NORTHSTAR PLANNING

MEMORANDUM

TO: North Yarmouth Planning Board
Through Ben Scipione, Code Enforcement Officer

CC: Steven J. Blake PE, BH2M
Byron Kern, Well & Good Brewing

From: Kate Burch, Planner, North Star Planning

RE: Well & Good Brewing – Planning Board meeting February 14, 2023

Date: February 6, 2023

Overview

The applicant proposes to convert the existing single-family structure at 173 Cumberland Road into a brewery and tasting room. The existing building footprint will not change. The exterior of the building will remain mostly the same, with some alterations for ADA access improvements. A schematic floor plan is provided with the application.

The interior of the log cabin home will be renovated for the tasting room with a maximum capacity of 40 patrons, with two bathrooms and a dishwasher for glassware. The tasting room will be open to the public on Wednesday-Saturday from 12pm to 8pm. The applicant plans to have portable picnic tables for outdoor seating behind the building.

The applicant will use the property's existing electrical service, natural gas, and subsurface wastewater disposal system (for the bathrooms and the dishwasher.) The applicant does not plan to have a dumpster as they will generate only a small amount of solid waste, which will be disposed of using Town curbside trash and recycling collection.

The attached garage will be used as the brewing space. Brewing will occur on Monday and Tuesday when the tasting room is closed. The applicant plans to brew 155 gallons of product per week. Brewing operations effluent will not be directed to the subsurface wastewater disposal system. The applicant will install a 2,000 gallon underground concrete holding tank to handle brewing effluent. The tank will be pumped out routinely and taken offsite for disposal.

Site improvements will widen the existing driveway, expanding parking to include 14 spaces with one ADA space, provide access for deliveries to the brewing operations area, and add a pedestrian walkway from Cumberland Road (Route 9). The applicant has received a Driveway/Entrance permit with Maine DOT.

The project was discussed as a pre-application at the meeting on December 13. The Board asked for clarification about the number of parking spaces, proposed landscaping, and site lighting. This information was provided in the site plan application submitted on January 31. A member of the public asked if the building will need to be sprinklered.

A staff review meeting was held on February 6 with the Code Enforcement Officer, Fire Chief, and Public Works Director. No major concerns were identified. The project is not large enough to require sprinklers as per the town ordinance. The Fire Marshall will review the project to determine alarm system and egress requirements.

Application Stage
At this meeting, the Board should review the application for completeness. If the application is voted complete, the Board should decide if they wish to hold a public hearing. If they choose not to hold a public hearing, they may vote on final approval.

Applicant: Byron Kern

Owner: same as the applicant

Location: 173 Cumberland Road

Zoning: Village Center, Groundwater Protection Overlay

Tax Map Number: Map 4 Lot 25

Existing Land Use: single-family detached dwelling

Proposed Land Use: restaurant under 2,000 SF

Acreage: 1.5 acres

Waivers: The applicant has not requested any waivers.

Site Walk: The Board should decide if a site walk for this project is necessary.

Public Hearing: A public hearing for this project has not been scheduled.

Completeness Review: NSP reviewed the project and found the submission complete.

Suggested Motion: To **[approve with or without conditions or deny]** Well and Good Brewing.

Motion to approve the Well and Good Brewing final site plan as submitted pursuant to the Findings of Fact in the memo dated February 6, 2023.

Site Plan Review - Findings of Fact:

1. Utilization of the Site

- The applicant plans to utilize the existing building located at 173 Cumberland Road for a brewery and tasting room.
- The project is located in the Village Center zone and is abutted by single-family residential properties.
- The gross square footage of the restaurant is 1,600 SF.

2. Utilities

- The applicant will use existing water service, electricity, natural gas, and subsurface wastewater disposal system.

- The applicant will install an underground 2,000-gallon reinforced concrete holding tank for brewing operations effluent, which will be pumped out routinely and taken off-site.
- The applicant has been corresponding with the Yarmouth Water District and is awaiting an ability to serve letter.

3. Building Standards

- The project will utilize the existing building for their business.
- No new structures or building are proposed.
- Only minor changes for ADA improvements are proposed for the exterior of the existing building.

4. Impact on Community Facilities

- No negative impact on community facilities will result from this project.

5. Hazardous Materials and Emissions

- All hazardous materials will be disposed of in accordance with state and federal laws.

6. Exterior Lighting

- The applicant provided a photometric plan showing additional light fixtures, with product information for each fixture.
- The photometric plan demonstrates footcandles will not exceed 0.5 at the lot line or upon abutting residential properties.

7. Financial and Technical Capacity

- The applicant has provided a deed and commercial lease agreement for the property.
- The applicant provided evidence of Maine business registration.
- The applicant provided a letter demonstrating secured financing for the establishment of the brewery, along with a detailed site construction cost worksheet.

8. Landscaping, Buffers and Screening

- The applicant provided a landscape plan showing a row of evergreens in a mulched planting bed between the parking area and the abutting residential property.
- The applicant proposes to keep existing trees and lawn on the property.
- The applicant should clarify additional parking lot landscaping as required by the ordinance in 10.14.B.2.c.

9. Noise

- No noise levels in excess of the town standards will result from the project.

10. Signs

- The applicant provided a design for a freestanding roadside sign with their application.
- The sign does not exceed the maximum allowed sign area.
- The applicant should confirm if the sign will be illuminated.

11. Storage of Materials

- There will not be any exposed storage areas or dumpsters.

12. Stormwater Control

- The applicant provided a stormwater management report. The proposed site improvements will result in approximately 5,176 SF of additional impervious surface.
- A stormwater management plan has been prepared to satisfy the requirements of Maine DEP and the North Yarmouth Land Use Ordinance.
- The project proposes to use a level spreader to control erosive flows created by drainage from the paved parking area, before it enters the abutting wooded property.
- The predicted increase in rate of runoff from additional impervious surface will not create adverse impacts to downstream conditions.

13. Protection of Significant Wildlife Habitat

- No significant wildlife habitat is located within the project area.
- The applicant provided a natural resource survey dated September 12, 2022 that affirms no wetlands, watercourses, or vernal pools are on the property.

14. Access Management and Vehicular Circulation

- Vehicular access to the site will come from the existing driveway entrance off Cumberland Road.
- The applicant has received a Driveway/Entrance Permit from the Maine Department of Transportation.
- The applicant provided estimated traffic counts of 18 trips during the peak PM hour between 4-6 PM, with 12 trips entering the site and 6 trips leaving.

15. Pedestrian Ways and Bicycle Access

- No changes to sidewalks or other surrounding pedestrian areas are proposed.
- The applicant proposes to build a pedestrian walkway from the sidewalk on Cumberland Road.
- A bike rack will be installed next to the pedestrian walkway.

16. Off-Street Parking and Loading

- The proposed use requires 12 off-street parking spaces (1 space per 4 patrons, plus one space per employee.)
- The applicant proposes to construct 14 parking spaces, including a van-accessible ADA parking space.

Conclusions of Law:

1. The development **will** reflect the natural capabilities of the site to support development.
2. ~~Utilities serving developments in the Village Center District and Village Residential District **will/will not** be installed underground.~~ (N/A)
3. The proposed development **will not** result in a negative impact to the environment or to the community facilities or services.
4. The development **will not** contribute emission of dust, ash, smoke or other particular matter.
5. The proposed development **will** have adequate exterior lighting to provide for its safe use during nighttime hours.
6. The landscape **will** be preserved in its natural state, insofar as practicable, by minimizing tree and soil removal, retaining existing vegetation where desirable, and keeping any grade changes in character with the general appearance of neighboring areas.
7. The development **will** control noise levels such that it **will not** create a nuisance for neighboring properties.
8. The size, location, design, color, texture, lighting and materials of all exterior signs **will not** detract from the design of proposed buildings and structures.
9. ~~Exposed non-residential storage areas, exposed machinery, and areas used for storage **will/will not** have sufficient setbacks and screening.~~ (N/A)
10. Adequate provisions **will** be made for the collection and disposal of all storm water that runs off proposed roads, parking areas, roofs and other surfaces.
11. Developments **will** be designed to protect and conserve important wildlife habitat to the greatest extent feasible.
12. The layout of the site **will** provide for the safe movement of passenger, service, and emergency vehicles throughout the site.
13. The site plan **will** provide for a system of pedestrian ways within the development appropriate to the type and scale of development.
14. Parking areas **will** be constructed to protect the natural environment and visual character of the community, improve pedestrian safety and accessibility, and promote the quality of life in developed areas.

Sketch Plan Submission Requirements	Included/Not Included	Notes
A fully executed and signed copy of the application	x	
Evidence of payment of the application	x	
11 copies of written materials plus 11 sets of maps or drawings	x	
General Information	**Included/Not Included**	**Notes**
Record owner's name, address, and phone number and applicant's name, address and phone number	x	
The location of all required building setbacks and buffers	x	change of use only; no new structures
Names and addresses of all property owners within 500 feet of any and all property boundaries	x	attachment 3
Sketch map	x	
Boundaries of all contiguous property under the control of the owner or applicant	x	
Tax map and lot number	x	
A copy of the deed	x	attachment 2
The name, registration number and seal of the person who prepared the plan	x	
Evidence of the applicant's technical and financial capacity	x	attachments 4 and 5
Existing Conditions	**Included/Not Included**	**Notes**
Zoning classification	x	
The bearings and length of all property lines of the property to be developed	x	
Location and size of any existing sewer and water mains, culverts and drains	x	
Location, names and present widths of existing public and/or private roads	x	
The location, dimensions and ground floor elevation of all existing buildings	x	
The location and dimensions of existing driveways, streets, roads, parking, and loading areas	x	
Location of intersecting streets, roads or driveways within two hundred (200) feet of the site	x	
The location of open drainage courses, rivers, ponds, wetlands, vernal pools, streams	x	
The direction of existing surface water drainage across the site	x	
The location, front view, dimensions and lighting of existing signs	x	

Location and dimensions of any existing easements and copies of existing covenants or deed restrictions	N/A	
The location of the nearest fire hydrant or other water supply for fire protection	x	
Proposed Development Activity	**Included/Not Included**	**Notes**
Estimated demand for water supply and sewage disposal	x	attachment 9
The direction of proposed surface drainage	x	attachment 16
Provisions for handling solid waste	x	
The location, dimensions and materials to be used in the construction of proposed driveways, parking and loading areas	x	sheet 3
A proposed landscaping and buffering plan	x	landscape plan
The location and description of any stream, pond, vernal pool and/or wetland buffers	x	attachment 7
The location, dimensions and ground floor elevation of all existing buildings	x	attachment 12
Building elevations	x	attachment 12
Location, front view, materials and dimensions of proposed signs	x	attachment 13
Location of all utilities		sheet 2
A general description of the proposed use	x	
Driveway and entrance permit	x	attachment 14
Estimated peak hour traffic	x	attachment 6
Storm water calculations	x	attachment 16
A utility plan	x	
Additional Information	**Included/Not Included**	**Notes**
Graphic representations of how the development will look upon completion	x	no building changes proposed
A grading plan showing the existing and proposed topography	x	sheet 2
A planting schedule keyed to the site plan	x	sheet L1
A storm water drainage and erosion control plan	x	attachment 16
A groundwater impact analysis	N/A	no changes proposed
A traffic impact analysis	x	attachment 6
A written statement from any utility providing service to the project	x	attachment 9
Cost of the proposed development	x	attachment 5
Performance guarantees	N/A	

Eric Gagnon
Superintendent

Yarmouth Water District
PO Box 419, 181 Sligo Road
Yarmouth, Maine 04096
(207) 846-5821 fax (207) 846-1240
www.YarmouthWaterDistrict.org

Irving C. Felker, Jr.
Chairman, Board of Trustees

February 14, 2023

Steve Blake
Senior Engineer
BH2M
380B Main Street
Gorham, Maine 04038

Via Email: sblake@bh2m.com

RE: Well & Good Brewing Company, 173 Cumberland Road, North Yarmouth

Dear Steve,

This letter is to inform you that the Yarmouth Water District has the capacity and can serve the above-referenced project and will provide service in accordance with Maine Public Utilities Commission and the Yarmouth Water District Terms and Conditions.

After reviewing the latest project documents and previous correspondence, we have the following comments:

1. In an email dated 1/23/2023 it is stated that peak domestic water use will be 13.5 gpm, the exiting service line and 5/8" water meter will sufficiently supply this demand.
2. This project is located within the Ground Water Protection Overlay Zone within the Town of North Yarmouth; please understand that anything that is leached into the ground may eventually find its way into the Yarmouth Water District's wells. We have the following comments regarding ground water protection:
    a. We ask the developer to avoid using salts for winter maintenance and only use environmentally friendly deicing products.
    b. We ask that the developer be cognizant of any drips or leaks of any kind of hydraulic fluid, petroleum products, and antifreeze products and they be fixed immediately and properly disposed of to not impact the aquifer.
    c. We ask that the developer be cognizant of products that are being disposed into the septic system and use products that do not adversely impact the environment and aquifer.

We look forward to working with you and reviewing this project as it progresses. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Eric Gagnon
Superintendent

CC: Tim Herrick, Yarmouth Water District Assistant Superintendent
Ben Scipione, North Yarmouth Codes Enforcement Officer

SITE PLAN APPLICATION

Well & Good Brewing Company
173 Cumberland Road
North Yarmouth, Maine

January 2023

Prepared By:

Berry Huff McDonald Milligan, Inc.
Engineers Surveyors Planners
380B Main Street
Gorham, ME 04038
207-839-2771
sblake@bh2m.com

BH2M

Civil Engineering | Surveying

January 31, 2023

North Yarmouth Planning Board
North Yarmouth Town Hall
10 Village Square Road
North Yarmouth, Maine 04097

Re: Site Plan Application
Well & Good Brewing
173 Cumberland Road

Dear Members of the Planning Board;

On behalf of the Applicant, Well & Good Brewing, we are submitting a Site Plan Application for a proposed brewery and tasting room located at 173 Cumberland Road (Route 9). Enclosed for reference are the project plans as well as the following attachments:

- Site Plan Application, Request for Hearing, Fee Calculation Sheet & Checklist
- Agent Authorization Letter
- Proof of Good Standing
- Attachment 1 – Figures
- Attachment 2 – Parcel Deed and Commercial Lease Agreement
- Attachment 3 – Abutters List
- Attachment 4 – Technical Capacity
- Attachment 5 – Financial Capacity and Opinion of Cost
- Attachment 6 – Traffic Summary
- Attachment 7 – Natural Resource Survey
- Attachment 8 – Correspondence with MHPC
- Attachment 9 – Correspondence with Yarmouth Water District
- Attachment 10 – Photometric Plan
- Attachment 11 – Building Photos and Schematic Floor Plan
- Attachment 12 – Site Photos
- Attachment 13 – Schematic Sign Detail
- Attachment 14 – MEDOT Driveway/Entrance Permit Application
- Attachment 15 – Certificate of Formation
- Attachment 16 – Stormwater Report (Narrative Portion Only)

Existing Conditions

The project parcel is located at 173 Cumberland Road (Route 9), also referred to Tax Map 4 Lot 25 on the Town of North Yarmouth Tax Maps. The parcel lies within the Village Center Zone and the Groundwater Protection Overlay Zone. The parcel is mostly clear of significant tree growth (with the exception of the southern boundary line) and is bounded by Cumberland Road (Route 9) to the west and residential properties to the east, north, south. The parcel is currently developed with a single-family home and attached garage, paved driveway, gravel parking area, and a detached garage. The parcel is served by underground electric (Central Maine Power), natural gas (Maine Natural Gas), and public water (Yarmouth Water District). Public sewer does not exist in the area, the property is served by a subsurface wastewater

disposal system located behind (east side) of the existing house. The topography on the parcel is gently sloping with the high point being Cumberland Road (west side) and the lowest point being the easterly property line. There are no regulated natural resources (wetlands and waterbodies) found on the parcel.

Proposed Project

The Applicant is planning to renovate the existing single-family structure into a brewery and tasting room. The existing building is a log cabin that includes an attached garage. The building's exterior footprint would not be altered as part of the project. The garage area will be renovated and used as the brewing space. The remaining building interior area will be renovated for the tasting room. The exterior of the existing building would mostly remain the same with the exception of a few ADA access improvements. Photos of the existing building and a schematic floor plan can be found in Attachment 11. The tasting room will have two bathrooms for patrons and a dishwasher to wash glassware. The tasting room is planned to have capacity for 40 patrons. The Applicant anticipates that the brewery will be open to the public Wednesday-Sunday from 12pm to 8pm. The tasting room will be closed on Monday and Tuesday and those days will be used for production. Initially, the Applicant plans to brew 155 gallons of product on a weekly basis.

Proposed Utilities

The current house is served by a ¾" domestic water service from the water main located in Cumberland Road and owned by the Yarmouth Water District. We anticipate that this service will be adequate to supply the proposed brewery. Correspondence with the Yarmouth Water District is enclosed in Attachment 9. Electrical service will remain in place, we do not anticipate that upgrades to the electrical service will be required. The house is currently served by natural gas from Maine Natural Gas from the main in Cumberland Road and will continue to be served by this once the project is complete. The existing subsurface wastewater disposal system will remain in place and be used to treat effluent from the dishwasher and bathrooms located in the tasting room. Brewing operations effluent will not be directed to the subsurface wastewater disposal system. The Applicant plans to install an underground 2,000-gallon reinforced concrete holding tank. The holding tank will be pumped out routinely and effluent will be taken offsite.

Proposed Site Improvements

The proposed site improvements will include widening of the existing driveway, expanding the parking area for the proposed use, providing access for deliveries to the brewing operations area, and providing a pedestrian walkway from Cumberland Road. The enclosed site plan shows 14 parking spaces and includes a van accessible ADA parking space. Based on the off-street parking requirements contained in Section 10.34.C of the Land Use Ordinance, we anticipate that the required parking would be based on a Restaurant/Eating Places Use (1 space per 4 patrons plus 1 space per employee). We have assumed patron capacity of 40 and total employee count to be 2. Based on this, a minimum of 12 off-street parking spaces will be required. The Applicant also intends to have some outdoor seating behind the building (east side). The seating area will not include any hardscaping, likely just picnic tables that will be portable. We also anticipate that the change in use will require a Driveway/Entrance Permit from the Maine Department of Transportation. This application has been filed by the Applicant and we are awaiting a response from Maine DOT.

Stormwater Management

The proposed project will create a small increase in impervious area. As part of the site plan permitting and design process, our office has analyzed stormwater runoff in accordance with the Town's Land Use Ordinance and 06-096 Chapter 500. Our analysis is focused on erosion control during construction, water quality post-construction, and flooding control for the post-construction condition. Refer to Attachment 16 for detailed stormwater calculations.

Solid Waste, Storage of materials, On-Site Equipment

The Applicant does not plan to have a dumpster as the use will not generate a considerable amount of solid waste. The Applicant will rely upon the regularly scheduled curbside recycling and rubbish collection provided by the Town. No significant amount of stored material will be required. Some cleaning equipment for the brewing operations will be kept in the brewing area but not in quantities greater than 5 gallons. Brewing equipment will housed inside the building, no exterior equipment will be required for the project.

If any additional information is required, please contact me directly. We look forward to working with Town Staff and the Planning Board on this project. We respectfully request to be placed on the February Planning Board Agenda.

Sincerely,

Steven J. Blake, PE
Senior Engineer

Encl.

Cc Ben Scipione – Town of North Yarmouth
Tracey Cox – Town of North Yarmouth
Ben Smith – North Star Planning
Kate Burch – North Star Planning
Byron Kern – Well & Good Brewing

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REVIEW AND CONDITIONAL USE APPLICATION

(See Section 4 pages 23 through 36 of the North Yarmouth Land Use Ordinance)

NAME OF APPLICANT: Well & Good Brewing PHONE #: (857) 754-9668

EMAIL: byron.kern@wellandgoodbrewing.com ALT. PHONE#:

FULL ADDRESS: 173 Cumberland Road, North Yarmouth, ME

PROPERTY ADDRESS: 173 Cumberland Road

MAP: 4 LOT: 25

AGENT/REPRESENTATIVE (if other): Steven J. Blake, PE - BH2M PHONE #: (207) 839-2771

EMAIL: sblake@bh2m.com

FULL ADDRESS: 380B Main Street, Gorham, ME 04038

1. Names and Addresses of ALL property owners within 500' of any and all property boundaries **(use a separate sheet). Please contact the code office for an updated list)**

2. Plan preparer information if other than property owner:
   Name: Steven J. Blake, PE - BH2M
   Address: 380B Main Street, Gorham, ME 04038
   Phone Number: (207) 839-2771 Professional Lic. # PE #11695
   Email: sblake@bh2m.com

3. Zoning Classification of the Property

   X Village Center _____Village Residential _____Farm and Forest
   _____Shoreland Residential _____Resource Protection _____Royal River Overlay
   X Groundwater Protection Overlay

4. Provide a General Description of the proposed use or activity, including but not limited to the type of use, square footage involved, hours of operation, types and amount of traffic to be generated **(use separate sheet**).

5. Historic Structures: Are there any historic structures or areas of historical importance on the property? _____YES X NO

6. Complete List of all chemicals, pesticides, fuels, nutrients and other potentially toxic or hazardous materials to be used or stored on the premises, and the quantities of these materials **(use a separate sheet).**

7. List of Equipment to be used, parked or stored **(use a separate sheet).**

8. To the best of my knowledge, all the above-stated information, and all prepared submissions in this application are correct.

_____ January 27, 2023

Signature of Applicant/Owner Date

TOWN OF NORTH YARMOUTH
PLANNING BOARD
REQUEST FOR HEARING

NAME OF APPLICANT: Well & Good Brewing PHONE #: (857) 754-9668
EMAIL: byron.kern@wellandgoodbrewing.com ALT. PHONE#:
FULL ADDRESS:
PROPERTY ADDRESS: 173 Cumberland Road
MAP: 4 LOT: 25 ZONE: Village Center

AGENT/REPRESENTATIVE (if other): Steven J. Blake, PE - BH2M PHONE #: (207) 839-2771
EMAIL: sblake@bh2m.com
FULL ADDRESS: 380B Main Street, Gorham, ME 04038

The undersigned requests the North Yarmouth Planning Board consider the following application for:

- ☐ Pre-application Sketch Plan Review
- ☐ Minor Subdivision
- ☐ Contract Zoning
- ☐ Other (Specify):
- ☐ Major Subdivision
- ☑ Site Plan Review

NOTE TO APPLICANT:

1. This form and appropriate materials must be filed at the Code Enforcement Office no later than (fourteen) 14 days prior to the regular meeting of the Board (2nd Tuesday monthly). Applications shall be accompanied by all applications fee and materials required by the applicable ordinance(s), checklists and fee schedule.
2. All applications shall include all materials and copies as specified on the submittal requirements form.
3. All materials in color shall be copied in color.

Application Authorization
I hereby make application to the Town of North Yarmouth for the above-referenced property(ies) and the development as described. To the best of my knowledge, the information provided herein is accurate and is in accordance with the Zoning and Subdivision Ordinances of the Town, except where waivers are requested. The Town of North Yarmouth Planning Board and/or town employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at all meetings before the Planning Board.

Signature: _____ Date: January 27, 2023
Printed Name: Steve Blake

Please identify yourself (check one): Agent*: ☑ Property Owner: ☐

TOWN OF NORTH YARMOUTH
PLANNING BOARD
FEE CALCULATION SHEET

NAME OF APPLICANT: Well & Good Brewing
PROPERTY ADDRESS: 173 Cumberland Road
MAP: 4 LOT: 25

SITE PLAN FEES

Description	Fees	Total
Preliminary Sketch Plan Review	$0	
Site Plan Review Permit	$250.00	250.00
Amendment to Site Plan Review Permit	$75.00	

SUBDIVISION APPROVAL FEES

MINOR SUBDIVISION (4 lots or less)

Description	Fees	Total
Non-refundable Application Fee	$250.00	
Each Lot/Dwelling Unit	$100.00	
Technical Review	Cost + $25.00	

MAJOR SUBDIVISION (5 lots or more)

Description	Fees	Total
Non-refundable Application Fee	$350.00	
Each lot/Dwelling Unit	$100.00	
Technical Review	Cost + $25.00	

TOTAL FEES REQUIRED 250.00

NOTE: Certain Subdivisions will be required to complete a Site Plan Review Permit. Review fees are not typically refundable. If extenuating circumstances occur, the Board may consider a partial or full refund.

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REVIEW AND CONDITIONAL USE CHECKLIST

NAME OF APPLICANT: Well & Good Brewing DATE: Janurary 2023

This checklist has been prepared to assist applicants in developing their applications. It should be used as a guide in assembling the information necessary for a complete application. However, the checklist does not substitute for the statutory criteria or the requirements of Section IV. Site Plan Review & Conditional Use Procedures or Section X. Performance and Design Standards for Site Plan Review & Subdivision Review of the Land Use Ordinance. The Planning Board will use the checklist to make sure that your application is complete. The application need not contain separate plans as implied below. The perimeter survey, subdivision plan and engineering plans may be contained on the same drawing. However, detailed engineering drawings such as road profiles, drainage swales and erosion/sedimentation plans may best be presented on a separate sheet or sheets.

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
GENERAL REQUIREMENTS					
1. Request for Hearing Form		X			
2. Fee Calculation Sheet		X			
3. Waiver or N/A Request Form, if required					X
4. Abutter List & Notification Statement		X			
5. DEP Approval, if required (Section 3 - 3.9B)					X
6. Subdivision Approval, if required (Section V)					X
7. Board of Zoning Appeal Approval, if required Section VI - 6.2)					X
8. MDOT Approval, if required (Section VIII – 8.4.J.2)		X			
10-1 APPLICABILITY		X			
10-2 GENERAL LAYOUT OF DEVELOPMENT					
A. Utilization of the Site		X			
B. Lots					
B.1	Dimensional Requirements	X			
B.2	Right of Way not included in Lot Area				X
B.3	Side Lot Lines perpendicular to Street	X			
B.4	Lots Divided by Streams				X
B.5	Future Lot Planning (Subdivisions only)				X

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
B.6	Interconnected Development				X
C. Blocks - Utility/Pedestrian Easement					X
D. Utilities - Underground		X			
E. Monuments					
E.1	Stone Monuments Locations	X			
E.2	Stone Monuments or Capped Iron Pipe at boundaries	X			
E.3	Stone Monuments Requirements				X
E.4	All Others Marked by Suitable Monumentation	X			
10-3 BROOK, POND, VERNAL POOL AND WETLAND BUFFERS					
A. <u>Purpose and Applicability</u>					
A.1	Protect Areas not covered in Section 9-1				X
A.2	Distinguish between High and Low Value Wetlands				X
A.3	Residential Shoreland & Resource Protection Apply				X
B. <u>Protected Resources</u>					
B.1	Stream				X
B.2	Pond				X
B.3	Vernal Pool				X
B.4	High Value Wetlands				X
B.4.a	Contain Pond or Vernal Pool				X
B.4.b	Within Floodplain of Stream or Pond				X
B.4.c	Wetland Plant Species				X
B.5	Low Value Wetland				X
C. <u>Standards</u>					
C.1	Vegetative Buffers				X

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REVIEW AND CONDITIONAL USE CHECKLIST

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
C.2	Location, Species, Height, Canopy				X
C.3	Buffer Width Related to Slope (SEE TABLE)				X
C.4	Natural State to Greatest Extent Practical				X
C.5	Buffer Strips Maintained in Natural State				X
C.5.a	Clearing of Dead and Diseased Trees				X
C.5.b	Underlying Vegetation (must not be removed)				X
C.6	Building and Structure Setback	X			
C.7	Permanent Markers (must be installed)	X			
D. Plan Submittals					
D.1	Site plan, Topo, Wetlands, Buffers	X			
D.2	Existing Vegetation Described	X			
D.3	Buffer (Any new buffers described)				X
D.4	Maintenance and Restrictions of Buffers				X
D.5	Deed restrictions and covenants				X
D.6	Plat				X
E. Exemptions					
E.1	Buffer and setbacks are not required adjacent to the following area:				
E.1.a	Swales and ditches				X
E.1.b	Artificial impoundments				X
E.1.c	Low value wetlands				X
E.2	Buffers and setbacks do not apply to				X
E.2.a	Storm water management facilities				X
E.2.b	Road crossings, bridges, culverts, utilities				X
E.2.c	Docks, boat ramps, direct access				X

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REVIEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
10-4 BUILDING DESIGN STANDARDS				
A. Purpose	X			
B. Applicability	X			
CONTENTS				
A. General Building Standards	X			
B. Primary Building Types	X			
C. Accessory Building Types	X			
D. Components	X			
E. Roof Types				X
F. Special Definitions				
10-5 COMMUNITY FACILITIES IMPACT ANALYSIS AND MITIGATION				X
10-6 DRIVE THROUGH FACILITIES				X
10-7 EROSION AND SEDIMENTATION CONTROL				
A. Topography and Natural Surroundings	X			
B. Best Management Practices				
B.1 Stripping, Removal, Re-Grading	X			
B.2 Exposure to a Minimum	X			
B.3 Temporary Measures	X			
B.4 Permanent Measures	X			
B.5 Sediment Basins or Silt Traps	X			
B.6 Adjoining property and slope	X			
B.7 Dust control	X			
B.8 No grading or filling near water body	X			
B.9 Measures monitored periodically	X			

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REVIEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
10-8 EMISSIONS					
10-9 EXTERIOR LIGHTING					
A.	**Adequate for nighttime hours**	X			
B.	**Street lighting**	X			
C.	**Lighting does not produce deleterious effects**	X			
D.	**Fixtures shielded or hooded**	X			
E.	**Blinking lights prohibited**	X			
F.	**Maximum height**	X			
G.	**Spotlights prohibited**	X			
10-10 FINANCIAL AND TECHNICAL CAPACITY		X			
A.	**Adequate financial resources**	X			
B.	**Qualified contractors and consultants**	X			
10-11 FLOODPLAIN MANAGEMENT					
A. Consistent with Floodplain Ordinance					X
B. Development/Subdivision Requirement					X
C. Building Prohibited on Floodplains					
C.1	Building prohibited in floodplain				X
C.2	Statement and restriction				X
C.3	Woodlands, grassland, pastureland, recreation				X
C.4	Piers, docks, wharves, bridges and boat ramps				X
10-12 HAZARDOUS, SPECIAL AND RADIOACTIVE MATERIALS					
A.	**Handling, storage and use per standards**				X
B.	**Reporting Requirement**				X
10-13 HISTORIC AND ARCHAEOLOGICAL SITES					
A.	**Protect resources**				X

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
B.	**Maine Historic Preservation Commission review**	X			
10-14 LANDSCAPING, BUFFERS AND SCREENING					
A.	**Purpose**				X
B.	**Standards**				
B.1	Landscaping	X			
B.1.a	Natural State Preserved				X
B.1.b	Public roads, areas, recreation sites, buildings				X
B.1.c	Newly Planted Deciduous Tree Requirements	X			
B.1.d	Plan should include Landscapes	X			X
B.2	Buffers and Screening	X			
B.2.a	Adjacent uses and screening	X			
B.2.b	Year-round visual screen	X			
B.2.c	Parking lots and areas	X			
B.2.d	Garbage collection areas buffered				X
B.2.e	Sufficient buffering	X			
B.2.f	Width of buffer	X			
10-15 NATURAL BEAUTY AND AESTHETICS IN THE FARM AND FOREST DISTRICT, RESIDENTIAL SHORELAND DISTRICT AND RESOURCE PROTECTION DISTRICT					X
10-16 NOISE					
A.	**Control Levels for Neighboring Properties**				X
B.	**Sound Pressure Level Limits (SEE TABLE)**				X
C.	**Measured by a Meter**				X
10-17 SEWAGE DISPOSAL					
A.	**Subsurface Sewage Disposal**				

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
A.1	Follow State of Maine Rules	X			
A.2	Hydrogeologic Assessment				X
A.2.a	Suitable soils	X			
A.2.b	Water supplies	X			
A.2.c	Groundwater quality				X
A.2.d	Monitoring wells				X
A.2.e	Operation and maintenance manual				X
B.	**Public Sewer System Disposal**				
B.1	Not allowed in Farm and Forest District, Residential Shoreland District or Resource Protection District				X
B.2	Sewer District statement of capacity				X
10-18	**SIGNS**				
A.	**General Requirements**	X			
B.	**Village Center District**	X			
C.	**Identify or Advertise Must be on Premises**	X			
D.	**Sign Area**	X			
E.	**Installation and Height**	X			
F.	**Height and Location by Roads**	X			
G.	**Attached to Structure**	X			
H.	**Maintenance and Removal**	X			
I.	**Illumination**	X			
J.	**Nonconforming Signs**				X
K.	**Special Event Signs**				X
L.	**Home Occupation Signs**				X

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
M.	**Signs in the Resource Protection District and the Residential Shoreland District**				X
N.	**Municipal and Public Safety Signs**				X
10-19 SOIL SUITABILITY					X
10-20 SOLID WASTE DISPOSAL					
A.	**Disposal at Licensed Facility**	X			
B.	**Alternative Arrangements**				X
10-21 STORAGE OF MATERIALS					
A.	**Sufficient Setbacks and Screening**				X
B.	**Dumpsters**				X
C.	**Physical Screening**				X
D.	**Buffers and Screening**				X
10-22 STORM WATER CONTROL					
A.	**Designed to Minimize Runoff**	X			
B.	**Requirements**				
B.1	Design by Maine engineer	X			
B.2	Easement width				X
B.3	Oil and grease traps				X
B.4	Designing engineer statement	X			
B.5	Designed to Town Roadway Criteria				X
B.6	Maintenance Plan	X			
10-23 RECREATION AND OPEN SPACE LAND IN DEVELOPMENTS					
A.	**Applicability and Purpose**				X
B.	**Retention of Useable Open Space/Recreation Land**				
B.1	Planning Board may Require Reservation of Land				X
B.2	Percentage of Useable Open Space (SEE TABLE)				X

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
C. Waivers of Minor Subdivisions of Mandatory Open Space					X
D. Ownership and Maintenance of Common Open Space and/or Recreation Land					
D.1	Facilities & Property Ownership				X
D.1.a	Lot Owners' Association				X
D.1.b	Association Principal Purpose				X
D.1.c	The Town				X
D.2	Subdivision of the Common Open Space Prohibited				X
D.3	Monitoring Fee (Planning Board May Require)				X
E. Homeowners Association Requirements					X
10-24 WATER SUPPLY					
A. <u>Public Water Supply</u>					
A.1	Written statement from Yarmouth Water District	X			
A.2	System approved by Yarmouth Water District and North Yarmouth Fire Chief	X			
B. <u>Required Connection to Public Water Supply</u>		X			
C. <u>Individual Wells Regulations</u>					X
D. <u>Fire Protection</u>					
D.1	Hydrant locations				X
D.2	Storage capacity				X
D.3	Hydrant specifications				X
D.4	Easement				X
10-25 WATER QUALITY					
A. <u>Water Quality</u>					
A.1	No discharge in surface or groundwater				X
A.2	Maine DEP and Fire Marshal's Office standards				X
A.3	License from Maine DEP				X

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
A.4	Discharge treated				X
B. Groundwater					X
C. Wellhead Protection					X
D. Requirements for Hydrogeologic Assessments					
D.1	Class A (high intensity) Soil Survey				X
D.2	Water table				X
D.3	Drainage conditions				X
D.4	Existing groundwater quality				X
D.5	Analysis and evaluation				X
D.6	Map of wastewater systems and wells				X
E. Projections of Groundwater Quality					X
F. Drinking Water Standards					X
G. Demonstrate Treatment					X
H. Contaminants					X
I. Construction Standards					X
J. System and Well Zones					X
10-26 PROTECTION OF SIGNIFICANT WILDLIFE HABITAT					
A. Designed to Protect					X
B. Identify and Map Wildlife Habitats					X
C. Consult and Obtain Written Report					X
D. Deer Wintering Areas					X
E. Deed Restrictions					X
10-27 PUBLIC ACCESS TO THE SHORELINE					X
10-28 BACK LOTS AND ACCESS					
A. Right-of-Way					

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
A.1	Width and frontage	X			
A.2	Emergency vehicles				X
A.3	Existing lot and right-of-way				X
A.4	Backlots prohibited in subdivisions				X
A.5	Private Roads Serving Three or More Residential Units and/or Non-residential Uses				X
A.6	In the Farm and Forest District, Residential Shoreland District and Resource Protection District – lot size and width				X
A.7	In the Village Center District and Village Residential District – dimensional requirements	X			
10-29 ACCESS MANAGEMENT STANDARDS					
A. Applicability					X
B. Adequacy of the Public Road System					X
C. Safe Sight Distances					
C.1.	Designed	X			
C.2	Measurements	X			
C.2.a	Sight Distance Speed	X			
C.2.b	Height				X
C.2.c	Truck traffic				X
C.2.d	Recreational vehicle traffic				X
C.3	Placement				X
C.4	Site triangle				X
D. Access Management and Safety Standards					
D.1	Hazardous conflicts				X
D.2	Residential Lots				X

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
D.2.a	Farm and Forest District, Residential Shoreland District and Resource Protection District				X
D.2.b	Village Center District and Village Residential District	X			
D.3	Commercial and Other Non-Residential Lots	X			
D.3.a	Farm and Forest District, Residential Shoreland District and Resource Protection District				X
D.3.b	Village Center District and Village Residential District	X			
D.4	Shared Driveways				X
D.5	Road, Pedestrian and Bicycle Connections Between Developments	X			
D.6	Subdivisions				X
D.7	Corner Lot Access				X
D.8	Access Ways to Non-Residential Developments or to Multiplex Developments				X
D.9	Driveway Turn-Around Area	X			
D.10	Driveway Grades				X
D.11	Access Way Location and Spacing	X			
D.11.a	Location from intersection				X
D.11.b	Existing private roads				X
D.11.c	Demonstration of No Alternative				X
10.30 SUBDIVISION STREET CONNECTIVITY REQUIRED IN THE VILLAGE CENTER AND VILLAGE RESIDENTAL DISTICTS					
A.	**Purpose**				X
B.	**Applicability**				X
C.	**Requirements**				
C.1	Proposed Subdivision Streets				X

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
C.2	Proposed Street System				X
C.3	Proposed Transportation System				X
C.4	Redevelopment and Road Improvements				X
C.5	Future Street Extension				X
C.6	Reserved Streets for Future Street Connections				X
C.7	Waivers				X
C.7.a	Dead End Streets				X
C.7.b	Hammerhead Turn-around				X
C.7.c	Turn-Around				X
C.7.d	Emergency Access				X
10.31 SUBDIVISION STREET LENGTH AND CONNECTION REQUIREMENTS IN THE FARM AND FOREST DEISTRICT AND RESIDENTIAL SHORELAND DISTRICT					
A. Purpose					X
B. Standards					X
B.1	12 Residential Units or Lots				X
B.2	Dead-End Street				X
B.3	Connectivity Requirements				X
10.32 PEDESTRIAN WAYS AND BICYCLE ACCESS, CIRCULATION AND FACILITIES					
A. Applicability and Purpose					X
B. Standards					X
B.1	Village Center District and Village Residential District Sidewalk Requirements				X
B.2	Farm and Forest District and Residential Shoreland District, Resource Protection District Sidewalk Requirements				X
B.3	Sidewalk Design	X			
B.4	Connect to existing	X			

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
B.5	Site Plan	X			
B.6	Parking Plans	X			
B.6.a	Bicycle parking	X			
B.6.b	Pedestrian Way Locations	X			
B.6.c	Village Center District and Village Residential District sidewalks on frontage with 10 or more parking spaces	X			
10-33 INTERNAL VEHICULAR CIRCULATION					
A. Safe Movement					
A.1	Clear route and Turning Area	X			
A.2	Emergency Vehicles, Routes and Signage	X			
A.3	Layout and Design of Parking Area	X			
A.4	Designed to harmonize with site	X			
10-34 OFF STREET PARKING					
A. Applicability		X			
B. General Requirements		X			
C. Parking Layout and Design					
C.1	On lot or adjacent lot	X			
C.2	Arranged so not necessary to back out on road	X			
C.3	Location of Parking	X			
C.4	Landscaping Plan Providing Screening	X			
C.5	Joint use of Parking Area Approval				X
C.6	Durable surface	X			
C.7	Parking space size	X			
C.8	Diagonal parking				X

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
D. Parking Space Requirements					
D.1	Sufficient to accommodate	X			
D.2	Size of structure	X			
D.3	Reduce structure for sufficient parking				X
D.4	On-street parking				X
D.5	Availability of parking	X			
D.6	Pedestrian and bicycle safety	X			
D.7	Other standards				X
E. Waivers					
10-35 OFF STREET LOADING REQUIREMENTS					
A. Specific Uses					
A.1	Maximum number of trucks				X
A.2	Type of business	X			
A.3	Location of loading facility	X			
A.4	Screening				X
A.5	Desirability of service roads or alleys				X
A.6	Other characteristics				X
A.7	Traditional layout and historical character				X
A.8	Minimize noise impacts	X			

To Whom It May Concern,

By this letter, the undersigned authorizes Berry Huff McDonald Milligan Inc., to act as the agent for the undersigned, Well & Good Brewing Company in the preparation and submission of all Federal, State, and Local permit applications and relevant documents and correspondence for all necessary permits for the construction of a commercial brewery on North Yarmouth Assessors, Parcel Number: 4/25 in North Yarmouth, ME, to attend meetings and site visits; to appear before all boards, commissions, and committees, and to provide such other services as are necessary and appropriate in furtherance of the aforementioned project.

Sincerely,

Signature

Byron Kern, Owner

Printed Name and Title

10/25/2022

Date

State of Maine

Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and that the paper to which this is attached is a true copy from the records of this Department.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this twenty-third day of January 2023.

Shenna Bellows

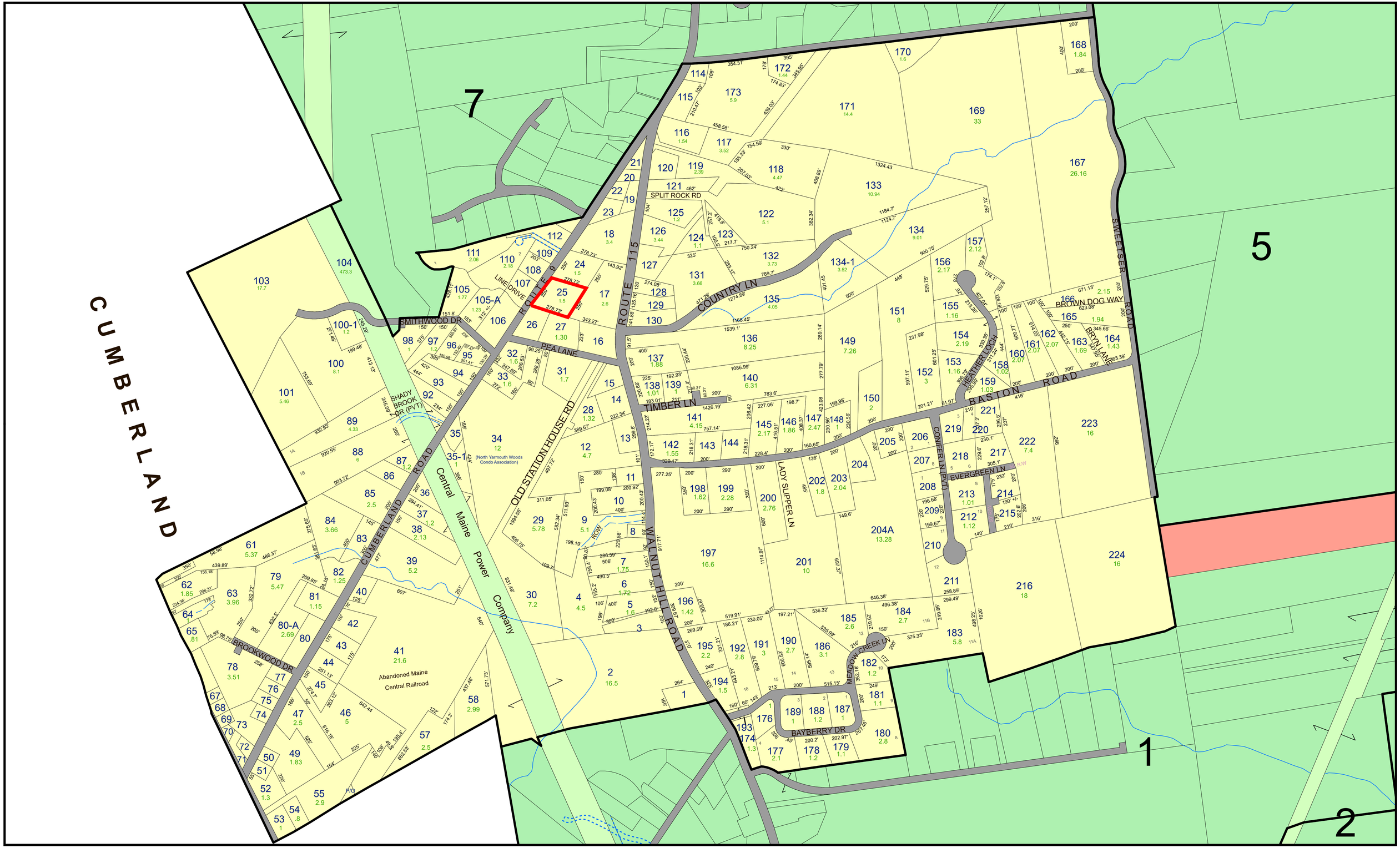
Shenna Bellows

Secretary of State

Additional Addresses

Legal Name	Title	Name	Charter #	Status
WELL & GOOD BREWING COMPANY LLC	Registered Agent		20230989DC	GOOD STANDING
Home Office Address (of foreign entity)	**Other Mailing Address**			

Attachment 1
Figures



Tax Sheets are intended for assessing purposes only. Boundary locations are approximateand should not be used for conveyance of property.

Maps updated - 01/28/2021

Legend

Parcel	Cemetery
Town	ROW
Railroad	Stream
Road	
Water	

North Yarmouth, Maine

Maps Prepared by:

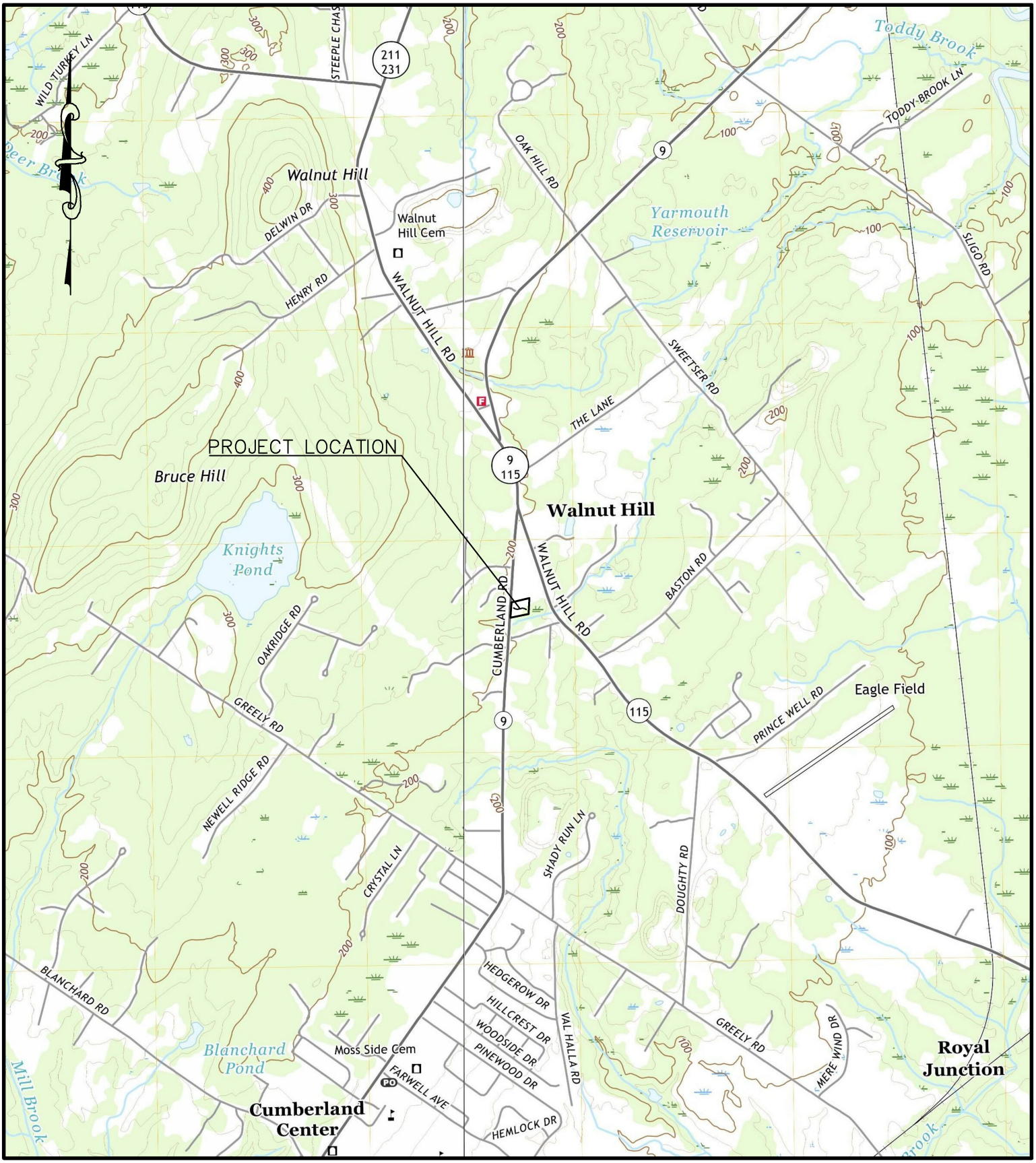
Cumberland County Regional Assessing

0 300 600

1 inch = 300 Feet

Tax Sheet

4



REFERENCES:
1. USGS QUADRANGLE CUMBERLAND CENTER, ME 2021
2. USGS QUADRANGLE YARMOUTH, ME 2021

Scale: 1" = 2000'

2000' 0 2000' 4000'

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
Fax (207) 839-8250

Wildlife & Wetland Map

North Yarmouth, ME

1 inch = 271 Feet

October 17, 2022

0 271 542 813

CAI Technologies
Precision Mapping. Geospatial Solutions.

www.cai-tech.com

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Zoning Map

173 Cumberland Rd., North Yarmouth, ME

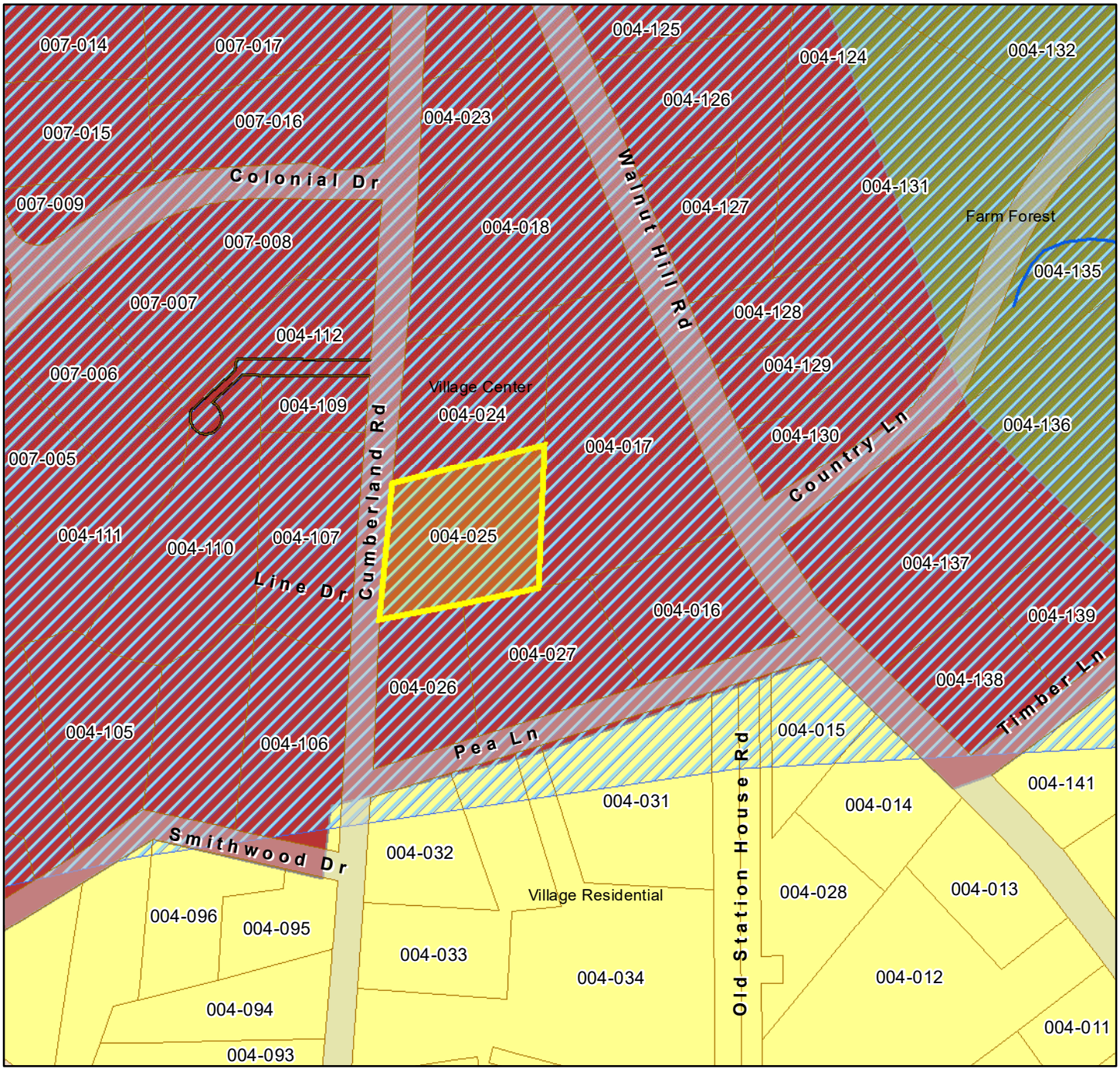
October 13, 2022

1 inch = 271 Feet

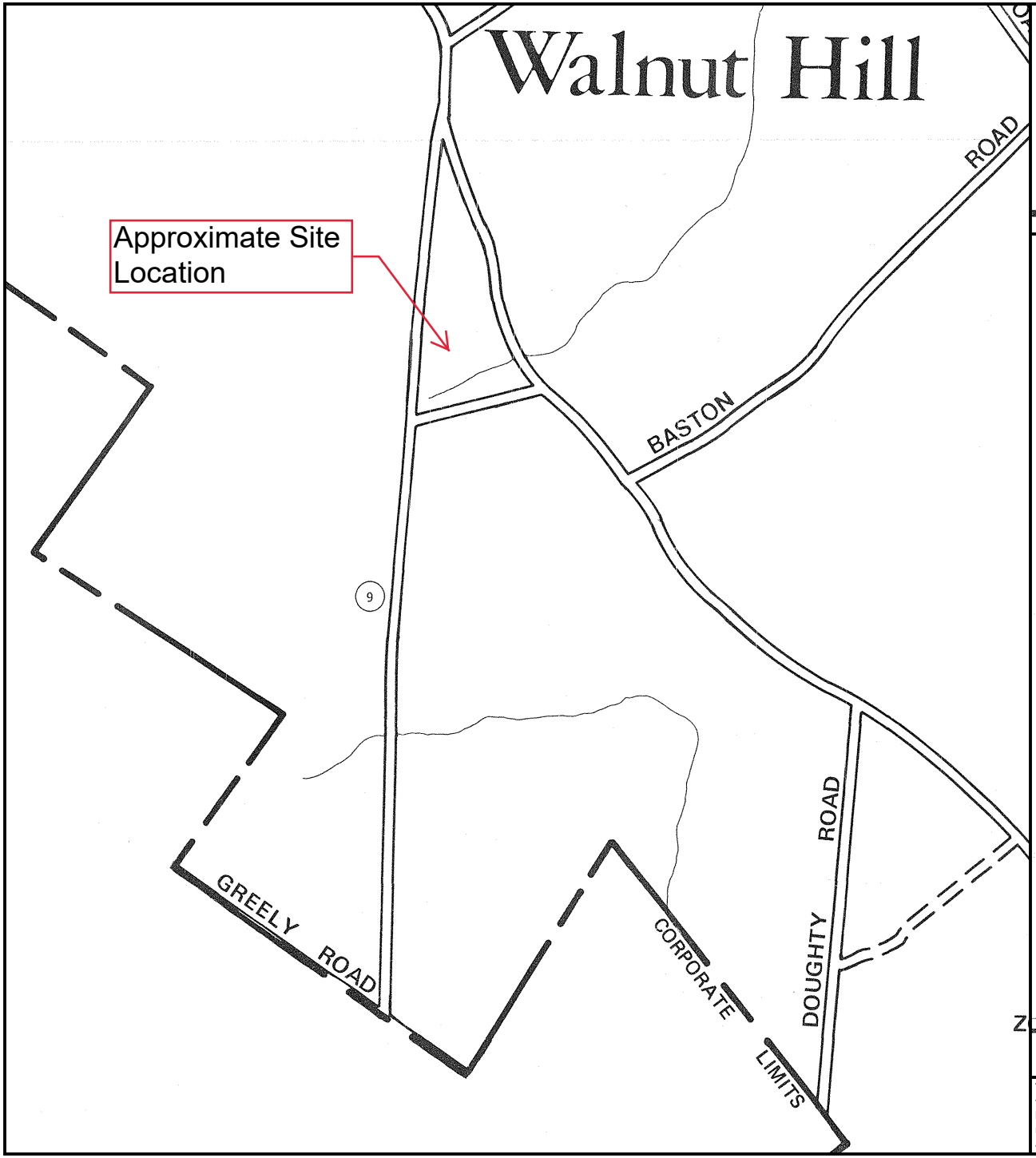
0 271 543 815

CAI Technologies
Precision Mapping. Geospatial Solutions.

www.cai-tech.com



Parcel	Right of Ways	Village Residential
ROW	Groundwater Protection Overlay Zone	
Stream	Farm and Forest	
Utility	Village Center	



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

230202

TOWN OF
NORTH YARMOUTH,
MAINE
CUMBERLAND COUNTY

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

P10

COMMUNITY-PANEL NUMBER
230202 0010 B

EFFECTIVE DATE:
JULY 16, 1981

N90

federal emergency management agency
federal insurance administration

Attachment 2

Parcel Deed and Commercial Lease Agreement

MAINE REAL ESTATE TAX-Paid

(SPACE ABOVE RESERVED FOR RECORDING INFORMATION)

WARRANTY DEED

DLN#1002240185087

JOINT TENANCY
Maine Statutory Short Form

KNOW ALL PERSONS BY THESE PRESENTS that I, **Joseph A. Arsenault** of North Yarmouth, County of Cumberland and State of Maine, for consideration paid, grant to **Elise Godinez Kern and Byron Mehl Kern, II,** both having a mailing address of 13 Smithwood Dr., North Yarmouth, ME 04097, with **WARRANTY COVENANTS, as Joint Tenants**, a certain lot or parcel of land in North Yarmouth, County of Cumberland, and State of Maine, bounded and described as follows:

A certain lot or parcel of land, situated on the Easterly side of Route 9 in the Town of North Yarmouth, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at an iron rod on the Easterly sideline of Route 9 and on the Northwest corner of the land conveyed to Maynard R. Thoits et al. by Arthur G. Seavey and Edna P. Seavey by deed April 11, 1961 and recorded in the Cumberland County Registry of Deeds in Book 2602, Page 382;

Thence, N 20° 35' E, along the Easterly sideline of Route 9, a distance of 250 feet to an iron rod;

Thence, S 89° 45' E, a distance of 278.73 feet to an iron rod;

Thence, S 20° 35' W, a distance of 250 feet to an iron rod on the Northerly boundary of land conveyed to Maynard R. Thoits, Sr. et al. by Arthur G. Seavey and Edna P. Seavey by deed dated June 16, 1977 and recorded in said Registry of Deeds in Book 4086, Page 100;

Thence, N 89° 45' W, along said lands conveyed to Maynard R. Thoits, Sr. et al. and Maynard R. Thoits et al. a distance of 278.73 feet to the point of beginning.

Containing 1.5 acres.

All bearings are magnetic as of 1984.

Being the same premises conveyed to Joseph A. Arsenault, by virtue of a deed from Craig Stoddard and Janet Stoddard dated February 19, 2009 and recorded in the Cumberland County Registry of Deeds in Book 26660, Page 79.

DOC :12103 BK:39226 PG:86
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
03/03/2022, 02:00:29P
Register of Deeds Jessica M. Spaulding E-RECORDED

WITNESS my hand this 3 day of March, 2022.

Witness

Joseph A. Arsenault

STATE OF MAINE
COUNTY OF CUMBERLAND

March 3, 2022

Personally appeared the above-named **Joseph A. Arsenault** and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public or Attorney at Law

KATHRYN CORTES
Notary Public - State of Maine
KATHRYN CORTES
Notary Public - State of Maine
Commission Expires June 18, 2026

After recording return to:
Elise G. Kern and Byron M. Kern, II
173 Cumberland Road, North Yarmouth, ME 04097

220085-Y

MAINE COMMERCIAL LEASE AGREEMENT

I. **THE PARTIES**. This Commercial Lease Agreement ("Agreement") made on November 1, 2022, by and between:

Landlord: Byron Kern & Elise Kern, with a mailing address of 13 Smithwood Dr., North Yarmouth, ME 04097 ("Landlord") who agrees to lease the Premises to:

Tenant: Well & Good Brewing Co., with a mailing address of 13 Smithwood Dr., North Yarmouth, ME 04097 ("Tenant"), who agrees to rent the Premises under the following terms:

Collectively the Landlord and Tenant shall be known as the "Parties."

II. **DESCRIPTION OF LEASED PREMISES**. The Landlord agrees to lease to the Tenant the following described space:

Street Address: 173 Cumberland Rd., North Yarmouth, ME 04097
Square Feet: 1,600 SF
Type of Space: Retail/Residential (retail, office, industrial, etc.)
Other Description: Log cabin with attached and detached garages and basement

Hereinafter known as the "Premises."

III. **USE OF LEASED PREMISES**. The Tenant agrees to use the Premises for: (check one)

☒ - All purposes legal under law.

☐ - Only the following purposes: [ENTER PURPOSE]. Any change in the above-mentioned purposes of the Premises shall only be permitted upon the Landlord's prior written consent.

IV. **TERM OF LEASE**. The term of this Agreement shall be for a period of 8 years commencing on November 1, 2022, and expiring at midnight on October 31, 2030 ("Initial Term").

V. **SECURITY DEPOSIT**. The Tenant is: (check one)

☒ - **Not Required to Pay a Deposit**. There shall be no deposit required for the successful performance of this Agreement by the Tenant ("Security Deposit").

☐ - **Required to Pay a Deposit**. The Tenant is required to pay $[AMOUNT] and shall be due and payable in advance of the Term or at the signing of this Agreement ("Security Deposit"). The Security Deposit shall be held in escrow by the Landlord in a separate bank account as security for the successful performance of the terms and conditions of this Agreement. The Security Deposit may not be used to pay the last month's Rent unless written permission is granted by the Landlord.

VI. **RENT**. The Tenant shall be obligated to pay $2,000 each month with the first payment due upon the commencement of this Agreement and each monthly installment payable thereafter on the 1st day of each month ("Due Date") after the Initial Term ("Base Rent"). The Base Rent shall also be applied to any pro-rata period when the Tenant occupies the Premises for less than a one (1) month period.

a.) Percentage Rent. In addition to the Base Rent, Tenant shall be: (check one)

☒ - **Not required** to make payments related to Tenant's sales or revenue ("Percentage Rent").

☐ - **Required to pay** [#]% of [TYPE OF SALES] (gross sales, net sales, etc.). Such payment shall be made with a receipt and proof of calculation and paid each: (check one)

☐ Monthly
☐ Quarterly
☐ Annually

The Base Rent and the Percentage Rent shall be referred collectively to as the "Rent."

VII. **LATE FEE**. If Rent has not been paid on the Due Date, there shall be: (check one)

☒ - **No Late Fee**. The Tenant shall not be liable to pay a penalty for any late payment due under this Agreement.

☐ - **A Late Fee**. If the Rent is not paid within [#] days of the Due Date, the Landlord will charge a penalty in the following manner: (check one)

☐ - Flat Fee. The late fee shall be equal to $[AMOUNT] and applied each ☐ occurrence ☐ day until the Rent is paid in full.

☐ - Based on Interest. The late fee shall be equal to the Rent Due with interest accumulating at a rate of [#]% per annum and applied each ☐ occurrence ☐ day until the Rent is paid in full.

All late payments made related to Rent shall be first applied to the late fee and all remaining amounts toward the outstanding Rent amounts.

VIII. EXPENSES. (check one)

☐ - **GROSS LEASE**.

It is recognized by both Parties that the Rent is the entirety of the payments to the Landlord. Therefore, the Tenant is not obligated to pay any additional expenses, which include utilities, real estate taxes, insurance (other than on the Tenant's personal property), charges, or expenses of any nature whatsoever in connection with the ownership and operation of the Premises. The Landlord shall be obligated to maintain the general exterior structure of the Premises, in addition, shall maintain all major systems such as the heating, plumbing, and electrical. The parking area shall be maintained by the Landlord, including the removal of any snow or environmental hazards as well as the grounds and lands surrounding the Premises.

The Landlord shall maintain at their expense casualty insurance for the Premises against loss by fire which may or may not include any extended coverage. The Tenant will provide and maintain personal liability and property damage insurance as a lessee, at least to the limits of One Million Dollars ($1,000,000.00), that will designate the Landlord as an "also named insured" and shall provide the Landlord with a copy of such insurance certification or policy prior to the effective date of this Agreement.

☒ - **MODIFIED-GROSS LEASE**.

Tenant shall be responsible for the following expenses: All operating expenses, including: management fee(s), heating, air conditioning, HVAC, electricity, water, waste disposal, sewage, operating materials and supplies, service agreements and charges, lawn care, snow removal, restriping, repairs, repaving, cleaning and custodial, security, insurance, the cost of contesting the validity or applicability of any governmental acts which may affect operating expenses, and all other direct operating costs of operating and maintaining the Premises and related parking areas

Landlord shall be responsible for the following expenses: Real Estate Taxes

The Landlord and Tenant agree to the following **shared** expenses: n/a

☐ - **TRIPLE NET (NNN) LEASE**.

a.) Operating Expenses. The Landlord shall have no obligation to provide any services, perform any acts, or pay expenses, charges, obligations, or costs of any kind whatsoever with respect to the Premises. The Tenant hereby agrees to pay one hundred percent (100%) of all Operating Expenses as hereafter defined for the Term of this Agreement and any extensions thereof in accordance with specific provisions hereinafter set forth. The term "Operating Expenses" shall include all costs to the Landlord of operating and maintaining the Premises and shall include, without limitation, real estate and personal property taxes and assessments, management fee(s), heating, air conditioning, HVAC, electricity, water, waste disposal, sewage, operating materials and supplies, service agreements and charges, lawn care, snow removal, restriping, repairs, repaving, cleaning and custodial, security, insurance, the cost of contesting the validity or applicability of any governmental acts which may affect operating expenses, and all other direct operating costs of operating and maintaining the Premises and related parking areas, unless expressly excluded from operating expenses.

b.) Taxes. Tenant shall pay, during the Term of this Agreement, the real estate taxes, including any special taxes or assessments (collectively, the "taxes") attributable to the Premises and accruing during the Term. Tenant, at Landlord's option, shall pay to Landlord said taxes on a monthly basis, based on one-twelfth (1/12) of the estimated annual amount for taxes. Taxes for any fractional calendar year during the Term hereof shall be prorated. In the event the Tenant does not make any tax payment required hereunder, Tenant shall be in default of this Agreement.

c.) Insurance. Tenant shall maintain, at all times during the Initial Term of this Agreement, comprehensive general liability insurance in an insurance company licensed to do business in the State in which the Premises are located and that is satisfactory to Landlord, properly protecting and indemnifying Landlord with single limit coverage of not less than: (check all that apply)

☐ - $[AMOUNT] for injury or death.

☐ - $[AMOUNT] for property damage.
☐ - $[AMOUNT] for casualty insurance.

During the Term of this Agreement, Tenant shall furnish the Landlord with certificate(s) of insurance, in a form acceptable to Landlord, covering such insurance so maintained by Tenant and naming Landlord and Landlord's mortgagees, if any, as additional insured.

IX. OPTION TO RENEW. The Tenant may: (check one)

☐ - **Not Renew this Agreement**.

☒ - **Renew this Agreement**. The Tenant may have the option to renew this Agreement with a total of 2 renewal period(s) with each term being 3 year(s) 0 month(s), which may be exercised by giving written notice to the Landlord no less than 60 days prior to the expiration of this Agreement or renewal period thereafter ("Renewal Periods").

Rent for each Renewal Period shall: (check one)

☐ - Not increase.

☒ - Increase as calculated by multiplying the Rent by the annual change in the Consumer Price Index (CPI) published by the Bureau of Labor Statistics by the most recent publication to the option period start date.

☐ - Increase by [#]%

☐ - Increase by $[AMOUNT]

The Initial Term and any renewal periods mentioned shall be collectively referred to as the "Term."

X. LEASEHOLD IMPROVEMENTS. The Tenant agrees that no leasehold improvements, alterations, or changes of any nature (except for those listed on any attached addenda) shall be made to the leasehold premises or the exterior of the building without first obtaining the consent of the Landlord in writing, which consent shall not be unreasonably withheld, and thereafter, any and all leasehold improvements made to the Premises which become affixed or attached to the leasehold Premises shall remain the property of the Landlord at the expiration or termination of this Agreement. Furthermore, any leasehold improvements shall be made only in accordance with applicable federal, state, or local codes, ordinances, or regulations, having due regard for the type of construction of the building housing the subject leasehold Premises.

If the Tenant makes any improvements to the Premises, the Tenant shall be responsible for any costs associated, except the following: n/a

Nothing in this Agreement shall be construed to authorize the Tenant or any other person acting for the Tenant to encumber the rents of the Premises or the interest of the Tenant in the Premises or any person under and through whom the Tenant has acquired its interest in the Premises with a mechanic's lien or any other type of encumbrance. Under no circumstance shall the Tenant be construed to be the agent, employee, or representative of Landlord. In the event a lien is placed against the Premises, through actions of the Tenant, Tenant will promptly pay the same or bond against the same and take steps immediately to have such lien removed. If the Tenant fails to have the lien removed, the Landlord shall take steps to remove the lien, and the Tenant shall pay Landlord for all expenses related to the lien and removal thereof and shall be in default of this Agreement.

XI. **DEFAULT AND POSSESSION.** In the event that the Tenant shall fail to pay said Rent, and expenses as set forth herein, or any part thereof, when the same is due and payable, or shall otherwise be in default of any other terms of said Agreement for a period of more than 15 days, after receiving notice of said default, then the parties hereto expressly agree and covenant that the Landlord may declare this Agreement terminated and may immediately re-enter said Premises and take possession of the same together with any of Tenant's personal property, equipment or fixtures left on the Premises which items may be held by the Landlord as security for the Tenant's eventual payment and/or satisfaction of rental defaults or other defaults of Tenant under this Agreement. It is further agreed that if the Tenant is in default, that the Landlord shall be entitled to take any and all action to protect its interest in the personal property and equipment, to prevent the unauthorized removal of said property or equipment which threatened action would be deemed to constitute irreparable harm and injury to the Landlord in violation of its security interest in said items of personal property. Furthermore, in the event of default, the Landlord may expressly undertake all reasonable preparations and efforts to release the Premises including, but not limited to, the removal of all inventory, equipment or leasehold improvements of the Tenant's, at the Tenant's expense, without the need to first procure an order of any court to do so, although obligated in the interim to undertake reasonable steps and procedures to safeguard the value of Tenant's property, including the storage of the same, under reasonable terms and conditions at Tenant's expense, and, in addition, it is understood that the Landlord may sue the Tenant for any damages or past Rents due and owing and may undertake all and additional legal remedies then available.

In the event any legal action must be instituted to enforce any terms or provisions under this Agreement, then the prevailing party in said action shall be entitled to recover a reasonable attorney's fee in addition to all costs of said action.

XII. LICENSES AND PERMITS. A copy of all local, state, or federal permits acquired by the Tenant which are required for the use of the Premises shall always be kept on-site and shall be readily accessible and produced to the Landlord and/or their agents or any local, state, or federal officials upon demand.

XIII. OBLIGATIONS OF TENANT. The Tenant shall be primarily responsible whenever needed for the maintenance and general pickup of the entranceway leading into the Premises so that this is kept in a neat, safe, and presentable condition. The Tenant shall also be responsible for all minor repairs and maintenance of the leasehold Premises, particularly those items which need immediate attention and which the Tenants, or their employees, can do and perform on their own, including but not limited to, the replacement of light bulbs, as well as the normal repair and cleaning of windows, cleaning, and clearing of toilets, etc., and the Tenant shall properly maintain the Premises in a good, safe, and clean condition. The Tenant shall properly and promptly remove all rubbish and hazardous wastes and see that the same are properly disposed of according to all local, state, or federal laws, rules, regulations, or ordinances.

In the event the structure of the Premises is damaged as a result of any neglect or negligence of Tenant, their employees, agents, business invitees, or any independent contractors serving the Tenant or in any way as a result of Tenant's use and occupancy of the Premises, then the Tenant shall be primarily responsible for seeing that the proper claims are placed with the Tenant's insurance company, or the damaging party's insurance company, and shall furthermore be responsible for seeing that the building is safeguarded with respect to said damage and that all proper notices with respect to said damage, are made in a timely fashion, including notice to the Landlord, and the party or parties causing said damage. Any damage that is not covered by an insurance company will be the liability of the Tenant.

The Tenant shall, during the Term of this Agreement, and in the renewal thereof, at its sole expense, keep the interior of the Premises in as good a condition and repair as it is at the date of this Agreement, reasonable wear and use excepted. This obligation would include the obligation to replace any plate glass damaged as a result of the neglect or acts of Tenant or her guests or invitees. Furthermore, the Tenant shall not knowingly commit nor permit to be committed any act or thing contrary to the rules and regulations prescribed from time to time by any federal, state, or local authorities and shall expressly not be allowed to keep or maintain any hazardous waste materials or contaminates on the Premises. Tenant shall also be responsible for the cost, if any, which would be incurred to bring her contemplated operation and business activity into compliance with any law or regulation of a federal, state, or local authority.

XIV. INSURANCE. In the event the Tenant shall fail to obtain the insurance required hereunder and fails to maintain the same in force continuously during the Term,

Landlord may, but shall not be required to, obtain the same and charge the Tenant for same as additional Rent. Furthermore, Tenant agrees not to keep upon the Premises any articles or goods which may be prohibited by the standard form of fire insurance policy, and in the event, the insurance rates applicable to fire and extended coverage covering the Premises shall be increased by reason of any use of the Premises made by Tenant, then Tenant shall pay to Landlord, upon demand, such increase in insurance premium as shall be caused by said use or Tenant's proportionate share of any such increase.

XV. SUBLET/ASSIGNMENT. The Tenant may not transfer or assign this Agreement or any right or interest hereunder or sublet said leased Premises or any part thereof without first obtaining the prior written consent and approval of the Landlord.

XVI. DAMAGE TO LEASED PREMISES. In the event the building housing the Premises shall be destroyed or damaged as a result of any fire or other casualty which is not the result of the intentional acts or neglect of Tenant and which precludes or adversely affects the Tenant's occupancy of the Premises, then in every such cause, the Rent herein set forth shall be abated or adjusted according to the extent to which the leased Premises have been rendered unfit for use and occupation by the Tenant and until the demised Premises have been put in a condition at the expense of the Landlord, at least to the extent of the value and as nearly as possible to the condition of the Premises existing immediately prior to such damage. It is understood, however, in the event of total or substantial destruction to the Premises that in no event shall the Landlord's obligation to restore, replace or rebuild exceed an amount equal to the sum of the insurance proceeds available for reconstruction with respect to said damage.

XVII. INDEMNIFICATION. The Tenant hereby covenants and agrees to indemnify, defend, and hold the Landlord harmless from any and all claims or liabilities which may arise from any cause whatsoever as a result of Tenant's use and occupancy of the Premises, and further shall indemnify the Landlord for any losses which the Landlord may suffer in connection with the Tenant's use and occupancy or care, custody, and control of the Premises. The Tenant also hereby covenants and agrees to indemnify and hold harmless the Landlord from any and all claims or liabilities which may arise from any latent defects in the subject Premises that the Landlord is not aware of at the signing of the lease or at any time during the Term.

XVIII. BANKRUPTCY - INSOLVENCY. The Tenant agrees that in the event all or a substantial portion of the Tenant's assets are placed in the hands of a receiver or a Trustee, and such status continues for a period of 30 days, or should the Tenant make an assignment for the benefit of creditors or be adjudicated bankrupt; or should the Tenant institute any proceedings under the bankruptcy act or any amendment thereto, then such Agreement or interest in and to the

leased Premises shall not become an asset in any such proceedings and, in such event, and in addition to any and all other remedies of the Landlord hereunder or by law provided, it shall be lawful for the Landlord to declare the Term hereof ended and to re-enter the leased land and take possession thereof and all improvements thereon and to remove all persons therefrom, and the Tenant shall have no further claim thereon.

XIX. SUBORDINATION AND ATTORNMENT. Upon request of the Landlord, Tenant will subordinate its rights hereunder to the lien of any mortgage now or hereafter in force against the property or any portion thereof, and to all advances made or hereafter to be made upon the security thereof, and to any ground or underlying lease of the property provided, however, that in such case the holder of such mortgage or the Landlord under such Agreement shall agree that this Agreement shall not be divested or in any way affected by foreclosure, or other default proceedings under the said mortgage, obligation secured thereby, or agreement, so long as the Tenant shall not be in default under the terms of this Agreement. Tenant agrees that this Agreement shall remain in full force and effect notwithstanding any such default proceedings under said mortgage or obligation secured thereby.

Tenant shall, in the event of the sale or assignment of Landlord's interest in the building of which the Premises form a part, or in the event of any proceedings brought for the foreclosure of, or in the event of exercise of the power of sale under any mortgage made by Landlord covering the Premises, attorn to the purchaser and recognize such purchaser as Landlord under this Agreement.

XX. MISCELLANEOUS TERMS.

a.) Usage by Tenant. Tenant shall comply with all rules, regulations, and laws of any governmental authority with respect to use and occupancy. Tenant shall not conduct or permit to be conducted upon the Premises any business or permit any act which is contrary to or in violation of any law, rules or regulations and requirements that may be imposed by any authority or any insurance company with which the Premises is insured, nor will the Tenant allow the Premises to be used in any way which will invalidate or be in conflict with any insurance policies applicable to the building. In no event shall explosives or extra hazardous materials be taken onto or retained on the Premises. Furthermore, Tenant shall not install or use any equipment that will cause undue interference with the peaceable and quiet enjoyment of the Premises by other tenants of the building.

b.) Signs. Tenant shall not place on any exterior door, wall, or window of the Premises any sign or advertising matter without Landlord's prior written consent and the approval of the local municipality. Thereafter, Tenant agrees to maintain such sign or advertising matter as first approved by

Landlord in good condition and repair. Furthermore, Tenant shall conform to any uniform, reasonable sign plan or policy that the Landlord may introduce with respect to the building. Upon vacating the Premises, Tenant agrees to remove all signs and to repair all damages caused or resulting from such removal.

c.) Condition of Premises/Inspection by Tenant. The Tenant has had the opportunity to inspect the Premises and acknowledges with its signature on this Agreement that the Premises are in good condition and comply in all respects with the requirements of this Agreement. Furthermore, the Landlord makes no representation or warranty with respect to the condition of the Premises or its fitness or availability for any particular use, and the Landlord shall not be liable for any latent or patent defect therein. Furthermore, the Tenant represents that Tenant has inspected the Premises and is leasing and will take possession of the Premises with all current fixtures present in their "as is" condition as of the date hereof.

d.) Right of Entry. It is agreed and understood that the Landlord and its agents shall have the complete and unencumbered right of entry to the Premises at any time or times for purposes of inspecting or showing the Premises and for the purpose of making any necessary repairs to the building or equipment as may be required of the Landlord under the terms of this Agreement or as may be deemed necessary with respect to the inspection, maintenance or repair of the building.

XXI. ESTOPPEL CERTIFICATE. Tenant at any time and from time to time, upon at least ten (10) days prior notice by Landlord, shall execute, acknowledge and deliver to Landlord, and/or to any other person, firm, or corporation specified by Landlord, a statement certifying that this Agreement is unmodified and in full force and effect, or if this Agreement has been modified, then that the same is in full force and effect except as modified and stating the modifications, stating the dates to which the Rent have been paid, and stating whether or not there exists any default by Landlord under this Agreement and, if so, specifying each such default.

XXII. HOLDOVER. Should Tenant remain in possession of the Premises after the cancellation, expiration, or sooner termination of this Agreement, or any renewal thereof, without the execution of a new agreement or addendum, such holding over in the absence of a written agreement to the contrary shall be deemed, if Landlord so elects, to have created and be construed to be a tenancy from month to month, terminable upon thirty (30) days' notice by either party.

XXIII. WAIVER. Waiver by Landlord of a default under this Agreement shall not constitute a waiver of a subsequent default of any nature.

XXIV. GOVERNING LAW. This Agreement shall be governed by the laws in the state of Maine.

XXV. NOTICES. Payments and notices shall be addressed to the following:

Landlord

Name: Byron Kern & Elise Kern
Address: 13 Smithwood Dr., North Yarmouth, ME 04097
Phone: 847-754-9668, 847-708-8410
E-Mail: bk.deuce@gmail.com, elise.g.kern@gmail.com

Tenant

Name: Well & Good Brewing Co.
Address: 13 Smithwood Dr., North Yarmouth, ME 04097
Phone: 207-358-9561
E-Mail: byron.kern@wellandgoodbrewing.com

XXVI. AMENDMENT. No amendment of this Agreement shall be effective unless reduced to writing and subscribed by the parties with all the formality of the original.

XXVII. BINDING EFFECT. This Agreement and any amendments thereto shall be binding upon the Landlord and the Tenants and/or their respective successors, heirs, assigns, executors, and administrators.

XXVIII. ADDITIONAL TERMS & CONDITIONS. The monthly rent shall be forgiven for the following date(s) starting November 1, 2022 and ending on July 31, 2023.

IN WITNESS WHEREOF, the Parties have indicated their acceptance of the terms and conditions of this Agreement by their signatures below on the dates indicated.

Landlord's Signature: Elise Kern Date: 10/30/22
Print Name: Elise Kern

Tenant's Signature: Byron M. Kern II Date: 10/30/22
Print Name: Byron M. Kern II

Attachment 3
Abutters List

500 foot Abutters List Report

North Yarmouth, ME
October 13, 2022

Subject Property:

Parcel Number:	004-025	Mailing Address:	ARSENAULT, JOSEPH A.
CAMA Number:	004-025		173 CUMBERLAND ROAD
Property Address:	173 CUMBERLAND RD		NORTH YARMOUTH, ME 04097

Abutters:

Parcel Number:	004-015	Mailing Address:	NASON, ELEANOR M.
CAMA Number:	004-015		2 PEA LANE
Property Address:	2 PEA LANE		NORTH YARMOUTH, ME 04097
Parcel Number:	004-016	Mailing Address:	SAMSON-RICKERT, KELLY
CAMA Number:	004-016		7 PEA LANE
Property Address:	7 PEA LANE		NORTH YARMOUTH, ME 04097
Parcel Number:	004-017	Mailing Address:	TRAINOR, JOHN W.
CAMA Number:	004-017		61 ADAMS POND RD
Property Address:	0 WALNUT HILL RD		DERRY, NH 03038
Parcel Number:	004-018	Mailing Address:	CONSTRUCTION AGGREGATE, INC
CAMA Number:	004-018		PO BOX 307
Property Address:	352 WALNUT HILL RD		CUMBERLAND, ME 04091
Parcel Number:	004-023	Mailing Address:	SCHUMACHER, LISA H.
CAMA Number:	004-023		205 CUMBERLAND RD
Property Address:	205 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-024	Mailing Address:	HAZELTON, ROBERT C.
CAMA Number:	004-024		188 CUMBERLAND RD
Property Address:	0 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-026	Mailing Address:	BUTLER, GLEN
CAMA Number:	004-026		27 PEA LANE
Property Address:	27 PEA LANE		NORTH YARMOUTH, ME 04097
Parcel Number:	004-027	Mailing Address:	CAMPBELL, KENNETH L.
CAMA Number:	004-027		19 PEA LN
Property Address:	19 PEA LANE		NORTH YARMOUTH, ME 04097
Parcel Number:	004-028	Mailing Address:	BECKWITH, ROBERT R.
CAMA Number:	004-028		20 OLD STATION HOUSE RD
Property Address:	20 OLD STATION HOUSE RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-029	Mailing Address:	WEBBER, HAYLEY A
CAMA Number:	004-029		56 OLD STATION HOUSE RD
Property Address:	56 OLD STATION HOUSE RD		NORTH YARMOUTH, ME 04097

500 foot Abutters List Report

North Yarmouth, ME
October 13, 2022

Parcel Number:	004-030	Mailing Address:	HILDRETH, GEORGE R.
CAMA Number:	004-030		62 OLD STATION HOUSE RD
Property Address:	62 OLD STATION HOUSE RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-031	Mailing Address:	CROSS, BRUCE A.
CAMA Number:	004-031		12 PEA LANE
Property Address:	12 PEA LANE		NORTH YARMOUTH, ME 04097
Parcel Number:	004-032	Mailing Address:	FOWLER, KENNETH J.
CAMA Number:	004-032		20 PEA LANE
Property Address:	20 PEA LANE		NORTH YARMOUTH, ME 04097
Parcel Number:	004-033	Mailing Address:	GIANDREA, HEATHER & RAYMOND
CAMA Number:	004-033		143 CUMBERLAND RD
Property Address:	143 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-095	Mailing Address:	GALLANT, KEVIN J & KATE L
CAMA Number:	004-095		146 CUMBERLAND RD
Property Address:	146 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-096	Mailing Address:	WOODCOCK, JOHN
CAMA Number:	004-096		12 SMITHWOOD DR
Property Address:	12 SMITHWOOD DR		NORTH YARMOUTH, ME 04097
Parcel Number:	004-105	Mailing Address:	THIBODEAU, PERRY J.
CAMA Number:	004-105		17 SMITHWOOD DR
Property Address:	17 SMITHWOOD DR		NORTH YARMOUTH, ME 04097
Parcel Number:	004-105-A	Mailing Address:	KERN, ELISE G & BRYON M
CAMA Number:	004-105-A		13 SMITHWOOD DRIVE
Property Address:	13 SMITHWOOD DR		NORTH YARMOUTH, ME 04097
Parcel Number:	004-106	Mailing Address:	CROCKETT, BRUCE W.
CAMA Number:	004-106		P.O. BOX 355
Property Address:	154 CUMBERLAND RD		CUMBERLAND, ME 04021
Parcel Number:	004-107	Mailing Address:	BRIMIGION, DANE S.
CAMA Number:	004-107		172 CUMBERLAND RD
Property Address:	172 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-109	Mailing Address:	MAYNARD, CATHERINE M
CAMA Number:	004-109		184 CUMBERLAND RD
Property Address:	184 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-110	Mailing Address:	REINFRIED, MARGARET C & ERIK P, JT
CAMA Number:	004-110		14 LINE DR
Property Address:	14 LINE DR		NORTH YARMOUTH, ME 04097

500 foot Abutters List Report

North Yarmouth, ME
October 13, 2022

Parcel Number:	004-111	Mailing Address:	LAFLAMME, SCOTT D &
CAMA Number:	004-111		SCHAUWECKER, LISA M
Property Address:	23 LINE DR		23 LINE DR
			NO YARMOUTH, ME 04097
Parcel Number:	004-112	Mailing Address:	WOOTEN, BRIDGETT
CAMA Number:	004-112		196 CUMBERLAND RD
Property Address:	188 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-113	Mailing Address:	WOOTEN, ELIAS
CAMA Number:	004-113		196 CUMBERLAND RD
Property Address:	196 CUMBERLAND RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-127	Mailing Address:	GOULETTE, ELIZABETH E.
CAMA Number:	004-127		345 WALNUT HILL RD
Property Address:	345 WALNUT HILL RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-128	Mailing Address:	VERRILL, RANDALL B FAMILY TRUST
CAMA Number:	004-128		339 SHAKER RD
Property Address:	335 WALNUT HILL RD		GRAY, ME 04039
Parcel Number:	004-129	Mailing Address:	VERRILL, RANDALL B FAMILY TRUST
CAMA Number:	004-129		339 SHAKER RD
Property Address:	339 WALNUT HILL RD		GRAY, ME 04039
Parcel Number:	004-130	Mailing Address:	VERRILL, RANDALL B FAMILY TRUST
CAMA Number:	004-130		339 SHAKER RD
Property Address:	329 WALNUT HILL RD		GRAY, ME 04039
Parcel Number:	004-136	Mailing Address:	STAGER, DAVID M.
CAMA Number:	004-136		323 WALNUT HILL RD
Property Address:	323 WALNUT HILL RD		NORTH YARMOUTH, ME 04097
Parcel Number:	004-137	Mailing Address:	SMITH, CHRISTINA M.
CAMA Number:	004-137		315 WALNUT HILL RD
Property Address:	315 WALNUT HILL RD		NORTH YARMOUTH, ME 04097
Parcel Number:	007-006	Mailing Address:	RAY, KENNETH N.
CAMA Number:	007-006		32 COLONIAL DR
Property Address:	32 COLONIAL DR		NORTH YARMOUTH, ME 04097
Parcel Number:	007-007	Mailing Address:	COLAVOLPE, CHRISTINE A. & JR.,
CAMA Number:	007-007		RONALD A.
Property Address:	24 COLONIAL DR		24 COLONIAL DR
			NORTH YARMOUTH, ME 04097
Parcel Number:	007-008	Mailing Address:	ADAMS, ANN E.
CAMA Number:	007-008		6 COLONIAL DRIVE
Property Address:	6 COLONIAL DR		NORTH YARMOUTH, ME 04097

Abutter's Map

173 Cumberland Rd., North Yarmouth, ME

October 13, 2022

1 inch = 543 Feet

0 543 1086 1629

CAI Technologies
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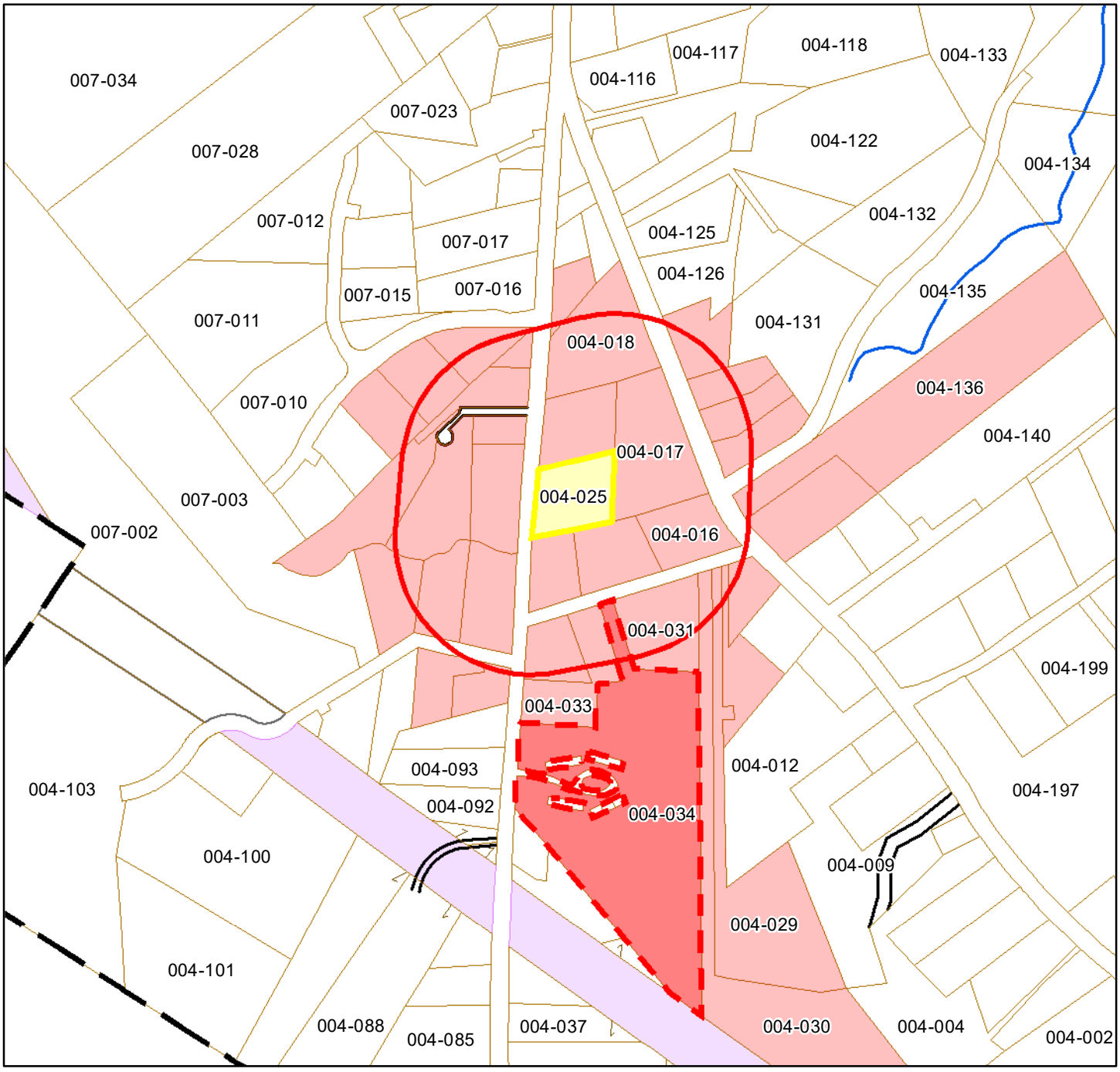


Town Boundary
Hook
Condo
ROW
Parcel
Stream
Utility
Utility

Attachment 4
Technical Capacity

Recognized Senior Civil Engineer and Project Manager with over 19 years of experience in land development, infrastructure design, stormwater management, and Municipal/State/Federal permitting. Project experience includes numerous types of land development and conservation projects including healthcare, commercial, educational, residential, municipal, transportation, and grid scale utility.

Relevant Experience

Stream Crossing Replacement Projects (Multiple Locations): Managed the surveying, design, permitting, construction management, and successful grant applications for stream crossing replacement projects for the Town of Arundel, Town of Dayton, and City of Biddeford. All projects received grant funding through the State of Maine – Department of Environmental Protection – Grants for Stream Crossing Public Infrastructure Improvements. Projects were designed in accordance with the United States Army Corps of Engineers Maine General Permit and the State of Maine - Natural Resources Protection Act (NRPA) – Permit by Rule Standards.

Bog Road Athletic Complex (Town of York): Managed the surveying, design, permitting, and construction management of the Bog Road Athletic Complex expansion for the Town of York Parks and Recreation Department. The expansion included new construction of parking areas, stormwater management infrastructure, new multi-purpose field, bleachers, concession building, maintenance and storage building, and irrigation system. The project was permitted with the Maine Department of Environmental Protection (Stormwater Management Law Permit) and the Town of York. This project was also awarded grant funding through the State of Maine Land and Conservation Fund.

Ridgewood Farm Conservation Subdivision (Scarborough, ME): Managed the surveying, design, and permitting for the 20-lot conservation subdivision located on Burnham Road in Scarborough, Maine. The project was permitted with the Maine Department of Environmental Protection (Site Location of Development Permit and Natural Resources Protection Act Tier 2 Permit), the United States Army Corps of Engineers (Maine General Permit), and the Town of Scarborough. The project also included approximately 30 acres of conserved open space that will be offered to the Scarborough Land Trust.

Highland Rose Open Space Subdivision (Kennebunk, ME): Managed the surveying, design, and permitting for the 10-lot open subdivision located on Alfred Road in Scarborough, Maine. The project was permitted with the Maine Department of Environmental Protection (Stormwater Management Law Permit) and the Town of Kennebunk. The project also included approximately 60 acres of conserved open space that was offered to the Kennebunk Land Trust.

Renewable Energy Projects (Multiple Locations): Managed the surveying, permitting, site/civil design, and stormwater management design for a variety of renewable energy projects (wind, solar, and transmission) throughout the State of Maine. Responsible for managing survey staff through field work, boundary survey, existing conditions, and ALTA/NSPS survey tasks for multiple complex projects.

Education

B.S. Civil Engineering, 2001, University of New Hampshire – Durham, NH

Professional Licenses and Affiliations

Licensed Professional Engineer, Maine, P.E. #11695

Bob is the Director of the Survey Department at BH2M with over 37 years of experience in the land surveying profession. Project experience includes numerous types of land surveying concepts including boundaries, ALTA/NSPS, topographic, flood plain certifications, and general existing conditions for a variety land development and conservation projects including healthcare, commercial, educational, residential, municipal, transportation, and grid scale utility.

Relevant Experience

Maine Turnpike Authority (Various Locations): Responsible for managing a variety of boundary surveys for large tracts of land being considered by the Maine Turnpike Authority for their expansion of turnpike facilities west of Portland.

Ridgewood Farm Conservation Subdivision (Scarborough, ME): Managed the boundary surveying, subdivision planning, road conveyance, and as-built drawings for the 20-lot conservation subdivision located on Burnham Road in Scarborough, Maine. The project was permitted with the Maine Department of Environmental Protection (Site Location of Development Permit and Natural Resources Protection Act Tier 2 Permit), the United States Army Corps of Engineers (Maine General Permit), and the Town of Scarborough. The project also included approximately 30 acres of conserved open space that will be offered to the Scarborough Land Trust for acceptance.

Highland Rose Open Space Subdivision (Kennebunk, ME): Managed the boundary surveying, subdivision planning, road conveyance, and as-built drawings for the 10-lot open subdivision located on Alfred Road in Scarborough, Maine. The project was permitted with the Maine Department of Environmental Protection (Stormwater Management Law Permit) and the Town of Kennebunk. The project also included approximately 30 acres of conserved open space that will be offered to the Scarborough Land Trust for acceptance.

Renewable Energy Projects (Multiple Locations): Managed the boundary surveying, existing conditions survey and ALTA/Surveys for a variety of renewable energy projects (wind, solar, and transmission) throughout the State of Maine. Responsible for managing survey staff thorough field work, boundary survey, existing conditions, and ALTA/NSPS survey tasks for multiple complex projects.

Education
B.S. Forestry Management/Recreational Park Management, 1982, University of Maine – Orono, ME

Professional Licenses and Affiliations
Professional Land Surveyor, Maine, P.L.S. #2190
Former President, Maine Society of Land Surveyors – Narragansett Chapter

Attachment 5
Financial Capacity and Opinion of Cost

Bangor Savings Bank

You matter more.

Member FDIC | Equal Housing Lender
NMLS# 449200

December 16, 2022

Byron and Elise Kern
13 Smithwood Dr
North Yarmouth, ME 04097

To Whom It May Concern:

Please accept this letter as confirmation that the above noted Borrowers have successfully secured financing for the establishment of the brewery, Well and Good Brewing Company, which will be located at the property they currently own at 173 Cumberland Rd., North Yarmouth, ME.

Should you have any questions feel free to contact me at 207-541-2731.

Sincerely,

Helen O. Cella

Helen O. Cella
VP, Senior Relationship Manager
Bangor Savings Bank

BH2M
380B Main Street
Gorham, Maine 04038

SITE CONSTRUCTION COST WORKSHEET
Well Good Brewing

Site Preparation	Quantity	Unit	Unit Cost	Total Cost
Erosion Control	1	LS	$ 2,000.00	$ 2,000.00
Subtotal				**$ 2,000.00**

Earthwork (Road Only)	Quantity	Unit	Unit Cost	Total Cost
Common Excavation	570	CY	$ 4.00	$ 2,280.00
Export of Common Borrow	630	CY	$ 6.00	$ 3,780.00
Subtotal				**$ 6,060.00**

Paving	Quantity	Unit	Unit Cost	Total Cost
Subbase Gravel	406	CY	$ 22.00	$ 8,923.00
Base Gravel	81	CY	$ 26.00	$ 2,109.00
Hot Bituminous Binder Pavement	112	TONS	$ 100.00	$ 11,194.00
Hot Bituminous Surface Pavement	56	TONS	$ 105.00	$ 5,877.00
Monolithic Concrete Slipform Curb	120	LF	$ 12.00	$ 1,440.00
Bituminous Sidewalk	72	SY	$ 40.00	$ 2,880.00
Subtotal				**$ 32,423.00**

Domestic Water System	Quantity	Unit	Unit Cost	Total Cost
Water service	0	LF	$ 20.00	$ -
Subtotal				**$ -**

Sanitary Sewer System	Quantity	Unit	Unit Cost	Total Cost
2,000 Gallon Holding Tank	1	LS	$ 2,500.00	$ 2,500.00
Replacement Septic Tank	1	LS	$ 2,000.00	$ 2,000.00
Subtotal				**$ 4,500.00**

Storm Drain System	Quantity	Unit	Unit Cost	Total Cost
Storm Drain Pipe	0	LF	$ 30.00	$ -
Manholes	0	EA	$ 2,000.00	$ -
Catch Basins	0	EA	$ 2,000.00	$ -
Level Spreader	1	LS	$ 2,000.00	$ 2,000.00
Subtotal				**$ 2,000.00**

Landscaping	Quantity	Unit	Unit Cost	Total Cost
Loam and Seed	1	LS	$ 1,500.00	$ 1,500.00
Bike Rack	1	EA	$ 500.00	$ 500.00
Light Pole Bases	3	EA	$ 1,500.00	$ 4,500.00
Plantings	1	LS	$ 5,000.00	$ 5,000.00
Subtotal				**$ 11,500.00**

TOTAL COST	**$ 58,483.00**

Attachment 6
Traffic Summary

BH2M

Civil Engineering | Surveying

Traffic Summary
Well & Good Brewing

The project is located at 173 Cumberland Road in North Yarmouth, ME. Cumberland Road (Route 9) has a posted speed limit of 40 mph. From the project location the sight distance is approximately +/- 1,300 linear feet looking north and +/- 540 linear feet looking south.

Trip Generation and Distribution

Trip generation was determined for the site based on data provided by the ITE Trip Generation Report, 9th Edition. For Land Use Code 925 – Drinking Place, the PM Peak Period Rate is 11.34 trips per 1000 square feet (KSF^2) and the Weekday Daily Traffic Rate is N/A. This results in the following for the project:

PM Peak: 1.6 KSF^2 x 11.34 = 18 trips
Daily Traffic: N/A

The ITE Trip Generation Report also provides anticipated trip distribution. For Land Use Code 925 the reported PM Peak trip distribution is as follows:

66 % enter the site: 12 trips
34 % existing the site: 6 trips

The PM Peak is assumed to take place between 4:00 – 6:00 p.m.

Attachment 7
Natural Resource Survey

Memorandum of Findings

Date: September 12, 2022

To: Steven J. Blake, PE & Senior Engineer (BH2M)

From: Chuck Ferris (Flycatcher LLC)

CC: Rodney Kelshaw (Flycatcher LLC)

Subject: Natural Resource Survey – North Yarmouth, ME

Dear Steve,

At your request, scientists from Flycatcher LLC (Flycatcher) completed wetland delineation, watercourse identification, and potential vernal pool surveys for a proposed development located at 173 Cumberland Avenue in North Yarmouth, Maine (Project). Natural resource surveys were performed on September 8, 2022, within the parcel (Survey Area). The attached Natural Resource Map (Figure 1) depicts the Survey Area boundary and location of mapped natural resources.

Survey Area Description

The Survey Area is approximately 1.5 acres and contains an existing residential home, garage, driveway along the northern portion of the property, and a narrow-forested area along the southern edge. Topography gradually slopes downward to the east, with the high point occurring along Cumberland Avenue on the western boundary of the Survey Area.

METHODS

Wetland Delineation

Wetland delineations were conducted in accordance with the USACE Wetland Delineation Manual[1] and the Northcentral and Northeast Regional Supplement (Version 2.0)[2]. The manual and supplement provide a repeatable methodology to identify potential wetland areas and are the accepted wetland delineation methodology of the Maine Department of Environmental Protection (MDEP) and the USACE.

The Survey Area was investigated by wetland scientists meandering across the site. When a location appeared to have the requisite three factors that constitute a wetland (i.e., hydrophytic vegetation, indicators of hydrology, and the presence of hydric soils) an investigation was undertaken. The scientists analyzed site-specific data to determine if the area met the criteria to be considered a wetland.

Watercourse Identification

Watercourse identification was consistent with the methods outlined in the MDEP *NRPA Identification Guide for Rivers, Streams, and Brooks*[3] and followed the Natural Resource Protection Act (NRPA) definition in Section 480(B)(9) "river, stream, or brook."

---

[1] Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

[2] U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

[3] Danielson, T. J. 2018. Natural Resources Protection Act (NRPA) Streams, Rivers, and Brooks. Maine Department of Environmental Protection, Augusta, ME.

Potential Vernal Pool Survey

Vernal pools are temporarily/seasonally flooded wetlands that provide the primary breeding habitat for vernal pool indicator species, and a host of secondary faunal species. Wood frogs (*Lithobates sylvaticus*) spotted salamanders (*Ambystoma maculatum*), blue spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus spp.*) are vernal pool indicator species that depend on vernal pools to complete their life cycle. Vernal pool habitats are defined in Chapter 335 of the NRPA and in the USACE Maine General Permit. Each definition is similar, except the Maine General Permit definition does not require a pool to be of natural origin.

Productivity of breeding vernal pool species is the primary metric used by regulatory authorities to assess vernal pool quality; thus, vernal pools must be assessed during the breeding season (generally mid-April to late-May). The wetland delineation results identified no potential vernal pools following the Maine Association of Wetland Scientists (MAWS) Vernal Pool Technical Committee Vernal Pool Survey Protocol (April 2014) methods for performing potential vernal pool (PVP) surveys (Section 3.4.4, Non-Breeding Season Survey).

GPS Location

Features located during the site visit were geolocated using a mapping grade global positioning system (GPS) unit (Juniper Systems' Geode GPS Antenna and ESRI's ArcGIS Collector software). The data were collected using real-time correction and standards specified by the manufacturer to achieve sub-meter accuracy. The data was exported to shapefile format and provided to you via email.

FINDINGS

Wetlands

No wetlands were mapped within the Survey Area. The forested area along the southern boundary is predominantly upland species of vegetation, including Eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*), northern red oak (*Quercus rubra*), black cherry (*Prunus serotina*), gray birch (*Betula populifolia*), and quacking aspen (*Populus tremuloides*) trees and saplings. Several invasive shrubs were observed including Morrow's honeysuckle (*Lonicera morrowii*), multi-flora rose (*Rosa multiflora*), and glossy buckthorn (*Rhamnus frangula*). Herbaceous species of vegetation were dominated by rough-leaved goldenrod (*Solidago rugosa*) and sensitive ferns (*Onoclea sensibilis*).

Watercourses

No watercourses were mapped within the Survey Area.

A perennial stream was observed just outside the southern boundary of the Survey Area. The stream flows east from a culvert under Cumberland Avenue near the southwestern edge of the parcel. The top of bank of the stream was estimated using current aerial photography and field observations within the Survey Area. The stream is represented on the attached Natural Resource Map (Figure 1).

Potential Vernal Pools

No potential vernal pools were observed within the Survey Area.

Thank you for the opportunity to assist you with natural resource identification for this project. If you have any questions regarding the results provided in this report, please do not hesitate to contact me.

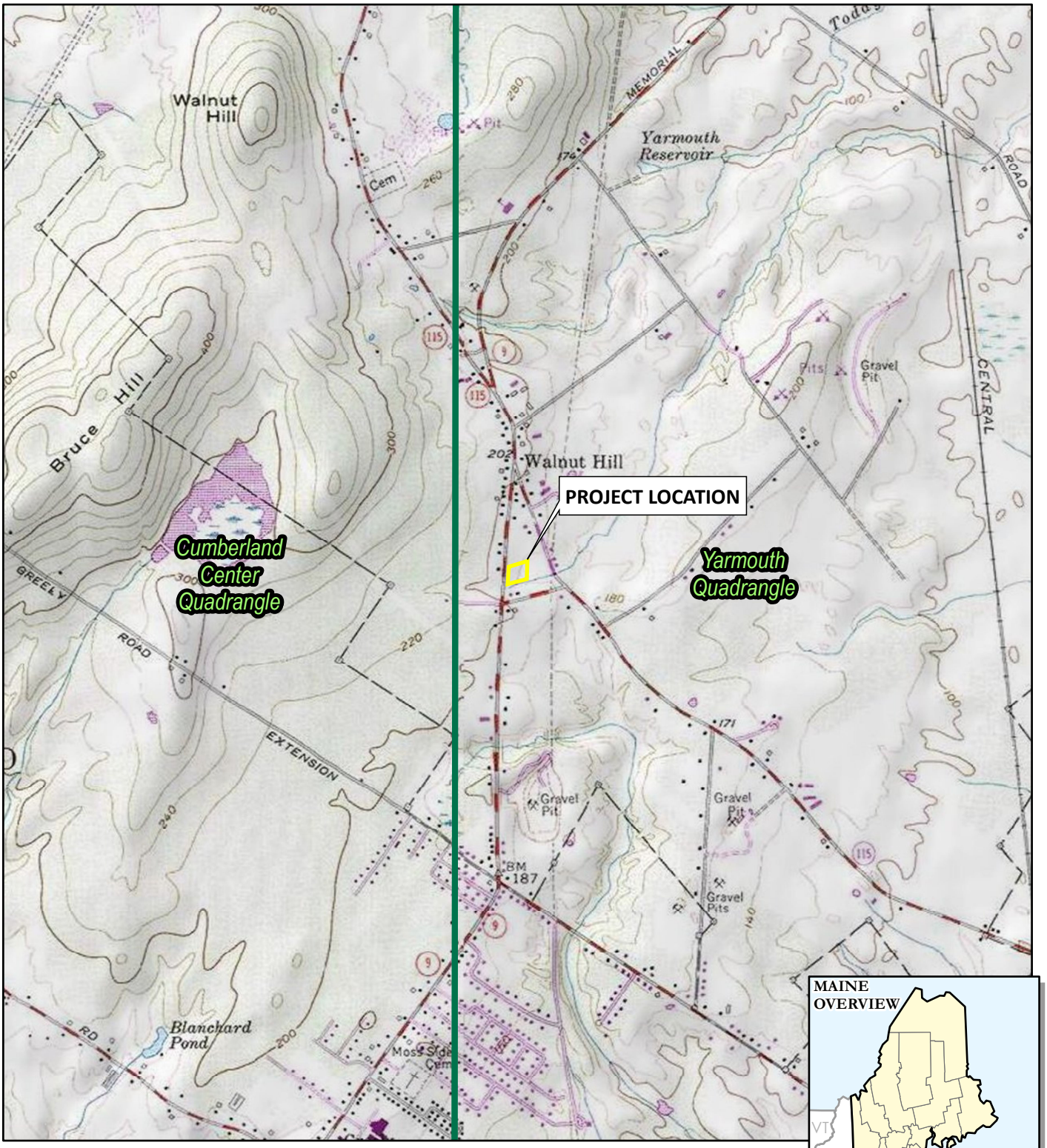
Sincerely,

Chuck Ferris, Lead Environmental Specialist, NHCWS
chuck@flycatcherllc.com
(207) 751-6987

Attachment 1: Natural Resource Map
Attachment 2: Representative Photographs

ATTACHMENT 1

Resource Map



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

1 " = 2,000 '
1:24,000

0 2,000 4,000 FEET

BH2M
Civil Engineering | Surveying

Flycatcher
LAND + SCIENCE + PEOPLE

PROJECT:

BH2M
NORTH YARMOUTH BREWERY
CUMBERLAND COUNTY, MAINE

LEGEND:

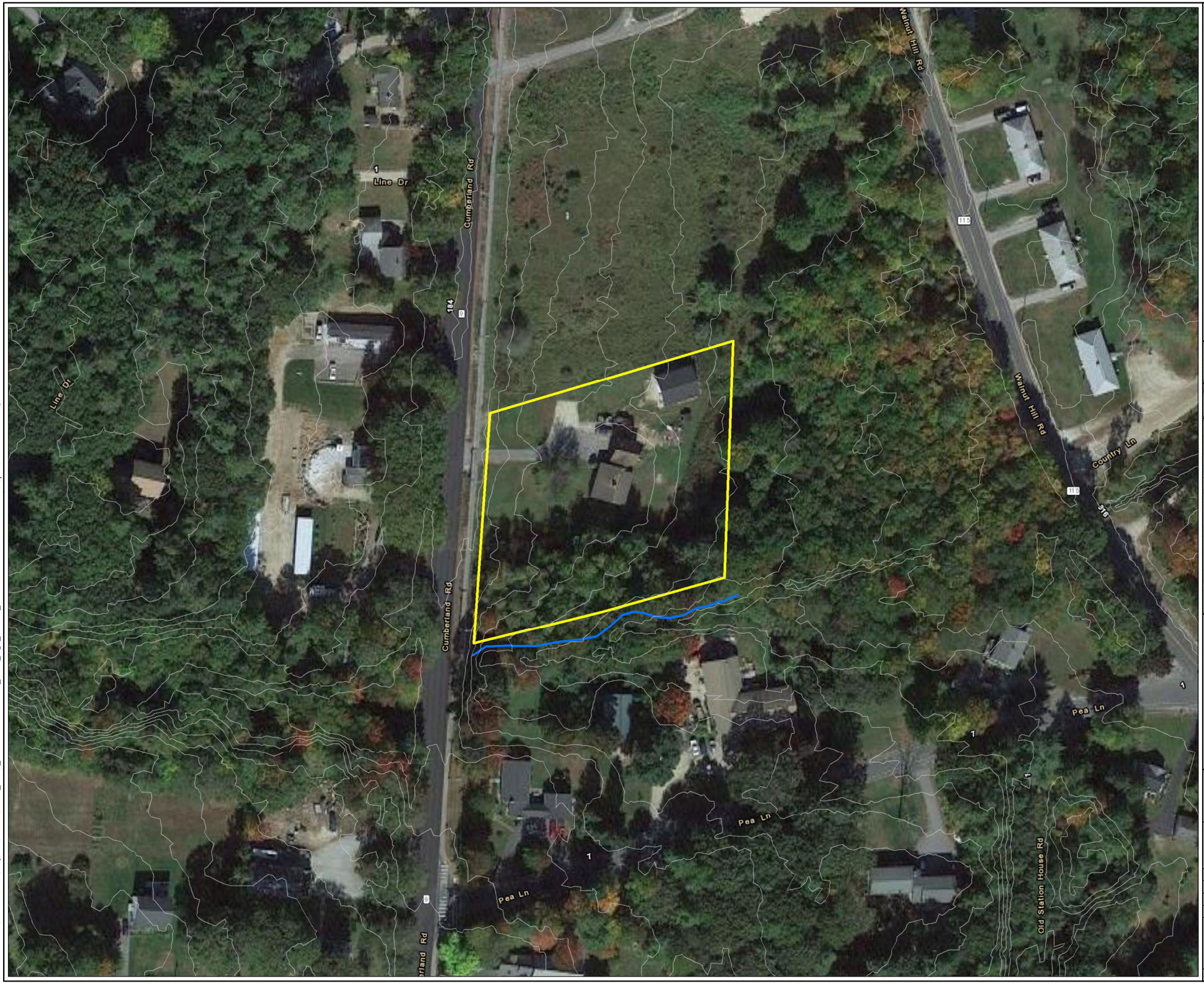
SURVEY AREA
USGS 7.5-MINUTE QUADRANGLE BOUNDARY

DRAWN BY:	D. KENWORTHY
CHECKED BY:	R. KELSHAW
MONTH:	SEPTEMBER
YEAR:	2022
PROJ. NO.:	22O-5
CLIENT:	BH2M

FIGURE 1

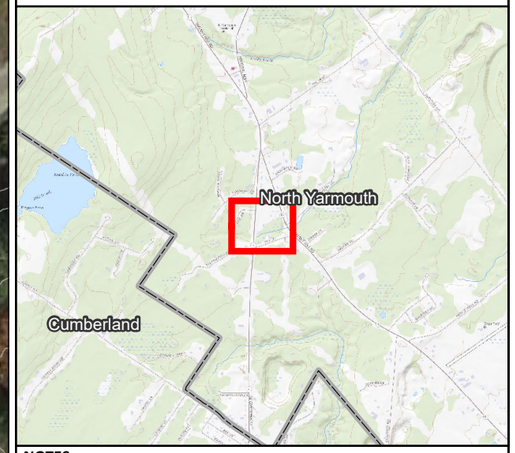
C:\FLYCATCHER\Projects\BH2M\BH2M_22O5_NorthYarmouthBrew_Delin_Fig1_USGS_8x11P.mxd -- Saved By: DREWKENWORTHY on 9/12/2022, 10:07:19 AM

Plot Date: 9/12/2022, 11:09:41 AM by DREWKENWORTHY -- LAYOUT: ANSI B(11"x17")
Path: C:\FLYCATCHER\Projects\BH2M\BH2M_22O5_NorthYarmouthBrew_Delin_Fig2_Results_11x17L.mxd
Coordinate System: NAD 1983 StatePlane Maine West FIPS 1802 Feet (Foot US)
Map Rotation: 0



LEGEND

- SURVEY AREA
- ESTIMATED STREAM, TOP OF BANK
- 2-FOOT CONTOUR LINE



NOTES:

1 BASEMAP IMAGERY FROM ESRI/NAIP "WORLD IMAGERY" SERVICE LAYER.
2 FIELDWORK WAS CONDUCTED BY FLYCATCHER IN SEPTEMBER 2022. NO RESOURCES WERE IDENTIFIED WITHIN THE SURVEY AREA.
3 THE ESTIMATED STREAM BANK TO THE SOUTH WAS DRAWN USING A SAMPLING OF GPS POINTS, 2' LIDAR CONTOUR DATA, AND AERIAL IMAGERY.

N

0 100 200
Feet
1 " = 100 '
1:1,200

PROJECT:

BH2M
NORTH YARMOUTH BREWERY
CUMBERLAND COUNTY, MAINE

TITLE:

DELINEATED WETLANDS AND WATERBODIES

DRAWN BY:	D. KENWORTHY	PROJ NO.:	22O-5
CHECKED BY:	R. KELSHAW		
MONTH:	SEPTEMBER		**FIGURE 2**
YEAR:	2022		

Flycatcher LAND + SCIENCE + PEOPLE

BH2M Civil Engineering | Surveying

FILE NO.: BH2M_22O5_NorthYarmouthBrew_Delin_Fig2_Results_11x17L.mxd

ATTACHMENT 2

Representative Photographs

Residential home 173 Cumberland Ave, North Yarmouth. September 8, 2022.

Upland forested area along southern portion of parcel. September 8, 2022.

Perennial stream observed just outside southern boundary. View upstream at culvert. September 8, 2022.

Attachment 8
Correspondence with MHPC

BH2M

Civil Engineering | Surveying

October 24, 2022

Megan M. Rideout
Review & Compliance/CLG Coordinator
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, Maine 04333

Re: Well & Good Brewing
173 Cumberland Road
North Yarmouth, ME 04097

Dear Megan,

Please find attached a USGS Map indicating the location of a proposed brewing company in the existing building at 173 Cumberland Road in North Yarmouth, ME (Tax Map 4 Lot 25). An image of the existing building has been included. In accordance with the Nort Yarmouth Site Plan Application requirements, we are requesting review by MHPC to determine if there are any historic sites, historic structures, or archeological sites within the project boundary.

The project will not include demolition of any existing known structures.

Please contact our office if you need any additional information.

Sincerely,

Blanca Monsen

Blanca Monsen, EI
Staff Engineer

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

October 31, 2022

Ms. Blanca Monsen
BH2M
380B Main St
Gorham, ME 04038

Project: MHPC# 1892-22 Well & Good Brewing; 173 Cumberland Rd
Proposed Brewing Company
Town: North Yarmouth, ME

Dear Ms. Monsen:

In response to your recent request, I have reviewed the information received October 24, 2022 to initiate consultation on the above referenced project.

Based on the information provided, I have concluded that there are no National Register listed or known eligible properties on or adjacent to the parcels. In addition, the project area is not considered sensitive for archaeological resources.

Please contact Megan M. Rideout of our staff, at megan.m.rideout@maine.gov or 207-287-2992, if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer

Attachment 9
Correspondence with Yarmouth Water District

Steve Blake

From: Steve Blake
Sent: Monday, January 23, 2023 12:15 PM
To: Eric Gagnon
Cc: Byron Kern
Subject: RE: Well & Good Brewing Company - 173 Cumberland Road - North Yarmouth
Attachments: Water-Flow Based on Fixture Count.pdf; AWWA Figure 1-2.pdf

Hi Eric. Apologies for the delayed response on this. We've developed a fixture count for the brewery based on the attached spreadsheet. This includes 2 bathrooms (one sink and toilet each), one dishwasher (for washing tasting glassware), one kitchen sink (for bar/serving area), an eyewash station, one utility/wash sink for the brewing operations, and we have assume one exterior spigot/hose. Based on these, we've calculated a fixture value of 15. The attached spreadsheet is one that we typically utilize when working with PWD and is based on AWWA-M22-Sizing Water Service Lines and Meters. Also attached is a blown up version of Figure 4-2/1-2. At this point we do not believe that the proposed project will require a fire protection system, this analysis assumes domestic supply only. We've also assumed that the lower demand curve (for apartments, motels, condos, trailer parks) was more appropriate for the use. Based on the small size and rural characteristic of the proposed facility we felt this was more of an appropriate assumption but let us know if you feel otherwise. The result of this analysis provides us with a predicted demand of 13.5 gpm. Happy to discuss in more detail if you'd like. Thanks again for your help with this.

STEVEN J. BLAKE, PE
SENIOR ENGINEER
BH2M
380B Main Street
Gorham, Maine 04038
O: 207 839-2771 x 205
M: 207 210-3244
www.bh2m.com

From: Eric Gagnon <egagnon@yarmouthwaterdistrict.org>
Sent: Friday, October 28, 2022 10:33 AM
To: Steve Blake <sblake@bh2m.com>
Cc: Blanca Monsen <bmonsen@bh2m.com>; Byron Kern <byron.kern@wellandgoodbrewing.com>
Subject: Re: Well & Good Brewing Company - 173 Cumberland Road - North Yarmouth

Hi Steve. Can you provide us with peak flow in gallons per minute?

On Fri, Oct 28, 2022 at 7:19 AM Steve Blake <sblake@bh2m.com> wrote:

> Hi Eric. We're working for Byron Kern who is the owner of Well & Good Brewing Company. We are in the process of developing a site plan and application for the Town of North Yarmouth. As is required by the site plan permit application we are requesting that the Water District provide us with an ability to serve letter. The proposed project is located at 173 Cumberland Road in North Yarmouth (Map 4 Lot 25). Attached is the tax map and a USGS location map

for reference. The previous use of the property was a single family residence with an attached garage. The single-family home will be renovated to be used as a tasting room and the garage will be used for brewing operations. We anticipate that the tasting room will have capacity for 40 patrons and the brewing process will be set up to brew 155 gallons per week. Based on Table 4C from the State of Maine Subsurface Wastewater Disposal Rules we have estimated the following design flows:

Bar/Tavern w/o food = 10 gpd x 40 seats = 12gpd x 2 employees = 424 gpd

For the brewing operation we anticipate that there will be one batch per week of 155 gallons. Typical brewing operation water usage is approximately 7x the production volume once cleaning, rinsing, and chilling is considered:

155 gallons per week x 7 = 1,085 gallons per week/7 = 155 gpd

The **total** estimated water usage is expected be 424 gpd = 155 gpd = **579 gpd**

Appreciate the help with this. Let me know if you need any additional information from us.

STEVEN J. BLAKE, PE

SENIOR ENGINEER

BH2M

380B Main Street

Gorham, Maine 04038

O: 207 839-2771 x 205

M: 207 210-3244

www.bh2m.com

--

Eric Gagnon
Superintendent
Yarmouth Water District
Our current work schedule is Monday through Thursday 7 am to 5 pm and I typically do not check my emails regularly outside of those hours.
207.846.5821 phone
207.846.1240 fax
http://YarmouthWaterDistrict.org/

Peak Flow Based on Fixture Count

Adapted from 2009 Maine State Internal Plumbing Code

Customer	Well & Good Brewing
Street Address	173 Cumberland
City	North Yarmouth

Conservative Model

Fixture		Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub		4	x	0	=	0
Bidet		1	x	0	=	0
Dental Unit		1	x	0	=	0
Eye Wash Station		0.5	x	1	=	0.5
Kitchen Sink		1.5	x	1	=	1.5
Bathroom Sink		1	x	2	=	2
Showerhead (Shower Only)		2	x	0	=	0
Service Sink		3	x	0	=	0
Toilet -Flushometer(high pressure)		5	x	0	=	0
-Tank Type		2.5	x	2	=	5
Urinal -Flushometer Valve		5	x	0	=	0
-Tank Type		2	x	0	=	0
Wash Sink (Each Set of Faucets)		2	x	1	=	2
Dishwasher		1.5	x	1	=	1.5
Washing Machine		4	x	0	=	0
Hose (outdoor spigot)	<3/4 in.	2.5	x	1	=	2.5
Combined Fixture Value Total						15

Customer Peak Demand From Fig. 4-2 or 4-3	13.5
Pressure Factor From Table 4-1	1

Irrigation(Yes/No)?	No
If yes, gpm required by irrigation designer:	-

Total Fixed Demand (Peak Flow) **13.5 gpm**

Table 4-1 Pressure Adjustment Factors

Working Pressure at Meter Discharge (psi)	Pressure Adjustment Factor
35	0.74
40	0.80
50	0.90
60	1.00
70	1.09
80	1.17
90	1.25
100	1.34

Adapted from AWWA Manual M22 table 4-1

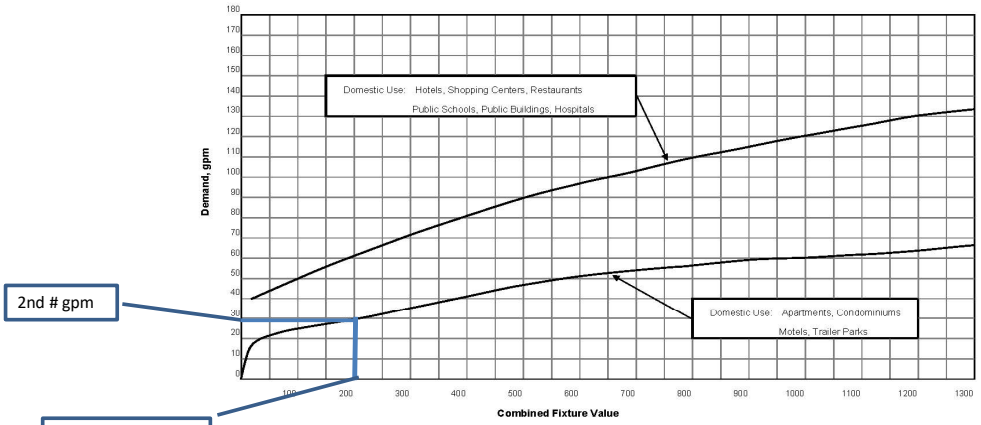


Figure 4-2 Water flow demand per fixture value - low range

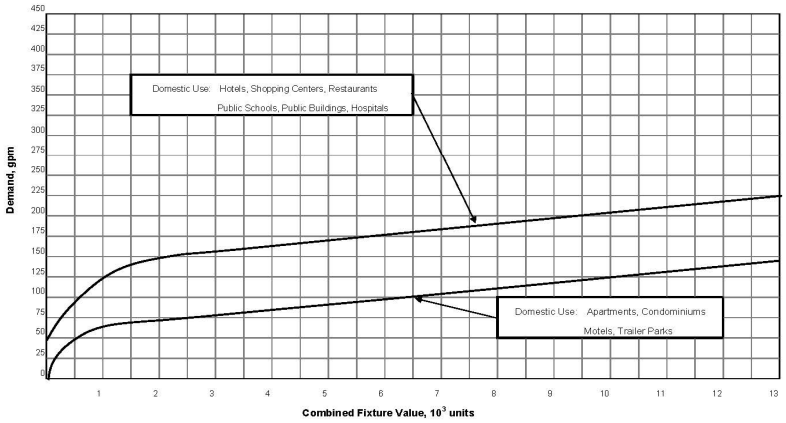


Figure 4-3 Water flow demand per fixture value - High range

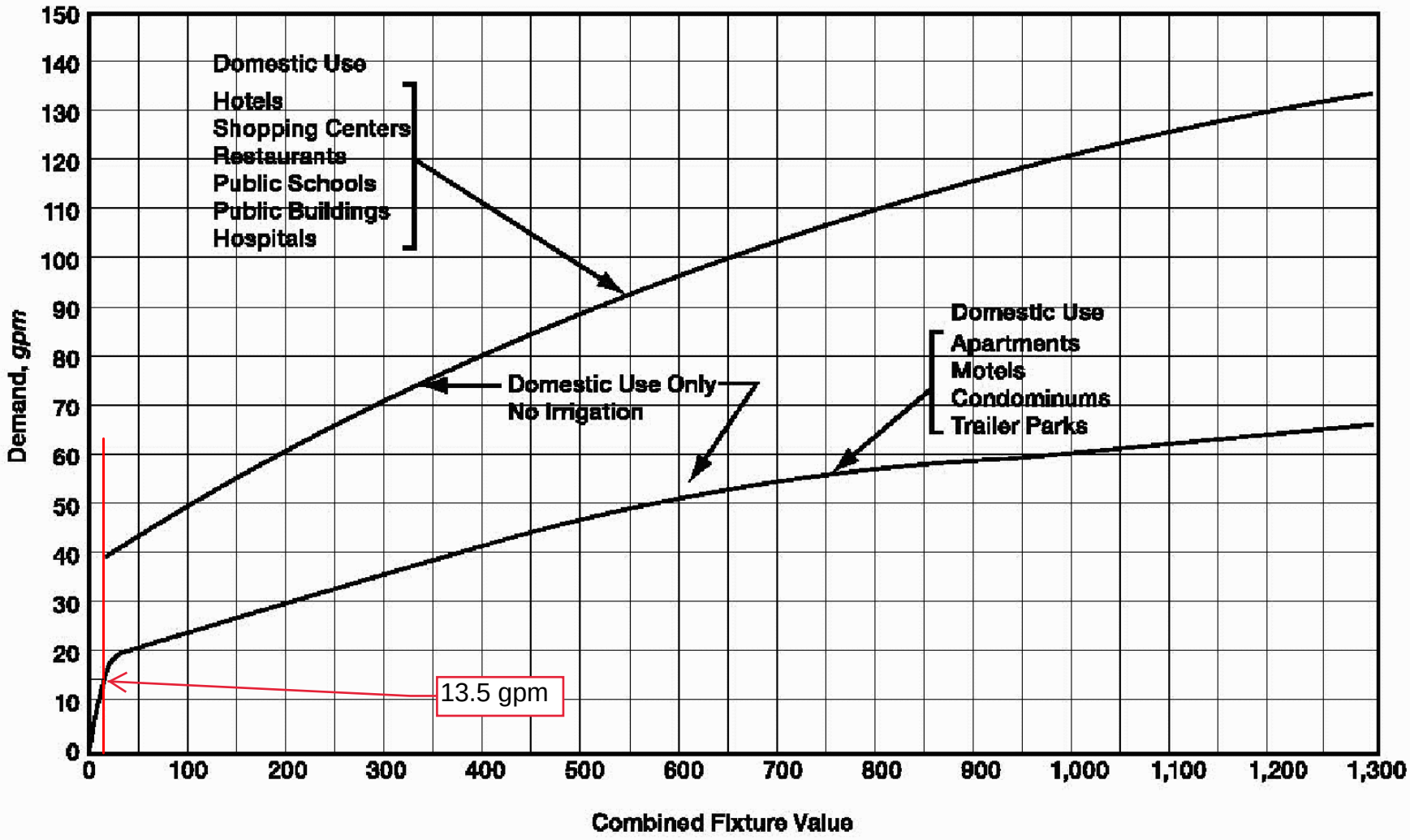
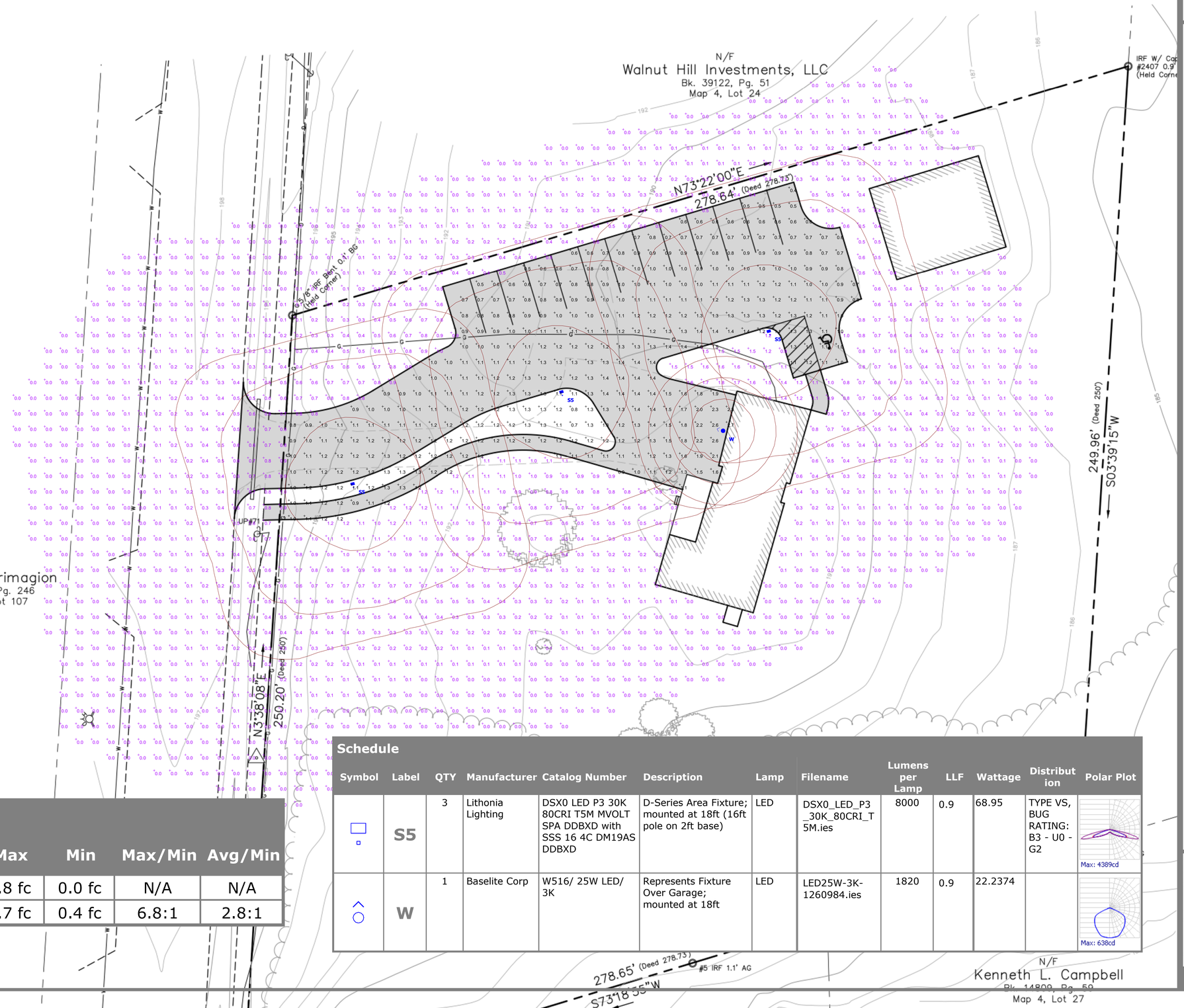


Figure 1-2 Water-flow demand per fixture value—enlarged scale from Figure 4-1

Attachment 10
Photometric Plan



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Outside of Parking Lot	+	0.2 fc	1.8 fc	0.0 fc	N/A	N/A
Parking Lot	+	1.1 fc	2.7 fc	0.4 fc	6.8:1	2.8:1

Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens per Lamp	LLF	Wattage	Distribution	Polar Plot
▭ ▫	S5	3	Lithonia Lighting	DSX0 LED P3 30K 80CRI T5M MVOLT SPA DDBXD with SSS 16 4C DM19AS DDBXD	D-Series Area Fixture; mounted at 18ft (16ft pole on 2ft base)	LED	DSX0_LED_P3_30K_80CRI_T5M.ies	8000	0.9	68.95	TYPE VS, BUG RATING: B3 - U0 - G2	Max: 4389cd
◠ ○	W	1	Baselite Corp	W516/ 25W LED/ 3K	Represents Fixture Over Garage; mounted at 18ft	LED	LED25W-3K-1260984.ies	1820	0.9	22.2374		Max: 638cd

VISUAL

WELL & GOOD BREWING COMPANY
Site Lighting Layout

Designer
Heidi G. Connors
Visible Light, Inc.
24 Stickney Terrace
Suite 6
Hampton, NH 03842
Date
01/25/2023
Scale
1"=16'
Drawing No.
Summary

D-Series Size 0
LED Area Luminaire

Catalog Number

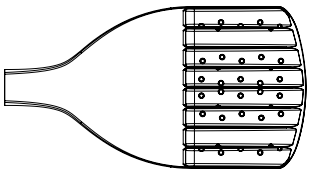
Notes

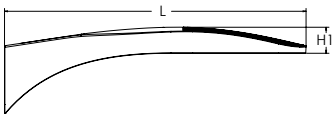
Type

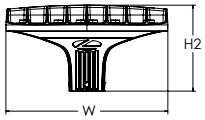
Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.44 ft² (0.04 m²)
Length:	26.18" (66.5 cm)
Width:	14.06" (35.7 cm)
Height H1:	2.26" (5.7 cm)
Height H2:	7.46" (18.9 cm)
Weight:	23 lbs (10.4 kg)







Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series	LEDs	Color temperature [2]	Color Rendering Index [2]	Distribution	Voltage	Mounting
DSX0 LED	**Forward optics** P1 P5 P2 P6 P3 P7 P4 **Rotated optics** P10 [1] P12 [1] P11 [1] P13 [1]	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare [3] T4M Type IV medium T4LG Type IV low glare [3] TFTM Forward throw medium T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control [3] BLC4 Type IV backlight control [3] LCCO Left corner cutoff [3] RCCO Right corner cutoff [3]	MVOLT (120V-277V) [4] HVOLT (347V-480V) [5,6] XVOLT (277V-480V) [7,8]	**Shipped included** SPA Square pole mounting (#8 drilling, 3.5" min. SQ pole) RPA Round pole mounting (#8 drilling, 3" min. RND pole) SPA5 Square pole mounting (#5 drilling, 3" min. SQ pole) [9] RPA5 Round pole mounting (#5 drilling, 3" min. RND pole) [9] SPA8N Square narrow pole mounting (#8 drilling, 3" min. SQ pole) WBA Wall bracket [10]

Control options

Shipped installed

NLTAIR2 PIRHN	nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. [11,12,18,19]
PIR	High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc [13,18,19]
PER	NEMA twist-lock receptacle only (controls ordered separate) [14]
PER5	Five-pin receptacle only (controls ordered separate) [14,19]
PER7	Seven-pin receptacle only (controls ordered separate) [14,19]
FAO	Field adjustable output [15,19]
BL30	Bi-level switched dimming, 30% [16,19]
BL50	Bi-level switched dimming, 50% [16,19]
DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17]

Other options

Shipped installed

HS	Houseside shield (black finish standard) [20]
L90	Left rotated optics [1]
R90	Right rotated optics [1]
CCE	Coastal Construction [21]

Shipped separately

EGS	External Glare Shield (reversible, field install required, matches housing finish)
BS	Bird Spikes (field install required)

Finish *(required)*

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

Ordering Information

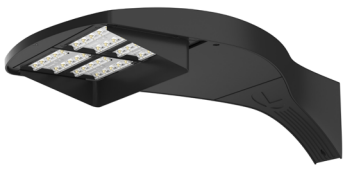
Accessories

Ordered and shipped separately.

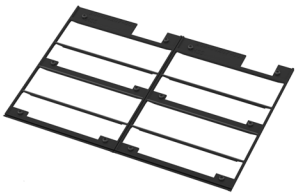
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [22]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [22]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [22]
DSHORT SBK	Shorting cap [22]
DSX0HS 20C	House-side shield for P1, P2, P3 and P4 [20]
DSX0HS 30C	House-side shield for P10, P11, P12 and P13 [20]
DSX0HS 40C	House-side shield for P5, P6 and P7 [20]
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXRPA5 (FINISH)	Round pole adapter #5 drilling (specify finish)
DSXSPA5 (FINISH)	Square pole adapter #5 drilling (specify finish)
DSX0EGS (FINISH)	External glare shield

NOTES
1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6 HVOLT not available with package P1, P2 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
7 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8 XVOLT not available in packages P1, P2 or P10.
9 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).
10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight Air 2.
12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50 and DMG. NLTAIR2 PIRHN not available with P1, P2 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1, P2 and P10 using XVOLT.
13 PIR not available with NLTAIR2, PER, PER5, PER7, FAO BL30, BL50 and DMG. PIR not available with P1, P2 and P10 using HVOLT. PIR not available with P1, P2 and P10 using XVOLT.
14 PER/PER5/PER7 not available with NLTAIR2, PIR, BL30, BL50. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, or DMG.
16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO and DMG.
17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50 and FAO.
18 Reference Motion Sensor Default Settings table on page 4 to see functionality.
19 Reference Controls Options table on page 4.
20 Option HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
21 CCE option not available with option BS and EGS. Contact Technical Support for availability.
22 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.

Shield Accessories



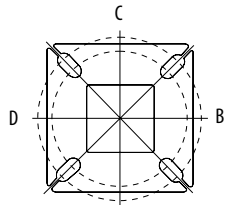
External Glare Shield (EGS)

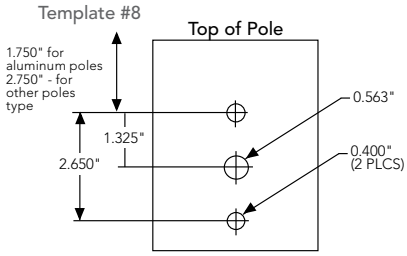


House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION
(from top of pole)





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
		Minimum Acceptable Outside Pole Dimension					
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 with SPA	0.44	0.88	0.96	1.18	---	1.16
DSX0 with SPA5, SPA8N	0.51	1.02	1.06	1.26	---	1.29
DSX0 with RPA, RPA5	0.51	1.02	1.06	1.26	1.24	1.29
DSX0 with MA	0.64	1.28	1.24	1.67	1.70	1.93

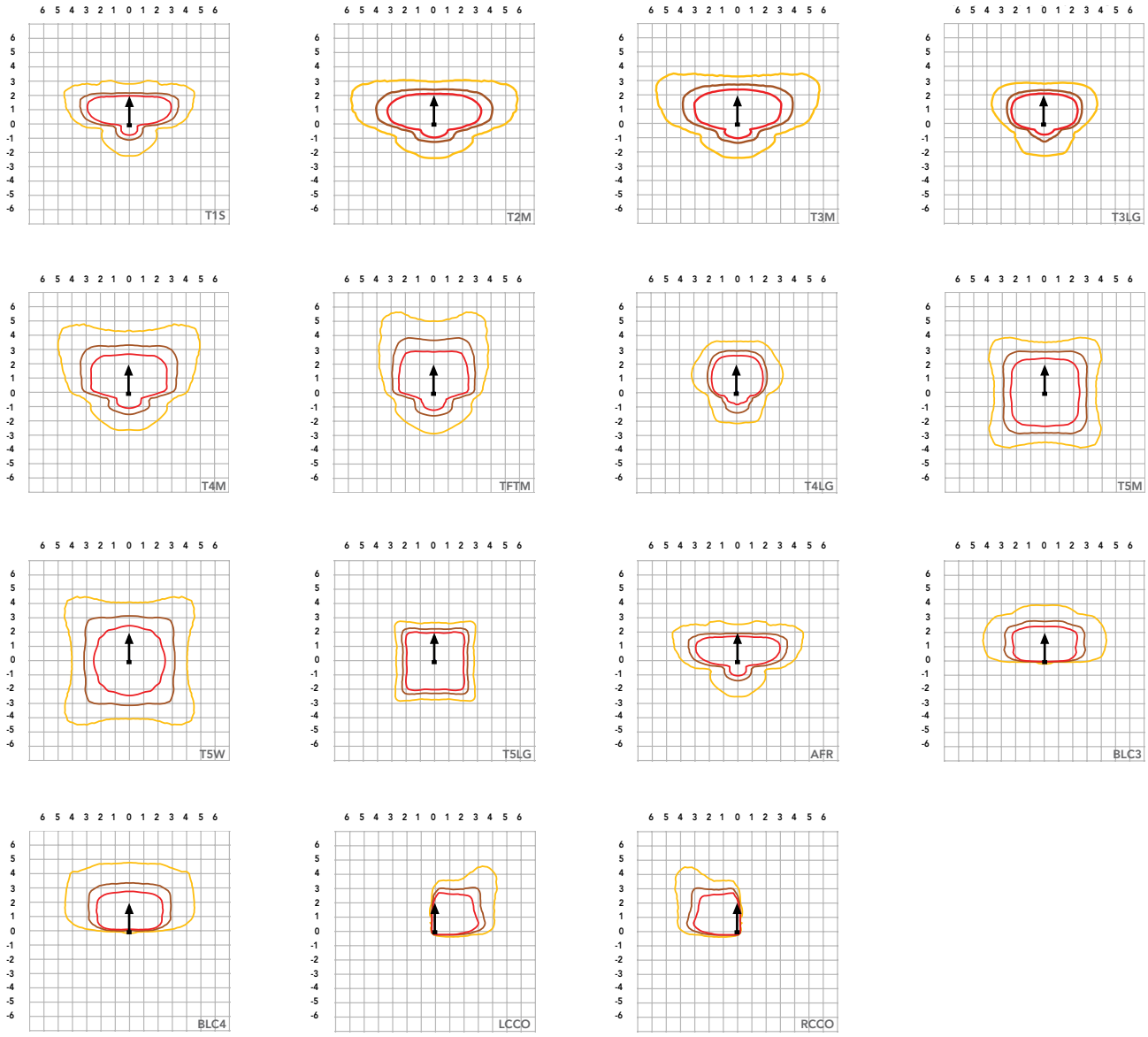
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's homepage.

Isofootcandle plots for the DSX0 LED P7 40K 70CRI. Distances are in units of mounting height (20').

LEGEND

- 0.1 fc
- 0.5 fc
- 1.0 fc



Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°C**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.94
50,000	0.89
100,000	0.80

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use published values for each package based on input watts and lumens by optic type.

Electrical Load

	Performance Package	LED Count	Drive Current (mA)	Wattage	Current (A) 120V	208V	240V	277V	347V	480V
Forward Optics (Non-Rotated)	P1	20	530	34	0.28	0.16	0.14	0.12	0.10	0.07
	P2	20	700	45	0.38	0.22	0.19	0.16	0.13	0.09
	P3	20	1050	69	0.57	0.33	0.29	0.25	0.20	0.14
	P4	20	1400	94	0.78	0.45	0.39	0.34	0.27	0.19
	P5	40	700	89	0.75	0.43	0.38	0.33	0.26	0.19
	P6	40	1050	136	1.14	0.66	0.57	0.49	0.39	0.29
	P7	40	1300	170	1.42	0.82	0.71	0.62	0.49	0.36
Rotated Optics (Requires L90 or R90)	P10	30	530	51	0.42	0.24	0.21	0.18	0.15	0.11
	P11	30	700	67	0.57	0.33	0.28	0.25	0.20	0.14
	P12	30	1050	103	0.86	0.50	0.43	0.37	0.30	0.22
	P13	30	1300	129	1.07	0.62	0.54	0.46	0.37	0.27

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80CRI		90CRI	
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)

Note: Some LED types are available as per special request. Contact Technical Support for more information.

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Phototcell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
NLTAIR2 PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79.
Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current (mA)	Performance Package	System Watts	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20	530	**P1**	33W	T1S	4,906	1	0	1	148	5,113	1	0	1	154	5,213	1	0	1	157
				T2M	4,545	1	0	2	137	4,736	1	0	2	143	4,829	1	0	2	145
				T3M	4,597	1	0	2	138	4,791	1	0	2	144	4,885	1	0	2	147
				T3LG	4,107	1	0	1	124	4,280	1	0	1	129	4,363	1	0	1	131
				T4M	4,666	1	0	2	141	4,863	1	0	2	146	4,957	1	0	2	149
				T4LG	4,244	1	0	1	128	4,423	1	0	1	133	4,509	1	0	1	136
				TFTM	4,698	1	0	2	141	4,896	1	0	2	147	4,992	1	0	2	150
				T5M	4,801	3	0	1	145	5,003	3	0	1	151	5,101	3	0	1	154
				T5W	4,878	3	0	1	147	5,084	3	0	2	153	5,183	3	0	2	156
				T5LG	4,814	2	0	1	145	5,018	2	0	1	151	5,115	2	0	1	154
				BLC3	3,344	0	0	1	101	3,485	0	0	1	105	3,553	0	0	1	107
				BLC4	3,454	0	0	2	104	3,599	0	0	2	108	3,670	0	0	2	111
				RCCO	3,374	0	0	1	102	3,517	0	0	1	106	3,585	0	0	1	108
				LCCO	3,374	0	0	1	102	3,517	0	0	1	106	3,585	0	0	1	108
				AFR	4,906	1	0	1	148	5,113	1	0	1	154	5,213	1	0	1	157
20	700	**P2**	45W	T1S	6,328	1	0	1	140	6,595	1	0	1	146	6,724	1	0	1	149
				T2M	5,862	1	0	2	130	6,109	1	0	2	135	6,228	1	0	2	138
				T3M	5,930	1	0	3	131	6,180	1	0	3	137	6,301	1	0	3	140
				T3LG	5,297	1	0	1	117	5,521	1	0	1	122	5,628	1	0	1	125
				T4M	6,018	1	0	3	133	6,272	1	0	3	139	6,395	1	0	3	142
				T4LG	5,474	1	0	1	121	5,705	1	0	1	126	5,816	1	0	1	129
				TFTM	6,060	1	0	3	134	6,316	1	0	3	140	6,439	1	0	3	143
				T5M	6,192	3	0	1	137	6,453	3	0	2	143	6,579	3	0	2	146
				T5W	6,293	3	0	2	139	6,558	3	0	2	145	6,686	3	0	2	148
				T5LG	6,210	2	0	1	138	6,472	3	0	1	143	6,598	3	0	1	146
				BLC3	4,313	0	0	2	96	4,495	0	0	2	100	4,583	0	0	2	102
				BLC4	4,455	0	0	2	99	4,643	0	0	2	103	4,733	0	0	2	105
				RCCO	4,352	0	0	2	96	4,536	0	0	2	100	4,624	0	0	2	102
				LCCO	4,352	0	0	2	96	4,536	0	0	2	100	4,624	0	0	2	102
				AFR	6,328	1	0	1	140	6,595	1	0	1	146	6,724	1	0	1	149
20	1050	**P3**	69W	T1S	9,006	1	0	2	131	9,386	1	0	2	136	9,569	1	0	2	139
				T2M	8,343	2	0	3	121	8,694	2	0	3	126	8,864	2	0	3	129
				T3M	8,439	2	0	3	122	8,795	2	0	3	128	8,967	2	0	3	130
				T3LG	7,539	1	0	2	109	7,857	1	0	2	114	8,010	1	0	2	116
				T4M	8,565	2	0	3	124	8,926	2	0	3	129	9,100	2	0	3	132
				T4LG	7,790	1	0	2	113	8,119	1	0	2	118	8,277	1	0	2	120
				TFTM	8,624	1	0	3	125	8,988	1	0	3	130	9,163	2	0	3	133
				T5M	8,812	3	0	2	128	9,184	4	0	2	133	9,363	4	0	2	136
				T5W	8,955	4	0	2	130	9,333	4	0	2	135	9,515	4	0	2	138
				T5LG	8,838	3	0	1	128	9,211	3	0	1	134	9,390	3	0	1	136
				BLC3	6,139	0	0	2	89	6,398	0	0	2	93	6,522	0	0	2	95
				BLC4	6,340	0	0	3	92	6,607	0	0	3	96	6,736	0	0	3	98
				RCCO	6,194	1	0	2	90	6,455	1	0	2	94	6,581	1	0	2	95
				LCCO	6,194	1	0	2	90	6,455	1	0	2	94	6,581	1	0	2	95
				AFR	9,006	1	0	2	131	9,386	1	0	2	136	9,569	1	0	2	139
20	1400	**P4**	93W	T1S	11,396	1	0	2	122	11,877	1	0	2	128	12,109	2	0	2	130
				T2M	10,557	2	0	3	113	11,003	2	0	3	118	11,217	2	0	3	121
				T3M	10,680	2	0	3	115	11,130	2	0	3	120	11,347	2	0	3	122
				T3LG	9,540	1	0	2	103	9,942	1	0	2	107	10,136	1	0	2	109
				T4M	10,839	2	0	3	117	11,296	2	0	3	121	11,516	2	0	4	124
				T4LG	9,858	1	0	2	106	10,274	1	0	2	110	10,474	1	0	2	113
				TFTM	10,914	2	0	3	117	11,374	2	0	3	122	11,596	2	0	3	125
				T5M	11,152	4	0	2	120	11,622	4	0	2	125	11,849	4	0	2	127
				T5W	11,332	4	0	3	122	11,811	4	0	3	127	12,041	4	0	3	129
				T5LG	11,184	3	0	1	120	11,656	3	0	2	125	11,883	3	0	2	128
				BLC3	7,768	0	0	2	83	8,096	0	0	2	87	8,254	0	0	2	89
				BLC4	8,023	0	0	3	86	8,362	0	0	3	90	8,524	0	0	3	92
				RCCO	7,838	1	0	2	84	8,169	1	0	2	88	8,328	1	0	2	90
				LCCO	7,838	1	0	2	84	8,169	1	0	2	88	8,328	1	0	2	90
				AFR	11,396	1	0	2	122	11,877	1	0	2	128	12,109	2	0	2	130

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79.
Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current (mA)	Performance Package	System Watts	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	700	**P5**	90W	T1S	12,380	2	0	2	137	12,902	2	0	2	143	13,154	2	0	2	146
				T2M	11,468	2	0	3	127	11,952	2	0	3	133	12,185	2	0	3	135
				T3M	11,601	2	0	3	129	12,091	2	0	3	134	12,326	2	0	4	137
				T3LG	10,363	2	0	2	115	10,800	2	0	2	120	11,011	2	0	2	122
				T4M	11,774	2	0	4	131	12,271	2	0	4	136	12,510	2	0	4	139
				T4LG	10,709	1	0	2	119	11,160	2	0	2	124	11,378	2	0	2	126
				TFTM	11,856	2	0	3	132	12,356	2	0	4	137	12,596	2	0	4	140
				T5M	12,114	4	0	2	134	12,625	4	0	2	140	12,871	4	0	2	143
				T5W	12,310	4	0	3	137	12,830	4	0	3	142	13,080	4	0	3	145
				T5LG	12,149	3	0	2	135	12,662	3	0	2	141	12,908	3	0	2	143
				BLC3	8,438	0	0	2	94	8,794	0	0	2	98	8,966	0	0	2	99
				BLC4	8,715	0	0	3	97	9,083	0	0	3	101	9,260	0	0	3	103
				RCCO	8,515	1	0	2	94	8,874	1	0	2	98	9,047	1	0	2	100
				LCCO	8,515	1	0	2	94	8,874	1	0	2	98	9,047	1	0	2	100
				AFR	12,380	2	0	2	137	12,902	2	0	2	143	13,154	2	0	2	146
40	1050	**P6**	137W	T1S	17,545	2	0	3	128	18,285	2	0	3	133	18,642	2	0	3	136
				T2M	16,253	3	0	4	119	16,939	3	0	4	124	17,269	3	0	4	126
				T3M	16,442	2	0	4	120	17,135	3	0	4	125	17,469	3	0	4	128
				T3LG	14,687	2	0	2	107	15,306	2	0	2	112	15,605	2	0	2	114
				T4M	16,687	2	0	4	122	17,391	3	0	5	127	17,730	3	0	5	129
				T4LG	15,177	2	0	2	111	15,817	2	0	2	115	16,125	2	0	2	118
				TFTM	16,802	2	0	4	123	17,511	2	0	4	128	17,852	2	0	5	130
				T5M	17,168	4	0	2	125	17,893	5	0	3	131	18,241	5	0	3	133
				T5W	17,447	5	0	3	127	18,183	5	0	3	133	18,537	5	0	3	135
				T5LG	17,218	4	0	2	126	17,944	4	0	2	131	18,294	4	0	2	134
				BLC3	11,959	0	0	3	87	12,464	0	0	3	91	12,707	0	0	3	93
				BLC4	12,352	0	0	4	90	12,873	0	0	4	94	13,124	0	0	4	96
				RCCO	12,067	1	0	3	88	12,576	1	0	3	92	12,821	1	0	3	94
				LCCO	12,067	1	0	3	88	12,576	1	0	3	92	12,821	1	0	3	94
				AFR	17,545	2	0	3	128	18,285	2	0	3	133	18,642	2	0	3	136
40	1300	**P7**	171W	T1S	20,806	2	0	3	122	21,683	2	0	3	127	22,106	2	0	3	129
				T2M	19,273	3	0	4	113	20,086	3	0	4	118	20,478	3	0	4	120
				T3M	19,497	3	0	5	114	20,319	3	0	5	119	20,715	3	0	5	121
				T3LG	17,416	2	0	2	102	18,151	2	0	2	106	18,504	2	0	2	108
				T4M	19,787	3	0	5	116	20,622	3	0	5	121	21,024	3	0	5	123
				T4LG	17,997	2	0	2	105	18,756	2	0	2	110	19,121	2	0	2	112
				TFTM	19,924	3	0	5	117	20,765	3	0	5	122	21,170	3	0	5	124
				T5M	20,359	5	0	3	119	21,217	5	0	3	124	21,631	5	0	3	127
				T5W	20,689	5	0	3	121	21,561	5	0	3	126	21,982	5	0	3	129
				T5LG	20,418	4	0	2	120	21,279	4	0	2	125	21,694	4	0	2	127
				BLC3	14,182	0	0	3	83	14,780	0	0	3	87	15,068	0	0	3	88
				BLC4	14,647	0	0	4	86	15,265	0	0	4	89	15,562	0	0	4	91
				RCCO	14,309	1	0	3	84	14,913	1	0	3	87	15,204	1	0	3	89
				LCCO	14,309	1	0	3	84	14,913	1	0	3	87	15,204	1	0	3	89
				AFR	20,806	2	0	3	122	21,683	2	0	3	127	22,106	2	0	3	129

Performance Data

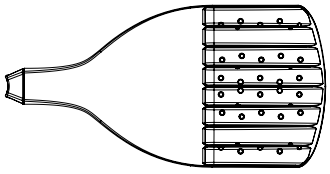
Lumen Output

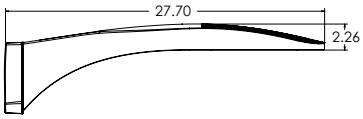
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79.
Contact factory for performance data on any configurations not shown here.

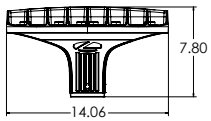
Rotated Optics

LED Count	Drive Current (mA)	Performance Package	System Watts	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	**P10**	51W	T1S	7,399	3	0	3	145	7,711	3	0	3	151	7,862	3	0	3	154
				T2M	6,854	3	0	3	135	7,144	3	0	3	140	7,283	3	0	3	143
				T3M	6,933	3	0	3	136	7,225	3	0	3	142	7,366	3	0	3	145
				T3LG	6,194	2	0	2	122	6,455	2	0	2	127	6,581	2	0	2	129
				T4M	7,036	3	0	3	138	7,333	3	0	3	144	7,476	3	0	3	147
				T4LG	6,399	2	0	2	126	6,669	2	0	2	131	6,799	2	0	2	134
				TFTM	7,086	3	0	3	139	7,385	3	0	3	145	7,529	3	0	3	148
				T5M	7,239	3	0	2	142	7,545	3	0	2	148	7,692	3	0	2	151
				T5W	7,357	3	0	2	145	7,667	3	0	2	151	7,816	4	0	2	154
				T5LG	7,260	3	0	1	143	7,567	3	0	1	149	7,714	3	0	1	152
				BLC3	5,043	3	0	3	99	5,256	3	0	3	103	5,358	3	0	3	105
				BLC4	5,208	3	0	3	102	5,428	3	0	3	107	5,534	3	0	3	109
				RCCO	5,089	0	0	2	100	5,303	0	0	2	104	5,407	0	0	2	106
				LCCO	5,089	0	0	2	100	5,303	0	0	2	104	5,407	0	0	2	106
				AFR	7,399	3	0	3	145	7,711	3	0	3	151	7,862	3	0	3	154
30	700	**P11**	68W	T1S	9,358	3	0	3	138	9,753	3	0	3	143	9,943	3	0	3	146
				T2M	8,669	3	0	3	127	9,034	3	0	3	133	9,211	3	0	3	135
				T3M	8,768	3	0	3	129	9,138	3	0	3	134	9,316	3	0	3	137
				T3LG	7,833	3	0	3	115	8,164	3	0	3	120	8,323	3	0	3	122
				T4M	8,899	3	0	3	131	9,274	3	0	3	136	9,455	3	0	3	139
				T4LG	8,093	3	0	3	119	8,435	3	0	3	124	8,599	3	0	3	126
				TFTM	8,962	3	0	3	132	9,340	3	0	3	137	9,522	3	0	3	140
				T5M	9,156	4	0	2	135	9,542	4	0	2	140	9,728	4	0	2	143
				T5W	9,304	4	0	2	137	9,696	4	0	2	143	9,885	4	0	2	145
				T5LG	9,182	3	0	1	135	9,569	3	0	1	141	9,756	3	0	1	143
				BLC3	6,378	3	0	3	94	6,647	3	0	3	98	6,777	3	0	3	100
				BLC4	6,587	3	0	3	97	6,865	3	0	3	101	6,999	3	0	3	103
				RCCO	6,436	0	0	2	95	6,707	0	0	2	99	6,838	0	0	2	101
				LCCO	6,436	0	0	2	95	6,707	0	0	2	99	6,838	0	0	2	101
				AFR	9,358	3	0	3	138	9,753	3	0	3	143	9,943	3	0	3	146
30	1050	**P12**	103W	T1S	13,247	3	0	3	128	13,806	3	0	3	134	14,075	3	0	3	136
				T2M	12,271	4	0	4	119	12,789	4	0	4	124	13,038	4	0	4	126
				T3M	12,412	4	0	4	120	12,935	4	0	4	125	13,187	4	0	4	128
				T3LG	11,089	3	0	3	107	11,556	3	0	3	112	11,782	3	0	3	114
				T4M	12,597	4	0	4	122	13,128	4	0	4	127	13,384	4	0	4	129
				T4LG	11,457	3	0	3	111	11,940	3	0	3	116	12,173	3	0	3	118
				TFTM	12,686	4	0	4	123	13,221	4	0	4	128	13,479	4	0	4	130
				T5M	12,960	4	0	2	125	13,507	4	0	2	131	13,770	4	0	2	133
				T5W	13,170	4	0	3	127	13,726	4	0	3	133	13,994	4	0	3	135
				T5LG	12,998	3	0	2	126	13,546	3	0	2	131	13,810	3	0	2	134
				BLC3	9,029	3	0	3	87	9,409	3	0	3	91	9,593	3	0	3	93
				BLC4	9,324	4	0	4	90	9,718	4	0	4	94	9,907	4	0	4	96
				RCCO	9,110	1	0	2	88	9,495	1	0	2	92	9,680	1	0	2	94
				LCCO	9,110	1	0	2	88	9,494	1	0	2	92	9,680	1	0	2	94
				AFR	13,247	3	0	3	128	13,806	3	0	3	134	14,075	3	0	3	136
30	1300	**P13**	129W	T1S	15,704	3	0	3	122	16,366	3	0	3	127	16,685	4	0	4	130
				T2M	14,547	4	0	4	113	15,161	4	0	4	118	15,457	4	0	4	120
				T3M	14,714	4	0	4	114	15,335	4	0	4	119	15,634	4	0	4	121
				T3LG	13,145	3	0	3	102	13,700	3	0	3	106	13,967	3	0	3	108
				T4M	14,933	4	0	4	116	15,563	4	0	4	121	15,867	4	0	4	123
				T4LG	13,582	3	0	3	105	14,155	3	0	3	110	14,431	3	0	3	112
				TFTM	15,039	4	0	4	117	15,673	4	0	4	122	15,979	4	0	4	124
				T5M	15,364	4	0	2	119	16,013	4	0	2	124	16,325	4	0	2	127
				T5W	15,613	5	0	3	121	16,272	5	0	3	126	16,589	5	0	3	129
				T5LG	15,409	3	0	2	120	16,059	3	0	2	125	16,372	4	0	2	127
				BLC3	10,703	4	0	4	83	11,155	4	0	4	87	11,372	4	0	4	88
				BLC4	11,054	4	0	4	86	11,520	4	0	4	89	11,745	4	0	4	91
				RCCO	10,800	1	0	2	84	11,256	1	0	2	87	11,475	1	0	3	89
				LCCO	10,800	1	0	2	84	11,255	1	0	2	87	11,475	1	0	3	89
				AFR	15,704	3	0	3	122	16,366	3	0	3	127	16,685	4	0	4	130

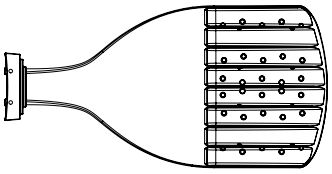
Dimensions

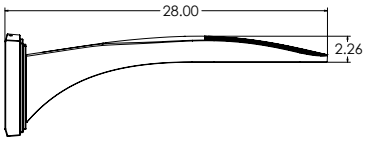


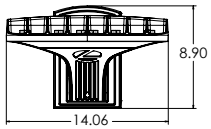




DSX0 with RPA, RPA5, SPA5, SPA8N

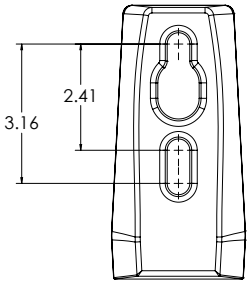




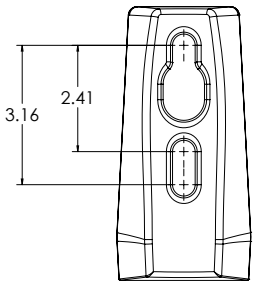


DSX0 with WBA

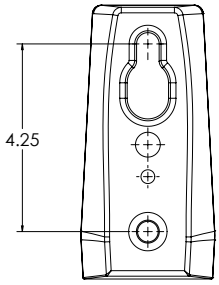
SPA8N



RPA



SPA5



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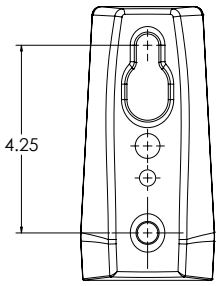
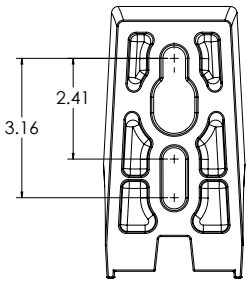


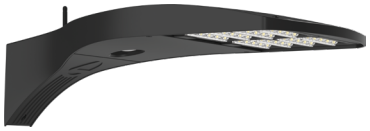
BASE FIXURE

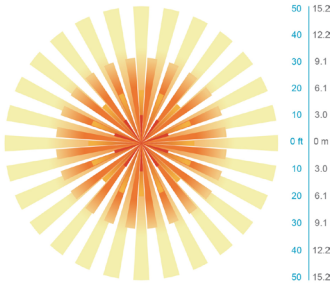


nLight Control - Sensor Coverage and Settings

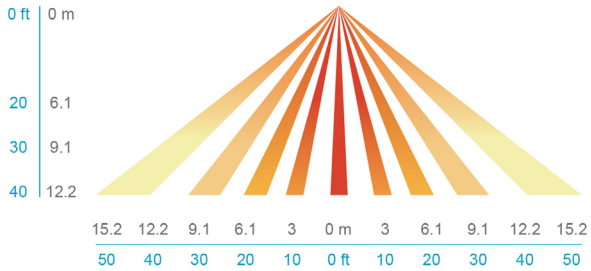
nLight Sensor Coverage Pattern

NLTAIR2 PIRHN





Top



Side

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 1.5G. Low EPA (0.44 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

COASTAL CONSTRUCTION (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS

Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L80/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX0 LED area luminaire has a number of control options. DSX Size 0, comes standard with 0-10V dimming driver. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. PIR integrated motion sensor with on-board photocell feature field-adjustable programing and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS

The DSX0 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION

Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

BASELITE – WAREHOUSE SHADE – LED – SPEC SHEET

PROJECT NAME: _____ PROJECT TYPE: _____

MODEL # ____/____/____/____/____/____/____/____/____/____/____

	A	B	C	D	E	F	G	H	I	J	K
EXAMPLE:	W512	41	E16	SQ ½"	43	45W	3K	LDM120	PR3	GR12	44

*SKIP SECTION IF OPTION DOES NOT APPLY

NOTES:

W512/23P/GR12/BLC/100INC

A - SHADES

WAREHOUSE

W508 - 12WLED (MAX)
W512 - 25WLED (MAX)
W514 - 35WLED (MAX)
WC514 - 35WLED (MAX)
W516 - 50WLED (MAX)
W516X - 50WLED (MAX)
W5167 - 50WLED (MAX)
W518 - 80WLED (MAX)
W520 - 80WLED (MAX)
W5206 - 80WLED (MAX)
W524 - 100WLED (MAX)
W527 - 100WLED (MAX)

B - FINISH OPTIONS

(SEE WEBSITE FOR SWATCH COLORS)
(*SEE NOTES FOR LIMITATIONS*)
14, 15, 16, 17, 18, 19, 19P, 20, 20P, 20PB, 20SB, 21, 21P, 22, 22P, 23, 23P, 38, 39, 40, 41, 41.5, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

C – MOUNTING OPTIONS

½" ARM EXTENSIONS
E1, E2, E3, E4, B1, E16, E17, E18
¾" ARM EXTENSIONS
E3A, E4A, E5, E6, E7, E8, E9, E10, E11, E12, E13, B15, B15S, E19, E20, E21, E25
E14 - **CREATE YOUR OWN**
(BASELITE WILL TAKE YOUR SKETCH AND FABRICATE A CUSTOM ARM EXTENSION TO MEET YOUR NEEDS).
½" WALL MOUNT
B13, WM13R, WM13X, B10, B11, B101
¾" WALL MOUNT
B9, B9C, B12, WM10, WM11, WM14X, WM15, WM35X, WM55X, WM60X, WM61X WM70X, WM71X
LED CORD MOUNT
LBLC, LWHC, LTCB, LTCW, LTCHB, LTCHW, LTLB, LTLW, LTLB, LTLW, LRCB, LRCW, LRCHB, LRCHW, LFHB, LFHW, LHBLC, LHWHC, LCBLC, LCWHC
STEM MOUNT
ST6, ST12, ST18, ST24, ST36, ST48, STXX

D – MOUNTING ADD-ONS

LED ADD-ONS
LWTM, LSLC, LSTC
UNIVERSAL ADD-ONS
SQ ½", SQ ¾", FH ½", FH ¾", TRB ½", TRB ¾", SWL, LGSWL, CNK, INB, RINB

E – MOUNTING COLOR

SEE SECTION "B" FOR COLOR OPTIONS.

F – LIGHT SOURCE

(SEE PAGE 4 FOR WATTAGE LIMITATIONS)
LIGHT EMITTED DIODE (LED)
10W, 12W, 25W, 35W, 50W, 80W, 100W

*NOTE – MAX WATTAGE IS LISTED NEXT TO THE SHADE MODEL NUMBER IN SECTION "A". ALL WATTAGES BELOW THAT ARE ALSO AVAILBLE FOR THE SAME MODEL NUMBER.

G – LED COLOR TEMP

27K – 2700 K
3K – 3000 K
35K – 3500 K
4K – 4000 K
5K – 5000 K

H – ELECTRICAL OPTION

(SEE PAGE 4 FOR DIMMING OPTION SPECIFICATIONS)
LDM120
LDM277
LDM0-10

I – GLASS OPTIONS

CL3, CL4, CLT3, CLT4, BL3, BL4, RE3, RE4, GR3, GR4, AH3, AH4, FR3, FR4, FRT3, FRT4, PR3, PR4, BA, BAX, BAF, PR8, PR8F, FN, OC

J – ACCESSORIES

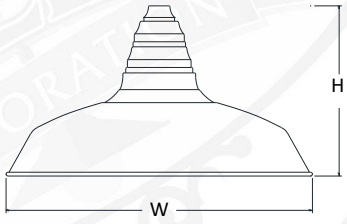
GR8, GR12, GR14, GR16, GR18, GR20, GR24, GR27, REF, UGR, LGR8, LGR12, LGR14, LGR16, LGR18, LGR20, LGR24, LGR27, CRL8, CRL12, CRL14, CRL16, CRL18, CRL20, FLE12, FLE14, FLE16, FLE18, FLE20, FLE24, FLE27, FGR8, FGR12, FGR14, FGR16, FGR18, FGR20, FGR24, FGR27, GU-1, GU-2, WG-1, WG-2

K – ACCESSORY COLOR

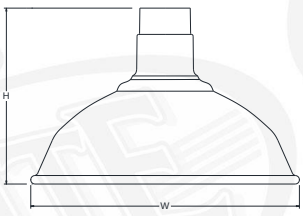
SEE SECTION "B" FOR COLOR OPTIONS.

NOTES

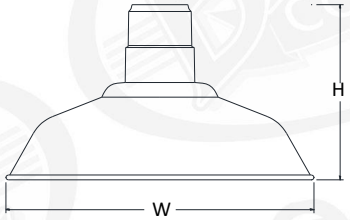
(1). FINISH OPTIONS 75,76, 77, 83, 84, 88, 93 AND 98 ARE APPLIED BY HAND. THESE FINISHES WILL VARY IN CONSISTENCY.
(2). FINISH OPTIONS 38, 39, 40, 49, 54, 57, 58, 61, 62, 63, 70, 71, 72, 73, 78, 83, 84, 88, 92, 93, 98 ONLY AVAILABLE INSIDE AND OUT OF FIXTURE. OTHER FINISHES ARE WHITE INSIDE.
(3). FINISH OPTIONS FOR SHADES ≤ 10" IN DIAMETER ARE THE SAME INSIDE AND OUT OF FIXTURE. SHADES > 10" IN DIAMETER ARE WHITE ON THE INSIDE.
(4). FINISH OPTIONS 61, 62, 70, 71, 72, 73 ARE FINISHED WITH A SUPERCHROME ON THE INSIDE FOR ALL LED LIGHT SOURCE OPTIONS.
(5). COLOR CORDS ARE NOT APPLICABLE FOR LED OPTIONS.
*ALL ARMS COME WITH A CAST BACKPLATE (CB1/2", CB3/4", LWTM, CFWTM, ECT.).
*ACCORDING TO THE LIGHT SOURCE THE BACKPLATE MAY VARY IN SIZE. (EXAMPLE: LED LIGHT SOURCE WILL HAVE A DEEPER BACKPLATE TO HOUSE THE DRIVER.).
*ALL FIXTURES MOUNT TO A 4-O JUNCTION BOX.
*FIXTURE DIMENSIONS MAY VARY ± 0.25.
*CORD AND CANOPY COME IN THE SAME COLOR.



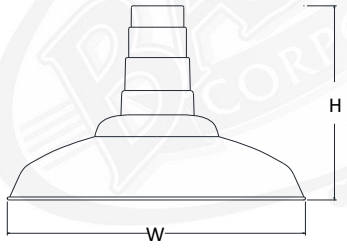
W5206 H-11" W-20"



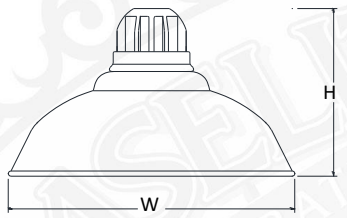
W516X H-10" W-16"



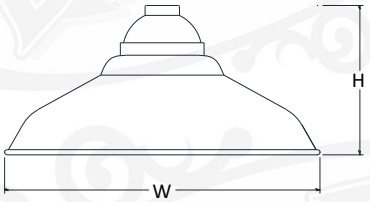
W508 H-6" W-8"
W512 H-8" W-12"
W514 H-9" W-14"
W516 H-9" W-16"
W518 H-9" W-18"
W520 H-10" W-20"



W524 H-16" W-24"
W527 H-16" W-27"



WC514 H-8" W-14"



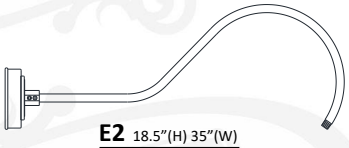
W5167 H-7.5" W-16"

C - MOUNTING OPTIONS

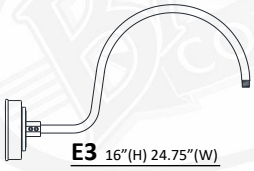
1/2" ARM EXTENSIONS

*ARMS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF ARMS ARE DIMENSIONED

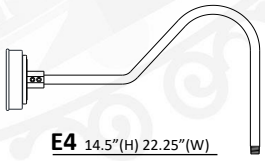
E1 8.5"(H) 18.5"(W)



E2 18.5"(H) 35"(W)

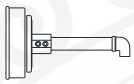


E3 16"(H) 24.75"(W)

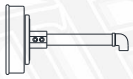


E4 14.5"(H) 22.25"(W)

B1 4"(H) 12"(W)

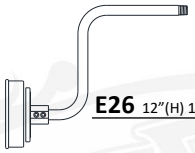


E16 4.75"(H) 8.5"(W)



E17 4.75"(H) 9.5"(W)

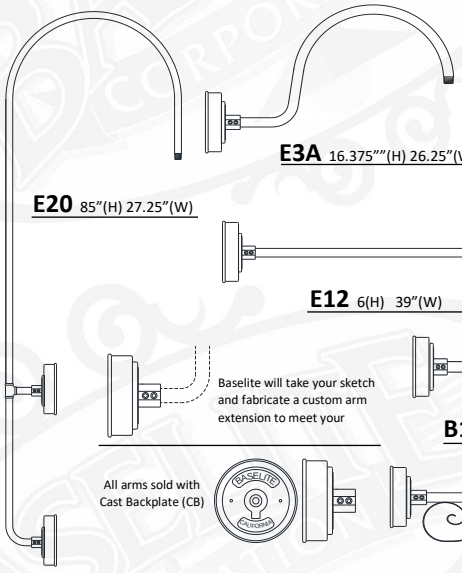
E18 4.75"(H) 12"(W)



E26 12"(H) 14.75"(W)

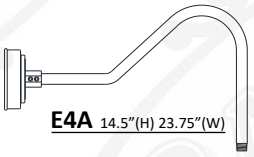
3/4" ARM EXTENSIONS

*ARMS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF ARMS ARE DIMENSIONED

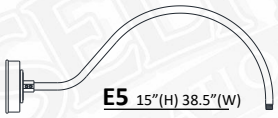


E3A 16.375""(H) 26.25"(W)

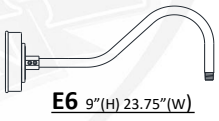
E20 85"(H) 27.25"(W)



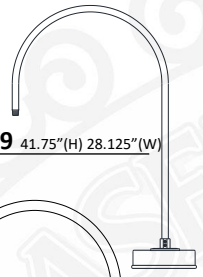
E4A 14.5"(H) 23.75"(W)



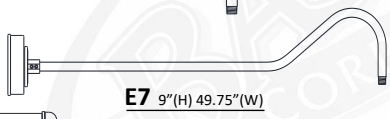
E5 15"(H) 38.5"(W)



E6 9"(H) 23.75"(W)

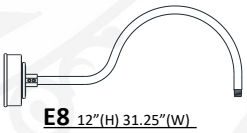


E9 41.75"(H) 28.125"(W)

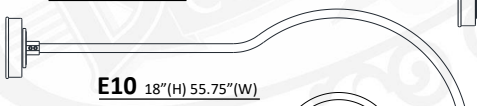


E7 9"(H) 49.75"(W)

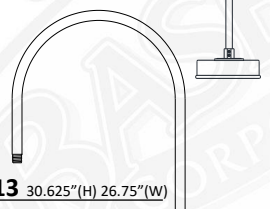
E12 6(H) 39"(W)



E8 12"(H) 31.25"(W)

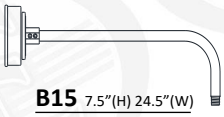


E10 18"(H) 55.75"(W)

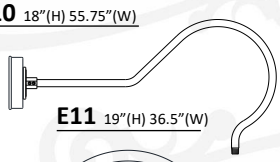


E13 30.625"(H) 26.75"(W)

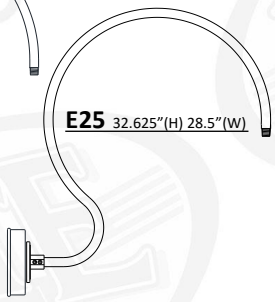
Baselite will take your sketch and fabricate a custom arm extension to meet your



B15 7.5"(H) 24.5"(W)



E11 19"(H) 36.5"(W)

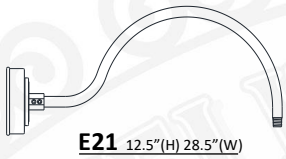


E25 32.625"(H) 28.5"(W)

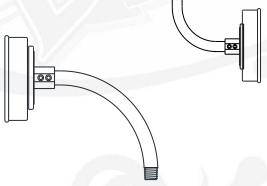
All arms sold with Cast Backplate (CB)

E14 TBD"(H) TBD"(W)

B15S 7.5"(H) 19.5"(W)



E21 12.5"(H) 28.5"(W)

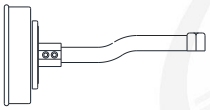


E19 10.625"(H) 11.5"(W)

1/2" WALL MOUNTS

*MOUNTS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF MOUNTS ARE DIMENSIONED

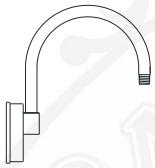
B10 6"(H) 12.5"(W)



B101 6"(H) 13.5"(W)

B11 6"(H) 14.5"(W)

B13 6"(H) 16.5"(W)



WM13R 12"(H) 9.5"(W)

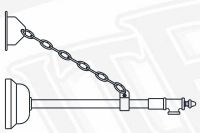
WM13X 12"(H) 10.5"(W)

3/4" WALL MOUNTS

*MOUNTS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF MOUNTS ARE DIMENSIONED

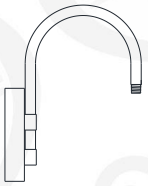
B12 6"(H) 15.5"(W)

B9 5"(H) 18"(W)

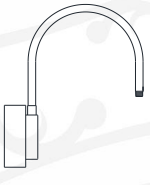


B9C 5"(H) 18"(W)

*CHAIN HEIGHT TBD BY CUSTOMER



WM14X 18"(H) 14"(W)



WM15 23"(H) 19.5"(W)

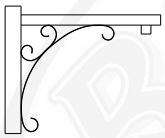
C - MOUNTING OPTIONS (CONTINUED)

3/4" WALL MOUNTS

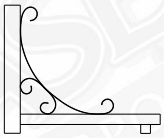
*MOUNTS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF MOUNTS ARE DIMENSIONED

WM35X 26"(H) 22"(W)

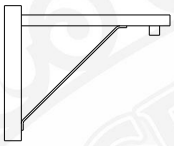
WM55X 19"(H) 27"(W)



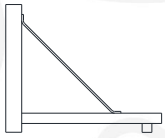
WM60X 18"(H) 22"(W)



WM61X 18"(H) 22"(W)



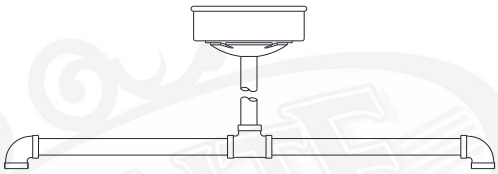
WM70X 18"(H) 22"(W)



WM71X 18"(H) 22"(W)

STEM MOUNTS

*STEMS RATED FOR DAMP LOCATION

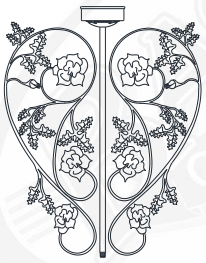


DP24 DOUBLE PENDANT 20"(H) 24"(W)

*DP24 COMES STANDARD WITH LSTC AND ST18

ST(XX) STEM- 1/2" NPT

XX = LENGTH OF STEM
(EXAMPLE – "ST18" = STEM MOUNT 18" LENGTH)
*CANOPY NOT INCLUDED, ADD IN SECTION D
* 1/4" NPT AND 3/4" NPT AVAILABLE UPON REQUEST



SC24 SCROLL STEM 33"(H) 26(W)

*SC24 COMES STANDARD WITH LSTC

LED CORD MOUNTS

*FOR LED & COMPACT FLUORESCENT OPTIONS, CANOPIES WILL VARY IN SIZE DUE TO SIZE OF THE DRIVER/BALLAST THAT WILL BE LOCATED INSIDE OF THE CANOPY.
*CORDS RATED FOR DRY LOCATION *CANOPY DIMENSIONS: 4" (H) 5.5" (W) *CORD AND CANOPY COME IN THE SAME COLOR.

LBLC 8' BLACK CORD
LWHC 8' WHITE CORD

LTCB 8' BLACK CORD, CABLE, and LOOP
LTCW 8' WHITE CORD, CABLE, and LOOP

LTCHB 8' BLACK CORD, 3' CHAIN, and LOOP
LTCHW 8' WHITE CORD, 3' CHAIN, and LOOP

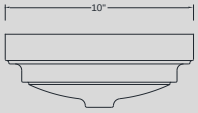
LTLB 8' BLACK TELEPHONE CORD AND CABLE
LTLW 8' WHITE TELEPHONE CORD AND CABLE
* Not available with compact fluorescent

LRCB 8' BLACK CORD, CABLE, and LOOP
LRCW 8' WHITE CORD, CABLE, and LOOP

LRCHB 8' BLACK CORD, 3' CHAIN, and LOOP
LRCHW 8' WHITE CORD, 3' CHAIN, and LOOP

LFHB 8' BLACK CORD WITH FLAT HUB
LFHW 8' WHITE CORD WITH FLAT HUB

LCBLC 8' BLACK CORD and CABLE
LCWHC 8' WHITE CORD and CABLE



NOTES:

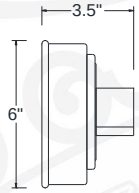
*DISTANCE TO LAMP (CF) 10'

*All compact fluorescent and LED housings may vary in size according to light source chosen.

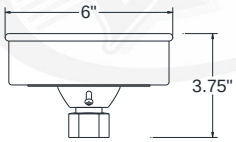
D - MOUNTING ADD-ONS

LED - STEM AND ARM ADD-ONS

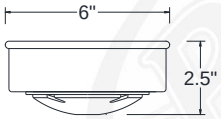
* FOR LED & COMPACT FLUORESCENT OPTIONS, CANOPIES WILL VARY IN SIZE DUE TO SIZE OF THE DRIVER/BALLAST THAT WILL BE LOCATED INSIDE OF THE CANOPY.



LWTM WEATHERTIGHT LED WALL MOUNT



LSLC LED SLOPE CEILING CANOPY



LSTC LED STEM MOUNT CANOPY

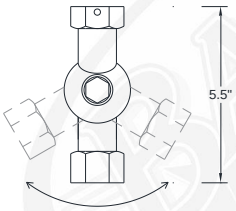
UNIVERSAL STEM AND ARM ADD-ONS

* EXAMPLE FOR MULTIPLE MOUNTING ADD-ONS:

MODEL #: -/-/-/LWTM, TRB ½", LGSWL/-/-/-/-/-/-/-
A B C D E F G H I J K

CNK CANOPY For MULTIPLE FIXTURES

*CNK dimensions vary on number of fixtures applied



LGSWL 1/2" NPT SWIVEL
For all shades greater than 7" wide in diameter

FH 1/2" FLAT HUB 1/2"
FH 3/4" FLAT HUB 3/4"

TRB 1/2"-4' Cable SUPPORT
TRB 3/4"-4' Cable SUPPORT

F – LIGHT SOURCE

BASELITE'S PUBLISHED LUMINAIRE PHOTOMETRIC TESTING WAS PERFORMED IN A 3-METER INTEGRATING SPHERE USING THE 4TT GEOMETRY METHOD. DATA IS CONSIDERED TO BE REPRESENTATIVE OF THE CONFIGURATIONS SHOWN, WITHIN THE TOLERANCES ALLOWED BY LIGHTING FACTS. TO OBTAIN AN IES FILE SPECIFIC TO YOUR PROJECT, PLEASE CONTACT THE FACTORY.

LIGHT EMITTING DIODE (LED)

LED 12W (MAX) – W508
LED 25W (MAX) – W512
LED 35W (MAX) – W514, WC514
LED 50W (MAX) – W516, W516X, W5167
LED 80W (MAX) - W518, W520, W5206
LED 100W (MAX) - W524, W527

*IMPORTANT – FOR LIGHT EMITTED DIODE (LED) LIGHT SOURCE OPTION, FIXTURES ARE LIMITED DUE TO SIZE OF THE FIXTURE AND THE CORD WATTAGE RESTRICTIONS. PLEASE SEE MAX WATTAGE AVAILABILITY. EXAMPLE: / LED75W /

OPTION	WATTAGE	LUMENS		CRI	VOLTAGE	DIMMING
		@3000K	@5000K			
LED10W	10W	1570	1680	>90	120-277 VAC	See section "H"
LED12W	12W	1884	2016	>90	120-277 VAC	See section "H"
LED25W	25W	3925	4200	>90	120-277 VAC	See section "H"
LED35W	35W	5495	5880	>90	120-277 VAC	See section "H"
LED50W	50W	4900	5635	>90	120-277 VAC	See section "H"
LED80W	80W	8000	8100	>90	120-277 VAC	See section "H"
LED100W	100W	11400	12000	>90	120-277 VAC	See section "H"

H – ELECTRICAL OPTION

MOST BASELITE'S ELECTRICAL OPTIONS ARE ONLY COMPATIBLE FOR CERTAIN FIXTURES. PLEASE SEE NOTES BELOW AND FOR FURTHER DEATIALS CONTACT THE FACTORY.
FOR DIMMING BALLAST OPTION PLEASE CHOOSE MARK X OR MARK VII, SO RESTRICTIONS APPLY DUE TO THE SIZE OF THE BALLAST AND FIXTURE.

LED DIMMING OPTIONS
FOR TRIAC OR 0-10V OPTOIN CHOOSE FROM THE FOLLOWING. CONTACT DRIVER MANUFACTURER FOR SPECIFICATIONS.
LDM120 - TRIAC DIMMING AT 120 VOLT
LDM277 - TRIAC DIMMING AT 277 VOLT
LDM0-10V – 0 – 10v

I – GLASS OPTIONS

*NOTE: MUST USE TEMPERED GLASS FOR LIGHT FIXTURES USING HIGH INTENSITY DISCHARGE (HID) LIGHT SOURCE OPTION.

CL3 3" CLEAR GLASS
CL4 4" CLEAR GLASS
CLT3 3" CLEAR TEMPERED
CLT4 4" CLEAR TEMPERED

PR3 3" PRISMATIC GLASS
PR4 4" PRISMATIC GLASS

RE3 3" RED GLASS
RE4 4" RED GLASS

BL3 3" BLUE GLASS
BL4 4" BLUE GLASS

FR3 3" FROSTED GLASS
FR4 4" FROSTED GLASS
FRT3 3" FROSTED TEMPERED
FRT4 4" FROSTED TEMPERED

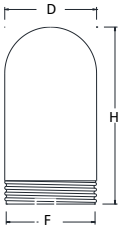
AH3 3" AMBER HYDE GLASS
AH4 4" AMBER HYDE GLASS

GR3 3" GREEN GLASS
GR4 4" GREEN GLASS

GLASS – MAX WATTAGE
3" GLASS – 100W INC / LED12W
4" GLASS – 200W INC / LED25W

GLASS – DIMENSIONS

3" GLASS	
Diameter	3.34"
Height	6.93"
Fitter	3.29"
4" GLASS	
Diameter	4.34"
Height	8.37"
Fitter	4.29"



BA 6" OPAL BALL
(100W INC MAX/LED12W)

BAX 9" CLEAR GLOBE
BAF 9" FROSTED GLOBE
(200W INC MAX/LED25W)

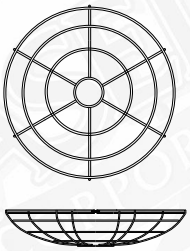
FN 8" CLEAR TEXTURED GLOBE
(150W INC MAX/LED25W)

BA7 7" CLEAR GLOBE
BA7F 7" FROSTED GLOBE
(100W INC MAX/LED25W)

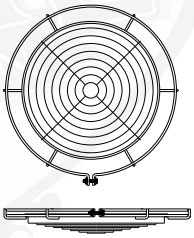
PR8 8" PRISMATIC
PR8F 8" PRISMATIC FROSTED
(200W INC MAX/LED45W)

OC 8" OPAL TAPERED GLOBE
(60W INC MAX/LED25W)

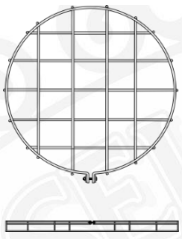
J – ACCESSORIES



GR8 8" WIRE GRILL
GR12 12" WIRE GRILL
GR14 14" WIRE GRILL
GR16 16" WIRE GRILL
GR18 18" WIRE GRILL
GR20 20" WIRE GRILL
GR24 24" WIRE GRILL
GR27 27" WIRE GRILL

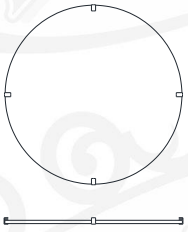


LGR8 8" LOUVERED GRILL
LGR12 12" LOUVERED GRILL
LGR14 14" LOUVERED GRILL
LGR16 16" LOUVERED GRILL
LGR18 18" LOUVERED GRILL
LGR20 20" LOUVERED GRILL
LGR24 24" LOUVERED GRILL
LGR27 27" LOUVERED GRILL

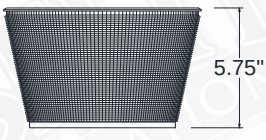


FGR8 8" FLAT GRILL
FGR12 12" FLAT GRILL
FGR14 14" FLAT GRILL
FGR16 16" FLAT GRILL
FGR18 18" FLAT GRILL
FGR20 20" FLAT GRILL
FGR24 24" FLAT GRILL
FGR27 27" FLAT GRILL

CRL8 8" CURVED POLYCARB LENSE
CRL12 12" CURVED POLYCARB LENSE
CRL14 14" CURVED POLYCARB LENSE
CRL16 16" CURVED POLYCARB LENSE
CRL18 18" CURVED POLYCARB LENSE
CRL20 20" CURVED POLYCARB LENSE

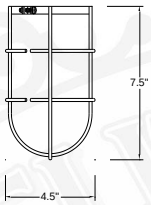


FLE8 8" FLAT CLEAR LENSE
FLE12 12" FLAT CLEAR LENSE
FLE14 14" FLAT CLEAR LENSE
FLE16 16" FLAT CLEAR LENSE
FLE18 18" FLAT CLEAR LENSE
FLE20 20" FLAT CLEAR LENSE
FLE24 24" FLAT CLEAR LENSE
FLE27 27" FLAT CLEAR LENSE

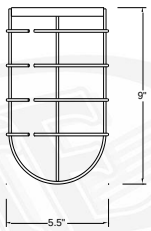


REF 9.5" DIAMETER REFRACTOR

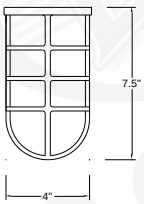
UGR U- WIRE GUARD



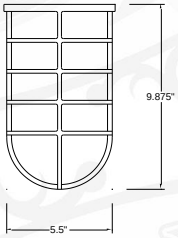
WG-1 WIRE GUARD



WG-2 WIRE GUARD
Available for shades
12" or higher



GU-1 CAST ALUMINUM GUARD



GU-2 CAST GUARD
Available for shades
12" or higher

LITHONIA LIGHTING®

Catalog Number
Notes
Type

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, 0.120"), or 50 KSI (7-gauge, 0.179"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: Options include 4" tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable top cap.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

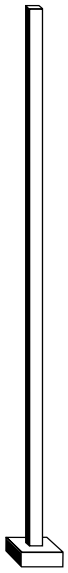
FINISH — Extra durable painted finish is coated with TGIC (Triglycidyl Isocyanurate) Polyester powder that meets 5A and 5B classifications of ASTM D3359. Powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes.

BUY AMERICAN ACT — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.



Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL

BAA

SSS Square Straight Steel Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: SSS 20 5C DM19 DDBXD

SSS

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[2]	Mounting[3]		Options	Finish[14]
SSS[1]	10'-39' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) See technical information table for complete ordering information.)	4C 4" 11g (0.120") 4G 4" 7g (0.179") 5C 5" 11g (0.120") 5G 5" 7g (0.179") 6G 6" 7g (0.179") See technical information table for complete ordering information.)	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) KAC/KAD/KSE/KSF/KVR/KVF Drill mounting[4] DM19 1 at 90° DM28 2 at 180° DM28 PL 2 at 180° with one side plugged DM29 2 at 90° DM39 3 at 90° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/ HLA/KAX Drill mounting[4] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting[4,5] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[4] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	AERIS™ Suspend drill mounting[4,6] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[4,6] DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed VD Vibration damper[7] HAxy Horizontal arm bracket (1 fixture)[8,9] FDLxy Festoon outlet less electrical[8,10] CPL12/xy 1/2" coupling[8] CPL34/xy 3/4" coupling[8] CPL1/xy 1" coupling[8] NPL12/xy 1/2" threaded nipple[8] NPL34/xy 3/4" threaded nipple[8] NPL1/xy 1" threaded nipple[8] EHHxy Extra handhole[8,11] STLHHC Steel handhole cover (standard is plastic, finish is smooth) STLFBC2PC 2 Piece steel base cover (standard is plastic) IC Interior coating[12] L/AB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant[13]	Super durable paint colors DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DGCXD Charcoal gray DTGXD Tennis green DBRXD Bright red DSBXD Steel blue DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white Other finishes GALV Galvanized finish Architectural colors and special finishes Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available.

NOTES:

1. Handhole covers (HHC), full base covers (FBC) and top caps (TC) shipped separately. No need to call out in nomenclature. For additional parts please order as replacements.
2. Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-Gauge) in nomenclature. "C" - 0.120" | "G" - 0.179".
3. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
4. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
5. All RAD drilling's require a minimum top O.D. of 4".
6. Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
7. On 4" and 5" poles, VD cannot be installed if provisions (EHH, FDL, NPL, CPL) are located higher than 2/3 of the pole's total height.
   Example: Pole height is 25ft, A provision cannot be placed above 16ft.
8. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8 ", orientation C = CPL12/5-8C
9. Horizontal arm is 18" x 2-3/8" O.D. tenon standard, with radius curve providing 12" rise and 2-3/8" O.D. If ordering two horizontal arm at the same height, specify with HAxyy. *Example: HA20BD.*
10. FDL does not come with GFCI outlet or handhole cover. These must be supplied by contractor or electrician.
11. Combination of tenon-top and drill mount includes extra handhole. EHH includes cover.
12. Provides enhanced corrosion resistance.
13. Use when mill certifications are required.
14. Finish must be specified. Additional colors available; see Architectural Colors brochure linked here (Form No. 794.3). Lead times may be extended up to 2 weeks due to paint procurement.

Accessories: *Order as separate catalog number.*

PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxxAS drillings

SSS Square Straight Steel Poles

TECHNICAL INFORMATION — EPA (ft^2) with 1.3 gust

Catalog Number	Nominal Shaft Length (ft.)*	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in)	Gauge	EPA (ft^2) with 1.3 gust						Bolt circle (in)	Bolt size (in. x in. x in.)	Approximate ship weight (lbs.)
					80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight			
SSS 10 4C	10	4.0 x 10.0	0.120"	11	30.6	765	23.8	595	18.9	473	8--9	3/4 x 18 x 3	75
SSS 12 4C	12	4.0 x 12.0	0.120"	11	24.4	610	18.8	470	14.8	370	8--9	3/4 x 18 x 3	90
SSS 14 4C	14	4.0 x 14.0	0.120"	11	19.9	498	15.1	378	11.7	293	8--9	3/4 x 18 x 3	100
SSS 16 4C	16	4.0 x 16.0	0.120"	11	15.9	398	11.8	295	8.9	223	8--9	3/4 x 18 x 3	115
SSS 18 4C	18	4.0 x 18.0	0.120"	11	12.6	315	9.2	230	6.7	168	8--9	3/4 x 18 x 3	125
SSS 20 4C	20	4.0 x 20.0	0.120"	11	9.6	240	6.7	167	4.5	150	8--9	3/4 x 18 x 3	140
SSS 20 4G	20	4.0 x 20.0	0.179"	7	14	350	11	275	8	200	8--9	3/4 x 30 x 3	198
SSS 20 5C	20	5.0 x 20.0	0.120"	11	17.7	443	12.7	343	9.4	235	10--12	1 x 36 x 4	185
SSS 20 5G	20	5.0 x 20.0	0.179"	7	28.1	703	21.4	535	16.2	405	10--12	1 x 36 x 4	265
SSS 25 4C	25	4.0 x 25.0	0.120"	11	4.8	150	2.6	100	1	50	8--9	3/4 x 18 x 3	170
SSS 25 4G	25	4.0 x 25.0	0.179"	7	10.8	270	7.7	188	5.4	135	8--9	3/4 x 30 x 3	245
SSS 25 5C	25	5.0 x 25.0	0.120"	11	9.8	245	6.3	157	3.7	150	10--12	1 x 36 x 4	225
SSS 25 5G	25	5.0 x 25.0	0.179"	7	18.5	463	13.3	333	9.5	238	10--12	1 x 36 x 4	360
SSS 30 4G	30	4.0 x 30.0	0.179"	7	6.7	168	4.4	110	2.6	65	8--9	3/4 x 30 x 3	295
SSS 30 5C	30	5.0 x 30.0	0.120"	11	4.7	150	2	50	--	--	10--12	1 x 36 x 4	265
SSS 30 5G	30	5.0 x 30.0	0.179"	7	10.7	267	6.7	167	3.9	100	10--12	1 x 36 x 4	380
SSS 30 6G	30	6.0 x 30.0	0.179"	7	19	475	13.2	330	9	225	11--13	1 x 36 x 4	520
SSS 35 5G	35	5.0 x 35.0	0.179"	7	5.9	150	2.5	100	--	--	10--12	1 x 36 x 4	440
SSS 35 6G	35	6.0 x 35.0	0.179"	7	12.4	310	7.6	190	4.2	105	11--13	1 x 36 x 4	540
SSS 39 6G	39	6.0 x 39.0	0.179"	7	7.2	180	3	75	--	--	11--13	1 x 36 x 4	605

NOTE: * EPA values are based ASCE 7-93 wind map. For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

TECHNICAL INFORMATION — EPA (ft^2) WITH 3-SECOND GUST PER AASHTO 2013

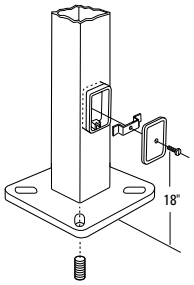
Series	Mounting Height (ft)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate ship weight (lbs.)
SSS	10	4C	20	500	16	400	13	325	10.5	263	8.5	213	7	175	6	150	75
SSS	12	4C	16	400	13	325	10	250	8	200	6.5	163	5	125	4	100	90
SSS	14	4C	13.5	338	10	250	7.5	188	6	150	4.5	113	3.5	88	2.5	63	100
SSS	16	4C	10.5	263	7.5	188	5.5	138	4	100	3	75	1.5	38	1	25	115
SSS	18	4C	8	200	5.5	138	4	100	2.5	63	1.5	38	0.5	13	-	-	125
SSS	18	4G	13	325	9.5	238	7	175	5	125	3.5	88	2.5	63	1.5	38	185
SSS	18	5C	13	325	9.5	238	6.5	163	4.5	113	3	75	1.5	38	.5	13	170
SSS	20	4C	6	150	4	100	2.5	63	1	25	-	-	-	-	-	-	140
SSS	20	4G	10.5	263	7.5	188	5.5	138	3.5	88	2	50	1	25			205
SSS	20	5C	10	250	7	175	4.5	113	2.5	63	1	25	-	-	-	-	185
SSS	20	5G	20	500	15	375	11.5	288	8.5	213	6	150	4.5	113	3	75	265
SSS	25	4C	2	50	0.5	13	-	-	-	-	-	-	-	-	-	-	170
SSS	25	4G	5.5	138	3	75	1.5	38	-	-	-	-	-	-	-	-	245
SSS	25	5C	4.5	113	2	50	-	-	-	-	-	-	-	-	-	-	225
SSS	25	5G	12	300	8.5	213	5.5	138	3	75	1.5	38	-	-	-	-	360
SSS	25	6G	19	475	13.5	338	9	225	5.5	138	3	75	1	25			445
SSS	30	4G	1.5	38	-	-	-	-	-	-	-	-	-	-	-	-	291
SSS	30	5C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265
SSS	30	5G	6.5	163	3.5	88	1	25	-	-	-	-	-	-	-	-	380
SSS	30	6G	11	275	6	150	2.5	63	-	-	-	-	-	-	-	-	520
SSS	35	5G	2	50	-	-	-	-	-	-	-	-	-	-	-	-	440
SSS	35	6G	4	100	-	-	-	-	-	-	-	-	-	-	-	-	540
SSS	39	6G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605

NOTE: AASHTO 2013 criteria is the most conservative existing EPA calculation. For poles not showing EPA values under AASHTO 2013, EPA values may exist under commercial criteria (see table above).

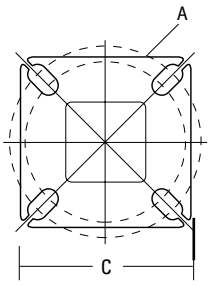
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

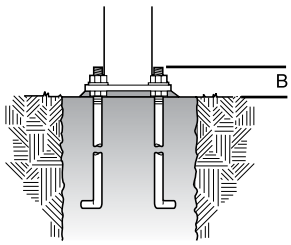
OUTDOOR: One Lithonia Way Conyers, GA 30012 Phone: 800-705-SERV (7378) www.lithonia.com

BASE DETAIL

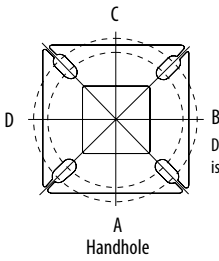


POLE DATA							
Shaft base size	**Bolt circle A**	**Bolt projection B**	**Base square C**	**Base plate thickness**	**Template description**	**Anchor bolt description**	**Anchor bolt and template description**
4"C	8" – 9"	3.25"- 3.75"	8"- 8.25"	0.75"	ABTEMPLATE PJ50004	AB18-0	ABSSS-4C
4"G	8" – 9"	3.38"- 3.75"	8"- 8.25"	0.875"	ABTEMPLATE PJ50004	AB30-0	ABSSS-4G
5"	10" – 12"	3.5"- 4"	11"	1"	ABTEMPLATE PJ50010	AB36-0	ABSSS-5
6"	11" – 13"	4"- 4.50"	12.5"	1"	ABTEMPLATE PJ50011	AB36-0	N/A





HANDHOLE ORIENTATION



Default DM19 is on side B.

IMPORTANT INSTALLATION NOTES:

- **Do not** erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.
- Bolt circles have +/- 1/2" tolerance.

As an alternative the Applicant may elect to install solar lighting similar to this model. Photometrics of the selected lights will be comparable to the photometric design provided.

Attachment 11
Building Photos and Schematic Floor Plan

Photo 1 – Building West Elevation

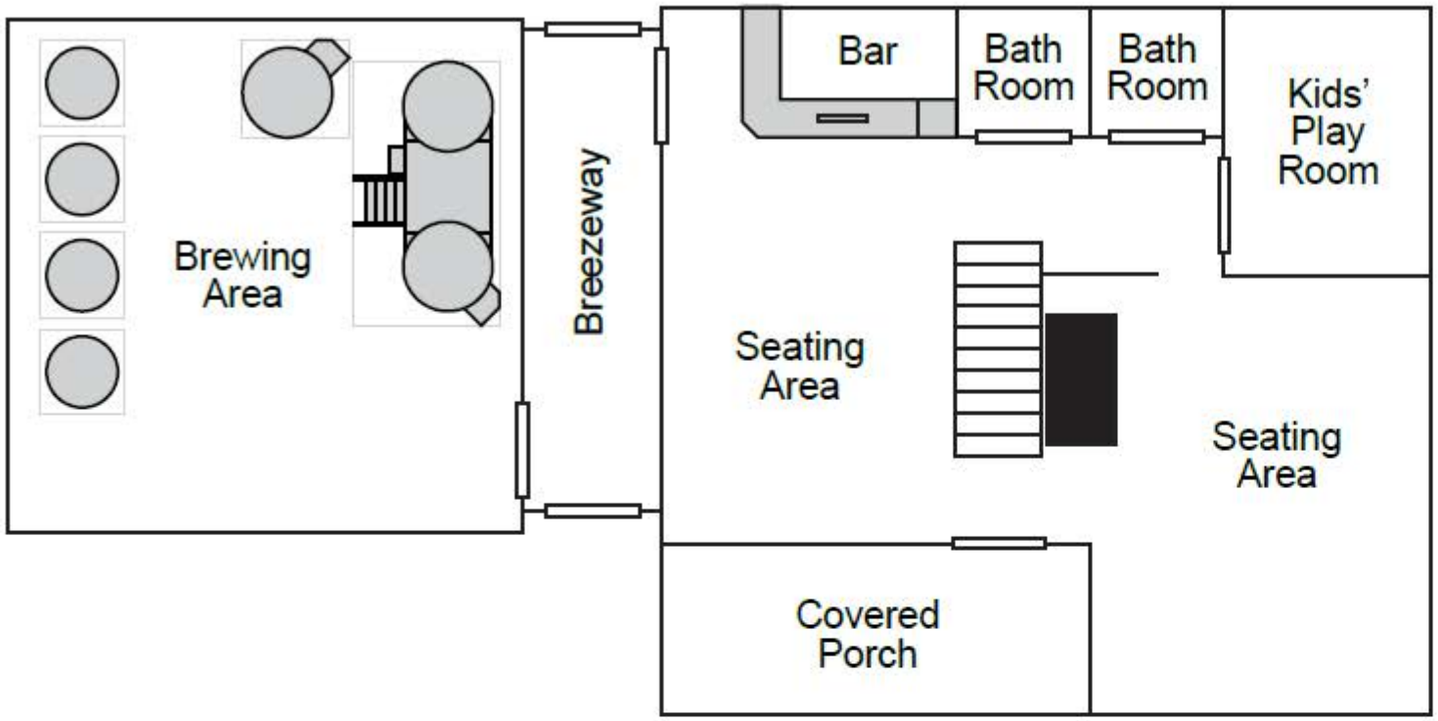
Photo 2 – Building North Elevation

Photo 3 – Outbuilding

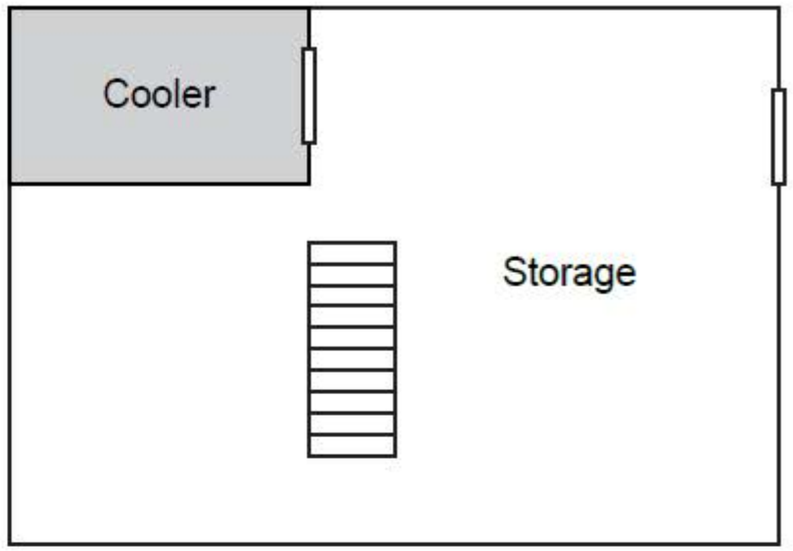
Photo 4 – Building East Elevation

Photo 5 – Building South Elevation

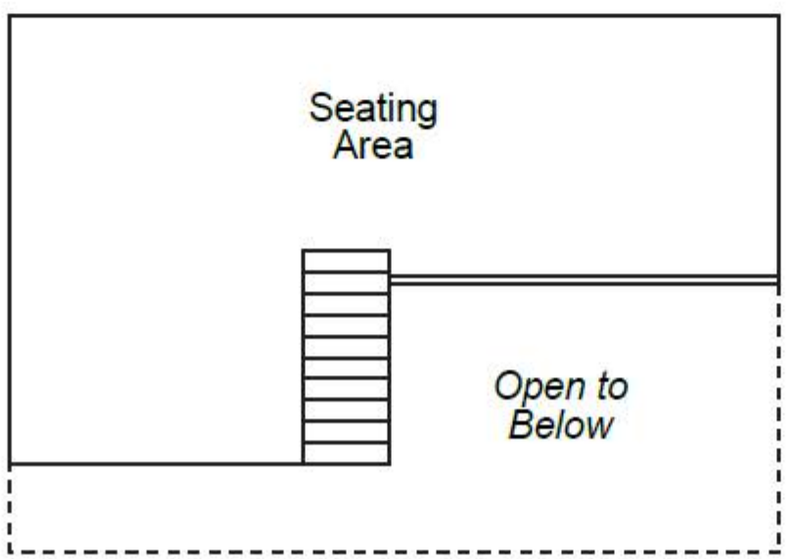
GROUND FLOOR



BASEMENT



SECOND FLOOR



Attachment 12
Site Photos

Photo 1 – Looking north along Route 9

Photo 2 – Looking south along Route 9

Photo 3 – Looking northeast from Route 9

Photo 4 – Looking east from Route 9

Photo 5 – Looking east down existing driveway

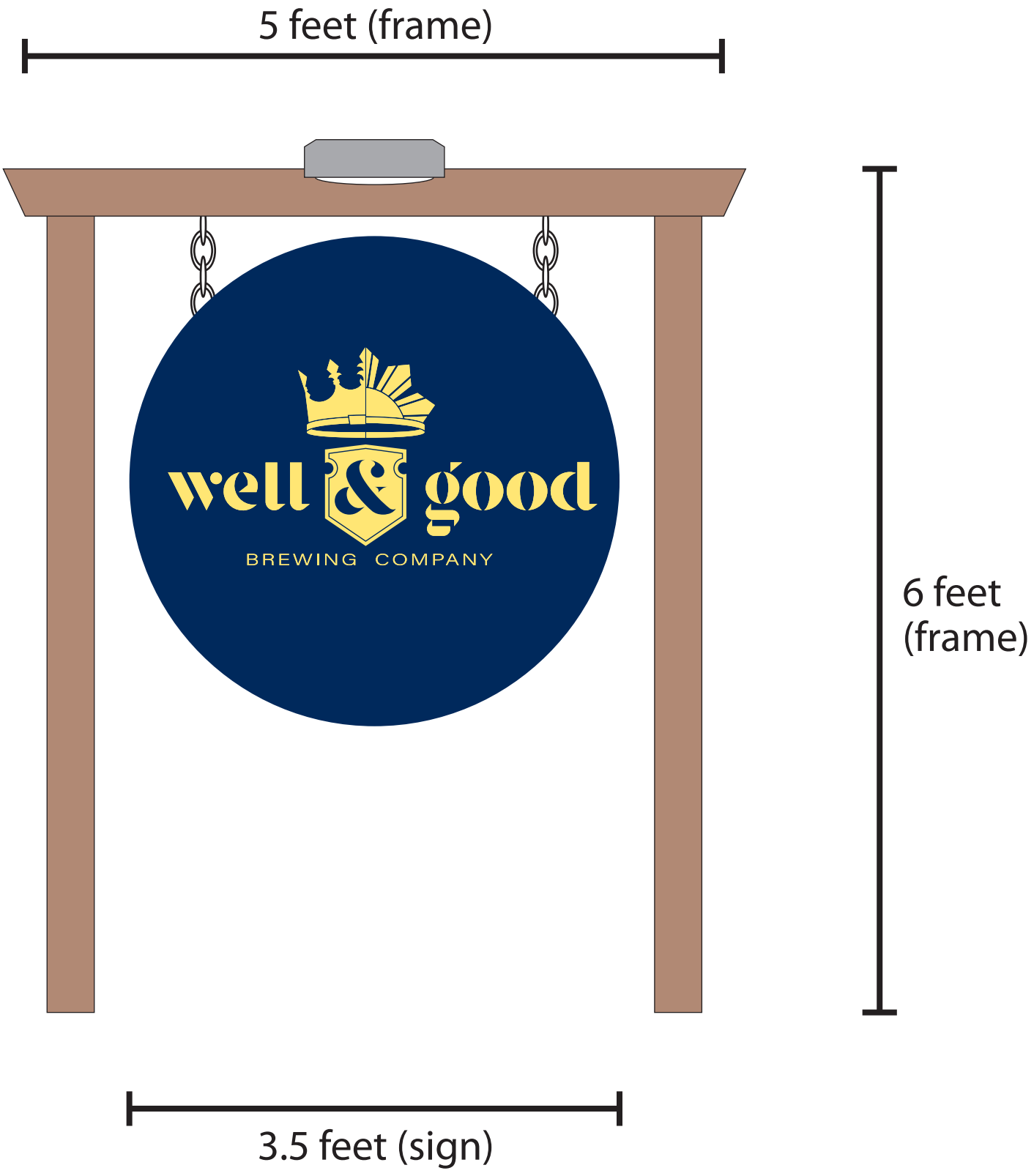
Photo 6 – Looking south east

Photo 7 – Looking southeast

Photo 8 – Looking west toward Route 9

Attachment 13
Schematic Sign Detail

Roadside Signage



Attachment 14
MEDOT Driveway/Entrance Permit Application

Maine Department of Transportation

Janet T. Mills
Governor

Driveway/Entrance Permit

Bruce A. Van Note
Commissioner

Permit Number: 36520 - **Entrance ID:** 1

OWNER

Name: **Byron Kern**
Address: **13 Smithwood Drive**
North Yarmouth, ME 04097
Telephone: **(847)754-9668**

Date Printed: **January 30, 2023**

LOCATION

Route: **0009X, Cumberland Road**
Municipality: **North Yarmouth**
County: **Cumberland**
Tax Map: **004** Lot Number: **025**
Culvert Size: **15 inches**
Culvert Type: **plastic**
Culvert Length: **40 feet**
Date of Permit: **January 30, 2023**
Approved Entrance Width: **22 feet**

In accordance with rules promulgated under 23 M.R.S.A., Chapter 13, Subchapter I, Section 704, the Maine Department of Transportation (MaineDOT) approves a permit and grants permission to perform the necessary grading to construct, in accordance with sketch or attached plan, **an Entrance** to **Brewery and Tasting Room** at a point **1424** feet **South** from **Walnut Hill Road**, subject to the Chapter 299 Highway Driveway and Entrance Rules, standard conditions and special conditions (if any) listed below.

Conditions of Approval:

This Permittee acknowledges and agrees to comply with the Standard Conditions and Approval attached hereto and to any Specific Conditions of Approval shown here.

(G = GPS Location; W = Waiver; S = Special Condition)

G - THE ENTRANCE SHALL BE LOCATED AT GPS COORDINATES: 43.820395N, -70.247177W.

S - In the town of North Yarmouth on the easterly side of Route 9, the centerline being approximately 1424 feet southerly of the centerline of Walnut Hill Road and approximately 35 feet northerly of utility pole 71.

S - The culvert shall be HDPE smoothbore plastic pipe. The property owner must contact MaineDOT at (207) 865-0823 prior to culvert and entrance installation to review procedures and arrange an inspection.

S - This permit approves the entrance for up to 99 one-way vehicle trips in the peak hour. When a change of use occurs, the Property Owner will be required to gain the approval of the MaineDOT so as to evaluate the one-way vehicle trips in the peak hour. If at any time it is determined that the change of use results in one-way vehicle trips in the peak hour exceeding the 99 trip threshold, the MaineDOT may require the owner to apply for a Traffic Movement Permit.

S - The entrance shall be constructed as shown on the plan titled "Well and Good Brewing Company" sheet 1 drawn by BH2M dated 10/2022.

S - The entrance is approved based upon the building 1660 sf, attached garage 576 sf, and separate garage 700 sf provided and submitted by applicant to MaineDOT.

Approved by: Van Tall Date: 1-30-2023

STANDARD CONDITIONS AND APPROVAL

1. Provide, erect and maintain all necessary barricades, lights, warning signs and other devices as directed by MaineDOT to properly safeguard traffic while the construction is in progress.

2. At no time cause the highway to be closed to traffic

3. Where the driveway is located within a curb, curb and gutter, and/or sidewalk section, completely remove the existing curb, curb and gutter, and/or sidewalk as may be required to create the driveway and restore drainage. All driveways abutting sidewalk sections shall meet the requirements set forth in the Americans with Disabilities Act of 1990, 42 U.S.C. Sec. 12131 et seq.

4. Obtain, have delivered to the site, and install any culverts and/or drainage structures which may be necessary for drainage, the size, type and length as called for in the permit pursuant to 23 M.R.S.A. Sec. 705. All culverts and/or drainage structures shall be new.

5. Start construction of the proposed driveway within twenty-four (24) months of the date of permit issuance and substantially complete construction of the proposed driveway within twelve months of commencement of construction.

6. Comply with all applicable federal, state and municipal regulations and ordinances.

7. Do not alter, without the express written consent of the MaineDOT, any culverts or drainage swales within the MaineDOT right of way.

8. File a copy of the approved driveway permit with the affected municipality or LURC, as appropriate within 5 business days of receiving the MaineDOT approval.

9. Construct and maintain the driveway side slopes to be no steeper than the adjacent roadway side slopes, but in no case to be steeper than 3 horizontal to 1 vertical, unless the side slope is behind existing roadway guardrail, in which case it shall be no steeper than 2 horizontal to 1 vertical.

10. Notify the MaineDOT of a proposed change of use served by the driveway when increase in traffic flow is expected to occur. This does not exempt the need for obtaining a Traffic Movement Permit (TMP) if trip generation meets or exceeds 100 passenger car equivalents (PCE) during the peak hour of the day.

11. Construct or implement and maintain erosion and sedimentation measures sufficient to protect MaineDOT facilities.

12. Driveways shall be designed such that all maneuvering and parking of any vehicles will take place outside the highway right-of-way and where vehicles will exit the premises without backing onto the highway traveled way or shoulders. All driveways will have a turnaround area to accomodate vehicles using the premises.

13. Closing any portion of a highway or roadway including lanes, shoulders, sidewalks, bike lanes, or ATV access routes is not permitted without MaineDOT approval.

FURTHER CONDITION OF THE PERMIT

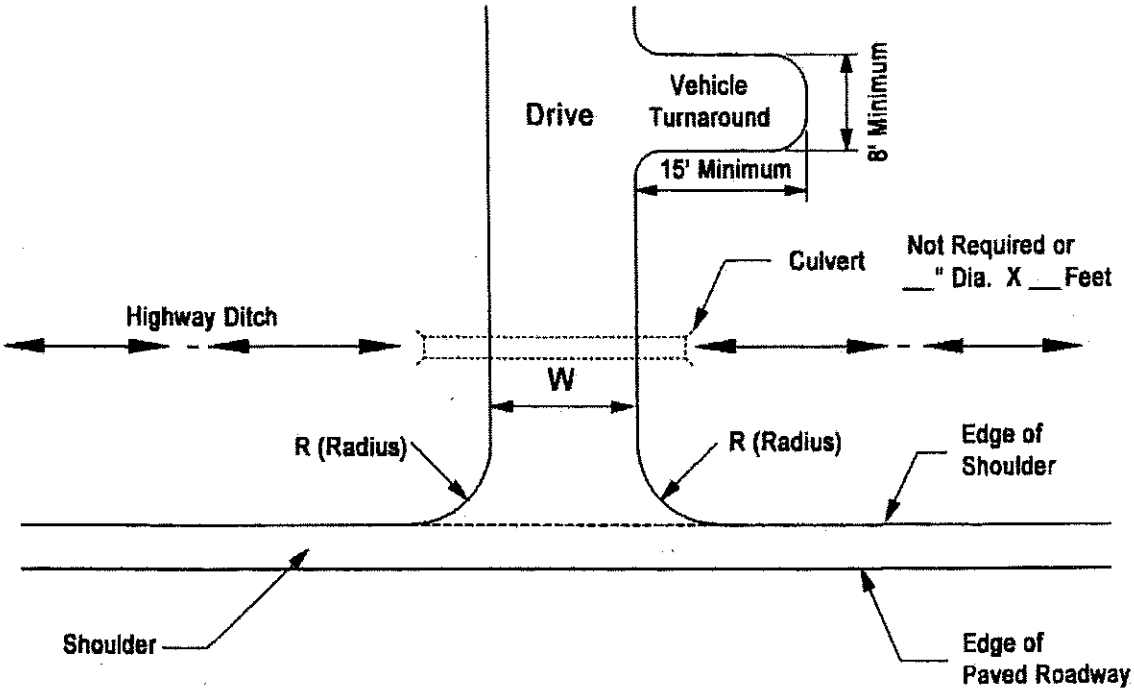
The owner shall assume, the defense of, and pay all damages, fines, and penalties for which he/she shall become liable, and shall indemnify and safe harmless said Department, its representatives, agents and employees from liability, actions against all suits, claims, damages for wrongful death, personal injuries or property damage suffered by any person or association which results from the willful or negligent action or inaction of the owner/applicant (agent) and in proceedings of every kind arising out of the construction and maintenance of said entrance(s), including snow removal.

Nothing herein shall, nor is intended to, waive any defense, immunity or limitation of liability which may be available to the MaineDOT, their officers, agents or employees under the Maine Tort Claims Act or any other privileges and/or immunities provided by law. It is a further condition that the owner will agree to keep the right of way inviolate for public highway purposes and no signs (other than traffic signs and signals), posters, billboards, roadside stands, culvert end walls or private installations shall be permitted within Right of Way limits.

State of Maine
Department of Transportation

Entrance / Driveway Details

PLAN

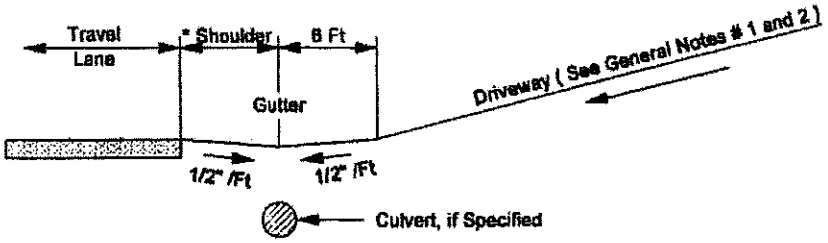


GENERAL NOTES -

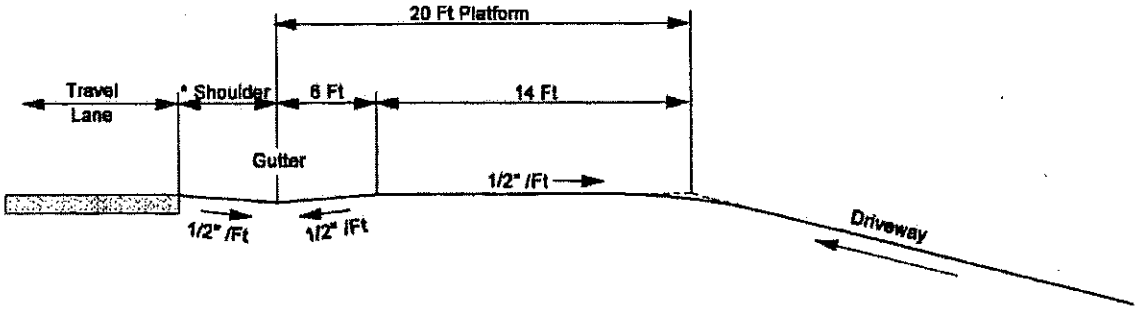
1. ALL RESIDENTAL OR COMMERCIAL DRIVES WITH 10% GRADE OR MORE SLOPING DOWN TOWARDS THE HIGHWAY SHALL BE PAVED TO THE RIGHT OF WAY LINE, AS A MINIMUM, INCUDING SHOULDER, IF GRAVEL AND HAVE DITCHES TO CONTROL RUNOFF.
2. DRIVES SLOPING TO THE HIGHWAY SHALL BE CROWNED (1/2" PER FT. MINIMUM).
3. TO THE MAXIMUM EXTENT PRACTICAL, THE ENTRANCE MUST BE CONSTRUCTED PERPENDICULAR TO THE HIGHWAY AT THE POINT OF ACCESS. EXCEPT WHERE CURBING EXISTS OR IS PROPOSED, THE MINIMUM RADIUS ON THE EDGES OF THE ENTRANCE MUST BE 10 FEET OR AS OTHERWISE REQUIRED AS SHOWN.
4. ENTRANCES/DRIVEWAYS WILL BE BUILT WITH AN ADEQUATE TURN-AROUND AREA ON SITE TO ALLOW ALL VEHICLES TO MANUVER AND PARK WITHOUT BACKING ONTO THE HIGHWAY. THIS TURN-AROUND SHALL BE AT LEAST 8 FEET WIDE BY 15 FEET LONG.
5. ENTRANCES/DRIVEWAYS AND OTHER ASSOCIATED SITE WORK WHICH DIRECTS WATER (RUNOFF) TOWARD THE HIGHWAY MUST BE CONSTRUCTED, CROWNED STABILIZED AND MAINTAINED WITH MATERIALS AND APPROPRIATE TEMPORARY/PERMANENT EROSION CONTROL MATERIALS IN ACCORDANCE WITH MDOT BEST MANAGEMENT PRACTICES.
6. THE PROFILE OF THE ENTRANCES MUST COMPLY WITH THE DETAILS SHOWN ON PAGE 2.

MDOT Entrance / Driveway Details, Continued

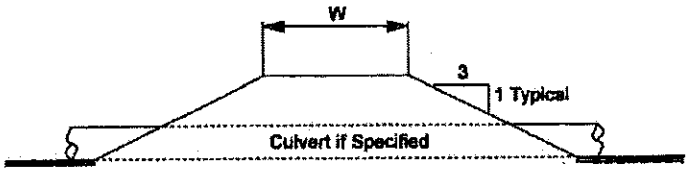
PROFILE
Details



NOTE :
Grade of Existing Shoulder Should Be Maintained To Create A Gutter With a Minimum Of Three Inches Below The Edge Of Traveled Way.
* Distance Of The Gutter From The Edge Of Traveled Way Should Be The Same As Existing Shoulder Or A Minimum Of 4 Feet.



Driveway Cross Section



Attachment 15
Certificate of Formation

Filing Fee $175.00

File No. 20230989DC Pages 2
Fee Paid $ 175
DCN 2220773610103 DLLC
----FILED----------
02/28/2022

Julie L. Flynn
Deputy Secretary of State

A True Copy When Attested By Signature

Julie L. Flynn
Deputy Secretary of State

MAINE
LIMITED LIABILITY COMPANY

STATE OF MAINE

CERTIFICATE OF FORMATION

Pursuant to 31 MRSA §1531, the undersigned executes and delivers the following Certificate of Formation:

FIRST: The name of the limited liability company is:

Well & Good Brewing Company LLC

(A limited liability company name must contain the words "limited liability company" or "limited company" or the abbreviation "L.L.C.," "LLC," "L.C." or "LC" or, in the case of a low-profit limited liability company, "L3C" or "l3c" – see 31 MRSA 1508.)

SECOND: Filing Date: (select one)

☑ Date of this filing; or
☐ Later effective date (specified here): _____

THIRD: Designation as a low profit LLC (Check only if applicable):

☐ This is a low-profit limited liability company pursuant to 31 MRSA §1611 meeting all qualifications set forth here:

A. The company intends to qualify as a low-profit limited liability company;

B. The company must at all times significantly further the accomplishment of one or more of the charitable or educational purposes within the meaning of Section 170(c)(2)(B) of the Internal Revenue Code of 1986, as it may be amended, revised or succeeded, and must list the specific charitable or educational purposes the company will further;

C. No significant purpose of the company is the production of income or the appreciation of property. The fact that a person produces significant income or capital appreciation is not, in the absence of other factors, conclusive evidence of a significant purpose involving the production of income or the appreciation of property; and

D. No purpose of the company is to accomplish one or more political or legislative purpose within the meaning of Section 170(c)(2)(D) of the Internal Revenue Code of 1986, or its successor.

FOURTH: Designation as a professional LLC (Check only if applicable):

☐ This is a professional limited liability company* formed pursuant to 13 MRSA Chapter 22-A to provide the following professional services:

_____
(Type of professional services)

FIFTH: The Registered Agent is a: (select either a Commercial or Noncommercial Registered Agent)

☑ Commercial Registered Agent CRA Public Number: P10154

United States Corporation Agents, Inc.

(Name of commercial registered agent)

☐ Noncommercial Registered Agent

(Name of noncommercial registered agent)

(physical location, not P.O. Box – street, city, state and zip code)

(mailing address if different from above)

SIXTH: Pursuant to 5 MRSA §105.2, the registered agent listed above has consented to serve as the registered agent for this limited liability company.

SEVENTH: Other matters the members determine to include are set forth in the attached Exhibit _____, and made a part hereof.

****Authorized person(s)** **Dated** 2/24/2022

(Signature of authorized person)

Cheyenne Moseley, Assistant Secretary, LegalZoom.com, Inc.

(Type or print name of authorized person)

(Signature of authorized person)

(Type or print name of authorized person)

*Examples of professional service limited liability companies are accountants, attorneys, chiropractors, dentists, registered nurses and veterinarians. (This is not an inclusive list – see 13 MRSA §723.7)

Pursuant to 31 MRSA §1676.1.A, Certificate of Formation **MUST be signed by at least one authorized person.

The execution of this certificate constitutes an oath or affirmation under the penalties of false swearing under 17-A MRSA §453.

Please remit your payment made payable to the Maine Secretary of State.

Submit completed form to:

Secretary of State
Division of Corporations, UCC and Commissions
101 State House Station
Augusta, ME 04333-0101
Telephone Inquiries: **(207) 624-7752** Email Inquiries: CEC.Corporations@Maine.gov

Attachment 16
Stormwater Report (Narrative Portion Only)

STORMWATER MANAGEMENT REPORT

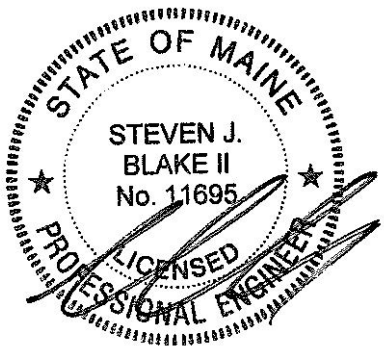
WELL & GOOD BREWING
173 Cumberland Road
North Yarmouth, Maine

Submitted by:

Well & Good Brewing

Prepared by:

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors



Date:
November 2022

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

Well & Good Brewing is proposing a commercial brewery in an existing building on the property located at 173 Cumberland Road known as Tax Map 4, Lot 25. The site currently consists of a house, driveway, and garage that together total 6,889 sf of impervious area.

The scope of work includes but is not limited to:

- Construction of a parking area, access drive, and paved walkway
- Construction of a level spreader
- Installation of 2,000 gallon holding tank

The proposed infrastructure improvements will create approximately 5,176 sf of new onsite impervious area creating a total of 12,065 sf of onsite impervious area.

The Stormwater Management Plan has been prepared to satisfy the requirements of the Maine Department of Environmental Protections "Stormwater Management Rules" Chapters 500, 501 and 502 as well as the most recent version of the "Maine Stormwater Best Management Practices Manual".

The Stormwater Management BMP's have also been designed in conformance with the Town of North Yarmouth Land Use Ordinance and Site Plan Regulations.

1.1 OVERVIEW OF MODELING METHODOGY AND SOURCE INFORMATION

Hydrologic Analysis: The pre- and post-development conditions have been modeled using modeling software (Hydrocad Version 10) which is based upon the methodology contained within the USDA Soil Conservation Service Technical Release 55. Type III 24-hour storm distributions for Cumberland County were used for the analysis. The following return periods and 24-hour rainfall depths were used for the analysis:

Return Period	24-Hour Rainfall Depth
2-Year Storm	3.10 inches
10-Year Storm	4.60 inches
25-Year Storm	5.80 inches

Soils: The soils used for the stormwater analysis were digitized from the Natural Resource Conservation Service (NRCS), web soil survey website. The source of the data is the York County Soil Survey (Class D). Refer to the following for additional documentation regarding the soils used for modelling:

- Appendix B of this Report
- Pre and Post Development Watershed Plans (Sheets A and B)

The soils include:

Soil Map Unit	Unit Description	Hydrologic Soil Group
DeB	Deerfield loamy fine sand, 3 to 8% slopes	A
WmB	Windsor loamy sand, 0 to 8% slopes	A

Topography: LIDAR data from the Maine Office of GIS

Natural Resources: Wetland delineations performed by Flycatcher, LLC

1.2 DESCRIPTION OF POINTS OF ANALYSIS

The watershed model analyzes the discharge of runoff at one Analysis Point as described below:

Analysis Point #1
Description: Culmination of flow to the eastern & southern property lines
Pre-Development Tributary Drainage Area: 66,621 sf
Post Development Tributary Drainage Area: 66,621 sf

1.3 PRE DEVELOPMENT CONDITIONS

The Existing Conditions are shown on Sheet 2 and Sheet A of the accompanying plans. The parcel to be developed encompasses an area of approximately 1.50 acres and is located at 173 Cumberland Road in North Yarmouth. The parcel is partially wooded and lies within the Lower Royal River Watershed.

The watershed that was analyzed for this project is approximately 1.53 acres. The analysis points are described in Section 1.2 of this report. The watershed generally flows from west to east across the site.

The Pre-Development Watershed Map is included as Sheet A of the accompanying plans and the Calculations are attached as Appendix C.

The Pre-Development Watershed Model predicts the following peak flow rates:

Pre-Development Peak Flows (cu. ft./sec)			
Analysis Point	**2-Year**	**10-Year**	**25-Year**
AP-1	0.00	0.11	0.44

1.4 POST DEVELOPMENT CONDITIONS

The proposed project will include construction of a proposed paved parking area intended to support a commercial business. Below is a summary of the proposed developed area associated with construction of the proposed infrastructure.

New Impervious Area = 5,176 sf
Total Disturbed Area = 14,558 sf

The proposed project will utilize a level spreader to control erosive flows created by the open drainage system before it enters the abutting wooded property.

The Post Development Watershed Map is included as Sheet B of the accompanying plan set and the Calculations are attached as Appendix D.

The Post-Development Watershed Model predicts the following peak flow rates:

Post Development Peak Flows (cu. ft./sec)			
Analysis Point	**2-Year**	**10-Year**	**25-Year**
AP-1	0.02	0.26	0.74

1.5 BASIC STANDARDS

The proposed project is required to meet the Basic Standards. To meet the Basic Standards the project design must demonstrate that the erosion and sedimentation control, inspection and maintenance, and housekeeping standards specified in Appendices A, B, and C of 06-096 Chapter 500 are met, and that the grading or other construction activity will not impede or otherwise alter drainageways so as to have an unreasonable adverse impact on a wetland or waterbody, or an adjacent downslope parcel.

The proposed project will provide temporary (during construction) BMP's and post-construction BMP's. Refer to Sheet 3 of the Project Plans for erosion and sedimentation control narratives and details. The project requirements for inspection

and maintenance during construction and post-construction are described in the Erosion Control Plan.

1.6 URBAN IMPAIRED STREAM STANDARD

The proposed project is located in the Lower Royal River Watershed. The Royal River is not listed in 06-096 Chapter 502 as an Urban Impaired Stream. The Urban Impaired Stream Standard does not apply to this project.

1.7 FLOODING STANDARDS

The proposed project is not required to meet the Maine DEP Flooding Standards, however, the Town of North Yarmouth requires that pre and post development runoff modelling be evaluated for the 2, 10, and 25-year storm events.

Peak Flow Comparison (cu. ft./sec)						
Analysis Point	2-Year		10-Year		25-Year	
	Pre	Post	Pre	Post	Pre	Post
AP-1	0.00	0.02	0.11	0.26	0.44	0.74

As illustrated in the table above, development of the proposed project will create a condition where peak flows of stormwater from the project site exceed the peak flows of stormwater prior to undertaking the project at Analysis Point 1 in the 2, 10 and 25-year storm events.

All proposed developed areas will be directed to a 10' long level spreader (5' lip required) that will convert all channelized runoff to sheet flow prior to being directed to the downstream vegetated areas (grass on subject property and woods on abutting land). In a 25-year storm event, the model predicts that the velocity of water leaving the level spreader will travel at a maximum of 1.26 fps. The soils onsite appear to be Deerfield series soils with a max permissible velocity of 2.0 fps in a bare condition and 4.0 fps in a vegetated condition.

Based on this information, the predicted increase in the rate of runoff from the project site will not create adverse impacts to the downstream conditions.

1.8 CLOSURE

The proposed stormwater management facilities have been designed to mitigate stormwater impacts associated with development of the proposed project. The proposed stormwater management facilities have been designed to meet the Town of North Yarmouth Site and Performance Standards.

STORMWATER MANAGEMENT REPORT

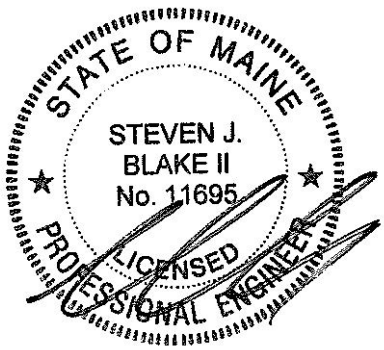
WELL & GOOD BREWING
173 Cumberland Road
North Yarmouth, Maine

Submitted by:

Well & Good Brewing

Prepared by:

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors



Date:
November 2022

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

Well & Good Brewing is proposing a commercial brewery in an existing building on the property located at 173 Cumberland Road known as Tax Map 4, Lot 25. The site currently consists of a house, driveway, and garage that together total 6,889 sf of impervious area.

The scope of work includes but is not limited to:

- Construction of a parking area, access drive, and paved walkway
- Construction of a level spreader
- Installation of 2,000 gallon holding tank

The proposed infrastructure improvements will create approximately 5,176 sf of new onsite impervious area creating a total of 12,065 sf of onsite impervious area.

The Stormwater Management Plan has been prepared to satisfy the requirements of the Maine Department of Environmental Protections "Stormwater Management Rules" Chapters 500, 501 and 502 as well as the most recent version of the "Maine Stormwater Best Management Practices Manual".

The Stormwater Management BMP's have also been designed in conformance with the Town of North Yarmouth Land Use Ordinance and Site Plan Regulations.

1.1 OVERVIEW OF MODELING METHODOGY AND SOURCE INFORMATION

Hydrologic Analysis: The pre- and post-development conditions have been modeled using modeling software (Hydrocad Version 10) which is based upon the methodology contained within the USDA Soil Conservation Service Technical Release 55. Type III 24-hour storm distributions for Cumberland County were used for the analysis. The following return periods and 24-hour rainfall depths were used for the analysis:

Return Period	24-Hour Rainfall Depth
2-Year Storm	3.10 inches
10-Year Storm	4.60 inches
25-Year Storm	5.80 inches

Soils: The soils used for the stormwater analysis were digitized from the Natural Resource Conservation Service (NRCS), web soil survey website. The source of the data is the York County Soil Survey (Class D). Refer to the following for additional documentation regarding the soils used for modelling:

- Appendix B of this Report
- Pre and Post Development Watershed Plans (Sheets A and B)

The soils include:

Soil Map Unit	Unit Description	Hydrologic Soil Group
DeB	Deerfield loamy fine sand, 3 to 8% slopes	A
WmB	Windsor loamy sand, 0 to 8% slopes	A

Topography: LIDAR data from the Maine Office of GIS

Natural Resources: Wetland delineations performed by Flycatcher, LLC

1.2 DESCRIPTION OF POINTS OF ANALYSIS

The watershed model analyzes the discharge of runoff at one Analysis Point as described below:

Analysis Point #1
Description: Culmination of flow to the eastern & southern property lines
Pre-Development Tributary Drainage Area: 66,621 sf
Post Development Tributary Drainage Area: 66,621 sf

1.3 PRE DEVELOPMENT CONDITIONS

The Existing Conditions are shown on Sheet 2 and Sheet A of the accompanying plans. The parcel to be developed encompasses an area of approximately 1.50 acres and is located at 173 Cumberland Road in North Yarmouth. The parcel is partially wooded and lies within the Lower Royal River Watershed.

The watershed that was analyzed for this project is approximately 1.53 acres. The analysis points are described in Section 1.2 of this report. The watershed generally flows from west to east across the site.

The Pre-Development Watershed Map is included as Sheet A of the accompanying plans and the Calculations are attached as Appendix C.

The Pre-Development Watershed Model predicts the following peak flow rates:

Pre-Development Peak Flows (cu. ft./sec)			
Analysis Point	**2-Year**	**10-Year**	**25-Year**
AP-1	0.00	0.11	0.44

1.4 POST DEVELOPMENT CONDITIONS

The proposed project will include construction of a proposed paved parking area intended to support a commercial business. Below is a summary of the proposed developed area associated with construction of the proposed infrastructure.

New Impervious Area = 5,176 sf
Total Disturbed Area = 14,558 sf

The proposed project will utilize a level spreader to control erosive flows created by the open drainage system before it enters the abutting wooded property.

The Post Development Watershed Map is included as Sheet B of the accompanying plan set and the Calculations are attached as Appendix D.

The Post-Development Watershed Model predicts the following peak flow rates:

Post Development Peak Flows (cu. ft./sec)			
Analysis Point	**2-Year**	**10-Year**	**25-Year**
AP-1	0.02	0.26	0.74

1.5 BASIC STANDARDS

The proposed project is required to meet the Basic Standards. To meet the Basic Standards the project design must demonstrate that the erosion and sedimentation control, inspection and maintenance, and housekeeping standards specified in Appendices A, B, and C of 06-096 Chapter 500 are met, and that the grading or other construction activity will not impede or otherwise alter drainageways so as to have an unreasonable adverse impact on a wetland or waterbody, or an adjacent downslope parcel.

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Peak Flow Comparison (cu. ft./sec)						
Analysis Point	2-Year		10-Year		25-Year	
	Pre	Post	Pre	Post	Pre	Post
AP-1	0.00	0.02	0.11	0.26	0.44	0.74

As illustrated in the table above, development of the proposed project will create a condition where peak flows of stormwater from the project site exceed the peak flows of stormwater prior to undertaking the project at Analysis Point 1 in the 2, 10 and 25-year storm events.

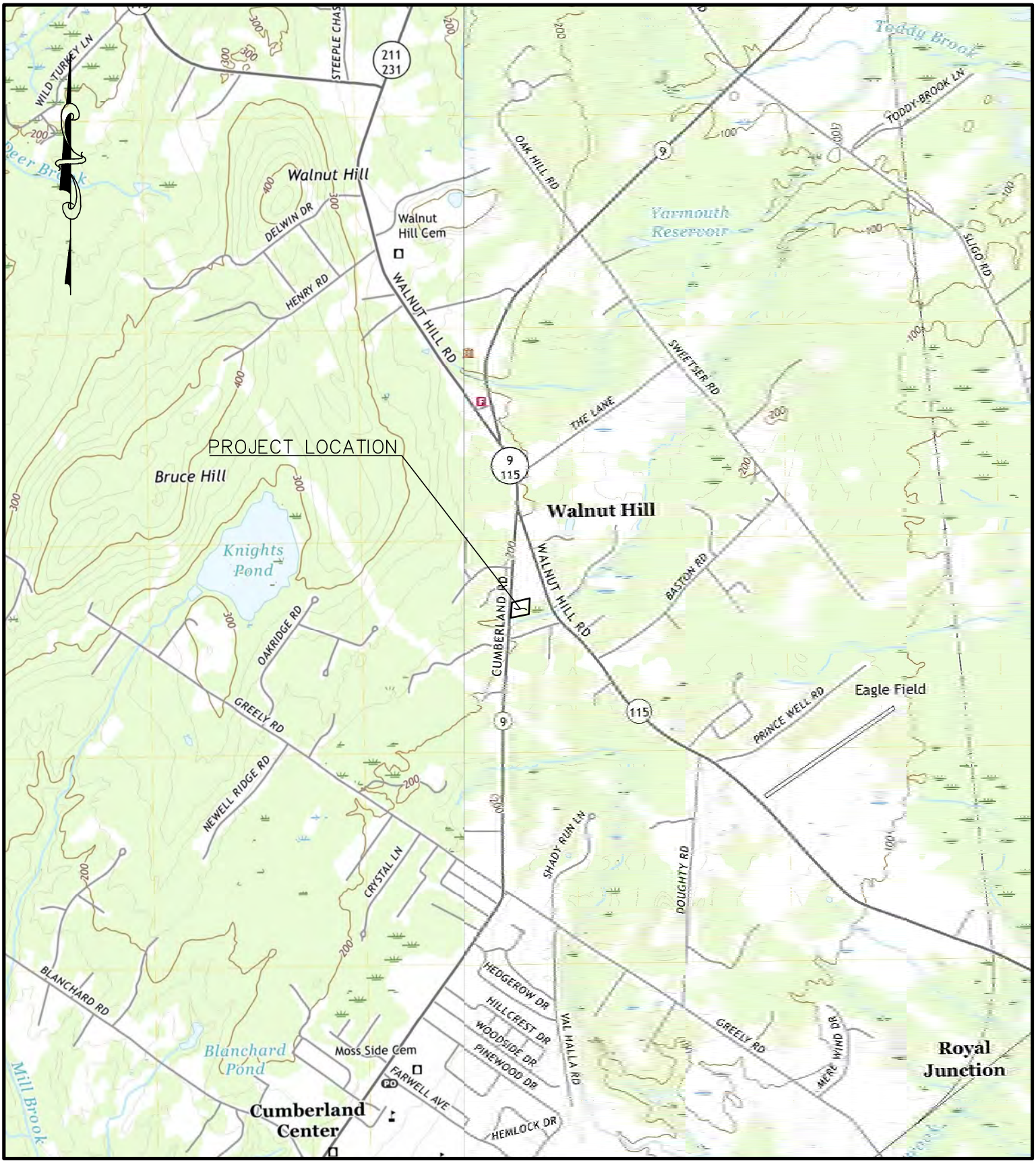
All proposed developed areas will be directed to a 10' long level spreader (5' lip required) that will convert all channelized runoff to sheet flow prior to being directed to the downstream vegetated areas (grass on subject property and woods on abutting land). In a 25-year storm event, the model predicts that the velocity of water leaving the level spreader will travel at a maximum of 1.26 fps. The soils onsite appear to be Deerfield series soils with a max permissible velocity of 2.0 fps in a bare condition and 4.0 fps in a vegetated condition.

Based on this information, the predicted increase in the rate of runoff from the project site will not create adverse impacts to the downstream conditions.

1.8 CLOSURE

The proposed stormwater management facilities have been designed to mitigate stormwater impacts associated with development of the proposed project. The proposed stormwater management facilities have been designed to meet the Town of North Yarmouth Site and Performance Standards.

Appendix A
Figures



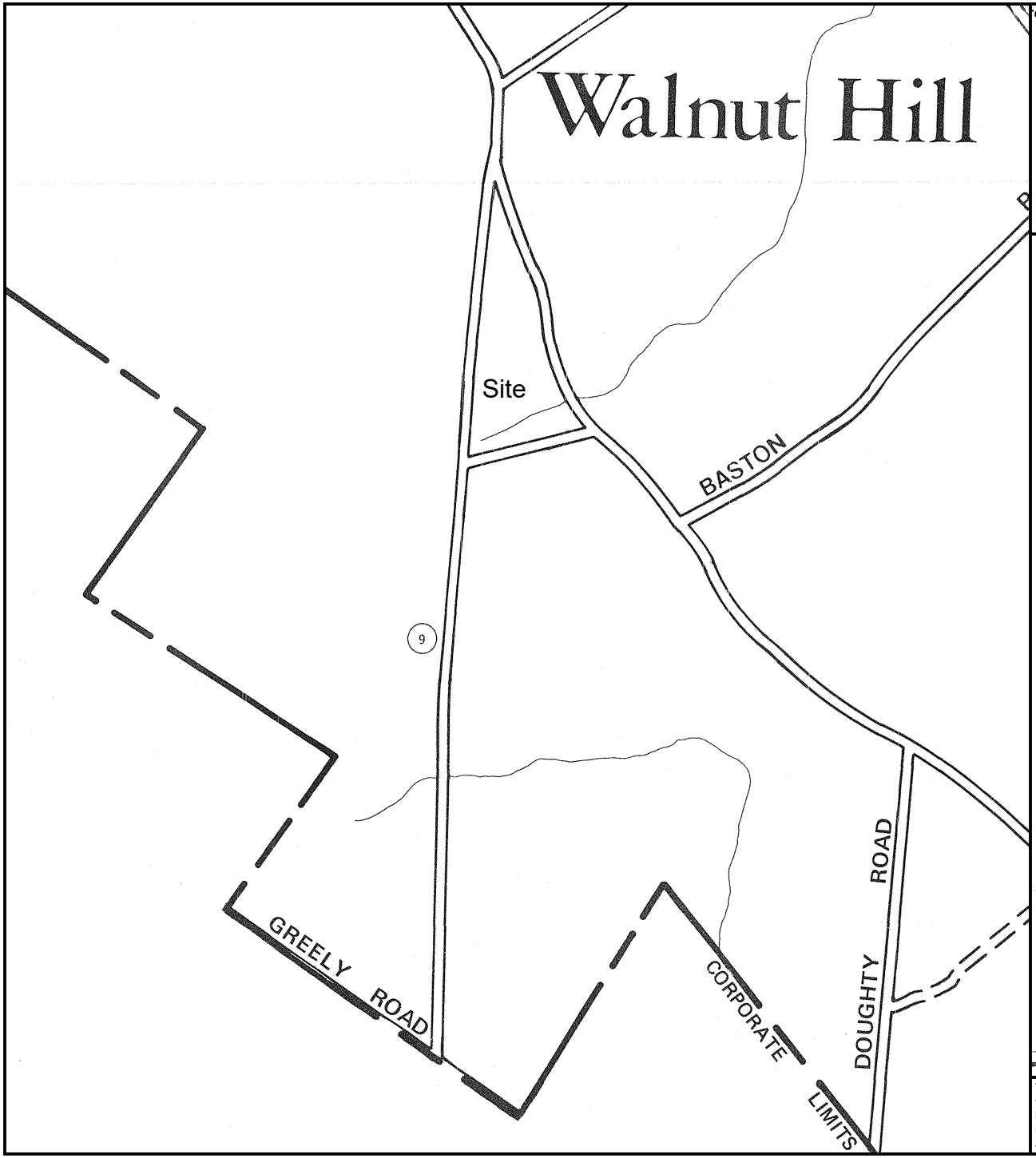
REFERENCES:
1. USGS QUADRANGLE CUMBERLAND CENTER, ME 2021
2. USGS QUADRANGLE YARMOUTH, ME 2021

Scale: 1" = 2000'

2000' 0 2000' 4000'

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
Fax (207) 839-8250

rogram at (800) 638-6620, or (800) 424-8872.



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

230202

TOWN OF
NORTH YARMOUTH,
MAINE
CUMBERLAND COUNTY

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

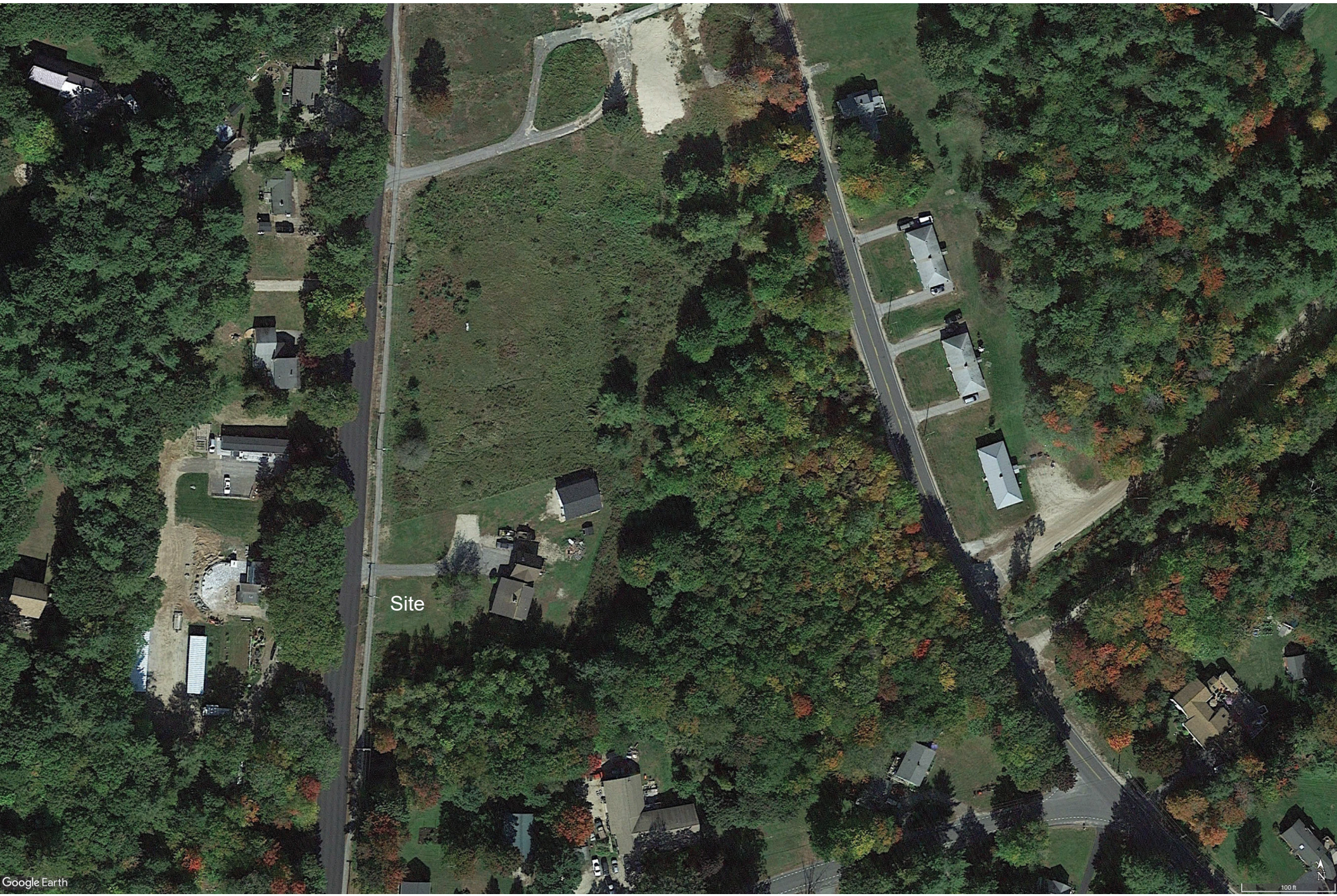
P10

COMMUNITY-PANEL NUMBER
230202 0010 B

EFFECTIVE DATE:
JULY 16, 1981

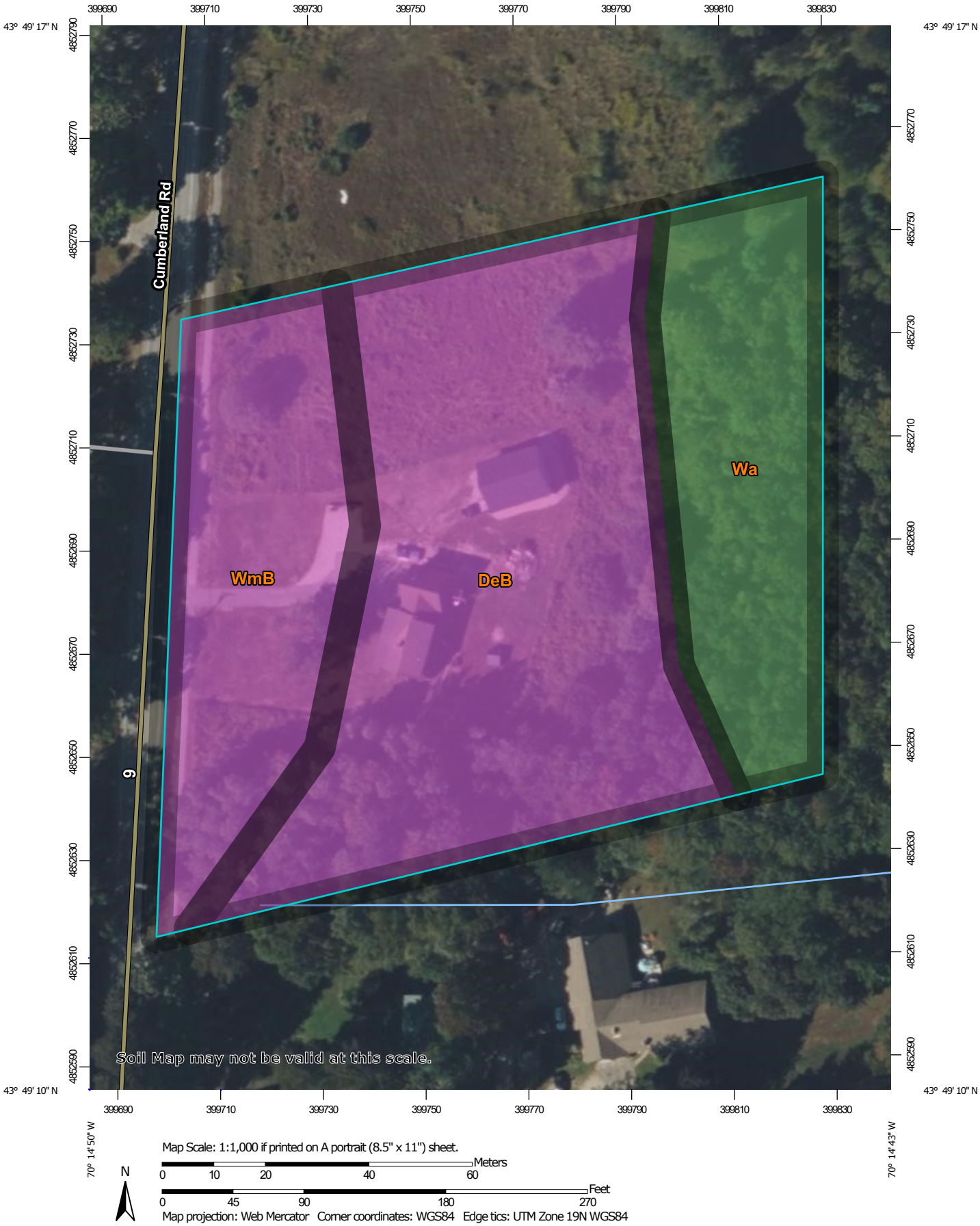
N90

federal emergency management agency
federal insurance administration


Site
Google Earth
100 ft
N

Appendix B
Soils Report

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine
(173 Cumberland Rd)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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 1:24,000.

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: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 19, 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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	2.0	53.0%
Wa	Walpole fine sandy loam	A/D	0.9	23.0%
WmB	Windsor loamy sand, 0 to 8 percent slopes	A	0.9	24.0%
Totals for Area of Interest			**3.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Appendix C
Pre-Development Calculations

Subcat Reach Pond Link

Routing Diagram for Pre-Development - Well & Good Brewing
Prepared by HP Inc., Printed 1/26/2023

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.927	39	>75% Grass cover, Good, HSG A (SA-1)
0.187	98	Paved parking, HSG A (SA-1)
0.415	30	Woods, Good, HSG A (SA-1)
1.529	**44**	**TOTAL AREA**

Summary for Subcatchment SA-1:

Runoff = 0.00 cfs @ 17.32 hrs, Volume= 0.002 af, Depth> 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
40,365	39	>75% Grass cover, Good, HSG A
18,098	30	Woods, Good, HSG A
8,158	98	Paved parking, HSG A
66,621	44	Weighted Average
58,463		87.75% Pervious Area
8,158		12.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
0.9	41	0.0244	0.78		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	191	Total			

Summary for Subcatchment SA-1:

Runoff = 0.11 cfs @ 12.65 hrs, Volume= 0.029 af, Depth> 0.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
40,365	39	>75% Grass cover, Good, HSG A
18,098	30	Woods, Good, HSG A
8,158	98	Paved parking, HSG A
66,621	44	Weighted Average
58,463		87.75% Pervious Area
8,158		12.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
0.9	41	0.0244	0.78		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	191	Total			

Summary for Subcatchment SA-1:

Runoff = 0.44 cfs @ 12.51 hrs, Volume= 0.072 af, Depth> 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
40,365	39	>75% Grass cover, Good, HSG A
18,098	30	Woods, Good, HSG A
8,158	98	Paved parking, HSG A
66,621	44	Weighted Average
58,463		87.75% Pervious Area
8,158		12.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
0.9	41	0.0244	0.78		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	191	Total			

Appendix D
Post Development Calculations

Subcat Reach Pond Link

Routing Diagram for Post Development - Well & Good Brewing
Prepared by HP Inc., Printed 1/26/2023

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.808	39	>75% Grass cover, Good, HSG A (SA-1)
0.306	98	Paved parking, HSG A (SA-1)
0.415	30	Woods, Good, HSG A (SA-1)
1.529	**48**	**TOTAL AREA**

Summary for Subcatchment SA-1:

Runoff = 0.02 cfs @ 15.02 hrs, Volume= 0.007 af, Depth> 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
35,189	39	>75% Grass cover, Good, HSG A
18,098	30	Woods, Good, HSG A
13,334	98	Paved parking, HSG A
66,621	48	Weighted Average
53,287		79.99% Pervious Area
13,334		20.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
0.9	41	0.0244	0.78		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	191	Total			

Summary for Subcatchment SA-1:

Runoff = 0.26 cfs @ 12.55 hrs, Volume= 0.048 af, Depth> 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
35,189	39	>75% Grass cover, Good, HSG A
18,098	30	Woods, Good, HSG A
13,334	98	Paved parking, HSG A
66,621	48	Weighted Average
53,287		79.99% Pervious Area
13,334		20.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
0.9	41	0.0244	0.78		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	191	Total			

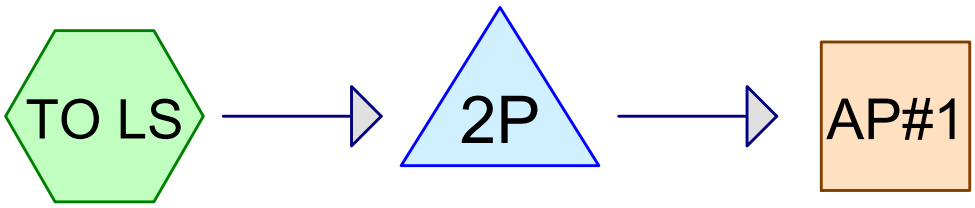
Summary for Subcatchment SA-1:

Runoff = 0.74 cfs @ 12.44 hrs, Volume= 0.101 af, Depth> 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
35,189	39	>75% Grass cover, Good, HSG A
18,098	30	Woods, Good, HSG A
13,334	98	Paved parking, HSG A
66,621	48	Weighted Average
53,287		79.99% Pervious Area
13,334		20.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
0.9	41	0.0244	0.78		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	191	Total			



Level Spreader

Subcat Reach Pond Link

Routing Diagram for Post Development - Well & Good Brewing
Prepared by HP Inc., Printed 1/26/2023

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.097	39	>75% Grass cover, Good, HSG A (TO LS)
0.255	98	Impervious Area (TO LS)
0.352	**82**	**TOTAL AREA**

Summary for Subcatchment TO LS:

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.040 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	11,092	98	Impervious Area
	4,230	39	>75% Grass cover, Good, HSG A
	15,322	82	Weighted Average
	4,230		27.61% Pervious Area
	11,092		72.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	40	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
0.6	51	0.0290	1.37		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
0.2	89	0.0280	7.80	23.41	**Trap/Vee/Rect Channel Flow,** Bot.W=1.00' D=0.50' Z= 0.0 & 20.0 '/' Top.W=11.00' n= 0.013 Asphalt, smooth
3.3	180	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach AP#1:

Inflow Area = 0.352 ac, 72.39% Impervious, Inflow Depth > 1.14" for 2-YR event
Inflow = 0.59 cfs @ 12.11 hrs, Volume= 0.033 af
Outflow = 0.56 cfs @ 12.13 hrs, Volume= 0.033 af, Atten= 5%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.92 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 0.34 fps, Avg. Travel Time= 2.2 min

Peak Storage= 28 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.05'
Bank-Full Depth= 0.50' Flow Area= 17.5 sf, Capacity= 59.65 cfs

10.00' x 0.50' deep channel, n= 0.035
Side Slope Z-value= 50.0 '/' Top Width= 60.00'
Length= 45.0' Slope= 0.0333 '/'
Inlet Invert= 187.00', Outlet Invert= 185.50'

‡

Summary for Pond 2P: Level Spreader

Inflow Area = 0.352 ac, 72.39% Impervious, Inflow Depth > 1.35" for 2-YR event
Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.040 af
Outflow = 0.59 cfs @ 12.11 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.7 min
Primary = 0.59 cfs @ 12.11 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 187.57' @ 12.11 hrs Surf.Area= 492 sf Storage= 300 cf

Plug-Flow detention time= 66.3 min calculated for 0.033 af (84% of inflow)
Center-of-Mass det. time= 21.9 min (821.8 - 799.8)

Volume	Invert	Avail.Storage	Storage Description
#1	186.50'	549 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.50	40	0	0
187.00	282	81	81
187.50	465	187	267
188.00	662	282	549

Device	Routing	Invert	Outlet Devices
#1	Primary	187.50'	**10.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=0.58 cfs @ 12.11 hrs HW=187.57' (Free Discharge)
↑—**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.58 cfs @ 0.85 fps)

Summary for Subcatchment TO LS:

Runoff = 1.10 cfs @ 12.09 hrs, Volume= 0.075 af, Depth> 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	11,092	98	Impervious Area
	4,230	39	>75% Grass cover, Good, HSG A
	15,322	82	Weighted Average
	4,230		27.61% Pervious Area
	11,092		72.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	40	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
0.6	51	0.0290	1.37		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
0.2	89	0.0280	7.80	23.41	**Trap/Vee/Rect Channel Flow,** Bot.W=1.00' D=0.50' Z= 0.0 & 20.0 '/' Top.W=11.00' n= 0.013 Asphalt, smooth
3.3	180	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach AP#1:

Inflow Area = 0.352 ac, 72.39% Impervious, Inflow Depth > 2.34" for 10-YR event
Inflow = 1.10 cfs @ 12.10 hrs, Volume= 0.068 af
Outflow = 1.06 cfs @ 12.12 hrs, Volume= 0.068 af, Atten= 4%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.14 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 0.43 fps, Avg. Travel Time= 1.8 min

Peak Storage= 43 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.07'
Bank-Full Depth= 0.50' Flow Area= 17.5 sf, Capacity= 59.65 cfs

10.00' x 0.50' deep channel, n= 0.035
Side Slope Z-value= 50.0 '/' Top Width= 60.00'
Length= 45.0' Slope= 0.0333 '/'
Inlet Invert= 187.00', Outlet Invert= 185.50'

‡

Summary for Pond 2P: Level Spreader

Inflow Area = 0.352 ac, 72.39% Impervious, Inflow Depth > 2.55" for 10-YR event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.075 af
Outflow = 1.10 cfs @ 12.10 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.6 min
Primary = 1.10 cfs @ 12.10 hrs, Volume= 0.068 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 187.60' @ 12.10 hrs Surf.Area= 506 sf Storage= 318 cf

Plug-Flow detention time= 43.8 min calculated for 0.068 af (92% of inflow)
Center-of-Mass det. time= 16.0 min (801.4 - 785.4)

Volume	Invert	Avail.Storage	Storage Description
#1	186.50'	549 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.50	40	0	0
187.00	282	81	81
187.50	465	187	267
188.00	662	282	549

Device	Routing	Invert	Outlet Devices
#1	Primary	187.50'	**10.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=1.09 cfs @ 12.10 hrs HW=187.60' (Free Discharge)
↑—**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.09 cfs @ 1.05 fps)

Summary for Subcatchment TO LS:

Runoff = 1.52 cfs @ 12.09 hrs, Volume= 0.105 af, Depth> 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	11,092	98	Impervious Area
	4,230	39	>75% Grass cover, Good, HSG A
	15,322	82	Weighted Average
	4,230		27.61% Pervious Area
	11,092		72.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	40	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
0.6	51	0.0290	1.37		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
0.2	89	0.0280	7.80	23.41	**Trap/Vee/Rect Channel Flow,** Bot.W=1.00' D=0.50' Z= 0.0 & 20.0 '/' Top.W=11.00' n= 0.013 Asphalt, smooth
3.3	180	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach AP#1:

Inflow Area = 0.352 ac, 72.39% Impervious, Inflow Depth > 3.36" for 25-YR event
Inflow = 1.52 cfs @ 12.10 hrs, Volume= 0.098 af
Outflow = 1.48 cfs @ 12.12 hrs, Volume= 0.098 af, Atten= 3%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.26 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 0.47 fps, Avg. Travel Time= 1.6 min

Peak Storage= 54 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 0.50' Flow Area= 17.5 sf, Capacity= 59.65 cfs

10.00' x 0.50' deep channel, n= 0.035
Side Slope Z-value= 50.0 '/' Top Width= 60.00'
Length= 45.0' Slope= 0.0333 '/'
Inlet Invert= 187.00', Outlet Invert= 185.50'

‡

Summary for Pond 2P: Level Spreader

Inflow Area = 0.352 ac, 72.39% Impervious, Inflow Depth > 3.57" for 25-YR event
Inflow = 1.52 cfs @ 12.09 hrs, Volume= 0.105 af
Outflow = 1.52 cfs @ 12.10 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.5 min
Primary = 1.52 cfs @ 12.10 hrs, Volume= 0.098 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 187.63' @ 12.10 hrs Surf.Area= 516 sf Storage= 331 cf

Plug-Flow detention time= 35.3 min calculated for 0.098 af (94% of inflow)
Center-of-Mass det. time= 14.1 min (791.6 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1	186.50'	549 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.50	40	0	0
187.00	282	81	81
187.50	465	187	267
188.00	662	282	549

Device	Routing	Invert	Outlet Devices
#1	Primary	187.50'	**10.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=1.52 cfs @ 12.10 hrs HW=187.63' (Free Discharge)
↑**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.52 cfs @ 1.18 fps)

Appendix E
Level Spreader Analysis

4. LEVEL SPREADERS

A level spreader is a discharge outlet to disperse or spread runoff flows thinly (as sheet flow) across the slope and over a buffer to promote infiltration and to prevent channelization. The lip of the level spreader should be installed as level as possible to ensure a uniform distribution of flow and should blend smoothly into the downstream receiving area. This practice should not be used where an upgradient drainage area is greater than 10 acres, where the discharge is within 25 feet from a stream, or if the discharge crosses into an adjoining property.

Stone can be used to create a level spreader with the advantage that the top of the spreader does not need to be level, as any water flowing through the voids between the rocks will sheet flow out of the spreader.

CONSTRUCTION SPECIFICATIONS

- When discharging to a forested buffer, the receiving area should remain undisturbed, have a duff layer, and have an even topography but without channelization that could concentrate runoff. A spreader should be located away from a stream or wetland.
- If revegetation of the receiving area is necessary, construction should be limited to the growing season (before September 1st). No water should be directed to the spreader before vegetation has reached 90% coverage and a temporary stormwater diversion may be needed.
- The lip of the level spreader should be installed on the contour to ensure a uniform distribution of flows or should consist of crushed rock (1”-3” stone is recommended) placed on the undisturbed part of the level lip to promote sheet flow and reduce velocity.
- The entry angle from the channel to the level spreader should be no greater than 30 degrees to prevent scour and short circuiting.

ENGINEERING DESIGN

- The **capacity** of a level spreader should be based on the allowable velocity of the soil (APPENDIX C) and should be sized to transfer 0.25 cfs per linear foot of spreader during the peak flow of a 24-hour, 10-year storm event.
- The **lip of a level spreader** should be level (0% grade) for a uniform flow distribution; otherwise water may channelize and erode a channel. A compacted berm topped with 6-12 inches of crushed aggregate may be most successful at maintain a level lip.
- The **receiving area** should have an even topography to prevent flow concentration. Sheet flow below a spreader is expected to re-concentrate within 300 feet. Evaluate the slope, soils and vegetative cover of the receiving area before designing a level spreader.
- The **buffer area** below a level spreader should remain undisturbed and with healthy vegetation. If the receiving area needs to be re-established, its final stabilization should occur before September 1 and before large volumes of water is directed to the spreader.
- The **capacity of the level spreader** should be equal to four times the capacity of the delivery channel for a low approach velocity.
- The spreader should be constructed from the uphill side.

Table 36.1
HYDROLOGIC SOIL GROUPS, MAXIMUM PERMISSIBLE VELOCITIES and SUBSURFACE INFLOW RATES FOR SOILS IN MAINE (USDA Soil Conservation Service)

1

Hydrologic Groups, Permissible Velocity and Subsurface Inflow rates for soils in Maine.

Hydrologic Group A

Soil Name	K factor (10" - 20")	Permissible Velocity Feet per second		Inflow Rate cfs/1000 ft. (where water table exists)
		Bare	Vegetated	
Adams (Windsor)	.17	2.0	4.0	1.00
Colton (Hinckley)	.17	2.5	4.5	1.00
Dune Land	.10	2.0	4.0	1.00
Hermon (Gloucester)	.10	2.5	4.5	1.00
Masardis	.10	2.5	4.5	1.00
Pits, Gravelly	.02	2.5	4.5	1.00
Pits,Sandy	.15	2.0	4.0	1.00
Sunday (Suncook)	.15	2.5	4.5	1.00

Hydrologic group B

Allagash	.28	1.5	3.5	1.00
Au Gres	.15	2.0	4.0	1.00
Bangor	.28	1.5	3.0	.15
Berkshire (Charlton)	.32	1.5	3.0	.15
Caribou	.24	1.5	3.0	.10
Croghan (Deerfield)	.17	2.0	4.0	.50
Danforth	.15	2.0	3.5	.15
Duane	.17	2.5	4.5	.50
Elliottsville	.24	1.5	3.0	----
Fryeburg (Hadley)	.49	1.5	3.0	.10
Groveton (Agawam)	.32	2.0	4.5	1.00
Lille	.43	1.5	3.0	.10
Linneus	.28	1.5	3.0	----
Lovewell (Winnooski)	.49	1.5	3.0	.10
Machias	.10	2.5	4.5	.50
Madawaska (Ninigret)	.28	1.5	3.5	.50
Monadnock	.28	1.5	3.5	.15
Ondawa	.37	2.0	4.0	.20
Penquis	.32	1.5	3.0	----
Perham	.32	1.5	3.0	.10
Podunk	.37	1.5	3.0	.15
Salmon (Hartland)	.64	1.0	2.5	.10
Sheepscot	.10	2.5	4.5	.50
Shirley	.15	2.0	3.5	.15
Skowhegan	.17	2.0	4.0	.50
Stetson (Merrimac)	.10	2.5	4.5	1.00
Waumbek	.17	2.5	4.5	1.00

well & good

BREWING COMPANY

For

WELL & GOOD BREWING COMPANY

173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE

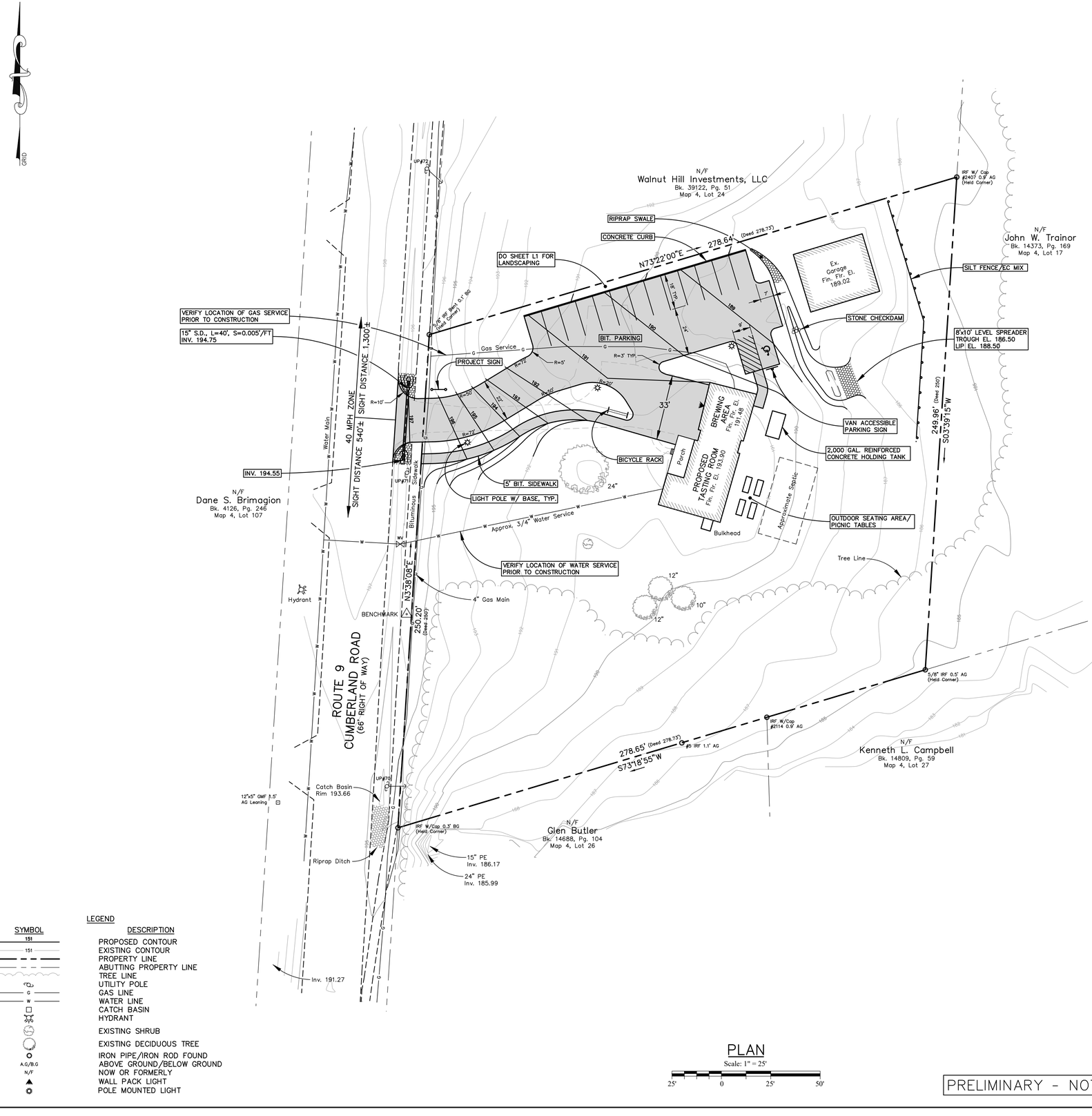
PLAN INDEX

BH2M

Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors

28 State Street
Gorham, Maine 04038

Tel. (207) 839-2771
Fax (207) 839-8250



PLAN
Scale: 1" = 25'
25' 0 25' 50'

LOCATION MAP
N.T.S.

NOTES:

1. OWNER/APPLICANT: WELL AND GOOD BREWING
173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE
2. ENGINEER: STEVEN J. BLAKE, PE#11695
BH2M
380B MAIN STREET
GORHAM, MAINE
3. SURVEYOR: ROBERT C. LIBBY JR., PLS #2190
BH2M
4. DEED REFERENCE: BK. 39226, PG. 85
5. TAX MAP REFERENCE: MAP 4, LOT 25
6. ZONING: VILLAGE CENTER
GROUNDWATER PROTECTION OVERLAY
7. MINIMUM STANDARDS: LOT SIZE - 1 ACRE
FRONTAGE - 18 - 100'
SETBACKS - 0 - 20' MAX FRONT,
25' MAX SIDE, 5' MIN. REAR
8. LOT AREA: 65,354 S.F. (1.501 ACRES)
9. EXISTING USE: RESIDENTIAL HOME
10. PROPOSED USE: BREWERY WITH TASTING ROOM
11. SEWER SERVICE: EXISTING PRIVATE
12. WATER SERVICE: PUBLIC
13. ELECTRIC/TELEPHONE: UNDERGROUND
14. GAS: PUBLIC
15. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL, BMP'S, LATEST REVISION.
16. BENCHMARK: PK NAIL SET AS SHOWN ON EASTERLY SIDELINE OF CUMBERLAND ROAD. EL. 196.29, NAVD 88.
17. PARKING: 14 PROPOSED (1 ADA)
18. PLAN REFERENCES:
A. STATE OF MAINE D.O.T. RIGHT OF WAY MAP, STATE AID HIGHWAY NO. 2 (ROUTE 9) FEDERAL AID PROJECT NO. STP-9789(000)X DATED JUNE 2004, D.O.T. FILE NO. 3-506.
B. "CROSSROAD'S SENIOR NEIGHBORHOOD, SUBDIVISION PLAN", BY ATLANTIC RESOURCE CONSULTANTS, JOB NO. 21-027 DATED DEC. 2021 AND RECORDED IN THE C.C.R.D. PLAN BOOK 222, PAGE 127.
19. CALL DIG SAFE PRIOR TO THE START OF CONSTRUCTION TO VERIFY ALL EXISTING UTILITY LOCATIONS.

PLAN REVIEWED AND APPROVED BY THE TOWN OF NORTH YARMOUTH PLANNING BOARD.

DATE

CHAIR

LEGEND

SYMBOL	DESCRIPTION
151	PROPOSED CONTOUR
151	EXISTING CONTOUR
	PROPERTY LINE
	ABUTTING PROPERTY LINE
	TREE LINE
	UTILITY POLE
G	GAS LINE
W	WATER LINE
	CATCH BASIN
	HYDRANT
	EXISTING SHRUB
	EXISTING DECIDUOUS TREE
	IRON PIPE/IRON ROD FOUND
A.G./B.G	ABOVE GROUND/BELOW GROUND
N/F	NOW OR FORMERLY
	WALL PACK LIGHT
	POLE MOUNTED LIGHT

PRELIMINARY - NOT FOR CONSTRUCTION

NO.	DATE	REVISION DESCRIPTION

STATE OF MAINE STEVEN J. BLAKE 11695 REGISTERED PROFESSIONAL ENGINEER

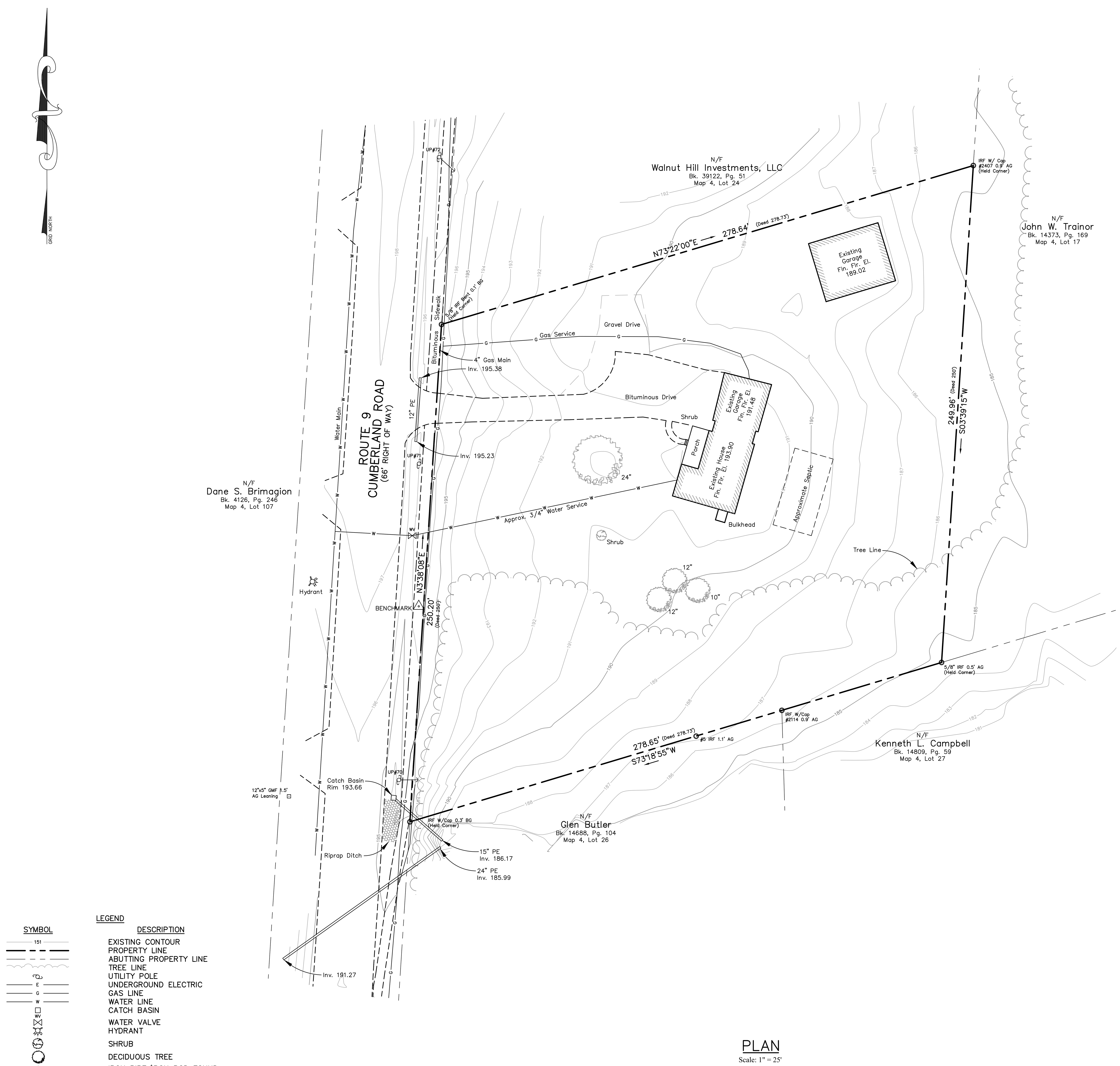
BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Well & Good Brewing Co.
173 Cumberland Road
North Yarmouth, Maine

SITE PLAN
WELL & GOOD BREWING CO.
173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE

DESIGNED	DATE
W. Pelkey	Oct. 2022
DRAWN	SCALE
Dept.	1" = 25'
CHECKED	JOB. NO.
S. Blake	22192

SHEET
1



PLAN

Scale: 1" = 25'

SYMBOL	LEGEND DESCRIPTION
	EXISTING CONTOUR
	PROPERTY LINE
	ABUTTING PROPERTY LINE
	TREE LINE
	UTILITY POLE
E	UNDERGROUND ELECTRIC
G	GAS LINE
W	WATER LINE
	CATCH BASIN
WV	WATER VALVE
	HYDRANT
	SHRUB
	DECIDUOUS TREE
	IRON PIPE/IRON ROD FOUND
A.G/B.G	ABOVE GROUND/BELOW GROUND
N/F	NOW OR FORMERLY

NOTES:

1. OWNER: ELISE & BYRON KERN III, 173 CUMBERLAND ROAD, NORTH YARMOUTH, ME
2. SURVEYOR: ROBERT C. LIBBY JR., PLS #2190, BH2M, 380B MAIN STREET, GORHAM, ME 04038
3. DEED REFERENCE: BK. 39226, PG. 85
4. TAX MAP REFERENCE: MAP 4, LOT 25
5. ZONING: VILLAGE CENTER AND GROUNDWATER PROTECTION OVERLAY
6. MINIMUM STANDARDS: LOT SIZE - 43,560 S.F. (1 ACRE); FRONTAGE - 18-100'; SETBACKS - 0-20' MAX. FRONT, 25' MAX. SIDE, 5' MIN. REAR
7. LOT AREA: 65,354 S.F. (1.501 ACRES)
8. PLAN REFERENCES: STATE OF MAINE D.O.T. RIGHT OF WAY MAP, STATE AID HIGHWAY NO. 2 (ROUTE 9) FEDERAL AID PROJECT NO. STP-9789(000)X DATED JUNE 2004, D.O.T. FILE NO. 3-506.

   "CROSSROAD'S SENIOR NEIGHBORHOOD, SUBDIVISION PLAN", BY ATLANTIC RESOURCE CONSULTANTS, JOB NO. 21-027 DATED DEC. 2021 AND RECORDED IN THE C.C.R.D. PLAN BOOK 222, PAGE 127.
9. BENCHMARK: PK NAIL SET AS SHOWN ON EASTERLY SIDELINE OF CUMBERLAND ROAD. EL. 196.29, NAVD 88.
10. COORDINATES/BEARINGS: BEARINGS AND NORTH ORIENTATION SHOWN HEREON ARE BASED UPON THE MAINE STATE COORDINATE SYSTEM, WEST ZONE (NAD83), OBTAINED USING A CARLSON BRX7 ROVER.

I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

ROBERT C. LIBBY JR. PLS #2190

REVISION NO.	DATE	DESCRIPTION

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

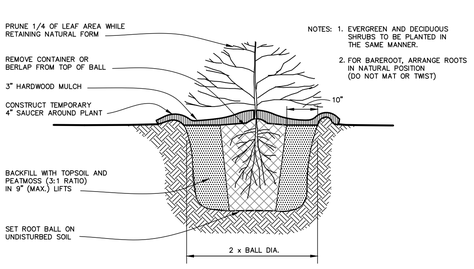
FOR
Well & Good Brewing Co.
173 Cumberland Road
North Yarmouth, Maine

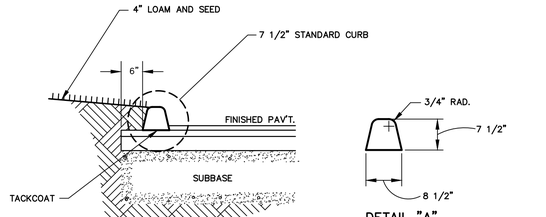
STANDARD BOUNDARY AND EXISTING CONDITIONS

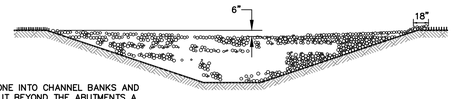
LAND OF
WELL & GOOD BREWING CO.
173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE

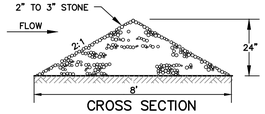
DESIGNED	DATE
Survey	Oct. 2022
DRAWN	SCALE
W. Pelkey	1" = 25'
CHECKED	JOB. NO.
R. Libby Jr.	22192

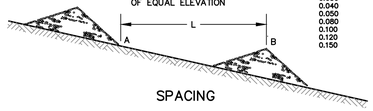
SHEET 2

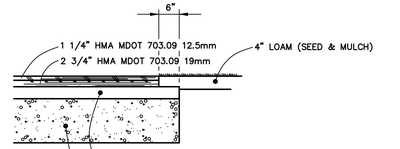


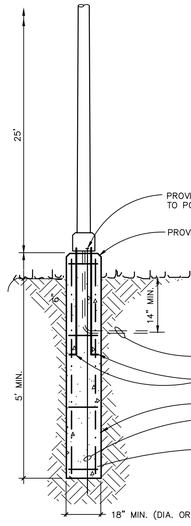


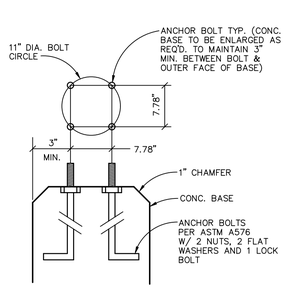


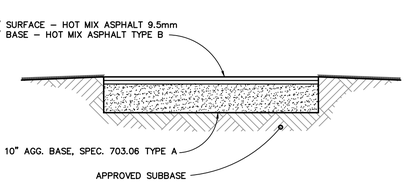












EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

DURING CONSTRUCTION THE DEVELOPER/APPLICANT OR THEIR REPRESENTATIVES WILL BE RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL BMP'S AS WELL ROUTINE INSPECTIONS AND MAINTENANCE OF THE BMP'S.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

1. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT (1 INCH OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.
2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.
4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.
7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.
8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
9. ALL SEDIMENT BARRIERS SHOULD BE INSTALLED ALONG THE CONTOUR, WITH THE ENDS TURNED UP SLOPE.
10. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.
11. ALL ERSOION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.
12. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).
13. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
14. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.
15. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
16. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
    a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
    b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10–20–20 (N–P205–K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).
    c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.
    d. HAY MULCH AT THE RATE OF 70–90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION CONTROL MIX NOTES BELOW.
    e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST–CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED EQUAL.
14. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.
15. WETLANDS WILL BE PROTECTED WITH A DOUBLE ROW OF EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.
16. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.
17. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

SEASON	SEED	RATE
SUMMER (5/15 – 8/15)	SUDANGRASS	40 LBS/ACRE
	OATS	80 LBS/ACRE
LATE SUMMER/EARLY FALL (8/15 – 9/15)	PERENNIAL RYEGRASS	40 LBS/ACRE
FALL (9/15 – 11/1)	WINTER RYE	112 LBS/ACRE
WINTER (11/1 – 4/1)	MULCH W/ DORMANT SEED	80 LBS/ACRE**
SPRING (4/1 – 7/1)	OATS	80 LBS/ACRE
	ANNUAL RYEGRASS	40 LBS/ACRE

**SEED RATE ONLY

EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP MANUAL. ECM IS ACCEPTABLE FOR USE ON SLOPES OF GREATER THAN 3:1 BUT LESS THAN 2:1. ECM SHALL CONSIST OF WELL–GRADED ORGANIC COMPONENT 50 – 100% OF DRY WEIGHT, AND COMPRISED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE FREE FROM REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR CONSTRUCTION DEBRIS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20' OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5:1). EROSION CONTROL MIX IS AN ACCEPTABLE STABILIZATION MEASURE FOR SLOPES UP TO 3:1, WITH LIMITS THAT ARE COVERED BY NOTES ON THIS SHEET. SLOPES BETWEEN 3:1 AND 2:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS, AND ALL SLOPES GREATER THAN 2:1 SHALL BE STABILIZED WITH RIPRAP. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION.

WITH TRENCHING

WITHOUT TRENCHING

END POST DETAIL
NTS

1. KEY FABRIC IN A 6"X6" TRENCH W/ BACKFILL.
2. SILT FENCE SHALL BE A 3' FENCE OF 120LB/M (W/ REINF. BACK OF 6" WIRE MESH, POSTS 6' O.C. MAX) OR 200LB/M (W/ NO REINF. POSTS 6' O.C. MAX)
3. SILT FENCE SHALL BE INSTALLED ALONG THE CONTOUR WITH THE ENDS TURNED UP SLOPE.

SILT FENCE DETAIL
N.T.S.

EROSION CONTROL DURING CONSTRUCTION

WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15
2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
   ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
    A. INSTALL A SOD LINING IN THE DITCH:
       A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
    B. INSTALL A STONE LINING IN THE DITCH:
       A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
   ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.
    A. STABILIZE THE SOIL WITH SOD:
       THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
    B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
       EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.
    C. STABILIZE THE SOIL WITH STONE RIPRAP:
       PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
4. OVERWINTER STABILIZATION OF DISTURBED SOILS:
   BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
    A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
       BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
    B. STABILIZE THE SOIL WITH SOD:
       STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLINIG THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
    C. STABILIZE THE SOIL WITH MULCH:
       BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.
5. MAINTENANCE:
   IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

   STABILIZATION SCHEDULE BEFORE WINTER:

SEPTEMBER 15	ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET
OCTOBER 1	IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.
NOVEMBER 15	ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.

6. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
7. AREAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.

HOUSEKEEPING

1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS 1. ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY, AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
3. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MY NOT BE USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.
4. DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. TRENCH OR FOUNDATION DE-WATERING: TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
6. NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
    - DISCHARGES FROM FIREFIGHTING ACTIVITY;
    - FIRE HYDRANT FLUSHINGS;
    - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
    - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 CHAPTER 500;
    - ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
    - PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
    - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
    - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
    - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
    - UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER 500);
    - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
    - LANDSCAPE IRRIGATION.
7. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
    - WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
    - FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
    - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
    - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

VEGETATED DITCH DETAIL
NTS

NOTES:
1. EVERGREEN AND DECIDUOUS SHRUBS TO BE PLANTED IN THE SAME MANNER.
2. FOR BAREROOT, ARRANGE ROOTS IN NATURAL POSITION (DO NOT MAT OR TWIST)

SHRUB PLANTING DETAIL
N.T.S.

NOTE:
KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" (0.5m) TO PREVENT FLOW AROUND DAM.

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

SLOPE (FT/FT)	L (FT)
0.020	100
0.030	66
0.040	50
0.050	40
0.080	25
0.100	20
0.120	17
0.150	13

STONE CHECK DAM DETAIL
NTS

DETAIL "A"
NTS

1 LB. FIBER MESH SHALL BE ADDED TO EVERY CUBIC YARD OF CONCRETE. THE CONCRETE WILL CONTAIN THE MAXIMUM AMOUNT OF WATER TO BE OF A CONSISTENCY THAT THE CONCRETE WILL MAINTAIN THE SHAPE OF THE CURB SECTION WITHOUT SUPPORT. THIS MIX ALSO MEETS THE READY MIX REQUIREMENTS OF ASTM C94 AND WILL MEET OR EXCEED 4,000 PSI IN 28 DAYS.

THE PAVEMENT SHALL BE THOROUGHLY CLEANED TO REMOVE DUST, DIRT AND OIL BEFORE APPROVED ADHESIVE IS APPLIED PER MANUFACTURERS SPECIFICATIONS.

THE FIBER REINFORCED MIX SHALL BE FED INTO THE VIBRATING HOPPER WHERE IT IS COMPACTED INTO THE DESIRED MOLD PROFILE.

FRESHLY EXTRUDED CURB SHALL BE LIGHTLY TOUCHED UP WITH A STEEL HAND TROWEL. CONTROL JOINTS SHALL BE TOOLED AS SOON AS POSSIBLE AT 9' INTERVALS. ADDITIONAL CONTROL JOINTS ADDED ON RADIUS AS NECESSARY.

THE FINISHED CURB WILL BE COATED WITH AN APPROVED CURING COMPOUND.

FOLLOW MANUFACTURERS INSTALLATION INSTRUCTIONS AND TEMPERATURE RESTRICTIONS.

EXTRUDED CONCRETE CURB
NTS

TYP. PAVEMENT DETAIL
NTS

LIGHT POLE DETAIL
N.T.S.

BOLT LAYOUT & MATERIALS

TYPICAL SIDEWALK SECTION
NTS

PLACE BARRIER ALONG RELATIVELY LEVEL CONTOUR.
ECM BERM PROHIBITED AT THE BASE OF SLOPES > 8% OR WHERE THERE IS FLOWING WATER.
SEE MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS FOR INSTALLATION INSTRUCTIONS.

EROSION CONTROL MIX SHOULD CONTAIN A WELL GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. ECM SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINATES, AND MATERIAL TOXIC TO PLANT GROWTH.

-ORGANIC MATTER > 80% DRY WEIGHT
-PARTICLE SIZE BY WEIGHT: 100% PASSING 6" SCREEN
75-85% PASSING 0.75" SCREEN
-ORGANIC PORTION TO BE FIBROUS & ELONGATED
-SOLUBLE SALT CONTENT < 4.0 MMOHS/CM.
-pH TO BE BETWEEN 5.0 & 8.0

EROSION CONTROL MIX BERM
NTS

BERM STONE SIZE

SIEVE DISIGNATION METRIC	SIEVE DISIGNATION US CUSTOMARY	% BY WEIGHT PASSING SQUARE MESH SIEVES
300 MM	12"	100
150 MM	6"	84–100
75 MM	3"	68–83
25.4 MM	1"	42–55
4.75 MM	NO. 4	8–12

SECTION

CONSTRUCTION SPECIFICATIONS:

1. SPREADERS SHALL BE INSTALLED WITH A LEVEL INSTRUMENT. CONSTRUCT LEVEL LIP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOWLEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL, NOT FILL.
2. SELECTED GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SANDS, SILTS, CLAYS, ETC.).
3. PLACE UNIFORMLY GRADED STONE (SEE TABLE 5-3).
4. THE INLET DITCH SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20 FEET BEFORE ENTERING THE SPREADER.
5. STORM RUN-OFF CONVERTED TO SHEET FLOW ACROSS OUTLET APRON SHALL FLOW ONTO STABILIZED AREAS. AREAS. RUNOFF SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.
7. CONSTRUCTION OF LEVEL LIP SPREADER SHALL BE FROM UPHILL SIDE ONLY. LEVEL LIP AND AREA BELOW SPREADER SHALL BE AT EXISTING GRADES AND UNDISTURBED BY EARTHWORK OR EQUIPMENT EXCEPT AS NOTED ON PLAN.
8. CONSTRUCT SPREADER WITH LIP AT EXISTING ELEVATION AS SPECIFIED.
9. DOWN GRADIANT AND RECEIVING AREA MUST BE NATURALLY WELL VEGETATED.
10. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND, CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF SSTREAM OR WATER BODY.

LEVEL LIP SPREADER
NTS

NO.	DATE	REVISION DESCRIPTION

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

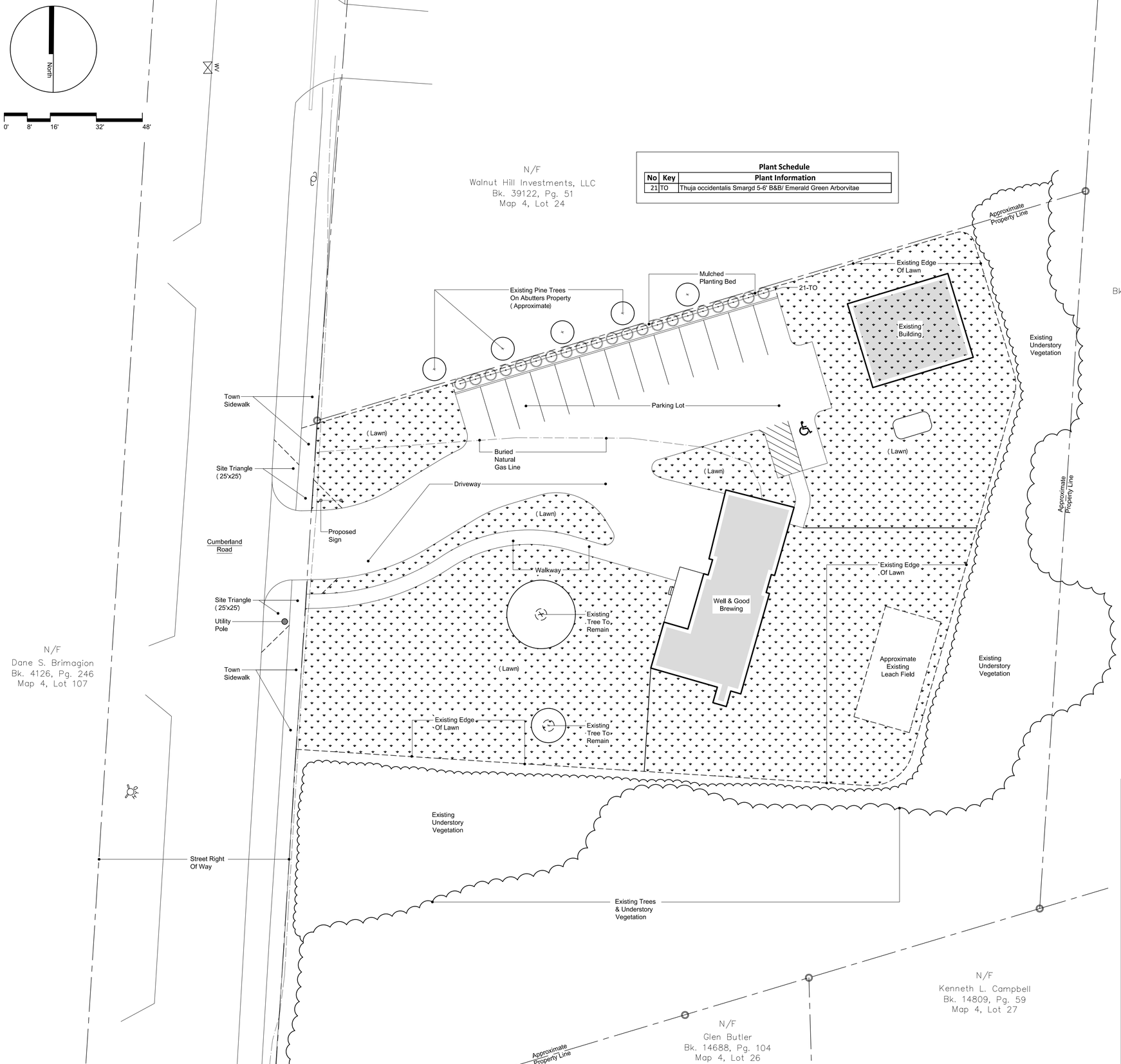
FOR
Well & Good Brewing Co.
173 Cumberland Road
North Yarmouth, Maine

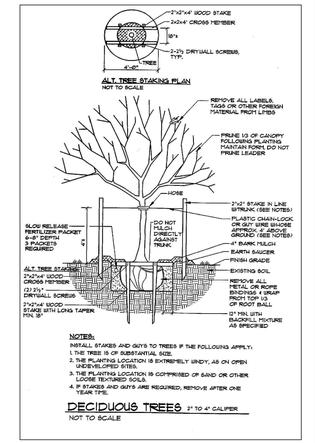
DETAILS

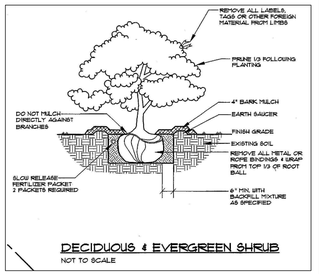
WELL & GOOD BREWING CO.
173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE

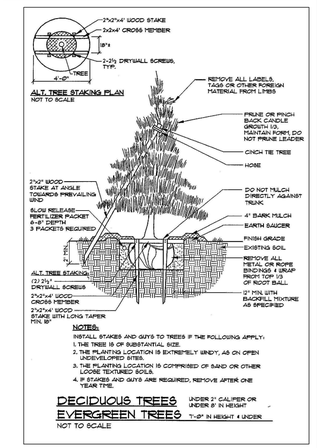
DESIGNED W. Pelkey	DATE Oct. 2022
DRAWN W. Pelkey	SCALE As Noted
CHECKED S. Blake	JOB. NO. 22192

SHEET
3









Landscape Notes

1. Plant quantities shown on plant lists are for convenience to the contractor only. The contractor is responsible for all plant material show on the plans.
2. Size and grading standards of plant material shall conform to the latest edition of "USA Standards for Nursery Stock", by the American Association of Nurserymen's, Inc.
3. All plan materials shall be free from insects and disease.
4. All planting shall be done in accordance with acceptable horticultural practices. This is to include proper planting mix, plant bed and tree pit preparation, pruning staking or guying, plant spraying, fertilization, planting and adequate maintenance until acceptance by the owner.
5. Plant material shall be guaranteed for a period of one year by the contractor and a period of two years thereafter by the owner from the date of installation. During the one year guarantee period, the Contractor shall replace in-kind any dead, damaged, or substandard plant material at no cost to the Owner. At the end of the one year period, the contractor shall obtain final acceptance from the owner.
6. All grass, other vegetation and debris shall be removed from all planting areas prior to planting.
7. Existing trees to be preserved will be protected during construction and shall be the responsibility of the general contractor.
8. The landscape a contractor is advised of the presence of underground utilities and shall verify the existence and location of same before commencing and digging operations. The landscape contractor shall replace or repair utilities, paving, walks curbing, etc. damaged in performance of this job at no additional cost to the owner.
9. All planting beds shall be mulched with 3" clean shredded dark brown mulch.
10. The contractor shall provide 4" of loam for all areas to be sodded or seeded. Planting areas shall receive 12" of loam. The landscape contractor shall coordinate subgrade preparation with the general contractor prior to placing loam.
11. Any deviation from the landscape plan, including plant location, selection, size, quantity or condition shall be reviewed and approved by the owner and landscape architect (and municipal authority, if applicable) prior to installation on site.
12. Where indicated on plan, planting soil mixtures for perennials and annual flower beds shall consist of four parts topsoil, two parts sphagnum peat moss and one part horticultural perlite by volume. Peat moss may be substituted with well-rotted or dehydrated manure or compost. Rototill beds to a depth of 8".

Prepared For:
BH2M &
Good & Well Brewing

Prepared By:

Land Plans, Inc.
www.landplansinc.com
(207) 347 0123

LICENSED LANDSCAPE ARCHITECT
RYAN C. RUSSELL
No. 3425
STATE OF MAINE

Landscape Plan

Good & Well Brewing

2 Gorham Industrial Parkway
North Yarmouth, Maine

Revisions	Date

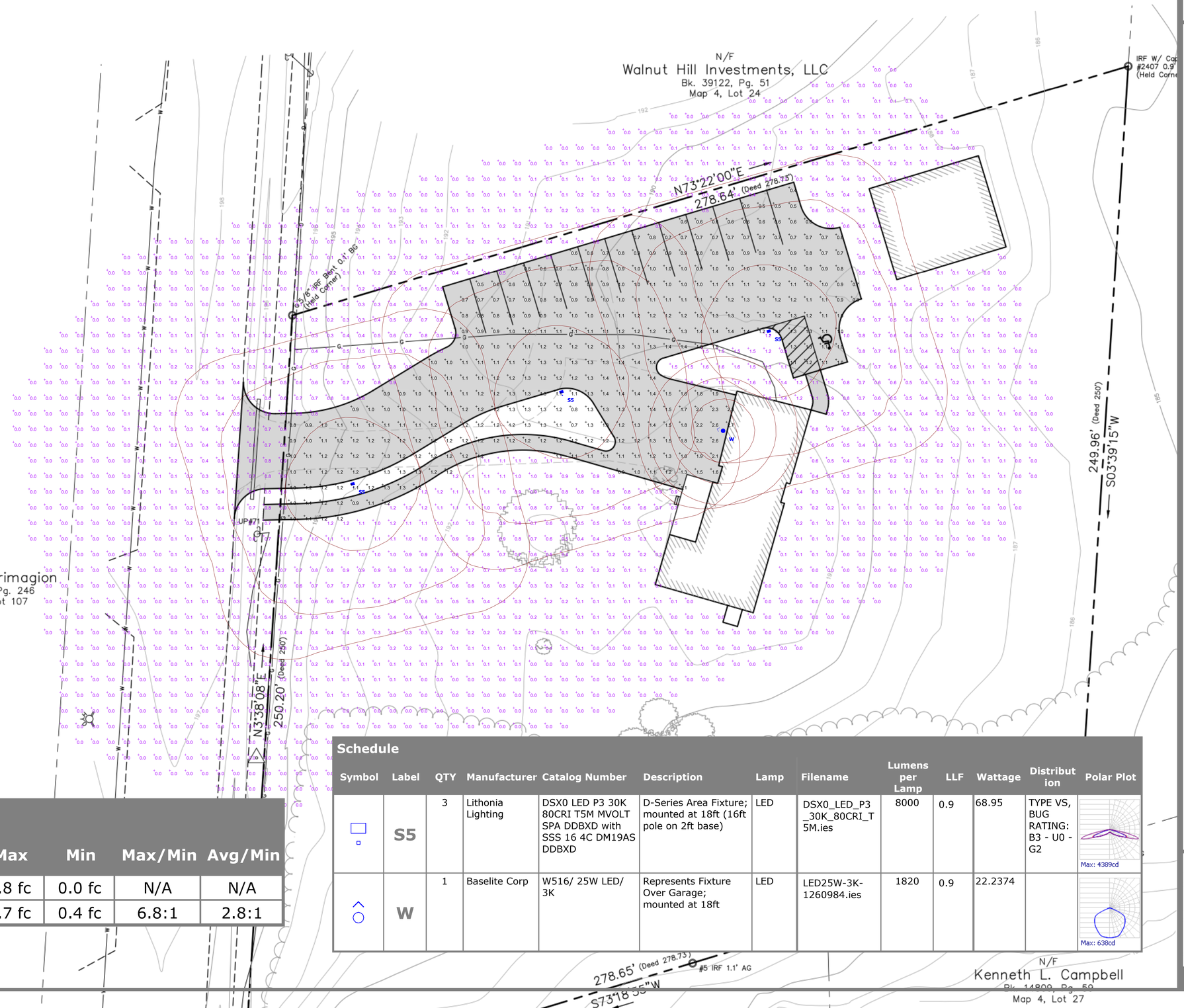
Date
January 25, 2023

Scale
1:16

Sheet Number

L1

Sheet 1 of 1



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Outside of Parking Lot	+	0.2 fc	1.8 fc	0.0 fc	N/A	N/A
Parking Lot	+	1.1 fc	2.7 fc	0.4 fc	6.8:1	2.8:1

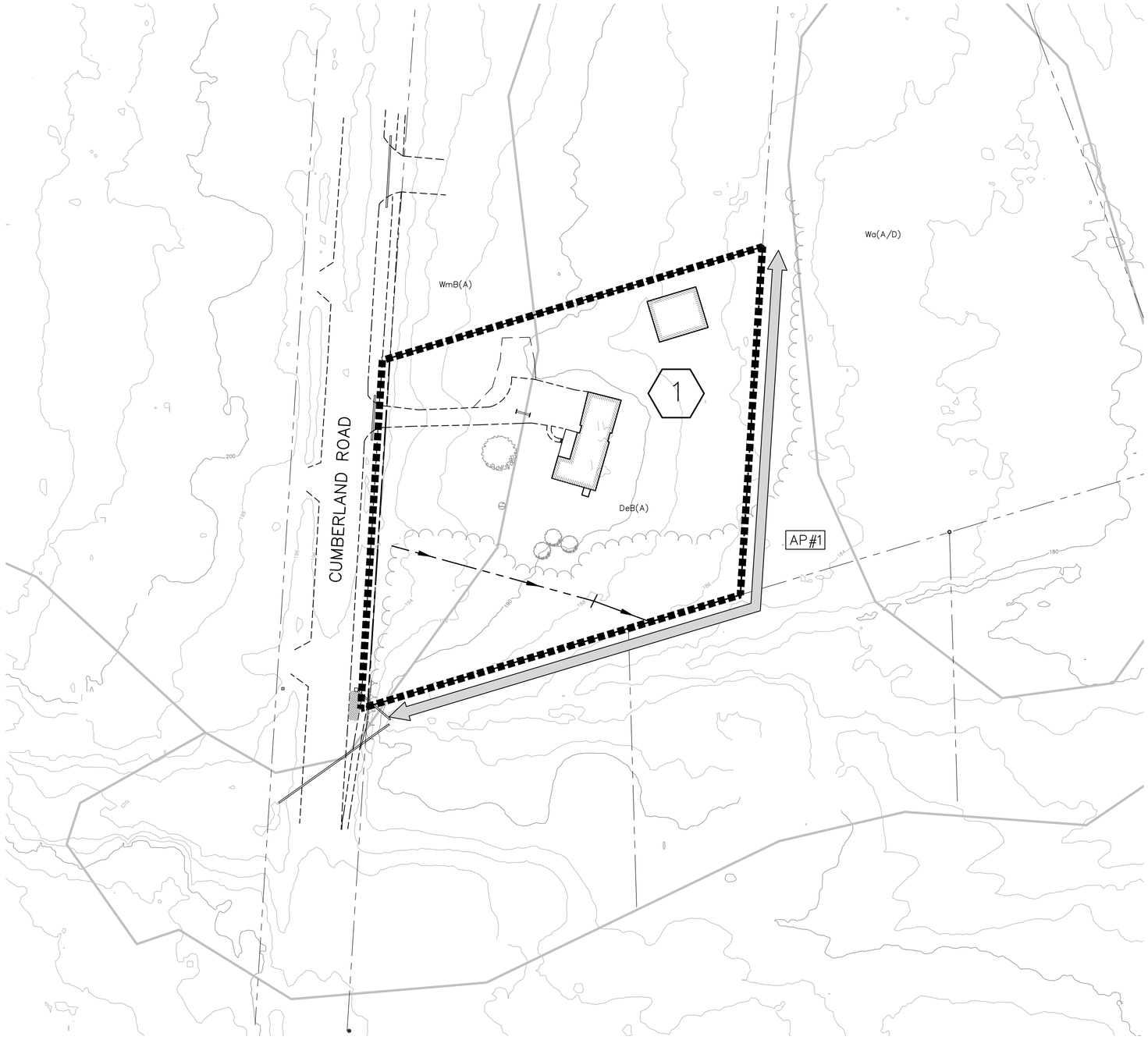
Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens per Lamp	LLF	Wattage	Distribution	Polar Plot
▭ ▫	S5	3	Lithonia Lighting	DSX0 LED P3 30K 80CRI T5M MVOLT SPA DDBXD with SSS 16 4C DM19AS DDBXD	D-Series Area Fixture; mounted at 18ft (16ft pole on 2ft base)	LED	DSX0_LED_P3_30K_80CRI_T5M.ies	8000	0.9	68.95	TYPE VS, BUG RATING: B3 - U0 - G2	Max: 4389cd
◠ ○	W	1	Baselite Corp	W516/ 25W LED/ 3K	Represents Fixture Over Garage; mounted at 18ft	LED	LED25W-3K-1260984.ies	1820	0.9	22.2374		Max: 638cd

VISUAL

WELL & GOOD BREWING COMPANY
Site Lighting Layout

Designer
Heidi G. Connors
Visible Light, Inc.
24 Stickney Terrace
Suite 6
Hampton, NH 03842
Date
01/25/2023
Scale
1"=16'
Drawing No.
Summary



NOTES:

1. BOUNDARY/TOPOGRAPHY: BH2M
ROBERT C. LIBBY JR. PLS#2190
380B MAIN STREET
GORHAM, MAINE

2. SOILS MAPPING: CUMBERLAND COUNTY MEDIUM INTENSITY SOILS MAPS

3. SEE STORMWATER MANAGEMENT REPORT FOR ADDITIONAL INFORMATION.

PRE DEVELOPMENT FLOWS

ANALYSIS POINT	2 YR. STORM	10 YR. STORM	25 YR. STORM
AP-1 (SA-3)	0.00 CFS	0.11 CFS	0.44 CFS

Tc SUMMARY
(FOR THOSE NOT LABELED ON THE PLAN)

SUBCATCHMENT	Tc ROUTE
SA-1	150' SHEET, 41' CHANNEL

LEGEND

SYMBOL	DESCRIPTION
12	POND
12	DRAINAGE SUB AREA
R12	REACH
	DRAINAGE AREA BOUNDARY
	TIME OF CONCENTRATION ROUTE
64	EXISTING CONTOUR

Scale: 1" = 40'
40' 0 40' 80'

SOIL DESIGNATION
SLOPE DESIGNATION
AdB(A)
HYDROLOGIC SOIL GROUP
HYDROLOGIC SOIL

SOIL LEGEND

SYMBOL	DESCRIPTION
	SOIL BOUNDARY LINES
- - - - - -	LIMIT OF WETLANDS

SLOPE DESIGNATION
A = 0 – 3%
B = 3– 8%
C = 8 – 20%
D = 20%+

HYDROLOGIC SOIL GROUP

SOIL	GROUP
DeB	A
WmB	A

NO.	DATE	REVISION DESCRIPTION

STATE OF MAINE
ROBERT C. LIBBY JR.
PROFESSIONAL ENGINEER

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Tel. (207) 839-2771
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FOR
Well & Good Brewing Co.
173 Cumberland Road
North Yarmouth, Maine

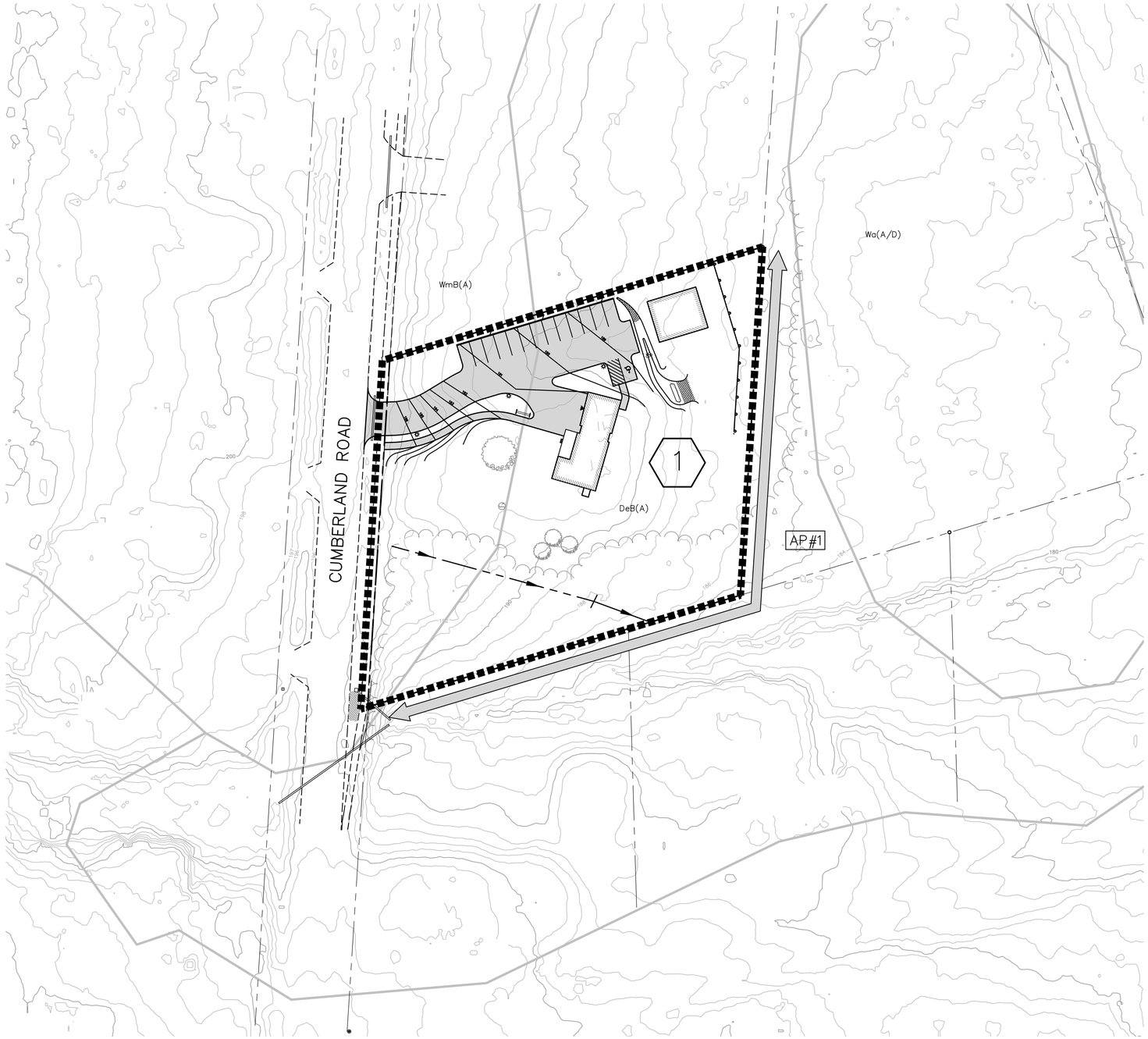
PRE-DEVELOPMENT

WELL & GOOD BREWING CO.

173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE

DESIGNED	DATE
A. Fagan	Jan. 2023
DRAWN	SCALE
Dept.	1" = 40'
CHECKED	JOB. NO.
S. Blake	22192

SHEET
A



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GORHAM, MAINE

2. SOILS MAPPING: CUMBERLAND COUNTY MEDIUM INTENSITY SOILS MAPS

3. SEE STORMWATER MANAGEMENT REPORT FOR ADDITIONAL INFORMATION.

POST DEVELOPMENT FLOWS
FLOW RATE = POST (PRE)

ANALYSIS POINT	2 YR. STORM	10 YR. STORM	25 YR. STORM
AP-1	0.26 (0.00) CFS	0.26 (0.11) CFS	0.74 (0.44) CFS

Tc SUMMARY
(FOR THOSE NOT LABELED ON THE PLAN)

SUBCATCHMENT	Tc ROUTE
SA-1	150' SHEET, 41' CHANNEL

LEGEND

SYMBOL	DESCRIPTION
12	POND
12	DRAINAGE SUB AREA
R12	REACH
	DRAINAGE AREA BOUNDARY
	TIME OF CONCENTRATION ROUTE
64	EXISTING CONTOUR

Scale: 1" = 40'
40' 0 40' 80'

SOIL DESIGNATION
AdB(A)
SLOPE DESIGNATION
HYDROLOGIC SOIL GROUP
HYDROLOGIC SOIL

SOIL LEGEND

SYMBOL	DESCRIPTION
	SOIL BOUNDARY LINES
– – – – – –	LIMIT OF WETLANDS

SLOPE DESIGNATION
A = 0 – 3%
B = 3– 8%
C = 8 – 20%
D = 20%+

HYDROLOGIC SOIL GROUP

SOIL	GROUP
DeB	A
WmB	A

NO.	DATE	REVISION DESCRIPTION

STATE OF MAINE
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PROFESSIONAL ENGINEER

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FOR
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North Yarmouth, Maine

POST DEVELOPMENT

WELL & GOOD BREWING CO.
173 CUMBERLAND ROAD
NORTH YARMOUTH, MAINE

DESIGNED	DATE
A. Fagan	Jan. 2023
DRAWN	SCALE
Dept.	1" = 40'
CHECKED	JOB. NO.
S. Blake	22192

SHEET
B