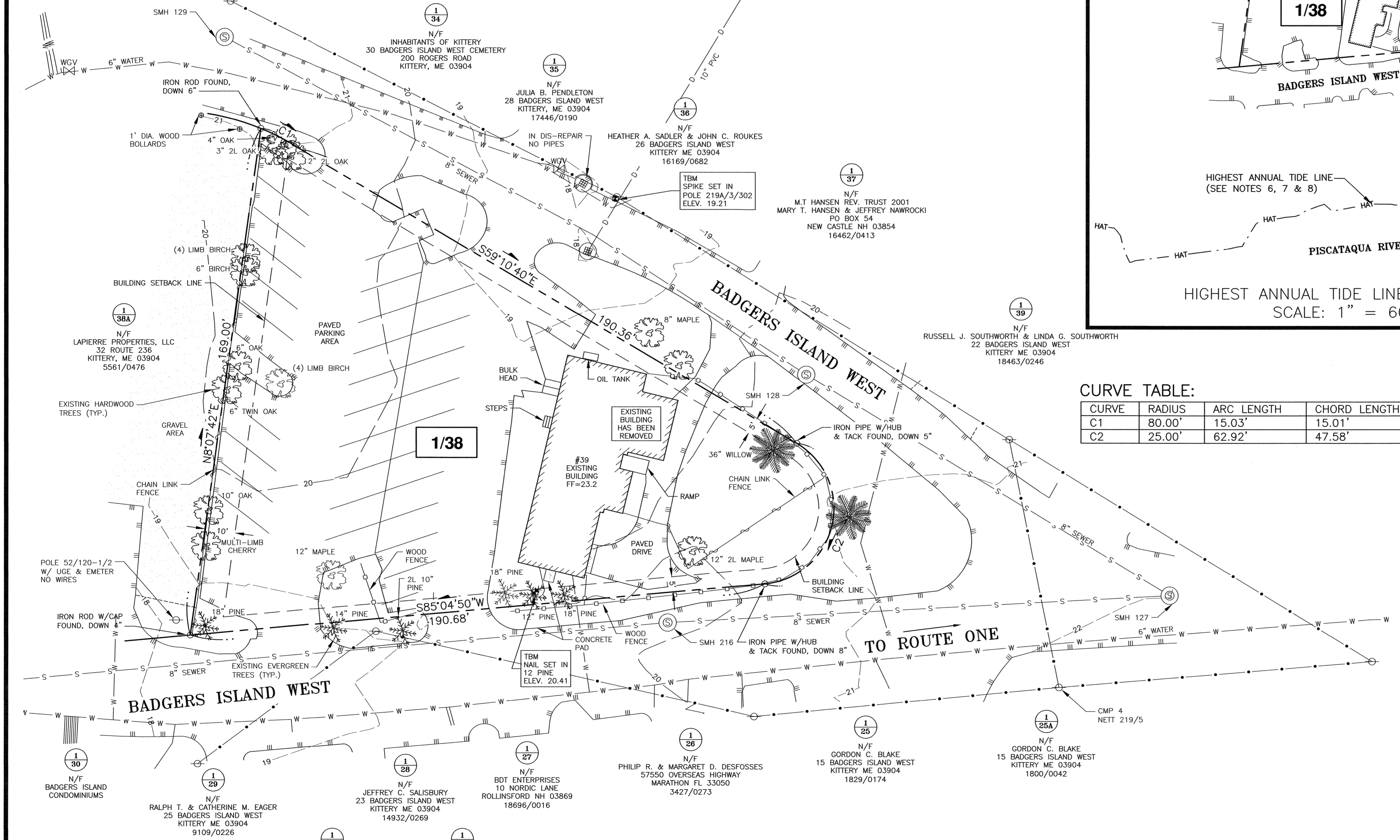
ME SPC
NAD83(2011)
GRID NORTH
WEST ZONE



CURVE TABLE:

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	80.00'	15.03'	15.01'	S62°01'10"E	10°45'46"
C2	25.00'	62.92'	47.58'	S12°55'30"W	144°12'22"

LEGEND:
*SEE COVER SHEET.

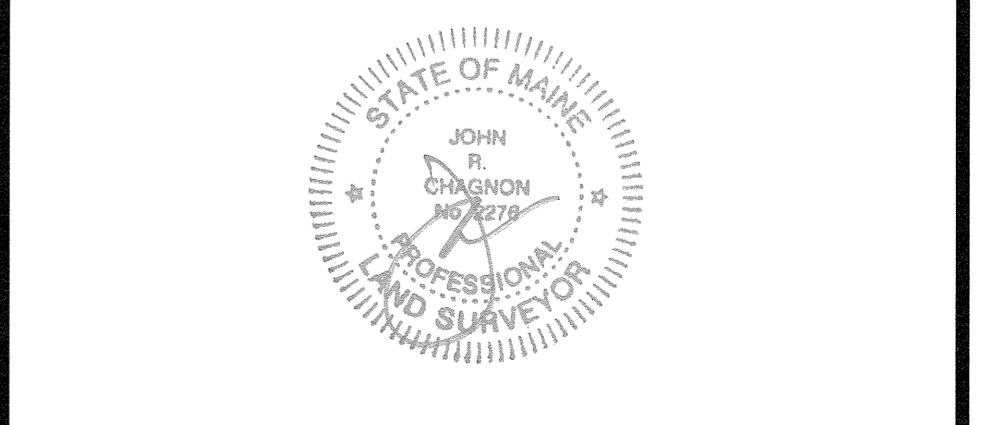


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A DIVISION OF HALEY WARD, INC.
200 Griffin Road, Unit 3
Portsmouth, NH 03801
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- NOTES:**
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 - OWNER OF RECORD:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE, SUITE 20
EXETER, NH 03833
18503/331
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 - EXISTING LOT AREA:
21,029 S.F.
0.4828 ACRES
 - THE BOUNDARY SHOWN HEREON IS FROM PLAN REFERENCE 3.
 - VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
 - HIGHEST ANNUAL TIDE SHOWN AT ELEVATION 5.8 PER LOCATION SEAVEY ISLAND IN MAINE DEP HIGHEST ANNUAL TIDE (HAT) LEVELS FOR YEAR 2018.
 - THE ENTIRE PARCEL IS WITHIN THE 250' SHORELAND PROTECTION ZONE
 - PARCEL ZONING INFORMATION:
BASE ZONE: MIXED USE - BADGERS ISLAND (MU-BI)
OVERLAY ZONES:
WATER BODY/WETLAND PROTECTION AREA - 250' (OZ-SL-250')
COMMERCIAL FISHERIES/MARITIME USES - (CFMU)
 - DIMENSIONAL REQUIREMENTS:
MU-BI BASE ZONE REQUIREMENTS:
MINIMUM LAND AREA PER DWELLING UNIT:
3,000 SQ. FT. (UNITS 1 & 2)
6,000 SQ. FT. (UNITS 3+)
MINIMUM LOT SIZE: 6,000 SQ. FT.
MINIMUM STREET FRONTAGE: 50 FT.
MINIMUM FRONT YARD: 5 FT.
MINIMUM REAR AND SIDE YARDS: 10 FT.
MAXIMUM BUILDING HEIGHT: 40 FT.
MINIMUM OPEN SPACE: 40%
 - OZ-SL-250' REQUIREMENTS (SEE 16.3.2.17):
MAXIMUM DEVEGETATED COVERAGE: 60%
PRINCIPAL AND ACCESSORY STRUCTURES SETBACK: 75 FT.
ACCESSORY PATIO/DECK < 500 SQ.FT.
SETBACK: 75 FT.
 - THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON ASSESSOR'S MAP 1 LOT 38 IN THE TOWN OF KITTERY.

**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME**

NO.	DESCRIPTION	DATE
1	SEWER SCHEDULE ADDED	12/08/22
0	ISSUED FOR COMMENT	10/24/22



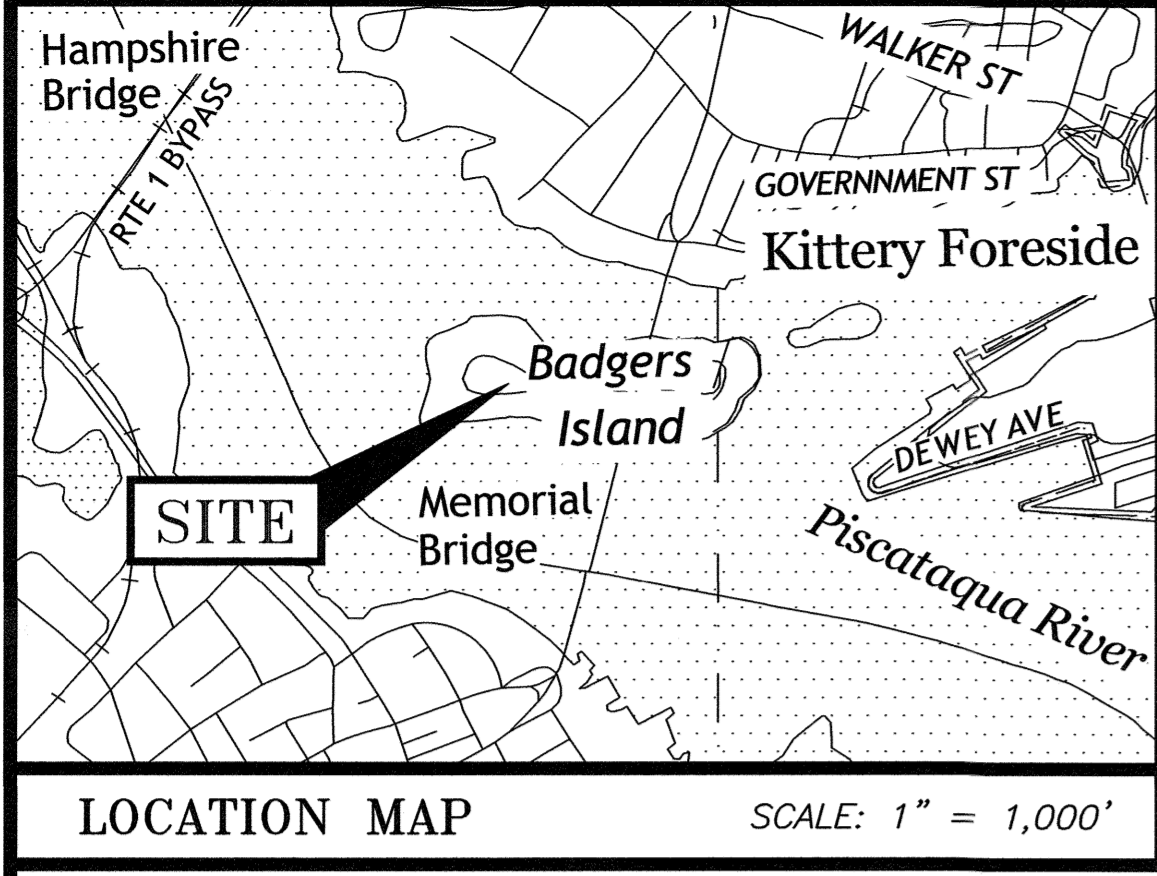
OWNER:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE
SUITE 20
EXETER, NH 03833

APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD UNIT 1
NORTH HAMPTON, NH 03862

PREPARED BY:
AMBIT ENGINEERING
200 GRIFFIN ROAD UNIT 3
PORTSMOUTH, N.H. 03801

SCALE: 1"=20' OCTOBER 2022

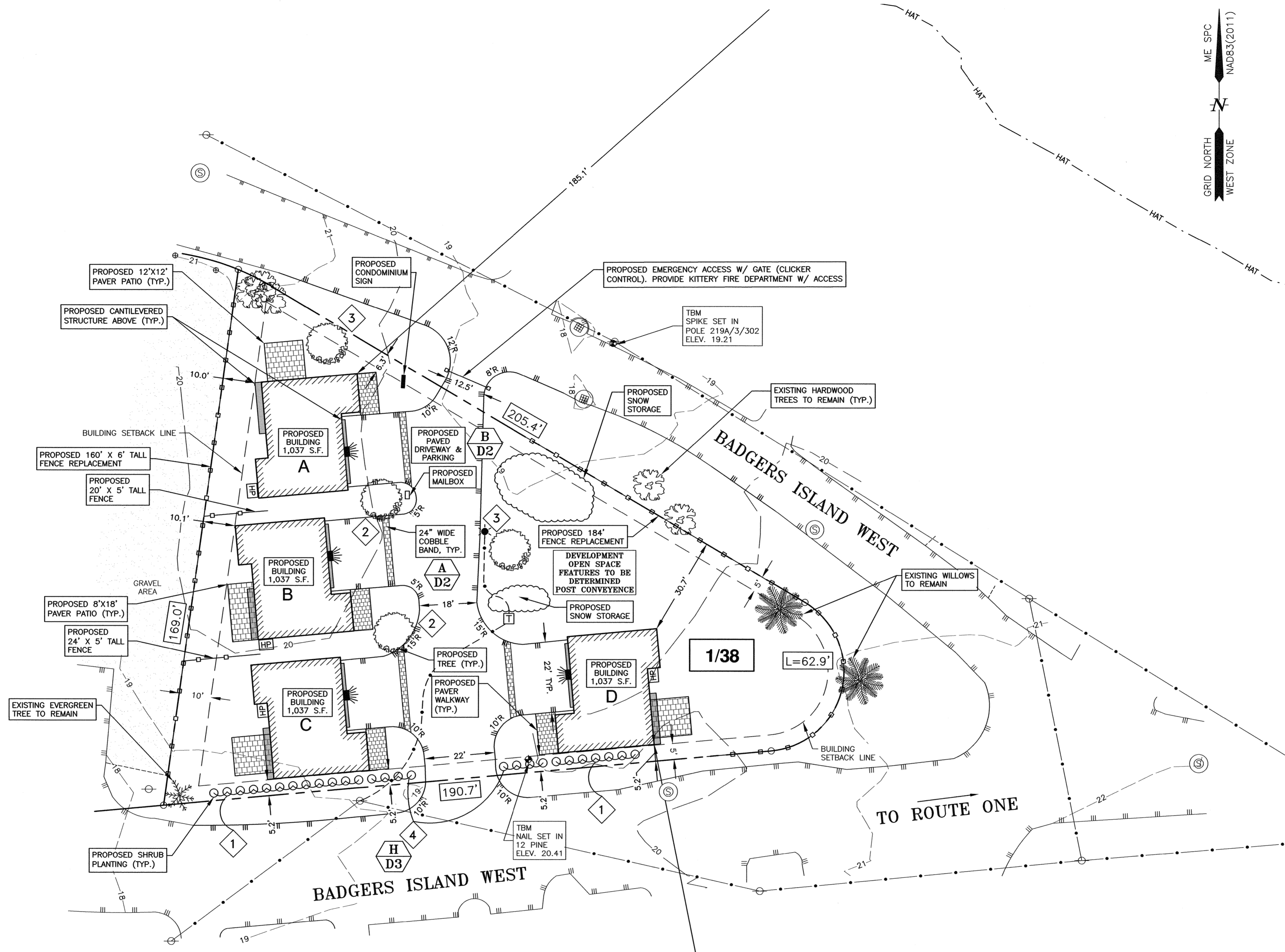
EXISTING CONDITIONS PLAN **C1**



- NOTES:**
- 1) PARCEL IS SHOWN ON THE TOWN OF KITTERY ASSESSOR'S MAP 1 AS LOT 38.
 - 2) OWNER OF RECORD:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE, SUITE 20
EXETER, NH 03833
18503/331

APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD, UNIT 1
NORTH HAMPTON, NH 03862
 - 3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD ZONE (ZONE C) AS SHOWN ON FIRM PANEL 2301710008D. EFFECTIVE DATE JULY 3, 1986.
 - 4) EXISTING LOT AREA:
21,029 S.F.
0.4828 ACRES
 - 5) PARCEL ZONING INFORMATION:
BASE ZONE: MIXED USE - BADGERS ISLAND (MU-BI)
OVERLAY ZONES:
WATER BODY/WETLAND PROTECTION AREA - 250' (OZ-SL-250')
COMMERCIAL FISHERIES/MARITIME USES - (CFMU)
 - 6) DIMENSIONAL REQUIREMENTS:
MU-BI BASE ZONE REQUIREMENTS:
MINIMUM LAND AREA PER DWELLING UNIT:
3,000 SQ. FT. (UNITS 1 & 2)
6,000 SQ. FT. (UNITS 3+)
MINIMUM LOT SIZE: 6,000 SQ. FT.
MINIMUM STREET FRONTAGE: 50 FT.
MINIMUM FRONT YARD: 5 FT.
MINIMUM REAR AND SIDE YARDS: 10 FT.
MAXIMUM BUILDING HEIGHT: 40 FT.
MINIMUM OPEN SPACE: 40%

OZ-SL-250' REQUIREMENTS (SEE 16.3.2.17):
MAXIMUM DEVEGETATED COVERAGE: 60%
PRINCIPAL AND ACCESSORY STRUCTURES
SETBACK: 75 FT.
ACCESSORY PATIO/DECK < 500 SQ.FT.
SETBACK: 75 FT.
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED STRUCTURES & SITE IMPROVEMENTS ON ASSESSOR'S MAP 1 LOT 38 IN THE TOWN OF KITTERY.
 - 8) IF SNOW STORAGE CAPACITY IS EXCEEDED SNOW WILL NEED TO BE TRUCKED OFF SITE. NO SNOW STORAGE IN TOWN RIGHT OF WAY.



LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
YCRD	YORK COUNTY REGISTRY OF DEEDS
11/21	MAP 11/LOT 21
OR FND	IRON ROD FOUND / SET
S	SEWER LINE
D	STORM DRAIN
W	WATER LINE
---	UNDERGROUND ELECTRIC
---	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
---	EDGE OF PAVEMENT
---	PROPOSED EDGE OF PAVEMENT
⊕	UTILITY POLE
WGV	WATER GATE VALVE
⊞	CATCH BASIN
⊕	TELEPHONE MANHOLE
⊕	SEWER MANHOLE
T	TRANSFORMER
EL.	ELEVATION
FF	FINISHED FLOOR
INV	INVERT
TBM	TEMPORARY BENCH MARK
TYP	TYPICAL
HP	PROPOSED HEAT PUMP

DEVEGETATED COVERAGE CALCULATION (TO LOT LINE)

STRUCTURE	PRE-CONSTRUCTION (S.F.)	POST-CONSTRUCTION (S.F.)
MAIN STRUCTURES	2,071	4,148
PAVEMENT	13,286	4,771
STAIRS/RAMP	51	0
BULKHEAD	25	0
CONCRETE PADS	29	0
WALKWAY	0	312
PATIOS	0	288
TOTAL	15,462	9,519
LOT SIZE	21,029	21,029
% DEVEGETATED AREA	73.5%	45.3%

PROPOSED BUILDING COVERAGE: 19.7%
SITE IS CURRENTLY 0% BUILDING COVERAGE (POST BUILDING REMOVAL)

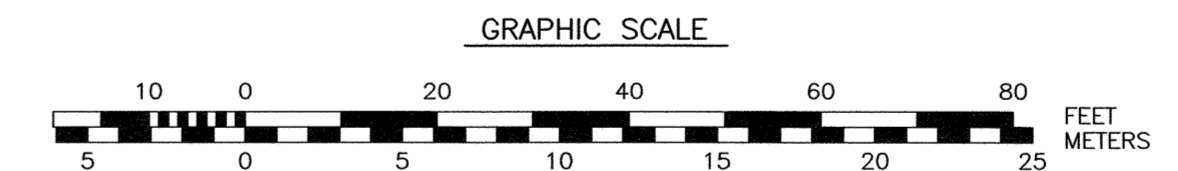
LANDSCAPE SCHEDULE

I.D. No.	ITEM	SIZE	QTY
1	KELSEY'S RED OSIER DOGWOOD	3 GAL.	19
	CORNUS SERICEA "KELSEY"		
2	PINK SPIRES CRABAPPLE	2-1/2 GAL.	2
	MALUS "PINK SPIRES"		
3	SHAWNEE BRAVE BALD CYPRESS	6-7' HEIGHT	2
	TAXODIUM DISTICHUM "SHAWNEE BRAVE"		
4	SARAH HYBRID MOUNTAIN LAUREL	6 GAL.	8
	KALMIA LATIFOLIA "SARAH"		

*SUBSTITUTIONS WITH PERMISSION

APPROVED BY THE KITTERY CODE ENFORCEMENT OFFICER

SIGNATURE _____ DATE _____



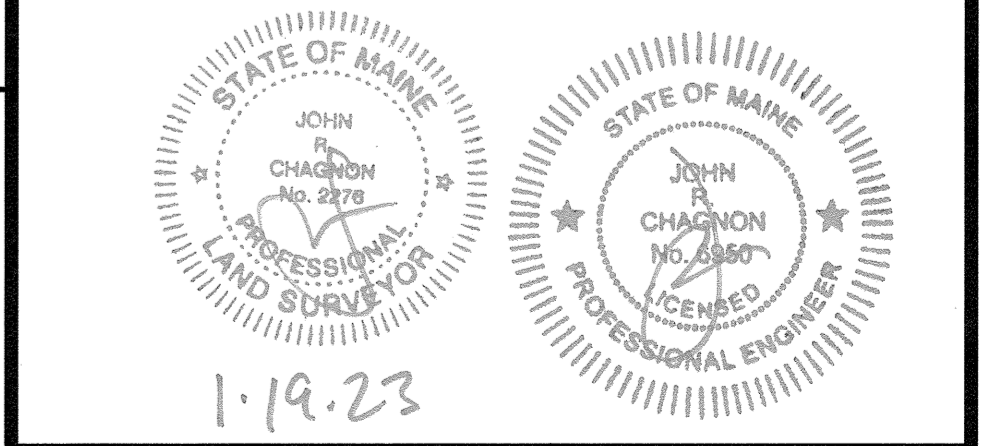
OWNER:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE
SUITE 20
EXETER, NH 03833

APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD UNIT 1
NORTH HAMPTON, NH 03862

PREPARED BY:
AMBIT ENGINEERING
200 GRIFFIN ROAD UNIT 3
PORTSMOUTH, N.H. 03801

**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME**

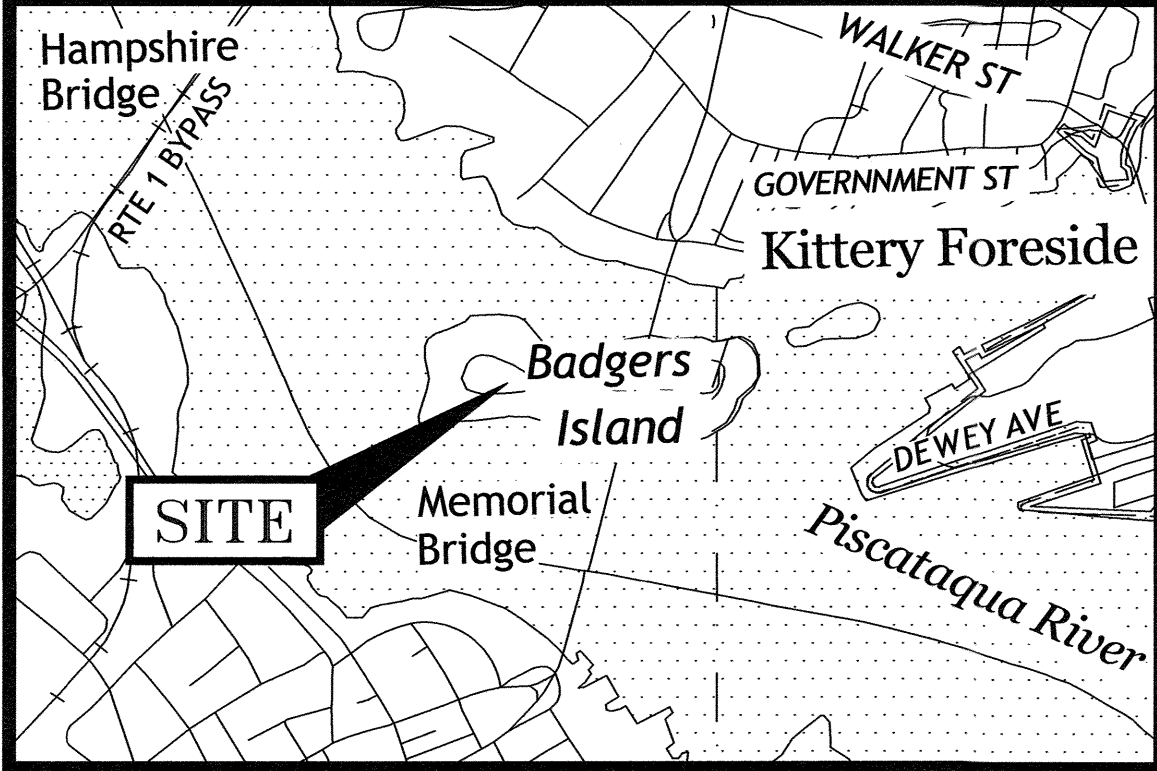
NO.	DESCRIPTION	DATE
2	LANDSCAPE, ENTRANCE, NOTE 8	1/19/23
1	ISSUED FOR APPROVAL	12/8/22
0	ISSUED FOR COMMENT	11/10/22



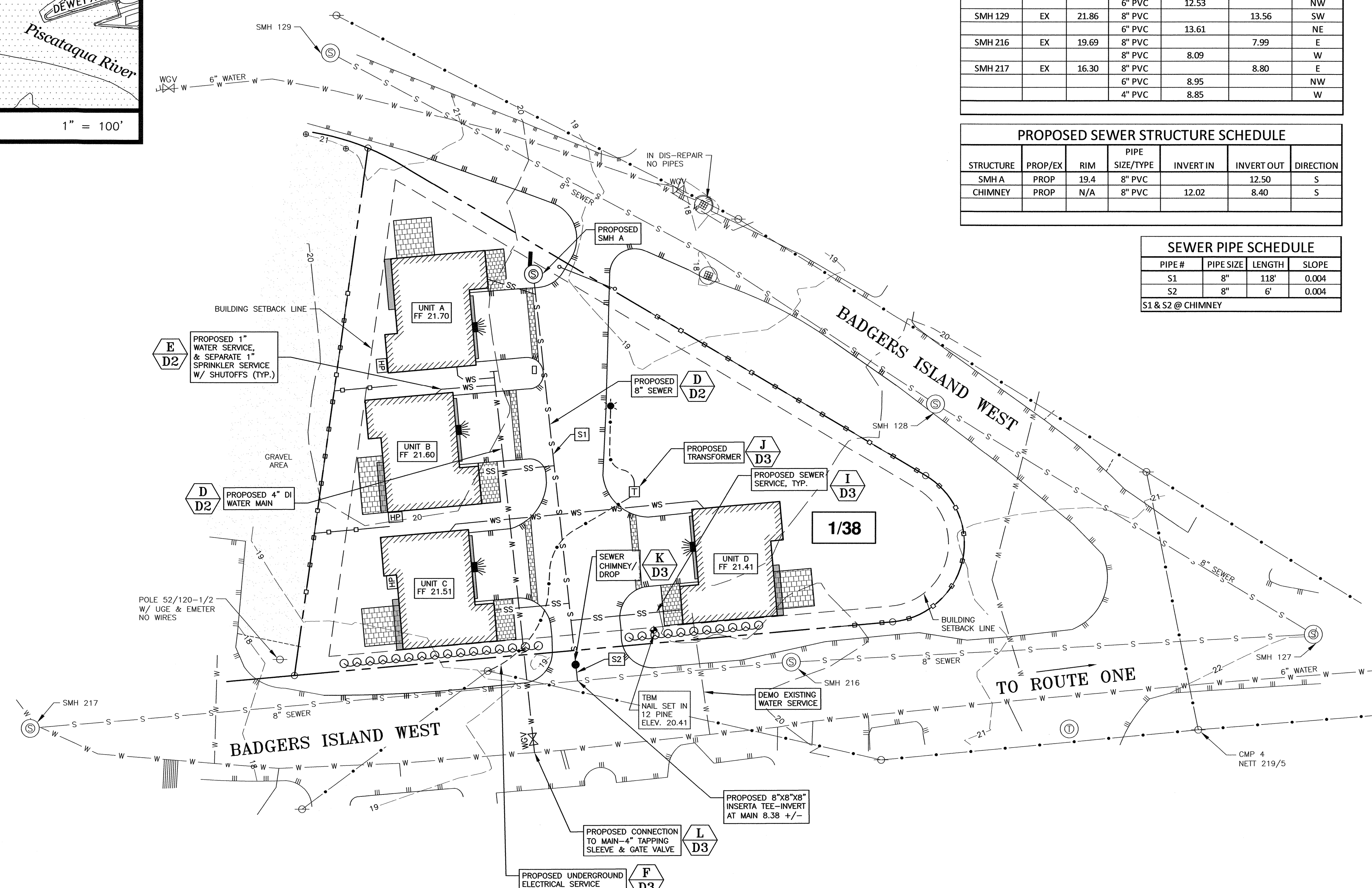
SCALE: 1"=20' OCTOBER 2022

SHORELAND DEVELOPMENT PLAN

C2



LOCATION MAP 1" = 100'

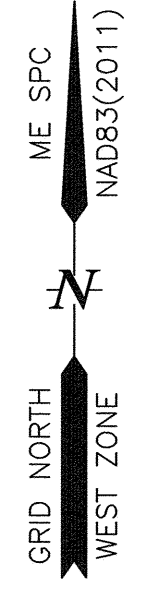


SEWER STRUCTURE SCHEDULE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT	DIRECTION
SMH 127	EX	21.97	8" PVC	7.82	7.42	E
			8" PVC	7.52		NW
SMH 128	EX	20.43	8" PVC	8.83	8.58	W
			8" PVC	12.53		SE
SMH 129	EX	21.86	6" PVC	13.61	13.56	NW
			8" PVC			SW
SMH 216	EX	19.69	6" PVC	7.99	7.99	NE
			8" PVC	8.09		E
SMH 217	EX	16.30	8" PVC	8.80	8.80	W
			6" PVC	8.95		E
			4" PVC	8.85		NW

PROPOSED SEWER STRUCTURE SCHEDULE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT	DIRECTION
SMH A	PROP	19.4	8" PVC	12.50	12.50	S
CHIMNEY	PROP	N/A	8" PVC	12.02	8.40	S

SEWER PIPE SCHEDULE			
PIPE #	PIPE SIZE	LENGTH	SLOPE
S1	8"	118'	0.004
S2	8"	6'	0.004

S1 & S2 @ CHIMNEY



AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.436.2315

WWW.HALEYWARD.COM

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP's" PUBLISHED BY THE MAINE D.E.P. IN 2016.
 - 4) CONTRACTOR SHALL FIELD VERIFY THE DEPTH OF EXISTING UTILITIES AND COORDINATE WITH THE ENGINEER PRIOR TO CONSTRUCTION OF THE PROPOSED UTILITIES.
 - 5) ALL UTILITIES SHOWN ARE TO REMAIN UNLESS NOTED OTHERWISE.
 - 6) COORDINATE UTILITY CONNECTIONS AND INSTALLATIONS WITH RESPECTIVE UTILITY COMPANIES AND SERVICE PROVIDERS.
 - 7) CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICES TO ADJACENT PROPERTIES DURING CONSTRUCTION. PROVIDE PROPER NOTIFICATION OF ANY SERVICE INTERRUPTIONS.
 - 8) ALL WATER MAINS SHALL BE DUCTILE IRON WITH POLYWRAP AND WATER SERVICES SHALL BE COPPER WITH BRASS CURB STOPS UNLESS NOTED OTHERWISE; ALL TO KITTERY WATER DISTRICT STANDARDS.
 - 9) SPRINKLER SERVICE SIZE SUBJECT TO DESIGN CONFIRMATION.

**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME**

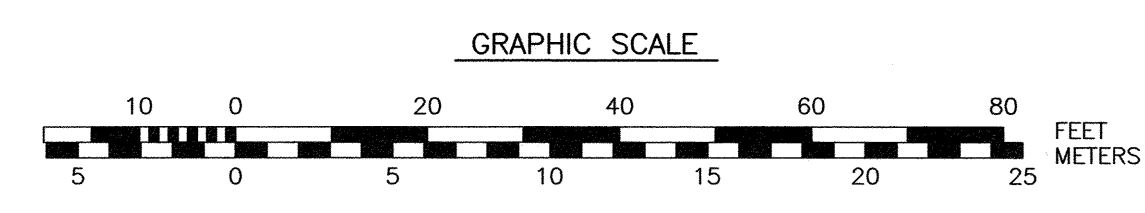
NO.	DESCRIPTION	DATE
1	PAVEMENT, SPRINKLER SERVICE	1/19/23
0	ISSUED FOR COMMENT	12/8/22

STATE OF MAINE
JOHN R. CHAGNON
No. 6950
LICENSED PROFESSIONAL ENGINEER
1-R-23

OWNER:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE
SUITE 20
EXETER, NH 03833

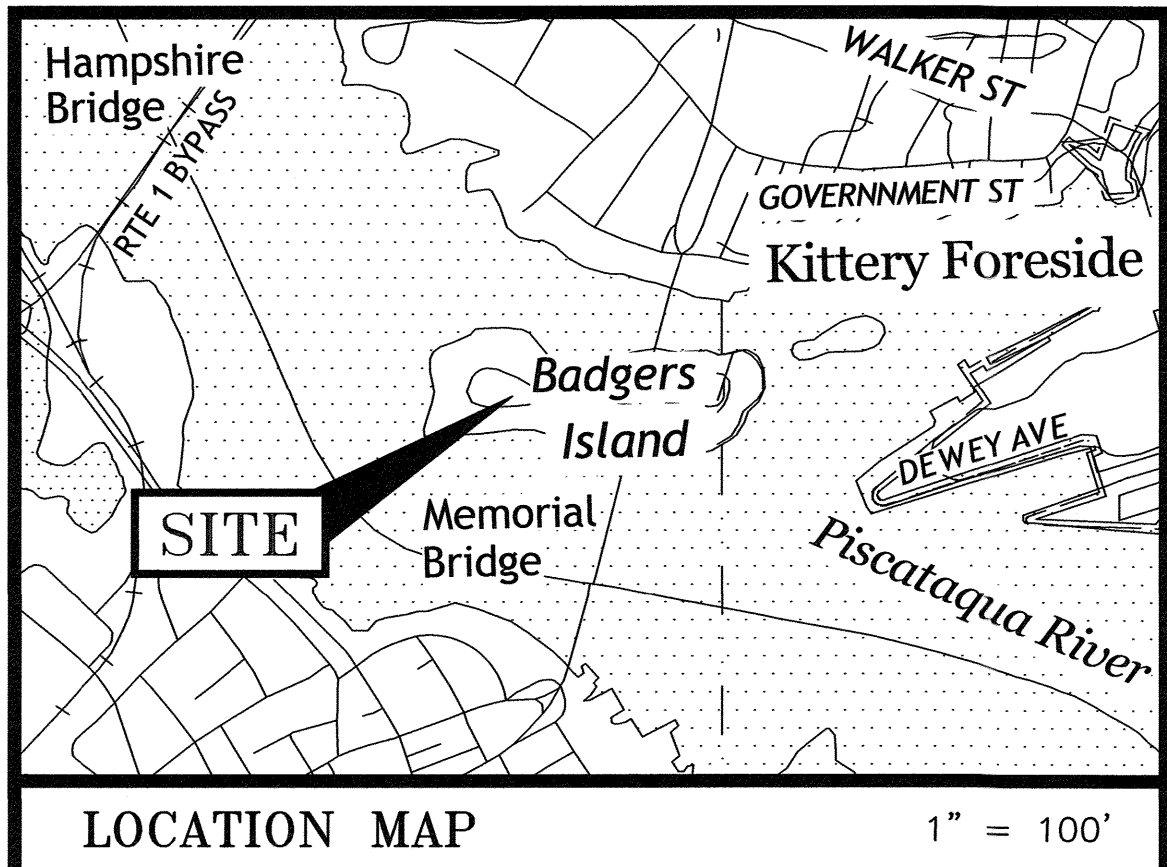
APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD UNIT 1
NORTH HAMPTON, NH 03862

PREPARED BY:
AMBIT ENGINEERING
200 GRIFFIN ROAD UNIT 3
PORTSMOUTH, N.H. 03801



SCALE: 1"=20' OCTOBER 2022

UTILITY PLAN **C3**



DRAINAGE STRUCTURE SCHEDULE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT	DIRECTION
CB 159	EX	18.9	10" PVC		17.1	NE

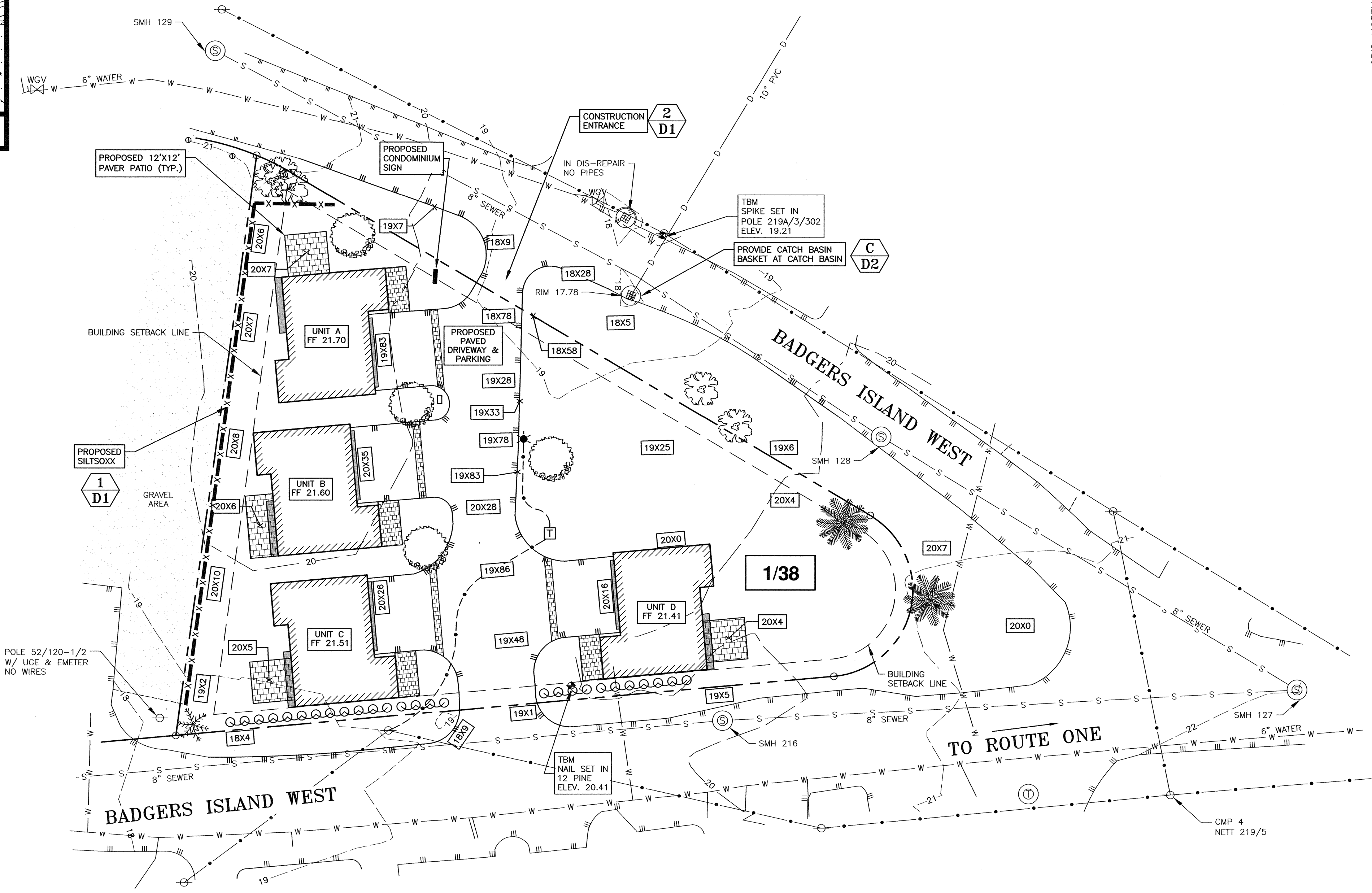
ME SFC
NAD83(2011)
GRID NORTH
WEST ZONE

AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

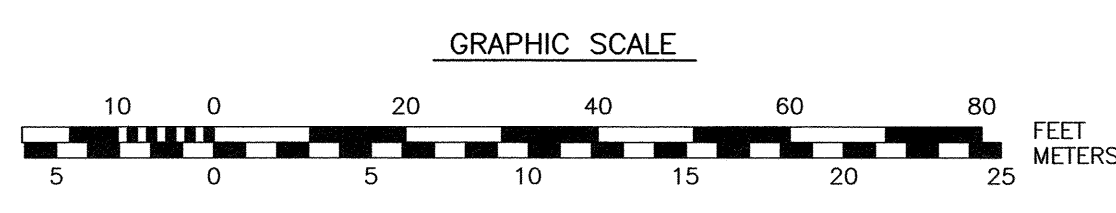
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.436.2315

WWW.HALEYWARD.COM

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP's" PUBLISHED BY THE MAINE D.E.P. IN 2016.
 - 4) TOTAL PROJECT DISTURBED AREA: 22,092 S.F.
 - 5) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

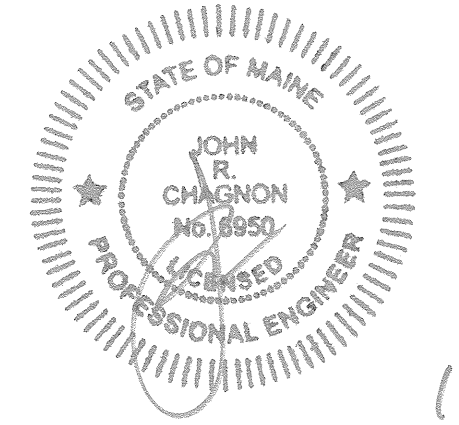


POLE 52/120-1/2
W/ UGE & EMETER
NO WIRES



**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME**

NO.	DESCRIPTION	DATE
1	PAVEMENT	1/19/23
0	ISSUED FOR COMMENT	12/8/22



1.19.23

SCALE: 1"=20' OCTOBER 2022

OWNER:
BW GROUP, LLC
41 INDUSTRIAL DRIVE
SUITE 20
EXETER, NH 03833

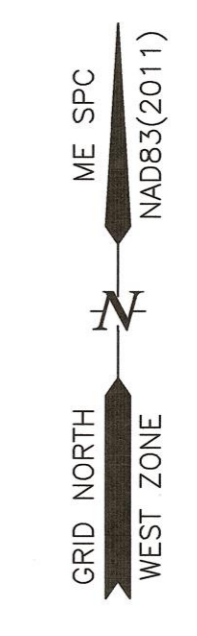
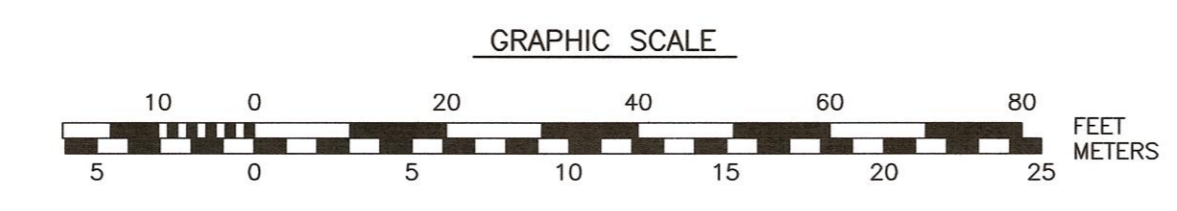
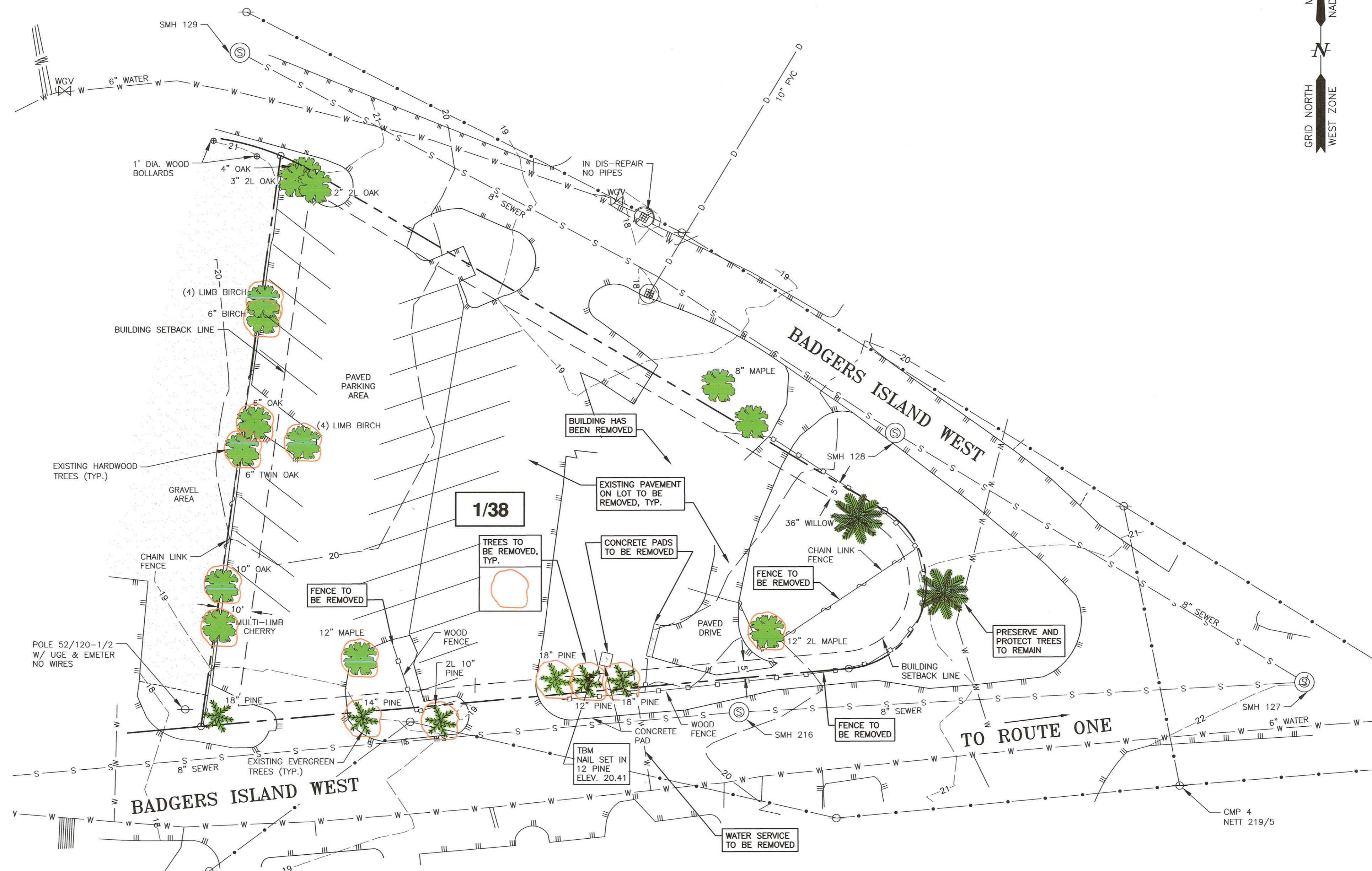
APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD UNIT 1
NORTH HAMPTON, NH 03862

PREPARED BY:
AMBIT ENGINEERING
200 GRIFFIN ROAD UNIT 3
PORTSMOUTH, N.H. 03801

GRADING PLAN **C4**

DEMOLITION NOTES:

- A) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE DESIGNER. IT IS THE CONTRACTORS' RESPONSIBILITY TO LOCATE UTILITIES AND ANTICIPATE CONFLICTS. CONTRACTOR SHALL REPAIR EXISTING UTILITIES DAMAGED BY THEIR WORK AND RELOCATE EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED PRIOR TO COMMENCING ANY WORK IN THE IMPACTED AREA OF THE PROJECT.
- B) ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTORS UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES. THE CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, DISPOSAL, OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- C) ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- D) THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- E) SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT TRENCH IN AREAS WHERE PAVEMENT IS TO BE REMOVED.
- F) IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL THE PERMIT APPROVALS.
- G) THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL CONSTRUCTION PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR ANY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- H) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE, UTILITIES, VEGETATION, PAVEMENT, AND CONTAMINATED SOIL WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ANY EXISTING DOMESTIC / IRRIGATION SERVICE WELLS IN THE PROJECT AREA IDENTIFIED DURING THE CONSTRUCTION AND NOT CALLED OUT ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER FOR PROPER CAPPING / RE-USE.
- I) ALL WORK WITHIN THE TOWN OF KITTEERY RIGHT OF WAY SHALL BE COORDINATED WITH THE TOWN OF KITTEERY DEPARTMENT OF PUBLIC WORKS (DPW).
- J) REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- K) CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED, THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR TO REPLACE THEM.
- L) PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE HIGH FLOW SILT SACK BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF WARRANTED OR FABRIC BECOMES CLOGGED. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- M) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
- N) ANY CONTAMINATED MATERIAL REMOVED DURING THE COURSE OF THE WORK WILL REQUIRE HANDLING IN ACCORDANCE WITH MEDEP REGULATIONS. CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN IN PLACE, AND COMPLY WITH ALL APPLICABLE PERMITS, APPROVALS, AUTHORIZATIONS, AND REGULATIONS.

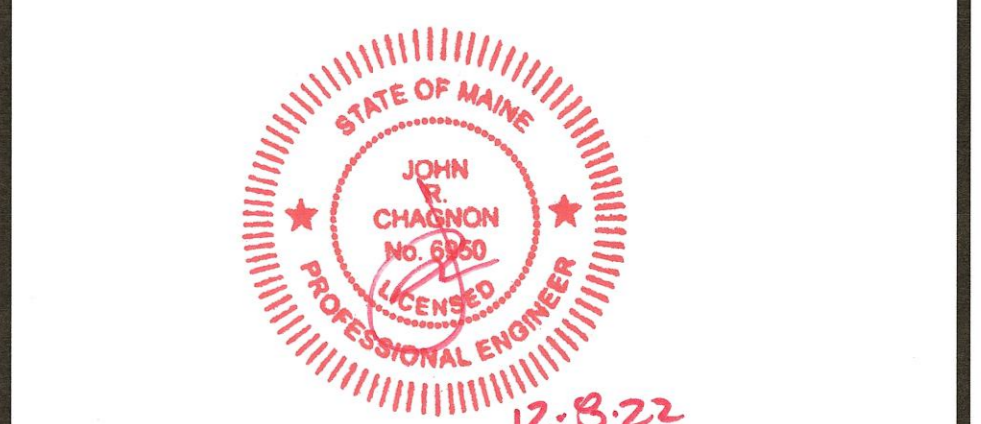


NOTES:

- A) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- B) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- C) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE MAINE D.E.P. IN 2014.

**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTEERY, ME**

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	12/8/22



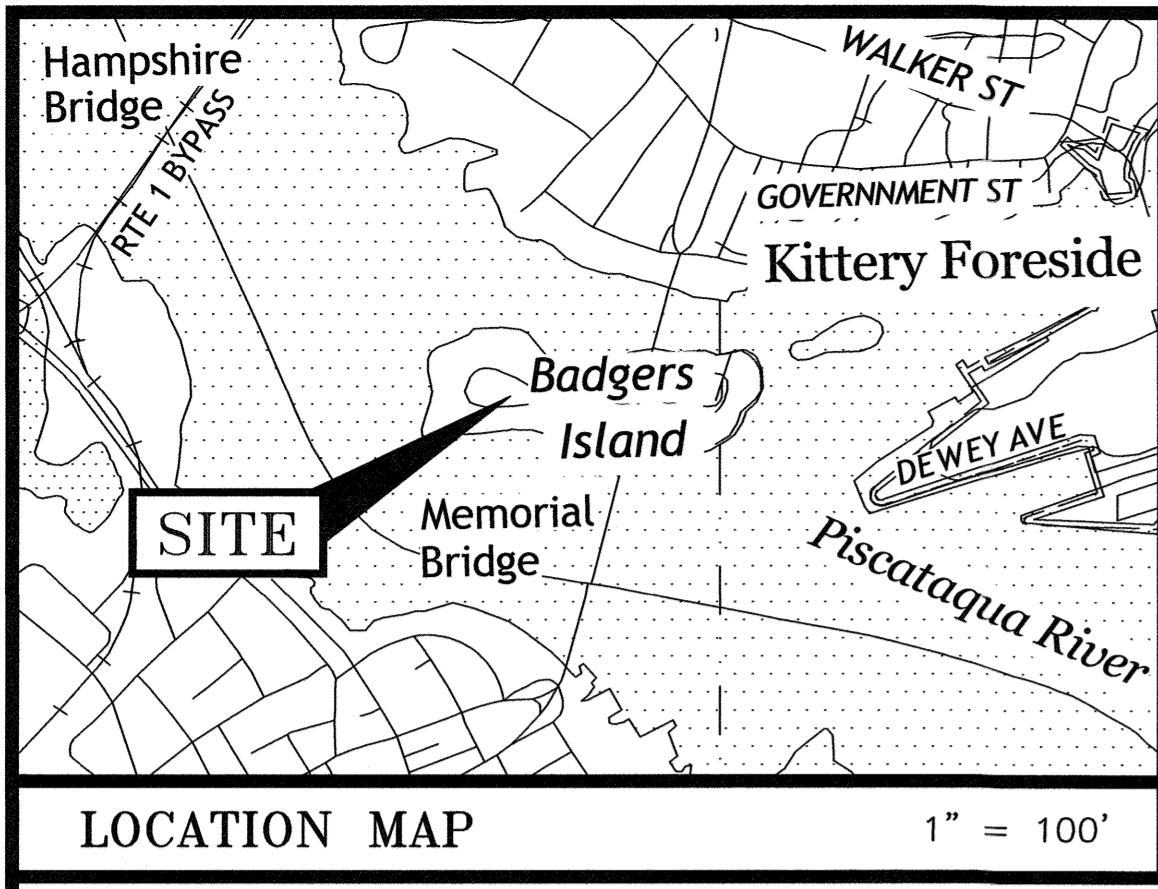
SCALE: 1"=20' OCTOBER 2022

DEMOLITION PLAN **C5**

OWNER:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE
SUITE 20
EXETER, NH 03833

APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD UNIT 1
NORTH HAMPTON, NH 03862

PREPARED BY:
AMBIT ENGINEERING
200 GRIFFIN ROAD UNIT 3
PORTSMOUTH, N.H. 03801

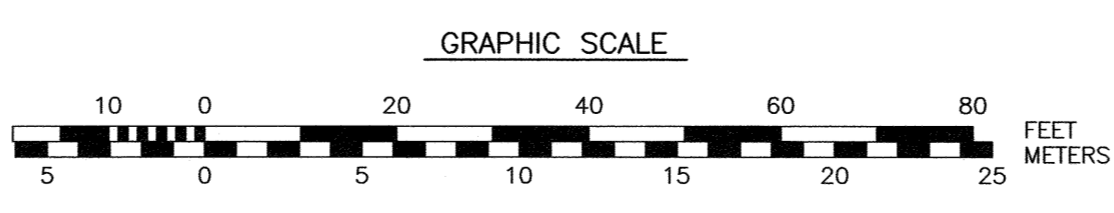
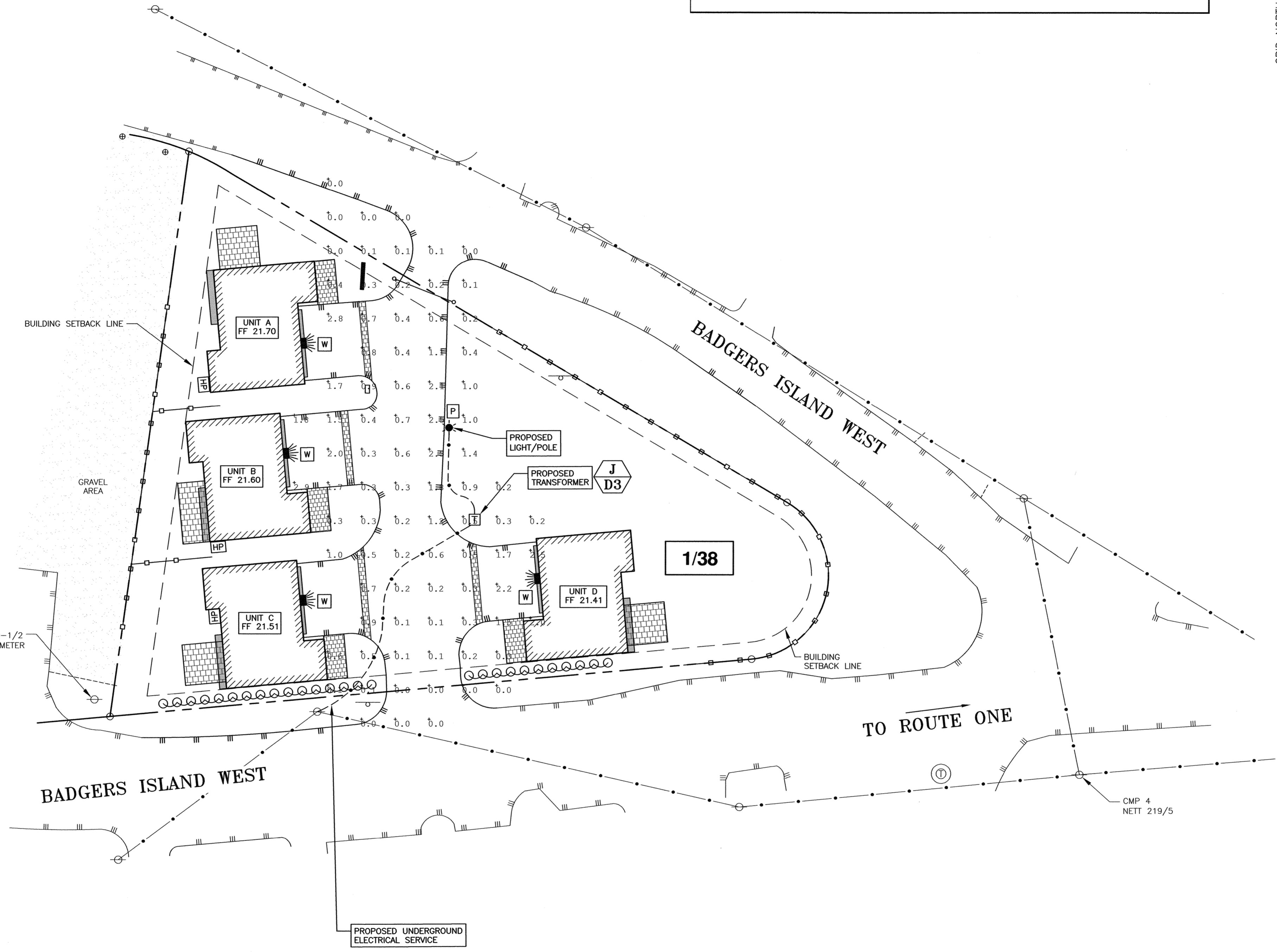


LIGHTING SCHEDULE				
SYMBOL	QTY.	LABEL	ARRANGEMENT	DESCRIPTION
	1	P	SINGLE	UMC-20001-30W-T2-W30-CXX-120/277V/12' POLE
	4	W	SINGLE	UCI-30131-18W-T4-W30-CXX-120/277V/WALL MTD. 10 AFG

ME SFC
NAD83(2011)
GRID NORTH
WEST ZONE

AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.436.2315
WWW.HALEYWARD.COM

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE MAINE D.E.P. IN 2014.
 - 4) POLE MOUNTED LIGHTS SHALL HAVE A MAXIMUM FIXTURE OF HEIGHT OF 12 FEET.
 - 5) ALL LIGHTING SHALL BE SHIELDED TO MINIMIZE LIGHT TRESPASS AND DIRECT GLARE BEYOND THE PROPERTY.
 - 6) ALL LIGHTS SHALL BE DARK SKY COMPLIANT AND DIRECTED DOWNWARD.
 - 7) LIGHTING PLAN DESIGN BY EXPOSURE 2 LIGHTING 603-601-8080.
 - 8) LIGHTS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.



OWNER:
BIW GROUP, LLC
41 INDUSTRIAL DRIVE
SUITE 20
EXETER, NH 03833

APPLICANT:
OTTER CREEK HOMES
198 LAFAYETTE ROAD UNIT 1
NORTH HAMPTON, NH 03862

PREPARED BY:
AMBIT ENGINEERING
200 GRIFFIN ROAD UNIT 3
PORTSMOUTH, N.H. 03801

**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME**

NO.	DESCRIPTION	DATE
1	PAVEMENT	1/19/23
0	ISSUED FOR COMMENT	12/8/22

SCALE: 1"=20' OCTOBER 2022

LIGHTING PLAN **C6**

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

INSTALL PERIMETER CONTROLS, i.e., SILT FENCING OR SILTSSOXX AROUND THE LIMITS OF DISTURBANCE BEFORE ANY EARTH MOVING OPERATIONS. THE USE OF HAY BALES IS NOT ALLOWED.

CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.

PERFORM CLEARING & GRUBBING

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED.

REMOVE PAVEMENT AS NEEDED.

BULLDOZE TOPSOIL INTO STOCKPILES, AND CIRCLE WITH SILT FENCING OR SILTSSOXX. IF EROSION IS EXCESSIVE, THEN COVER WITH MULCH.

ROUGH GRADE SITE. IN LANDSCAPED AREAS OUT OF THE WAY OF SUBSEQUENT CONSTRUCTION ACTIVITY, INSTALL TOPSOIL, MULCH, SEED AND FERTILIZE. STABILIZE PER DETAILS.

CONSTRUCT FOUNDATIONS.

LAYOUT AND INSTALL ALL BURIED UTILITIES AND SERVICES TO THE PROPOSED BUILDING FOUNDATIONS. CAP AND MARK TERMINATIONS OR LOG SWING TIES.

CONSTRUCT BUILDING FRAMES.

FINISH GRADE SITE, DRIVEWAY & PARKING SUBBASE GRAVEL IN TWO, COMPACTED LIFTS. PROVIDE TEMPORARY EROSION PROTECTION TO DITCHES AND SWALES IN THE FORM OF MULCHING, JUTE MESH OR DITCH DAMS. CONSTRUCT BINDER COURSE.

BUILDING EXTERIOR WORK & LIGHT FIXTURES.

AFTER BUILDING IS COMPLETED FINISH ALL REMAINING LANDSCAPED WORK.

CONSTRUCT ASPHALT WEARING COURSE.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

GENERAL CONSTRUCTION NOTES

THE EROSION CONTROL PROCEDURES SHALL CONFORM TO "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE MAINE D.E.P. IN 2016.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

DUST CONTROL: IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM OF 0.5" OR GREATER. ALL DAMAGED SILT FENCES SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

AVOID THE USE OF FUTURE OPEN SPACES (LOAM AND SEED AREAS) WHEREVER POSSIBLE DURING CONSTRUCTION. CONSTRUCTION TRAFFIC SHALL USE THE ROADBEDS OF FUTURE ACCESS DRIVES AND PARKING AREAS.

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS. CONSTRUCT SILT FENCE AROUND TOPSOIL STOCKPILE.

AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. STUMPS SHALL BE DISPOSED BY GRINDING OR FILL IN AN APPROVED FACILITY.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

ALL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8 INCHES IN THICKNESS UNLESS OTHERWISE NOTED.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIAL SHALL NOT BE INCORPORATED INTO FILLS.

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

DISTURBED AREAS SHALL BE SEEDED WITHIN 72 HOURS FOLLOWING FINISHED GRADING.

AT NO TIME SHALL ANY DISTURBED AREA REMAIN UNSTABILIZED FOR LONGER THAN 72 HOURS. ALL AREAS WHERE CONSTRUCTION IS NOT COMPLETE WITHIN THIRTY DAYS OF THE INITIAL DISTURBANCE SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

VEGETATIVE PRACTICE

FOR PERMANENT MEASURES AND PLANTINGS:

LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE.

FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.

SEED SHALL BE SOWN AT THE RATES SHOWN IN THE TABLE BELOW. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE, AND SHALL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.

THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED SHALL BE RESEDED, AND ALL NOXIOUS WEEDS REMOVED.

A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE:

GENERAL COVER	PROPORTION	SEEDING RATE
CREeping RED FESCUE	50%	100 LBS/ACRE
KENTUCKY BLUEGRASS	50%	

SLOPE SEED (USED ON ALL SLOPES GREATER THAN OR EQUAL TO 3:1)

CREeping RED FESCUE	42%	
TALL FESCUE	42%	48 LBS/ACRE
BIRDSFOOT TREFLOL	16%	

IN NO CASE SHALL THE WEED CONTENT EXCEED ONE PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH APPLICABLE STATE AND FEDERAL SEED LAWS.

FOR TEMPORARY PROTECTION OF DISTURBED AREAS:
 MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:
 PERENNIAL RYE: 0.7 LBS/1,000 S.F.
 MULCH: 1.5 TONS/ACRE

MAINTENANCE AND PROTECTION

THE CONTRACTOR SHALL MAINTAIN ALL LOAM & SEED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE CONTRACT. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REMOVAL OF STONES AND OTHER FOREIGN OBJECTS OVER 1/2 INCHES IN DIAMETER WHICH MAY APPEAR AND THE FIRST TWO (2) CUTTINGS OF GRASS NO CLOSER THEN TEN (10) DAYS APART. THE FIRST CUTTING SHALL BE ACCOMPLISHED WHEN THE GRASS IS FROM 2 1/2 TO 3 INCHES HIGH. ALL BARE AND DEAD SPOTS WHICH BECOME APPARENT SHALL BE PROPERLY PREPARED, LIMED AND FERTILIZED, AND RESEDED BY THE CONTRACTOR AT HIS EXPENSE AS MANY TIMES AS NECESSARY TO SECURE GOOD GROWTH. THE ENTIRE AREA SHALL BE MAINTAINED, WATERED AND CUT UNTIL ACCEPTANCE OF THE LAWN BY THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS DEVELOPING.

TO BE ACCEPTABLE, SEEDED AREAS SHALL CONSIST OF A UNIFORM STAND OF AT LEAST 90 PERCENT ESTABLISHED PERMANENT GRASS SPECIES, WITH UNIFORM COUNT OF AT LEAST 100 PLANTS PER SQUARE FOOT.

SEEDED AREAS WILL BE FERTILIZED AND RESEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.

THE SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATION IS ESTABLISHED.

THE SILT FENCE BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

SILT FENCING SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED, AND DISTURBED AREAS RESULTING FROM SILT FENCE REMOVAL SHALL BE PERMANENTLY SEEDED.

WINTER NOTES

ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL.

INSPECTION AND MAINTENANCE PLAN

INTRODUCTION

THE INTENT OF THIS IS TO PROVIDE OTTER CREEK HOMES A LIST OF PROCEDURES THAT DOCUMENT THE INSPECTION AND MAINTENANCE REQUIREMENTS OF THE STORMWATER MANAGEMENT SYSTEM FOR THIS DEVELOPMENT. SPECIFICALLY, THE PROPOSED CONSTRUCTION DRAINAGE AND ASSOCIATED STRUCTURES ON THE PROJECT SITE (COLLECTIVELY REFERRED TO AS THE "STORMWATER MANAGEMENT SYSTEM")

THE FOLLOWING INSPECTION AND MAINTENANCE PROGRAM IS NECESSARY TO KEEP THE STORMWATER MANAGEMENT SYSTEM FUNCTIONING PROPERLY. THESE MEASURES WILL ALSO HELP MINIMIZE POTENTIAL ENVIRONMENTAL IMPACTS. BY FOLLOWING THE ENCLOSED PROCEDURES, THE OWNER WILL BE ABLE TO MAINTAIN THE FUNCTIONAL DESIGN OF THE STORMWATER MANAGEMENT SYSTEM AND MAXIMIZED ITS ABILITY TO REMOVE SEDIMENT AND OTHER CONTAMINANTS FROM THE SITE GENERATED STORMWATER RUNOFF.

STORMWATER MANAGEMENT SYSTEM COMPONENTS

THE STORMWATER MANAGEMENT SYSTEM IS DESIGNED TO MITIGATE BOTH THE QUANTITY AND QUALITY OF SITE-GENERATED RUNOFF. AS THE RESULT, THE DESIGN INCLUDES THE FOLLOWING ELEMENTS:

NON-STRUCTURAL BMP'S

NON-STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) INCLUDE TEMPORARY AND PERMANENT MEASURES THAT TYPICALLY REQUIRE LESS LABOR AND CAPITAL INPUTS AND ARE INTENDED TO PROVIDE PROTECTION AGAINST EROSION OF SOILS. EXAMPLES OF NON-STRUCTURAL BMP'S ON THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO: TEMPORARY AND PERMANENT MULCHING, TEMPORARY AND PERMANENT GRASS COVER, TREES, SHRUBS AND GRASS COVERS, MISCELLANEOUS LANDSCAPE PLANTINGS, DUST CONTROL, TREE PROTECTION, TOPSOILING, SEDIMENT BARRIERS, AND DURING CONSTRUCTION, STABILIZED CONSTRUCTION ENTRANCES AND CATCH BASIN BASKETS. IN THIS SITE TOTAL IMPERVIOUS AREA IS REDUCED.

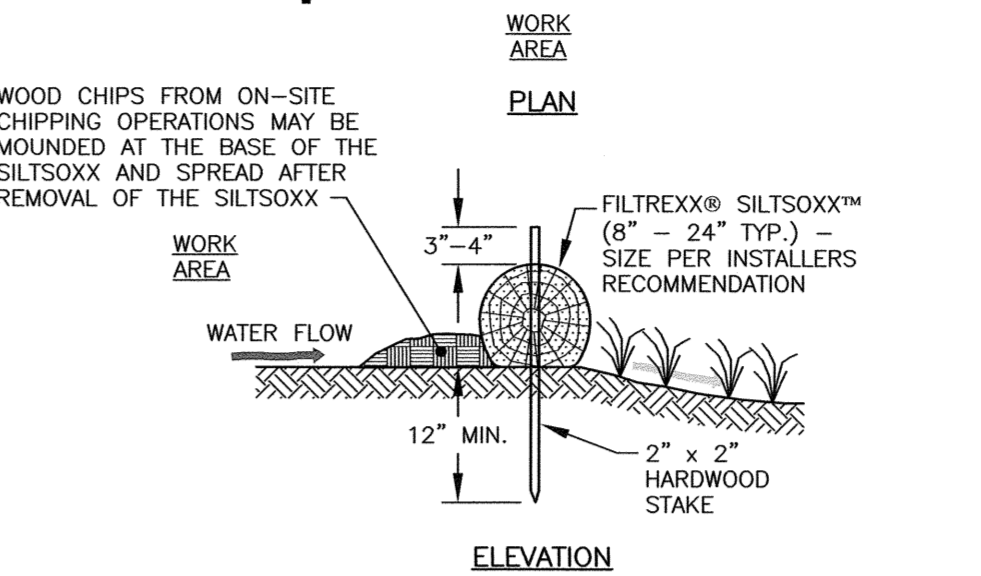
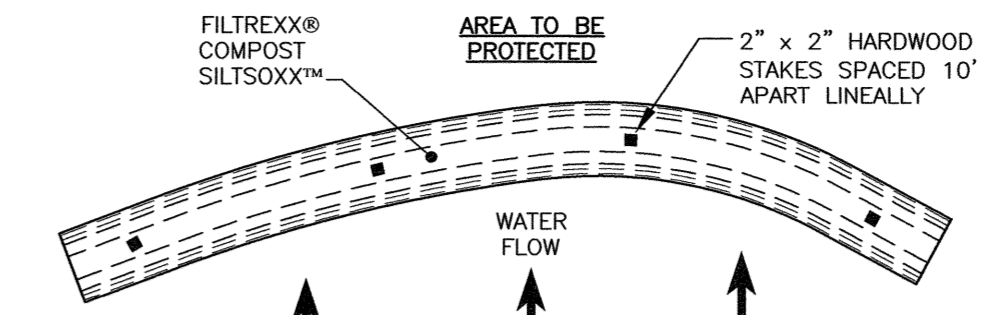
STRUCTURAL BMP'S

STRUCTURAL BMP'S REQUIRE MORE SPECIALIZED PERSONNEL TO INSTALL. EXAMPLES ON THE PROJECT INCLUDE BUT ARE NOT LIMITED TO: STORM DRAINS, THE FILTRATION BASIN, AND ASSOCIATED OUTLET CONTROL STRUCTURES.

INSPECTION AND MAINTENANCE REQUIREMENTS

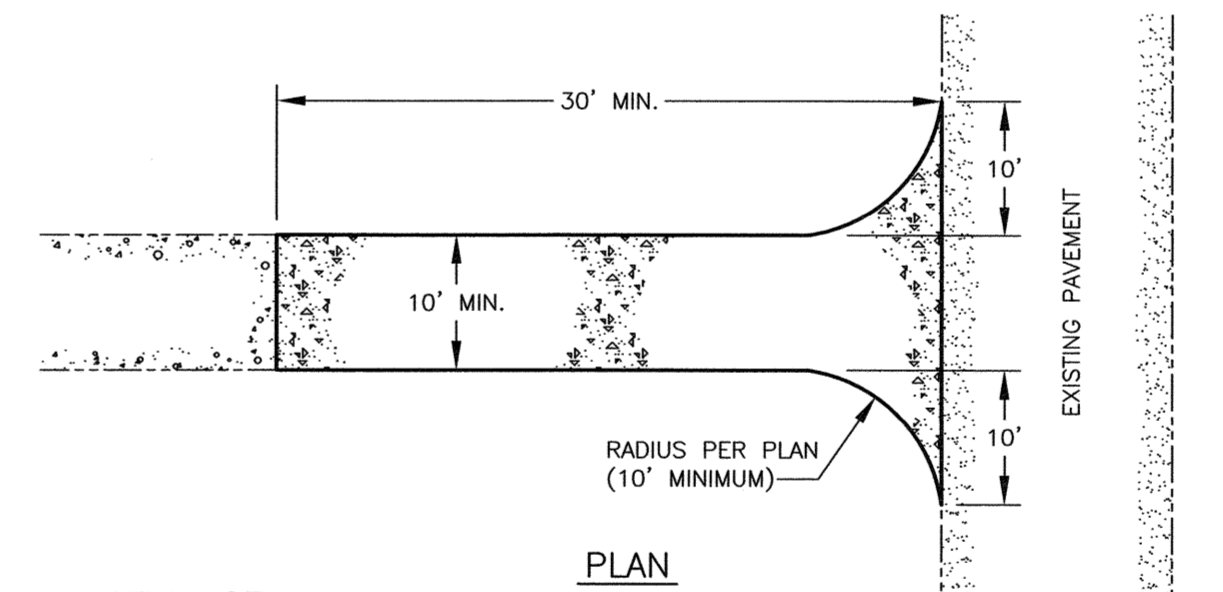
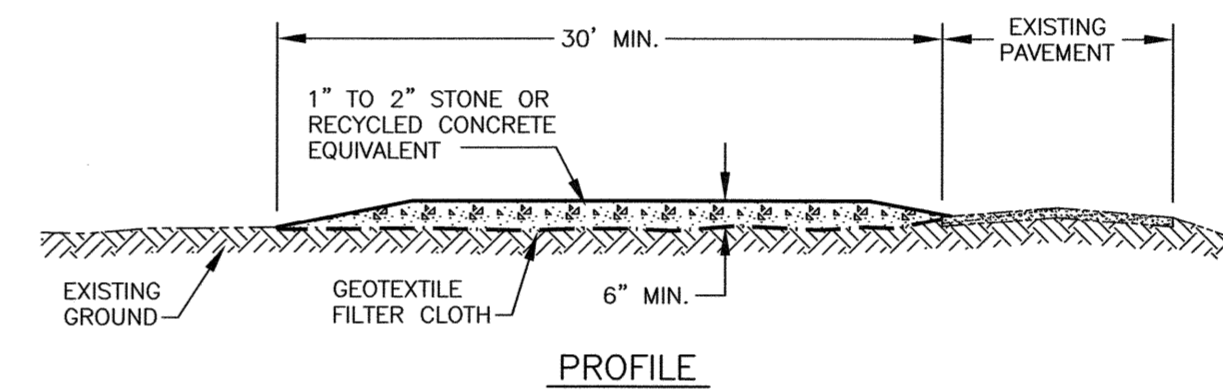
THE FOLLOWING SUMMARIZES THE INSPECTION AND MAINTENANCE REQUIREMENTS FOR THE VARIOUS BMP'S THAT MAY BE FOUND ON THIS PROJECT:

1. GRASSSED AREAS: AFTER EACH RAIN EVEN OF 0.5" OR MORE DURING A 24 HOUR PERIOD, INSPECT GRASSSED AREAS FOR SIGNS OF DISTURBANCE, SUCH AS EROSION. IF DAMAGED AREAS ARE DISCOVERED, IMMEDIATELY REPAIR THE DAMAGE. REPAIRS MAY INCLUDE ADDING NEW TOPSOIL, LIME, SEED, FERTILIZER AND MULCH.
2. PLANTINGS: PLANTING AND LANDSCAPING (TREES, SHRUBS) SHALL BE MONITORED BI-MONTHLY DURING THE FIRST YEAR TO INSURE VIABILITY AND VIGOROUS GROWTH. REPLACE DEAD OR DYING VEGETATION WITH NEW STOCK AND MAKE ADJUSTMENTS TO THE CONDITIONS THAT CAUSED THE DEAD OR DYING VEGETATION. DURING DRYER TIMES OF THE YEAR, PROVIDED WEEKLY WATERING OR IRRIGATION DURING THE ESTABLISHMENT PERIOD OF THE FIRST YEAR. MAKE NECESSARY ADJUSTMENTS TO ENSURE LONG-TERM HEALTH OF VEGETATED COVER, I.E. PROVIDE MORE PERMANENT MULCH OR COMPOST OR OTHER MEANS OF PROTECTION.
3. INVASIVE SPECIES
 MONITOR STORMWATER MANAGEMENT SYSTEM FOR SIGNS OF INVASIVE SPECIES GROWTH. IF CAUGHT EARLIER ENOUGH, THEIR ERADICATION IS MUCH EASIER. THE MOST LIKELY PLACES WHERE INVASIONS START ARE IN WETTER, DISTURBED SOILS OR DETENTION PONDS. SPECIES SUCH AS PHRAGMITES AND PURPLE LOOSE-STRIPE ARE COMMON INVADERS IN THESE WETTER AREAS. IF THEY ARE FOUND THEN THE OWNER SHALL CONTACT A WETLAND SCIENTIST WITH EXPERIENCE IN INVASIVE SPECIES CONTROL TO IMPLEMENT A PLAN OF ACTION TO ERADICATE THE INVADERS. MEASURES THAT DO NOT REQUIRE THE APPLICATION OF CHEMICAL HERBICIDES SHOULD BE THE FIRST LINE OF DEFENSE.



- NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
 2. FILTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
 3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
 4. SILTSSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
 5. THE COMPOST FILTER MATERIAL WILL BE DISPersed ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

1 FILTREXX® SILTSSOXX™ FILTRATION SYSTEM (AS NEEDED) NTS



MAINTENANCE

- 1) MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE GRAVEL AND THE EFFECTIVENESS OF THE GRAVEL PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOP DRESSED WITH NEW STONE. COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
- 2) IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS

- 1) STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 2 TO 4 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- 2) THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 30 FEET FOR A SINGLE RESIDENTIAL LOT.
- 3) THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- 4) THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
- 5) GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- 6) ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE GROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- 7) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
- 8) WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

2 STABILIZED CONSTRUCTION ENTRANCE (AS NEEDED) NTS



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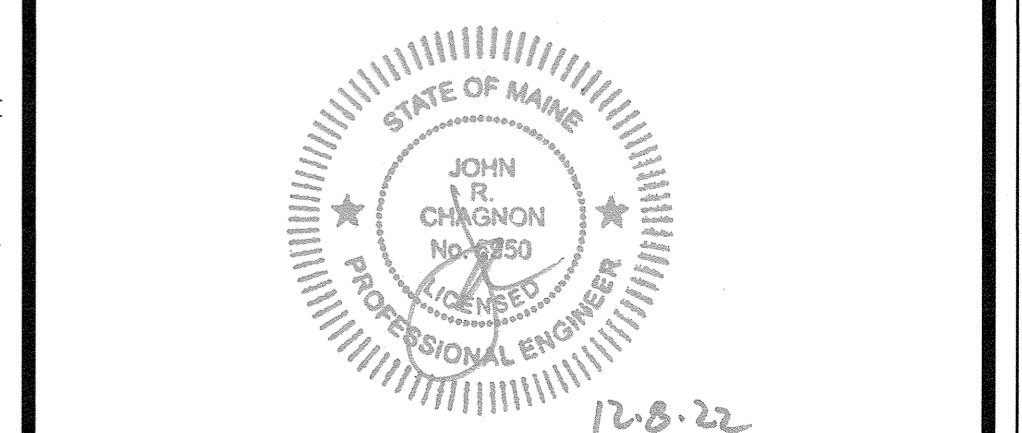
NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S" PUBLISHED BY THE MAINE D.E.P. IN 2016.

SITE REDEVELOPMENT 39 BADGERS ISLAND WEST KITTERY, ME

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	12/8/22

REVISIONS

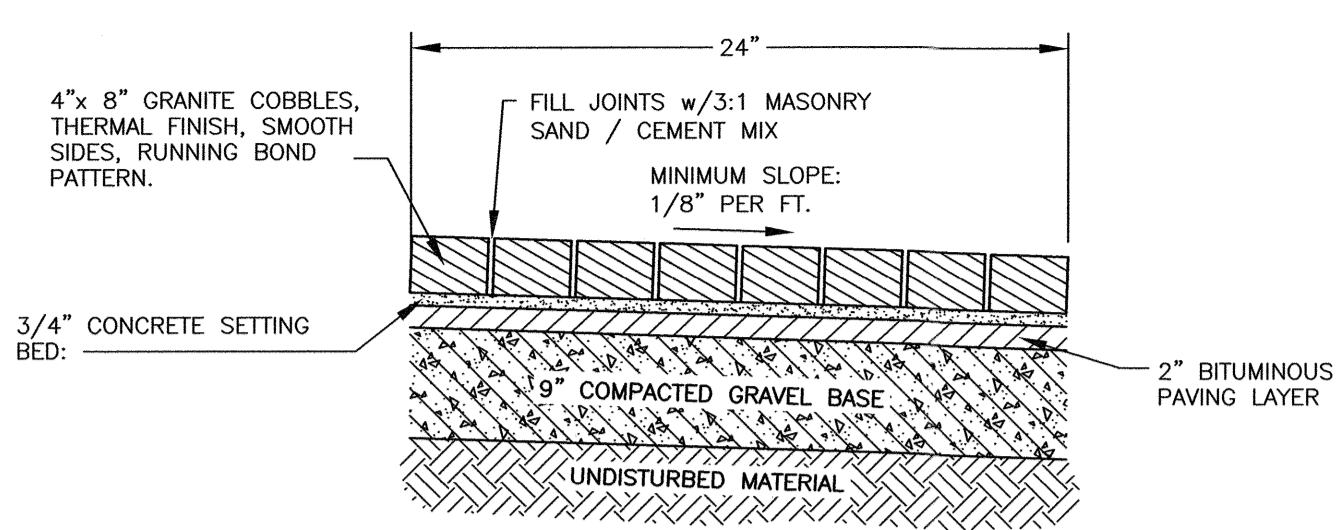


SCALE: AS SHOWN DECEMBER 2022

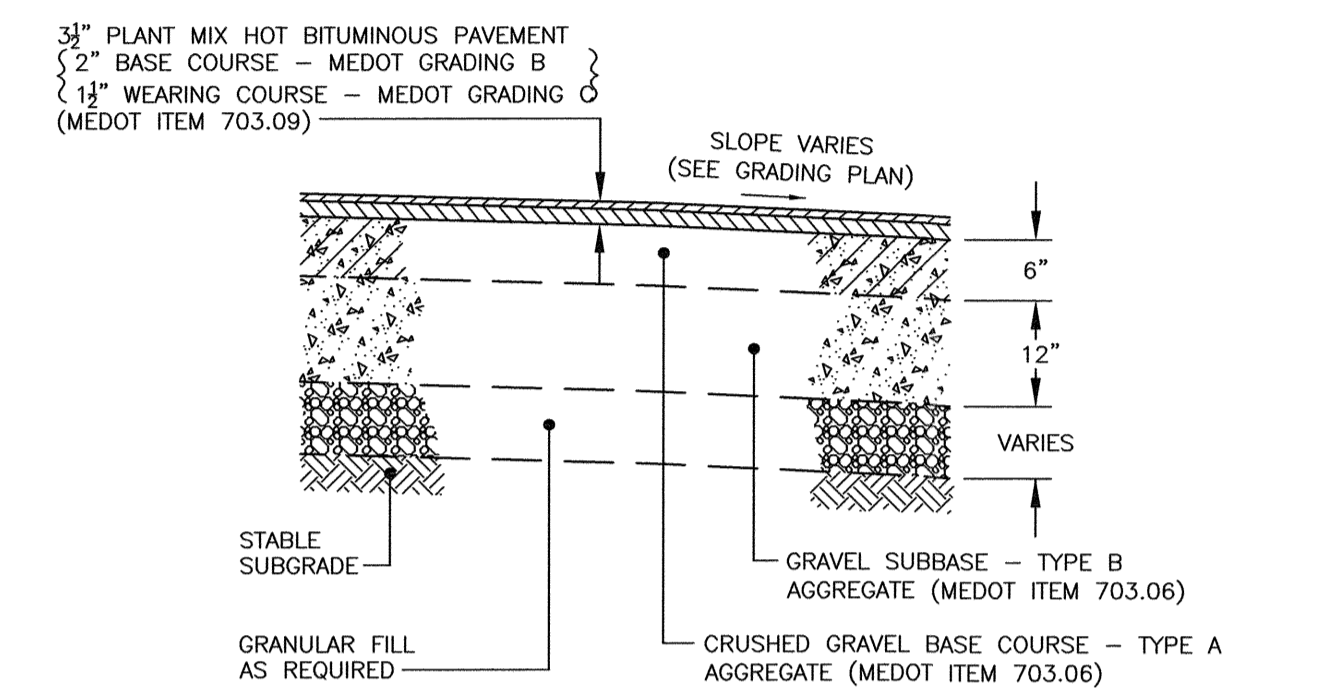
EROSION CONTROL NOTES AND DETAILS D1

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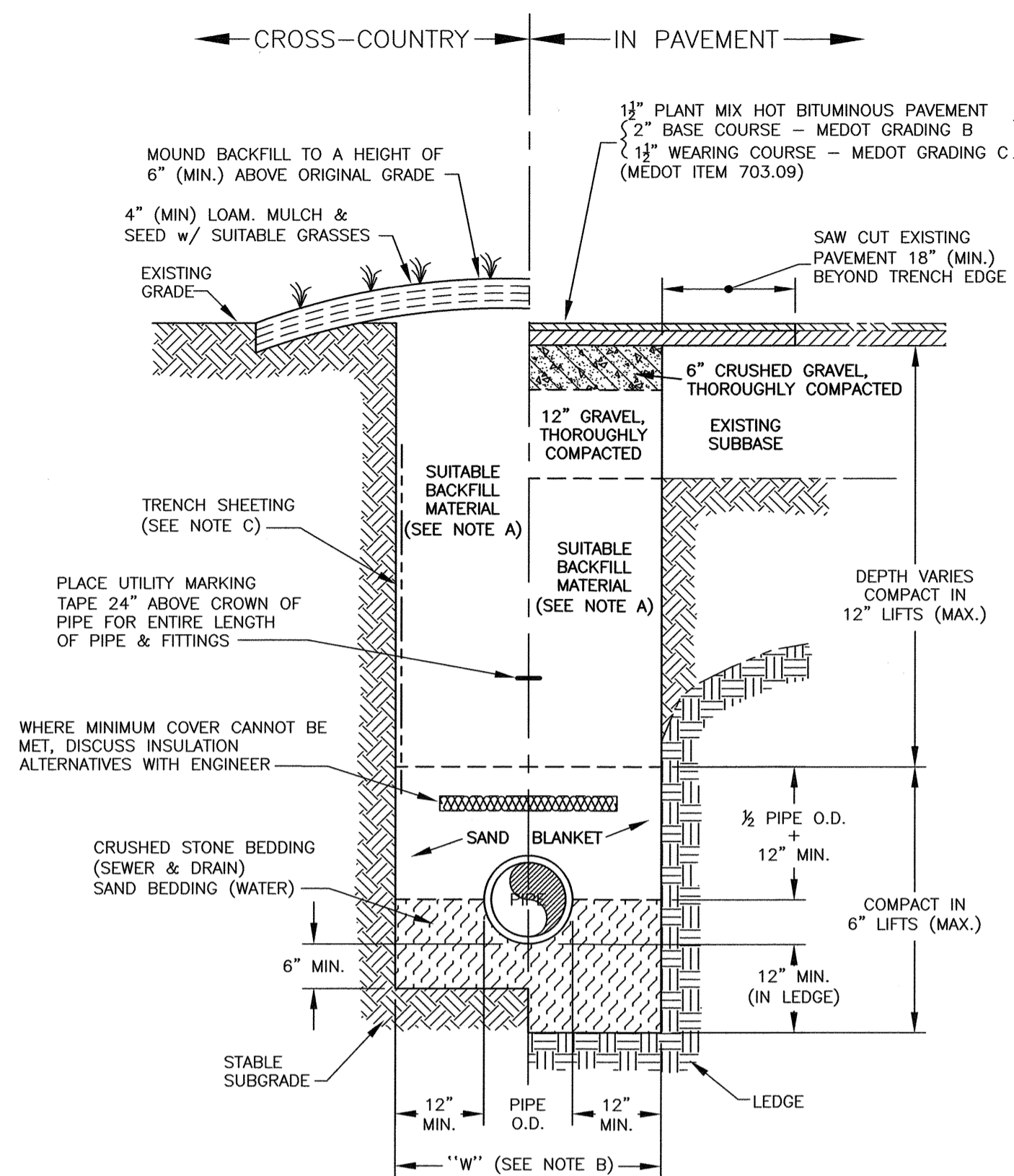
A COBBLE BAND
C2 NTS



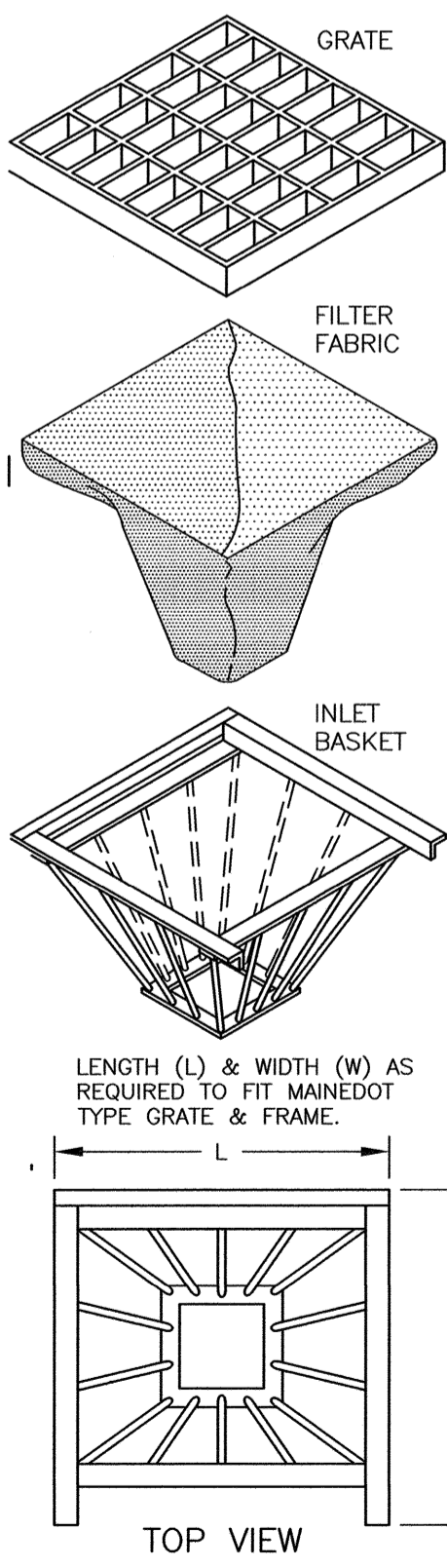
NOTE:

- 1) AGGREGATE BASE AND SUBBASE COURSES SHALL CONFORM TO SECTIONS 304 AND 703 OF MAINE DOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, APRIL 1995.
- 2) PLANT MIX HOT BITUMINOUS PAVEMENT SHALL CONFORM TO SECTIONS 401, 403, 702 AND 703 OF MAINE DOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, APRIL 1995.

B TYPICAL PAVEMENT CROSS-SECTION
C2 NTS

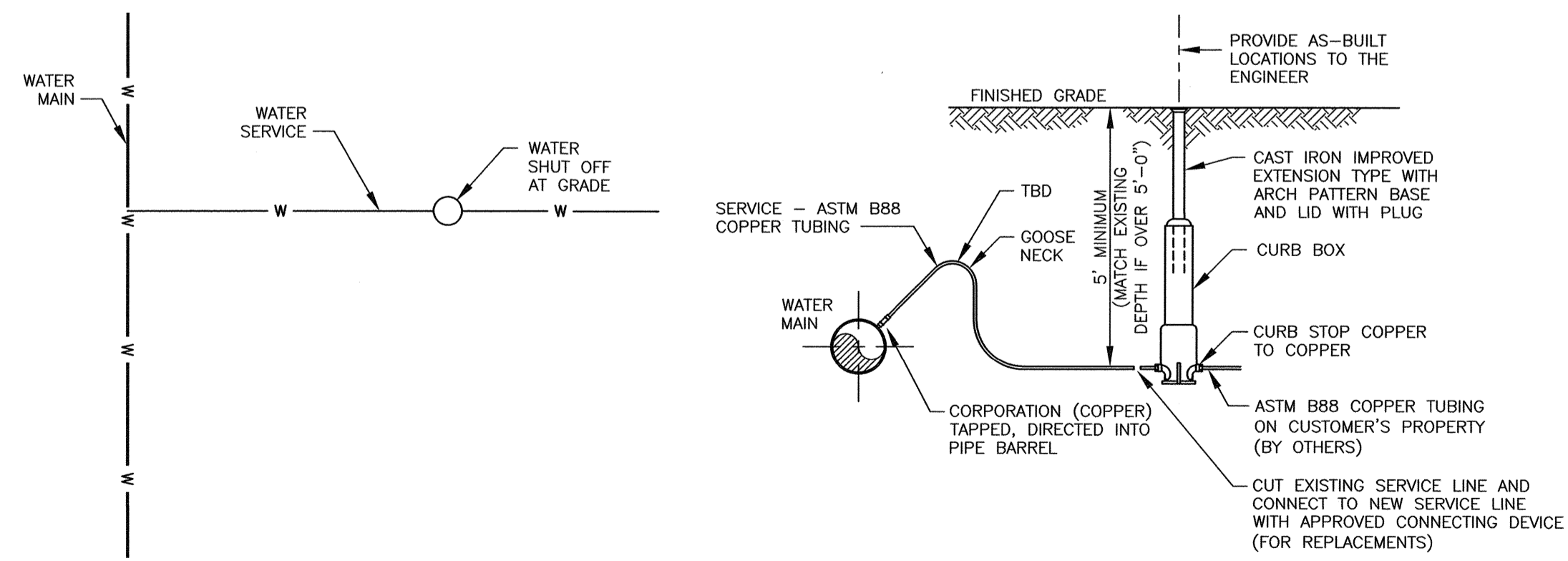


D TYPICAL PIPE TRENCH
C3 NTS



C CATCH BASIN INLET BASKET
C4 NTS

- 1) INLET BASKETS SHALL BE INSTALLED IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION IS COMPLETE AND SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.
- 2) FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET OF FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND, SHALL EXTEND AT LEAST 6" PAST THE FRAME. THE INLET GRATE SHALL BE PLACED OVER THE BASKET/FRAME AND WILL SERVE AS THE FABRIC ANCHOR.
- 3) THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC: POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:
- TENSILE STRENGTH: 45 LB. MIN. IN ANY PRINCIPAL DIRECTION (ASTM D1682)
- MULLEN BURST STRENGTH: MIN. 60 PSI (ASTM D774)
- 4) THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 gpm/s.f. (MULTIPLY THE PERMITTIVITY IN SEC.-1 FROM ASTM 54491-85 CONSTANT HEAD TEST USING THE CONVERSION FACTOR OF 74.)
- 5) THE INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.
- 6) SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.



E TYPICAL WATER SERVICE CONNECTION
C3 NTS

TRENCH NOTES:

A) TRENCH BACKFILL:
- IN PAVED AREAS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIALS DEEMED TO BE UNACCEPTABLE BY THE ENGINEER.

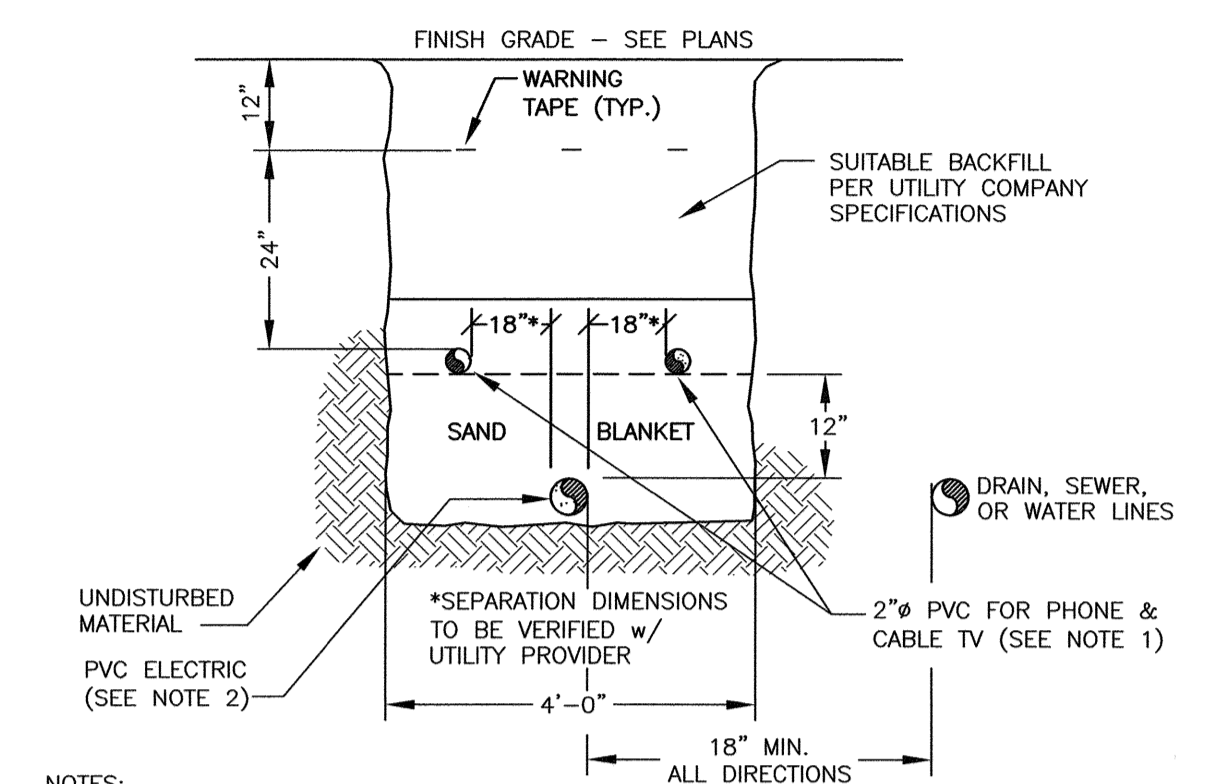
- IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE.

B) "W" = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D.

C) TRENCH SHEETING:
IF REQUIRED, WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

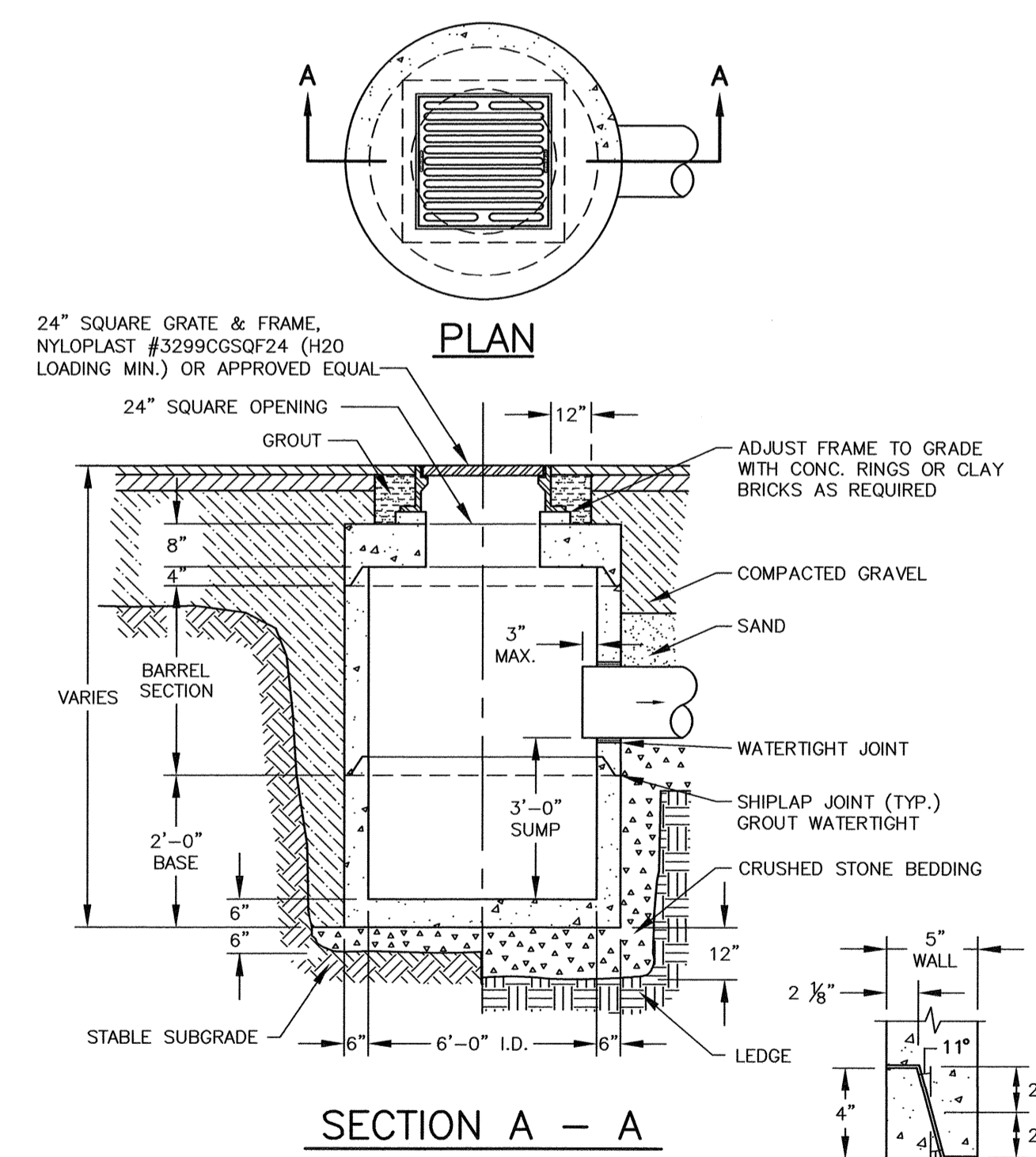
D) MINIMUM PIPE COVER FOR UTILITY MAINS (UNLESS GOVERNED BY OTHER CODES):
6" MINIMUM FOR SEWER
3" MINIMUM FOR STORMWATER DRAINS
5" MINIMUM FOR WATER MAINS

E) ALL PAVEMENT CUTS SHALL BE REPAIRED BY THE INFRARED HEAT METHOD.



- NOTES:**
- 1) ALL CONDUIT TO BE U.L. LISTED, SCH. 80 UNDER ALL TRAVEL WAYS, & SCH. 40 FOR THE REMAINDER.
 - 2) NORMAL CONDUIT SIZES FOR CMP ARE 3 INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4 INCH FOR THREE PHASE SECONDARY, AND 5 INCH FOR THREE PHASE PRIMARY.
 - 3) ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE (LATEST REVISION)
 - 4) INSTALL A 200# PULL ROPE FOR EACH CONDUIT
 - 5) VERIFY ALL CONDUIT SPECIFICATIONS WITH UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION.

F UTILITY TRENCH
C3 ELECTRIC/PHONE/CABLE NTS

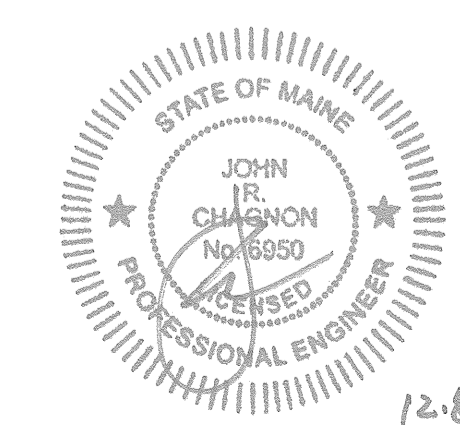


- NOTES:**
1. CONCRETE SHALL BE 4,000 P.S.I. AFTER 28 DAYS.
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS & SHALL BE PLACED IN THE CENTER THIRD OF WALL.
 3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 4. EACH CASTING TO HAVE LIFTING HOLES CAST IN.

G REINFORCED CONCRETE CATCH BASIN
NTS (IF NEEDED)

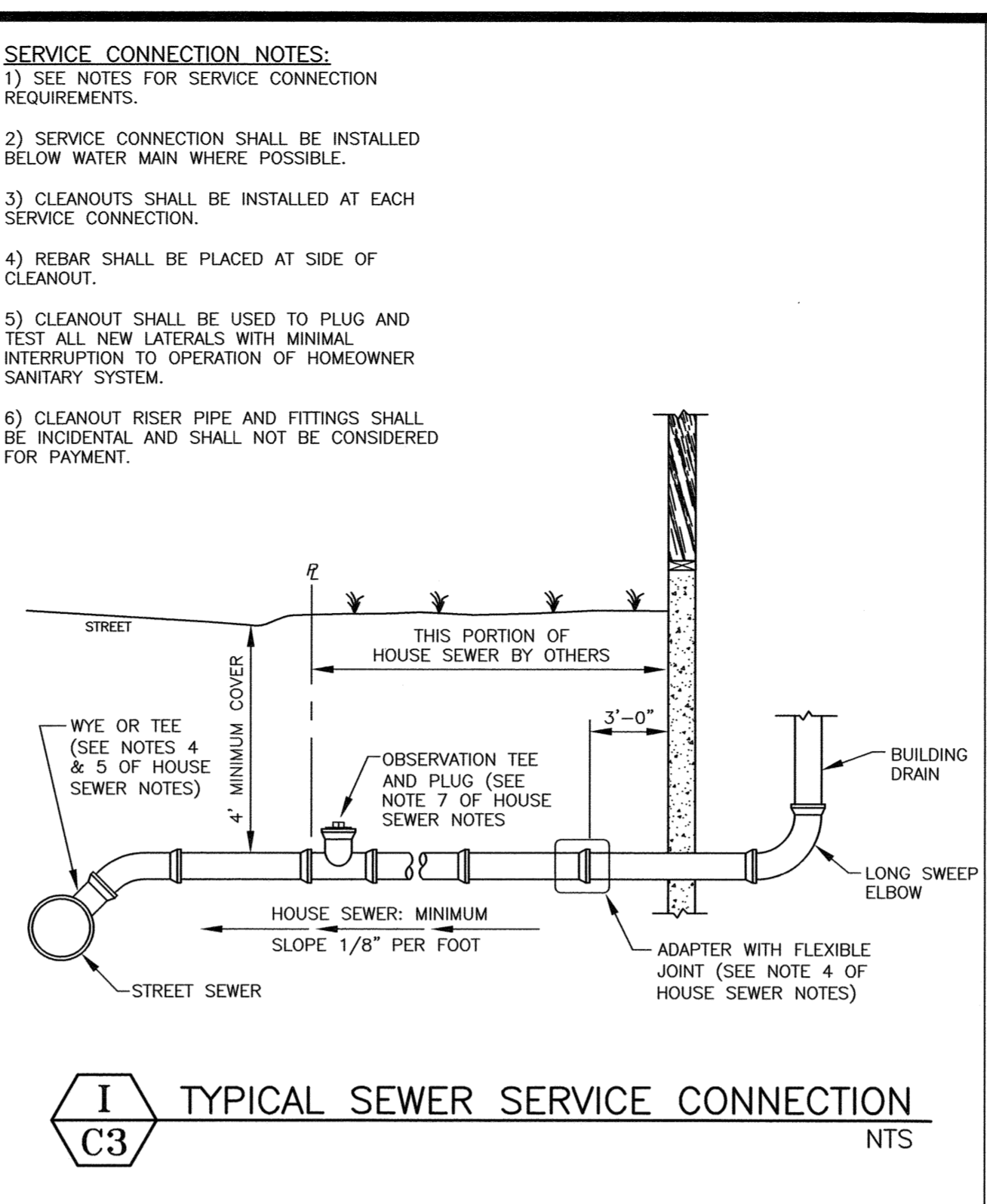
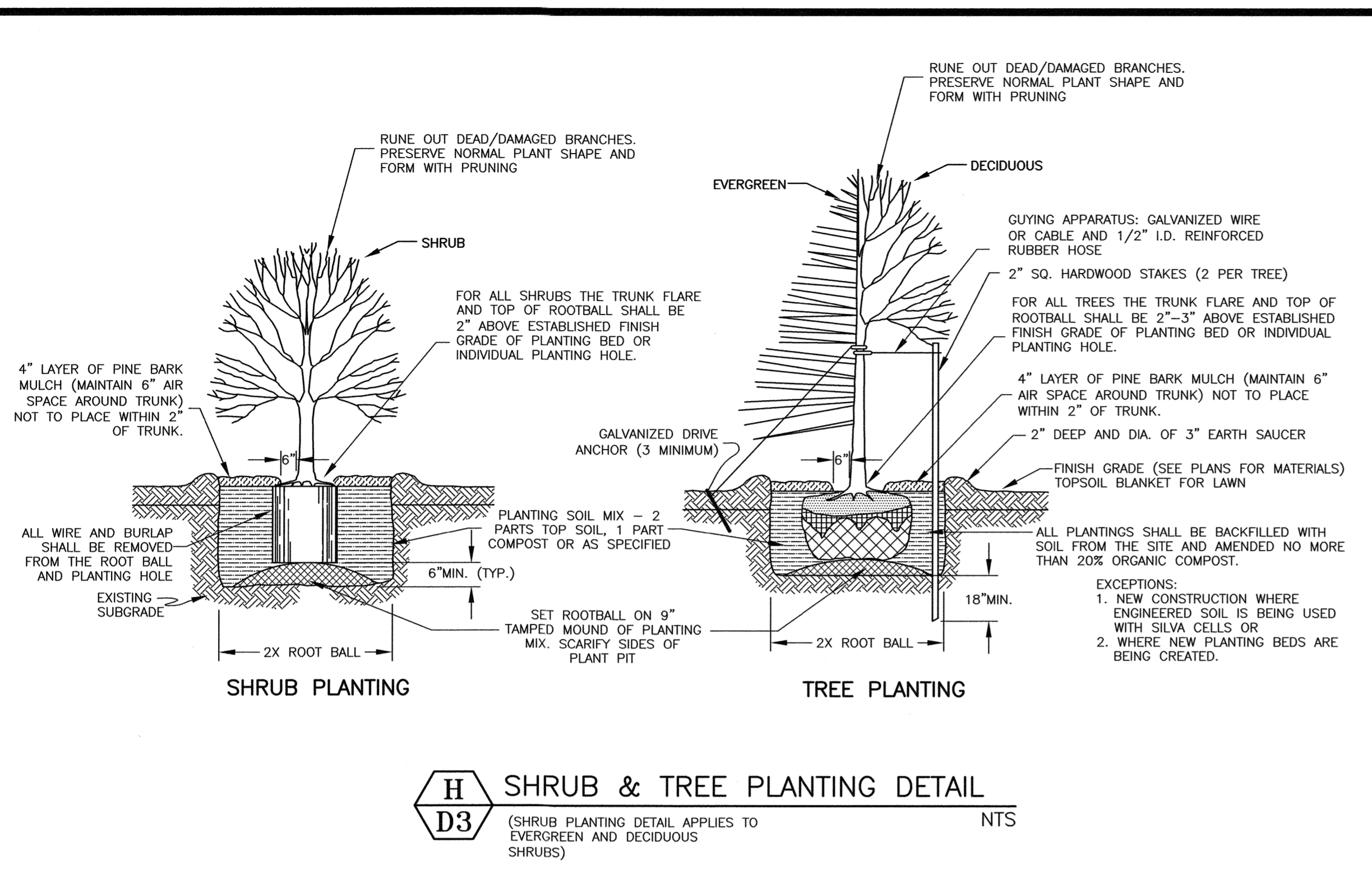
**SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME**

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	12/8/22



SCALE: AS SHOWN DECEMBER 2022

DETAILS D2



HOUSE SEWER NOTES

- MINIMUM PIPE SIZE FOR HOUSE SERVICE SHALL BE FOUR INCHES.
- PIPE AND JOINT MATERIALS:
 - PLASTIC SEWER PIPE
 - PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034	*PVC (SOLID WALL)	8" THROUGH 15" (SDR 35)
F679	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F789	PVC (SOLID WALL)	4" THROUGH 18" (T-1 To T-3)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
D2680	*ABS (COMPOSITE WALL)	8" THROUGH 15"

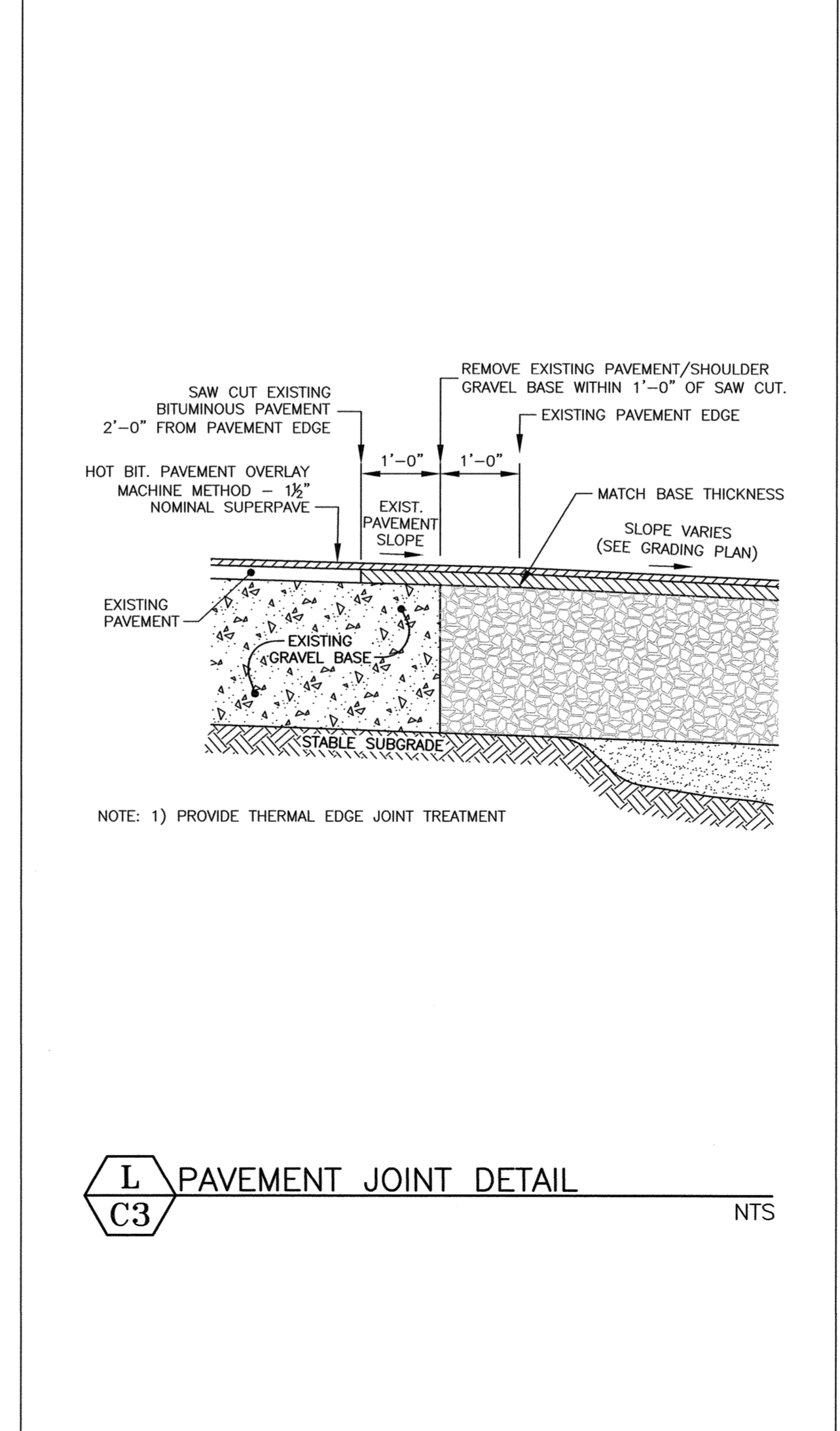
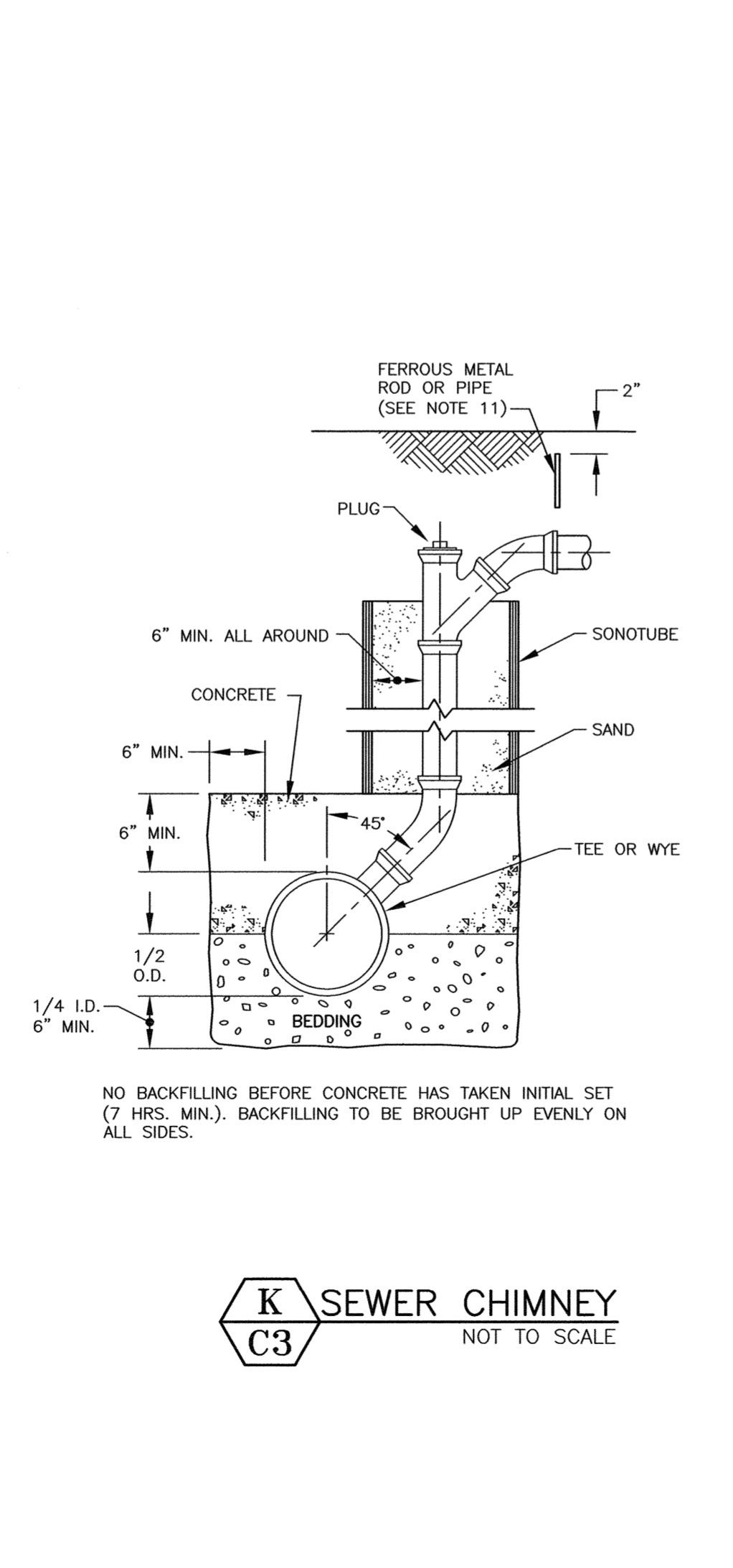
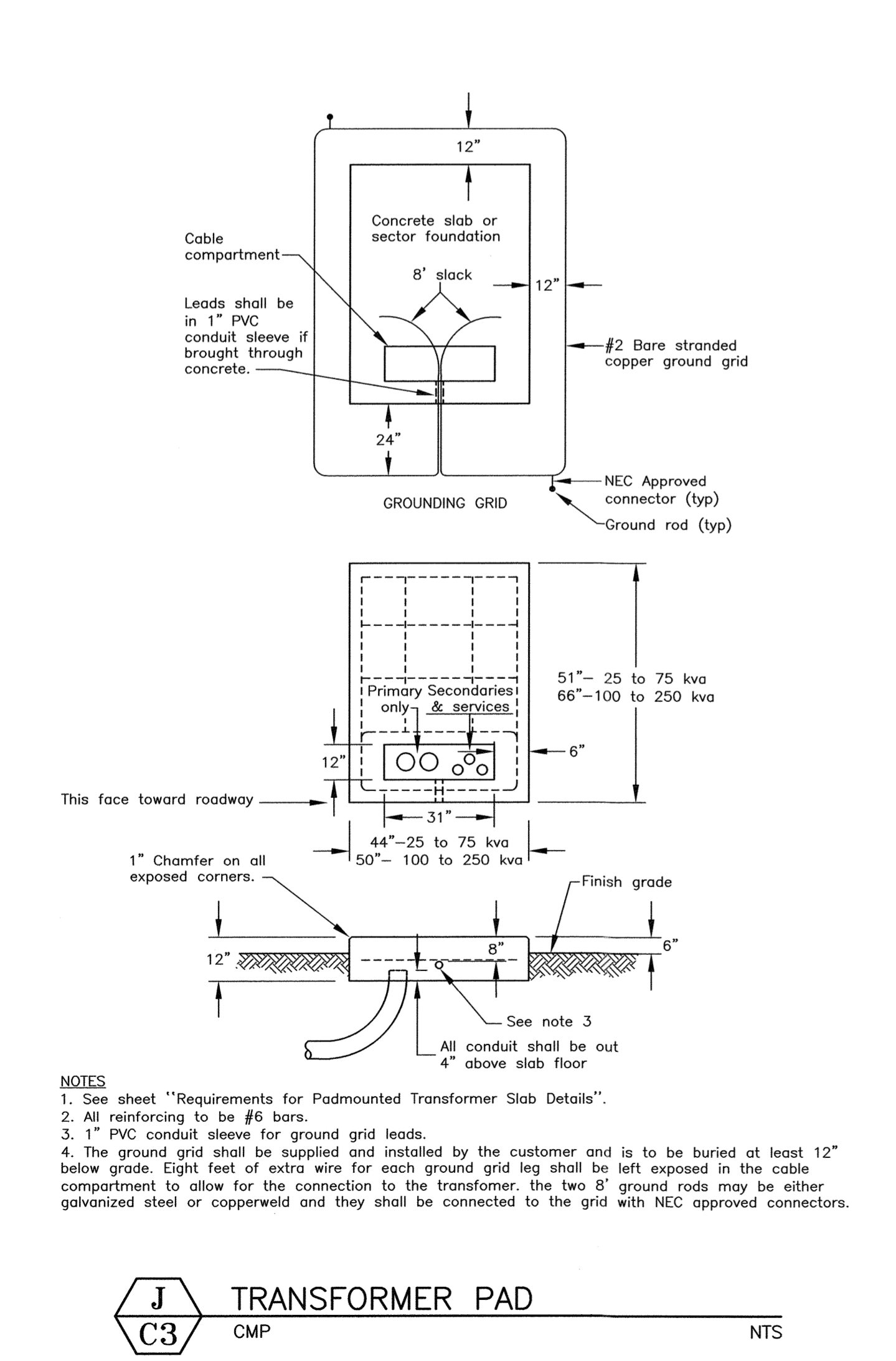
*PVC: POLYVINYL CHLORIDE
 *ABS: ACRYLONITRILE-BUTADIENE-STYRENE
 - JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON BELL AND SPIGOT TYPE.
 - ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680. POLYMER COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).
 - JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.
 - DUCTILE IRON PIPE, FITTINGS AND JOINTS:
 - DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
 - A21.50 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS.
 - A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND LINED MOLDS FOR WATER OR OTHER LIQUIDS.
 - JOINTS SHALL BE OF THE MECHANICAL OR PUSH ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:
 - A21.11 RUBBER GASKET JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS.
- DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- HOUSE SEWER INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND REFILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES. THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/8th INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.
- TESTING: THE COMPLETED HOUSE SEWER SHALL BE SUBJECTED TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)
 - AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.
 - THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.
 - DRY FLUORESCENCE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUNDWATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN STREAM MANHOLE.

LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER TIGHTNESS.

AMBIT ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 200 Griffin Road - Unit 3
 Portsmouth, N.H. 03801-7114
 Tel (603) 430-9282
 Fax (603) 436-2315

NOTES:

- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP's" PUBLISHED BY THE MAINE D.E.P. IN 2016.



SITE REDEVELOPMENT
39 BADGERS ISLAND WEST
KITTERY, ME

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	12/8/22
REVISIONS		

STATE OF MAINE
 JOHN R. CHAGNON
 No. 6850
 REGISTERED PROFESSIONAL ENGINEER
 12.8.22

SCALE: AS SHOWN DECEMBER 2022

DETAILS **D3**



REAR PERSPECTIVE
NOT TO SCALE



FRONT PERSPECTIVE
NOT TO SCALE



AMBIT ENGINEERING, INC.

A DIVISION OF HALEY WARD, INC. 

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

15 December 2022

Dutch Dunkelberger, Chair
Kittery Planning Board
Town of Kittery
200 Rogers Road
Kittery, ME 03904

**Re: Minor Subdivision Application; Residential Development
Tax Map 1, Lot 38
39 Badgers Island West
Kittery, ME**

Dear Dutch and Planning Board Members:

On behalf of BIW Group LLC – Owner and **Otter Creek Homes - Applicant** we submit herewith the attached package for Minor Subdivision Approval at the site. We hereby request that we be placed on the Agenda for the **January 12, 2023, Planning Board Meeting**. In support thereof, we are submitting a Site Plan set with the associated exhibits and requirements. This proposal is to construct four free-standing Residential units. Currently the site served as parking and day care for the Green Pages office at the west end of Badgers Island. The proposed use we believe fits the predominately residential uses on Badgers Island. The Existing Conditions Plan reflects the state of the site today; however the building which existed on the site has been recently demolished.

The project conforms to the Kittery Land Use and Development Code for the zone it occupies for allowable number of dwelling units, open space (a reduction from the existing), and building setbacks. The entire lot is within the 250-foot Shoreland Zone.

The intent is to develop the site as a Condominium. The proposed units will be slab on grade construction with parking on the lower level. The unit will accommodate two cars. The units will be 3 bedroom / 2 ½ bath with elevated finishes appropriately priced. The exteriors will be fitted with patios. There will be some common gathering space. The development will have an exterior mailbox tree. The site is gently sloping; storm water run-off exits the site in 2 directions. In the proposed design those directions will be maintained; and due to the decrease in impervious surface, site run-off will be reduced. The site will be served by existing street utilities.

The following plans are included in our submission:

- Cover Sheet – This plan shows the design team, site location, and Legend.
- Condominium Site Plan - The plan is the plan that will be recorded for the creation of the Condominium at the site. The plan shows Common and Limited Common areas.
- Existing Conditions Plan C1 – This plan shows the current improvements on the property (including the recently demolished building) and the site boundary lines.
- Shoreland Development Plan C2 – This plan shows the location of the proposed buildings, landscaping, parking, patios, walkways, signage, and driveway entrance. The building siting takes advantage of available views. The plan highlights the existing landscaping (trees) that will be retained. The plan contains the Devegetated Coverage Table.
- Utility Plan C3 – This plan shows the utilities required to service the proposed buildings. The plan has tables with the proposed elevations.
- Grading Plan C4 – This plan shows the proposed site grading.
- Demolition Plan C5 – This plan shows the proposed demolition taking place on the property.
- Lighting Plan L1 – This plan shows proposed site lighting with lighting intensities.
- Detail Sheets D1 to D3 – These plans show the construction details for the project.

Please also find the attached in support of this proposal:

Minor Subdivision Application
Property Deed
Authorizations
USGS Map
Vicinity map
Tax Map
Drainage Analysis
Site Photographs
Soil Report
Lighting Specs

We look forward to your review of this submission and our in person presentation at the Planning Board meeting. Thank you for your time and attention to this proposal. Please contact me if you have any questions or concerns regarding this application.

Sincerely,

John R. Chagnon

John R. Chagnon, PE
Ambit Engineering, Inc.
CC: Project Team



TOWN OF KITTERY MAINE

TOWN PLANNING AND DEVELOPMENT DEPARTMENT

200 Rogers Road, Kittery, Maine 03904

Phone: (207) 475-1323

Fax: (207) 439-6806

www.kittery.org

APPLICATION: SITE OR SUBDIVISION-SKETCH PLAN REVIEW

Application Fee:		<input checked="" type="checkbox"/> \$200.00	Amount Paid:\$		Date: 10-27-2022		
PROPERTY DESCRIPTION	Parcel ID	Map	1	Zone(s)-Base:	MU-B1	Total Land Area	21,029
		Lot	38	Overlay:	OZ-SL-250	MS4	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Physical Address	39 Badgers Island West					
PROPERTY OWNER'S INFORMATION	Name	BIW Group, LLC			Mailing Address	41 Industrial Drive Unit 20 Exeter, NH 03833	
	Phone						
	Fax						
	Email	steven.wilson@hdcgc.net					
APPLICANT'S AGENT INFORMATION	Name	John Chagnon			Name of Business	Ambit Engineering, Inc.	
	Phone	(603) 430-9282			Mailing Address	200 Griffin Road Unit 3 Portsmouth, NH 03801	
	Fax	(603) 436-2315					
	Email	jrc@ambitengineering.com					
PROJECT DESCRIPTION	<i>See reverse side regarding information to be provided.</i>						
	Existing Land Use(s):						
	Day care/parking.						
	Proposed Land Use(s) and Development:						
	4 residential units.						
	Please describe any construction constraints (wetlands, shoreland overlay zone, flood plain, non-conformance, etc.)						
	Property is in the shoreland zone.						
I certify, to the best of my knowledge, this application information is true and correct and I will not deviate from the Plan submitted without notifying the Town Planning and Development Department of any changes.							
Applicant's Signature:	<i>John Chagnon</i>			Owner's Signature:	See Authorization		
Date:	12-15-22			Date:			

MINIMUM PLAN SUBMITTAL REQUIREMENTS

- 15 Copies of this Application, Vicinity Map, and the Sketch Plan - 5 of which must be 24" X 36"

Sketch Plan format and content:

A) Paper Size; no less than 11" X 17" or greater than 24" X 36"

B) Plan Scale

- Under 10 acres: no greater than 1" = 30'
 10 + acres: 1" = 50'

C) Title Block

- Applicant's name and address
 Name of preparer of plan with professional information
 Parcel's Kittery tax map identification (map – lot) in bottom right corner

NOTE TO APPLICANT: PRIOR TO A PLANNING BOARD SITE WALK, TEMPORARY MARKERS MUST BE ADEQUATELY PLACED THAT ENABLE THE PLANNING BOARD TO READILY LOCATE AND EVALUATE THE DEVELOPMENT'S DESIGN.

Vicinity Map – map or aerial photo showing 1,000 feet around the site.

Sketch Plan must include the following existing and proposed information:

Existing:

- Land Use Zone and boundary
 Topographic map (optional)
 Wetlands and flood plains
 Water bodies and water courses
 Parcel area
 Lot dimensions
 Utilities (Sewer/septic, water, electric, phone)
 Streets, driveways and rights-of-way
 Structures

Proposed: (Plan must show the lightened existing topography under the proposed plan for comparison.)

- Recreation areas and open space
 Number of lots and lot areas
 Setback lines and building envelopes
 Lot dimensions
 Utilities (Sewer/septic, water, electric, phone)
 Streets, driveways and rights-of-way
 Structures

Distance to:

- Nearest driveways and intersections
 Nearest fire hydrant
 Nearest significant water body

AN APPLICATION THE TOWN PLANNER DEEMS SUFFICIENTLY LACKING IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

QUITCLAIM DEED WITH COVENANT
DLN: 1002040126646

GP Technology Solutions, LLC, a Delaware limited liability company with a mailing address of PO Box 9001, Kittery, ME 03904 (the "Grantor"), FOR CONSIDERATION PAID, grants to **B.I.W. Group, LLC**, a Maine limited liability company with a mailing address of 41 Industrial Drive, Unit 20, Exeter, NH 03833 (the "Grantee"), certain real property, together with any improvements thereon, located in the Town of Kittery, County of York, and State of Maine, more particularly described on Exhibit A attached hereto and made a part hereof.

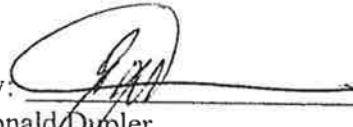
Meaning and intending to convey the same premises conveyed to Grantor by Quitclaim Deed from GreenPages, Inc. dated November 19, 2020, and recorded in the York County Registry of Deeds in Book 18460, Page 790.

IN WITNESS WHEREOF, GP Technology Solutions, LLC has caused this instrument to be executed by Ronald Dupler, its duly-authorized Manager, thereunto duly authorized, as of this 22 day of December, 2020.

GP Technology Solutions, LLC



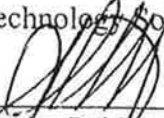
Witness

By: 

Ronald Dupler
Its duly-authorized Manager

Commonwealth of Massachusetts
County of Middlesex

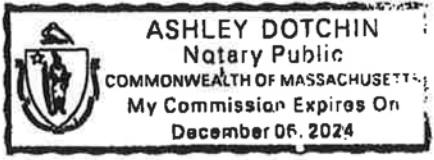
On this 22nd day of December, 2020 before me, the undersigned Notary Public, personally appeared Ronald Dupler and proved to me through satisfactory evidence of identification, which was personal knowledge of the undersigned, to be the person who signed the preceding document in my presence, and acknowledged to me that he signed it voluntarily for its stated purpose, that it was his free act and deed in his capacity as Manager of GP Technology Solutions, LLC, and that it was the free act and deed of said LLC.



Notary Public

Ashley Dotchin

Print Name
My Commission expires: 12/06/24



Maine R.E. Transfer Tax Paid

Exhibit A

Land with all improvements thereon, situated in the Town of Kittery, County of York, State of Maine, bounded and described as follows:

Four certain lots or parcels of land, situated on the Northerly side of Badgers Island in said Kittery, being more particularly described as Lots No. 14, 15, 16 and 17 on a certain plan of land, Badgers Island, Maine, dated April 1936, John W. Durgin, C.E., which plan is recorded in the York County Registry of Deeds, Plan Book 22, Page 31, subject however, to the existing rights of and public use of Veta Messaro and Ella E. Messaro to lay and maintain an overflow pipe across said Lot 14 as more particularly described in the deed from Annie E. Horner dated April, 1955 and recorded in the York County Registry of Deeds in Book 1301, Page 275.

Subject to and together with the benefit of the terms and provisions of a Boundary Line Agreement by and between Terry Gagner and William Seaward dated April 5, 1988 and recorded in the said Registry of Deeds in Book 4676, Page 184.

Excepting from the above described premises the land conveyed to the Town of Kittery by virtue of a Release Deed granted by GreenPages, Inc. et al , dated September 13, 1995 and recorded in the York County Registry of Deeds in Book 7561, Page 300.

Subject to the restrictions that installation of groundwater extraction wells is prohibited except with the consent of the State of Maine Department of Environmental Protection, or any successor agency. Nothing herein shall obligate the Grantee herein, or its successors and assigns, to obtain the consent of any party other than the Maine Department of Environmental Protection or its successor agency, including without limitations the Grantor herein or its successors or assigns, in order to undertake any of the activities specific to this paragraph.

Also, all right, title and interest in and to any filled lands between the lots described above and the Piscataqua River and in and to the shore and flats between the lots described above and the Piscataqua River.

Meaning and intending to describe the same premises in a Warranty Deed granted by William W. Seaward, Jr. dated October 17, 1994 and recorded in the York County Registry of Deeds in Book 7224, Page 202.

39
=

Also another certain lot or parcel of land, together with the buildings thereon, situated on the westerly side of Badgers Island, in the Town of Kittery, County of York, State of Maine, said lot being bounded and described as follows:

Beginning at a capped rebar set in the ground in the northerly sideline of a road called Badgers Island, West, at the southwesterly corner of the land herein conveyed as land of Charles Patten and thence running by said Patten land N 24 degrees 18' 14" E one hundred sixty-seven and twenty-three hundredths (167.23') feet to capped rebar set as the sideline of said road; thence turning and running by said road the following course; thence by said road southeasterly along a curve to the right having a radius of eight (80.00') feet and an arc length of fourteen and forty-four hundredths (14.44') feet to an iron pipe found; thence by said road S 42 degrees 55' 17" E one hundred ninety and thirty-six hundredths (190.36') feet to a

capped rebar set; thence by said road southerly along a curve to the right having a radius of twenty-five (25.00') feet and as arc length of sixty-two and eighty-three hundredths (62.83') feet to a capped rebar set; N78 degrees 55' 26" W one hundred ninety and thirty-six hundredths (190.36') feet to the point of beginning.

Meaning and intending to describe the same premises in a Warranty Deed granted by Lil's GreenDream, Inc. dated January 31, 2003 and recorded in the York County Registry of Deeds in Book 12483, Page 210.

The above-described properties are conveyed subject to all easements, covenants, restrictions, and agreements of record to the extent applicable and in effect.

25 October, 2022

To Whom It May Concern

RE: Client Representation for a proposed Amended Site Plan for BIW Group, LLC at 39 Badgers Island West, Kittery, Maine

This letter is to inform the Town of Kittery, and other parties in accordance with approval procedures that Otter Creek Homes of North Hampton, NH is authorized to represent the above-mentioned property as the Applicant for the approval process. This includes signatory powers on any and all applications.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

**Shayne Forsley
BIW Group, LLC**

Authorized Representative
41 Industrial Drive, Unit 20
Exeter, NH
03833

25 October, 2022

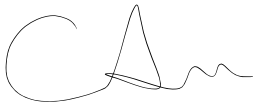
To Whom It May Concern

**RE: Client Representation for a proposed Amended Site Plan for BIW Group,
LLC at 39 Badgers Island West, Kittery, Maine**

This letter is to inform the Town of Kittery, and other parties in accordance with approval procedures that Ambit Engineering is authorized to represent the above-mentioned property as our agent in the approval process. This includes signatory powers on any and all applications.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

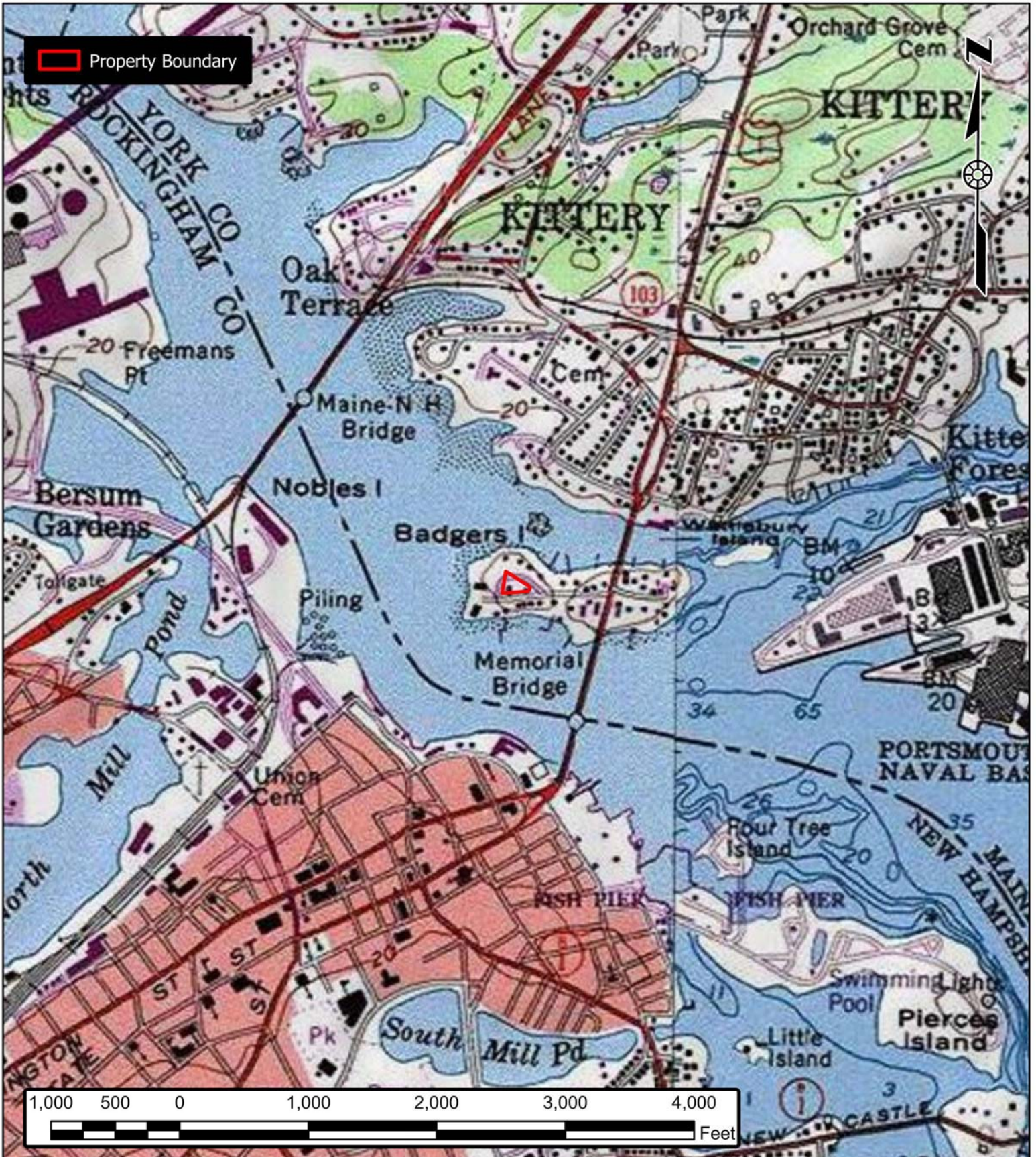
A handwritten signature in black ink, appearing to read "Chris Atwood". The signature is fluid and cursive, with a large initial "C" and a distinct "A".

Chris Atwood
Otter Creek Homes

Authorized Representative
198 Lafayette Road, Unit 1
North Hampton, NH
03862

OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

JOB NUMBER: 3430.01
SCALE: 1" = 1000'
SUBMITTED: 10-12-2022



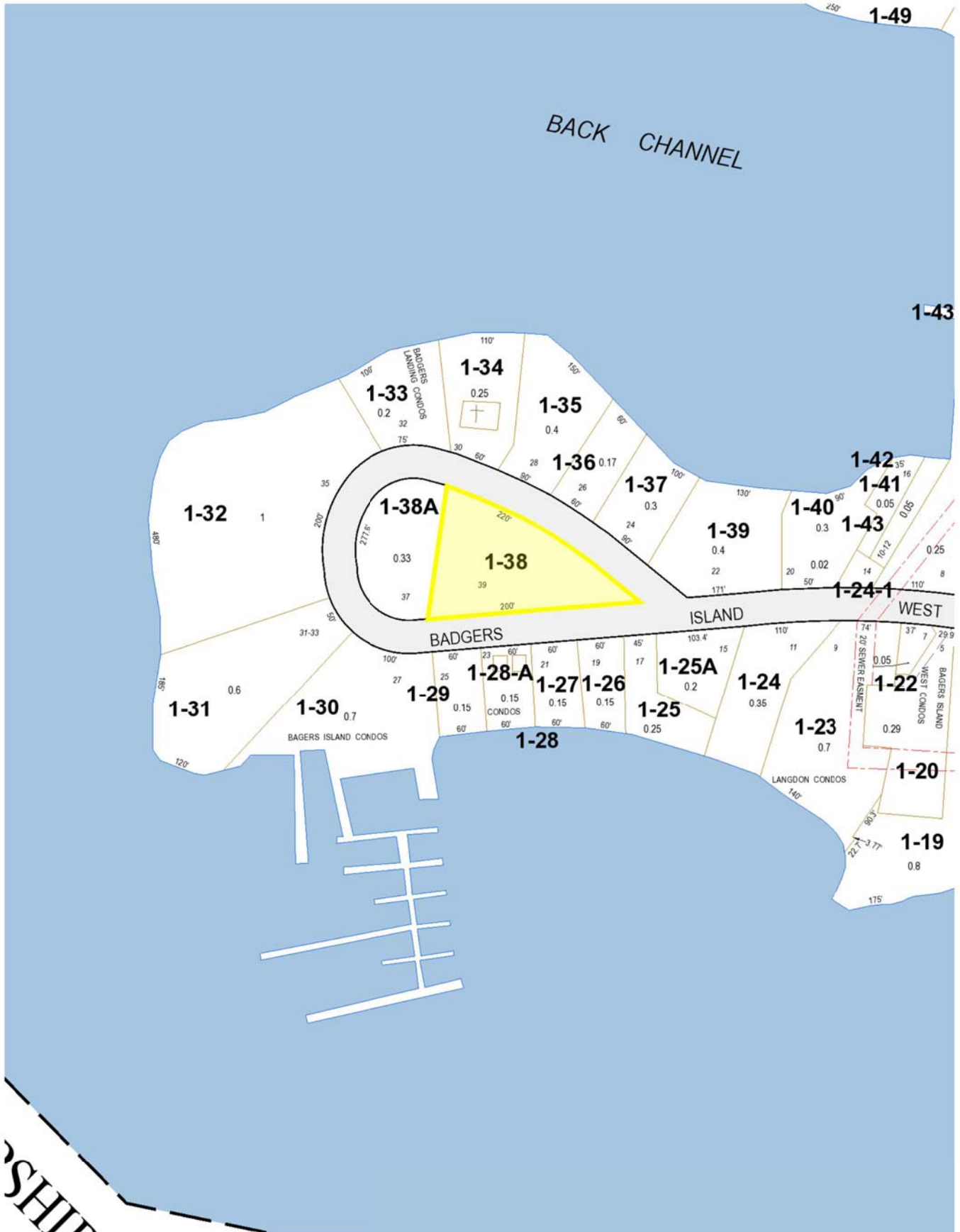
OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

JOB NUMBER: 3430.01
SCALE: 1" = 100'
SUBMITTED: 10-12-2022



OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

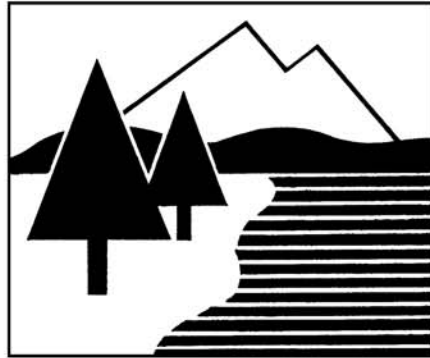
JOB NUMBER: 3430.01
NTS
SUBMITTED: 10-12-2022



DRAINAGE ANALYSIS

SITE REDEVELOPMENT

**39 BADGERS ISLAND WEST
KITTERY, ME**

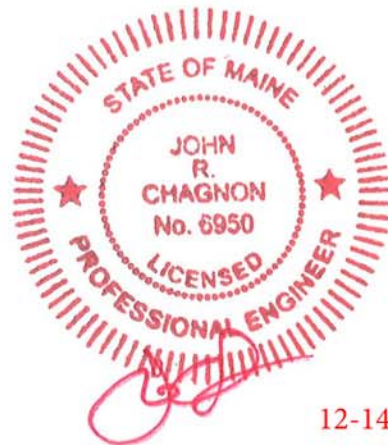


PREPARED FOR
OTTER CREEK HOMES

14 DECEMBER 2022



200 Griffin Road, Unit 3
Portsmouth, NH 03801
Phone: 603.430.9282; Fax: 603.436.2315
E-mail: jchagnon@haleyward.com
(Ambit Job Number 3430.01)



12-14-22

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Proposed Subcatchments	

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Vicinity (Tax) Map	A
FEMA FIRM Map	B
HydroCAD Drainage Analysis Calculations	C
Inspection & Long Term Maintenance Plan	D

EXECUTIVE SUMMARY

This drainage analysis examines the pre-development (existing) and post-development (proposed) stormwater drainage patterns for the Site Redevelopment at the property known as 39 Badgers Island West in Kittery, ME. The site is shown on the Town of Kittery Assessor's Tax Map 1 as Lot 38. The total size of the lot and associated drainage area is 21,026± square-feet (0.483 acres).

The development will provide for four residences and associated utilities. The development has the potential to increase stormwater runoff to adjacent properties, and should be designed in a manner to prevent that occurrence. The site contains an existing building and parking lot, which will be removed and replaced with the proposed structures, leading to a net decrease in contributing impervious area. The net decrease, as well as adhering to construction BMPs will offset the stormwater impact caused by the construction of the redevelopment.

INTRODUCTION / PROJECT DESCRIPTION

This drainage report is designed to assist the owner, contractor, regulatory reviewer, and others in understanding the impact of the proposed development project on local surface water runoff and quality. The project site is shown on the Town of Kittery, ME Assessor's Tax Map 1 as Lot 38. Bounding the site to the north, east, and south is the cul-de-sac of Badger's Island West. Bounding the site to the west is a parking lot. A vicinity map is included in the Appendix to this report.

The proposed project includes four residences, associated parking and utilities. This report uses the design to calculate the future impervious coverage of the proposed lot, as required by the Town.

This report includes information about the existing site and the proposed site necessary to analyze stormwater runoff and to design any required mitigation. The report includes impervious surface analyses and the associated operations and maintenance manual. The report will provide a narrative of the stormwater runoff. Proposed stormwater management and treatment structures and methods will also be described, as well as erosion and sediment control practices. To fully understand the proposed site development the reader should also review a complete site plan set in addition to this report.

SITE SPECIFIC INFORMATION

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 2301710008D (effective date July 3, 1986), the proposed development is located in Zone C and is determined to be inside of the 0.2% annual chance floodplain. A copy of the FIRM map is included in the Appendix.

PRE AND POST-DEVELOPMENT DRAINAGE

In the pre-development condition, the site has been analyzed as three subcatchment basins (E1 through E3) based on localized topography and discharge location. Subcatchment E1 contains the north half of the property and flows toward the catch basin flowing to the

north boundary of Badgers Island (Discharge Point 1 or DP1). Subcatchment E2 contains the south half of the property and flows toward the catch basin flowing to the west boundary of Badgers Island (Discharge Point 2 or DP2). Subcatchment E3 contains the west boundary of the property and flows toward DP2. Proposed subcatchments P1 and P2 occupy the same approximate space as subcatchments E1 and E2 respectively and flow to the same discharge points. The area of E3 was split between P1 and P2 in the proposed condition, and will be conveyed using swales on the west edge of the property. The subcatchments were analyzed for peak discharges using HydroCAD.

Table 1: Impervious Surfaces Analysis

Structure	Pre-Construction Impervious (S.F.)	Post-Construction Impervious (S.F.)
Main Structure	2,071	4,148
Pavement	13,286	4,705
Stairs / Ramp	51	0
Bulkhead	25	0
Concrete Pads	29	0
Walkway	0	312
Patios	0	288
Total	15,462	9,453
Lot Size	21,029	21,029
% Devegetated Area	73.5	45.0

Table 2: Development Watershed Basin Summary

Watershed Basin ID	Basin Area (SF)	Tc (MIN)	CN	2-Year Runoff (CFS)	10-Year Runoff (CFS)	25-Year Runoff (CFS)
E1	10,484	5.0	94	1.02	1.62	2.08
E2	8,690	5.0	92	0.80	1.30	1.69
E3	1,853	5.0	94	0.18	0.29	0.37
P1	11,185	5.0	87	0.87	1.52	2.03
P2	9,841	5.0	89	0.82	1.40	1.84

The proposed development has been designed to match the pre-development drainage patterns to the greatest extent feasible. A plan sheet detailing the subcatchments and direction of runoff are included in the Appendix.

Table 3: Pre-Development to Post-Development Comparison

Design Point	Q2 (CFS)		Q10 (CFS)		Q25 (CFS)		Description
	Pre	Post	Pre	Post	Pre	Post	
DP1	1.02	0.87	1.62	1.52	2.08	2.03	North Catch Basin
DP2	0.98	0.82	1.59	1.40	2.06	1.84	West Catch Basin

In the developed condition, the site will see a net reduction in impervious surfaces. As a result, discharge points DP1 and DP2 will experience a net decrease in peak discharge for all design storms in the proposed condition.

OFFSITE INFRASTRUCTURE CAPACITY

There is an overall reduction in off-site flow due to the reduction in impervious surfaces proposed by the project. Any Town infrastructure utilized by the project, in particular drainage networks, will receive decreased peak flows from the existing conditions. As a result, there is no anticipated negative impact to Town infrastructure.

EROSION AND SEDIMENT CONTROL PRACTICES

The erosion potential for this site as it exists is moderate due to the construction proposed in areas that are erodible when exposed. During construction, the major potential for erosion is wind and stormwater runoff. The contractor will be required to inspect and maintain all necessary erosion control measures, as well as installing any additional measures as required. All erosion control practices shall conform to “The Maine Stormwater Management Design Manual.” Some examples of erosion and sediment control measures to be utilized for this project during construction may include:

- Silt Soxx (or approved alternative) located at the toe of disturbed slopes
- Stabilized construction entrance at access point to the site
- Temporary mulching and seeding for disturbed areas
- Spraying water over disturbed areas to minimize wind erosion

After construction, permanent stabilization will be accomplished by permanent seeding, landscaping, and compacting/surfacing the access drives with gravel.

CONCLUSION

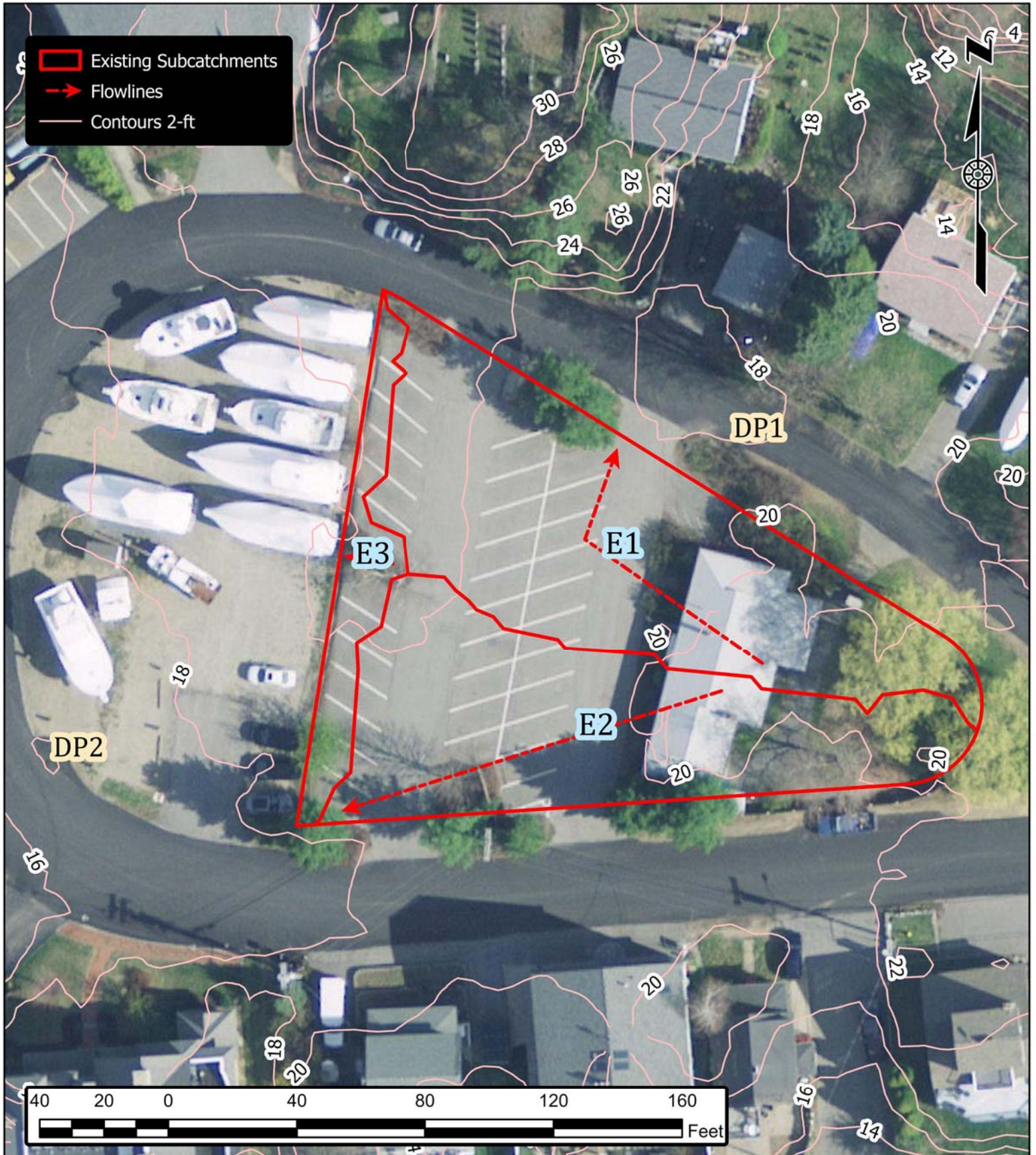
The proposed development has been designed to match the pre-development drainage patterns to the greatest extent feasible. With the reduction in impervious surfaces, the post-development quality of the site runoff will be sufficiently increased to mitigate any issues caused by the proposed construction. Erosion and sediment control practices will be implemented for both the temporary condition during construction and for final stabilization after construction. Therefore, there are no negative impacts to downstream receptors or adjacent properties anticipated as a result of this project.

REFERENCES

1. Town of Kittery, ME. Land Use Development Code, Amended January 24, 2022.
2. Maine Department of Environmental Protection, *Maine Stormwater Management Design Manual (Volumes I-III)*, March 2016.
3. HydroCAD Software Solution, LLC. *HydroCAD Stormwater Modeling System Version 10.0* copyright 2013.

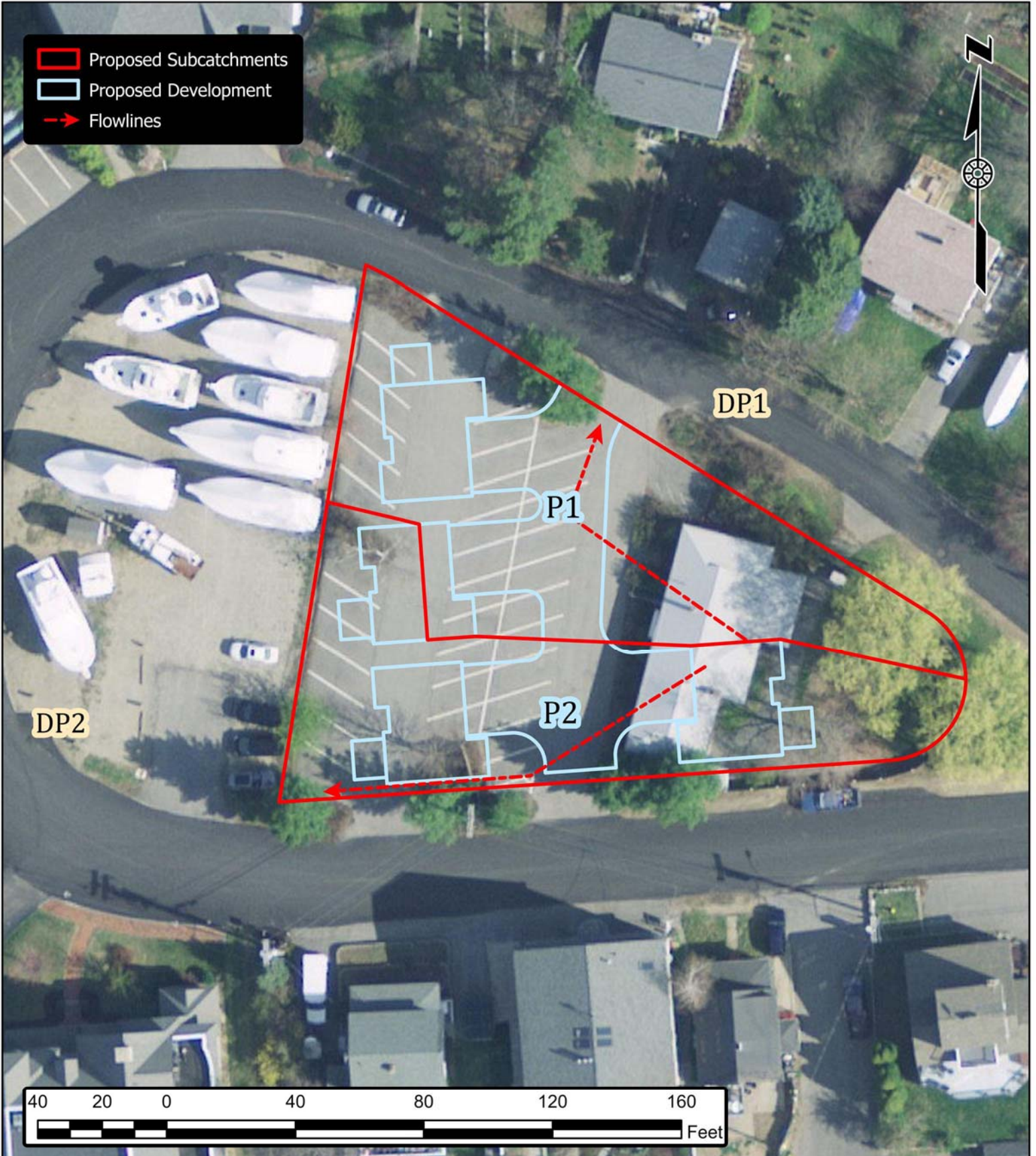
OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

JOB NUMBER: 3430.01
SCALE: 1" = 40'
SUBMITTED: 12-14-2022



OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

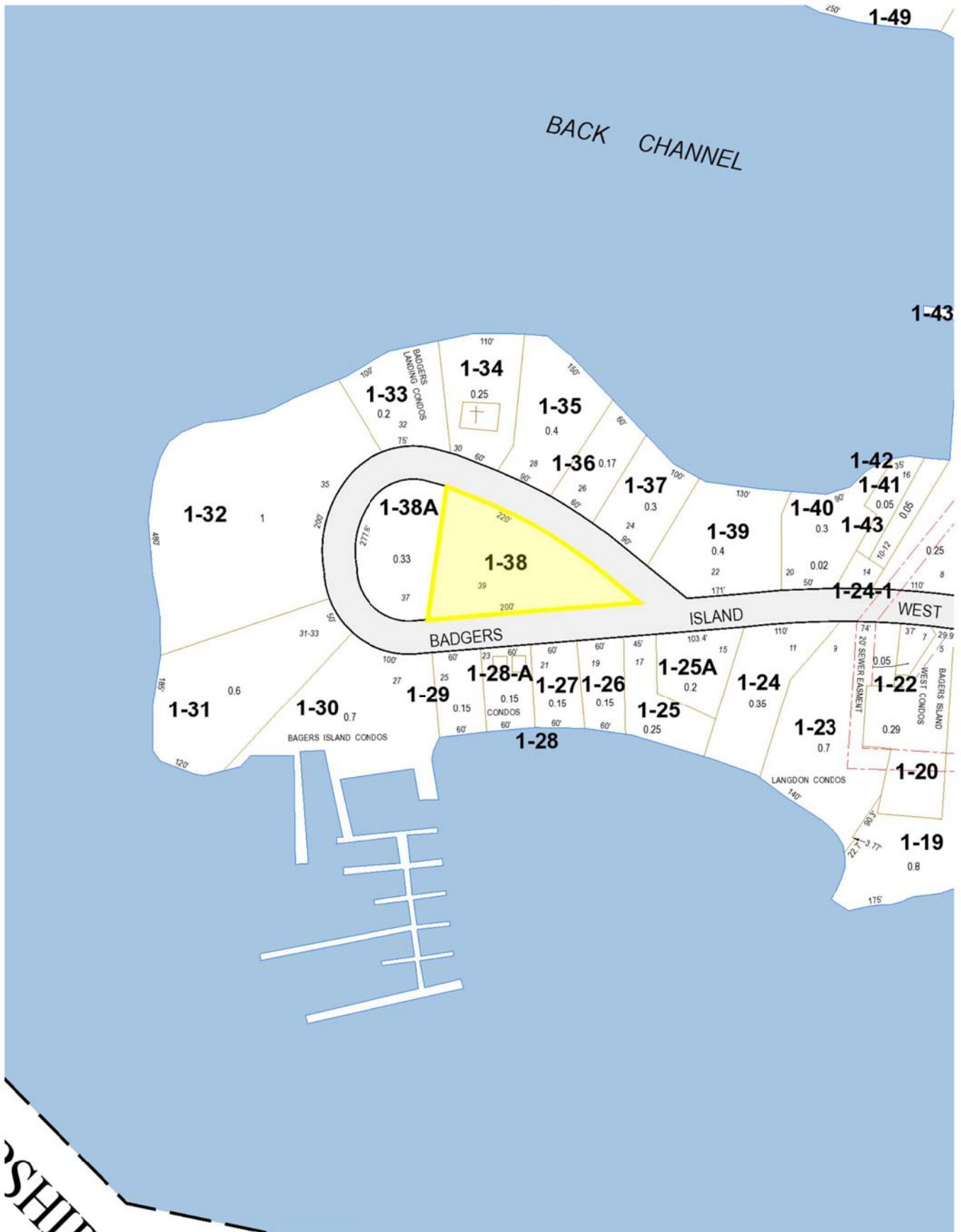
JOB NUMBER: 3430.01
SCALE: 1" = 40'
SUBMITTED: 12-14-2022



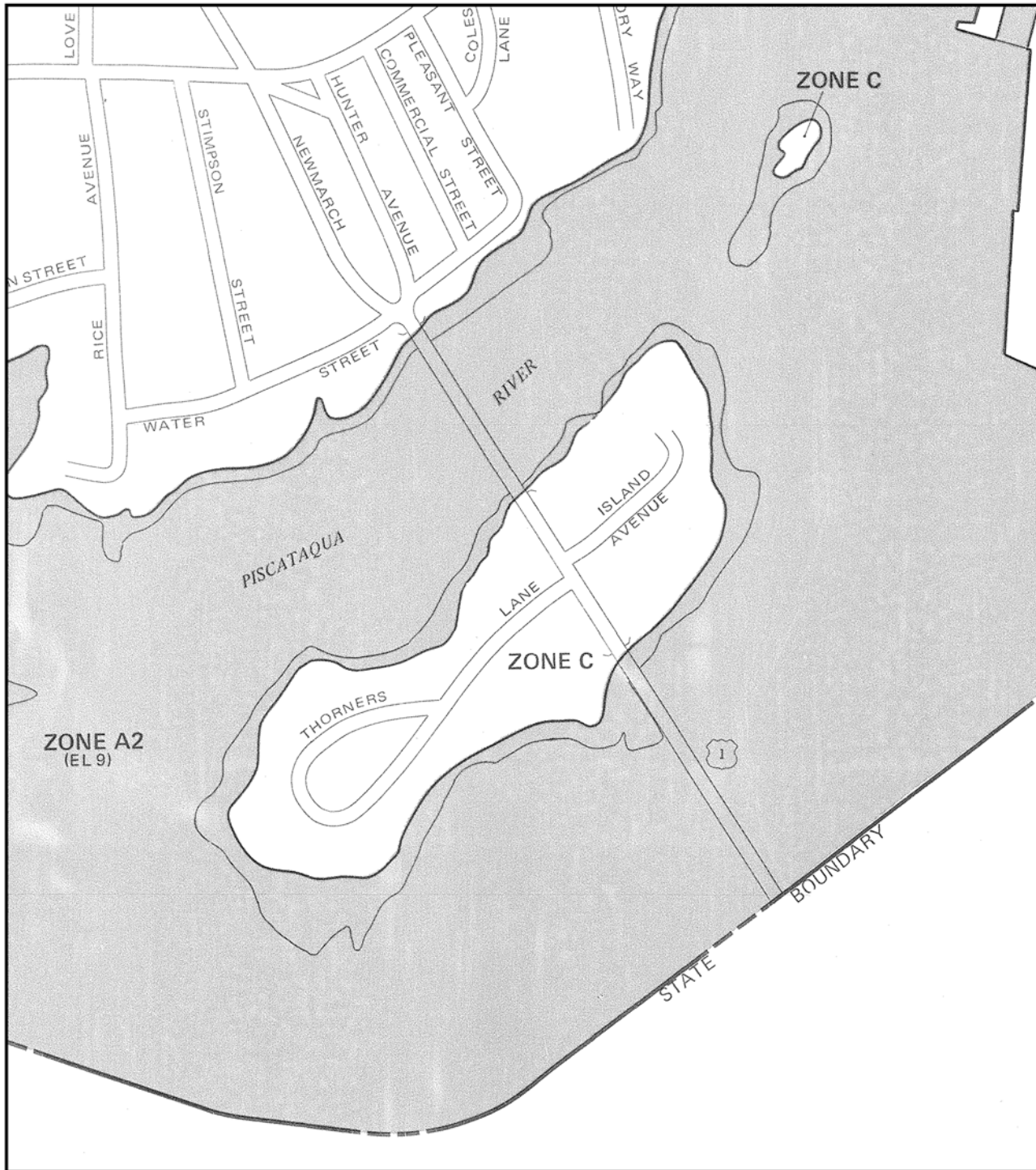
APPENDIX A
VICINITY (TAX) MAP

OTTER CREEK HOMES
39 BADGERS ISLAND WEST
KITTERY, MAINE

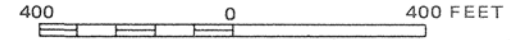
JOB NUMBER: 3430.01
NTS
SUBMITTED: 10-12-2022



APPENDIX B
FEMA FIRM MAP



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
KITTERY, MAINE
YORK COUNTY

PANEL 8 OF 10
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230171 0008 D

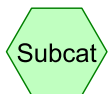
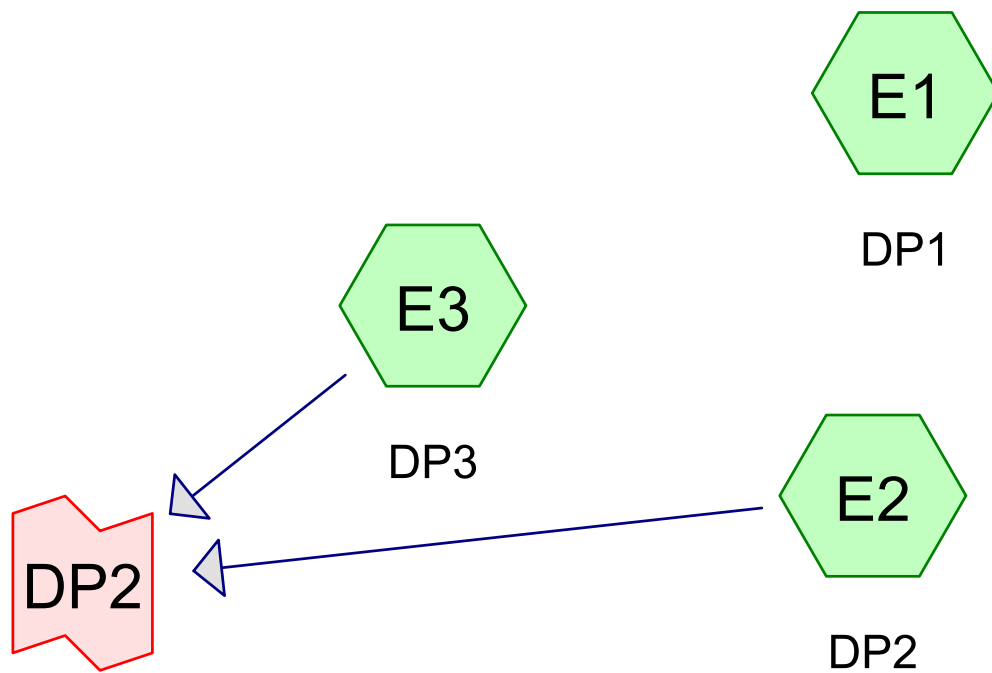
MAP REVISED:
JULY 3, 1986



Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

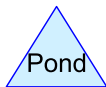
APPENDIX C
HYDROCAD DRAINAGE
ANALYSIS CALCULATIONS



Subcat



Reach



Pond



Link

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Project Notes

Defined 5 rainfall events from output (43) IDF

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type II 24-hr		Default	24.00	1	3.20	2
2	10-yr	Type II 24-hr		Default	24.00	1	4.86	2
3	25-yr	Type II 24-hr		Default	24.00	1	6.16	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.127	80	>75% Grass cover, Good, HSG D (E1, E2, E3)
0.308	98	Paved parking, HSG D (E1, E2, E3)
0.048	98	Roofs, HSG D (E1, E2)
0.483	93	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.483	HSG D	E1, E2, E3
0.000	Other	
0.483		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.127	0.000	0.127	>75% Grass cover, Good	E1, E2, E3
0.000	0.000	0.000	0.308	0.000	0.308	Paved parking	E1, E2, E3
0.000	0.000	0.000	0.048	0.000	0.048	Roofs	E1, E2
0.000	0.000	0.000	0.483	0.000	0.483	TOTAL AREA	

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Type II 24-hr 2-yr Rainfall=3.20"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1

Runoff Area=10,484 sf 77.12% Impervious Runoff Depth>2.39"
Tc=5.0 min CN=94 Runoff=1.02 cfs 0.048 af

Subcatchment E2: DP2

Runoff Area=8,690 sf 68.71% Impervious Runoff Depth>2.20"
Tc=5.0 min CN=92 Runoff=0.80 cfs 0.037 af

Subcatchment E3: DP3

Runoff Area=1,853 sf 76.63% Impervious Runoff Depth>2.39"
Tc=5.0 min CN=94 Runoff=0.18 cfs 0.008 af

Link DP2:

below 1,000.00 cfs Inflow=0.98 cfs 0.045 af
Primary=0.98 cfs 0.045 af Secondary=0.00 cfs 0.000 af

Total Runoff Area = 0.483 ac Runoff Volume = 0.093 af Average Runoff Depth = 2.31"
26.40% Pervious = 0.127 ac 73.60% Impervious = 0.355 ac

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Type II 24-hr 2-yr Rainfall=3.20"

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Summary for Subcatchment E1: DP1

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.02 cfs @ 11.95 hrs, Volume= 0.048 af, Depth> 2.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
2,399	80	>75% Grass cover, Good, HSG D
6,737	98	Paved parking, HSG D
1,348	98	Roofs, HSG D
10,484	94	Weighted Average
2,399		22.88% Pervious Area
8,085		77.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment E2: DP2

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.80 cfs @ 11.95 hrs, Volume= 0.037 af, Depth> 2.20"
Routed to Link DP2 :Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
2,719	80	>75% Grass cover, Good, HSG D
5,247	98	Paved parking, HSG D
724	98	Roofs, HSG D
8,690	92	Weighted Average
2,719		31.29% Pervious Area
5,971		68.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment E3: DP3

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.18 cfs @ 11.95 hrs, Volume= 0.008 af, Depth> 2.39"
Routed to Link DP2 :

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Type II 24-hr 2-yr Rainfall=3.20"

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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
433	80	>75% Grass cover, Good, HSG D
1,420	98	Paved parking, HSG D
1,853	94	Weighted Average
433		23.37% Pervious Area
1,420		76.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Link DP2:

Inflow Area = 0.242 ac, 70.10% Impervious, Inflow Depth > 2.23" for 2-yr event
 Inflow = 0.98 cfs @ 11.95 hrs, Volume= 0.045 af
 Primary = 0.98 cfs @ 11.95 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary outflow = Inflow below 1,000.00 cfs, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-yr Rainfall=4.86"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1

Runoff Area=10,484 sf 77.12% Impervious Runoff Depth>3.90"
Tc=5.0 min CN=94 Runoff=1.62 cfs 0.078 af

Subcatchment E2: DP2

Runoff Area=8,690 sf 68.71% Impervious Runoff Depth>3.71"
Tc=5.0 min CN=92 Runoff=1.30 cfs 0.062 af

Subcatchment E3: DP3

Runoff Area=1,853 sf 76.63% Impervious Runoff Depth>3.90"
Tc=5.0 min CN=94 Runoff=0.29 cfs 0.014 af

Link DP2:

below 1,000.00 cfs Inflow=1.59 cfs 0.075 af
Primary=1.59 cfs 0.075 af Secondary=0.00 cfs 0.000 af

Total Runoff Area = 0.483 ac Runoff Volume = 0.154 af Average Runoff Depth = 3.82"
26.40% Pervious = 0.127 ac 73.60% Impervious = 0.355 ac

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Type II 24-hr 10-yr Rainfall=4.86"

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Summary for Subcatchment E1: DP1

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.62 cfs @ 11.95 hrs, Volume= 0.078 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
2,399	80	>75% Grass cover, Good, HSG D
6,737	98	Paved parking, HSG D
1,348	98	Roofs, HSG D
10,484	94	Weighted Average
2,399		22.88% Pervious Area
8,085		77.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment E2: DP2

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.30 cfs @ 11.95 hrs, Volume= 0.062 af, Depth> 3.71"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
2,719	80	>75% Grass cover, Good, HSG D
5,247	98	Paved parking, HSG D
724	98	Roofs, HSG D
8,690	92	Weighted Average
2,719		31.29% Pervious Area
5,971		68.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment E3: DP3

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.29 cfs @ 11.95 hrs, Volume= 0.014 af, Depth> 3.90"
Routed to Link DP2 :

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Type II 24-hr 10-yr Rainfall=4.86"

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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
433	80	>75% Grass cover, Good, HSG D
1,420	98	Paved parking, HSG D
1,853	94	Weighted Average
433		23.37% Pervious Area
1,420		76.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Link DP2:

Inflow Area = 0.242 ac, 70.10% Impervious, Inflow Depth > 3.74" for 10-yr event
 Inflow = 1.59 cfs @ 11.95 hrs, Volume= 0.075 af
 Primary = 1.59 cfs @ 11.95 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary outflow = Inflow below 1,000.00 cfs, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr 25-yr Rainfall=6.16"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1

Runoff Area=10,484 sf 77.12% Impervious Runoff Depth>5.09"
Tc=5.0 min CN=94 Runoff=2.08 cfs 0.102 af

Subcatchment E2: DP2

Runoff Area=8,690 sf 68.71% Impervious Runoff Depth>4.89"
Tc=5.0 min CN=92 Runoff=1.69 cfs 0.081 af

Subcatchment E3: DP3

Runoff Area=1,853 sf 76.63% Impervious Runoff Depth>5.09"
Tc=5.0 min CN=94 Runoff=0.37 cfs 0.018 af

Link DP2:

below 1,000.00 cfs Inflow=2.06 cfs 0.099 af
Primary=2.06 cfs 0.099 af Secondary=0.00 cfs 0.000 af

Total Runoff Area = 0.483 ac Runoff Volume = 0.201 af Average Runoff Depth = 5.01"
26.40% Pervious = 0.127 ac 73.60% Impervious = 0.355 ac

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Type II 24-hr 25-yr Rainfall=6.16"

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Summary for Subcatchment E1: DP1

[49] Hint: Tc<2dt may require smaller dt

Runoff = 2.08 cfs @ 11.95 hrs, Volume= 0.102 af, Depth> 5.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=6.16"

Area (sf)	CN	Description
2,399	80	>75% Grass cover, Good, HSG D
6,737	98	Paved parking, HSG D
1,348	98	Roofs, HSG D
10,484	94	Weighted Average
2,399		22.88% Pervious Area
8,085		77.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment E2: DP2

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.69 cfs @ 11.95 hrs, Volume= 0.081 af, Depth> 4.89"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=6.16"

Area (sf)	CN	Description
2,719	80	>75% Grass cover, Good, HSG D
5,247	98	Paved parking, HSG D
724	98	Roofs, HSG D
8,690	92	Weighted Average
2,719		31.29% Pervious Area
5,971		68.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment E3: DP3

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.37 cfs @ 11.95 hrs, Volume= 0.018 af, Depth> 5.09"
Routed to Link DP2 :

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Type II 24-hr 25-yr Rainfall=6.16"

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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=6.16"

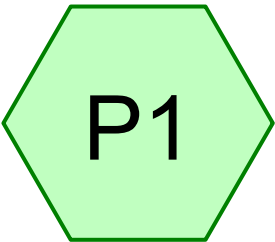
Area (sf)	CN	Description
433	80	>75% Grass cover, Good, HSG D
1,420	98	Paved parking, HSG D
1,853	94	Weighted Average
433		23.37% Pervious Area
1,420		76.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

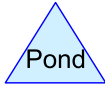
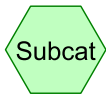
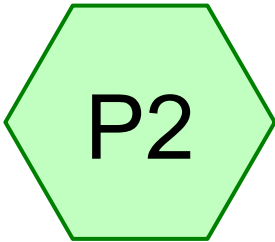
Summary for Link DP2:

Inflow Area = 0.242 ac, 70.10% Impervious, Inflow Depth > 4.93" for 25-yr event
 Inflow = 2.06 cfs @ 11.95 hrs, Volume= 0.099 af
 Primary = 2.06 cfs @ 11.95 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary outflow = Inflow below 1,000.00 cfs, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



DP1



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Project Notes

Defined 5 rainfall events from output (43) IDF

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type II 24-hr		Default	24.00	1	3.20	2
2	10-yr	Type II 24-hr		Default	24.00	1	4.86	2
3	25-yr	Type II 24-hr		Default	24.00	1	6.16	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.270	80	>75% Grass cover, Good, HSG D (P1, P2)
0.119	98	Paved parking, HSG D (P1, P2)
0.093	98	Roofs, HSG D (P1, P2)
0.483	88	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.483	HSG D	P1, P2
0.000	Other	
0.483		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.270	0.000	0.270	>75% Grass cover, Good	P1, P2
0.000	0.000	0.000	0.119	0.000	0.119	Paved parking	P1, P2
0.000	0.000	0.000	0.093	0.000	0.093	Roofs	P1, P2
0.000	0.000	0.000	0.483	0.000	0.483	TOTAL AREA	

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Type II 24-hr 2-yr Rainfall=3.20"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1

Runoff Area=11,185 sf 37.61% Impervious Runoff Depth>1.78"
Tc=5.0 min CN=87 Runoff=0.87 cfs 0.038 af

Subcatchment P2:

Runoff Area=9,841 sf 51.18% Impervious Runoff Depth>1.94"
Tc=5.0 min CN=89 Runoff=0.82 cfs 0.037 af

Link DP2:

below 1,000.00 cfs Inflow=0.82 cfs 0.037 af
Primary=0.82 cfs 0.037 af Secondary=0.00 cfs 0.000 af

Total Runoff Area = 0.483 ac Runoff Volume = 0.075 af Average Runoff Depth = 1.85"
56.04% Pervious = 0.270 ac 43.96% Impervious = 0.212 ac

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Type II 24-hr 2-yr Rainfall=3.20"

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Summary for Subcatchment P1: DP1

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.87 cfs @ 11.96 hrs, Volume= 0.038 af, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
6,978	80	>75% Grass cover, Good, HSG D
1,413	98	Roofs, HSG D
2,794	98	Paved parking, HSG D
11,185	87	Weighted Average
6,978		62.39% Pervious Area
4,207		37.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment P2:

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.82 cfs @ 11.95 hrs, Volume= 0.037 af, Depth> 1.94"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
4,804	80	>75% Grass cover, Good, HSG D
2,655	98	Roofs, HSG D
2,382	98	Paved parking, HSG D
9,841	89	Weighted Average
4,804		48.82% Pervious Area
5,037		51.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Link DP2:

Inflow Area = 0.226 ac, 51.18% Impervious, Inflow Depth > 1.94" for 2-yr event
 Inflow = 0.82 cfs @ 11.95 hrs, Volume= 0.037 af
 Primary = 0.82 cfs @ 11.95 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary outflow = Inflow below 1,000.00 cfs, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-yr Rainfall=4.86"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1

Runoff Area=11,185 sf 37.61% Impervious Runoff Depth>3.21"
Tc=5.0 min CN=87 Runoff=1.52 cfs 0.069 af

Subcatchment P2:

Runoff Area=9,841 sf 51.18% Impervious Runoff Depth>3.41"
Tc=5.0 min CN=89 Runoff=1.40 cfs 0.064 af

Link DP2:

below 1,000.00 cfs Inflow=1.40 cfs 0.064 af
Primary=1.40 cfs 0.064 af Secondary=0.00 cfs 0.000 af

Total Runoff Area = 0.483 ac Runoff Volume = 0.133 af Average Runoff Depth = 3.31"
56.04% Pervious = 0.270 ac 43.96% Impervious = 0.212 ac

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Type II 24-hr 10-yr Rainfall=4.86"

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Summary for Subcatchment P1: DP1

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.52 cfs @ 11.95 hrs, Volume= 0.069 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
6,978	80	>75% Grass cover, Good, HSG D
1,413	98	Roofs, HSG D
2,794	98	Paved parking, HSG D
11,185	87	Weighted Average
6,978		62.39% Pervious Area
4,207		37.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment P2:

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.40 cfs @ 11.95 hrs, Volume= 0.064 af, Depth> 3.41"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
4,804	80	>75% Grass cover, Good, HSG D
2,655	98	Roofs, HSG D
2,382	98	Paved parking, HSG D
9,841	89	Weighted Average
4,804		48.82% Pervious Area
5,037		51.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Link DP2:

Inflow Area = 0.226 ac, 51.18% Impervious, Inflow Depth > 3.41" for 10-yr event
 Inflow = 1.40 cfs @ 11.95 hrs, Volume= 0.064 af
 Primary = 1.40 cfs @ 11.95 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary outflow = Inflow below 1,000.00 cfs, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr 25-yr Rainfall=6.16"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1

Runoff Area=11,185 sf 37.61% Impervious Runoff Depth>4.38"
Tc=5.0 min CN=87 Runoff=2.03 cfs 0.094 af

Subcatchment P2:

Runoff Area=9,841 sf 51.18% Impervious Runoff Depth>4.59"
Tc=5.0 min CN=89 Runoff=1.84 cfs 0.086 af

Link DP2:

below 1,000.00 cfs Inflow=1.84 cfs 0.086 af
Primary=1.84 cfs 0.086 af Secondary=0.00 cfs 0.000 af

Total Runoff Area = 0.483 ac Runoff Volume = 0.180 af Average Runoff Depth = 4.48"
56.04% Pervious = 0.270 ac 43.96% Impervious = 0.212 ac

Proposed Conditions David T

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Type II 24-hr 25-yr Rainfall=6.16"

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Summary for Subcatchment P1: DP1

[49] Hint: Tc<2dt may require smaller dt

Runoff = 2.03 cfs @ 11.95 hrs, Volume= 0.094 af, Depth> 4.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=6.16"

Area (sf)	CN	Description
6,978	80	>75% Grass cover, Good, HSG D
1,413	98	Roofs, HSG D
2,794	98	Paved parking, HSG D
11,185	87	Weighted Average
6,978		62.39% Pervious Area
4,207		37.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment P2:

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.84 cfs @ 11.95 hrs, Volume= 0.086 af, Depth> 4.59"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=6.16"

Area (sf)	CN	Description
4,804	80	>75% Grass cover, Good, HSG D
2,655	98	Roofs, HSG D
2,382	98	Paved parking, HSG D
9,841	89	Weighted Average
4,804		48.82% Pervious Area
5,037		51.18% Impervious Area

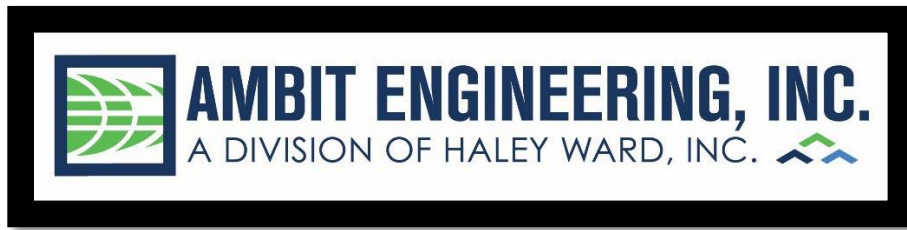
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Link DP2:

Inflow Area = 0.226 ac, 51.18% Impervious, Inflow Depth > 4.59" for 25-yr event
 Inflow = 1.84 cfs @ 11.95 hrs, Volume= 0.086 af
 Primary = 1.84 cfs @ 11.95 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary outflow = Inflow below 1,000.00 cfs, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

APPENDIX D
INSPECTION & LONG TERM
MAINTENANCE PLAN



***INSPECTION & LONG-TERM MAINTENANCE PLAN
FOR
SITE REDEVELOPMENT***

**39 BADGERS ISLAND WEST
KITTERY, ME**

Introduction

The intent of this plan is to provide Otter Creek Homes (herein referred to as “owner”) with a list of procedures that document the inspection and maintenance requirements of the stormwater management system for this development. Specifically, the proposed construction drainage (collectively referred to as the “Stormwater Management System”). The contact information for the owner shall be kept current, and if there is a change of ownership of the property this plan must be transferred to the new owner.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly and will help in maintaining a high quality of stormwater runoff to minimize potential environmental impacts. By following the enclosed procedures, the owner will be able to maintain the functional design of the stormwater management system and maximize its ability to remove sediment and other contaminants from site generated stormwater runoff.

Annual Report

The owner shall prepare an annual Inspection & Maintenance Report. The report shall include a summary of the system’s maintenance and repair by transmission of the Inspection & Maintenance Log and other information as required. A copy of the report shall be delivered annually to the Kittery Code Enforcement Officer, if required.

Inspection & Maintenance Checklist/Log

The following pages contain the Stormwater Management System Inspection & Maintenance Requirements and a blank copy of the Stormwater Management System Inspection & Maintenance Log. These forms are provided to the owner as a guideline for performing the inspection and maintenance of the Stormwater Management System. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

Stormwater Management System Components

The Stormwater Management System is designed to mitigate the quality of site-generated stormwater runoff. As a result, the design includes the following elements:

Non-Structural BMPs

Non-Structural best management practices (BMP's) include temporary and permanent measures that typically require less labor and capital inputs and are intended to provide protection against erosion of soils. Examples of non-structural BMP's on this project include but are not limited to:

- Temporary and Permanent mulching
- Temporary and Permanent grass cover
- Trees
- Shrubs and ground covers
- Miscellaneous landscape plantings
- Dust control
- Tree protection
- Topsoiling
- Sediment barriers
- Stabilized construction entrance
- Catch basin basket

Inspection and Maintenance Requirements

The following summarizes the inspection and maintenance requirements for the various BMP's that may be found on this project.

1. **Grassed areas (until established):** After each rain event of 0.5" or more during a 24-hour period, inspect grassed areas for signs of disturbance, such as erosion. If damaged areas are discovered, immediately repair the damage. Repairs may include adding new topsoil, lime, seed, fertilizer and mulch.
2. **Plantings:** Planting and landscaping (trees, shrubs) shall be monitored bi-monthly during the first year to insure viability and vigorous growth. Replace dead or dying vegetation with new stock and make adjustments to the conditions that caused the dead or dying vegetation. During dryer times of the year, provide weekly watering or irrigation during the establishment period of the first year. Make the necessary adjustments to ensure long-term health of the vegetated covers, i.e. provide more permanent mulch or compost or other means of protection.

Pollution Prevention

The following pollution prevention activities shall be undertaken to minimize potential impacts on stormwater runoff quality. The Contractor is responsible for all activities during construction. The Owner is responsible thereafter.

Spill Procedures

Any discharge of waste oil or other pollutant shall be reported immediately to the Maine Department of Environmental Protection (Maine DEP). The Contractor/Owner will be responsible for any incident of groundwater contamination resulting from the improper discharge of pollutants to the stormwater system, and may be required by Maine DEP to remediate incidents that may impact groundwater quality. If the property ownership is transferred, the new owner will be informed of the legal responsibilities associated with operation of the stormwater system, as indicated above.

Sanitary Facilities

Sanitary facilities shall be provided during all phases of construction.

Material Storage

No on site trash facility is provided until homes are constructed. The contractors are required to remove trash from the site. Hazardous material storage is prohibited.

Material Disposal

All waste material, trash, sediment, and debris shall be removed from the site and disposed of in accordance with applicable local, state, and federal guidelines and regulations. Removed sediments shall be if necessary dewatered prior to disposal.

Invasive Species

Monitor the Stormwater Management System for signs of invasive species growth. If caught early, their eradication is much easier. The most likely places where invasions start is in wetter, disturbed soils or detention ponds. Species such as phragmites and purple loose-strife are common invaders in these wetter areas. If they are found, the owner shall refer to the Invasive Plants List created by the Maine Department of Agriculture, Conservation & Forestry or contact a wetlands scientist with experience in invasive species control to implement a plan of action for eradication. Measures that do not require the application of chemical herbicides should be the first line of defense.



Figure 1: *Lythrum salicaria*, Purple Loosestrife. Photo by Liz West.

Figure 2: *Phragmites australis*. Photo by Le Loup Gris

CATCH BASIN BASKET CONSTRUCTION MAINTENANCE SHEET

INSPECTION REQUIREMENTS		
ACTION TAKEN	FREQUENCY	MAINTENANCE REQUIREMENTS
-Check for damage to basket -Remove sediment from basket	Within 24 hours of rainfall, Daily during extended rainfall	<i>-Repair basket as necessary to prevent particles from reaching drainage system, or to prevent flooding.</i> <i>-Empty basket after every storm, or if clogged.</i>

MAINTENANCE LOG	
PROJECT NAME	
INSPECTOR NAME	INSPECTOR CONTACT INFO
DATE OF INSPECTION	REASON FOR INSPECTION <input type="checkbox"/> LARGE STORM EVENT <input type="checkbox"/> PERIODIC CHECK-IN
IS CORRECTIVE ACTION NEEDED? <input type="checkbox"/> YES <input type="checkbox"/> NO	DESCRIBE ANY PROBLEMS, NEEDED MAINTENANCE
DATE OF MAINTENANCE	PERFORMED BY
NOTES	

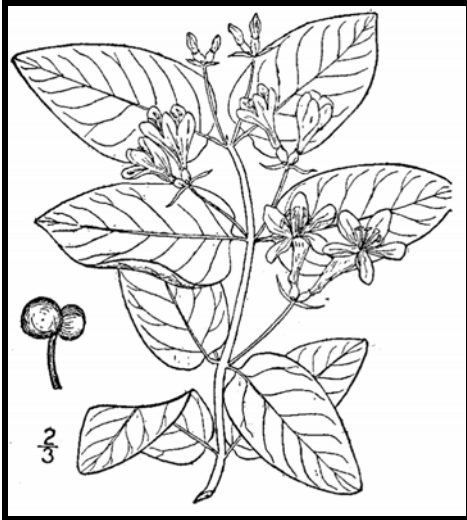
STABILIZED CONSTRUCTION ENTRANCE CONSTRUCTION MAINTENANCE SHEET

INSPECTION REQUIREMENTS		
ACTION TAKEN	FREQUENCY	MAINTENANCE REQUIREMENTS
ENTRANCE SURFACE <i>-Check for sediment accumulation/clogging of stone</i> <i>-Check Vegetative filter strips</i>	After heavy rains, as necessary	<i>-Top dress pad with new stone.</i> <i>-Replace stone completely if completely clogged.</i> <i>-Maintain vigorous stand of vegetation.</i>
WASHING FACILITIES (if applicable) <i>-Monitor Sediment Accumulation</i>	As often as necessary	<i>-Remove Sediments from traps.</i>

MAINTENANCE LOG	
PROJECT NAME	
INSPECTOR NAME	INSPECTOR CONTACT INFO
DATE OF INSPECTION	REASON FOR INSPECTION <input type="checkbox"/> LARGE STORM EVENT <input type="checkbox"/> PERIODIC CHECK-IN
IS CORRECTIVE ACTION NEEDED? <input type="checkbox"/> YES <input type="checkbox"/> NO	DESCRIBE ANY PROBLEMS, NEEDED MAINTENANCE
DATE OF MAINTENANCE	PERFORMED BY
NOTES	

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



Tatarian honeysuckle
Lonicera tatarica

USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine

the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag “head first” at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.

Bagging (solarization): Use this technique with softer-tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.






Japanese knotweed
Polygonum cuspidatum
USDA-NRCS PLANTS Database /
Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 676.

Be diligent looking for seedlings for *years* in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

Woody Plants	Method of Reproducing	Methods of Disposal
Norway maple <i>(Acer platanoides)</i> European barberry <i>(Berberis vulgaris)</i> Japanese barberry <i>(Berberis thunbergii)</i> autumn olive <i>(Elaeagnus umbellata)</i> burning bush <i>(Euonymus alatus)</i> Morrow's honeysuckle <i>(Lonicera morrowii)</i> Tatarian honeysuckle <i>(Lonicera tatarica)</i> showy bush honeysuckle <i>(Lonicera x bella)</i> common buckthorn <i>(Rhamnus cathartica)</i> glossy buckthorn <i>(Frangula alnus)</i>		<p>Prior to fruit/seed ripening</p> <p>Seedlings and small plants</p> <ul style="list-style-type: none"> ▪ Pull or cut and leave on site with roots exposed. No special care needed. <p>Larger plants</p> <ul style="list-style-type: none"> ▪ Use as firewood. ▪ Make a brush pile. ▪ Chip. ▪ Burn.
		<p>After fruit/seed is ripe</p> <p>Don't remove from site.</p> <ul style="list-style-type: none"> ▪ Burn. ▪ Make a covered brush pile. ▪ Chip once all fruit has dropped from branches. ▪ Leave resulting chips on site and monitor.
oriental bittersweet <i>(Celastrus orbiculatus)</i> multiflora rose <i>(Rosa multiflora)</i>		<p>Prior to fruit/seed ripening</p> <p>Seedlings and small plants</p> <ul style="list-style-type: none"> ▪ Pull or cut and leave on site with roots exposed. No special care needed. <p>Larger plants</p> <ul style="list-style-type: none"> ▪ Make a brush pile. ▪ Burn.
		<p>After fruit/seed is ripe</p> <p>Don't remove from site.</p> <ul style="list-style-type: none"> ▪ Burn. ▪ Make a covered brush pile. ▪ Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.

Non-Woody Plants	Method of Reproducing	Methods of Disposal
<p>garlic mustard (<i>Alliaria petiolata</i>)</p> <p>spotted knapweed (<i>Centaurea maculosa</i>)</p> <ul style="list-style-type: none"> ▪ Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling. <p>black swallow-wort (<i>Cynanchum nigrum</i>)</p> <ul style="list-style-type: none"> ▪ May cause skin rash. Wear gloves and long sleeves when handling. <p>pale swallow-wort (<i>Cynanchum rossicum</i>)</p> <p>giant hogweed (<i>Heracleum mantegazzianum</i>)</p> <ul style="list-style-type: none"> ▪ Can cause major skin rash. Wear gloves and long sleeves when handling. <p>dame's rocket (<i>Hesperis matronalis</i>)</p> <p>perennial pepperweed (<i>Lepidium latifolium</i>)</p> <p>purple loosestrife (<i>Lythrum salicaria</i>)</p> <p>Japanese stilt grass (<i>Microstegium vimineum</i>)</p> <p>mile-a-minute weed (<i>Polygonum perfoliatum</i>)</p>	<p>Fruits and Seeds</p> 	<p>Prior to flowering Depends on scale of infestation</p> <p>Small infestation</p> <ul style="list-style-type: none"> ▪ Pull or cut plant and leave on site with roots exposed. <p>Large infestation</p> <ul style="list-style-type: none"> ▪ Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting). ▪ Monitor. Remove any re-sprouting material. <hr/> <p>During and following flowering Do nothing until the following year or remove flowering heads and bag and let rot.</p> <p>Small infestation</p> <ul style="list-style-type: none"> ▪ Pull or cut plant and leave on site with roots exposed. <p>Large infestation</p> <ul style="list-style-type: none"> ▪ Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting). ▪ Monitor. Remove any re-sprouting material.
<p>common reed (<i>Phragmites australis</i>)</p> <p>Japanese knotweed (<i>Polygonum cuspidatum</i>)</p> <p>Bohemian knotweed (<i>Polygonum x bohemicum</i>)</p>	<p>Fruits, Seeds, Plant Fragments Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn't materially influence disposal activities.</p>	<p>Small infestation</p> <ul style="list-style-type: none"> ▪ Bag all plant material and let rot. ▪ Never pile and use resulting material as compost. ▪ Burn. <p>Large infestation</p> <ul style="list-style-type: none"> ▪ Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile. ▪ Monitor and remove any sprouting material. ▪ Pile, let dry, and burn.

January 2010

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Maine Advisory List of Invasive Plants - 2019 revision

Common Name	Scientific Name	Ranking
American water lotus	<i>Nelumbo lutea</i>	Severely invasive
Amur honeysuckle*	<i>Lonicera maackii</i>	Severely invasive
Asiatic bittersweet*	<i>Celastrus orbiculatus</i>	Severely invasive
Bella honeysuckle*	<i>Lonicera x bella</i>	Severely invasive
Black locust*	<i>Robinia pseudoaccacia</i>	Severely invasive
Black swallowwort	<i>Cynanchum louiseae</i>	Severely invasive
Bohemian knotweed	<i>Fallopia x bohemica</i>	Severely invasive
Brazilian waterweed**	<i>Egeria densa</i>	Severely invasive
Canada thistle	<i>Cirsium arvense</i>	Severely invasive
Chinese yam	<i>Dioscorea polystachya</i>	Severely invasive
Chocolate vine; five-leaf akebia	<i>Akebia quinata</i>	Severely invasive
Common buckthorn	<i>Rhamnus cathartica</i>	Severely invasive
Common reed	<i>Phragmites australis</i>	Severely invasive
Curly pondweed**	<i>Potamogeton crispus</i>	Severely invasive
Eurasian milfoil**	<i>Myriophyllum spicatum</i>	Severely invasive
European alder	<i>Alnus glutinosa</i>	Severely invasive
European frog's bit**	<i>Hydrocharis morsus-ranae</i>	Severely invasive
False indigo*	<i>Amorpha fruticosa</i>	Severely invasive
Fanwort**	<i>Cabomba caroliniana</i>	Severely invasive
Flowering rush	<i>Butomus umbellatus</i>	Severely invasive
Garlic mustard*	<i>Alliaria petiolata</i>	Severely invasive
Giant knotweed	<i>Fallopia sachalinensis</i>	Severely invasive
Glossy buckthorn*	<i>Frangula alnus</i>	Severely invasive
Goutweed*	<i>Aegopodium podagraria</i>	Severely invasive
Hydrilla**	<i>Hydrilla verticillata</i>	Severely invasive
Inflated bladderwort	<i>Utricularia inflata</i>	Severely invasive
Japanese barberry*	<i>Berberis thunbergii</i>	Severely invasive
Japanese honeysuckle*	<i>Lonicera japonica</i>	Severely invasive
Japanese knotweed*	<i>Fallopia japonica</i>	Severely invasive
Japanese stilt grass*	<i>Microstegium vimineum</i>	Severely invasive
Morrow's honeysuckle*	<i>Lonicera morrowii</i>	Severely invasive
Ornamental jewelweed*	<i>Impatiens glandulifera</i>	Severely invasive
Pale swallowwort	<i>Cynanchum rossicum</i>	Severely invasive
Parrot feather**	<i>Myriophyllum aquaticum</i>	Severely invasive
Porcelainberry*	<i>Ampelopsis glandulosa</i>	Severely invasive
Reed canary grass	<i>Phalaris arundinacea</i>	Severely invasive
Slender-leaved naiad**	<i>Najas minor</i>	Severely invasive
Starry stonewort	<i>Nitellopsis obtusa</i>	Severely invasive
Starwort	<i>Callitriche stagnalis</i>	Severely invasive
Tall pepperwort	<i>Lepidium latifolium</i>	Severely invasive
Tartarian honeysuckle*	<i>Lonicera tatarica</i>	Severely invasive
Tree of heaven*	<i>Ailanthus altissima</i>	Severely invasive
Variable milfoil**	<i>Myriophyllum heterophyllum</i>	Severely invasive
Water chestnut**	<i>Trapa natans</i>	Severely invasive
Water lettuce	<i>Pistia stratiotes</i>	Severely invasive

*Plant regulated by the Do Not Sell list, Horticulture Program, DACF

**Aquatic plant regulated by Maine DEP

Maine Advisory List of Invasive Plants - 2019 revision

Common Name	Scientific Name	Ranking
Water soldier	<i>Stratiotes aloides</i>	Severely invasive
Wavyleaf basketgrass	<i>Oplismenus hirtellus ssp. undulatifolius</i>	Severely invasive
White cottonwood*	<i>Populus alba</i>	Severely invasive
Wineberry	<i>Rubus phoenicolasias</i>	Severely invasive
Winged euonymous*	<i>Euonymus alatus</i>	Severely invasive
Yellow floating heart**	<i>Nymphoides peltata</i>	Severely invasive
Yellow iris*	<i>Iris pseudacorus</i>	Severely invasive
Amur cork tree*	<i>Phellodendron amurense</i>	Very invasive
Amur maple*	<i>Acer ginnala</i>	Very invasive
Autumn olive*	<i>Elaeagnus umbellata</i>	Very invasive
Black jetbead	<i>Rhodotypos scandens</i>	Very invasive
Border privet	<i>Ligustrum obtusifolium</i>	Very invasive
California privet	<i>Ligustrum ovalifolium</i>	Very invasive
Callery ("Bradford") pear	<i>Pyrus calleryana</i>	Very invasive
Common barberry*	<i>Berberis vulgaris</i>	Very invasive
Creeping buttercup	<i>Ranunculus repens</i>	Very invasive
Dame's rocket*	<i>Hesperis matronalis</i>	Very invasive
English water grass	<i>Glyceria maxima</i>	Very invasive
European blackberry	<i>Rubus fruticosus</i>	Very invasive
Giant hogweed	<i>Heracleum mantegazzianum</i>	Very invasive
Hairy willow-herb	<i>Epilobium hirsutum</i>	Very invasive
Hardy kiwi	<i>Actinidia arguta</i>	Very invasive
Japanese hops	<i>Humulus japonicus</i>	Very invasive
Kudzu	<i>Pueraria lobata</i>	Very invasive
Leafy spurge	<i>Euphorbia esula</i>	Very invasive
Lesser celandine	<i>Ficaria verna</i>	Very invasive
Linden arrowwood	<i>Viburnum dilatatum</i>	Very invasive
Mile-a-minute vine*	<i>Persicaria perfoliata</i>	Very invasive
Multiflora rose*	<i>Rosa multiflora</i>	Very invasive
Narrowleaf bittercress	<i>Cardamine impatiens</i>	Very invasive
Norway maple*	<i>Acer platanoides</i>	Very invasive
Oriental photinia	<i>Photinia villosa</i>	Very invasive
Privet*	<i>Ligustrum vulgare</i>	Very invasive
Purple loosestrife*	<i>Lythrum salicaria</i>	Very invasive
Rugosa rose	<i>Rosa rugosa</i>	Very invasive
Water forget-me-not	<i>Myosotis scorpioides</i>	Very invasive
Wintercreeper	<i>Euonymus fortunei</i>	Very invasive
Yam-leaved virgin's bower	<i>Clematis terniflora</i>	Very invasive
Bicolor lespedeza, two-colored bush-clover	<i>Lespedeza bicolor</i>	Invasive, habitat-specific threats
Brown knapweed	<i>Centaurea jacea</i>	Invasive, habitat-specific threats
Chinese bindweed*	<i>Fallopia baldschuanica</i>	Invasive, habitat-specific threats
Chinese bush-clover	<i>Lespedeza cuneata</i>	Invasive, habitat-specific threats
Coltsfoot	<i>Tussilago farfara</i>	Invasive, habitat-specific threats

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**Aquatic plant regulated by Maine DEP

Maine Advisory List of Invasive Plants - 2019 revision

Common Name	Scientific Name	Ranking
Dalmation toadflax	<i>Linaria dalmatica</i>	Invasive, habitat-specific threats
February daphne; paradise plant	<i>Daphne mezereum</i>	Invasive, habitat-specific threats
Fine-leaved sheep fescue	<i>Festuca filiformis</i>	Invasive, habitat-specific threats
Gray willow	<i>Salix cinerea</i>	Invasive, habitat-specific threats
Japanese tree lilac	<i>Syringa reticulata</i>	Invasive, habitat-specific threats
Mudmat	<i>Glossostigma cleistanthum</i>	Invasive, habitat-specific threats
One-rowed watercress	<i>Nasturtium microphyllum</i>	Invasive, habitat-specific threats
Oriental lady's thumb smartweed	<i>Persicaria longiseta</i>	Invasive, habitat-specific threats
Russian olive	<i>Elaeagnus angustifolia</i>	Invasive, habitat-specific threats
Siberian elm	<i>Ulmus pumila</i>	Invasive, habitat-specific threats
Siebold viburnum	<i>Viburnum sieboldii</i>	Invasive, habitat-specific threats
Spotted knapweed	<i>Centaurea stoebe</i>	Invasive, habitat-specific threats
Watercress	<i>Nasturtium officinale</i>	Invasive, habitat-specific threats
Wood blue grass	<i>Poa nemoralis</i>	Invasive, habitat-specific threats
Woodland angelica	<i>Angelica sylvestris</i>	Invasive, habitat-specific threats
Bittersweet or climbing nightshade	<i>Solanum dulcamara</i>	Potential to be invasive, monitor
Bull thistle	<i>Cirsium vulgare</i>	Potential to be invasive, monitor
Common mugwort*	<i>Artemisia vulgaris</i>	Potential to be invasive, monitor
Common valerian	<i>Valeriana officinalis</i>	Potential to be invasive, monitor
Creeping jenny	<i>Lysimachia nummularia</i>	Potential to be invasive, monitor
Cypress spurge*	<i>Euphorbia cyparissias</i>	Potential to be invasive, monitor
Princess tree*	<i>Paulownia tomentosa</i>	Potential to be invasive, monitor
Small carpgrass	<i>Arthraxon hispidus</i>	Potential to be invasive, monitor
Sycamore maple	<i>Acer pseudoplatanus</i>	Potential to be invasive, monitor
Western lupine	<i>Lupinus polyphyllus</i>	Potential to be invasive, monitor
Wild parsnip	<i>Pastinaca sativa</i>	Potential to be invasive, monitor
Yellow hornpoppy	<i>Glaucium flavum</i>	Potential to be invasive, monitor

Also evaluated in 2018; not meeting criteria for inclusion as invasive:

Common Name	Scientific Name	Outcome
Canada bluegrass, flat-stemmed bluegrass	<i>Poa compressa</i>	Not invasive at this time
Wild thyme	<i>Thymus pulegioides</i>	Not invasive at this time
European spindle-tree	<i>Euonymus europaeus</i>	Insufficient data to evaluate
False spiraea	<i>Sorbaria sorbifolia</i>	Insufficient data to evaluate
Fly honeysuckle	<i>Lonicera xylosteum</i>	Insufficient data to evaluate
Great watercress, great yellow-cress	<i>Rorippa amphibia</i>	Insufficient data to evaluate
Japanese fuki	<i>Petasites japonicus</i>	Insufficient data to evaluate
Wall lettuce	<i>Mycelis muralis</i>	Insufficient data to evaluate

*Plant regulated by the Do Not Sell list, Horticulture Program, DACF

**Aquatic plant regulated by Maine DEP

Site Photograph #1

October 2022



Site Photograph #2

October 2022



Site Photograph #3

October 2022



Site Photograph #4

October 2022



Site Photograph #5

October 2022



Site Photograph #6

October 2022





United States
Department of
Agriculture

NRCS

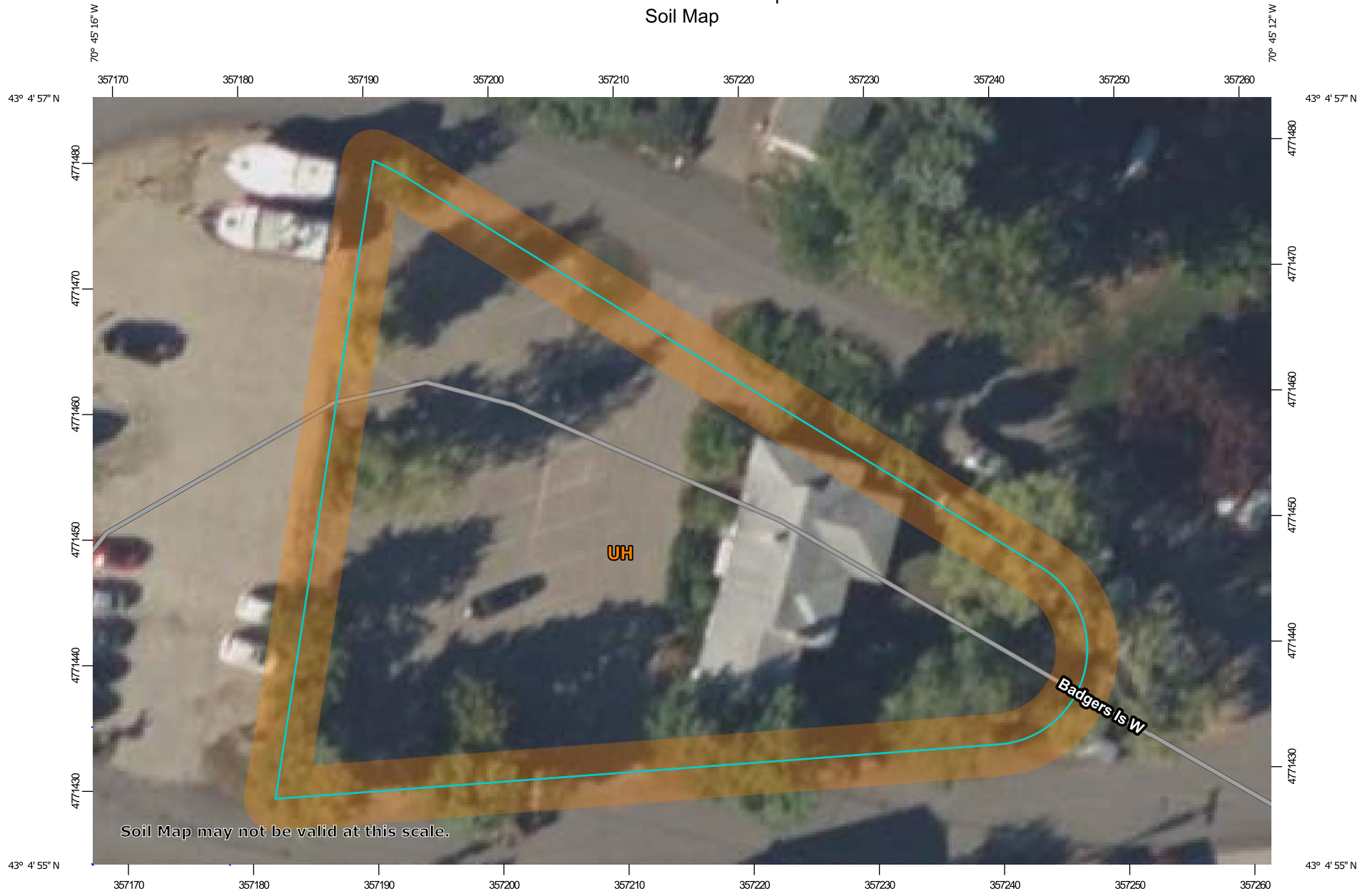
Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

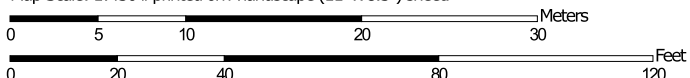
Custom Soil Resource Report for York County, Maine



Custom Soil Resource Report Soil Map




Map Scale: 1:430 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill


 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other


 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine
 Survey Area Data: Version 21, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UH	Urban land-Hooksan complex, 0 to 8 percent slopes	0.5	100.0%
Totals for Area of Interest		0.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

York County, Maine

UH—Urban land-Hooksan complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2x111
Elevation: 0 to 50 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land, coastal: 50 percent
Hooksan and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land, Coastal

Setting

Landform: Dunes
Down-slope shape: Linear
Across-slope shape: Linear

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Frequency of flooding: Rare
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Description of Hooksan

Setting

Landform: Dunes
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Side slope, base slope, crest
Down-slope shape: Convex
Across-slope shape: Convex, linear
Parent material: Sandy eolian deposits

Typical profile

C1 - 0 to 20 inches: sand
C2 - 20 to 30 inches: sand
C3 - 30 to 64 inches: sand

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Very high (14.17 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: R149BY002MA - Coastal Dunes

Hydric soil rating: No

UCI-30131

Cinati Type I, II, III & IV Surface



Construction

Aluminum

Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUC Rating

B2 - U0 - G0

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes

The inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process

After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

Added Benefits

- Resistance to salt-acid room, accelerated aging
- Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Super durable (UV resistant)
- TGIC free (non-toxic)

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

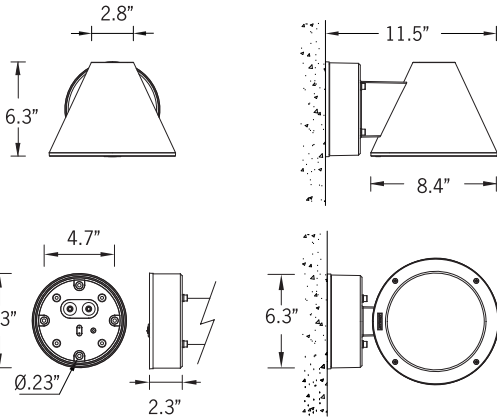
Cone-shaped wall-mounted downlight fixtures. Simple clean form hiding multiple high-performance glare free optic choices.

A cone shaped wall wash luminaire. Suitable for outdoor up, or down light applications. This luminaire is provided with precision optics and high powered LEDs, to provide narrow, medium, wide and very wide distributions. The vandal resistant tempered glass is available in clear or lightly frosted versions.

This product is suitable for commercial, as well as residential applications and with the selection of optics available can provide an excellent lighting solution. Integral electronic driver. Fixture is mounted over a 3" octagonal junction box. **For Type I,II, III & IV, please see UCI-30131**

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected and luminaire fix mounted (+/- 15° allowable to permit leveling).

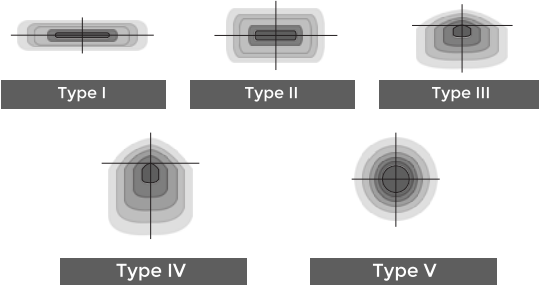
18w LED 2309 Lumens | 30w LED 3848 Lumens
IP65 • Suitable For Wet Locations
IK08 • Impact Resistant (Vandal Resistant)
Weight 8 lbs



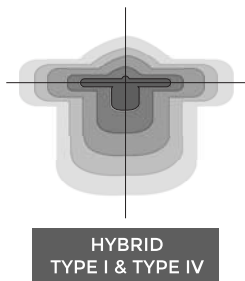
Mounting Detail



Ligman's micro Variable Optical System provides the ability to interchange, mix & rotate optics to provide specific light distributions for optimized spacing and uniformity.



The variable optic system allows for the designer to create hybrid distributions for precise lighting requirements.



Additional Options (Consult Factory For Pricing)



SCDT
Surface Conduit Decorative Trim



UCI-30131

Cinati Type I, II, III & IV Surface



PROJECT		DATE	
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QUANTITY		TYPE		NOTE	
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ORDERING EXAMPLE || UCI - 30131 - 18w - T2 - W30 - 02 - 120/277v - Options

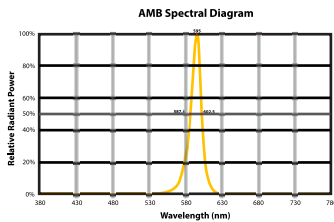
UCI-30131	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
	18w LED 2309 Lumens 30w LED 3848 Lumens	T1 - Type I Distribution T2 - Type II Distribution T3 - Type III Distribution T4 - Type IV Distribution	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify

--	--	--

ADDITIONAL OPTIONS

- NAT - Natatorium Rated
- DIM - 0-10v Dimming
- SCDT - Surface Conduit Decorative Trim
- F - Frosted Lens
- AMB - Turtle Friendly Amber LED

CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs
 Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

INSPIRED BY NATURE FINISHES	
SW01 - OAK FINISH	
SW02 - WALNUT FINISH	
SW03 - PINE FINISH	
DF - DOUGLAS FIR FINISH	
CW - CHERRY WOOD FINISH	
NW - NATIONAL WALNUT FINISH	
SU01 - CONCRETE FINISH	
SU02 - SOFTSCAPE FINISH	
SU03 - STONE FINISH	
SU04 - CORTEN FINISH	

THERE IS AN ADDITIONAL COST FOR THESE FINISHES

More Custom Finishes Available Upon Request

Consult factory for pricing and lead times

Oak	Walnut	Pine	Cherry	Chestnut	Mahogany	Beech	Bamboo	Birch	Carbon	Galvanized	Steel



Cinati Product Family



Cinati 1

- UCI-30121-21w-1984lm
- UCI-30131-18w-2309lm
- UCI-30131-30w-3848lm

UMC-20001

Macaron 1 Post Top



81w LED	7263 Lumens
60w LED	5380 Lumens
50w LED	4483 Lumens
30w LED	2690 Lumens
IP66	Suitable for wet locations
IK08	Impact Resistant [Vandal Resistant]
EPA - 1.00	
Weight - 22 lbs	
POLE NOT INCLUDED	



Construction

Aluminum
Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint
8 step decrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket
Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
Standard 10kv surge suppressor provided with all fixtures.

BUG Rating
B1 - U0 - G1

Finishing
All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint
UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes
The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

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Hardware
Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens
Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED
Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Lumen - Maintenance Life
L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Modern, contemporary post top
Beautiful modern urban post top in either single or V-arm configuration, offering powerful street lighting and asymmetric beam performance choices.

A modern style die-cast aluminum post top decorative lantern with excellent downward light distribution that complies with dark sky requirements. Outstanding visual appeal and precision optical system gives very low glare rating, whilst reducing light pollution. This luminaire is available in two configurations, namely a single or v-arm option to suit aesthetic design requirements.

Color temperature 2700K, 3000K, 3500K and 4000K, LED CRI >80 and life time 50,000 Hours. Stainless steel screws. Durable silicone rubber gasket and clear tempered glass. Powder paint with high corrosion resistance with chemical chromatised protection. Integral control gear.

Customer specific wattages can be provided, please contact the factory for more information.

Available with a selection of dimmable integral electronic drivers, as well as a provision to install wireless lighting controls to integrate with building management systems. (WATT-ADJ) This luminaire is provided with a programmable driver so that specific wattage requirements can be achieved. These settings are done at the factory during assembly.

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected.

Additional Options (Consult Factory For Pricing)



A90991
Zhaga Book 18



A90891
NEMA 7



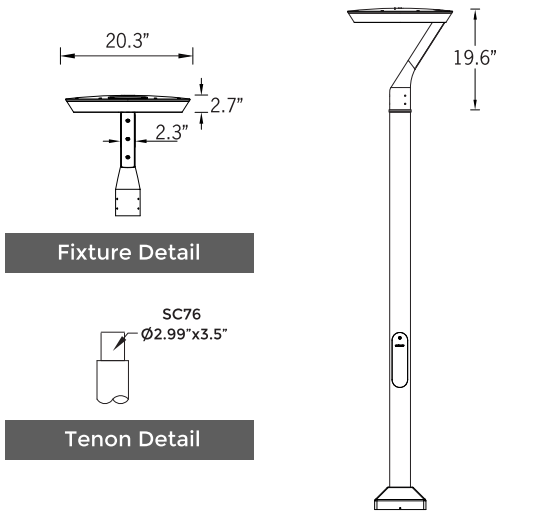
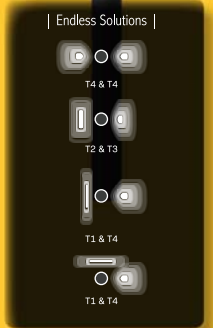
RGBW
RGBW Macaron



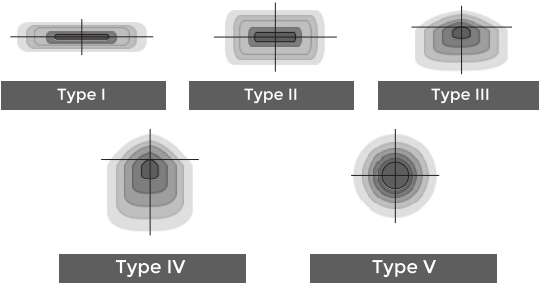
LIGHCONNECT
IoT Ready Macaron

This luminaire is available with NEMA 7 or Zhaga Book 18 sockets for connection to intelligent lighting control systems.

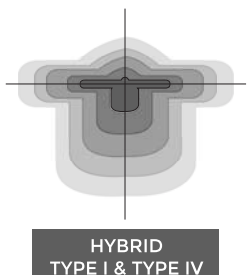
SPLIT BEAM OPTIONS



Ligman's micro Variable Optical System provides the ability to interchange, mix & rotate optics to provide specific light distributions for optimized spacing and uniformity.



The variable optic system allows for the designer to create hybrid distributions for precise lighting requirements.



UMC-20001

Macaron 1 Post Top

PROJECT	<input type="text"/>	DATE	<input type="text"/>
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QUANTITY	<input type="text"/>	TYPE	<input type="text"/>	NOTE	<input type="text"/>
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ORDERING EXAMPLE || UMC - 20001 - 81w - T2 - W30 - 02 - 120/277v - Options

UMC-20001	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE

81w LED
7263 Lumens

60w LED
5380 Lumens

50w LED
4483 Lumens

30w LED
2690 Lumens

T1 - Type I Distribution

T2 - Type II Distribution

T3 - Type III Distribution

T4 - Type IV Distribution

T5 - Type V Distribution

ME - Type ME Distribution

FOR SPLIT BEAM, SPECIFY BELOW

W27 - 2700K

W30 - 3000K

W35 - 3500K

W40 - 4000K

01 - BLACK RAL 9011

02 - DARK GREY RAL 7043

03 - WHITE RAL 9003

04 - METALLIC SILVER RAL 9006

05 - MATTE SILVER RAL 9006

06 - LIGMAN BRONZE

07 - CUSTOM RAL

120/277v

Other - Specify

<input type="text"/>	<input type="text"/>
SPLIT BEAM LEFT	SPLIT BEAM RIGHT

T1 - Type I Distribution

T2 - Type II Distribution

T3 - Type III Distribution

T4 - Type IV Distribution

T5 - Type V Distribution

ME - Type ME Distribution

T1 - Type I Distribution

T2 - Type II Distribution

T3 - Type III Distribution

T4 - Type IV Distribution

T5 - Type V Distribution

ME - Type ME Distribution

INSPIRED BY NATURE FINISHES

SW01 - OAK FINISH

SW02 - WALNUT FINISH

SW03 - PINE FINISH

DF - DOUGLAS FIR FINISH

CW - CHERRY WOOD FINISH

NW - NATIONAL WALNUT FINISH

SU01 - CONCRETE FINISH

SU02 - SOFTSCAPE FINISH

SU03 - STONE FINISH

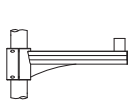
SU04 - CORTEN FINISH

THERE IS AN ADDITIONAL COST FOR THESE FINISHES

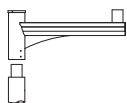
<input type="text"/>	<input type="text"/>	<input type="text"/>
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ADDITIONAL OPTIONS

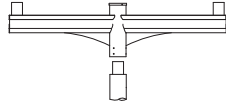
- DIM - 0-10v Dimming
- NAT - Natatorium Rated
- A20491 - Root Mount Kit
- A90891 - NEMA 7
- BS - Bird Spikes
- RGBW - RCBW Macaron
- OS - FSP Occupancy Sensor [See last page]
- FSIR - Occupancy Sensor Remote Programmer [See last page]
- A90991-U - Zhaga Book 18 Mounted On Top of Fixture
- A90991-D - Zhaga Book 18 Mounted Below Fixture
- AMB - Turtle Friendly Amber LED
- IHSS - Internal House Side Shield



A20176
Aluminum Arm Pole Clamp



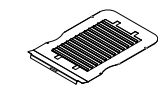
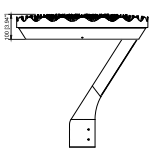
A20276
Aluminum Single Arm



A20376
Aluminum Double Arm



BS
Bird Spikes



IHSS
Internal House Side Shield

More Custom Finishes Available Upon Request

Consult factory for pricing and lead times

- | | |
|----------|------------|
| | |
| Oak | Beech |
| | |
| Walnut | Bamboo |
| | |
| Pine | Birch |
| | |
| Cherry | Carbon |
| | |
| Chestnut | Galvanized |
| | |
| Mahogany | Steel |



Example: Inspired by Nature Finish

Macaron Product Family



Macaron 1

- UMC-20001-81w-7263lm
- UMC-20002-104w-14374lm



Macaron 2

- UMC-20011-81w-7263lm
- UMC-20012-104w-14374lm



Macaron 3

- UMC-98001-104w-14374lm



Macaron 4

- UMC-10001-22w-2854lm [23.6°]
- UMC-10002-31w-3904lm [23.6°]
- UMC-10003-46w-5021lm [23.6°]



Macaron 5

- UMC-10011-22w-2854lm [39.3°]
- UMC-10012-31w-3904lm [39.3°]
- UMC-10013-46w-5021lm [39.3°]

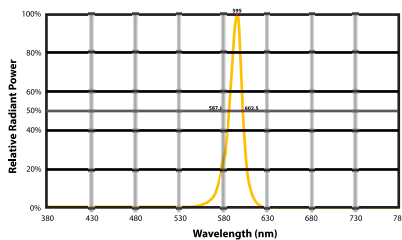


Macaron 8

- UMC-20041-22w-2854lm

CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT

AMB Spectral Diagram



Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

HIGH/LOW/OFF PIR OUTDOOR PHOTO/MOTION SENSOR IP66 - **legrand**® Integrated photocell

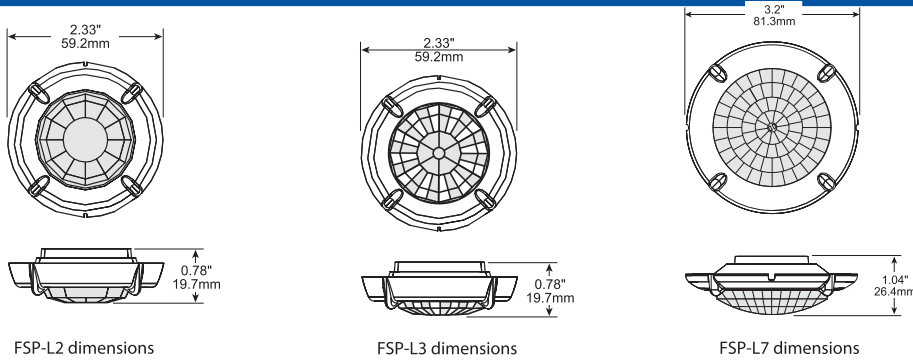


Ligman provides integrated photocell control using the wattstopper legrand FSP-211B. These units are installed inside the fixture housing with only the external lenses being visible



FSP-211B

Dimensions of Lens Options



Product Overview

The FSP-221B is a family of passive infrared (PIR) outdoor sensors that raise or lower the electric lighting level to high, low or off based on motion and/or daylight contribution. Typically, once the sensor stops detecting movement and the time delay elapses, lights will first fade to low mode, and eventually switch off. When motion is detected, the sensor ramps the light level to high mode unless the daylight contribution is sufficient.

The integral photocell can also switch the lights on and off for dusk to dawn control, so that lighting remains on overnight even without motion detection.

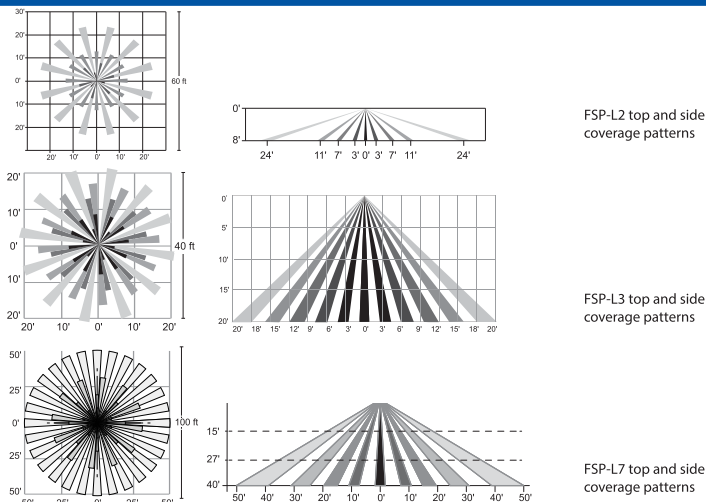
The sensors control 0-10VDC or nondimming LED drivers or ballasts.

The low voltage FSP-201B may be used with dim-to-off drivers or ballasts.

Initial setup and subsequent sensor adjustments are made using a Wireless Handheld Configuration Tool (FSIR-100). This tool enables adjustment of sensor parameters including high/low mode, sensitivity, time delay, cut off and more.

The FSIR-100 can read current parameter settings, and stores up to six sensor parameter profiles to speed commissioning of multiple sensors.

Coverage



Models

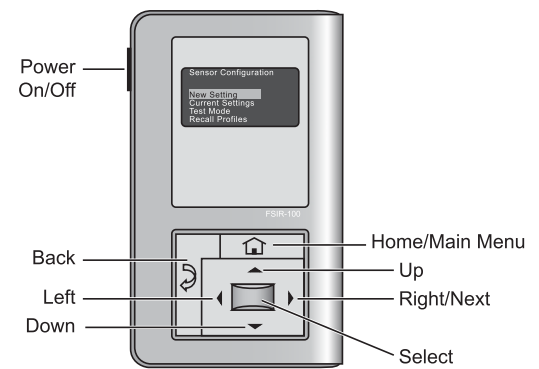
- FSP-211B, 120-277 VAC
- FSP-221B, 100-347 VAC

Specifications and Features

- Three interchangeable lenses for mounting between 8' and 40'
- Remote setup and adjustment with handheld wireless configuration tool
- Adjustable high and low modes (high: 0 to 10V, low: off, 0 to 9.8V)
- Adjustable time delay (30 seconds, 1 to 30 minutes)
- Adjustable cut off delay (none, 1 to 59 minutes, 1 to 5 hours)
- Adjustable sensitivity/service mode (low, med, max; on-fix, off-fix)
- Adjustable setpoints: hold off setpoint (none, 1 to 250 fc, auto); photocell on/off setpoint (1 to 250 fc)
- Adjustable ramp and fade times (1 to 60 seconds)
- Operating temperature: -40°F to +167°F (-40°C to +75°C)
- IP66 rated
- Five year warranty

Factory Defaults

High mode:	10V
Low mode:	1V
Time delay:	5 minutes
Cut off:	1 hour
Setpoint:	Disabled
Sensitivity:	Max
Ramp up time:	Disabled
Fade down time:	Disabled
Photocell On/Off:	Disabled



The FSIR-100 is a convenient handheld remote tool for sensor setting. Adjustable settings can be changed as needed for specific applications.

Catalog #	Color	Description
<input type="checkbox"/> FSP-L2	White/Grey/Black/Brown <small>The Trim color option will be selected to closest match fixture color. e.g (Matte silver fixture - grey trim)</small>	360° lens, maximum coverage 48' diameter from 8' height
<input type="checkbox"/> FSP-L3	White/Grey/Black/Brown <small>The Trim color option will be selected to closest match fixture color. e.g (Matte silver fixture - grey trim)</small>	360° lens, maximum coverage 40' diameter from 20' height
<input type="checkbox"/> FSP-L7	White/Grey/Black/Brown <small>The Trim color option will be selected to closest match fixture color. e.g (Matte silver fixture - grey trim)</small>	360° lens, maximum coverage 100' diameter from 40' height
<input type="checkbox"/> FSIR-100	Black	Remote Handheld Configuration Tool