City of Biddeford
Planning Board

September 17, 2025 at 6:00 PM
City Hall Council Chambers & Zoom

https://biddeford.zoom.us/j/97678348550?pwd=ExO3chCwafKbbmkX2xYQDTRGkAYNr8.1
Or call in by phone: +1 312 626 6799
Meeting ID: 976 7834 8550
Passcode: 073432

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
3. Adjustment(s) to Agenda
4. Planner's Business
5. Consent Agenda
   - 5.a Approval of two sets of Meeting Minutes from September 3, 2025
6. Unfinished Business
7. New Business
   - 7.a 2025.38 The Planning Board will review a Sketch Plan Application submitted by Diversacorp Holdings, LLC. The applicants propose to demolish the existing structures and create 27 condominiums at 5 & 9 Thornton Street, (Map 40, Lots 7 & 8) in the MSRD-3 zone.
   - 7.b 2025.10 The Planning Board will review a Sketch Plan for Fiber Materials Inc. The applicant plans a 104,000 SF addition to the existing structure to add manufacturing capacity and the associated infrastructure. The address of the property is 389 Hill Street (Tax Map 74, Lot 7) in the I-2 zone
   - 7.c 2024.55 Preliminary review of Subdivision for 3 Lincoln, LLC for the proposed redevelopment of 3 Lincoln Street, (Pearl Street, Lot 3) (Tax Map 71, Lot 2) in the MSRD 3 zone and shoreland overlay. This applicant wishes to amend the previous Major Site Plan and Subdivision Approval (2022.02) from 3 buildings on Lot 3 to 4. The amendment includes the addition of five (5) town homes and revises Building A from 85 residential units to up to 52 units, Building B from 129 residential units to up to 85 units, and Building C will remain as a restaurant with approximately 154 total seats.

8. Other Business

9. Adjourn

The Board reserves the right to halt official business at 9:30 p.m. Items not heard at tonight's meeting shall be rescheduled to the next meeting of the Board. All materials pertaining to items on the agenda are available for public review at the Biddeford Planning Department, second floor, Biddeford City Hall during normal business hours.

CITY OF BIDDEFORD

Planning and Development Department

205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

Planning Board Meeting
Meeting Minutes
DRAFT

Date: August 20, 2025
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
   Quorum Present: Alexa Plotkin, Chair, Larry Patoine, Roch Angers & Steve Beaudette
   Staff Present: Adi Iriqat & Nan Whitten
   The chair called the meeting to order at 6:00 PM
3. Adjustments to the Agenda-N/A
4. Planner's Business-N/A
5. Consent Agenda
   5.A. Approval of Meeting Minutes from Site Walk & Regular Meeting for 8-20-25
   MOTIONS: 6:00 PM
   Motion- Patoine– Approval of meeting minutes as presented
   Second- Angers
   Vote- Motion passed unanimously
6. Unfinished Business N/A
7. New Business
   7.a 2025.36 Subdivision Amendment for Travis & Lisa Wing at 1 Moxie Lane (Tax Map 77 Lot 22) in the SR-1, RF & SP overlay zones.
   - Iriqat introduced the project
   - Waiver-subdivision review
   - Private septic
   - Instead of Bond CO not issued until after all inspections
   - Amendment to lot 4
   - Paul Gadbois represented the applicant
   - NO PUBLIC COMMENTS
   - Patoine asked about the letter of certification, as-built plans will be submitted as certified letter was not acceptable to Engineering Dept.

   MOTIONS: 6:10 PM
   Motion-Patoine-Waive subdivision review
   Second-Angers
   Motion passed unanimously

DRAFT

Motion-Angers- Motion to Approve the minor subdivision amendment for the proposal located at 1 Moxie Lane (Tax Map 77, Lot 22), within the Suburban Residential & Rural Farm (SR 1 & RF) zones, as well as the shoreland overlay zone, with the requested subdivision review waiver.
Second-Beaudette
Motion passed unanimously

7.b. 2025.37 Shoreland Review for Lionsgate Properties, LLC. The applicant would like to relocate their existing non-conforming structure on a piling foundation moving the foundation to the greatest practical extent. The property is located at 79 Fortunes Rocks Road (Tax Map 64, Lot 49-3) in the Coastal Residential and Shoreland zones

- **Iriqat introduced the project**
- **Structure is non-conforming because it is in the HAT Line**
- **Michael Skolnick with Archipelago represented the applicant**
- **Lot is very small located within all setbacks**
- **Not a full reconstruction just to amend it and raise it.**
- **NO PUBLIC COMMENTS**
- **Patoine confirmed that the structure is just being elevated not reconstructed**

MOTIONS: 6:20 PM
Motion-Angers- Motion to Approve Case #2025.37 Greatest Practical Extent Determination for Lionsgate Properties, LLC (Tax Map 64, Lot 49-3) in the Coastal Residential Zoning District with the above-listed Conditions of Approval.
Second-Patoine
Vote-Motion passed unanimously

7c. 2025.38 Review of Sketch Plan for site plan and subdivision for 27 condominiums at 5 & 7 Thornton Street for Diversacorp Holdings, LLC (Tax Map 40, Lot 8) in the MSRD-3 Zone RESCHEDULED TBA

8. Other Business-

- **Conservation Commission requesting a workshop with the Planning Board to discuss environmentally sound decisions in decisions for construction. They want to bring changes to the ordinance. Chair would like to meet with them once they send something in writing as to what they would like to see. The Board agrees that workshops with other Commissions are very positive.**

9. Adjourn at 6:31 PM

DRAFT

_____ _____

Planning Board Chair/Vice Chair **Date**

These minutes are summary and are not intended to be verbatim. Archived meetings are viewable on the City's website: www.biddefordmaine.org.

CITY OF BIDDEFORD

Planning and Development Department

205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

Planning Board
Site Walk
Bedard-268 Pool Street
Meeting Minutes
DRAFT

Date: September 3, 2025
Time: 4:30 PM
Location: 268 Pool Street

1. **Declaration of Quorum/Voting Members**
   Quorum Present: Alexa Plotkin, Chair, Larry Patoine, & Roch Angers
   Board Members Absent: Susan Deschambault, Matt Dubois, Steve Beaudette & Kayla Lewis
   Staff Present: David Galbraith & Nan Whitten

   2025.11 Site Walk for Bedard Homes LLC for the proposed subdivision of 268 Pool Street (Map 8, Lot 52-1), the proposed property is in the Suburban Residential 1 (SR1) Zoning District and a portion within the Stream Protection Shoreland Overlay District.
   - **See attached for public who attended the site walk**
   - **Jayson Haskell from DM Roma & Kevin Bedard (applicant) conducted the site walk**
   - **Site walk started on the Pool Street property then went in again on the Parkside Drive entrance.**

_____ _____
Planning Board Chair/Vice Chair **Date**

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DRAFT

SITE WALK SIGN-UP / SIGN-IN SHEET

PROJECT: Bedard

DATE: 9-3-25 - Please write legibly

PRINT NAME	RELATIONSHIP TO PROJECT
Nan Whitten	City
David Galbraith	City
LARRY PATOINE	PLANNING BOARD
Jayson Haskell	DPW Roma
Alexa Plotkin	Planning Board
DANA ST. OURS	42 PARKSIDE
RACHEL ST. OURS	42 PARKSIDE
Ken Bedard	6 Manata Dr. Stow
PATRICK CONLON	Conservation Commission.
Diane Tremblay	46 Parkside Dr.
JAMES KLEVA	41 PARKSIDE DR.
DANIEL LAMONTAGNE	286 POOL ST

SITE WALK SIGN-UP / SIGN-IN SHEET

PROJECT: Bedard

DATE: 9-3-25 - Please write legibly

PRINT NAME	RELATIONSHIP TO PROJECT
Rocki Rogers	member
Rachel St. Ours	resident

David C.M. Galbraith, City Planner / Deputy Director Planning and Development

David.Galbraith@biddefordmaine.org

205 Main Street / PO Box 586 • Biddeford, ME

City of Biddeford Government

(207) 571-0700 • www.biddefordmaine.org

@CityofBiddeford

PLANNING BOARD STAFF REPORT

TO: Chair Plotkin and Members of the Biddeford Planning Board

FROM: David C.M. Galbraith, City Planner & Deputy Director of the Planning & Development Dept.

DATE: August 26, 2025

RE: 2025.38 Sketch Plan Review Diversacorp Holdings LLC. (5 Thornton Street – Map #40-Lot 8) and Diversa-Kerr Development, LLC. (9 Thornton Street – Map # 40 Lot 7) for a proposed 27-unit (combined) Condominium Development, located within the MSRD-3 Zoning District.

MEETING DATE: September 3, 2025, 6:00 PM

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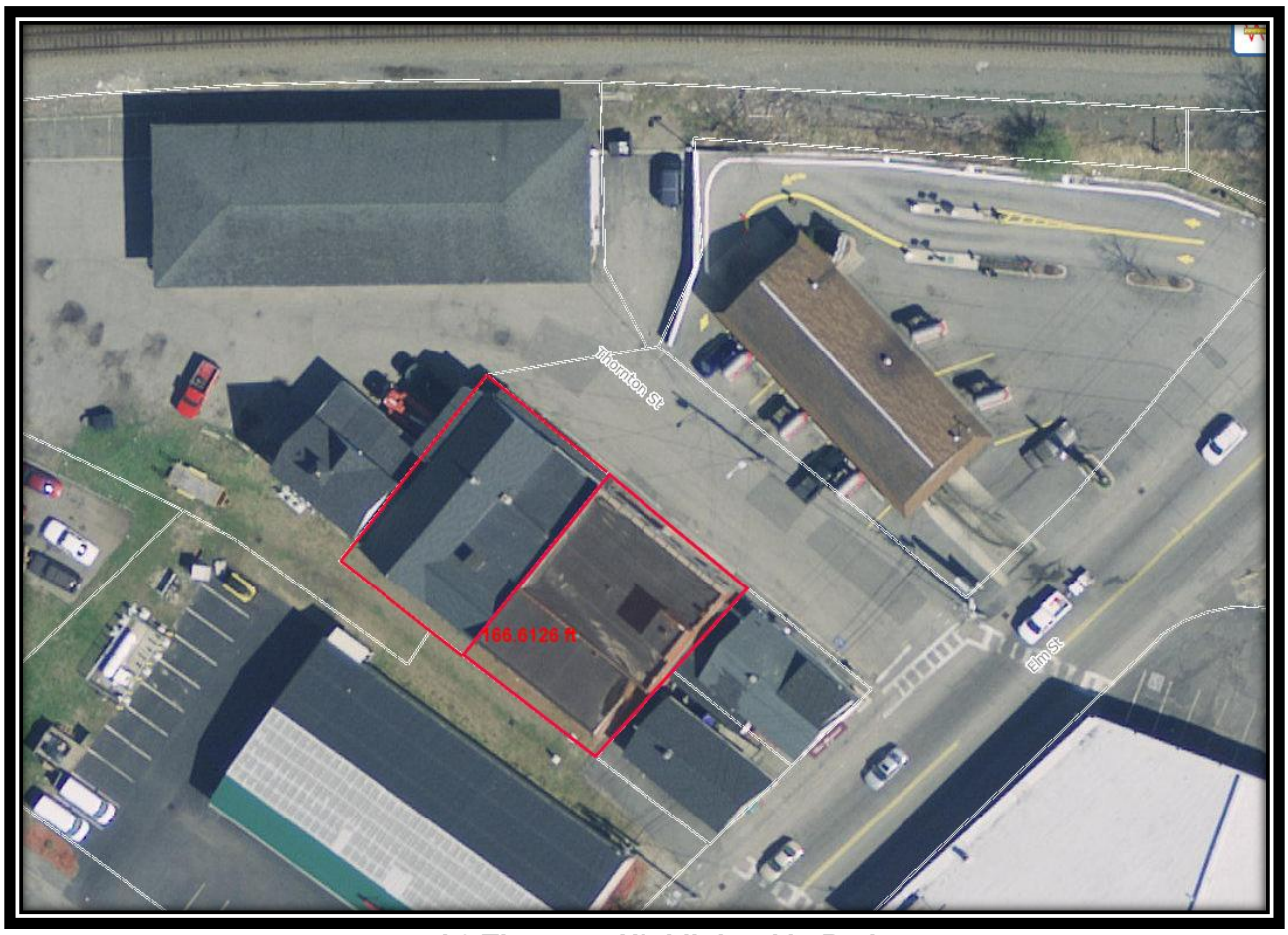
1. INTRODUCTION

This is the first time this proposal is being brought before the Planning Board as is being presented as a Site Plan and Subdivision "Sketch Plan" review. The Applications have been combined for the sketch plan review as the projects are being designed / developed in coordination with each other, including the same project engineer. The comments for both project are currently identical. The application is being presented by Austin Faggan, PE of BH2M Consulting Engineers, and Agent for the Applicants, jointly referred to as "Applicant or Applicants".

The subject properties currently have vacant buildings on each property sharing a common wall. The existing lots are entirely covered by the existing buildings which are proposed to be demolished, and the includes the replacement of the existing buildings with a combined total of 27-units between both structures. The units are being proposed as condominiums and as such no low/moderate income (LMI) housing is being proposed. Being a condominium development, the proposal will require the Applicant's to participate in the City's Inclusionary Zone which require developments of this nature to contribute $100,000. per required LMI not being provided. The minimum fee for this development will be $300,000. The proposed buildings will be sprinkled and would occupy the entire property footprint with buildings. Parking is being proposed within the City's municipal parking garage on Pearl Street.

RE: 2025.38 Sketch Plan Review Diversacorp Holdings LLC. (5 Thornton Street – Map #40-Lot 8) and Diversa-Kerr Development, LLC. (9 Thornton Street – Map # 40 Lot 7) for a proposed 27-unit (combined) Condominium Development, located within the MSRD-3 Zoning District.

MEETING DATE: September 17, 2025, at 6:00 PM



5 and 9 Thornton Highlighted in Red

2. PROJECT DATA/INFORMATION

1.		Applicants:	Diversacorp Holdings LLC. 5 Thornton Street – Map #40- Lot 8 Diversa-Kerr Development, LLC. 9 Thornton Street – Map # 40 Lot 7
2.		Owner of Property:	P & S Agreement Provided
3.		Agent:	Austin Faggan, PE BH2M

RE: 2025.38 Sketch Plan Review Diversacorp Holdings LLC. (5 Thornton Street – Map #40-Lot 8) and Diversa-Kerr Development, LLC. (9 Thornton Street – Map # 40 Lot 7) for a proposed 27-unit (combined) Condominium Development, located within the MSRD-3 Zoning District.

MEETING DATE: September 17, 2025, at 6:00 PM

			380B Main Street Gorham, ME 04038
4.		Surveyor:	Austin Faggan, PE BH2M 380B Main Street Gorham, ME 04038
5.		Project Location:	5 Thornton Street – Map #40- Lot 8 9 Thornton Street – Map # 40 Lot 7
6.		Project Tax Map #/Lot #:	Diversacorp Holdings LLC. 5 Thornton Street – Map #40- Lot 8 Diversa-Kerr Development, LLC. 9 Thornton Street – Map # 40 Lot 7
7.		Lot Size:	5 Thornton Street Map #40- Lot 8 = 9,897 Sq. Ft. 9 Thornton Street Map # 40 Lot 7 = 3,021 Sq. Ft.
8.		Base Zoning:	MSRD-3
9.		Overlay Zoning:	N/A
10.		Existing Use:	Existing vacant buildings
11.		Proposed Use:	27-unit Condominium Development
12.		Approvals Required:	Subdivision/Site Plan
13.		Uses in the Vicinity:	Commercial Uses
14.		Waivers Needed:	a. N/A
15.		Waivers Granted:	a. N/A
16.		Other Non-City Permits Required:	N/A
17.		LDR Attachment A: Fees Paid	Sketch Plan Fees Paid
18.		Planning Board Review History: Sketch Plan - September 17, 2025	

3. <u>REVIEW PROCESS</u>

RE: 2025.38 Sketch Plan Review Diversacorp Holdings LLC. (5 Thornton Street – Map #40-Lot 8) and Diversa-Kerr Development, LLC. (9 Thornton Street – Map # 40 Lot 7) for a proposed 27-unit (combined) Condominium Development, located within the MSRD-3 Zoning District.

MEETING DATE: September 17, 2025, at 6:00 PM

Per City ordinance, this application is subject to Subdivision Review (Chapter 66 – Subdivisions) and site plan approval by the Planning Board. This process involves Sketch Plan review, followed by Preliminary Plan Review, and ultimately Final Plan review / approval.

4. PRELIMINARY REVIEW COMMENTS:

A. Thornton Avenue is in fairly poor condition and roadway improvements (repairs, repaving, etc.) may be required.
B. How / where will refuse and recycling be stored / managed / picked up?
C. Homeowner's Association Documents shall be submitted with the preliminary Review Application.
D. Prior to final plan review the Applicant shall provide the City a perpetual parking agreement with the operators of the municipal parking garage.

- **APPLICATION COMPLETENESS:** This application is being submitted for Sketch Plan review, so plans are in a "concept phase". The purpose of this report is to introduce the project to the Board, with the desire to discuss the concept plan presented, to identify items the Board believes are important and necessary for the continued review of this plan / project.

- **ZONING:** The subject properties are zoned MSRD-3 and multi-family dwellings are a permitted use within the district.

- **REVIEW STANDARDS:**

  A. MSRD-3 Standards
  B. Multifamily Development Standards
  C. Inclusionary Zone Standards
  D. Parking Standards

- **WAIVERS:** None at this time

5. STAFF RECOMMENDATION

The Application before the Board this evening is for Site Plan and Subdivision "sketch plan review" so no formal Planning Board action is required. However, the Board should take this opportunity to review the proposed plans and identify any items the Board may wish to review or modify as part of this application.

RE: 2025.38 Sketch Plan Review Diversacorp Holdings LLC. (5 Thornton Street – Map #40-Lot 8) and Diversa-Kerr Development, LLC. (9 Thornton Street – Map # 40 Lot 7) for a proposed 27-unit (combined) Condominium Development, located within the MSRD-3 Zoning District.

MEETING DATE: September 17, 2025, at 6:00 PM

BH2M

Civil Engineering | Surveying

August 12, 2025

David Galbraith
City Planner
205 Main Street
Biddeford, ME 04005

Re: Sketch Plan Application
18-Unit Condominium
9 Thornton Street

Dear David;

On behalf of the applicant, Diversa-Kerr Development, LLC, we are submitting a Sketch Plan Application for an 18-unit condominium at 9 Thornton Street. In support of the application, we have enclosed 7 copies of the proposed sketch plan and supporting documents.

- Sketch Plan Application
- Attachment 1 – Figures (Tax Map, FEMA, and Soils)
- Attachment 2 – Purchase & Sale Agreement
- Attachment 3 – Abutter List
- Attachment 4 – Site Photos
- Attachment 5 – Architectural Plans – Delano Architecture
- Attachment 4 – Sketch Plan

The project will consist of an 18-unit multifamily condominium. Parking for the proposed units is intended to be in the Pearl Street parking garage that is approximately 875' away from the property along existing sidewalks.

The project parcel is currently mostly impervious with the presence of an existing two-story building that has been vacant for some time now. The parcel is served by public water, sewer, and stormdrain utilities.

We are requesting a sketch plan review for this project to get comments from City staff and the planning board ahead of completing a full design of the proposed building.

If you need any additional information or have any questions, please contact me at afagan@bh2m.com. We look forward to working with the city on this project.

Sincerely,

Austin g. Fagan

Austin Fagan
Project Engineer

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

__ Shoreland Zoning Permit
__ Conditional Use Permit
__ Other: _____
X Site Plan Review (Please include checklist)
X Subdivision (Please include Checklist)
__ Extraction
__ Private Way

Applicant Information:

Name: Diversa-Kerr Development, LLC
Mailing Address: 5 Stone Pony Circle, Saco, Maine, 04072
Telephone: _____
Email: natelibbysmasonry@yahoo.com
What is your legal interest in the property?
X Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: _____
Mailing Address: _____
Telephone: _____
Email: _____

Agent's Information:

Name: Austin Fagan, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Engineer/Surveyor's Information:

Name: Austin Fagan, P.E #16523, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Project Location and Lot Information:

Street Address: 5 Thornton Street
Drainage Watershed: Saco River
Tax Map: 40
Lot: 8
Current Zoning: MSRD3
Shoreland Zoning: N/A
Size of Lot: 9,897 ( )acres (X)s.f.
Lot Frontage: 45.28'
Existing Use of Property: The property currently has a vacant two story building.

Property currently serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Slope Conditions in Area of Construction (if applicable):

X Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? __ (Yes) X (No) if yes attach information
Is the project within the 100-year floodplain? __ (Yes) X (No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) X (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

The applicant is proposing a 4 story multi-family residential building with 18 units. Parking for the project is intended to be offsite at the existing Pearl Street parking garage that is approximately 875' away by foot.

Property to be Serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 9,897 ( )acres (X)s.f.
Net change in impervious cover: 0 ( )acres (X)s.f.
Is this project part of a larger project? __(Yes) X(No)
Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) X(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) X(Yes) __(No)
Is the project proposing any Stormwater facilities/BMPs? __(Yes) X(No)
Will a Traffic Movement Permit (TMP) be required?: __(Yes) X(No)

__ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): _____
Percent of structure expansion (Max 30%): _____
X **If Subdivision Review, number of lots proposed:** 18 units
__ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: _____
Total new square feet paving/parking: 1,000 sf

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letters of Approval
   __ Fire Department – Contact Chief or Deputy Chief – 282-9986
   __ Ability to Serve for Water Service – Maine Water – 282-1543
   __ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
   __ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
   __ Ability to Serve for Electrical Service-CMP-1-866-225-4200
   __Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
B. Photographs of Site.
C. Architectural renderings/drawings of proposed buildings, as required.
D. Engineering Plans, as required.
E. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? __(Yes) __(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: Austin g. Fagan - Agent **Date** 8-12-2025

Signature of Property Owner: _____ **Date** _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- All drawings & CAD reference files must be to-scale and within the following coordinate systems:

- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIUDAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

Agent Authorization

Property Description	**Physical Address/ Location**	**9 Thornton Street, Biddeford, Maine**	**Map 40**	
			Lot 8	
Applicant Information	**Name**	**Diversa-Kerr Development LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Owner Information	**Name**	**Diversa-Kerr Development LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Applicant's Agent Information	**Name**	**Austin Fagan**	**Business Name**	**BH2M**
	Phone	**(207) 839-2771**	**Mailing Address**	**380B Main Street Gorham, Maine 04038**
	Email	**afagan@bh2m.com**		

The above-listed company/agents may represent me to expedite and complete the approval of the permits/applications required for development for this parcel.

[signature] 8-7-25

APPLICANT SIGNAURE **DATE**

Nate Libby

PRINTED NAME

CO-APPLICANT SIGNATURE (if applicable) **DATE**

PRINTED NAME

Austin G. Fagan 8-7-2025

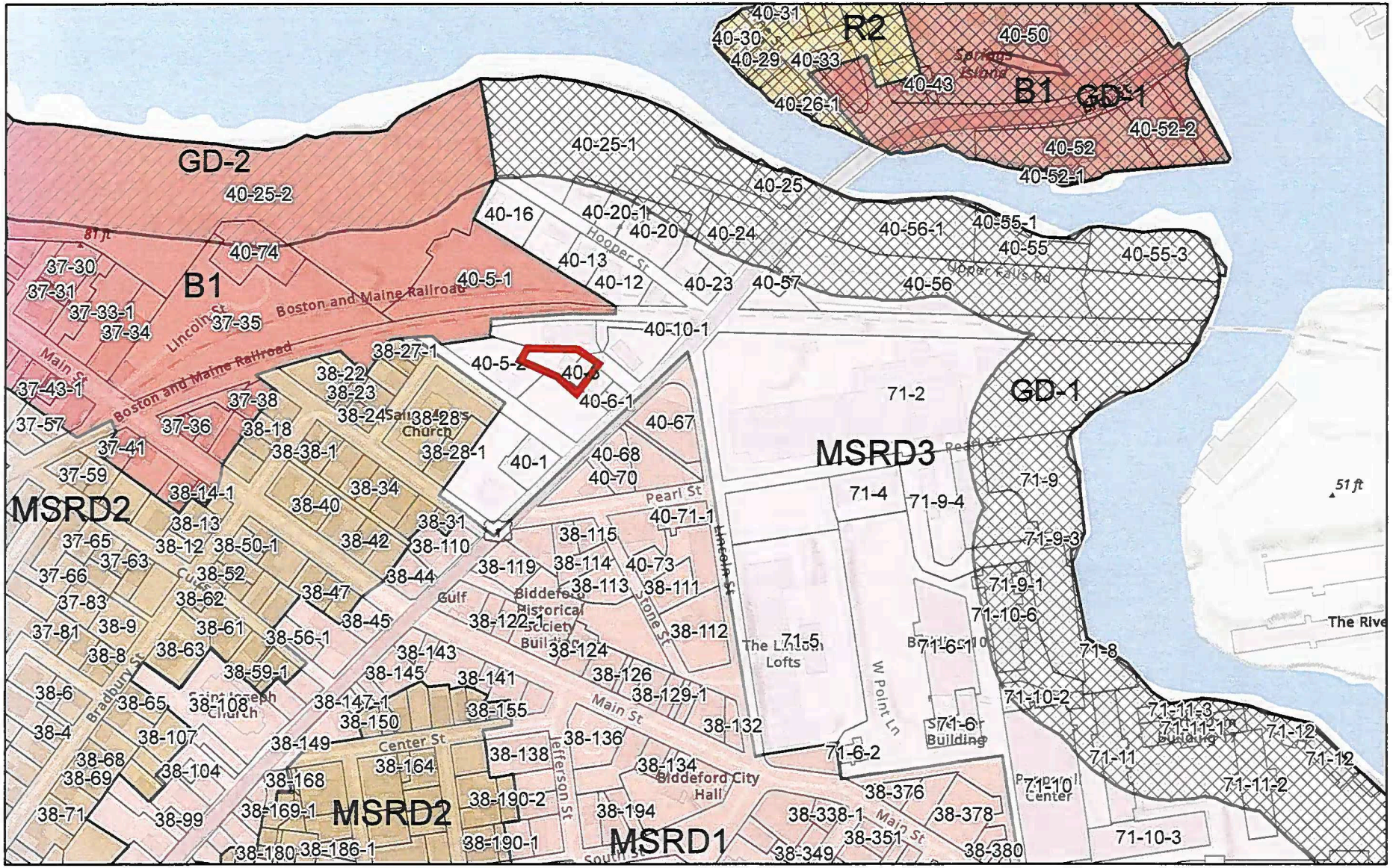
AGENT SIGNATURE **DATE**

Austin G. Fagan

PRINTED NAME

Attachment 1
Figures

1 Biddeford Zoning: Approved 08/20/2024



2/12/2025

1:5,843

0 0.04 0.07 0.14 mi

0 0.05 0.1 0.2 km

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

Overlay Zones

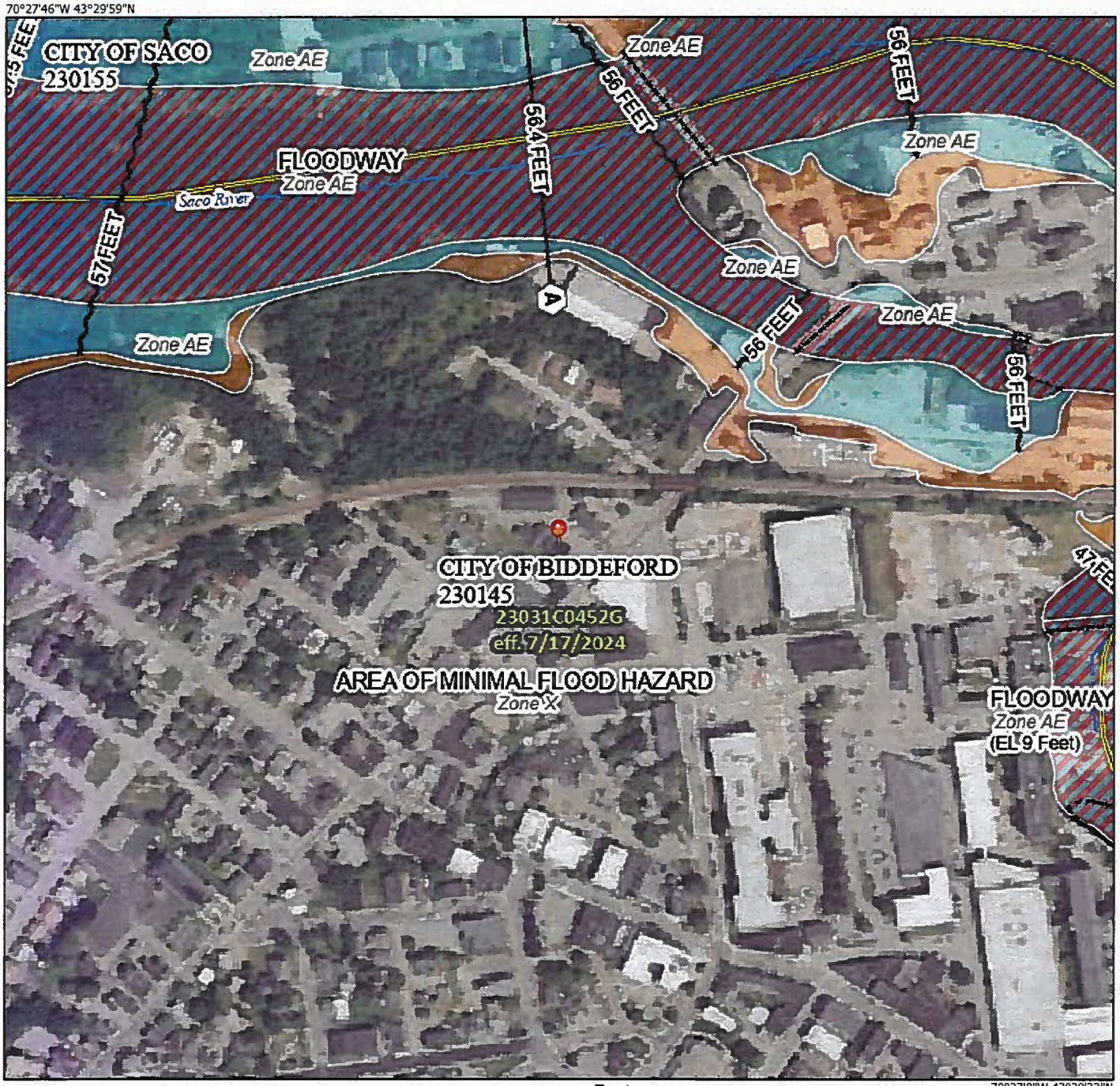
- GD-1: General Development 1
- GD-2: General Development 2

Zoning

- MSRD2 Residential Conservation
- R2 Multi-Family
- B1 General Business
- MSRD1 Commercial Core
- MSRD3 High Density / Mixed Use
- Parcels_20230900
- World Hillshade

National Flood Hazard Layer FIRMette

FEMA



0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/7/2025 at 3:16 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.


70° 27' 33" W
70° 27' 22" W
43° 29' 49" N
43° 29' 43" N
382030
382050
382070
382090
382110
382130
382150
382170
382190
382210
382230
382250
382010
4817030
4817010
4816990
4816970
4816950
4816930
4816910
4816890
Hazel St
Thornton St
Elm St
Spruce St
Lincoln St
Ur
1
Soil Map may not be valid at this scale.
Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
15
30
60
90
Feet
0
50
100
200
300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

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

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: York County, Maine
Survey Area Data: Version 23, Aug 26, 2024

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

Date(s) aerial images were photographed: Mar 1, 2022—Jul 1, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	6.3	100.0%
Totals for Area of Interest		**6.3**	**100.0%**

Attachment 2
Purchase & Sale Agreement

CCIM Individual Member
Individual Membership

THE BOULOS COMPANY

SIOR Specialist, Industrial and Office Real Estate

One Portland Square, Suite 400 Portland, ME 04101 • 207.772.1333

CONTRACT
FOR THE SALE OF REAL ESTATE

Date: **Monday, May 12, 2025**

RECEIVED OF: **Diverse-Kerr, LLC and/or assigns** whose mailing address is **5 Stone Pony Circle, Saco, Maine 04072** hereinafter called the Purchaser(s), the sum of [redacted] Dollars [redacted] as earnest money deposit and in part payment of the purchase price of the following described real estate, situated in the municipality of **Biddeford**, County of **York**, State of Maine and located at **9 Thornton Street** Being all ☒ part of ☐ **(if "part of" see para. 24 for explanation)** the property owned by the Seller(s) at the above address, and described at said County's Registry of Deeds Book **13466**, Page **0345** and as shown on municipal tax Map(s) **40** , Lot(s) **7** and further described as: **a .08± acre parcel of land improved with a 8,988± SF three-story commercial building** upon the terms and conditions indicated below:

1. PERSONAL PROPERTY: The following items of personal property are included in this sale (if applicable): **N/A**.
2. PURCHASE PRICE: The TOTAL purchase price being [redacted] Dollars ($ [redacted] to be paid as follows: [redacted] **earnest money deposit to be deposited with Escrow Agent within five (5) business days of Effective Date of this Contract and the balance to be paid via certified funds at closing.**.
3. EARNEST MONEY/ACCEPTANCE: **The Boulos Company** shall hold said earnest money in a non-interest bearing account and act as Escrow Agent until closing; this offer shall be valid until **5/14/2025** at **5:00 (☐ AM ☒PM Eastern Time)**; and, in the event of the Seller's non-acceptance, this earnest money shall be returned promptly to the Purchaser(s). 5/23/2025

Initial M Initial U

4. TITLE: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to the Purchaser(s) and this transaction shall be closed and the Purchaser(s) shall pay the balance due and execute all necessary papers on or before **thirty (30) days from receipt of permits and approvals per Section 23 below**. If Seller(s) is unable to convey in accordance with the provisions of this paragraph, then the Seller(s) shall have a reasonable time period, not to exceed thirty (30) days, from the time the Seller(s) receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is merchantable title, the Purchaser(s) may, within fifteen (15) days thereafter, at Purchaser's option, declare the contract null and void and any earnest money shall be returned to the Purchaser(s) and neither party shall have any further obligation hereunder. If the Purchaser(s) does not declare the contract void within the period set forth above, the Purchaser(s) shall have waived the right to object to title. The Seller(s) hereby agrees to make a good-faith effort to cure any title defect during such period.
5. DEED: That the property shall be conveyed by a **Warranty deed**, and shall be free and clear of all encumbrances except building and zoning restrictions of record, restrictive covenants and conditions of record and usual public utilities servicing the property and shall be subject to applicable land use and building laws and regulations.
6. POSSESSION /OCCUPANCY: Possession/occupancy of premises shall be given to Purchaser(s) immediately at closing, free and clear of any leases, unless otherwise agreed by both parties in writing.
7. ~~LEASES/TENANT SECURITY DEPOSITS: Seller(s) agrees to transfer at closing to Purchaser(s) all Seller(s)' rights under the current leases to the property and all security deposits held by Seller(s) pursuant to said leases.~~
8. RISK OF LOSS: Until the transfer of title, the risk of loss or damage to said premises by fire or otherwise, is assumed by the Seller(s) unless otherwise agreed in writing. Said premises shall then be in substantially the same condition as at present, excepting reasonable use and wear.
9. PRORATIONS: The following items shall be prorated as of the date of closing:
   a. Real Estate Taxes based on the municipality's tax year. Seller is responsible for any unpaid taxes for prior years.
   b. Any other municipal fees, levies or liens;
   c. Fuel
   d. Metered utilities, such as water and sewer, shall be paid by Seller(s) through the date of closing.
   e. Purchaser(s) and Seller(s) shall each pay its transfer tax as required by the State of Maine.

Initial

Seller U Purchaser M Initial

10. INSPECTIONS: The Purchaser(s) is encouraged to seek information from professionals regarding any specific issue of concern. Purchaser(s) acknowledges receipt of disclosure form attached hereto. The Licensee makes no warranties regarding the condition, permitted use or value of the Seller's real or personal property. This Contract is subject to the following inspections, with the results being satisfactory to the Purchaser(s):

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED
a. General Building	☒	☐	Within **30** days	g. Lead Paint	☒	☐	Within **30** days
b. Sewage Disposal	☒	☐	Within **30** days	h. Pests	☒	☐	Within **30** days
c. Water Quality	☒	☐	Within **30** days	i. ADA	☒	☐	Within **30** days
d. Radon Air Quality	☒	☐	Within **30** days	j. Wetlands	☒	☐	Within **30** days
e. Radon Water Quality	☒	☐	Within **30** days	k. Environmental Scan	☒	☐	Within **30** days
f. Asbestos Air Quality	☒	☐	Within **30** days	l. **Fill In.**	☐	☐	Within **#** days

The use of days is intended to mean from the effective date of this Contract. All inspections will be done by inspectors chosen and paid for by the Purchaser(s). If the result of any inspection or other condition specified herein is unsatisfactory to the Purchaser(s), in Purchaser(s) sole discretion, Purchaser(s) may declare the Contract null and void by notifying Seller(s) in writing within the specified number of days, and any earnest money shall be returned to the Purchaser(s). If the Purchaser(s) does not notify the Seller(s) that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by the Purchaser(s). In the absence of inspection(s) mentioned above, the Purchaser(s) is relying completely upon Purchaser's own opinion as to the condition of the property.

11. FINANCING: This contract is not subject to financing.
12. AGENCY DISCLOSURE:

Purchaser and Seller acknowledge they have been advised of the following relationships:

Tyler Stewart & Richard Reynolds of **Keller Williams Realty/The Fletcher Group & Home Sweet Maine**
Licensee Agency

is a ☒ Seller Agent ☐ Purchaser Agent ☐ Disc Dual Agent ☐ Transaction Broker

Brice O'Connor of **The Boulos Company**
Licensee Agency

is a ☐ Seller Agent ☒ Purchaser Agent ☐ Disc Dual Agent ☐ Transaction Broker

13. If this transaction involves Disclosed Dual Agency, the Purchaser and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Purchaser and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.
14. DEFAULT: If Purchaser(s) fails to perform any of the terms of this Contract or is otherwise in default of any of its obligations, Seller shall have the option of either retaining the earnest money as full and complete liquidated damages or employing all available legal and equitable remedies. Notwithstanding any other provision of this agreement, Escrow Agent shall have the right to require written releases from both parties prior to releasing the earnest money to either party. If a dispute arises between Purchaser(s) and Seller as to the existence of a default hereunder and/or the release of the earnest money and said dispute is not resolved by the parties within (30) days, Escrow Agent may elect to file an action in interpleader and deposit the earnest money in the court to resolve said dispute, or otherwise disburse the earnest money pursuant to Maine Real Estate Commission regulations. Purchaser(s) and Seller, jointly and severally, shall indemnify Escrow Agent for all costs, losses, expenses, and damages, including reasonable attorneys' fees, incurred by Escrow Agent in connection with said action and/or in connection with any dispute relating to this Contract and/or the Deposit.
15. MEDIATION: Any dispute or claim arising out of or relating to this Contract or the premises addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the American Arbitration Association. This clause shall survive the closing of this transaction.
16. PRIOR STATEMENTS: Any verbal representations, statements and agreements are not valid unless contained herein. This Contract completely expresses the obligations of the parties. This is a Maine contract and shall be construed according to the laws of Maine.

Initial Initial
Seller U Purchaser M

17. HEIRS/ASSIGNS: This Contract is assignable YES ☒ NO ☐. This Contract shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns (if assignment is allowed by the terms of this Contract), of the respective parties.
18. COUNTERPARTS: This Contract may be signed on any number of identical counterparts, including telefacsimilie copies, with the same binding effect as if the signatures were on one instrument. Original or telefacsimilied signatures are binding.
19. EFFECTIVE DATE: This Contract is a binding contract when signed by both Seller and Purchaser and when that fact has been communicated to all parties or to their agents. Time is of the essence of this Contract. Seller or Licensees are given permission by the parties to complete the Effective Date blank below with the date of the last signature of the parties, and that date shall be the Effective Date for all purposes under this Contract, and if that blank is not completed, then the Effective Date shall be the date of the last signature of the parties. Except as expressly set forth to the contrary, in this Contract, the use of the term "days" in this Contract, including all addenda made a part hereof, shall mean calendar days. Deadlines in this Contract, including all addenda, expressed as "within x days" or the like shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 pm, Eastern Time, on the last day counted.
20. BINDING CONTRACT: This Contract is a binding contract when signed by both Seller(s) and Purchaser(s) and when that fact has been communicated to all parties or to their agents. The Effective Date of the Contract is noted below. Time is of the essence of this Contract.
21. REVIEW OF LEASES AND INCOME AND EXPENSE INFORMATION: The Seller(s) shall provide the Purchaser(s) with copies of all leases and income & expense information regarding the subject property within **five** (**5**) from the effective date of this Contract. Purchaser shall have **ten** (**10**) days from such delivery to review leases and income & expense information regarding the property. If the result of the review is unsatisfactory to the Purchaser(s), in Purchaser(s) sole discretion, Purchaser(s) may declare the Contract null and void by notifying the Seller(s) in writing within the specified number of days set forth above, and any earnest money shall be returned to the Purchaser(s). If the Purchaser(s) does not notify the Seller(s) that the review is unsatisfactory within the time period set forth above, this contingency is waived by the Purchaser(s).
22. Seller(s) and Purchaser(s) acknowledge receipt of the Maine Real Estate Commission Disclosure of Agency Relationship Form (Form #2), *if the property is, or has a component of, one to four residential dwelling units.*
23. PERMITS AND APPROVALS: This Contract shall be contingent upon Purchaser obtaining all permits and approvals required by any governmental entity necessary for Purchaser's intended redevelopment. This contingency shall extend past the general inspections period referenced above, with a closing date to be scheduled on or before thirty (30) days from Purchaser's receipt of all necessary and unappealable permits and approvals. In the event Purchaser is unable to obtain all necessary permits and approvals, to Purchaser's sole satisfaction, Purchaser may declare the Contract null and void by notifying Seller in writing, and any earnest money shall be returned to the Purchaser.
24. ADDENDA: This Contract has addenda containing additional terms and conditions YES ☐ NO ☒

A COPY OF THIS CONTRACT IS TO BE RECEIVED BY ALL PARTIES AND, BY SIGNATURE, RECEIPT OF A COPY IS HEREBY ACKNOWLEDGED. IF NOT FULLY UNDERSTOOD CONSULT AN ATTORNEY.

Seller(s) acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2 ½% of the consideration unless the Seller(s) furnishes to the Buyer(s) a certificate by the Seller(s) stating, under penalty of perjury, that Seller(s) is/are a resident of Maine or the transfer is otherwise exempt from withholding.

managing partner

By: Signed by: Nate Libby 82C70A3... Legal Name of Purchaser Signature — Nate Libby Name/Title, there unto duly authorized

Seller Initial U Purchaser Initial M

Legal Name of Purchaser

By: _____ _____
Signature Name/Title, there unto duly authorized

The Seller(s) accepts the offer and agrees to deliver the above-mentioned property at the price and upon the terms and conditions set forth above and agrees to pay the **Purchaser Agent a brokerage commission equal to: 3% of the Purchase Price, to be paid 100% at closing.** The obligation to pay said commission or sum shall survive the closing of this transaction. Seller agrees that Agency may apply any deposit(s) received in connection with the sale of the Property toward commissions due and payable under this Agreement. If the earnest money is forfeited by Purchaser(s), it shall be evenly distributed between the Seller's Agent and Seller(s), provided, however, that Seller Agents' portion shall not exceed the full amount of the commission specified. In the event the Seller(s) defaults on its obligations hereunder, The Boulos Company shall be entitled to enforce the provisions of this Contract and be entitled to it's costs of collection, including reasonable attorneys' fees.

Signed this: _____ day of _____, _____. Effective date of Contract: 22.00 , day of may , 2,025.00

The Listing Licensee is **Tyler Stewart & Richard Reynolds** of **Keller Williams Realty** (Company).
The Selling Licensee is **Brice O'Connor** of **The Boulos Company** (Company).

CSPN LLC

Signed by:
By: CSPN LLC Seller Steve Cheung
76D250912AFF47C...
Signature Name/Title, there unto duly authorized

Seller

By: _____ _____
Signature Name/Title, there unto duly authorized

Initial
Seller _____ Purchaser Initial

NANCY E HAMMOND, REGISTER OF DEEDS
E-RECORDED **Bk 18758 PG 398**
Instr # 2021045109
08/04/2021 10:21:32 AM
Pages 2 YORK CO

DLN: 1002140156424

QUITCLAIM DEED WITH COVENANT

THAT **Robert Boucher and Nelson Boucher, d/b/a Nelson & Robert Boucher Leasing Company** of Biddeford, County of York, and State of Maine, whose mailing address is 9 Thornton Street, Biddeford, ME 04005,

For Consideration Paid, GRANT with QUITCLAIM COVENANT to:

CSPN LLC, a Maine Limited Liability Company, with a principal place of business in the City of Biddeford, County of York and State of Maine, and mailing address of P.O. Box 532, Biddeford, ME 04005,

A certain lot or parcel of land with the buildings and improvements thereon, situated in the City of **Biddeford**, County of **York** and State of Maine, bounded and described in Exhibit A annexed hereto and made a part hereof.

Being the same premises conveyed to Grantors herein by deed of Theodore Truman and Norma S. Truman, Trustees of The Theodore Truman Trust dated October 13, 2004, and recorded at the **York** County Registry of Deeds in Book 14268, Page 655. Reference is also made to deeds recorded in Book 9795, Page 39 and Book 9796, Page 179.

This conveyance is made SUBJECT to the current real estate taxes to the City of Biddeford, subject to proration at the closing, which the Grantee herein by its acceptance of this deed hereby assumes and agrees to pay.

WITNESS our hands this 31st day of August, 2021.

Robert Boucher

Nelson Boucher

STATE OF ME
Cumberland SS.

Date: August 3, 2021

Then personally appeared the above-named Robert Boucher and Nelson Boucher, as aforesaid and acknowledged the foregoing instrument to be their free act and deed.

Before me,

KRISTIN L. REYNOLDS
NOTARY PUBLIC - State of Maine
My Commission Expires
November 14, 2025

Maine Attorney at Law/Notary Public
My Commission Expires:

Maine R.E. Transfer Tax Paid

EXHIBIT A

A certain lot or parcel of land, together with the improvements thereon, situated in the City of Biddeford, County of York and State of Maine, and described as follows:

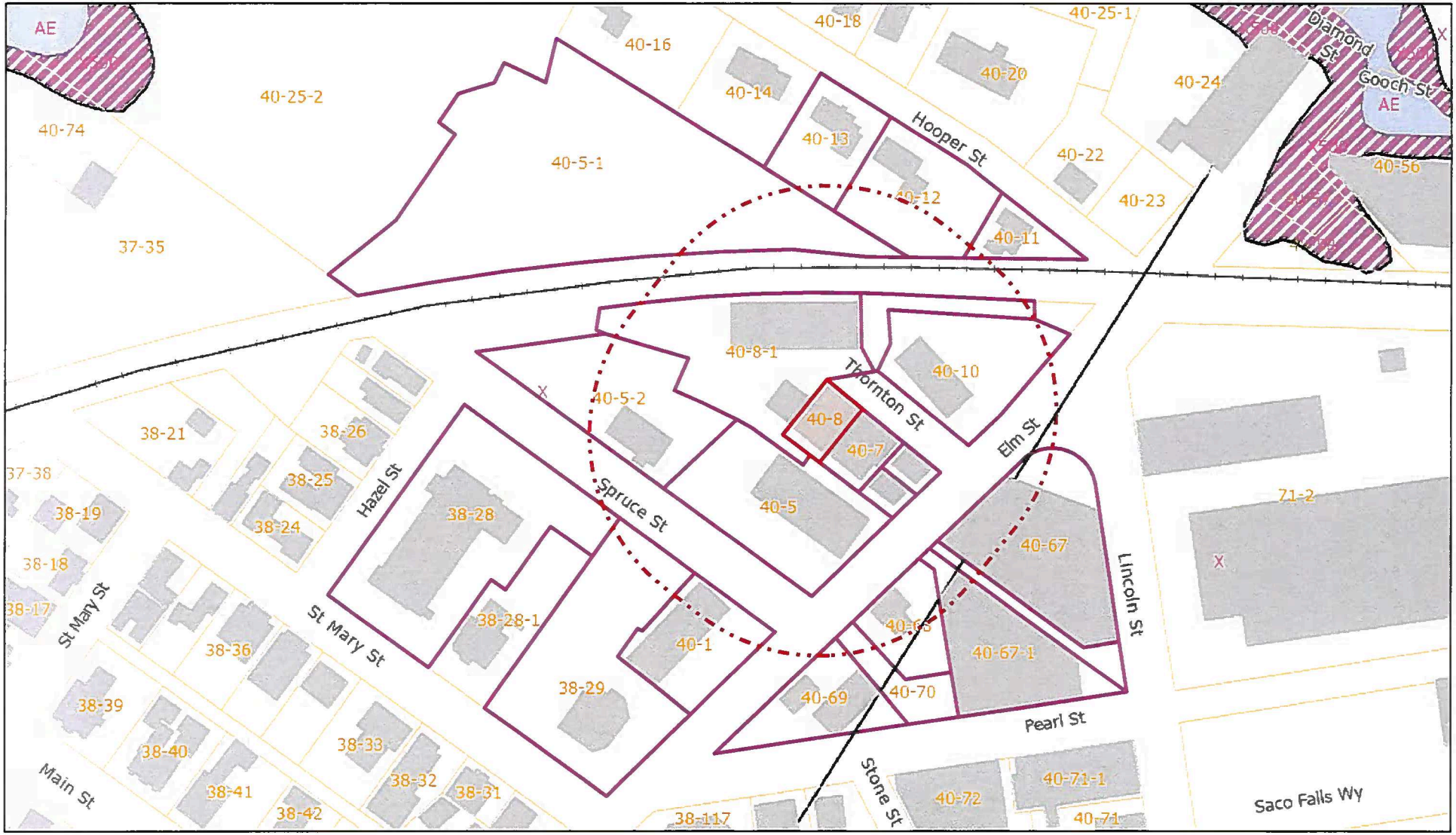
Beginning on the Westerly side of Thornton Street bounded southerly by the land now or formerly of Armour, Westerly and Northerly by land of the Boston and Maine Railroad, and Easterly by Thornton Street, being the same premises conveyed by Samuel Hobbs to John M. Deering and Gilman N. Deering by deed dated November 8, 1881, and recorded at the York County Registry of Deeds in Book 383, Page 506, except so much thereof as was conveyed by John M. and Gilman N. Deering to the Boston and Maine Railroad by deed dated December 23, 1881, and recorded in the York County Registry of Deeds in Book 386, Page 128.

Together with all buildings and improvements located thereon and all appurtenances and rights thereto; and further, any and all other machinery, equipment, furniture, fixtures and personal property situated in said buildings.

Subject to the conditions, restrictions, covenants and easements conveyed in deed from Swift & Company to Plato Truman, James Truman and Theodore Truman, dated February 20, 1970 and recorded in Book 1867, Page 616 of said Registry.

Attachment 3
Abutter List

9 Thornton Abutter



August 11, 2025

Flood Zones
- X500
- AE
- X

Parcels

Road Names

Railroad

Surrounding Towns

Buildings

1:2,257

0 75 150 300 ft

0 20 40 80 m

Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

Data and scale shown on this map are provided for planning and informational

Powered by Esri Technology

40-6-1
POIRIER, ROLAND & CECILE T
43 SHADAGEE RD
SACO, ME 04072

40-70
ROWELL, LLC
PO BOX 157
SPRINGVALE, ME 04083

40-8
BOUCHER, NELSON & ROBERT...
9 THORNTON ST
BIDDEFORD, ME 04005-2023

40-7
DEVLIN, MARTIN
416 MAIN ST #2
SACO, ME 04072-1523

38-28
BIDDEFORD (ZHONGZHOU) CH...
120 MAIN ST APT 322
SACO, ME 04072

40-5-2
J E PROPERTIES, LLC
2 SPRUCE ST
BIDDEFORD, ME 04005

40-11
TRACY, SUSAN A HALE, SHER ...
3 HOOPER ST
BIDDEFORD, ME 04005

40-5
J E PROPERTIES LLC C/O DUP...
2 SPRUCE ST
BIDDEFORD, ME 04005

40-68
FRECHETTE PROPERTIES, LL...
129 COTTAGE RD
GRAY, ME 04039

40-10
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

40-1
FJH PROPERTIES, LLC
35 CARROLL ST
FALMOUTH, ME 04105

40-10-1
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

40-67-2
PELONE, LLC
419 PRESUMPSCOTT ST
PORTLAND, ME 04103

40-8-1
FORZLEY, CHARLES N
329 STARLIT WAY
MYRTLE BEACH, SC 29579

40-12
TREADWELL, ASHLEY
11 HOOPER ST
BIDDEFORD, ME 04005

40-67-1
PELONE, LLC
419 PRESUMPSCOT ST
PORTLAND, ME 04103

40-6
VANCE, WARREN VANCE, MIC...
PO BOX 661
SACO, ME 04072

40-67
C & T REALTY, LLC
4 INNKEEPER LN
FALMOUTH, ME 04105-2530

40-5-1
BOSTON & MAINE RAILROAD ...
500 WATER ST J-910
JACKSONVILLE, FL 32202

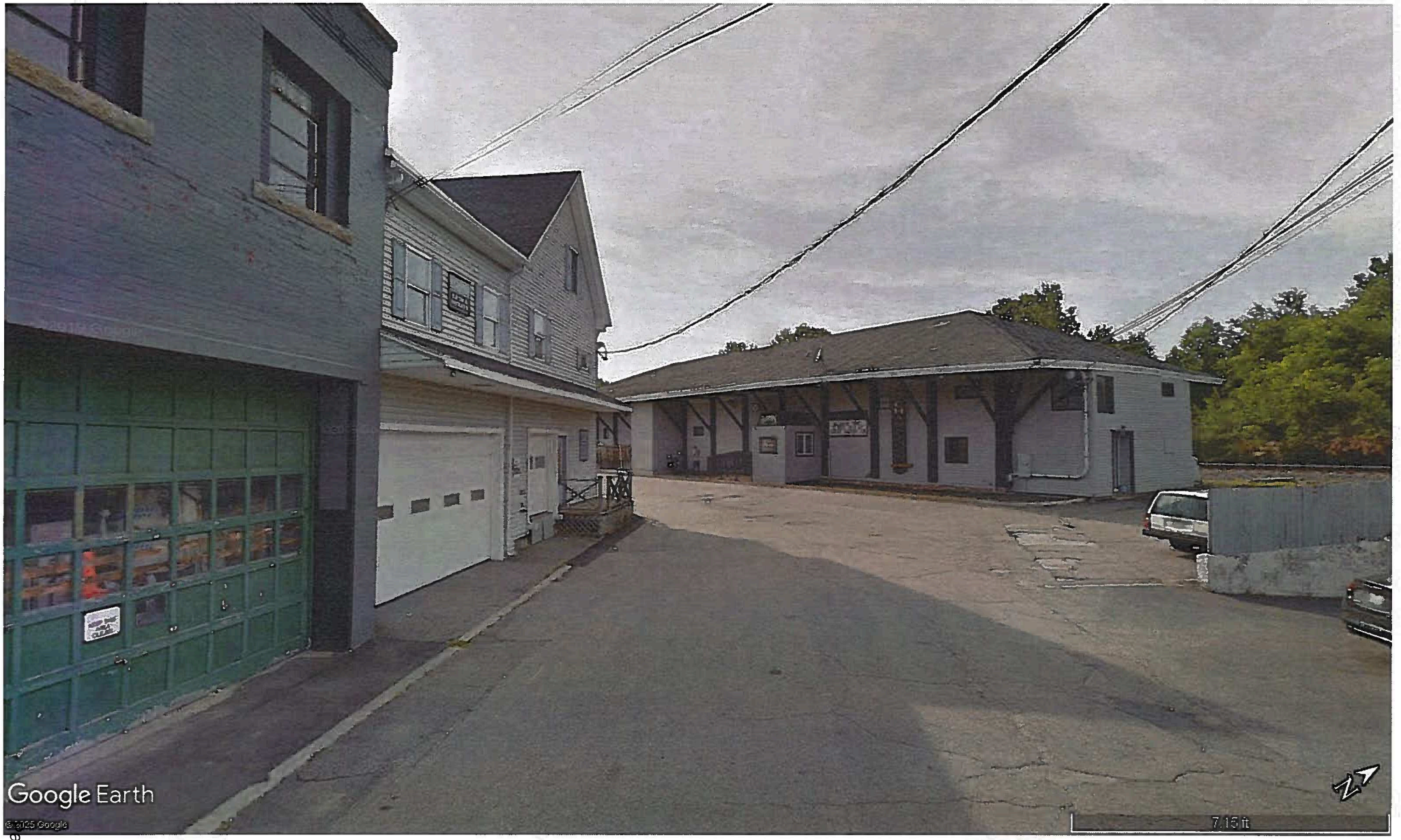
40-10-2
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

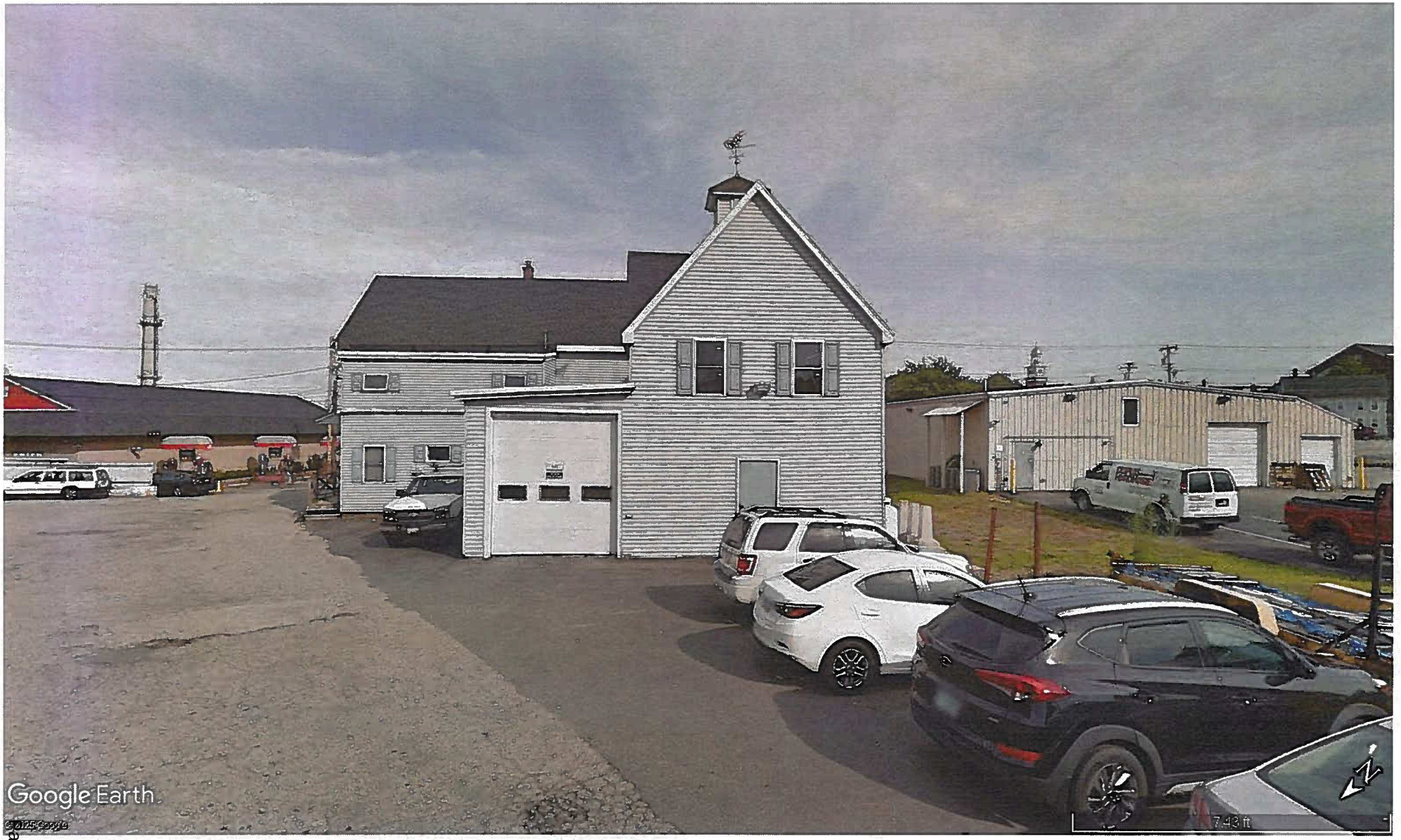
40-69
ROWELL, LLC
PO BOX 157
SPRINGVALE, ME 04083

40-13
WEBB, DOREEN A
15 HOOPER ST
BIDDEFORD, ME 04005-2016

38-29
DE DONUTS HOLDINGS LLC C/...
476 ALFRED ST
BIDDEFORD, ME 04005

Attachment 4
Site Photos


Google Earth
© 2025 Google
7.15 ft


Google Earth
© 2025 Google
7.43 ft

Attachment 5
Architectural Plans

Attachment 6
Sketch Plan

BH2M

Civil Engineering | Surveying

August 12, 2025

David Galbraith
City Planner
205 Main Street
Biddeford, ME 04005

Re: Sketch Plan Application
9-Unit Condominium
5 Thornton Street

Dear David;

On behalf of the applicant, Diversacorp Holdings, LLC, we are submitting a Sketch Plan Application for a proposed 9-unit condominium at 5 Thornton Street. In support of the application, we have enclosed 7 copies of the proposed sketch plan and supporting documents.

- Sketch Plan Application
- Attachment 1 – Figures (Tax Map, FEMA, and Soils)
- Attachment 2 – Parcel Deed
- Attachment 3 – Abutter List
- Attachment 4 – Site Photos
- Attachment 5 – Architectural Plans – Delano Architecture
- Attachment 4 – Sketch Plan

The project will consist of a 9-unit multifamily condominium. Parking for the proposed units is intended to be in the Pearl Street parking garage that is approximately 875' away from the property along existing sidewalks.

The project parcel is currently mostly impervious with the presence of an existing two-story building that has been vacant for some time now. The parcel is served by public water, sewer, and stormdrain utilities.

We are requesting a sketch plan review for this project to get comments from City staff and the planning board ahead of completing a full design of the proposed building.

If you need any additional information or have any questions, please contact me at afagan@bh2m.com. We look forward to working with the city on this project.

Sincerely,

Austin g. Fagan

Austin Fagan
Project Engineer

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

__ Shoreland Zoning Permit | X Site Plan Review (Please include checklist) | __ Extraction
__ Conditional Use Permit | X Subdivision (Please include Checklist) | __ Private Way
__ Other: _____

Applicant Information:

Name: Diversacorp Holdings LLC
Mailing Address: 5 Stone Pony Circle, Saco, Maine, 04072
Telephone: _____
Email: natelibbysmasonry@yahoo.com
What is your legal interest in the property?
X Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: _____
Mailing Address: _____
Telephone: _____
Email: _____

Agent's Information:

Name: Austin Fagan, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Engineer/Surveyor's Information:

Name: Austin Fagan, P.E #16523, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Project Location and Lot Information:

Street Address: 5 Thornton Street Drainage Watershed: Saco River
Tax Map: 40 Lot: 7
Current Zoning: MSRD3 Shoreland Zoning: N/A
Size of Lot: 3,021 ( )acres (X)s.f. Lot Frontage: 49.96'
Existing Use of Property: The property currently has a vacant two story building.

Property currently serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Slope Conditions in Area of Construction (if applicable):
X Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? __ (Yes) X (No) if yes attach information
Is the project within the 100-year floodplain? __ (Yes) X (No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) X (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

The applicant is proposing a three story multi-family residential building with nine units. Parking for the project is intended to be offsite at the existing Pearl Street parking garage that is approximately 875' away by foot.

Property to be Serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 3,021 ( )acres (X)s.f.
Net change in impervious cover: 0 ( )acres (X)s.f.
Is this project part of a larger project? __(Yes) X(No)
Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) X(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) X(Yes) __(No)
Is the project proposing any Stormwater facilities/BMPs? __(Yes) X(No)
Will a Traffic Movement Permit (TMP) be required?: __(Yes) X(No)

__ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): _____
Percent of structure expansion (Max 30%): _____
X **If Subdivision Review, number of lots proposed:** 9 units
__ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: _____
Total new square feet paving/parking: 0

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letters of Approval
   __ Fire Department – Contact Chief or Deputy Chief – 282-9986
   __ Ability to Serve for Water Service – Maine Water – 282-1543
   __ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
   __ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
   __ Ability to Serve for Electrical Service-CMP-1-866-225-4200
   __Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
B. Photographs of Site.
C. Architectural renderings/drawings of proposed buildings, as required.
D. Engineering Plans, as required.
E. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? __(Yes) X(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: Austin g. Fagan - Agent **Date** 8-12-2025

Signature of Property Owner: _____ **Date** _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

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C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

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- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

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PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

Agent Authorization

Property Description	**Physical Address/ Location**	**5 Thornton Street, Biddeford, Maine**	**Map 40**	
			Lot 7	
Applicant Information	**Name**	**Diversacorp Holdings LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Owner Information	**Name**	**Diversacorp Holdings LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Applicant's Agent Information	**Name**	**Austin Fagan**	**Business Name**	**BH2M**
	Phone	**(207) 839-2771**	**Mailing Address**	**380B Main Street Gorham, Maine 04038**
	Email	**afagan@bh2m.com**		

The above-listed company/agents may represent me to expedite and complete the approval of the permits/applications required for development for this parcel.

8-7-2025

APPLICANT SIGNAURE — **DATE**

Nate Libby

PRINTED NAME

CO-APPLICANT SIGNATURE (if applicable) — **DATE**

PRINTED NAME

Austin G. Fagan — 8-7-2025

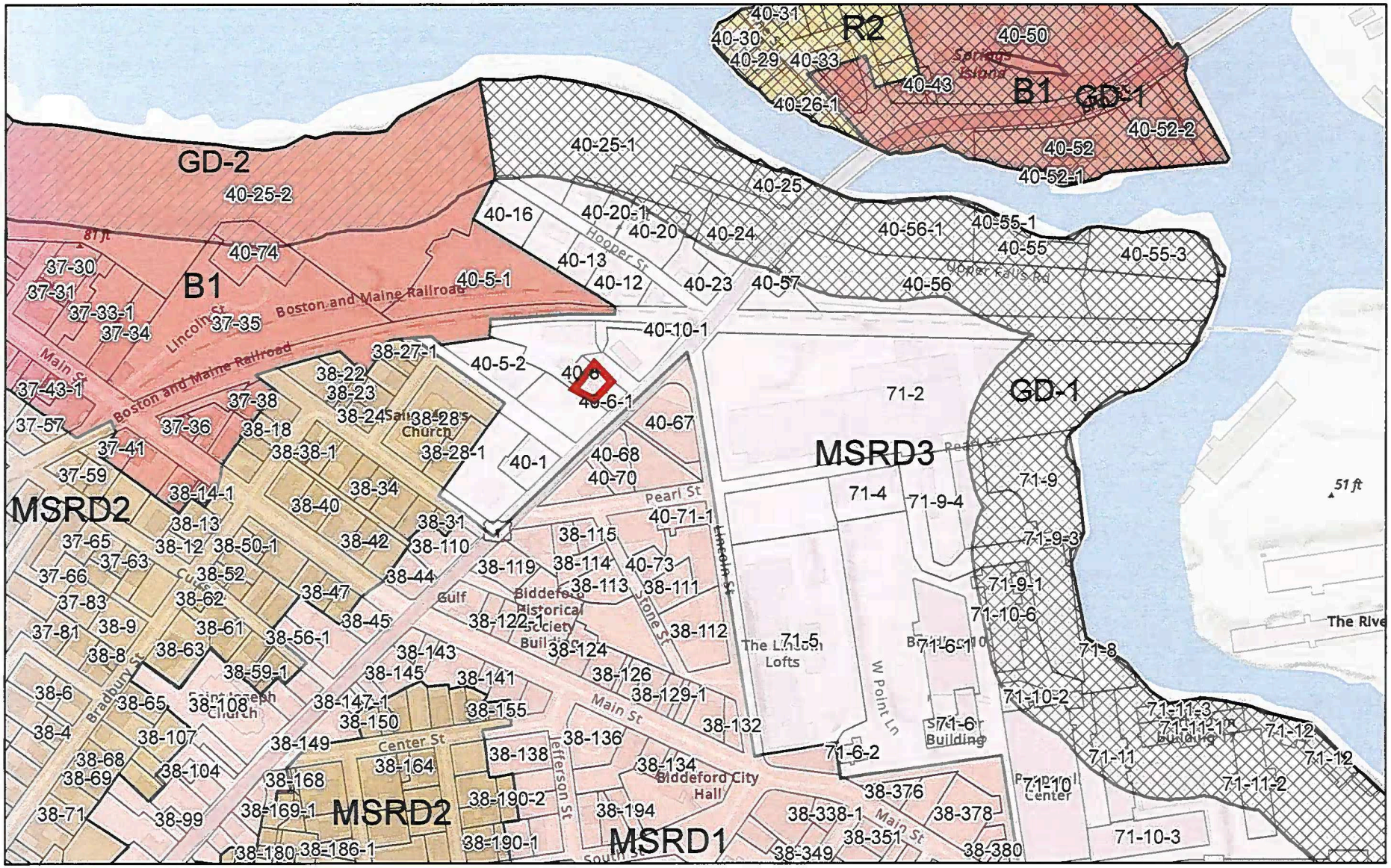
AGENT SIGNATURE — **DATE**

Austin G. Fagan

PRINTED NAME

Attachment 1
Figures

1 Biddeford Zoning: Approved 08/20/2024



2/12/2025

1:5,843

0 0.04 0.07 0.14 mi

0 0.05 0.1 0.2 km

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

Overlay Zones

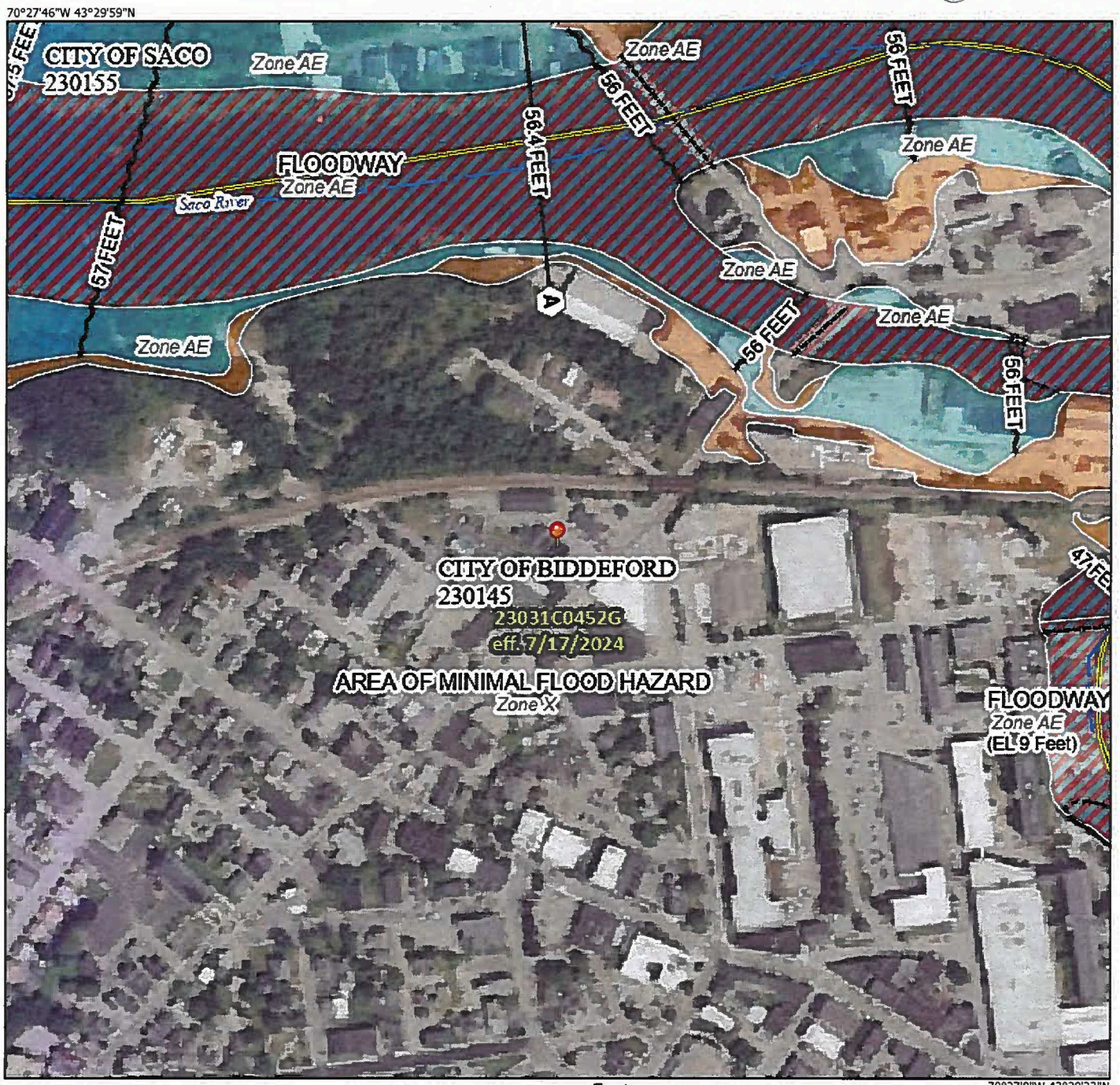
- GD-1: General Development 1
- GD-2: General Development 2

Zoning

- MSRD2 Residential Conservation
- R2 Multi-Family
- B1 General Business
- MSRD1 Commercial Core
- MSRD3 High Density / Mixed Use
- Parcels_20230900
- World Hillshade

National Flood Hazard Layer FIRMette

FEMA



Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/7/2025 at 3:16 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Soil Map—York County, Maine



Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

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

MAP LEGEND

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

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: York County, Maine
Survey Area Data: Version 23, Aug 26, 2024

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

Date(s) aerial images were photographed: Mar 1, 2022—Jul 1, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	6.3	100.0%
Totals for Area of Interest		**6.3**	**100.0%**

Attachment 2
Parcel Deed

NANCY E HAMMOND, REGISTER OF DEEDS
E-RECORDED **Bk 19690 PG 912**
Instr # 2025021282
07/03/2025 01:12:58 PM
Pages 2 YORK CO

(space above is reserved for recording information)

WARRANTY DEED
Maine Statutory Short Form
DLN 2942334

KNOW ALL PERSONS BY THESE PRESENTS, That **MARTIN DEVLIN,** having a mailing address of 416 Main Street, #2, Saco, Maine 04072 for consideration paid, grants to **DIVERSACORP HOLDINGS, LLC, a Maine Limited Liability Company** having a mailing address of 5 Stone Pony Circle, Saco, Maine 04072 with ***WARRANTY COVENANTS,*** the land in Biddeford in the County of York and State of Maine, described as follows:

Maine R.E. Transfer Tax Paid

A certain lot or parcel of land with the buildings thereon, situated in the City of Biddeford, County of York and State of Maine, known and described as follows to wit:

Beginning at an iron bolt in the southwesterly sideline of Thornton Street at land now or formerly of Rishworth Jordan fifty-three (53) feet northwesterly from the southwesterly corner of Elm and Thornton Streets;

Thence by the southwesterly side of Thornton Street North forty-two (42) degrees forty-five (45) minutes West fifty (50) feet to an iron bolt driven in the ground at land now or formerly Deering Brothers;

Thence making a right angle with the last described line and running South forty-seven (47) degrees fifteen (15) minutes West sixty (60) feet to an iron bolt driven in the ground at land of the Boston and Maine Railroad Company;

Thence South forty three (43) degrees thirty-four (34) minutes East by land of said Railroad Company fifty and one hundredths (50.01) feet to land now or formerly of Rishworth Jordan;

Thence North forty-seven (47) degrees fifteen (15) minutes East by land now or formerly of Rishworth Jordan fifty-nine and twenty-nine one hundredths (59.29) feet to the point of beginning; containing two thousand nine hundred eighty-two and twenty-five hundredths (2982.25) square feet.

Subject to restrictions of record contained in a deed from William R. Sansoucy to Robert E. Blais, dated November 6, 1973 and which is duly recorded an the York County Registry of Deeds in Book 2033, Page 374.

Being the same premises conveyed to Martin Devlin by deed of Patrick O'Brien dated September 11, 2003 and recorded in York Registry of Deeds in Book 13466, Page 345.

WITNESS my hand this 3rd day of July, 2025.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF:

Witness

Martin Devlin

STATE OF MAINE
COUNTY OF ~~YORK~~ Cumberland July 3, 2025

Personally appeared the above named Martin Devlin and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public/Maine Attorney at Law

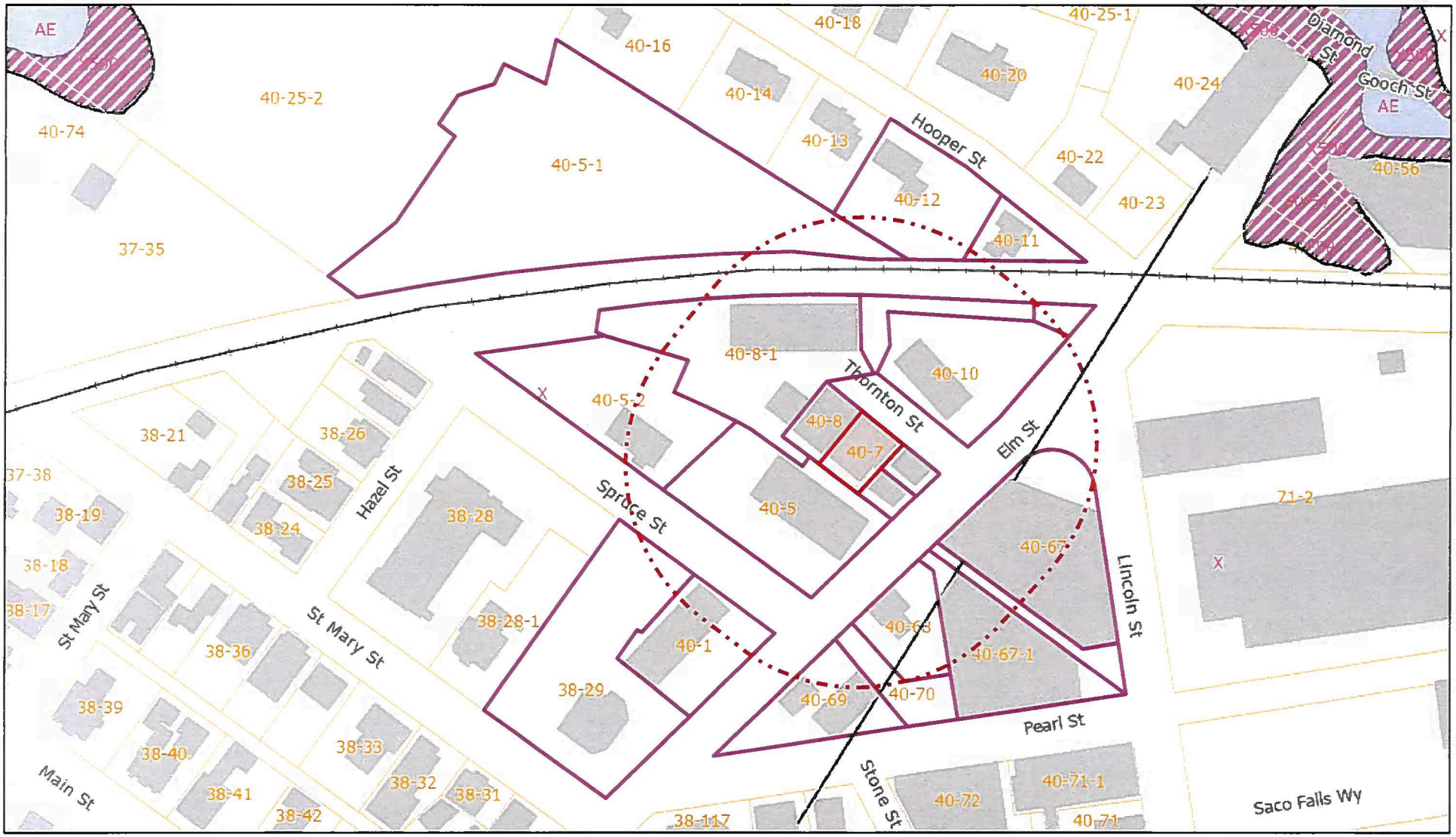
Printed Name: _____
My commission expires: _____

Jason G. Howe, Esq.
Bar No. 0004860

N:\Shared\RAH\devlin19470\003

Attachment 3
Abutter List

5 Thornton Abutters



August 7, 2025

Flood Zones
- AE
- X
- X500

Parcels

Railroad

Road Names

Surrounding Towns

Buildings

1:2,257

0 75 150 300 ft

0 20 40 80 m

Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

Data and scale shown on this map are provided for planning and informational

Powered by Esri Technology

40-6-1
POIRIER, ROLAND & CECILE T
43 SHADAGEE RD
SACO, ME 04072

40-67-2
PELONE, LLC
419 PRESUMPSCOTT ST
PORTLAND, ME 04103

40-7
DEVLIN, MARTIN
416 MAIN ST #2
SACO, ME 04072-1523

40-6
VANCE, WARREN VANCE, MIC...
PO BOX 661
SACO, ME 04072

40-10
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

40-69
ROWELL, LLC
PO BOX 157
SPRINGVALE, ME 04083

40-8-1
FORZLEY, CHARLES N
329 STARLIT WAY
MYRTLE BEACH, SC 29579

40-8
BOUCHER, NELSON & ROBERT...
9 THORNTON ST
BIDDEFORD, ME 04005-2023

40-67-1
PELONE, LLC
419 PRESUMPSCOT ST
PORTLAND, ME 04103

40-5-2
J E PROPERTIES, LLC
2 SPRUCE ST
BIDDEFORD, ME 04005

40-67
C & T REALTY, LLC
4 INNKEEPER LN
FALMOUTH, ME 04105-2530

40-68
FRECHETTE PROPERTIES, LL...
129 COTTAGE RD
GRAY, ME 04039

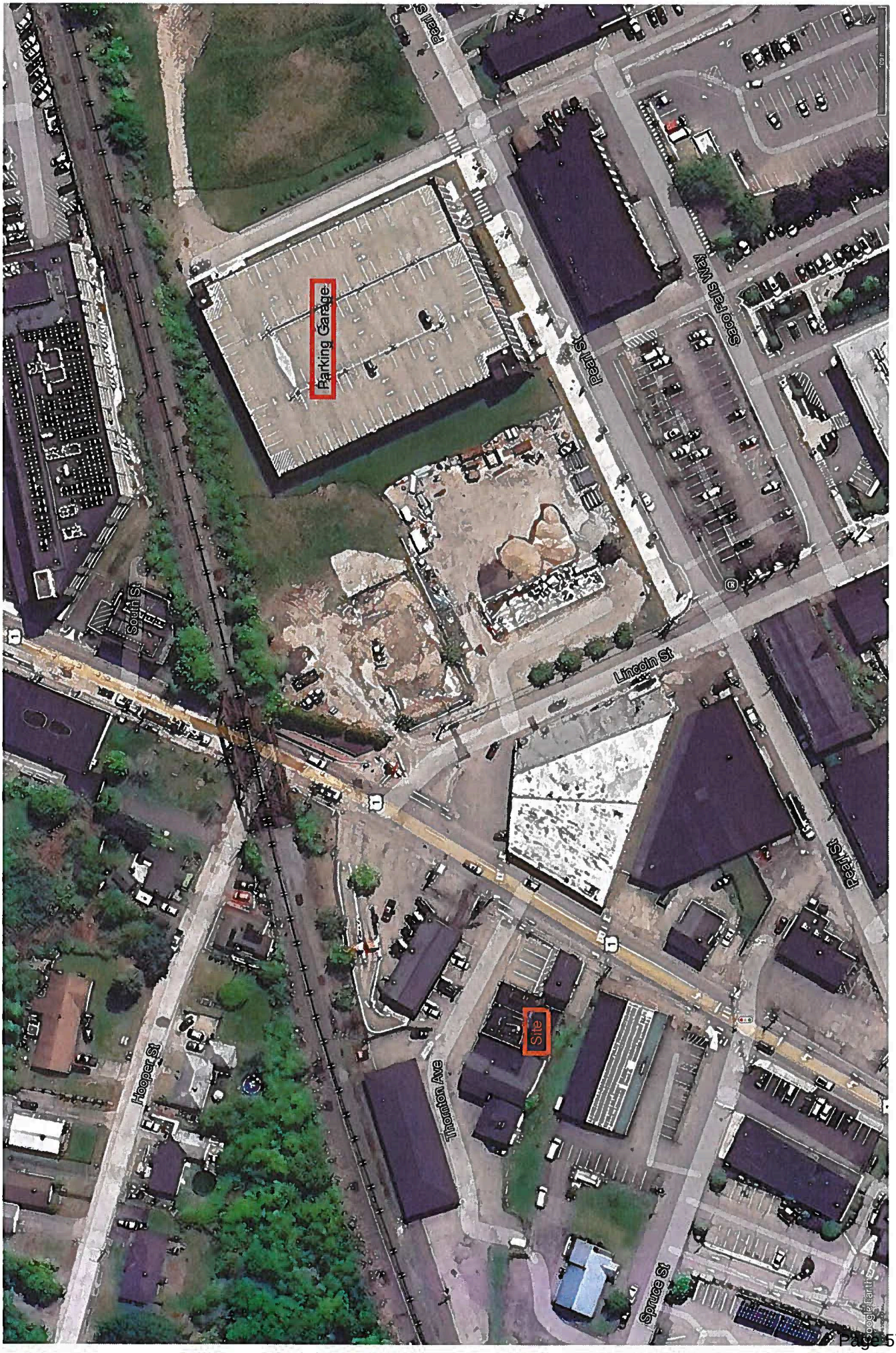
40-10-2
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

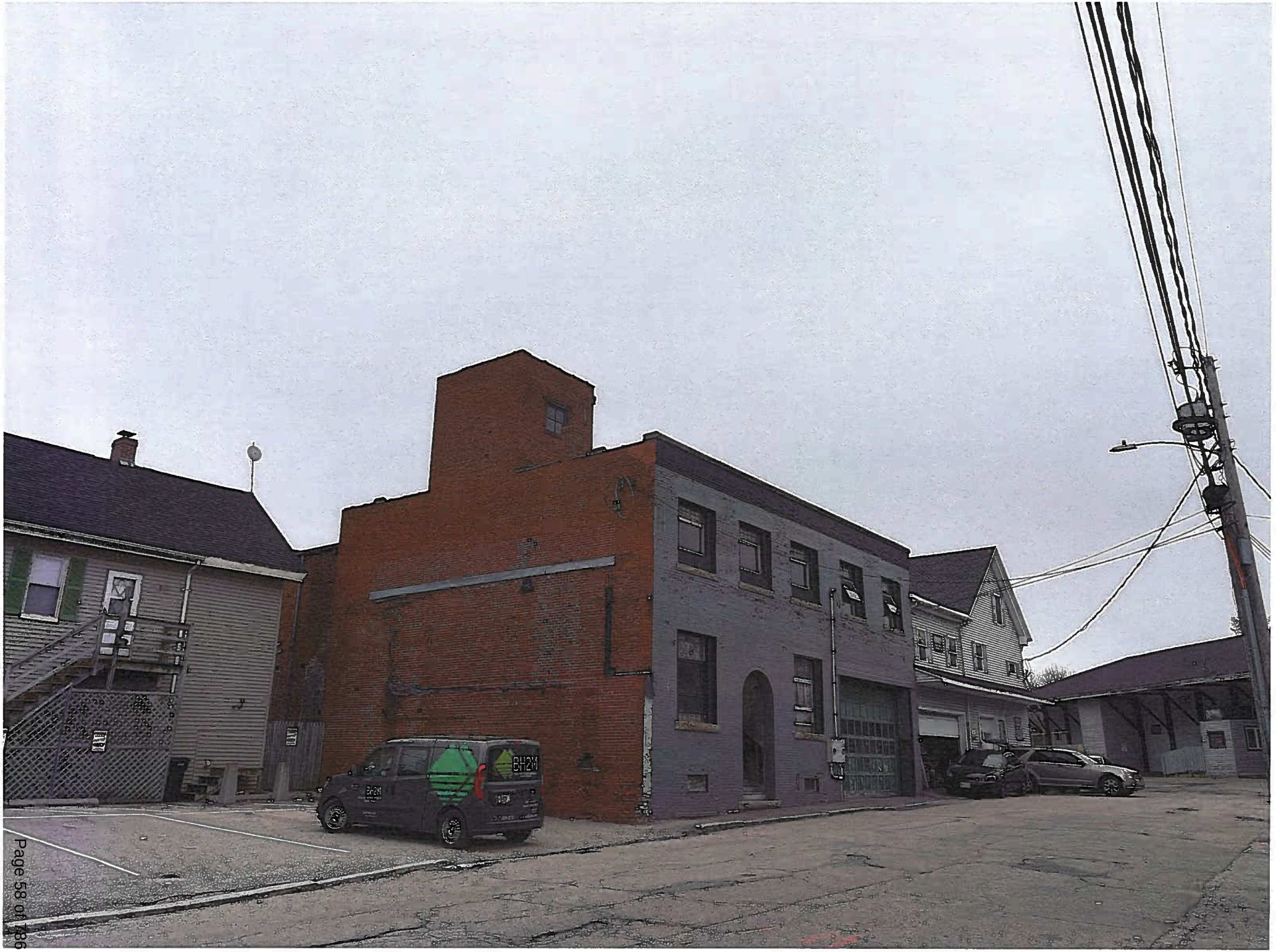
40-70
ROWELL, LLC
PO BOX 157
SPRINGVALE, ME 04083

40-5
J E PROPERTIES LLC C/O DUP...
2 SPRUCE ST
BIDDEFORD, ME 04005

40-1
FJH PROPERTIES, LLC
35 CARROLL ST
FALMOUTH, ME 04105

Attachment 4
Site Photos


Parking Garage
Site
Pearl St
Saco Falls Way
Lincoln St
South St
Hooper St
Thornton Ave
Spruce St



Attachment 5
Architectural Plans

Attachment 6
Sketch Plan

BH2M

Civil Engineering | Surveying

August 12, 2025

David Galbraith
City Planner
205 Main Street
Biddeford, ME 04005

Re: Sketch Plan Application
9-Unit Condominium
5 Thornton Street

Dear David;

On behalf of the applicant, Diversacorp Holdings, LLC, we are submitting a Sketch Plan Application for a proposed 9-unit condominium at 5 Thornton Street. In support of the application, we have enclosed 7 copies of the proposed sketch plan and supporting documents.

- Sketch Plan Application
- Attachment 1 – Figures (Tax Map, FEMA, and Soils)
- Attachment 2 – Parcel Deed
- Attachment 3 – Abutter List
- Attachment 4 – Site Photos
- Attachment 5 – Architectural Plans – Delano Architecture
- Attachment 4 – Sketch Plan

The project will consist of a 9-unit multifamily condominium. Parking for the proposed units is intended to be in the Pearl Street parking garage that is approximately 875' away from the property along existing sidewalks.

The project parcel is currently mostly impervious with the presence of an existing two-story building that has been vacant for some time now. The parcel is served by public water, sewer, and stormdrain utilities.

We are requesting a sketch plan review for this project to get comments from City staff and the planning board ahead of completing a full design of the proposed building.

If you need any additional information or have any questions, please contact me at afagan@bh2m.com. We look forward to working with the city on this project.

Sincerely,

Austin g. Fagan

Austin Fagan
Project Engineer

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

__ Shoreland Zoning Permit | X Site Plan Review (Please include checklist) | __ Extraction
__ Conditional Use Permit | X Subdivision (Please include Checklist) | __ Private Way
__ Other: _____

Applicant Information:

Name: Diversacorp Holdings LLC
Mailing Address: 5 Stone Pony Circle, Saco, Maine, 04072
Telephone: _____
Email: natelibbysmasonry@yahoo.com
What is your legal interest in the property?
X Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: _____
Mailing Address: _____
Telephone: _____
Email: _____

Agent's Information:

Name: Austin Fagan, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Engineer/Surveyor's Information:

Name: Austin Fagan, P.E #16523, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Project Location and Lot Information:

Street Address: 5 Thornton Street Drainage Watershed: Saco River
Tax Map: 40 Lot: 7
Current Zoning: MSRD3 Shoreland Zoning: N/A
Size of Lot: 3,021 ( )acres (X)s.f. Lot Frontage: 49.96'
Existing Use of Property: The property currently has a vacant two story building.

Property currently serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Slope Conditions in Area of Construction (if applicable):

X Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? __ (Yes) X (No) if yes attach information
Is the project within the 100-year floodplain? __ (Yes) X (No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) X (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

The applicant is proposing a three story multi-family residential building with nine units. Parking for the project is intended to be offsite at the existing Pearl Street parking garage that is approximately 875' away by foot.

Property to be Serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 3,021 ( )acres (X)s.f.
Net change in impervious cover: 0 ( )acres (X)s.f.
Is this project part of a larger project? __(Yes) X(No)
Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) X(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) X(Yes) __(No)
Is the project proposing any Stormwater facilities/BMPs? __(Yes) X(No)
Will a Traffic Movement Permit (TMP) be required?: __(Yes) X(No)

__ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): _____
Percent of structure expansion (Max 30%): _____
X **If Subdivision Review, number of lots proposed:** 9 units
__ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: _____
Total new square feet paving/parking: 0

Waiver Requests (attach details):

1. _____
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- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? __(Yes) X(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: Austin G. Fagan - Agent **Date** 8-12-2025

Signature of Property Owner: _____ **Date** _____

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B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

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- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

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PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

Agent Authorization

Property Description	**Physical Address/ Location**	**5 Thornton Street, Biddeford, Maine**	**Map 40**	
			Lot 7	
Applicant Information	**Name**	**Diversacorp Holdings LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Owner Information	**Name**	**Diversacorp Holdings LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Applicant's Agent Information	**Name**	**Austin Fagan**	**Business Name**	**BH2M**
	Phone	**(207) 839-2771**	**Mailing Address**	**380B Main Street Gorham, Maine 04038**
	Email	**afagan@bh2m.com**		

The above-listed company/agents may represent me to expedite and complete the approval of the permits/applications required for development for this parcel.

[signature] 8-7-2025

APPLICANT SIGNAURE DATE

Nate Libby

PRINTED NAME

CO-APPLICANT SIGNATURE (if applicable) DATE

PRINTED NAME

Austin G. Fagan 8-7-2025

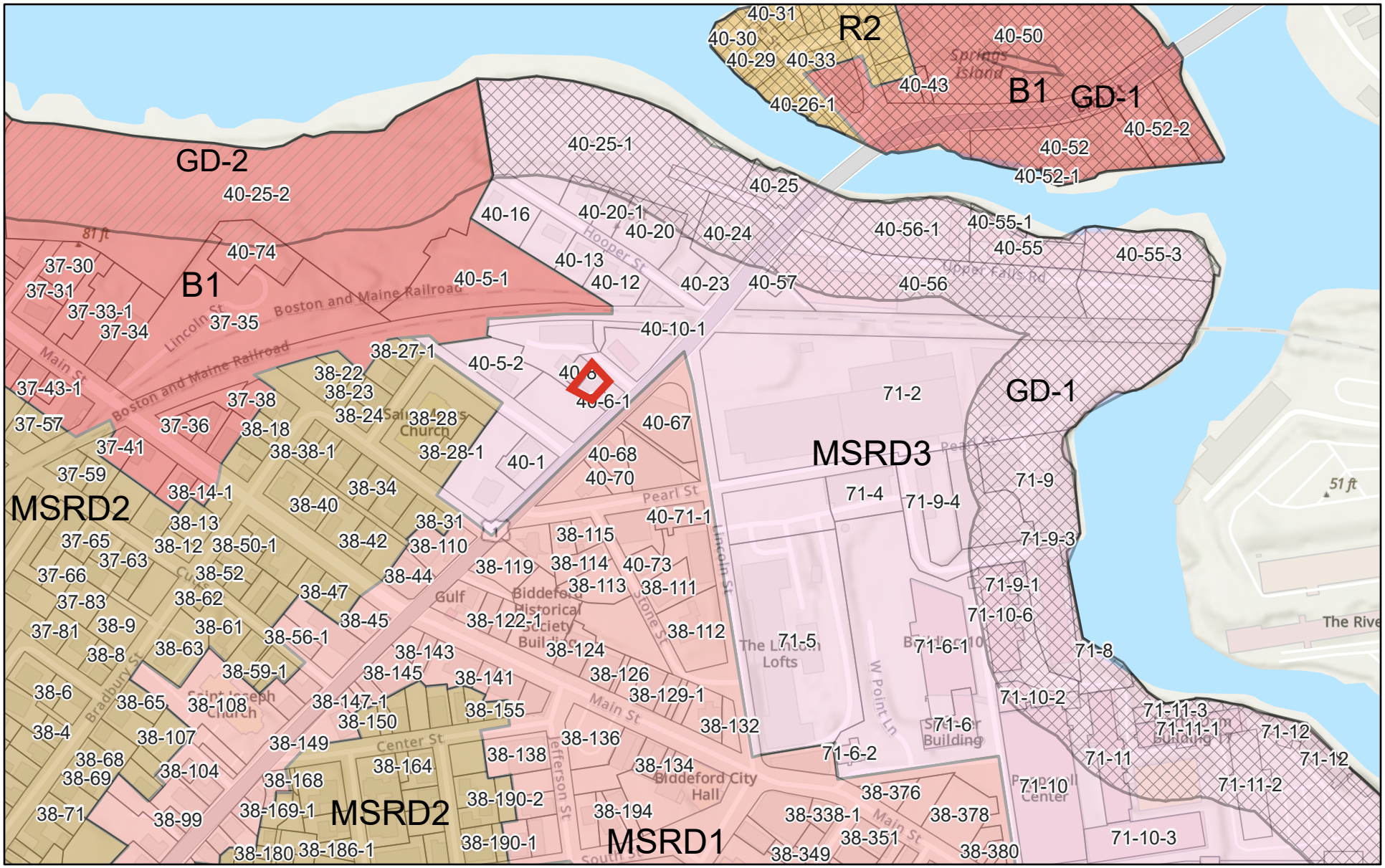
AGENT SIGNATURE DATE

Austin G. Fagan

PRINTED NAME

Attachment 1
Figures

1 Biddeford Zoning: Approved 08/20/2024



2/12/2025

1:5,843

0 0.04 0.07 0.14 mi

0 0.05 0.1 0.2 km

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

Overlay Zones

- GD-1: General Development 1
- GD-2: General Development 2

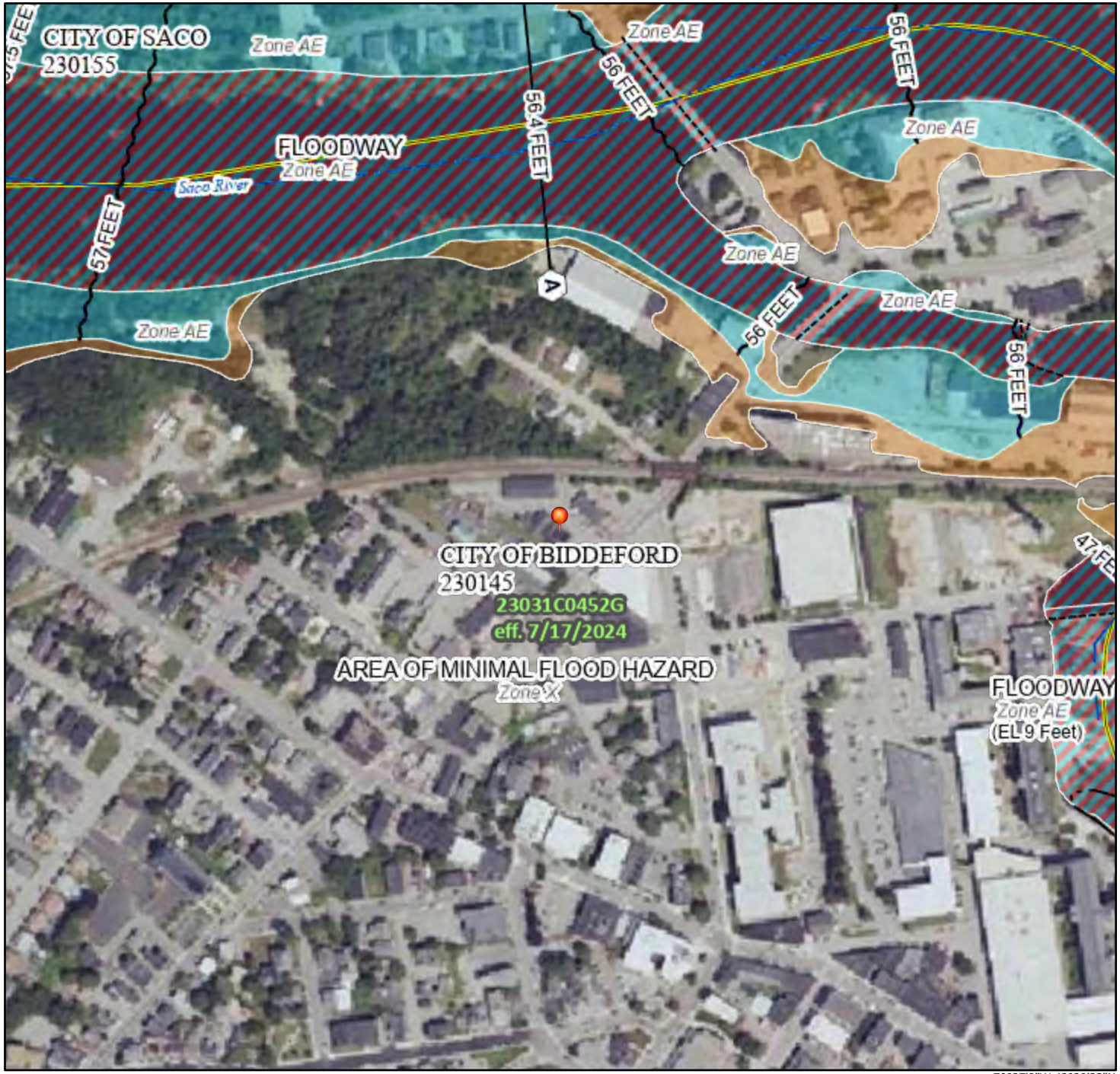
Zoning

- MSRD2 Residential Conservation
- R2 Multi-Family
- B1 General Business
- MSRD1 Commercial Core
- MSRD3 High Density / Mixed Use
- Parcels_20230900
- World Hillshade

National Flood Hazard Layer FIRMette

FEMA

70°27'46"W 43°29'59"N



70°27'8"W 43°29'33"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/7/2025 at 3:16 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

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

MAP LEGEND

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

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: York County, Maine
Survey Area Data: Version 23, Aug 26, 2024

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

Date(s) aerial images were photographed: Mar 1, 2022—Jul 1, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	6.3	100.0%
Totals for Area of Interest		**6.3**	**100.0%**

Attachment 2
Parcel Deed

NANCY E HAMMOND, REGISTER OF DEEDS
E-RECORDED **Bk 19690 PG 912**
Instr # 2025021282
07/03/2025 01:12:58 PM
Pages 2 YORK CO

(space above is reserved for recording information)

WARRANTY DEED
Maine Statutory Short Form
DLN 2942334

KNOW ALL PERSONS BY THESE PRESENTS, That **MARTIN DEVLIN,** having a mailing address of 416 Main Street, #2, Saco, Maine 04072 for consideration paid, grants to **DIVERSACORP HOLDINGS, LLC, a Maine Limited Liability Company** having a mailing address of 5 Stone Pony Circle, Saco, Maine 04072 with ***WARRANTY COVENANTS,*** the land in Biddeford in the County of York and State of Maine, described as follows:

A certain lot or parcel of land with the buildings thereon, situated in the City of Biddeford, County of York and State of Maine, known and described as follows to wit:

Beginning at an iron bolt in the southwesterly sideline of Thornton Street at land now or formerly of Rishworth Jordan fifty-three (53) feet northwesterly from the southwesterly corner of Elm and Thornton Streets;

Thence by the southwesterly side of Thornton Street North forty-two (42) degrees forty-five (45) minutes West fifty (50) feet to an iron bolt driven in the ground at land now or formerly Deering Brothers;

Thence making a right angle with the last described line and running South forty-seven (47) degrees fifteen (15) minutes West sixty (60) feet to an iron bolt driven in the ground at land of the Boston and Maine Railroad Company;

Thence South forty three (43) degrees thirty-four (34) minutes East by land of said Railroad Company fifty and one hundredths (50.01) feet to land now or formerly of Rishworth Jordan;

Thence North forty-seven (47) degrees fifteen (15) minutes East by land now or formerly of Rishworth Jordan fifty-nine and twenty-nine one hundredths (59.29) feet to the point of beginning; containing two thousand nine hundred eighty-two and twenty-five hundredths (2982.25) square feet.

Subject to restrictions of record contained in a deed from William R. Sansoucy to Robert E. Blais, dated November 6, 1973 and which is duly recorded an the York County Registry of Deeds in Book 2033, Page 374.

Maine R.E. Transfer Tax Paid

Being the same premises conveyed to Martin Devlin by deed of Patrick O'Brien dated September 11, 2003 and recorded in York Registry of Deeds in Book 13466, Page 345.

WITNESS my hand this 3rd day of July, 2025.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF:

Witness

Martin Devlin

STATE OF MAINE
COUNTY OF ~~YORK~~ Cumberland July 3, 2025

Personally appeared the above named Martin Devlin and acknowledged the foregoing instrument to be his free act and deed.

Before me,

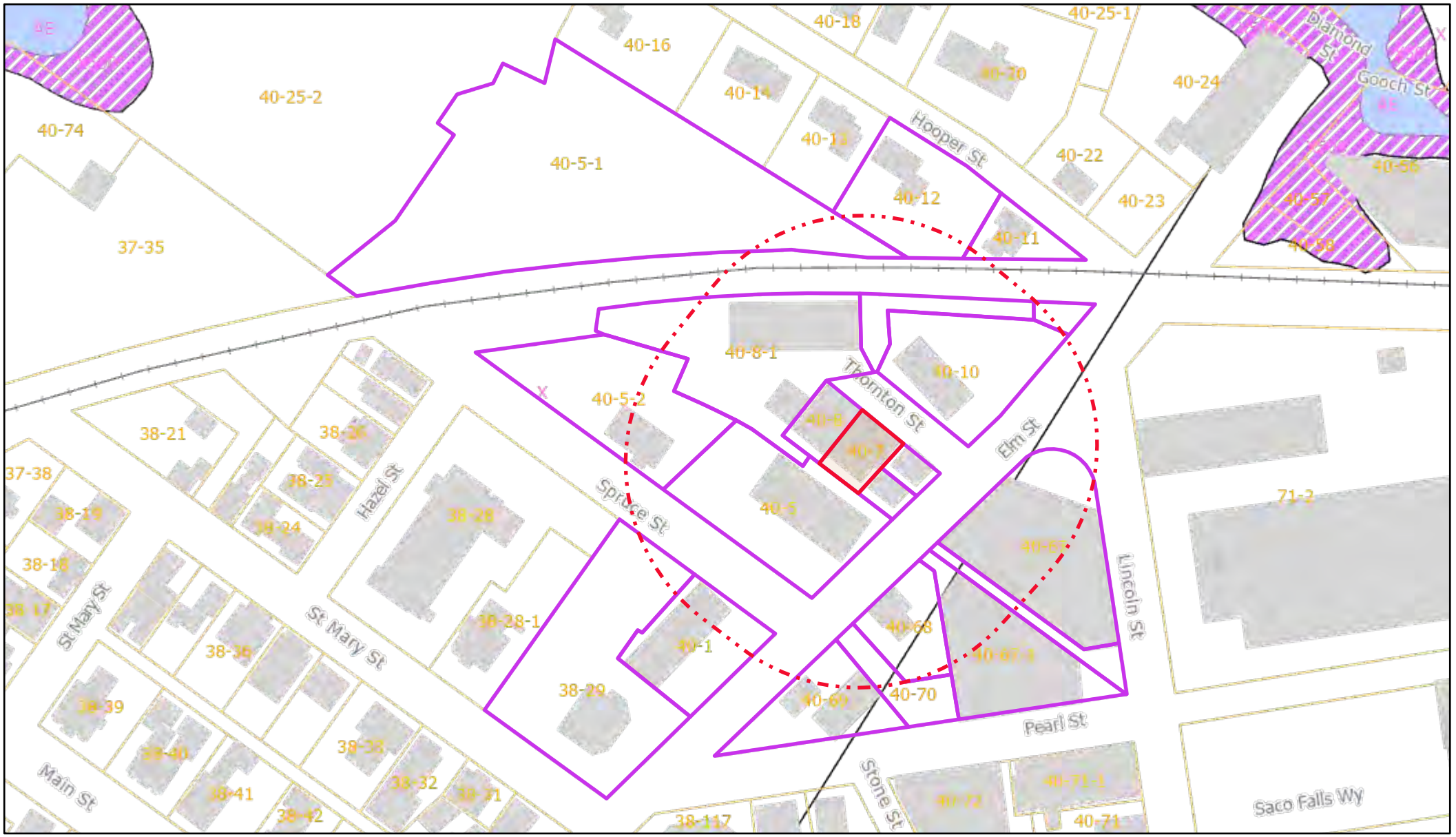
Notary Public/Maine Attorney at Law

Printed Name: Jason G. Howe, Esq.
My commission expires: Bar No. 0004860

N:\Shared\RAH\devlin19470\003

Attachment 3
Abutter List

5 Thornton Abutters



August 7, 2025

Flood Zones

- X500
- AE
- X

Parcels

Road Names

Railroad

Surrounding Towns

Buildings

1:2,257

0 75 150 300 ft

0 20 40 80 m

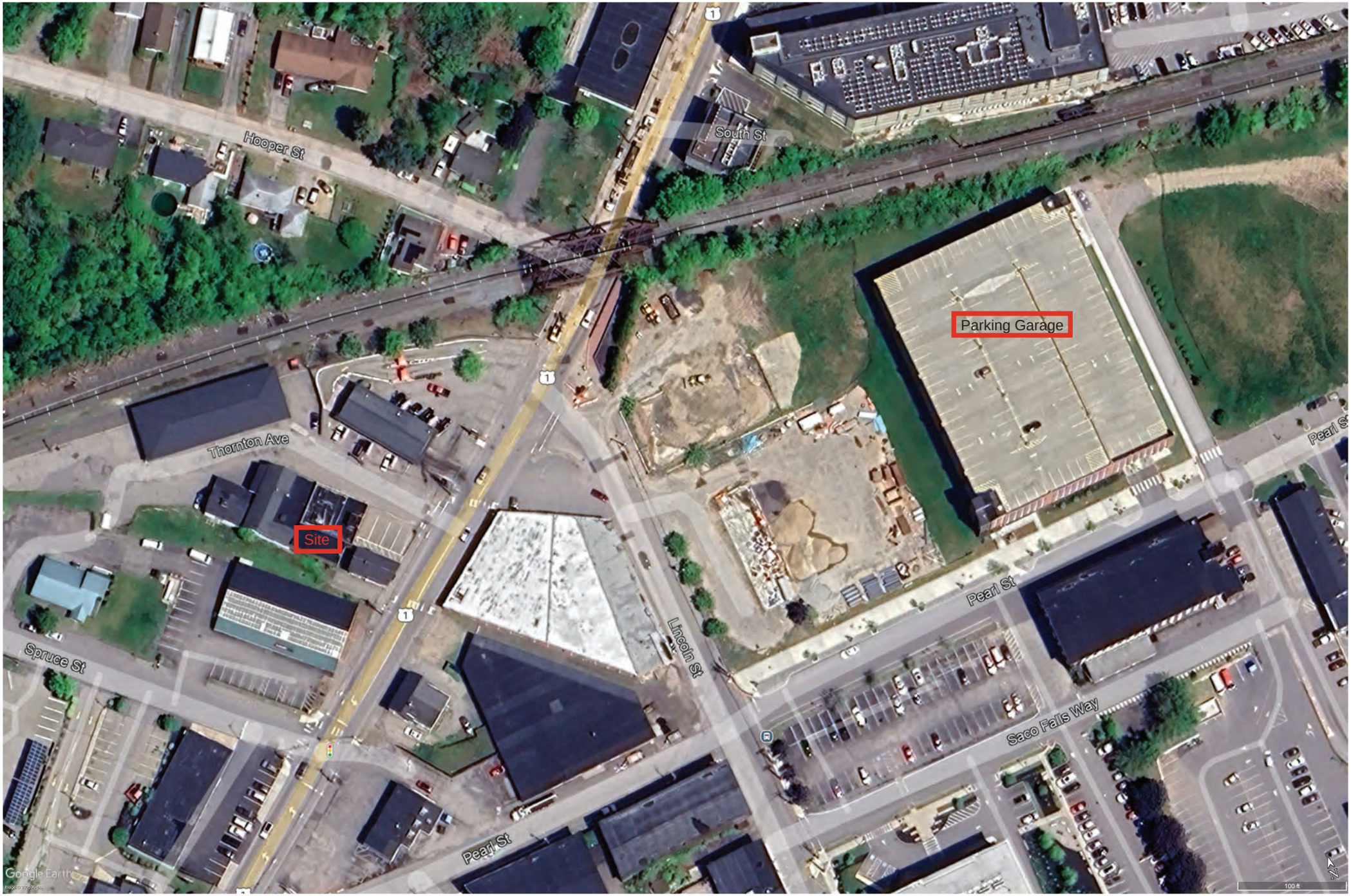
Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

Data and scale shown on this map are provided for planning and informational

Powered by Esri Technology

40-6-1 POIRIER, ROLAND & CECILE T 43 SHADAGEE RD SACO, ME 04072	40-67-2 PELONE, LLC 419 PRESUMPSCOTT ST PORTLAND, ME 04103	
40-7 DEVLIN, MARTIN 416 MAIN ST #2 SACO, ME 04072-1523	40-6 VANCE, WARREN VANCE, MIC... PO BOX 661 SACO, ME 04072	
40-10 B & D MEREALTY, LLC 172 WORCESTER RD NATICK, MA 01760	40-69 ROWELL, LLC PO BOX 157 SPRINGVALE, ME 04083	
40-8-1 FORZLEY, CHARLES N 329 STARLIT WAY MYRTLE BEACH, SC 29579	40-8 BOUCHER, NELSON & ROBERT... 9 THORNTON ST BIDDEFORD, ME 04005-2023	
40-67-1 PELONE, LLC 419 PRESUMPSCOT ST PORTLAND, ME 04103	40-5-2 J E PROPERTIES, LLC 2 SPRUCE ST BIDDEFORD, ME 04005	
40-67 C & T REALTY, LLC 4 INNKEEPER LN FALMOUTH, ME 04105-2530	40-68 FRECHETTE PROPERTIES, LL... 129 COTTAGE RD GRAY, ME 04039	
40-10-2 B & D MEREALTY, LLC 172 WORCESTER RD NATICK, MA 01760		
40-70 ROWELL, LLC PO BOX 157 SPRINGVALE, ME 04083		
40-5 J E PROPERTIES LLC C/O DUP... 2 SPRUCE ST BIDDEFORD, ME 04005		
40-1 FJH PROPERTIES, LLC 35 CARROLL ST FALMOUTH, ME 04105		

Attachment 4
Site Photos


Hooper St
South St
Parking Garage
Thornton Ave
Site
Spruce St
Lincoln St
Pearl St
Saco Falls Way
Pearl St
Google Earth
100 ft


BH2M


CHAMPIONS



Attachment 5
Architectural Plans



1 THORNTON AVE. CONDOS

SCALE: 1/8"=1'-0"

DELANO ARCHITECTURE
111 Elm Street, Saco, ME 04072
207-494-9035

REV	DATE	DESCRIPTION	APP
-	-	-	-

Thornton Ave.

5 + 9 Thornton Avenue, Biddeford Maine 04005

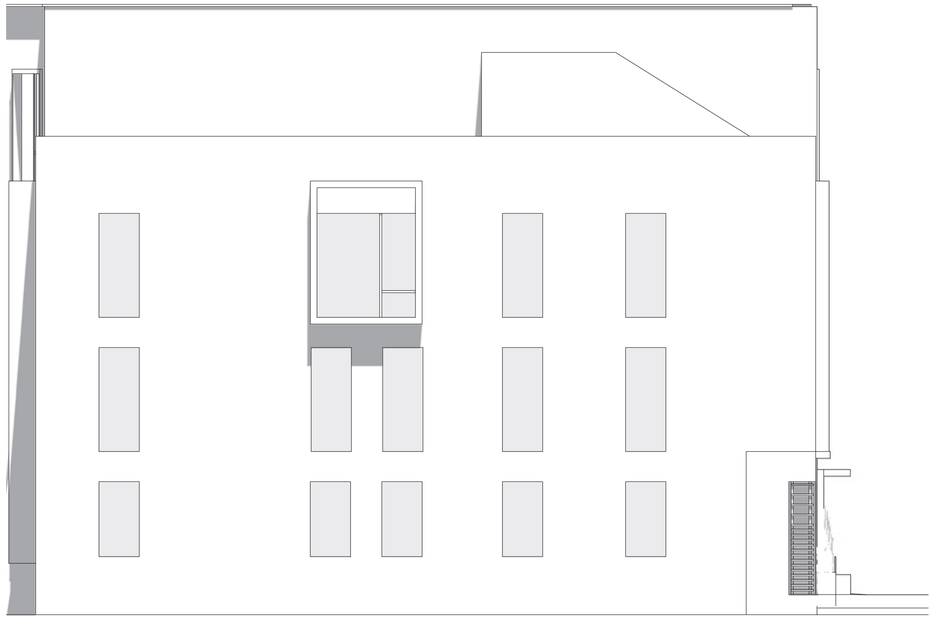
August 11, 2025

▶First Floor Plan

DESIGN

-

A1



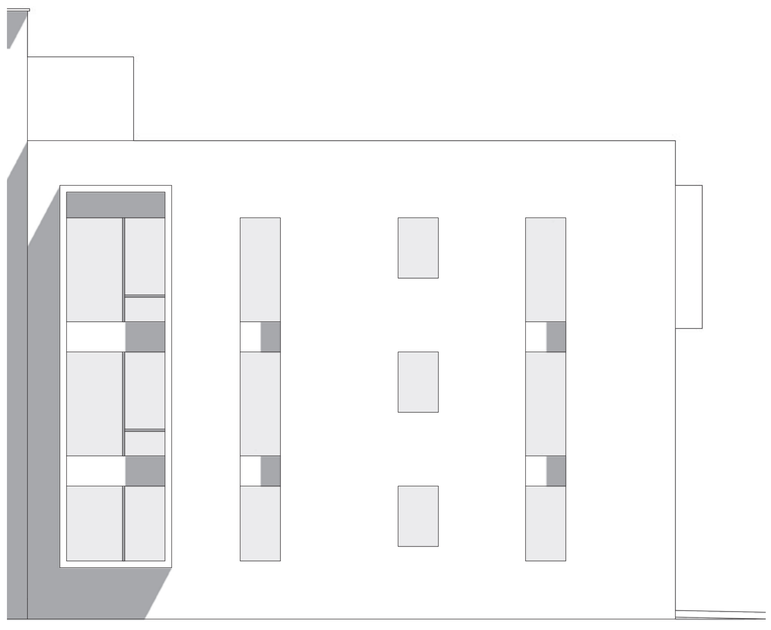
1 5 THORNTON EAST ELEVATION

SCALE: 3/16"=1'-0"



2 5 THORNTON NORTH ELEVATION

SCALE: 3/16"=1'-0"



3 5 THORNTON SOUTH ELEVATION

SCALE: 3/16"=1'-0"

DELANO
ARCHITECTURE
111 Elm Street, Saco, ME 04072
207-494-9035

REV	DATE	DESCRIPTION	APP
-	-	-	-

Thornton Ave.

5 + 9 Thornton Avenue, Biddeford Maine 04005

-

August 11, 2025

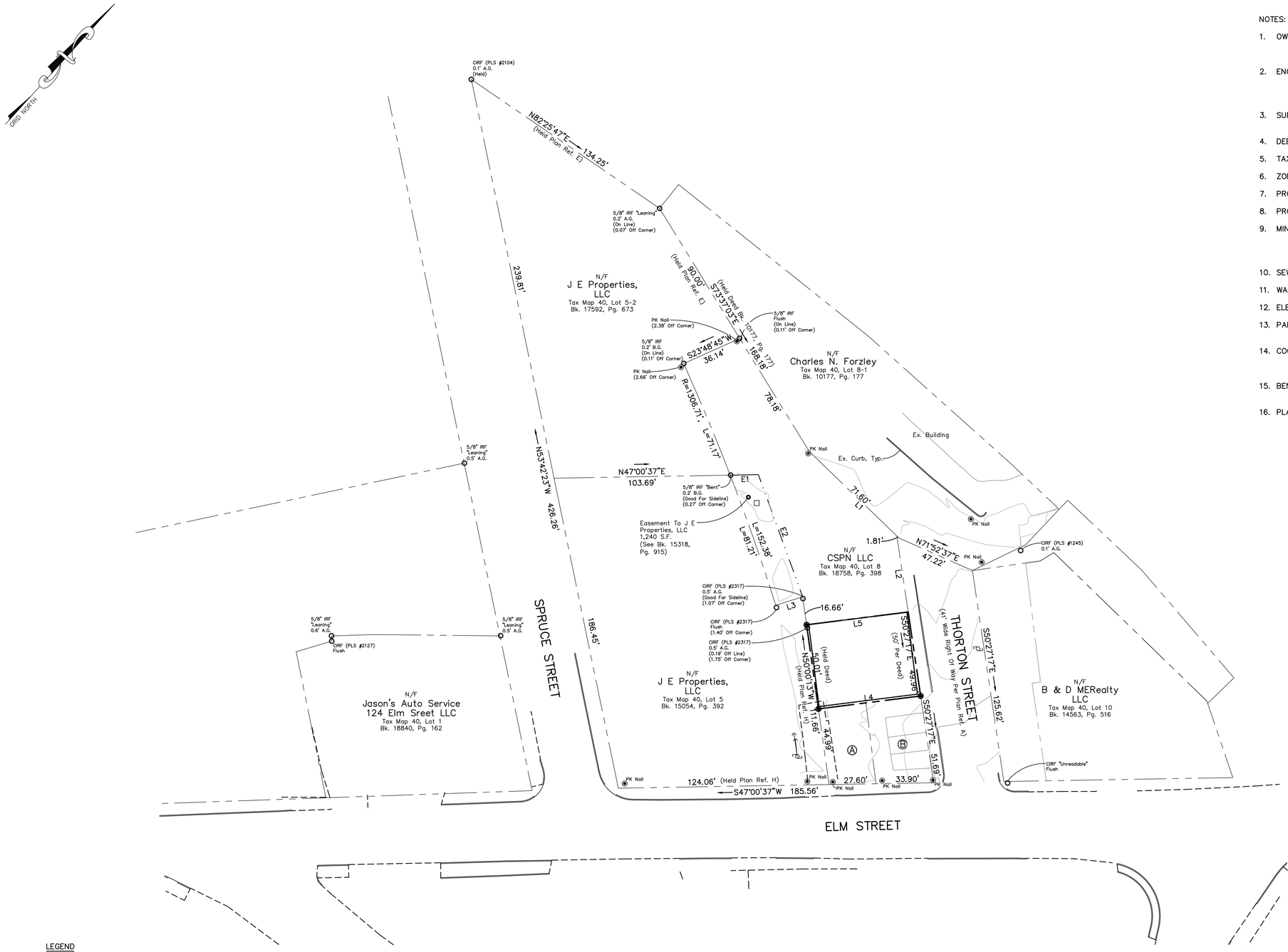
▶Exterior Elevations

DESIGN

-

A2

Attachment 6
Sketch Plan



NOTES:

1. OWNERS/APPLICANT: DIVERSACORP HOLDINGS, LLC
5 STONE PONY CIRCLE
SACO, MAINE
2. ENGINEER: AUSTIN FAGAN, PE#16523
BH2M
380B MAIN STREET
GORHAM, ME 04038
3. SURVEYOR: ROBERT C. LIBBY JR., PLS #2190
BH2M
4. DEED REFERENCE: BK. 13466, PG. 345
5. TAX MAP REFERENCE: MAP 40, LOT 7
6. ZONING: MSRD3
7. PROJECT AREA: 3,021 S.F.
8. PROPOSED USE: 9 UNIT CONDOMINIUM
9. MINIMUM STANDARDS: MIN. LOT SIZE/S.F PER UNIT - NONE
MIN. FRONTAGE - NONE
MIN. SETBACKS - NONE
MAX. BUILDING HEIGHT - NONE
10. SEWER SERVICE: PUBLIC
11. WATER SERVICE: PUBLIC
12. ELECTRIC/TELEPHONE: UNDERGROUND
13. PARKING: REQUIRED - 18 (2 PER UNIT)
PROPOSED - 18 (17 GARAGE, 1 ADA ONSITE)
14. COORDINATES: BEARINGS REFER TO GRID NORTH (NAD83), MAINE STATE PLANE COORDINATES ME W-1802.
15. BENCHMARK: NAIL SET IN UTILITY POLE #5
EL. 55.18
16. PLAN REFERENCES:
A. STATE OF MAINE, RIGHT OF WAY MAP, STATE HIGHWAY "1"", DATED JANUARY 1984, D.O.T. FILE NUMBER 16-283.
B. "STATE OF MAINE, RIGHT OF WAY MAP, STATE HIGHWAY "1"", DATED FEBRUARY 1977, D.O.T. FILE NUMBER 16-229.
C. "A STANDARD BOUNDARY SURVEY & EXISTING CONDITIONS PLAN FOR DE DONUTS HOLDINGS, LLC", DATED JULY 2000, BY JOHN E. PERRY PLS AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 265, PAGE 9.
D. "BOUNDARY SURVEY OF THORTON STREET PROPERTY", DATED JULY 2021, FOR CSPN, LLC, BY ST. CLAIR ASSOCIATES, PROJECT NUMBER 21056.
E. "FINAL SITE PLAN, RICKI'S AUTO REPAIR, SPRUCE STREET, BIDDEFORD, MAINE", DATED JANUARY 2004, BY PAUL P. GADBOIS, JOB NUMBER 1062.
F. "LAND IN BIDDEFORD, ME. BOSTON AND MAINE RAILROAD TO WARREN C. THOMPSON", DATED OCTOBER 1943 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 38, PAGE 25.
G. "PLAN OF LAND OF LORAINE M. BINETTE", BY DESROBERTS ENGINEERING CORP. AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 46, PAGE 40.
H. "LAND IN BIDDEFORD, MAINE, BOSTON AND MAINE RAILROAD TO ELMER REALTY CORP.", DATED DECEMBER 1961, BY GORDON AINSWORTH, PROVIDED BY THE CITY OF BIDDEFORD.

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

LEGEND

SYMBOL	DESCRIPTION
●	CAPPED IRON ROD TO BE SET
◉PK Nail	PK/MAGNETIC NAIL FOUND
○ IRF/IRF	IRON ROD/PIPE FOUND
○ CIRF	CAPPED IRON ROD FOUND
A.G./B.G.	ABOVE GRADE/BELOW GRADE
N/F	NOW OR FORMERLY
(10.00)	EXISTING SPOT GRADE
□	CATCH BASIN
— — —	SETBACK LINE
———	PROPERTY LINE
———	ABUTTER PROPERTY LINE
- - - - - -	EXISTING EDGE OF PAVEMENT

ABUTTER'S LIST

SYMBOL	OWNER	TAX MAP/ LOT	BOOK/PAGE
Ⓐ	110 ELM STREET, LLC	TAX MAP 40, LOT 6-1	BK. 18909, PG. 117
Ⓑ	WARREN VANCE & MICHELLE POIRIER VANCE	TAX MAP 40, LOT 6	BK. 16819, PG. 639

Scale: 1" = 30'
30' 0 30' 60'

EASEMENT LINE DATA:
E1 – N47°00'37"E 16.60' (Held Bk. 15318, Pg. 915)
E2 – S61°54'44"E 76.51' (73'± Per Bk. 15318, Pg. 915)

LINE DATA:
L1 – S88°00'21"E 73.41'
L2 – S50°27'17"E 45.28'
L3 – S30°29'37"W 16.60'
L4 – S40°45'47"W 60.63' (59.29' Per Deed)
L5 – N40°48'47"E 60.24' (60' Per Deed)

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
Diversacorp Holdings, LLC
5 Stone Pony Circle
Saco, Maine 04072

SKETCH PLAN
5 THORNTON STREET
5 THORTON STREET
BIDDEFORD, MAINE

DESIGNED	DATE
A. Fagan	April 2025
DRAWN	SCALE
Dept.	1" = 30'
CHECKED	JOB. NO.
A. Fagan	25057

SHEET
1

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BH2M

Civil Engineering | Surveying

August 12, 2025

David Galbraith
City Planner
205 Main Street
Biddeford, ME 04005

Re: Sketch Plan Application
18-Unit Condominium
9 Thornton Street

Dear David;

On behalf of the applicant, Diversa-Kerr Development, LLC, we are submitting a Sketch Plan Application for an 18-unit condominium at 9 Thornton Street. In support of the application, we have enclosed 7 copies of the proposed sketch plan and supporting documents.

- Sketch Plan Application
- Attachment 1 – Figures (Tax Map, FEMA, and Soils)
- Attachment 2 – Purchase & Sale Agreement
- Attachment 3 – Abutter List
- Attachment 4 – Site Photos
- Attachment 5 – Architectural Plans – Delano Architecture
- Attachment 4 – Sketch Plan

The project will consist of an 18-unit multifamily condominium. Parking for the proposed units is intended to be in the Pearl Street parking garage that is approximately 875' away from the property along existing sidewalks.

The project parcel is currently mostly impervious with the presence of an existing two-story building that has been vacant for some time now. The parcel is served by public water, sewer, and stormdrain utilities.

We are requesting a sketch plan review for this project to get comments from City staff and the planning board ahead of completing a full design of the proposed building.

If you need any additional information or have any questions, please contact me at afagan@bh2m.com. We look forward to working with the city on this project.

Sincerely,



Austin Fagan
Project Engineer

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

__ Shoreland Zoning Permit | X Site Plan Review (Please include checklist) | __ Extraction
__ Conditional Use Permit | X Subdivision (Please include Checklist) | __ Private Way
__ Other: _____

Applicant Information:

Name: Diversa-Kerr Development, LLC
Mailing Address: 5 Stone Pony Circle, Saco, Maine, 04072
Telephone: _____
Email: natelibbysmasonry@yahoo.com
What is your legal interest in the property?
X Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: _____
Mailing Address: _____
Telephone: _____
Email: _____

Agent's Information:

Name: Austin Fagan, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Engineer/Surveyor's Information:

Name: Austin Fagan, P.E #16523, BH2M
Mailing Address: BH2M, 380B Main Street, Gorham, Maine 04038
Telephone: 207-839-2771 ext. 207
Email: afagan@bh2m.com

Project Location and Lot Information:

Street Address: 5 Thornton Street Drainage Watershed: Saco River
Tax Map: 40 Lot: 8
Current Zoning: MSRD3 Shoreland Zoning: N/A
Size of Lot: 9,897 ( )acres (X)s.f. Lot Frontage: 45.28'
Existing Use of Property: The property currently has a vacant two story building.

Property currently serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Slope Conditions in Area of Construction (if applicable):

X Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? __ (Yes) X (No) if yes attach information
Is the project within the 100-year floodplain? __ (Yes) X (No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) X (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

The applicant is proposing a 4 story multi-family residential building with 18 units. Parking for the project is intended to be offsite at the existing Pearl Street parking garage that is approximately 875' away by foot.

Property to be Serviced by:

X City Road X Public Sewer X Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 9,897 ( )acres (X)s.f.
Net change in impervious cover: 0 ( )acres (X)s.f.
Is this project part of a larger project? __(Yes) X(No)
Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) X(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) X(Yes) __(No)
Is the project proposing any Stormwater facilities/BMPs? __(Yes) X(No)
Will a Traffic Movement Permit (TMP) be required?: __(Yes) X(No)

__ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): _____
Percent of structure expansion (Max 30%): _____
X **If Subdivision Review, number of lots proposed:** 18 units
__ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: _____
Total new square feet paving/parking: 1,000 sf

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letters of Approval
__ Fire Department – Contact Chief or Deputy Chief – 282-9986
__ Ability to Serve for Water Service – Maine Water – 282-1543
__ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
__ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
__ Ability to Serve for Electrical Service-CMP-1-866-225-4200
__Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
B. Photographs of Site.
C. Architectural renderings/drawings of proposed buildings, as required.
D. Engineering Plans, as required.
E. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? __(Yes) __(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: Austin g. Fagan - Agent **Date** 8-12-2025

Signature of Property Owner: _____ **Date** _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- All drawings & CAD reference files must be to-scale and within the following coordinate systems:

- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIUDAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

Agent Authorization

Property Description	**Physical Address/ Location**	**9 Thornton Street, Biddeford, Maine**	**Map 40**	
			Lot 8	
Applicant Information	**Name**	**Diversa-Kerr Development LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Owner Information	**Name**	**Diversa-Kerr Development LLC**	**Mailing Address**	**5 Stone Pony Circle, Saco Maine 04072**
	Phone			
	Email	**natelibbymasonry@yahoo.com**		
Applicant's Agent Information	**Name**	**Austin Fagan**	**Business Name**	**BH2M**
	Phone	**(207) 839-2771**	**Mailing Address**	**380B Main Street Gorham, Maine 04038**
	Email	**afagan@bh2m.com**		

The above-listed company/agents may represent me to expedite and complete the approval of the permits/applications required for development for this parcel.

8-7-25

APPLICANT SIGNAURE **DATE**

Nate Libby

PRINTED NAME

CO-APPLICANT SIGNATURE (if applicable) **DATE**

PRINTED NAME

Austin G. Fagan 8-7-2025

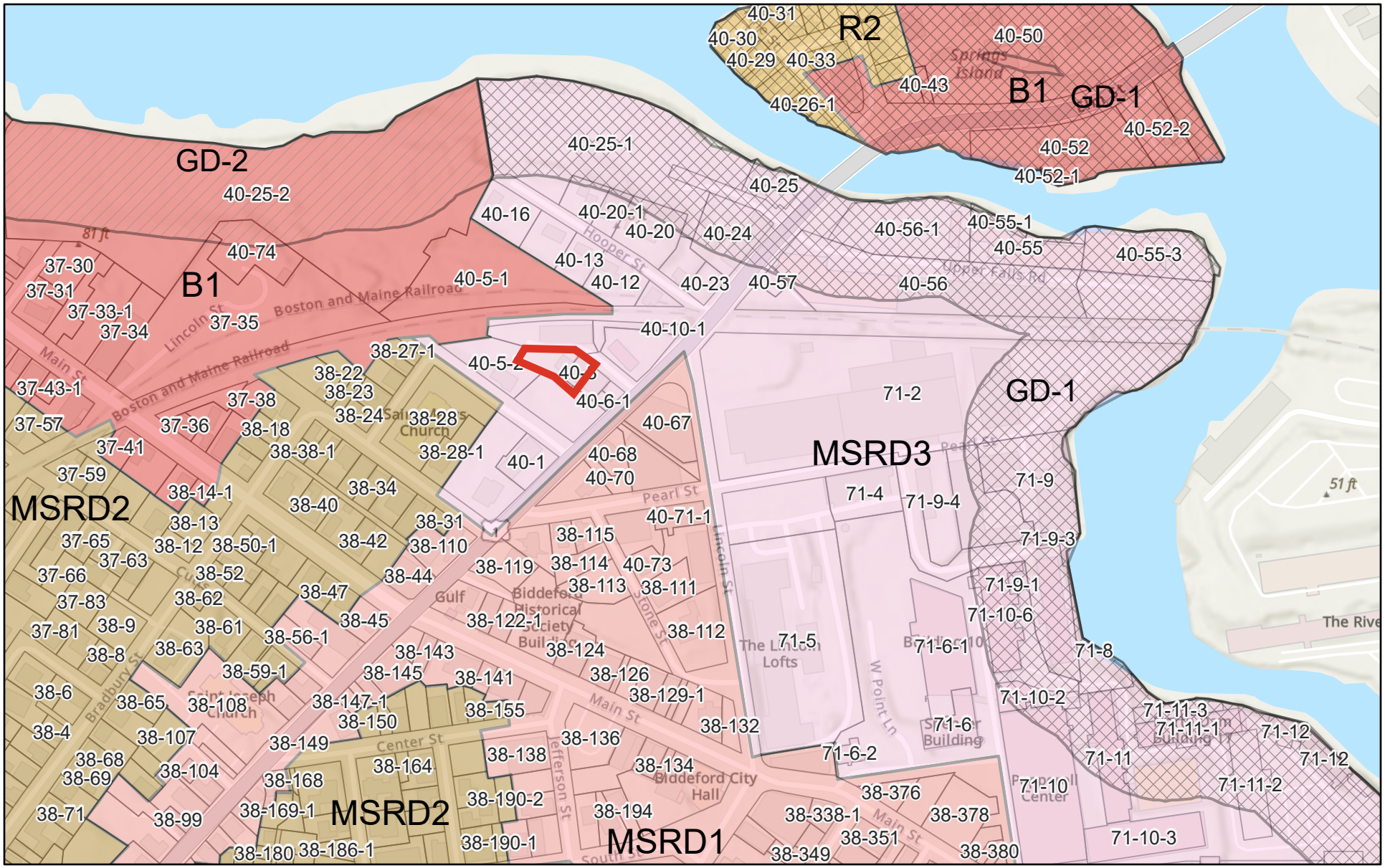
AGENT SIGNATURE **DATE**

Austin G. Fagan

PRINTED NAME

Attachment 1
Figures

1 Biddeford Zoning: Approved 08/20/2024



2/12/2025

1:5,843

0 0.04 0.07 0.14 mi

0 0.05 0.1 0.2 km

Overlay Zones

- GD-1: General Development 1
- GD-2: General Development 2

Zoning

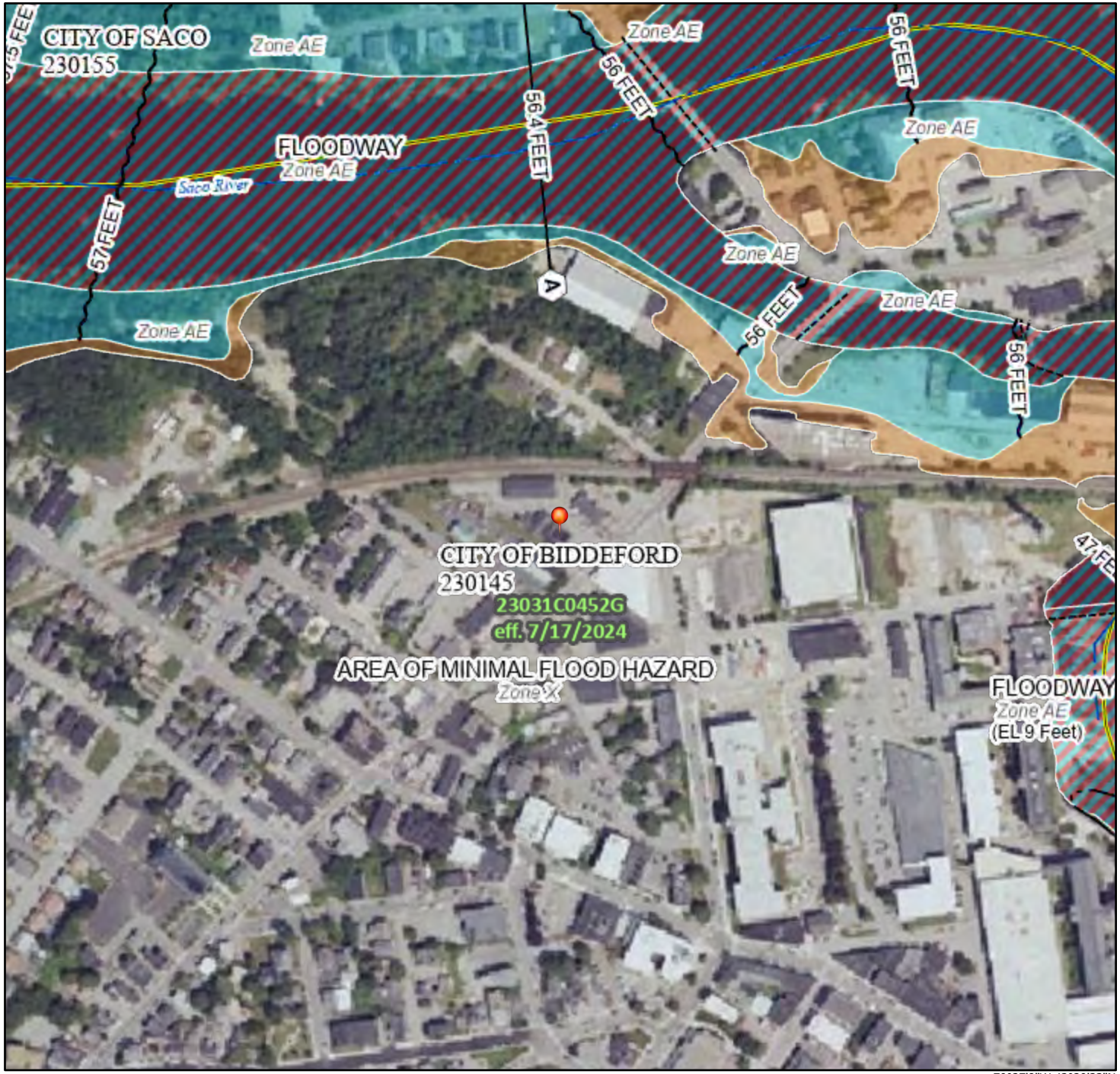
- MSRD2 Residential Conservation
- R2 Multi-Family
- B1 General Business
- MSRD1 Commercial Core
- MSRD3 High Density / Mixed Use
- Parcels_20230900
- World Hillshade

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

National Flood Hazard Layer FIRMette

FEMA

70°27'46"W 43°29'59"N



70°27'8"W 43°29'33"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

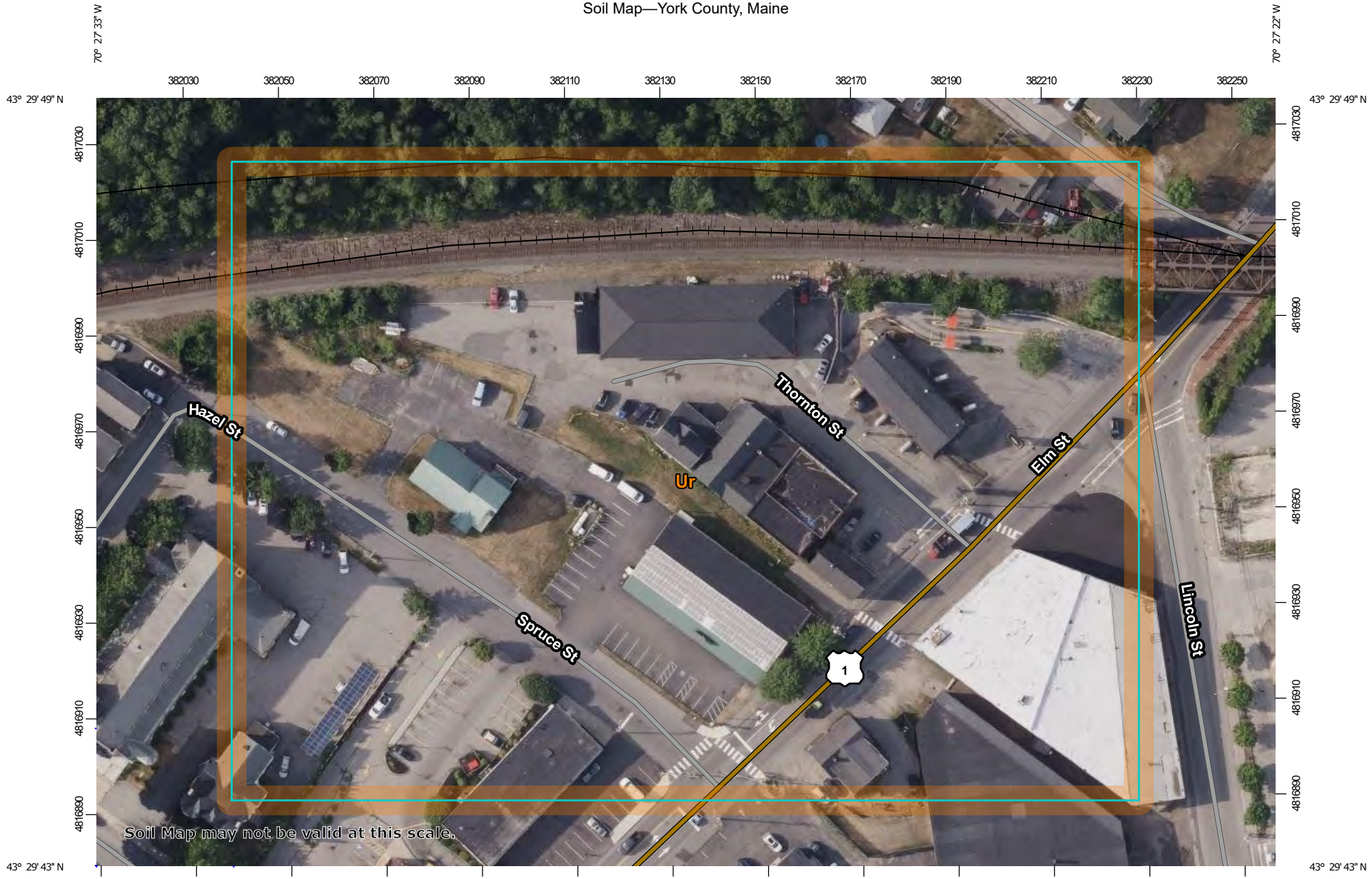
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/7/2025 at 3:16 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: York County, Maine
Survey Area Data: Version 23, Aug 26, 2024

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

Date(s) aerial images were photographed: Mar 1, 2022—Jul 1, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	6.3	100.0%
Totals for Area of Interest		**6.3**	**100.0%**

Attachment 2
Purchase & Sale Agreement

Docusign Envelope ID: 40518F04-E0C7-4C05-9713-1A31C7707183

CCIM Individual Member
Individual Membership

THE BOULOS COMPANY

SIOR Specialist, Industrial and Office Real Estate

One Portland Square, Suite 400 Portland, ME 04101 • 207.772.1333

CONTRACT
FOR THE SALE OF REAL ESTATE

Date: **Monday, May 12, 2025**

RECEIVED OF: **Diverse-Kerr, LLC and/or assigns** whose mailing address is **5 Stone Pony Circle, Saco, Maine 04072** hereinafter called the Purchaser(s), the sum of [redacted] Dollars [redacted] as earnest money deposit and in part payment of the purchase price of the following described real estate, situated in the municipality of **Biddeford**, County of **York**, State of Maine and located at **9 Thornton Street** Being all ☒ part of ☐ (if "part of" see para. 24 for explanation) the property owned by the Seller(s) at the above address, and described at said County's Registry of Deeds Book **13466**, Page **0345** and as shown on municipal tax Map(s) **40** , Lot(s) **7** and further described as: **a .08± acre parcel of land improved with a 8,988± SF three-story commercial building** upon the terms and conditions indicated below:

1. PERSONAL PROPERTY: The following items of personal property are included in this sale (if applicable): **N/A**.
2. PURCHASE PRICE: The TOTAL purchase price being [redacted] Dollars ($ [redacted] to be paid as follows: [redacted] **earnest money deposit to be deposited with Escrow Agent within five (5) business days of Effective Date of this Contract and the balance to be paid via certified funds at closing.**.
3. EARNEST MONEY/ACCEPTANCE: **The Boulos Company** shall hold said earnest money in a non-interest bearing account and act as Escrow Agent until closing; this offer shall be valid until **5/14/2025** at **5:00 (☐ AM ☒PM Eastern Time)**; and, in the event of the Seller's non-acceptance, this earnest money shall be returned promptly to the Purchaser(s). 5/23/2025

Initial M Initial U

4. TITLE: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to the Purchaser(s) and this transaction shall be closed and the Purchaser(s) shall pay the balance due and execute all necessary papers on or before **thirty (30) days from receipt of permits and approvals per Section 23 below**. If Seller(s) is unable to convey in accordance with the provisions of this paragraph, then the Seller(s) shall have a reasonable time period, not to exceed thirty (30) days, from the time the Seller(s) receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is merchantable title, the Purchaser(s) may, within fifteen (15) days thereafter, at Purchaser's option, declare the contract null and void and any earnest money shall be returned to the Purchaser(s) and neither party shall have any further obligation hereunder. If the Purchaser(s) does not declare the contract void within the period set forth above, the Purchaser(s) shall have waived the right to object to title. The Seller(s) hereby agrees to make a good-faith effort to cure any title defect during such period.
5. DEED: That the property shall be conveyed by a **Warranty deed**, and shall be free and clear of all encumbrances except building and zoning restrictions of record, restrictive covenants and conditions of record and usual public utilities servicing the property and shall be subject to applicable land use and building laws and regulations.
6. POSSESSION /OCCUPANCY: Possession/occupancy of premises shall be given to Purchaser(s) immediately at closing, free and clear of any leases, unless otherwise agreed by both parties in writing.
7. ~~LEASES/TENANT SECURITY DEPOSITS: Seller(s) agrees to transfer at closing to Purchaser(s) all Seller(s)' rights under the current leases to the property and all security deposits held by Seller(s) pursuant to said leases.~~
8. RISK OF LOSS: Until the transfer of title, the risk of loss or damage to said premises by fire or otherwise, is assumed by the Seller(s) unless otherwise agreed in writing. Said premises shall then be in substantially the same condition as at present, excepting reasonable use and wear.
9. PRORATIONS: The following items shall be prorated as of the date of closing:
   a. Real Estate Taxes based on the municipality's tax year. Seller is responsible for any unpaid taxes for prior years.
   b. Any other municipal fees, levies or liens;
   c. Fuel
   d. Metered utilities, such as water and sewer, shall be paid by Seller(s) through the date of closing.
   e. Purchaser(s) and Seller(s) shall each pay its transfer tax as required by the State of Maine.

Seller Initial U Purchaser Initial M

10. INSPECTIONS: The Purchaser(s) is encouraged to seek information from professionals regarding any specific issue of concern. Purchaser(s) acknowledges receipt of disclosure form attached hereto. The Licensee makes no warranties regarding the condition, permitted use or value of the Seller's real or personal property. This Contract is subject to the following inspections, with the results being satisfactory to the Purchaser(s):

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED
a. General Building	☒	☐	Within **30** days	g. Lead Paint	☒	☐	Within **30** days
b. Sewage Disposal	☒	☐	Within **30** days	h. Pests	☒	☐	Within **30** days
c. Water Quality	☒	☐	Within **30** days	i. ADA	☒	☐	Within **30** days
d. Radon Air Quality	☒	☐	Within **30** days	j. Wetlands	☒	☐	Within **30** days
e. Radon Water Quality	☒	☐	Within **30** days	k. Environmental Scan	☒	☐	Within **30** days
f. Asbestos Air Quality	☒	☐	Within **30** days	l. **Fill In.**	☐	☐	Within **#** days

The use of days is intended to mean from the effective date of this Contract. All inspections will be done by inspectors chosen and paid for by the Purchaser(s). If the result of any inspection or other condition specified herein is unsatisfactory to the Purchaser(s), in Purchaser(s) sole discretion, Purchaser(s) may declare the Contract null and void by notifying Seller(s) in writing within the specified number of days, and any earnest money shall be returned to the Purchaser(s). If the Purchaser(s) does not notify the Seller(s) that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by the Purchaser(s). In the absence of inspection(s) mentioned above, the Purchaser(s) is relying completely upon Purchaser's own opinion as to the condition of the property.

11. FINANCING: This contract is not subject to financing.
12. AGENCY DISCLOSURE:

Purchaser and Seller acknowledge they have been advised of the following relationships:

Tyler Stewart & Richard Reynolds of **Keller Williams Realty/The Fletcher Group & Home Sweet Maine**
Licensee Agency

is a ☒ Seller Agent ☐ Purchaser Agent ☐ Disc Dual Agent ☐ Transaction Broker

Brice O'Connor of **The Boulos Company**
Licensee Agency

is a ☐ Seller Agent ☒ Purchaser Agent ☐ Disc Dual Agent ☐ Transaction Broker

13. If this transaction involves Disclosed Dual Agency, the Purchaser and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Purchaser and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.
14. DEFAULT: If Purchaser(s) fails to perform any of the terms of this Contract or is otherwise in default of any of its obligations, Seller shall have the option of either retaining the earnest money as full and complete liquidated damages or employing all available legal and equitable remedies. Notwithstanding any other provision of this agreement, Escrow Agent shall have the right to require written releases from both parties prior to releasing the earnest money to either party. If a dispute arises between Purchaser(s) and Seller as to the existence of a default hereunder and/or the release of the earnest money and said dispute is not resolved by the parties within (30) days, Escrow Agent may elect to file an action in interpleader and deposit the earnest money in the court to resolve said dispute, or otherwise disburse the earnest money pursuant to Maine Real Estate Commission regulations. Purchaser(s) and Seller, jointly and severally, shall indemnify Escrow Agent for all costs, losses, expenses, and damages, including reasonable attorneys' fees, incurred by Escrow Agent in connection with said action and/or in connection with any dispute relating to this Contract and/or the Deposit.
15. MEDIATION: Any dispute or claim arising out of or relating to this Contract or the premises addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the American Arbitration Association. This clause shall survive the closing of this transaction.
16. PRIOR STATEMENTS: Any verbal representations, statements and agreements are not valid unless contained herein. This Contract completely expresses the obligations of the parties. This is a Maine contract and shall be construed according to the laws of Maine.

Initial Seller CL Initial Purchaser M

17. HEIRS/ASSIGNS: This Contract is assignable YES ☒ NO ☐. This Contract shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns (if assignment is allowed by the terms of this Contract), of the respective parties.
18. COUNTERPARTS: This Contract may be signed on any number of identical counterparts, including telefacsimilie copies, with the same binding effect as if the signatures were on one instrument. Original or telefacsimilied signatures are binding.
19. EFFECTIVE DATE: This Contract is a binding contract when signed by both Seller and Purchaser and when that fact has been communicated to all parties or to their agents. Time is of the essence of this Contract. Seller or Licensees are given permission by the parties to complete the Effective Date blank below with the date of the last signature of the parties, and that date shall be the Effective Date for all purposes under this Contract, and if that blank is not completed, then the Effective Date shall be the date of the last signature of the parties. Except as expressly set forth to the contrary, in this Contract, the use of the term "days" in this Contract, including all addenda made a part hereof, shall mean calendar days. Deadlines in this Contract, including all addenda, expressed as "within x days" or the like shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 pm, Eastern Time, on the last day counted.
20. BINDING CONTRACT: This Contract is a binding contract when signed by both Seller(s) and Purchaser(s) and when that fact has been communicated to all parties or to their agents. The Effective Date of the Contract is noted below. Time is of the essence of this Contract.
21. REVIEW OF LEASES AND INCOME AND EXPENSE INFORMATION: The Seller(s) shall provide the Purchaser(s) with copies of all leases and income & expense information regarding the subject property within **five** (**5**) from the effective date of this Contract. Purchaser shall have **ten** (**10**) days from such delivery to review leases and income & expense information regarding the property. If the result of the review is unsatisfactory to the Purchaser(s), in Purchaser(s) sole discretion, Purchaser(s) may declare the Contract null and void by notifying the Seller(s) in writing within the specified number of days set forth above, and any earnest money shall be returned to the Purchaser(s). If the Purchaser(s) does not notify the Seller(s) that the review is unsatisfactory within the time period set forth above, this contingency is waived by the Purchaser(s).
22. Seller(s) and Purchaser(s) acknowledge receipt of the Maine Real Estate Commission Disclosure of Agency Relationship Form (Form #2), *if the property is, or has a component of, one to four residential dwelling units*.
23. PERMITS AND APPROVALS: This Contract shall be contingent upon Purchaser obtaining all permits and approvals required by any governmental entity necessary for Purchaser's intended redevelopment. This contingency shall extend past the general inspections period referenced above, with a closing date to be scheduled on or before thirty (30) days from Purchaser's receipt of all necessary and unappealable permits and approvals. In the event Purchaser is unable to obtain all necessary permits and approvals, to Purchaser's sole satisfaction, Purchaser may declare the Contract null and void by notifying Seller in writing, and any earnest money shall be returned to the Purchaser.
24. ADDENDA: This Contract has addenda containing additional terms and conditions YES ☐ NO ☒

A COPY OF THIS CONTRACT IS TO BE RECEIVED BY ALL PARTIES AND, BY SIGNATURE, RECEIPT OF A COPY IS HEREBY ACKNOWLEDGED. IF NOT FULLY UNDERSTOOD CONSULT AN ATTORNEY.

Seller(s) acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2 ½% of the consideration unless the Seller(s) furnishes to the Buyer(s) a certificate by the Seller(s) stating, under penalty of perjury, that Seller(s) is/are a resident of Maine or the transfer is otherwise exempt from withholding.

managing partner

By: _____ Nate Libby

Legal Name of Purchaser

Signed by: Nate Libby 82C70A3D6F7F4B9...

Signature

Nate Libby

Name/Title, there unto duly authorized

Seller Initial _____ Purchaser Initial _____

Docusign Envelope ID: 40518F04-E0C7-4C05-9713-1A31C7707183

_____
Legal Name of Purchaser

By: _____ _____
Signature Name/Title, there unto duly authorized

The Seller(s) accepts the offer and agrees to deliver the above-mentioned property at the price and upon the terms and conditions set forth above and agrees to pay the **Purchaser Agent a brokerage commission equal to: 3% of the Purchase Price, to be paid 100% at closing.** The obligation to pay said commission or sum shall survive the closing of this transaction. Seller agrees that Agency may apply any deposit(s) received in connection with the sale of the Property toward commissions due and payable under this Agreement. If the earnest money is forfeited by Purchaser(s), it shall be evenly distributed between the Seller's Agent and Seller(s), provided, however, that Seller Agents' portion shall not exceed the full amount of the commission specified. In the event the Seller(s) defaults on its obligations hereunder, The Boulos Company shall be entitled to enforce the provisions of this Contract and be entitled to it's costs of collection, including reasonable attorneys' fees.

Signed this: _____ day of _____, _____. Effective date of Contract: 22.00 , day of may, 2,025.00

The Listing Licensee is **Tyler Stewart & Richard Reynolds** of **Keller Williams Realty** (Company).
The Selling Licensee is **Brice O'Connor** of **The Boulos Company** (Company).

CSPN LLC
_____
Signed by:
CSPN LLC
76D250912AFF47C...
Seller

By: _____ Steve Cheung
Signature Name/Title, there unto duly authorized

_____
Seller

By: _____ _____
Signature Name/Title, there unto duly authorized

Seller Initial CL Purchaser Initial M

NANCY E HAMMOND, REGISTER OF DEEDS
E-RECORDED **Bk 18758 PG 398**
Instr # 2021045109
08/04/2021 10:21:32 AM
Pages 2 YORK CO

DLN: 1002140156424

QUITCLAIM DEED WITH COVENANT

THAT **Robert Boucher and Nelson Boucher, d/b/a Nelson & Robert Boucher Leasing Company** of Biddeford, County of York, and State of Maine, whose mailing address is 9 Thornton Street, Biddeford, ME 04005,

For Consideration Paid, GRANT with QUITCLAIM COVENANT to:

CSPN LLC, a Maine Limited Liability Company, with a principal place of business in the City of Biddeford, County of York and State of Maine, and mailing address of P.O. Box 532, Biddeford, ME 04005,

A certain lot or parcel of land with the buildings and improvements thereon, situated in the City of **Biddeford**, County of **York** and State of Maine, bounded and described in Exhibit A annexed hereto and made a part hereof.

Being the same premises conveyed to Grantors herein by deed of Theodore Truman and Norma S. Truman, Trustees of The Theodore Truman Trust dated October 13, 2004, and recorded at the **York** County Registry of Deeds in Book 14268, Page 655. Reference is also made to deeds recorded in Book 9795, Page 39 and Book 9796, Page 179.

This conveyance is made SUBJECT to the current real estate taxes to the City of Biddeford, subject to proration at the closing, which the Grantee herein by its acceptance of this deed hereby assumes and agrees to pay.

Maine R.E. Transfer Tax Paid

WITNESS our hands this 31st day of August, 2021.

Robert Boucher

Nelson Boucher

STATE OF ME
Cumberland SS.

Date: August 3, 2021

Then personally appeared the above-named Robert Boucher and Nelson Boucher, as aforesaid and acknowledged the foregoing instrument to be their free act and deed.

Before me,

KRISTIN L. REYNOLDS
NOTARY PUBLIC - State of Maine
My Commission Expires
November 14, 2025

Maine Attorney at Law/Notary Public
My Commission Expires:

EXHIBIT A

A certain lot or parcel of land, together with the improvements thereon, situated in the City of Biddeford, County of York and State of Maine, and described as follows:

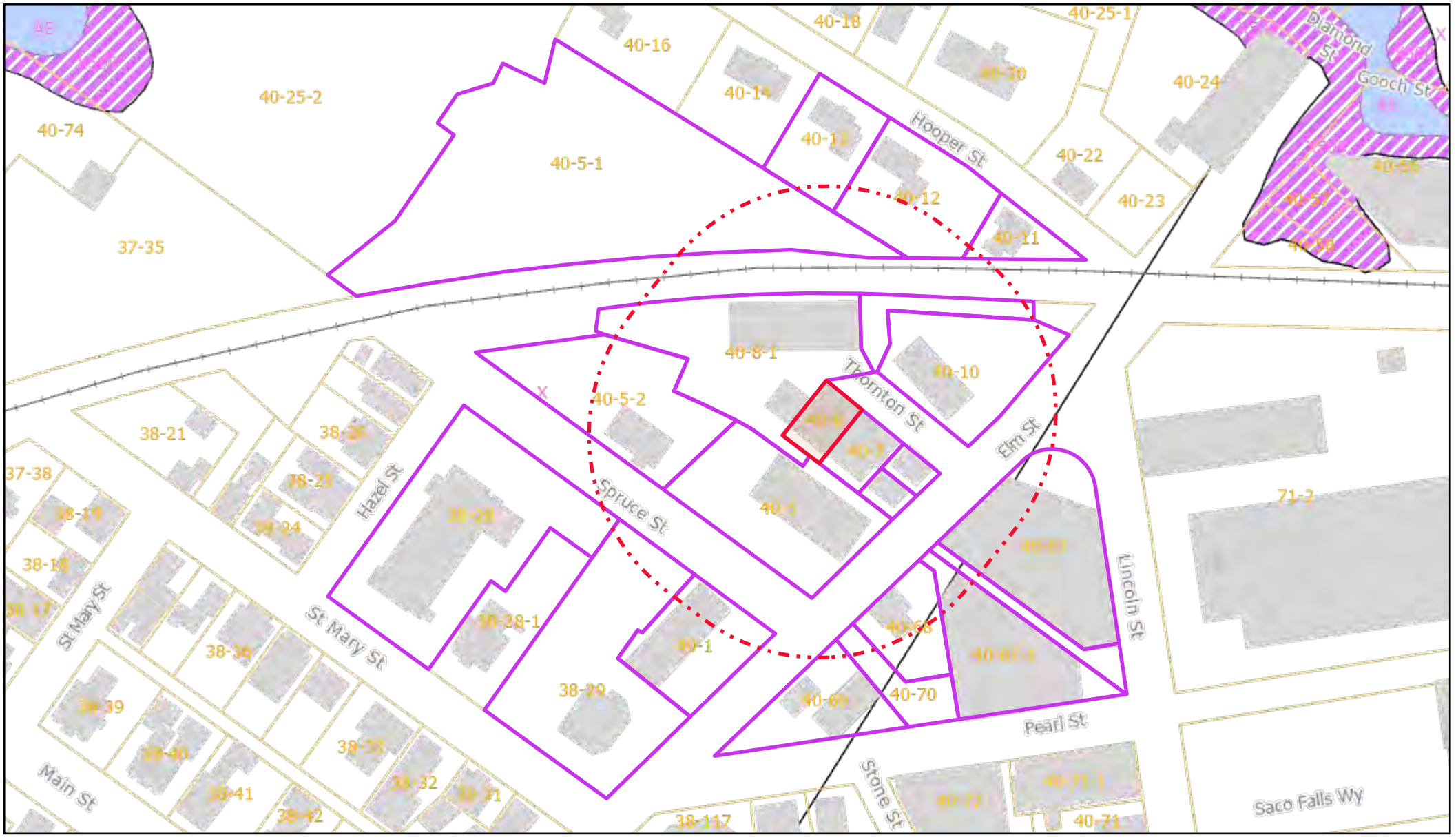
Beginning on the Westerly side of Thornton Street bounded southerly by the land now or formerly of Armour, Westerly and Northerly by land of the Boston and Maine Railroad, and Easterly by Thornton Street, being the same premises conveyed by Samuel Hobbs to John M. Deering and Gilman N. Deering by deed dated November 8, 1881, and recorded at the York County Registry of Deeds in Book 383, Page 506, except so much thereof as was conveyed by John M. and Gilman N. Deering to the Boston and Maine Railroad by deed dated December 23, 1881, and recorded in the York County Registry of Deeds in Book 386, Page 128.

Together with all buildings and improvements located thereon and all appurtenances and rights thereto; and further, any and all other machinery, equipment, furniture, fixtures and personal property situated in said buildings.

Subject to the conditions, restrictions, covenants and easements conveyed in deed from Swift & Company to Plato Truman, James Truman and Theodore Truman, dated February 20, 1970 and recorded in Book 1867, Page 616 of said Registry.

Attachment 3
Abutter List

9 Thornton Abutter



August 11, 2025

Flood Zones
- X500
- AE
- X

Parcels

Road Names

Railroad

Surrounding Towns

Buildings

1:2,257

0 75 150 300 ft

0 20 40 80 m

Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

Data and scale shown on this map are provided for planning and informational purposes.

Powered by Esri Technology

40-6-1
POIRIER, ROLAND & CECILE T
43 SHADAGEE RD
SACO, ME 04072

40-70
ROWELL, LLC
PO BOX 157
SPRINGVALE, ME 04083

40-8
BOUCHER, NELSON & ROBERT...
9 THORNTON ST
BIDDEFORD, ME 04005-2023

40-7
DEVLIN, MARTIN
416 MAIN ST #2
SACO, ME 04072-1523

38-28
BIDDEFORD (ZHONGZHOU) CH...
120 MAIN ST APT 322
SACO, ME 04072

40-5-2
J E PROPERTIES, LLC
2 SPRUCE ST
BIDDEFORD, ME 04005

40-11
TRACY, SUSAN A HALE, SHER ...
3 HOOPER ST
BIDDEFORD, ME 04005

40-5
J E PROPERTIES LLC C/O DUP...
2 SPRUCE ST
BIDDEFORD, ME 04005

40-68
FRECHETTE PROPERTIES, LL...
129 COTTAGE RD
GRAY, ME 04039

40-10
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

40-1
FJH PROPERTIES, LLC
35 CARROLL ST
FALMOUTH, ME 04105

40-10-1
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

40-67-2
PELONE, LLC
419 PRESUMPSCOTT ST
PORTLAND, ME 04103

40-8-1
FORZLEY, CHARLES N
329 STARLIT WAY
MYRTLE BEACH, SC 29579

40-12
TREADWELL, ASHLEY
11 HOOPER ST
BIDDEFORD, ME 04005

40-67-1
PELONE, LLC
419 PRESUMPSCOT ST
PORTLAND, ME 04103

40-6
VANCE, WARREN VANCE, MIC...
PO BOX 661
SACO, ME 04072

40-67
C & T REALTY, LLC
4 INNKEEPER LN
FALMOUTH, ME 04105-2530

40-5-1
BOSTON & MAINE RAILROAD ...
500 WATER ST J-910
JACKSONVILLE, FL 32202

40-10-2
B & D MEREALTY, LLC
172 WORCESTER RD
NATICK, MA 01760

40-69
ROWELL, LLC
PO BOX 157
SPRINGVALE, ME 04083

40-13
WEBB, DOREEN A
15 HOOPER ST
BIDDEFORD, ME 04005-2016

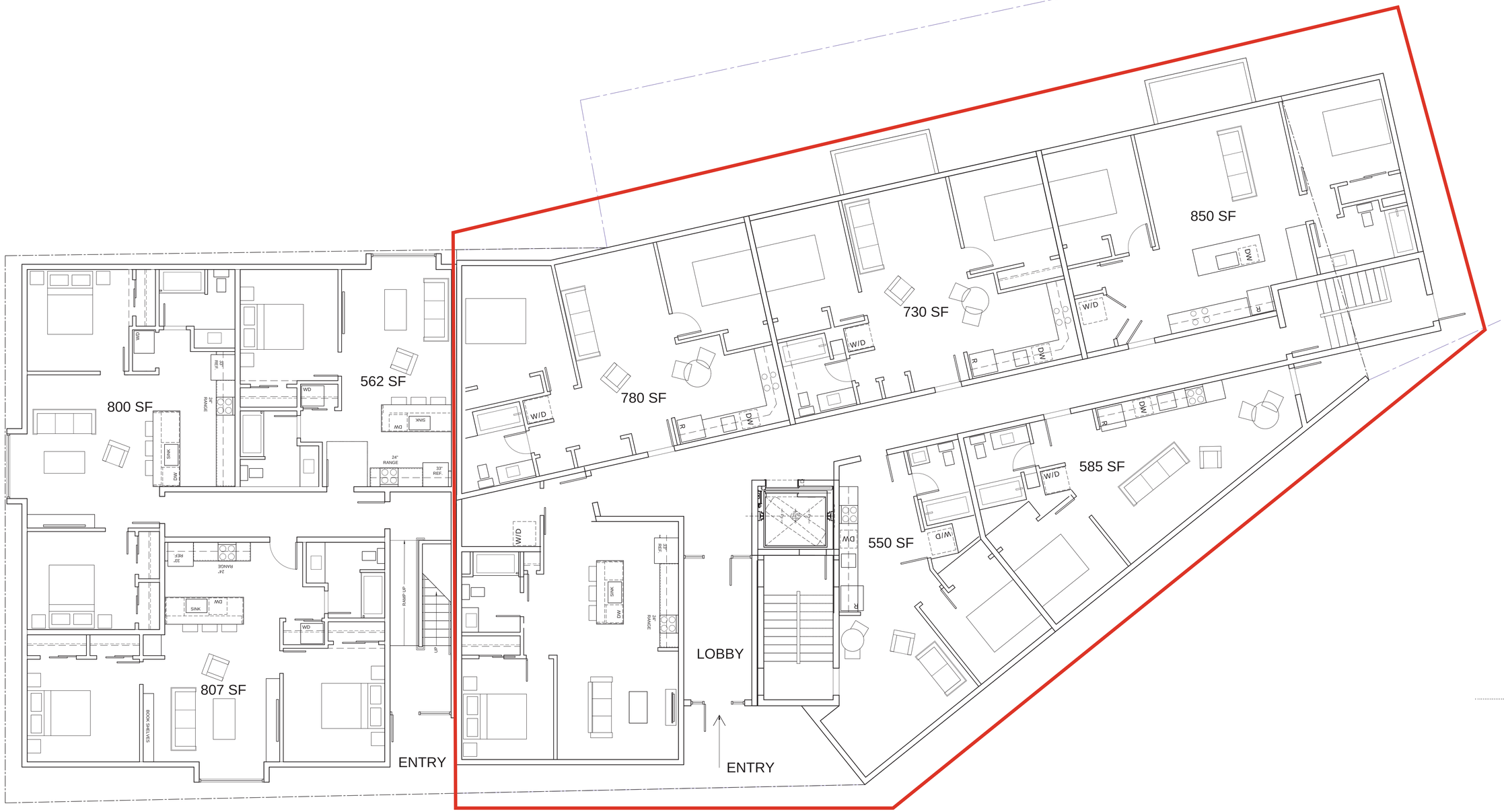
38-29
DE DONUTS HOLDINGS LLC C/...
476 ALFRED ST
BIDDEFORD, ME 04005

Attachment 4
Site Photos


Google Earth
©2025 Google
7.15 ft


Google Earth
©2025 Google
7.43 ft

Attachment 5
Architectural Plans



1 THORNTON AVE. CONDOS

SCALE: 1/8"=1'-0"

DELANO ARCHITECTURE
111 Elm Street, Saco, ME 04072
207-494-9035

REV	DATE	DESCRIPTION	APP
-	-	-	-

Thornton Ave.

5 + 9 Thornton Avenue, Biddeford Maine 04005

-

August 11, 2025

▶First Floor Plan

DESIGN

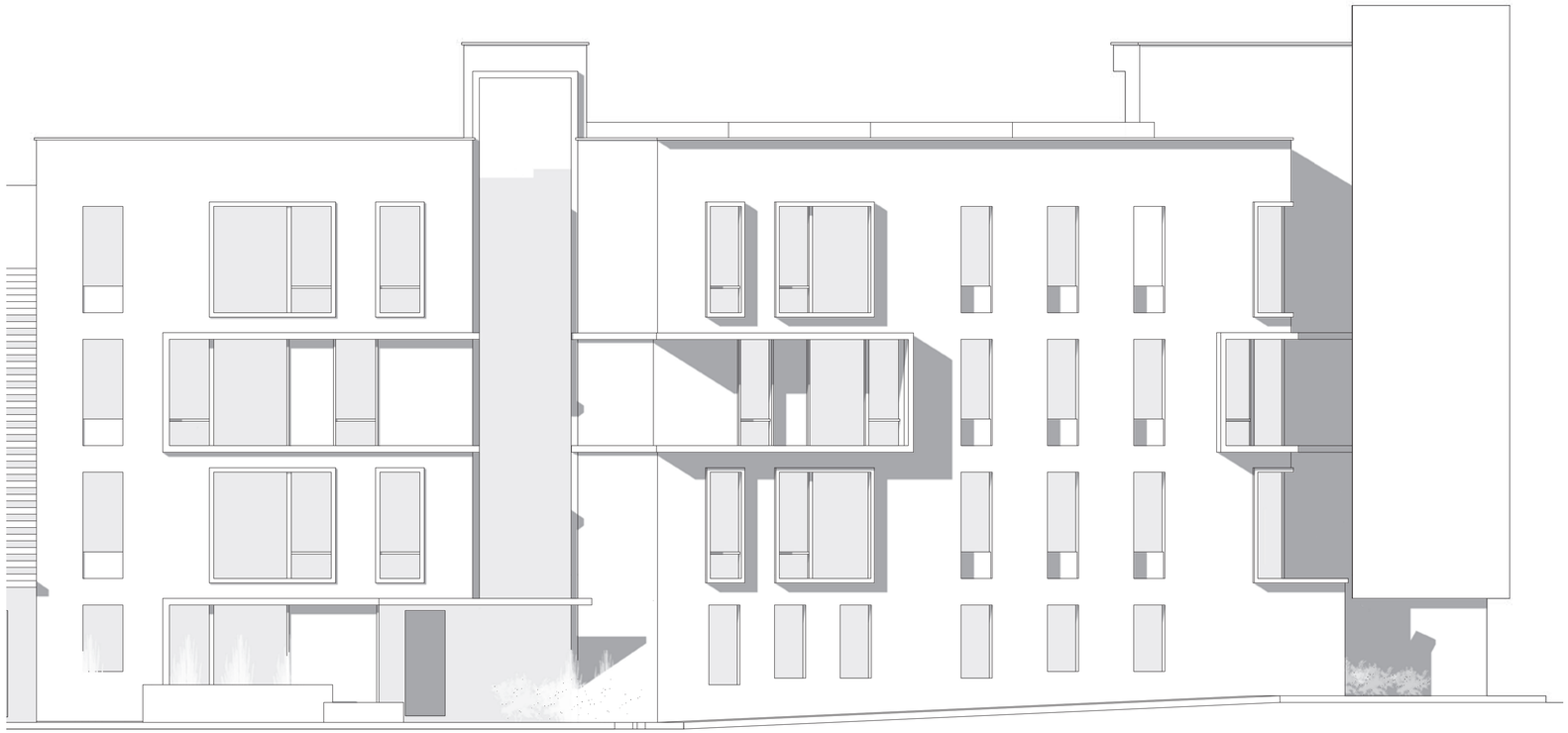
-

A1



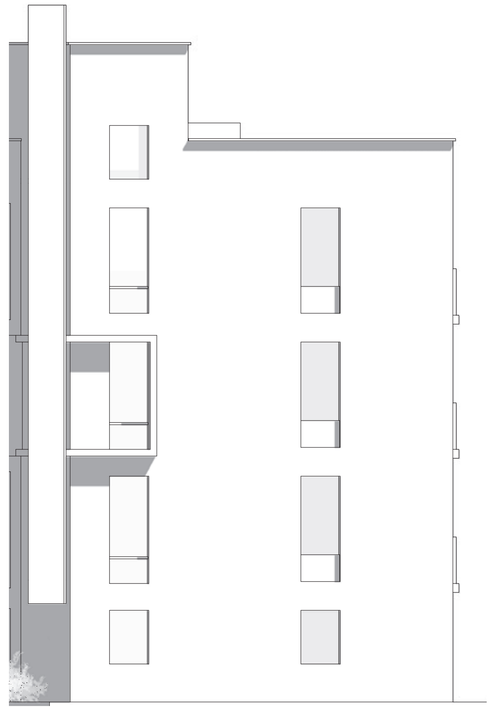
1 9 THORNTON SOUTH ELEVATION

SCALE: 3/16"=1'-0"



2 9 THORNTON NORTH ELEVATION

SCALE: 3/16"=1'-0"



3 9 THORNTON WEST ELEVATION

SCALE: 3/16"=1'-0"

DELANO
ARCHITECTURE
111 Elm Street, Saco, ME 04072
207-494-9035

REV	DATE	DESCRIPTION	APP
-	-	-	-

Thornton Ave.

5 + 9 Thornton Avenue, Biddeford Maine 04005

-

August 11, 2025

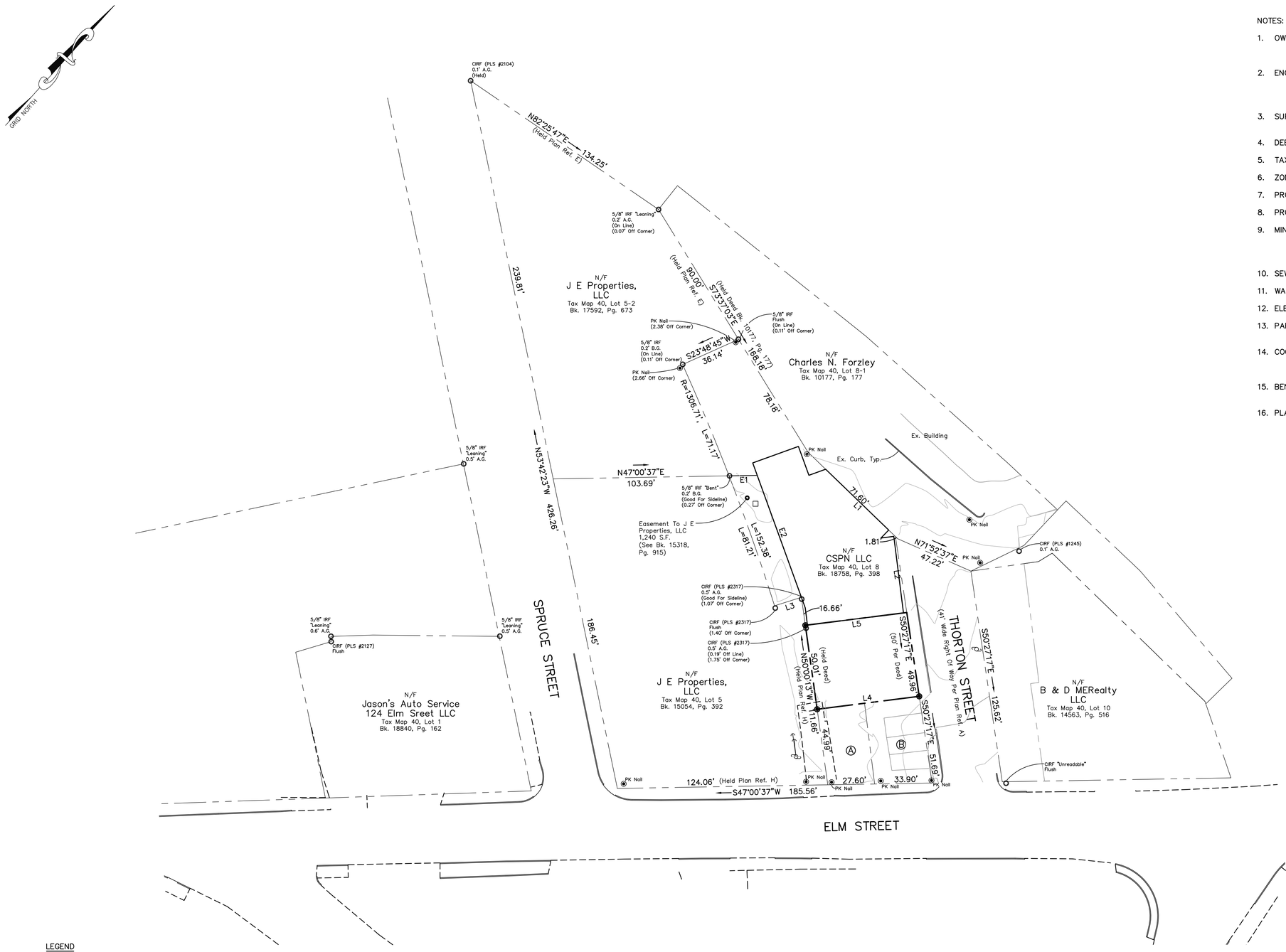
▶Exterior Elevations

DESIGN

-

A3

Attachment 6
Sketch Plan



NOTES:

1. OWNERS/APPLICANT: DIVERSACORP HOLDINGS, LLC
   5 STONE PONY CIRCLE
   SACO, MAINE
2. ENGINEER: AUSTIN FAGAN, PE#16523
   BH2M
   380B MAIN STREET
   GORHAM, ME 04038
3. SURVEYOR: ROBERT C. LIBBY JR., PLS #2190
   BH2M
4. DEED REFERENCE: BK. 18758, PG. 398
5. TAX MAP REFERENCE: MAP 40, LOT 8
6. ZONING: MSRD3
7. PROJECT AREA: 9,897 S.F.
8. PROPOSED USE: 18 UNIT CONDOMINIUM
9. MINIMUM STANDARDS: MIN. LOT SIZE/S.F PER UNIT - NONE
   MIN. FRONTAGE - NONE
   MIN. SETBACKS - NONE
   MAX. BUILDING HEIGHT - NONE
10. SEWER SERVICE: PUBLIC
11. WATER SERVICE: PUBLIC
12. ELECTRIC/TELEPHONE: UNDERGROUND
13. PARKING: REQUIRED - 36 (2 PER UNIT)
    PROPOSED - 36 (14 GARAGE, 2 ADA ONSITE)
14. COORDINATES: BEARINGS REFER TO GRID NORTH (NAD83), MAINE STATE PLANE COORDINATES ME W-1802.
15. BENCHMARK: NAIL SET IN UTILITY POLE #5
    EL. 55.18
16. PLAN REFERENCES:
    A. STATE OF MAINE, RIGHT OF WAY MAP, STATE HIGHWAY "1"", DATED JANUARY 1984, D.O.T. FILE NUMBER 16-283.
    B. "STATE OF MAINE, RIGHT OF WAY MAP, STATE HIGHWAY "1"", DATED FEBRUARY 1977, D.O.T. FILE NUMBER 16-229.
    C. "A STANDARD BOUNDARY SURVEY & EXISTING CONDITIONS PLAN FOR DE DONUTS HOLDINGS, LLC", DATED JULY 2000, BY JOHN E. PERRY PLS AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 265, PAGE 9.
    D. "BOUNDARY SURVEY OF THORTON STREET PROPERTY", DATED JULY 2021, FOR CSPN, LLC, BY ST. CLAIR ASSOCIATES, PROJECT NUMBER 21056.
    E. "FINAL SITE PLAN, RICKI'S AUTO REPAIR, SPRUCE STREET, BIDDEFORD, MAINE", DATED JANUARY 2004, BY PAUL P. GADBOIS, JOB NUMBER 1062.
    F. "LAND IN BIDDEFORD, ME. BOSTON AND MAINE RAILROAD TO WARREN C. THOMPSON", DATED OCTOBER 1943 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 38, PAGE 25.
    G. "PLAN OF LAND OF LORAINE M. BINETTE", BY DESROBERTS ENGINEERING CORP. AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 46, PAGE 40.
    H. "LAND IN BIDDEFORD, MAINE, BOSTON AND MAINE RAILROAD TO ELMER REALTY CORP.", DATED DECEMBER 1961, BY GORDON AINSWORTH, PROVIDED BY THE CITY OF BIDDEFORD.

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

LEGEND

SYMBOL	DESCRIPTION
●	CAPPED IRON ROD TO BE SET
◉PK Nail	PK/MAGNETIC NAIL FOUND
○ IRF/IRF	IRON ROD/PIPE FOUND
○ CIRF	CAPPED IRON ROD FOUND
A.G./B.G.	ABOVE GRADE/BELOW GRADE
N/F	NOW OR FORMERLY
(10.00)	EXISTING SPOT GRADE
□	CATCH BASIN
— — —	SETBACK LINE
———	PROPERTY LINE
———	ABUTTER PROPERTY LINE
- - - - -	EXISTING EDGE OF PAVEMENT

ABUTTER'S LIST

SYMBOL	OWNER	TAX MAP/ LOT	BOOK/PAGE
Ⓐ	110 ELM STREET, LLC	TAX MAP 40, LOT 6-1	BK. 18909, PG. 117
Ⓑ	WARREN VANCE & MICHELLE POIRIER VANCE	TAX MAP 40, LOT 6	BK. 16819, PG. 639

Scale: 1" = 30'
30' 0 30' 60'

EASEMENT LINE DATA:
E1 – N47°00'37"E 16.60' (Held Bk. 15318, Pg. 915)
E2 – S61°54'44"E 76.51' (73'± Per Bk. 15318, Pg. 915)

LINE DATA:
L1 – S88°00'21"E 73.41'
L2 – S50°27'17"E 45.28'
L3 – S30°29'37"W 16.60'
L4 – S40°45'47"W 60.63' (59.29' Per Deed)
L5 – N40°48'47"E 60.24' (60' Per Deed)

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
Diversacorp Holdings, LLC
5 Stone Pony Circle
Saco, Maine 04072

SKETCH PLAN

9 THORNTON STREET

9 THORTON STREET
BIDDEFORD, MAINE

DESIGNED	DATE
A. Fagan	April 2025
DRAWN	SCALE
Dept.	1" = 30'
CHECKED	JOB. NO.
A. Fagan	25057

SHEET
1

REPRODUCTION OR REUSE OF THIS DOCUMENT WITHOUT THE EXPRESSED WRITTEN CONSENT OF BH2M IS PROHIBITED

Adi Iriqat | Assistant Planner
Planning & Development Department

205 Main Street / PO Box 586 • Biddeford, ME
City of Biddeford Government

(207) 571-0700 • www.biddefordmaine.org
@CityofBiddeford

PLANNING BOARD STAFF REPORT

To: Chair Plotkin and Members of the Biddeford Planning Board
From: Adi Iriqat, Assistant City Planner

Date: September 10, 2024

RE: 2025.10_Sketch Site Plan Review for Site Design Associates on behalf of Fiber Materials Inc. (FMI) to expand their current manufacturing. The property is located at 389 Hill Street (Tax Map 74, Lot 7) in the Airport Industrial Zone (I2).

Meeting Date: September 17, 2024

1) Introduction

The applicant, Site Design Associates (SDA), is submitting its application to the City of Biddeford on behalf of Fiber Materials Inc. (FMI). The applicant proposes expanding the existing manufacturing facility located at 389 Hill Street, including building additions, parking reconstruction, and infrastructure upgrades, which will create approximately 80 new jobs in the City of Biddeford.

2) Project Data / Information

1.	Applicant:	Fiber Materials, Inc. 5 Morin Street Biddeford, ME 04005
2.	Owner of Property:	Same as Applicant
3.	Agent:	Tom Saucier, PE, Site Design Associates, Inc. 23 Whitney Way, Topsham, ME 04086
4.	Surveyor:	Same as above
5.	Project Location:	389 Hill Street
6.	Project Tax Map# / Lot#:	Tax Map 74, Lot 7
7.	Lot Size:	14.04 Acres
8.	Base Zoning:	Industrial Manufacturing
9.	Overlay Zoning:	N/A
10.	Existing Use:	1 Industrial Building known as Intermat
11.	Proposed Use:	Building expansion, including parking reconstruction, and infrastructure upgrades.
12.	Approvals Required:	Site Plan Review

2025.10_Sketch Plan Review for Site Design Associates on behalf of Fiber Materials Inc. (FMI) to expand their current manufacturing. The property is located at 389 Hill Street (Tax Map 74, Lot 7) in the Airport Industrial Zone (I2).

13.	Uses in the Vicinity:	Industrial
14.	Waivers Needed:	Article XI, Section 5.B.4.f.1., which prohibits paving, parking, or storage within the required side or rear setbacks.
15.	Waivers Granted:	N/A
16.	Other Non-City Permits Required:	(1) MEDEP Site Location of Development Act, (2) Maine DEP Stormwater Law Permit, (3) U.S. Army Corps of Engineers approval, and (4) Maine Construction General Permit
17.	LDR Attachment A: Fees Paid:	Application Fees Paid
18.	Planning Board Review History:	Sketch Plan: September 17, 2025

3) Existing Conditions

There is an existing industrial building with a one-story manufacturing facility, known as Intermat. The building is situated on a 14± acre lot, of which 5± acres of vegetation will be cleared in favor of 4.4± acres of impervious new area.



Figure 1 the existing conditions on site. Notice the intense vegetation.

2025.10_Sketch Plan Review for Site Design Associates on behalf of Fiber Materials Inc. (FMI) to expand their current manufacturing. The property is located at 389 Hill Street (Tax Map 74, Lot 7) in the Airport Industrial Zone (I2).

4) Project Proposal

The proposed project includes the construction of a building addition and associated support facilities, as well as the reconstruction and expansion of existing parking lots. The improvements will provide a total of 251 parking spaces and modernize critical infrastructure to support facility operations.

Site Access and Circulation

- Two access points will be maintained from Hill Street.
- The southerly access point will be relocated further south to improve traffic flow and site circulation.
- The parking layout will include standard and accessible spaces in compliance with City and ADA requirements.

Utilities and Services

- Water: New domestic and fire protection water services will be installed to serve the addition.
- Electrical: Service will be upgraded with additional transformers to ensure adequate capacity.
- Wastewater: A new gravity sewer line and pump station will serve the facility.
- Loading Facilities: Four loading docks are proposed—two on the north side and two on the east side of the building.

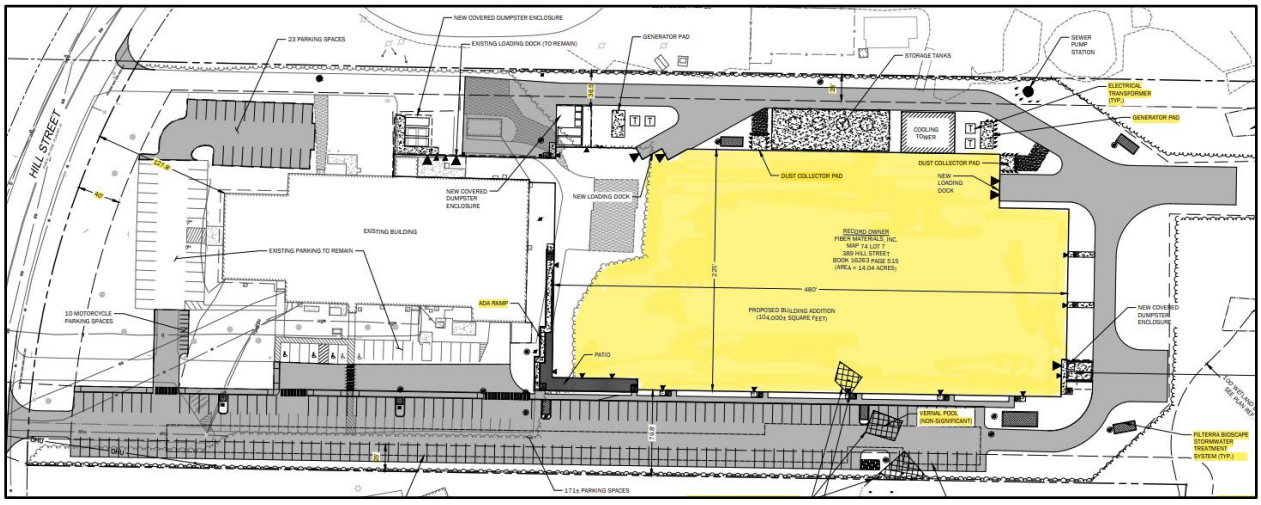


Figure 2 This is the proposed site plan. In yellow, the new building is depicted, along with its associated upgrades, while in gray, the new parking area is shown.

2025.10_Sketch Plan Review for Site Design Associates on behalf of Fiber Materials Inc. (FMI) to expand their current manufacturing. The property is located at 389 Hill Street (Tax Map 74, Lot 7) in the Airport Industrial Zone (I2).

Review Process

Per City ordinance, this application is subject to review and approval by the Planning Board for Site Plan (Land Development Regulations, Article XI).

A. **Engineering Department:** The department's concern at this stage is stormwater management, in which the applicant stated in their application that it will be addressed using best management practices.

B. **Police Department:** No new road names are required for this project.

C. **CMP:** Power currently exists for this project.

Regulatory Approvals

The project requires the following reviews and permits:

- City of Biddeford Site Plan Review (including municipal capacity review for MEDEP Site Location of Development Act)
- Maine DEP Stormwater Law Permit
- U.S. Army Corps of Engineers approval
- Maine Construction General Permit

5) Staff Review

WAIVERS: The project design requires a waiver from Article XI, Section 5.B.4.f.1., which prohibits paving, parking, or storage within the required side or rear setbacks.

- Parking and the northern access drive encroach into the setback.
- Due to the 100-foot wetland buffer on the eastern portion of the property, expansion in that direction is restricted.
- Given the industrial zoning and compatible abutting uses, the applicant respectfully requests Planning Board support for the waiver under Article XI, Section 5.B., which allows for such relief.

6) Sample Motions

This application is before the planning board for a sketch review, which does not require a vote.

Site Design Associates
Consulting Engineering and Land Planning

August 7, 2025

David Galbraith, City Planner
City of Biddeford
P.O. Box 586
205 Main Street
Biddeford, ME 04005

RE: Fiber Materials Inc. (FMI) – Intermat Expansion
389 Hill Street
Parcel 74-7

Dear David and Planning Board Members:

On behalf of Fiber Materials Inc., Site Design Associates is pleased to submit the enclosed plans and documentation in support of a request for preliminary planning board review and informational discussion per Article XI-II.1.B. of the land use code for a proposed approximately 104,000 s.f. addition to an existing manufacturing facility at 389 Hill Street. The project site is located in the Airport Industrial Zone (I2) where manufacturing is a permitted use.

We have included the following plans for discussion:

- Boundary and Topographic Survey by Collier Engineering
- Drawing C-100 – Overall Existing Conditions Plan
- Drawing C-200 – Conceptual Site Plan
- Drawing C-201 – Conceptual Site Layout and Utility Plana
- Drawing A-200 – Overall Building Plan
- Drawing A-200 – Exterior Elevations

With facilities in Maine and Rhode Island and over 400 employees, FMI designs, develops, and manufactures composite materials and components that perform in the most demanding applications and the most extreme environments. FMI's core strength is the ability to weave the most intricate fiber reinforcement designs and convert them to products which perform beyond the capabilities of conventional laminate composites, ceramics, and metals. Leveraging these fabrication technologies since 1969, FMI has grown to be the leading supplier of propulsion hot components and thermal protection system materials in the aerospace industry. FMI's products enable the most difficult missions, survive at the most extreme temperatures, and provide the greatest reliability to their customers. FMI proudly serves the U.S. Armed Forces, NASA, and aerospace and industry customers

The proposed expansion will result in increased production and updated technology. Approximately 80 new jobs will be created with employees working on 3 shifts.

23 Whitney Way – Topsham, Maine 04086
Phone: (207) 449-4275 email: info@sitedesignassociates.biz

The project will be located on the 14.04 acre site located on Hill Street. Approximately 5± acres of wooded area will be cleared, and 4.4± acres of new impervious area created.

The plans for the project currently include the building addition and associated support facilities and reconstruction of the existing parking lots. with construction of new parking to provide a total of 251 parking spaces.. Two access points will be maintained at Hill Street, with the southerly access point relocated to the south. New domestic and fire protection water services will be provided to the addition. Electrical service will be upgraded and additional transformers installed. A new gravity sewer and pump station will serve the facility. Two loading docks will be provided on the north side of the facility and two on the east end.

Stormwater quantity and quality enhancement best management practices will include subsurface and surface detention and treatment systems.

Regulatory approvals required are:

- City Site Plan Review (Includes municipal capacity for MEDEP Site Location of Development Act)
- MEDEP Stormwater Law
- Army Corps of Engineers
- Maine Construction General Permit

As previously discussed with city staff, a waiver of Article XI, II. section 5.B.4.f.1., which prohibits paving, parking, or storage within the required setback of any side or rear property line will be required to accommodate the project. The parking and drive to the north shown on the plan do not meet this requirement. Based on Article XI, section 5.B. it appears this is waivable. The 100 ft buffer provided for the wetland to the east limits our expansion in that direction. Therefore, it is necessary to encroach into the setbacks with the parking and the access drive. Given the industrial zoning and uses of the abutting properties, we are in hopes that the planning board will support this waiver.

Please let me know if staff has any questions, comments, or suggestions relative to this proposal. We look forward to meeting with the Planning Board at the next available meeting to discuss this project. to discuss this project.

Sincerely,
Site Design Associates



Tom Saucier, P.E.
President

cc: David Arnst, FMI, Manager Industrial Engineering and Facilities

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

__ Shoreland Zoning Permit __ Site Plan Review (Please include checklist) __ Extraction
__ Conditional Use Permit __ Subdivision (Please include Checklist) __ Private Way
_x_ Other: Sketch Plan

Applicant Information:

Name: Fiber Materials, Inc.
Mailing Address: 5 Morin Street, Biddeford, ME
Telephone: 207-282-5911
Email: darnst@fibermaterialsinc.com
What is your legal interest in the property?
_X_ Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: Same as Applicant above.
Mailing Address:
Telephone:
Email:

Agent's Information:

Name: Tom Saucier, PE, Site Design Associates, Inc.
Mailing Address: 23 Whitney Way, Topsham, ME 04086
Telephone: 207-449-4275
Email:

Engineer/Surveyor's Information:

Name: Tom Saucier, PE, Site Design Associates, Inc.
Mailing Address: 23 Whitney Way, Topsham, ME 04086
Telephone: 207-449-4275
Email: tsaucier@sitedesignassociates.biz

Project Location and Lot Information:

Street Address: 389 Hill Street Drainage Watershed: Thatcher Brook
Tax Map: 74 Lot: 7
Current Zoning: I-2 Shoreland Zoning: n/a
Size of Lot: 14.04 (x)acres ( )s.f. Lot Frontage: 394 feet
Existing Use of Property: Industrial manufacturing

Property currently serviced by:

_x_ City Road _x_ Public Sewer _x_ Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well _x_ Private Hauler

Slope Conditions in Area of Construction (if applicable):
_x_ Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? _x_ (Yes)__(No) if yes attach information
Is the project within the 100-year floodplain? __ (Yes)_x_ (No) if yes attach information
Do you plan to bring fill onto the lot? _x_ (Yes) __(No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

Building expansion for additional manufacturing capacity and associated infrastructure.

Property to be Serviced by:

x City Road x Public Sewer x Public Water __ Public Trash

__ Private Road __ Septic System __ Private Well x Private Hauler

Limits of Disturbance: 6.4± (x)acres ( )s.f.

Net change in impervious cover: 4.4± (x)acres ( )s.f.

Is this project part of a larger project? __(Yes) x (No)

Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) x (No)

Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) __(Yes) x (No)

Is the project proposing any Stormwater facilities/BMPs? x (Yes) __(No)

Will a Traffic Movement Permit (TMP) be required?: __(Yes) __(No) To be Determined

__ **If in a Shoreland Zone:**

Percent of residential lot coverage (Max 20%): _____

Percent of structure expansion (Max 30%): _____

__ **If Subdivision Review, number of lots proposed:** _____

__ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: 88,900±

Total new square feet paving/parking: 85,400±

Waiver Requests (attach details):

1. Article XI, II. section 5.B.4.f.1., (see cover letter)
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments: To be submitted with formal site plan submission

A. Letters of Approval
   - __ Fire Department – Contact Chief or Deputy Chief – 282-9986
   - __ Ability to Serve for Water Service – Maine Water – 282-1543
   - __ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
   - __ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
   - __ Ability to Serve for Electrical Service-CMP-1-866-225-4200
   - __Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.

B. Photographs of Site.

C. Architectural renderings/drawings of proposed buildings, as required.

D. Engineering Plans, as required.

E. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? x (Yes) __(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: _____ (Agent) **Date** 8/7/2025

Signature of Property Owner: _____ (Agent) **Date** 8/7/2025

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- All drawings & CAD reference files must be to-scale and within the following coordinate systems:

- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIUDAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

08/07/2025

Agent Authorization Letter

Principal
Fiber Materials, Inc.
5 Morin Street, Biddeford, ME 04005
Designated Principal POC: David Arnst
Email: DArnst@fibermaterialsinc.com
Phone: 207-294-7293

Agent
Site Design Associates
23 Whitney Way, Topsham, ME 04086
Designated Agent POC: Tom Saucier
Email: tsaucier@sitedesignassociates.biz
Phone: 207-756-0068

This Letter of Authority ("Agreement") is made between Fiber Materials, Inc. ("Principal"), located at 5 Morin Street, Biddeford, ME 04005, and Site Design Associates ("Agent"), located at 23 Whitney Way, Topsham, ME 04086.

Fiber Materials, Inc. hereby authorizes Site Design Associates to perform all site design and permitting activities related to proposed construction projects at Intermat, located at 389 Hill Street, Biddeford, ME 04005. This includes but is not limited to the scope specified in Section A below.

Section 1: Scope of Authority:

1.A Development and submission of all required documents, forms, and permit applications;

1.B Communication and coordination with federal, state, and local government and regulatory authorities;

1.C Detailed site design and civil engineering documentation;

1.D Representation in interactions with local and state officials regarding

permitting and compliance;

1.E Participation in site planning reviews, meetings, and presentations as required by permitting agencies.

The “Agent” is authorized to represent the “Principal” solely in relation to the scope described above and may act within that scope to fulfill the requirements of related government contract projects. Any action taken beyond the defined scope requires prior written approval from the “Principal”.

Section 2: Agent Authorization Validity

This authority shall commence on June 26, 2025, and remain in effect through December 30, 2027, unless earlier revoked in writing by the “Principal”.

This letter is a copy intended for City of Biddeford recordkeeping

Angela Commeau

Angela Commeau
Fiber Materials, Inc.
Subcontract Administrator

INTERMAT PROPOSED EXPANSION

389 HILL STREET
BIDDEFORD, ME 04005

PREPARED FOR:
FIBER MATERIALS, INC.
5 MORIN STREET
BIDDEFORD, ME 04005

AUGUST 7, 2025
ISSUED FOR SKETCH PLAN

DESIGN CONSULTANTS

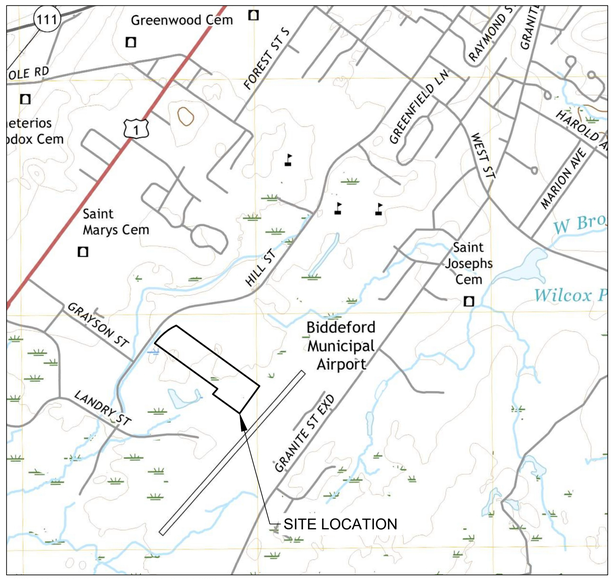
CIVIL ENGINEER
SITE DESIGN ASSOCIATES, INC.
23 WHITNEY WAY
TOPSHAM, ME 04086
207-449-4275

LAND SURVEYOR
COLLIERS ENGINEERING & DESIGN
41 CHURCH ROAD
BRUNSWICK, ME 04011
207-440-3487

WETLAND PROFESSIONAL
BROADWATER ENVIRONMENTAL
18 GRAND STREET
PORTLAND, MAINE 04106
207-653-8737

SITE CONTRACTOR
TO BE DETERMINED

Site Design Associates
Consulting Engineering & Land Planning
23 Whitney Way Topsham, Maine 04086 Tel: (207) 449-4275



USGS BIDDEFORD, MAINE 24K TOPOGRAPHIC MAP, 2021

N

GRAPHIC SCALE
1000 0 500 1000
1 inch = 1000ft.

LIST OF DRAWINGS:

SHEET NO.	SHEET TITLE
	COVER SHEET
	BOUNDARY AND TOPOGRAPHIC SURVEY (2 SHEETS)
C-100	OVERALL EXISTING CONDITIONS PLAN
C-200	CONCEPTUAL SITE PLAN
C-201	CONCEPTUAL SITE LAYOUT AND UTILITY PLAN

GENERAL PROJECT NOTES:

1. THE PROJECT SITE CONTAINS APPROXIMATELY 14.04± ACRES.
2. THE PROJECT SITE IS LOCATED IN THE AIRPORT INDUSTRIAL ZONE (I2) ZONE.
3. THE SITE IS CURRENTLY CONTAINS THE EXISTING INTERMAT MANUFACTURING FACILITY. THE REMAINDER OF THE PARCEL IS PRIMARILY UNDEVELOPED AND FORESTED.
4. THE PROPOSED PROJECT CONSISTS OF CONSTRUCTION A 104,000± SQUARE FOOT BUILDING ADDITION AND ASSOCIATED ACCESS DRIVES, PARKING, UTILITIES, AND SITE AMENITIES.
5. THE PROJECT IS LOCATED IN THE THATCHER BROOK WATERSHED.
6. THE PROJECT SITE IS NOT LOCATED WITHIN THE BIDDEFORD MS4 URBANIZED AREA.
7. THE FOLLOWING NATURAL RESOURCES ARE LOCATED ONSITE:
   7.1. MULTIPLE FRESHWATER WETLANDS (SEE SHEET C-100).
   7.2. MULTIPLE NON-SIGNIFICANT VERNAL POOLS (SEE SHEET E-100).
8. THE PROJECT IS NOT LOCATED WITHIN THE FEMA 100-YEAR FLOODPLAIN.
9. NO PUBLIC OR PRIVATE ROADS ARE PROPOSED FOR THIS PROJECT.
10. THE PROJECT PROPOSES A NEW CONNECTION TO THE PUBLIC SEWER SYSTEM FOR WASTEWATER FROM THE BUILDING ADDITION.
11. NO PUBLIC STORM DRAIN CONNECTIONS ARE PROPOSED FOR THIS PROJECT.
12. THE PROJECT LIMIT OF DISTURBANCE IS APPROXIMATELY 0.89± ACRES.
13. PERVIOUS LAND COVER ONSITE:
    EXISTING: 512,726± SF
    PROPOSED: 322,308± SF
14. IMPERVIOUS LAND COVER ONSITE:
    EXISTING: 98,856± SF
    PROPOSED: 289,274± SF
15. THE FOLLOWING WAIVERS ARE REQUESTED FOR THE PROJECT:
    15.1. WAIVER OF ARTICLE XI, II. SECTION 5.B.4.f.1.: NO PARKING OR STORAGE WITHIN THE REQUIRED SETBACK OF ANY SIDE OR REAR PROPERTY LINE.

PRELIMINARY - NOT FOR CONSTRUCTION

RECORD OWNER:

FIBER MATERIALS, INC.
5 MORIN STREET
BIDDEFORD, ME 04005

PARCEL ID:

TAX MAP 74
LOT 7

LEGEND

- SANITARY MANHOLE
- DRAIN PIPE
- MAJOR CONTOUR
- MINOR CONTOUR
- CHAINLINK FENCE
- PROPERTY LINE
- ABUTTER LINE
- U/G ELECTRIC LINE
- OVERHEAD WIRE
- WATER MAIN
- U/G CABLE TV LINE
- GAS MAIN
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- FOUND IRON PIPE
- FOUND MONUMENT
- TREE
- UTILITY POLE
- LIGHT POLE
- WATER SERVICE BOX
- WATER VALVE
- HYDRANT
- SIGN
- BOLLARD (POST)

N / E / S / W / NORTH

HILL STREET
(PUBLIC - 80' WIDE - PLAN REF. D)

SMH PT#12018
RIM=162.22'
SHELF=158.1'
INV. A: 6" PVC= 157.8'
INV. B: 6" PVC= 157.7'

N/F
CITY OF BIDDEFORD
MAP 3, LOT 66
371 HILL STREET
BOOK 3502, PAGE 10

FOUND 5/8" REBAR
6" ABOVE GRADE,
LOCATED AT BASE
(HELD)

HELD INTERIOR ANGLE
PER PLAN REF. A

S 53°46'30" E
248.14'

INV.=12" CMP
ELEV.=160.16'

12" CMP

INV.=12" CMP
ELEV.=159.60'

INV.=12" CMP
ELEV.=159.31'

INV.=12" CMP
ELEV.=159.12'

CMP J86

CMP J87

CMP 87.1

SMH PT #12093
RIM=164.02'
SHELF=156.4'
INV. A: 6" PVC=155.8'
INV. B: 6" PVC=155.9'
INV. C: 6" PVC=156.8'

SMH PT #9033
STRUCTURE ELEV.=163.12'
SHELF=157.6'
INV. A: 6" PVC=157.6'
INV. B: 6" PVC=157.5'

FOUND 4"X4" GRANITE MONUMENT 8" ABOVE GRADE
WITH DRILL HOLE

FOUND 4X4 GRANITE MONUMENT
4" ABOVE GRADE,
WITH DRILL HOLE, LOCATED AT BASE
(HELD)

FOUND CAPPED 5/8" REBAR
4" ABOVE GRADE
(HELD)

N 35°43'37" E
1.81'

N/F
AVX TANTALUM CORP.
MAP 74, LOT 8
401 HILL STREET
BOOK 4024, PAGE 108

1,082.85'
N 54°02'59" W

R=760.00'
L=393.10'
Δ=29° 38' 07"
CHB=N 50° 32' 40" E
CHD=388.73'

"10 MPH"
"35 MPH"
"SHIPPING & RECIEVING"
"NO TRESPASSING"
"DO NOT ENTER"
"VISITOR"
"HANDICAPPED"
"MUSTER POINT"
"INTERMAT"
"STOP"
"VISITORS"
"EMPLOYEE ENTRANCE"
"CONTRACTOR"

GRASS
PAVED
PAVED DRIVE
GRAVEL PATH
CONC. (TYP.)

24" MAPLE
36" MAPLE
10" BIRCH
12" BIRCH
18" MAPLE
15" MAPLE
SMOKING CANOPY

525 SQFT
32,894 SQFT

15 SPACES
13 SPACES
19 SPACES
30 SPACES

HVAC EQUIPMENT
TRANSFORMER
MISC. EQUIPMENT
SHED
UNKNOWN WATER VAULT
CHAIN LINK FENCE

FFE=165.40'
FFE=165.34'
FFE=165.40'
FFE=165.37'
FFE=165.32'
FFE=165.30'
FFE=165.36'
FFE=165.37'
FFE=165.24'

POSSIBLE EASEMENT DESCRIBED IN
DEED REF. B. POLE NUMBERS DIFFER
FROM THOSE DESCRIBED IN EASEMENT

99.48'
104.63'
58.74'
58.93'
59.22'
107.59'
50.18'
32.28'
32.15'
20.73'
20.09'
19.79'
18.62'
18.58'
16.37'
16.26'
12.89'
8.15'
8.05'
7.60'
80.16'
133.00'
50.0'
15.0'
25.0'

SCALE : 1" = 20'

20 0 20 40

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

VICINITY MAP
BIDDEFORD, ME
SCALE: 1"=1,000'

RTE 1
SITE
HILL ST

Colliers Engineering & Design
www.colliersengineering.com

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PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

STATE OF MAINE
JOSHUA R. EON
2558
PROFESSIONAL LAND SURVEYOR

BOUNDARY & TOPOGRAPHIC SURVEY

FOR

SITE DESIGN ASSOCIATES

RECORD OWNER:
FIBER MATERIALS INC.
BOOK 16236, PAGE 151
389 HILL STREET
BIDDEFORD
CUMBERLAND COUNTY
MAINE

Colliers Engineering & Design
BIDDEFORD
234 Main Street,
1st and 2nd Floor
Biddeford, ME 04005
Phone: 207 910 6010
COLLIERS ENGINEERING & DESIGN, INC.

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS NOTED	12/3/2024	EWP	JRE

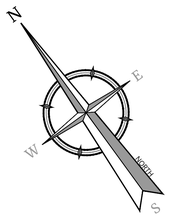
PROJECT NUMBER:	DRAWING NAME:
24000157A	V-SURV

SHEET TITLE:
BOUNDARY AND TOPOGRAPHIC SURVEY

SHEET NUMBER:
1 of 2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

M:\Publish_24\SURV\V-SURV.dwg\V-XX SURVEY 2D By:JOSHUA.EON



LEGEND

- SANITARY MANHOLE
- DRAIN PIPE
- 75 MAJOR CONTOUR
- 74 MINOR CONTOUR
- X X CHAINLINK FENCE
- PROPERTY LINE
- ABUTTER LINE
- E U/G ELECTRIC LINE
- OHW OVERHEAD WIRE
- W WATER MAIN
- CATV U/G CABLE TV LINE
- G GAS MAIN
- BUILDING OVERHANG
- WETLAND LINE
- EDGE OF GRAVEL
- FOUND IRON PIPE
- FOUND MONUMENT
- TREE
- UTILITY POLE
- LIGHT POLE
- WATER SERVICE BOX
- WATER VALVE
- HYDRANT
- SIGN
- UPLANDS
- WETLANDS

GENERAL NOTES:

1. THE RECORD OWNERS OF THE LOCUS PARCEL IS AS FOLLOW:
   FIBER MATERIALS INC. BY DEED DATED FEBRUARY 14, 2012 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 16236, PAGE 151.
2. THE PROPERTY IS SHOWN AS LOT 8 ON THE CITY OF BIDDEFORD TAX MAP 74, AND IS LOCATED IN THE I2 INDUSTRIAL DISTRICT.
3. SPACE AND BULK CRITERIA FOR THE I2 INDUSTRIAL DISTRICT IS AS FOLLOWS:

MINIMUM LOT SIZE:	NONE LISTED
MINIMUM STREET FRONTAGE:	50 FEET*
MINIMUM FRONT YARD:	50 FEET*
MINIMUM SIDE YARD:	25 FEET*
MINIMUM REAR YARD:	25 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET

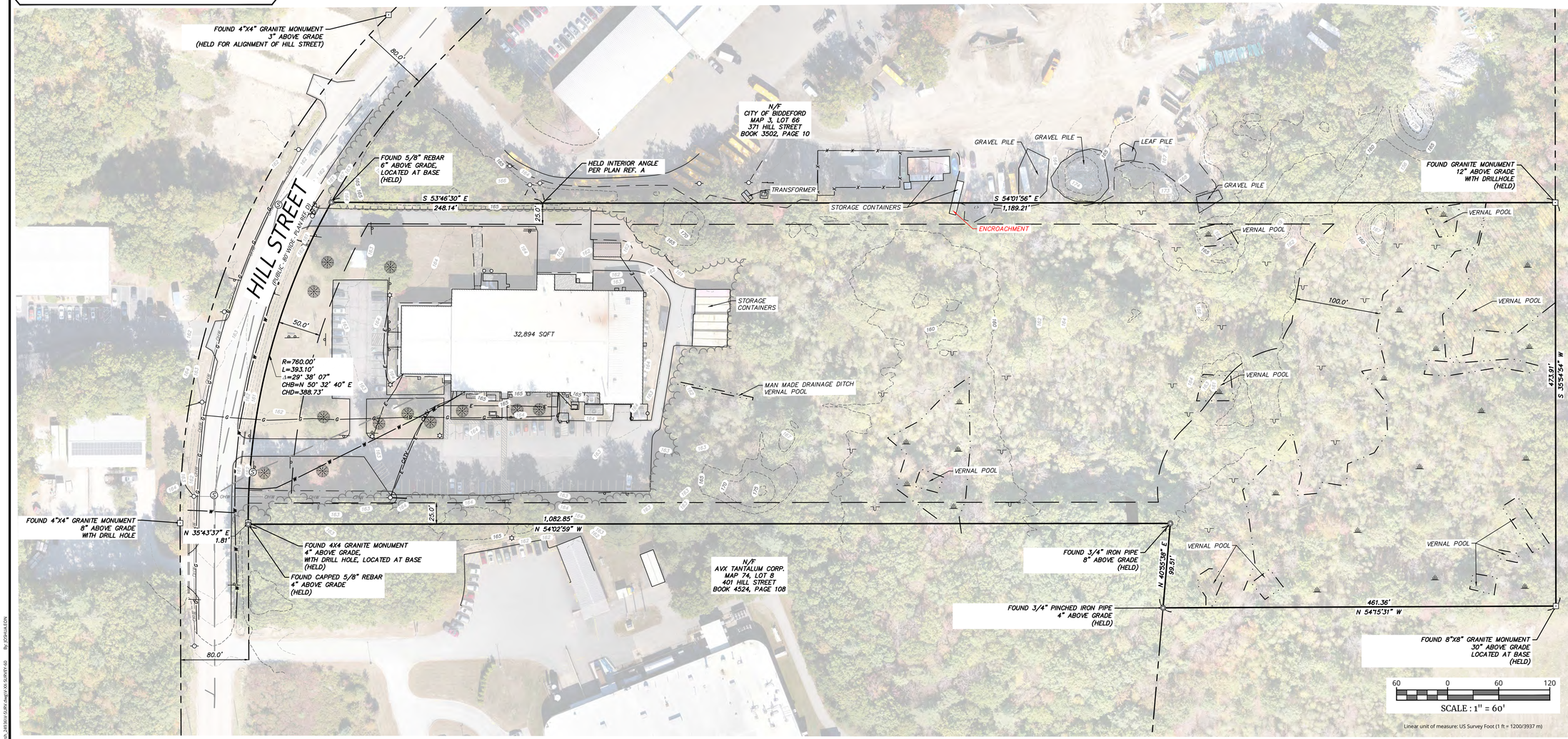
   * SEE ORDINANCE & DEED REFERENCE A FOR MORE PARTICULAR INFORMATION.

   **NO ZONING REPORT/LETTER HAS BEEN PROVIDED TO THIS SURVEYOR. LAND USE REGULATIONS LISTED ABOVE ARE BASED SOLELY UPON A PRELIMINARY REVIEW OF DIMENSIONAL REQUIREMENTS FOR THE CITY OF BIDDEFORD AND MAY NOT NECESSARILY REPRESENT ALL LAND USE REGULATIONS APPLICABLE TO THE PROPERTY. ALL LAND USE REGULATIONS MUST BE CONFIRMED WITH THE APPROPRIATE FEDERAL, STATE AND/OR LOCAL REGULATORY ENTITY TO DETERMINE THE EFFECT THESE MAY HAVE ON THE PERMITTED USE OF THE PROPERTY.
4. TOTAL AREA OF PARCEL IS APPROXIMATELY 14.04 ACRES.
5. BOOK AND PAGE REFERENCES SHOWN HEREON ARE IN REFERENCE TO THE YORK COUNTY REGISTRY OF DEEDS (Y.C.R.D.).
6. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY COLLIERS ENGINEERING & DESIGN INC. IN OCTOBER OF 2024.
7. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY COLLIERS ENGINEERING & DESIGN INC. IN OCTOBER, 2024. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH UAS BASED LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION. ALL DATA REMOTELY COLLECTED HAS BEEN TESTED TO MEET AND/OR EXCEED THE NATIONAL MAPPING STANDARDS FOR 1 FT CONTOUR INTERVALS SET FORTH BY THE AMERICAN SOCIETY FOR PHOTOGRAMMETRY & REMOTE SENSING (ASPRS).
8. PLAN REFERENCES:
   A. "RE-SUBDIVISION PLAN OF LAND IN BIDDEFORD, MAINE" PREPARED BY THE CITY OF BIDDEFORD, MAINE ENGINEERING DEPT., RECORDED JULY 25, 1984 IN BOOK 130, PAGE 34.
   B. "SUBDIVISION PLAN OF LAND IN BIDDEFORD, MAINE" PREPARED BY THE CITY OF BIDDEFORD, DATED MAY 5, 1983 AND RECORDED IN BOOK 125, PAGE 48.
   C. "PLAN OF LAND OF THE CITY OF BIDDEFORD MUNICIPAL AIRPORT" PREPARED BY COULOMBE INC., SURVEYORS, DATED NOVEMBER 12, 1985 RECORDED AS PLAN D-0714.
   D. "RIGHT OF WAY MAP OF HILL STREET IN BIDDEFORD, MAINE" PREPARED BY THE CITY OF BIDDEFORD ENGINEERING DEPARTMENT, DATED MARCH 2, 1993 RECORDED AS PLAN D-1000.
   E. "PLAN OF LAND OF THE BIDDEFORD MUNICIPAL AIRPORT" PREPARED BY THE CITY OF BIDDEFORD DATED JUNE 5, 1982 RECORDED UNDER FILE NO. TR-8811-586.
   F. "PLAN OF SUBDIVISION OF LAND IN BIDDEFORD, MAINE" PREPARED BY THE CITY OF BIDDEFORD RECORDED IN BOOK 151, PAGE 36.
   G. G. "ALTA/ASCM PLAN OF LAND IN BIDDEFORD, MAINE" PREPARED BY DOW & COULOMBE INC., DATED MARCH 16, 2011 RECORDED IN BOOK 184, PAGE 4522.
9. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
10. ALL BUILDINGS FOUND ON THE SURVEYED PROPERTY ARE SHOWN HEREON.
11. THE SURVEYED PROPERTY HAS DIRECT ACCESS TO HILL STREET, A PUBLIC WAY, AS SHOWN HEREON.
12. EVIDENCE OF ENCROACHMENTS WERE OBSERVED DURING THE COURSE OF THE SURVEY ALONG THE NORTHERLY BOUNDARY LINE.
13. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL B PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CI/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
14. LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR BIDDEFORD, MAINE, YORK COUNTY, COMMUNITY-PANEL NUMBER 23031C0451G, HAVING AN EFFECTIVE DATE OF 7/17/2024. A PORTION OF THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF MINIMAL FLOOD HAZARD.
15. A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN APRIL & MAY OF 2020 BY IAN BROADWATER OF BROADWATER ENVIRONMENTAL LLC. WETLAND INFORMATION WAS PROVIDED TO THIS SURVEYOR IN CAD FORMAT. REFERENCE IS MADE TO A REPORT TITLED "REPORT FOR WETLAND DELINEATION & VERNAL POOL SURVEY; 389 HILL STREET, BIDDEFORD, MAINE", DATED JULY 21, 2020 BY BROADWATER ENVIRONMENTAL LLC. FOR ADDITIONAL INFORMATION REGARDING WETLAND CLASSIFICATIONS AND BUFFERS
16. DEED REFERENCES:
   A. PROTECTIVE COVENANTS - BIDDEFORD AIRPORT INDUSTRIAL PARK - PHASE 2, BIDDEFORD, MAINE, DEED BOOK 3295, PAGE 112.
   B. EASEMENT DEED TO CENTRAL MAINE POWER, DATED FEBRUARY 11, 2019, DEED BOOK 17987, PAGE 507.
17. TOTAL NUMBER OF PARKING SPACES (INCLUDING HANDICAP SPACES): 74
    TOTAL NUMBER OF HANDICAP SPACES: 4
18. REFERENCE IS MADE TO A LETTER TITLED "389 HILL STREET, BIDDEFORD, MAINE - SPOTTED TURTLES SURVEY", DATED AUGUST 24, 2021 FROM KEVIN RYAN OF THE STATE OF MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE WHICH OUTLINES ALL WETLAND SETBACKS.

SURVEYORS CERTIFICATION:

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

JOSHUA EON, MAINE PLS 2558 DATE: 12/3/24



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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
A	12/3/24	JRE	ISSUED TO CLIENT

STATE OF MAINE
JOSHUA R. EON
2558
PROFESSIONAL LAND SURVEYOR

BOUNDARY & TOPOGRAPHIC SURVEY
FOR
SITE DESIGN ASSOCIATES

RECORD OWNER:
FIBER MATERIALS INC.
BOOK 16236, PAGE 151
389 HILL STREET
BIDDEFORD
CUMBERLAND COUNTY
MAINE

Colliers Engineering & Design
BIDDEFORD
234 Main Street,
1st and 2nd Floor
Biddeford, ME 04005
Phone: 207 910 6010
COLLIERS ENGINEERING & DESIGN, INC.

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS NOTED	12/3/2024	EWP	JRE

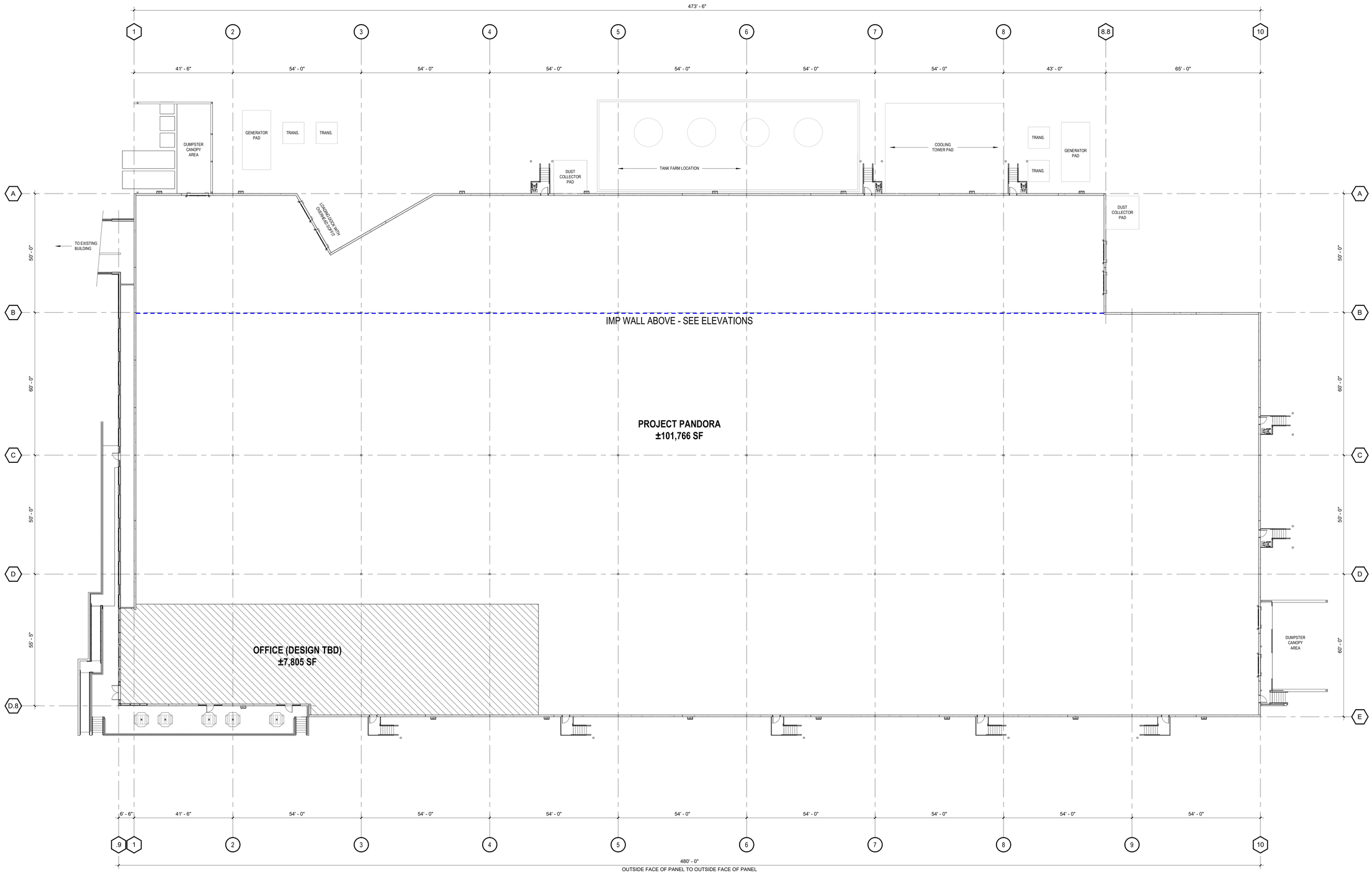
PROJECT NUMBER: 24000157A
DRAWING NAME: V-SURV

SHEET TITLE:
BOUNDARY AND TOPOGRAPHIC SURVEY

SHEET NUMBER:
2 of 2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

V:\Active_24157A\VV_SURV\dwg\V-SURV-60 By: JOSHUA.EON



1 / A-100 OVERALL FLOOR PLAN
1/16" = 1'-0"

RANDALL PAULSON architects
Roswell . Nashua

Millyard Technology Park
82 Technology Way, Suite 3W2A
Nashua, New Hampshire 03060
603.617.3706
www.randallpaulson.com

architecture/interiors

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PROJECT DESCRIPTION OR TYPE

at

PROJECT PANDORA

for

CLIENT NAME or LOGO

PROJECT ADDRESS
CITY, STATE ZIP
COUNTY NAME

Print Record		Drw.	Chk.
6 AUG 25	CONCEPT		

Revisions		

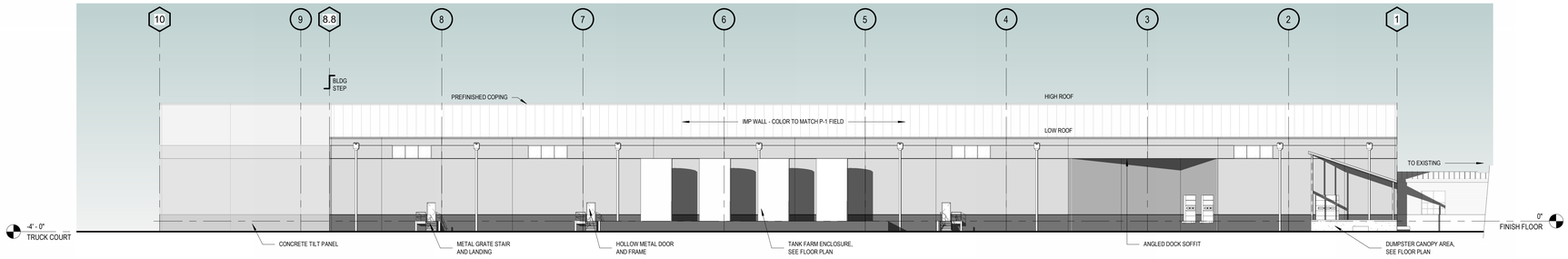
Date

Project No.
2025252.00

Sheet Title
OVERALL BUILDING PLAN

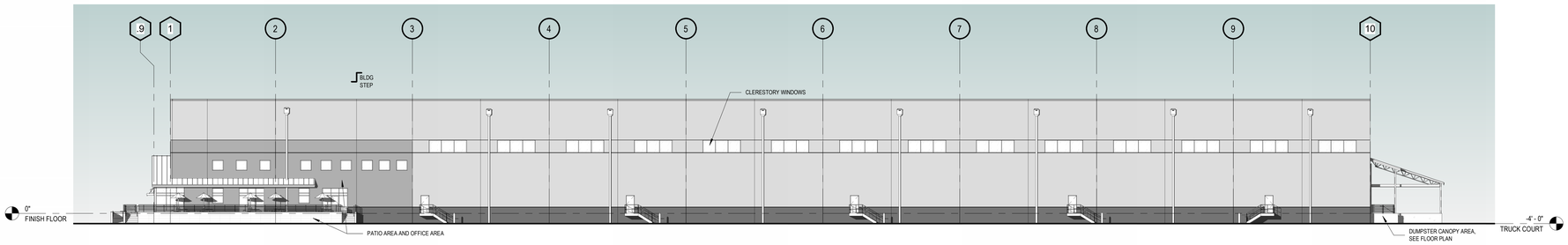
Sheet No.
A-100

☐ Released for Construction
■ Not Released for Construction



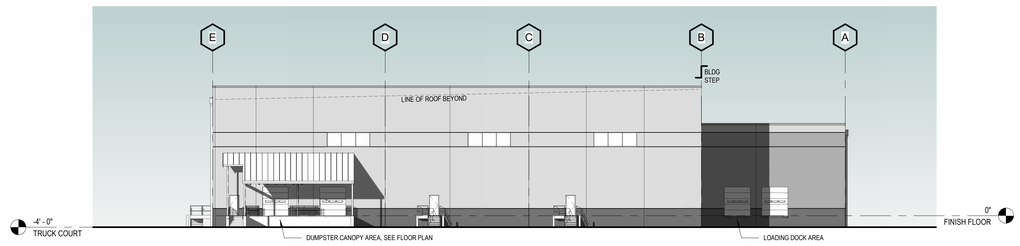
1 A-200 PLAN - NORTH EVATION

3/64" = 1'-0"



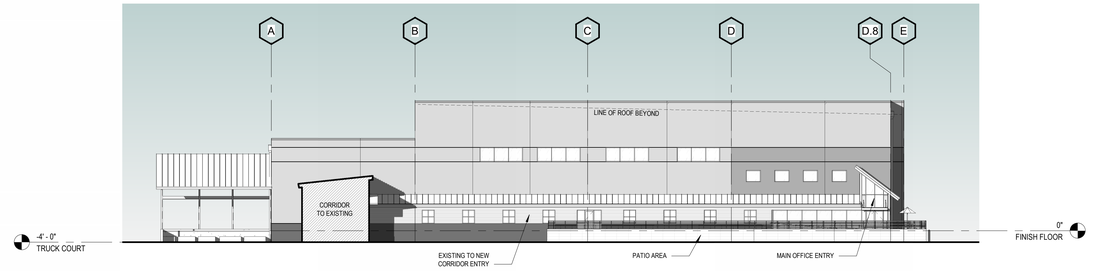
4 A-200 PLAN SOUTH - ELEVATION

3/64" = 1'-0"



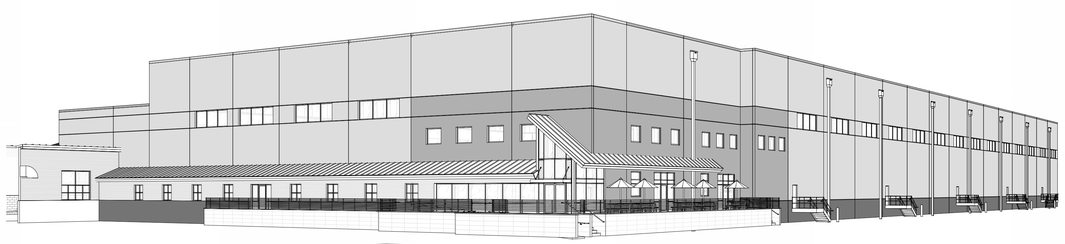
2 A-200 PLAN EAST - ELEVATION

3/64" = 1'-0"



3 A-200 PLAN WEST - ELEVATION

3/64" = 1'-0"



5 A-200 ENTRY PERSPECTIVE



6 A-200 BACK OF HOUSE PERSPECTIVE

RANDALL PAULSON architects
Roswell . Nashua

Roswell Mill
85-A Mill Street, Suite 200
Roswell, Georgia 30075
770.650.7558
www.randallpaulson.com

architecture/interiors

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PROJECT DESCRIPTION OR TYPE

at

PROJECT PANDORA

for

CLIENT NAME or LOGO

PROJECT ADDRESS
CITY, STATE ZIP
COUNTY NAME

Print Record		Drw.	Chk.
6 AUG 25	CONCEPT		

Revisions	

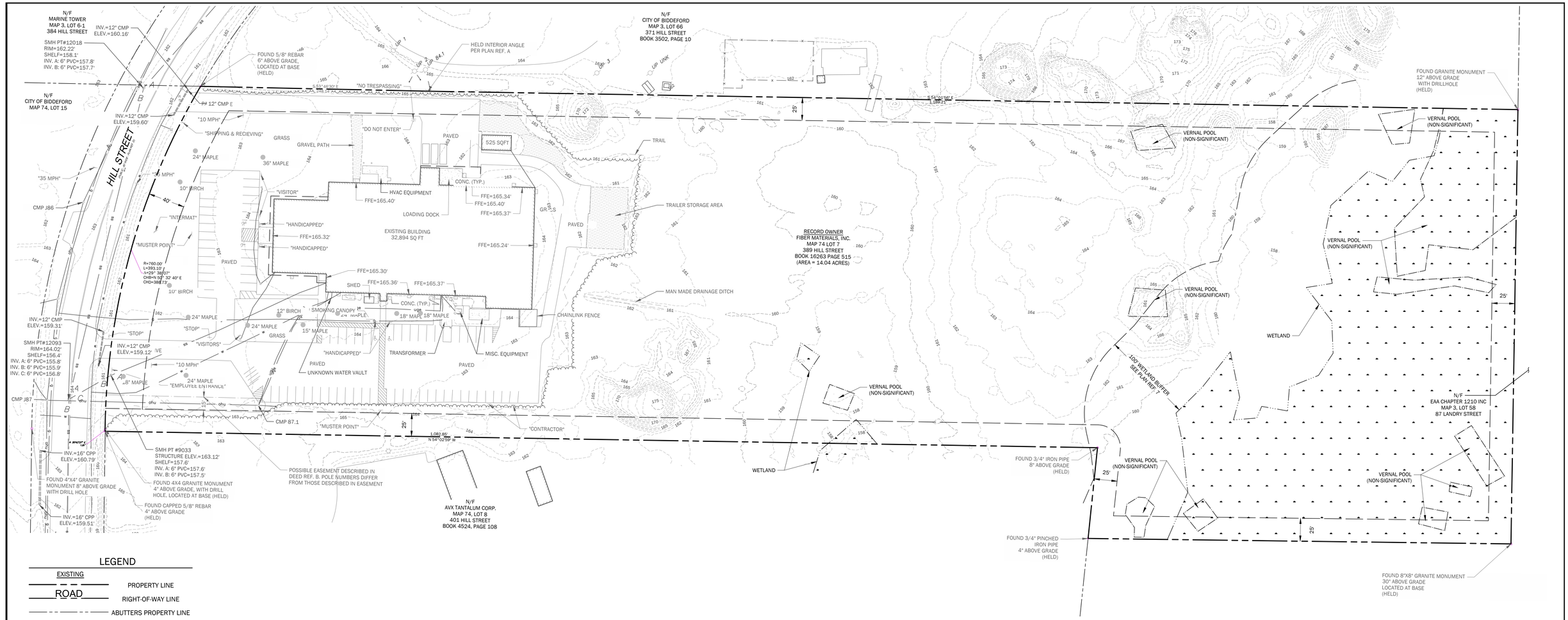
Date

Project No.
2025252.00

Sheet Title
EXTERIOR ELEVATIONS

Sheet No.
A-200

☐ Released for Construction
■ Not Released for Construction



LEGEND

EXISTING

- PROPERTY LINE
- ROAD — RIGHT-OF-WAY LINE
- ABUTTERS PROPERTY LINE
- PROPERTY SETBACK
- IRON ROD OR PIN FOUND
- STORM DRAIN MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN TYPE F BASIN
- SANITARY SEWER MANHOLE
- ss — SANITARY SEWER LINE
- w — WATERLINE
- sd — STORM DRAIN LINE
- FOUNDATION DRAIN LINE
- ROOF DRAIN LINE
- CULVERT
- ohu — OVERHEAD UTILITIES
- ugu — UNDERGROUND UTILITIES
- UTILITY POLE
- LIGHT POLE
- LIGHT FIXTURE
- GUARD RAIL
- x — x — METAL FENCE
- BUILDING
- RETAINING WALL
- EDGE OF PAVEMENT
- SLIPFORM CURB
- EDGE OF GRAVEL
- EDGE OF CONCRETE
- TREELINE
- TREES & SHRUBS

PLAN REFERENCES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION BASED ON PLAN ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY FOR SITE DESIGN ASSOCIATES, RECORD OWNER, FIBER MATERIALS, INC., BOOK 16236, PAGE 151, 389 HILL STREET, BIDDEFORD, CUMBERLAND COUNTY, MAINE", DATED DECEMBER 3, 2025, BY COLLIERS ENGINEERING & DESIGN OF BRUNSWICK, MAINE.
2. WETLANDS AND VERANAL POOLS MAPPED BY BROADWATER ENVIRONMENTAL IN 2020, AND VERIFIED IN 20204.
3. ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON NAVD88.
4. A TEMPORARY BENCHMARK (TBM) SPIKE WAS SET IN AN 11" OAK AT APPROXIMATE HARVARD STREET STATION 12+45, 28' RIGHT. ELEVATION = 107.91. THIS TBM ELEVATION SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
5. HORIZONTAL DATUM IS BASED ON NAD83 STATE PLANE GRID WEST ZONE IN FEET.
6. UNDERGROUND UTILITIES LOCATIONS ARE APPROXIMATE AND WERE OBTAINED FROM SURFACE OBSERVATIONS AND TAKEN FROM PLANS OF SEVERAL SOURCES. SEE SURVEY PLAN REFERENCES.
7. THE 100-FOOT WETLAND BUFFER WAS REQUESTED BY MAINE DEPARTMENT OF INLAND FISH AND WILDLIFE AROUND POTENTIAL TURTLE HABITAT.

GENERAL NOTES

1. SEE GENERAL NOTES ON COVER SHEET.

NORTH

SCALE

0 25 50 100

SCALE in FEET
1"=50'

TAX MAP I.D.
74 – 7

PRELIMINARY - NOT FOR CONSTRUCTION

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SITE DESIGN ASSOCIATES, ANY ALTERATIONS, OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SITE DESIGN ASSOCIATES.

REV.	DATE	STATUS	BY	CHKD.	APPD.
A	8/7/2025	ISSUED FOR SKETCH PLAN REVIEW	DEPT.	TWS	TWS

Site Design Associates
Consulting Engineering & Land Planning
23 Whitney Way Topsham, Maine 04086 Tel: (207) 449-4275

CLIENT:
FIBER MATERIALS INC.
5 MORIN STREET, BIDDEFORD, ME 04005

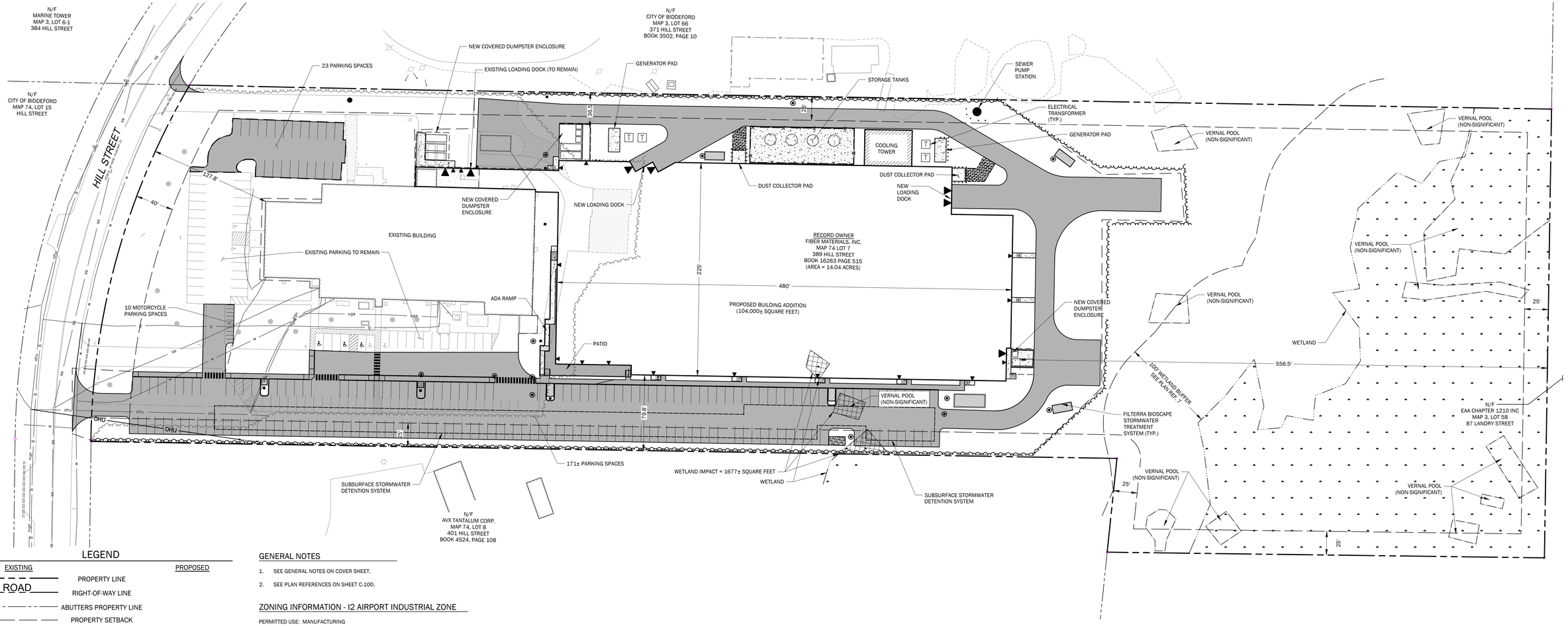
DESIGN: DEPT.
DRAWN: DEPT.
CHKD: TWS
DATE: JULY 31, 2025
SCALE: 1" = 50'

PROJECT:
INTERMAT
PROPOSED EXPANSION
389 HILL STREET, BIDDEFORD, MAINE 04005

OVERALL EXISTING CONDITIONS PLAN

PROJ. NO. 24–211–01
DWG. NO. C–100
REV. A

Drawing Name: C:\CDC Projects\25204 - Intermat - Biddeford\3. CAD\24X02 - Base_Sketch Plan | Plot Date / Time: Aug 6, 25 / 5:44 PM



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
ROAD	RIGHT-OF-WAY LINE	
	ABUTTERS PROPERTY LINE	
	PROPERTY SETBACK	
	IRON ROD OR PIN FOUND	
	STORM DRAIN MANHOLE	
	STORM DRAIN CATCH BASIN	
	STORM DRAIN TYPE F BASIN	
S	SANITARY SEWER MANHOLE	
ss	SANITARY SEWER LINE	SS
w	WATERLINE	W
sd	STORM DRAIN LINE	SD
	FOUNDATION DRAIN LINE	FD
	ROOF DRAIN LINE	RD
	CULVERT	
ohu	OVERHEAD UTILITIES	
ugu	UNDERGROUND UTILITIES	UGU
	UTILITY POLE	
	LIGHT POLE	
	LIGHT FIXTURE	
	GUARD RAIL	
x x	METAL FENCE	x x
	BUILDING	
	RETAINING WALL	
	EDGE OF PAVEMENT	
	SLIPFORM CURB	
	EDGE OF GRAVEL	
	EDGE OF CONCRETE	
	TREELINE	
	TREES & SHRUBS	
	RIPRAP	
	FILTTERA BIOSCAPE	
	BOLLARD	
	MAN DOOR / BAY DOOR	

GENERAL NOTES

1. SEE GENERAL NOTES ON COVER SHEET.
2. SEE PLAN REFERENCES ON SHEET C-100.

ZONING INFORMATION - I2 AIRPORT INDUSTRIAL ZONE

PERMITTED USE: MANUFACTURING

I-2 ZONE STANDARDS

1.	MIN. LOT SIZE:	N/A
2.	MIN. STREET FRONTAGE:	50 FEET
	EXISTING	= 394 FEET
	PROPOSED	= NO CHANGE
3.	MIN. FRONT SETBACK:	40 FEET
	EXISTING	= 127.8 FEET
	PROPOSED	= NO CHANGE
4.	MIN. SIDE SETBACK:	25 FEET
	PROPOSED:	= 36.5 FEET
5.	MIN. REAR SETBACK:	25 FEET
	PROPOSED	= 556.5 FEET
6.	MAX. BUILDING HEIGHT:	6 STORIES, 60 FEET
	PROPOSED	= 2 STORIES, 45'±
6.	MAX. IMPERVIOUS AREA:	75%
	PROPOSED	= 47%

SCALE

0 25 50 100

SCALE in FEET
1"=50'

NORTH

TAX MAP I.D.
74 – 7

PRELIMINARY - NOT FOR CONSTRUCTION

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A	8/7/2025	ISSUED FOR SKETCH PLAN REVIEW	DEPT.	TWS	TWS

REV.	DATE	STATUS	BY	CHKD.	APPD.

Site Design Associates
Consulting Engineering & Land Planning
23 Whitney Way Topsham, Maine 04086 Tel: (207) 449-4275

CLIENT:
FIBER MATERIALS INC.
5 MORIN STREET, BIDDEFORD, ME 04005

DESIGN: DEPT.
DRAWN: DEPT.
CHKD: TWS
DATE: JULY 31, 2025
SCALE: 1" = 50'

PROJECT:
INTERMAT
PROPOSED EXPANSION
389 HILL STREET, BIDDEFORD, MAINE 04005

CONCEPTUAL SITE PLAN

PROJ. NO. 24–211–01
DWG. NO. C–200
REV. A

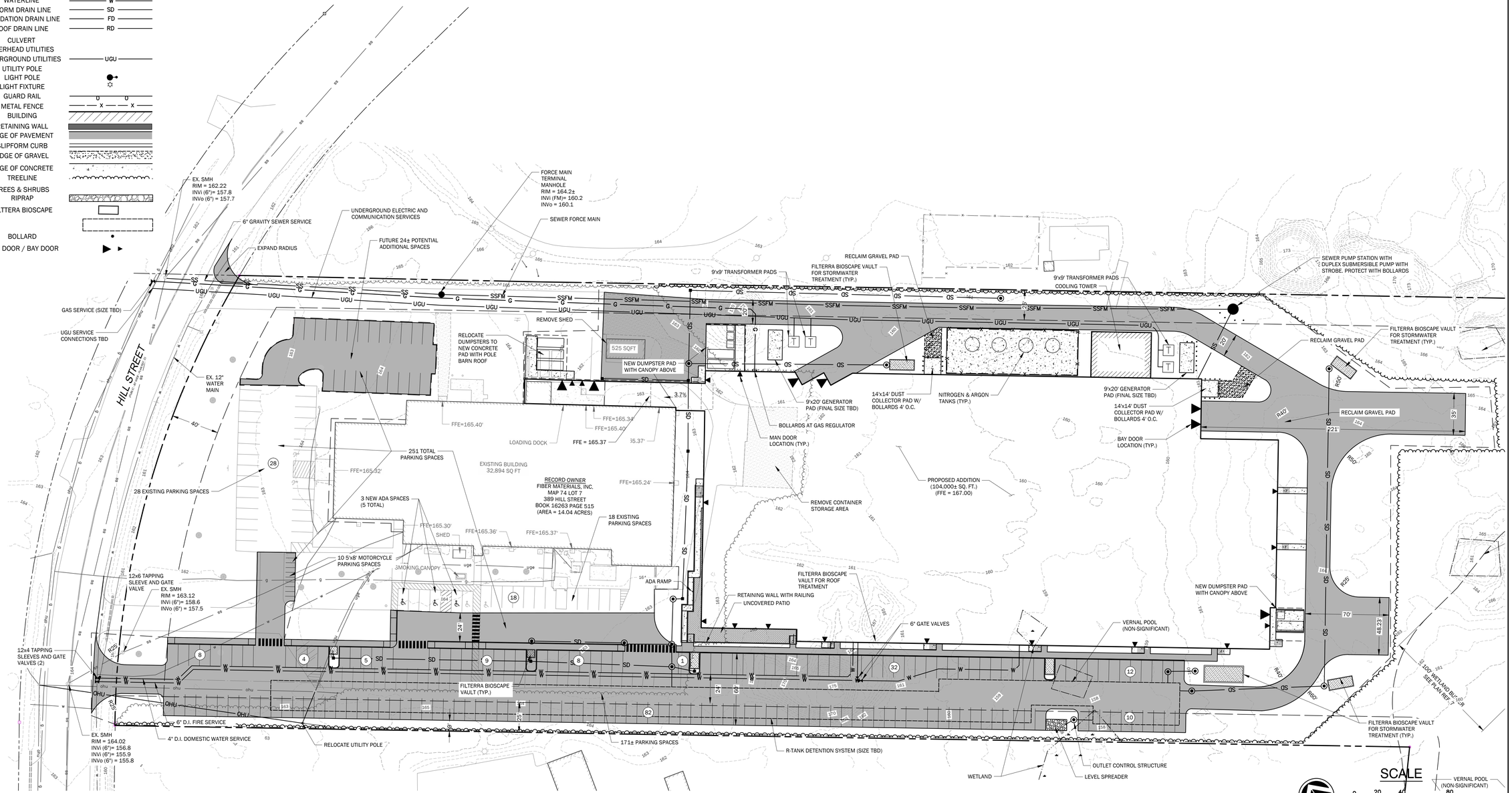
Drawing Name: C:\CDC Projects\25204 - Intermat – Biddeford\3. CAD\24X02 – Base_Sketch Plan | Plot Date / Time: Aug. 6, 25 / 7: 54 PM

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
ROAD	RIGHT-OF-WAY LINE	
	ABUTTERS PROPERTY LINE	
	PROPERTY SETBACK	
○	IRON ROD OR PIN FOUND	
	STORM DRAIN MANHOLE	◉
	STORM DRAIN CATCH BASIN	◉
	STORM DRAIN TYPE F BASIN	■
Ⓢ	SANITARY SEWER MANHOLE	●
ss	SANITARY SEWER LINE	SS
w	WATERLINE	W
sd	STORM DRAIN LINE	SD
	FOUNDATION DRAIN LINE	FD
	ROOF DRAIN LINE	RD
	CULVERT	
ohu	OVERHEAD UTILITIES	
ugu	UNDERGROUND UTILITIES	UGU
	UTILITY POLE	
	LIGHT POLE	●→
	LIGHT FIXTURE	☼
	GUARD RAIL	G G
x x	METAL FENCE	x x
	BUILDING	
	RETAINING WALL	
	EDGE OF PAVEMENT	
	SLIPFORM CURB	
	EDGE OF GRAVEL	
	EDGE OF CONCRETE	
	TREELINE	
	TREES & SHRUBS	
	RIPRAP	
	FILTTERA BIOSCAPE	
	BOLLARD	•
	MAN DOOR / BAY DOOR	▶ ▶

GENERAL NOTES

1. SEE GENERAL NOTES ON COVER SHEET.
2. SEE PLAN REFERENCES ON SHEET C-100.



SCALE

0 20 40 80

SCALE in FEET
1"=40'

NORTH

TAX MAP I.D.
74 – 7

PRELIMINARY - NOT FOR CONSTRUCTION

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REV.	DATE	STATUS	BY	CHKD.	APPD.
A	8/7/2025	ISSUED FOR SKETCH PLAN REVIEW	DEPT.	TWS	TWS

Site Design Associates
Consulting Engineering & Land Planning
23 Whitney Way Topsham, Maine 04086 Tel: (207) 449-4275

CLIENT:
FIBER MATERIALS INC.
5 MORIN STREET, BIDDEFORD, ME 04005

DESIGN: DEPT.
DRAWN: DEPT.
CHKD: TWS
DATE: AUGUST 7, 2025
SCALE: 1" = 40'

PROJECT:
INTERMAT
PROPOSED EXPANSION
389 HILL STREET, BIDDEFORD, MAINE 04005

CONCEPTUAL SITE LAYOUT AND UTILITY PLAN

PROJ. NO. 24–211–01 REV. A
DWG. NO. C–201

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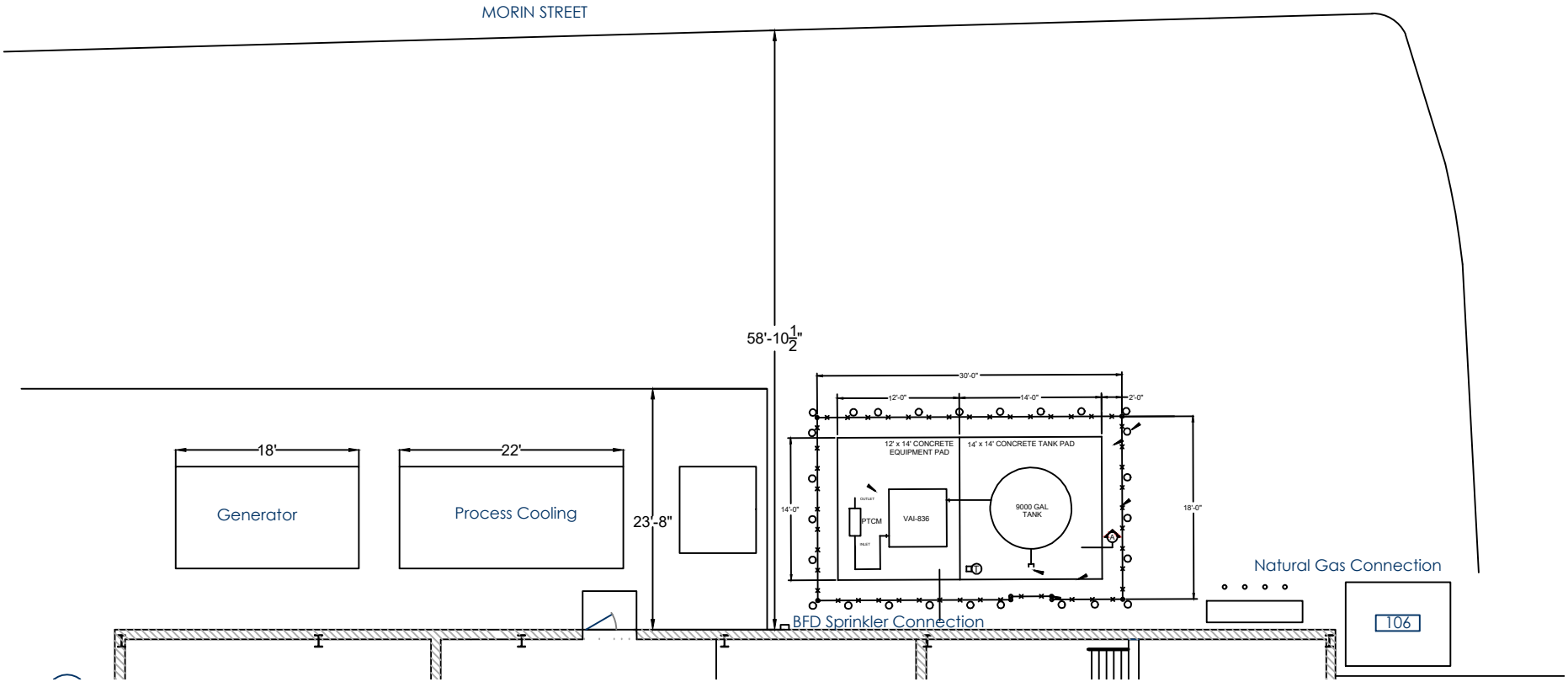
MORIN STREET
58'-10 1/2"
18'
Generator
22'
Process Cooling
23'-8"
30'-0"
12'-0"
14'-0"
2'-0"
12' x 14' CONCRETE EQUIPMENT PAD
14' x 14' CONCRETE TANK PAD
14'-0"
18'-0"
PTCM
VAI-836
9000 GAL TANK
Natural Gas Connection
BFD Sprinkler Connection
106

David C.M. Galbraith, City Planner / Deputy Director Planning and Development
David.Galbraith@biddefordmaine.org
205 Main Street / PO Box 586 • Biddeford, ME
City of Biddeford Government
(207) 571-0700 • www.biddefordmaine.org
@CityofBiddeford

PLANNING BOARD STAFF REPORT

TO: Chair Plotkin and Members of the Biddeford Planning Board

FROM: David C.M. Galbraith, Deputy Director/City Planner

DATE: September 10, 2025

RE: 2024.55 Preliminary Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and WR-1 Shoreland Overlay zone.

MEETING DATE: September 17, 2025, at 6:00 PM

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1. DEVELOPMENT REVIEW PROJECT HISTORY:

Below is a list of the various Planning Board hearings related to this project.

Planning Board Review History - Case # 2022.02:
Sketch Plan Review - February 2, 2022
Preliminary Review Approval – November 2, 2022
*Final Plan February 15, 2023
*Note: The project received Planning Board approval but not constructed

Planning Board Review History - Case #2024.55
Sketch Plan Review: July 16, 2025
Site Walk: August 20, 2025
Sketch/Preliminary Plan Review: August 20, 2025
Preliminary Review: September 17, 2025

INTRODUCTION / PROJECT UPDATES:

This case was last before the Planning Board on August 20, 2025, when the Planning Board held a site walk followed by a public hearing regarding the project. The site walk and hearing were attended by Board Members Plotkin, Patoine, Augers and Deschambault. The site-walk also included numerous Staff from various departments namely: David Galbraith – Planning; Jeff Demers – Public Works; Craig Chekan and Tom Milligan – Engineering, and; Ken Thorpe and Jason Crocker – Fire Department.

Private Way: Numerous items were discussed during the site walk, but the majority of the time was spent discussing the conversion of the existing fire lane, located between the parking garage and the subject development, into a private way. The existing fire lane is only 20 feet in width and private roadways are required to be constructed to City roadway standards which, amongst other things, requires the roadway to be a minimum of 22 feet in width (11 foot drive aisles). The proposed private roadway is to be located within the existing 30-foot wide access easement, will require the Applicant to request a waiver from the City's required 50-foot right-of-way (ROW) width. Staff are supportive of the proposed waiver. However,

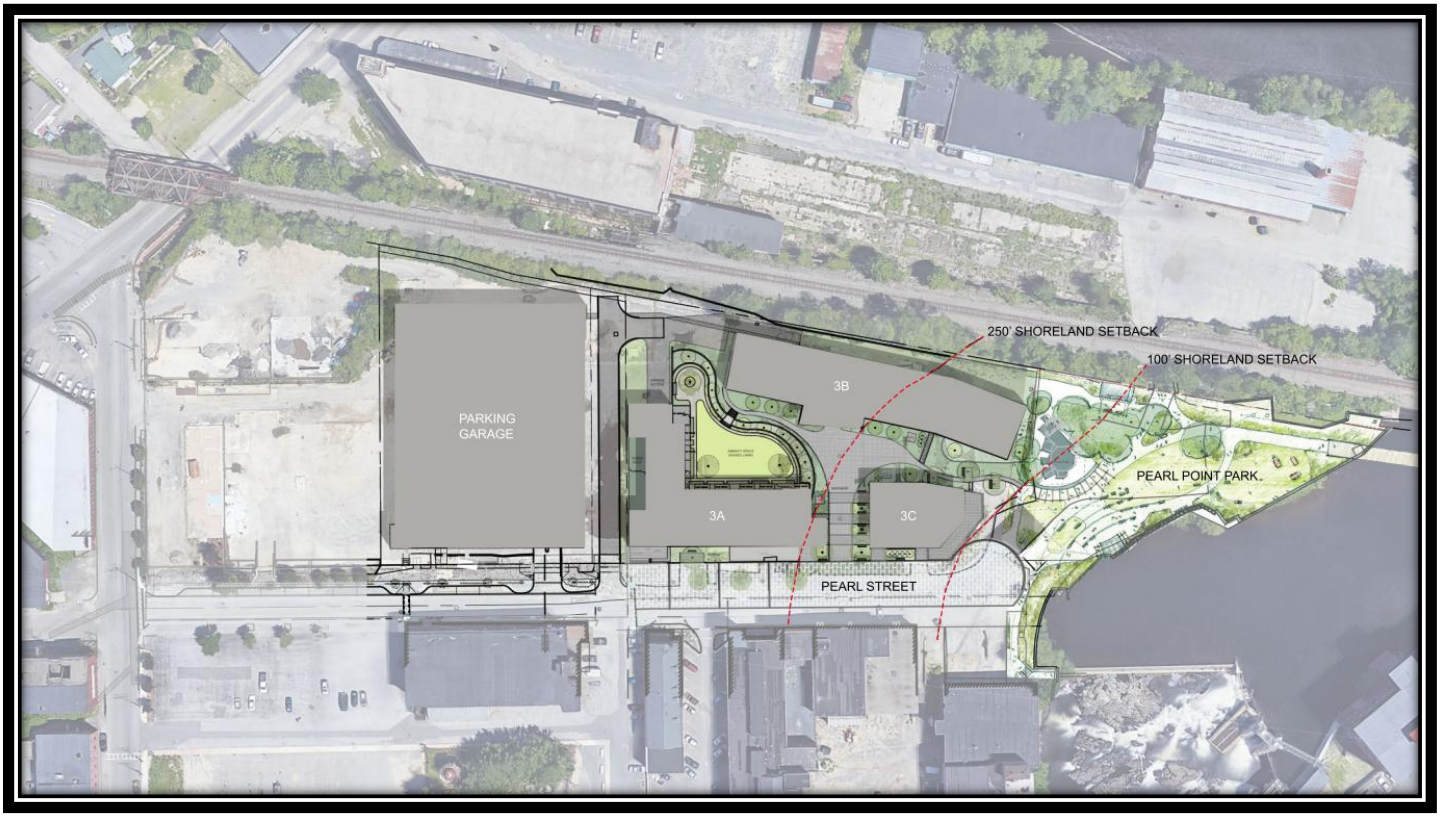
direct vehicles off the fire access lane was never contemplated in the previously approved plans. As such, the proposed private drive will need to named, as the five proposed condominium units have their access directly off it. The existing aisle was created as a fire lane for the specific purpose of providing fire department emergency access to the parking garage. The use of the fire lane has now changed, so in addition to the widening of the roadway to twenty-two feet wide, the roadway will need to be constructed to the City's private way standards. This will require it to be perpetually privately maintained by the applicant, and eventually the future homeowner's association (HOA) responsibility. The Applicant shall provide the City an agreement outlining this understanding, which shall be signed by both the City and the Applicant's legal representative.

The proposed private way modification will require review and re-approval by the Maine Department of Environmental Protection (MDEP). The City is the underlying property owner of the fire lane and access easement so the City will need to bring the proposed amendment forward to MDEP. The Applicant's Engineering Consultant, Peter Heil (Acorn Engineering) has been involved with the redevelopment of the MERC site, so it is Staff's recommendation that Mr. Heil become the City's agent for processing this amendment (via a written agreement between the City and Acorn) with the Applicant being responsible for all costs associated with this amendment.

Pearl Street Pavers: The other primary topic discussed during the Site Walk was the existing decorative pavers within and immediately adjacent to the subject development. As City Staff has explained to the Applicant and the Planning Board, the construction of the proposed development will include improvements that will impact the pavers, and we further have concerns about how damaged pavers would be replaced / repaired. The concerns are further complicated as replacement pavers will likely not match the existing pavers. As a compromise, during the site walk, Mr. Demers and Mr. Chekan agreed to a compromise that would allow the Applicant's to remove the sidewalk pavers between the project site and the Pearl Street roadway during construction. The pavers will need to be carefully removed, stacked and stored on-site until being re-set. During construction, the Applicants will also be required to place metal pads over the agreed upon removed paver area, and when reconstructed (following construction is completed on buildings A & C) the applicants shall reconstruct using the previously removed pavers and reconstruct to the satisfaction of the Public Works Director and Engineering Director.

2. Project History:

As the Board may recall, on February 15, 2023, the Planning Board granted approval of Case # 2022.02 Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and WR-1 Shoreland Overlay zone; the subdivision and redevelopment of Lot #3 of the former MERC site. That application proposed to subdivide the former MERC site located at 3 Lincoln Street into four (4) separate lots. Lot 1 is to be located along the corner of Lincoln Street and Pearl Street and will remain undeveloped at this stage. The existing parking garage stands on the new Lot 2. Lot 3, across Pearl Street from The Lofts at Saco Falls, was going to have three (3) buildings constructed on it. Lot 4 is then closest to the Saco River and is being converted to a riverfront park by the City. Below is the approved site plan for the site.



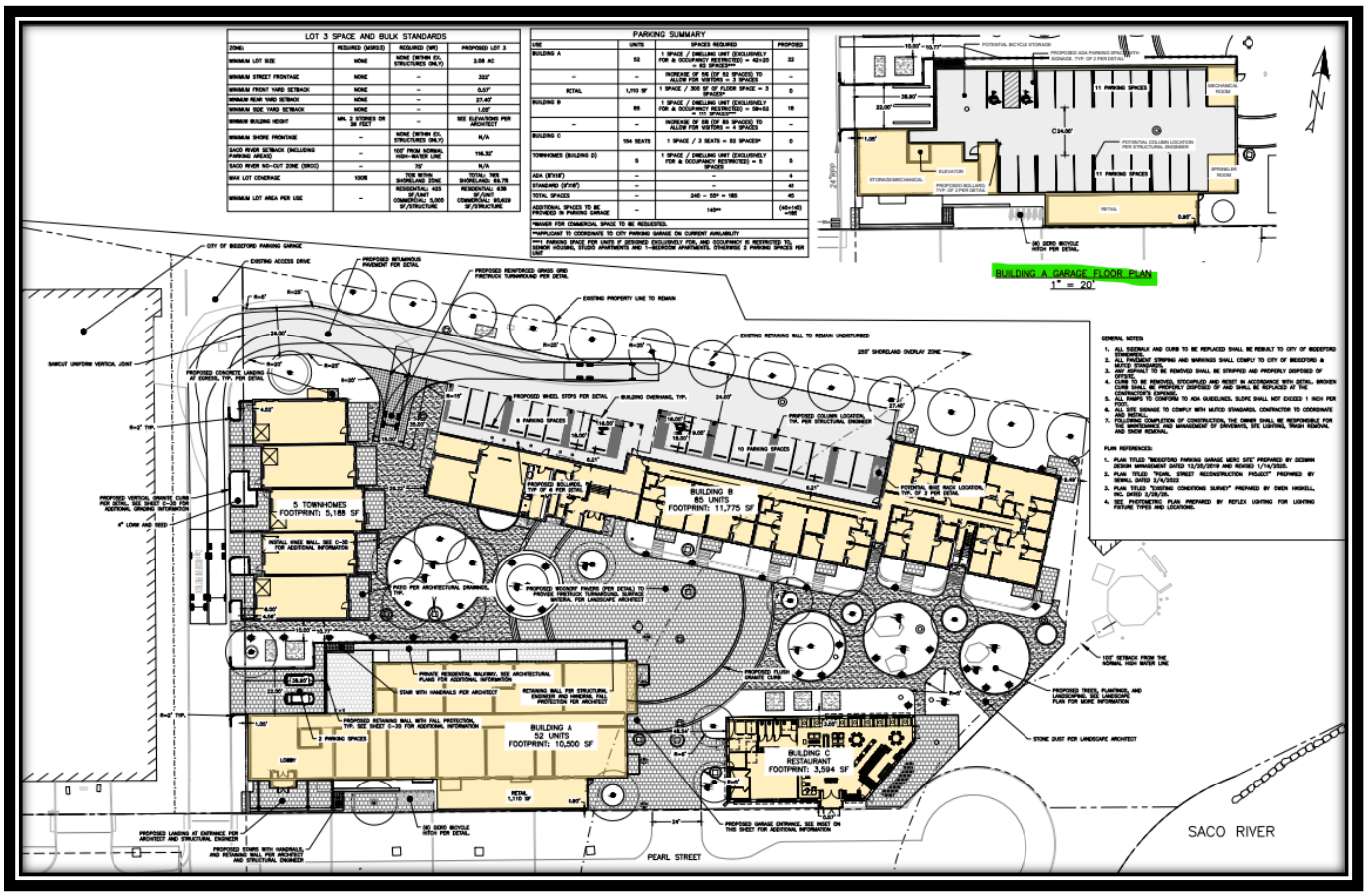
Approved Case # 2022.02 - 3 Lincoln Street redevelopment – Lot 3 - Pearl Street

At that time the proposal included the following:

- Building A, an 85-unit mixed commercial and residential building;
- Building B, a 129-unit residential development, and;
- Building C, a commercial development with proposed restaurant use, totaling approximately 298 seats.

Although the project received Planning Board approval, it was never constructed as the developer (3 Lincoln LLC) modified the development plan, which was reviewed by the City Council. Although the revised plans are similar to the previously approved plans, it was determined by the Staff Review Committee (SRC) that the changes were significant enough to require re-review by Staff and the Planning Board. The project was assigned a new case # (2024.55) and plans were distributed to City Staff and Peer Reviewers. The new application requests Preliminary and Final approval of the project at one hearing, but staff determined that separate reviews for preliminary and final are required. This two part review is being recommended due to the need for Staff comments to be addressed prior to final review.

2024.55 Preliminary Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and WR-1 Shoreland Overlay zone.
Planning Board Hearing Date: September 17, 2025



Case # 2024.55 PROPOSED / REVISED SITE PLAN

This project proposes to amend the previous Major Site Plan and Subdivision Approval (2022.02) programming from three (3) total buildings on Lot 3 to four (4) total buildings. The amendment includes:

- The addition of five (5) townhomes;
- Building A from 85 residential units to up to 52 units;
- Building B from 129 residential units to up to 85 units, and;
- Building C will remain as a restaurant with approximately 154 total seats (previously 298 seats permitted).

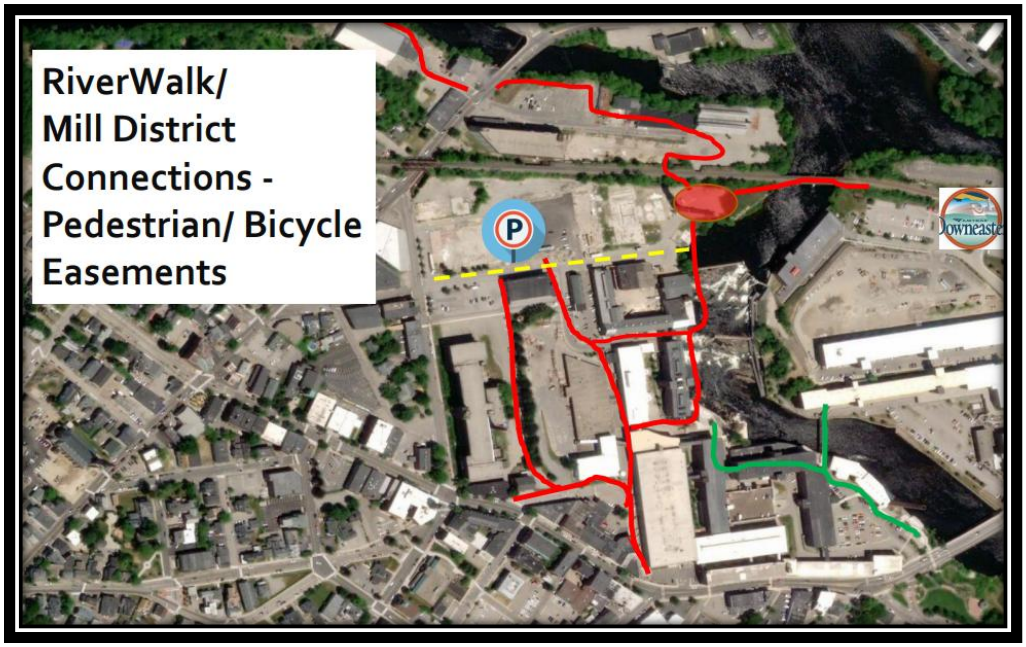
This application is considered a major subdivision and is also being reviewed as a major site plan, and is subject to local shore land zoning review, as the development site falls within 250 feet of the normal high water line of the Saco River. Aside from the City of Biddeford's local regulatory review, the project is also subject to a Maine DEP Stormwater Permit, and a Maine DOT Traffic Movement Permit (TMP).The development triggers Maine Site Law Review, for which the City of Biddeford has Municipal Capacity Authority.

This project, similar to others in the area, had been on hold until the City was able to adopt the necessary amendments to the Shoreland Zoning Ordinance which have been reviewed and approved by the Saco River Corridor Commission (SRCC) and Maine DEP and has now also been adopted by the City. The site is located outside of the 100-year flood zone and the project is consistent in the MSRD 3 zone and triggers permits from the Saco River Corridor Commission,

DEP, & MDOT. There is no 3rd party review for the traffic movement permit (TMP), this was reviewed directly by the DOT.

The Lincoln Street subdivision, which runs from Lincoln Street east to the Saco River, is proposed to be divided into four (4) lots. As the Board may recall, Lot 1 was recently subdivided into Lot 1A and Lot 1B. Lot B was further subdivided into Lots B and 1C to accommodate the two (2) 45-unit senior low/moderate income (LMI) housing for Westbrook Development Corporation. Lot 1A will remain vacant at this time but is planned for future mixed use commercial / residential development. Lot 2 contains the City's 640 stall parking garage is located; Lot 3 is seeking approval of the revised development plans.

The central courtyard is being designed to accommodate emergency vehicle access / maneuvering, and the site has travel ways existing on the south (Pearl Street) and west (former Smith Street) which can also be utilized for emergency vehicle access. All of the utilities serving the development of Lot 3 will be placed underground. The project will also include associated parking and landscaped areas which include the integration of internal sidewalks which also connect to the Riverwalk.



Development Area Located East of the City parking Garage Connecting Riverwalk Linkages

3. PROJECT DATA/INFORMATION:

1.	Applicant:	3 Lincoln, LLC 80 Exchange Street, Suite 400 Portland, ME 04101
2.	Owner of Property:	City of Biddeford
.	Agent:	Peter Heil, P.E. Acorn Engineering 16 Middle Street, Unit 302 Portland, ME 04101
4.	Surveyor:	Owen Haskell
5.	Project Location:	3 Pearl Street
6.	Project Tax Map #/Lot #:	Tax Map 71, Lot 2

7.	Lot Size:	2.08 acres (Lot 3)
8.	Base Zoning:	MSRD-3
9.	Overlay Zoning:	WR-1 Shoreland
10.	Existing Use:	Former MERC Site
11.	Proposed Use:	Mixed-use Residential and Commercial
12.	Approvals Required:	Major Subdivision, Major Site Plan, Shoreland Zone, Site Location (Capacity Review)
13.	Uses in the Vicinity:	City of Biddeford Downtown and Mill District, Mixed-Use
14.	Waivers Needed:	a. Commercial Space Parking Requirements b. Open Space Requirements
18.	Waivers Granted:	a. None
22.	Other Non-City Permits Required:	Maine DEP Stormwater, Maine DOT Traffic Movement Permit (TMP), SRCC
23.	LDR Attachment A: Fees Paid:	Yes
25.	**Planning Board Review History - Case # 2022.02:** Sketch Plan Review - February 2, 2022 Preliminary Review Approval – November 2, 2022 Final Plan February 15, 2023 **Planning Board Review History - Case #2024.55** Sketch Plan Review: July 16, 2025 Site Walk: August 20, 2025 Sketch/Preliminary Plan Review: August 20, 2025 Preliminary Review: September 17, 2025	

4. REVIEW PROCESS:

Per City ordinance, this application is subject to Site Plan Review (Land Development Regulations, Article XI) and Subdivision review and approval (Code of Ordinances, Chapter 66). Subdivision requires a 2-tier approval process beginning with a preliminary plan review and approval and final plan approval. The Planning Board is now considering the preliminary plan submission.

5. STAFF REVIEW:

a. **APPLICATION COMPLETENESS:** The applicant has submitted a complete application, featuring all required elements as specified under Section 66-35 (Required Information for Preliminary Plan Submissions). Although most of the major concerns of the development have/ are being addressed conceptually and on the revised plans, Staff's opinion is that the remaining elements which need to be addressed need to be addressed / resolved prior to final Planning Board final review of the project.

b. **ZONING:** The proposed uses, Commercial, Residential, and Restaurant, are permitted uses within the MSRD-3 Zone, and the proposed Waterfront Renaissance shoreland zone overlay district. Similarly, with respect to applicable dimensional requirements, the project would comply with all applicable requirements, including building height,

building setback, frontage, and lot coverage requirements.

c. **REVIEW STANDARDS:** In general, staff found the application to satisfy City subdivision and site plan requirements, though as mentioned above, the City Engineer and our third party civil engineer identified a number of technical plan elements to be addressed prior to the scheduling of a pre-construction meeting.

i. Utility Capacity: The application includes a letter confirming adequate capacity from Maine Water Company, and the City has confirmed the development has adequate sewer capacity. Pearl Street is in the process of being redeveloped by the City of Biddeford, and will include as part of that work, upgrades to subsurface water, sewer, gas, electric and telephone/cable infrastructure to support development in this location.

ii. Maine DEP Stormwater Permit: As part of the permitting for the Pearl Street Garage, the City of Biddeford submitted for and had approved a Maine DEP stormwater permit, due to the amount of new impervious surface. The applicant is seeking to amend this permit to account for new development proposed on Lot 3.

iii. Maine Site Law Review: The City of Biddeford is classified as having capacity to review projects triggering the Maine Site Location of Development Act (SLODA) in areas of the City designated for priority growth as part of the Comprehensive Plan. As clarified in a recent email by Maine DEP, capacity review authority, permits certain municipalities to review projects triggering site location reviews under their local land use regulations (i.e. site plan, subdivision, shoreland zone, etc.), without formal review by the DEP. Noting this, staff and the Planning Board will proceed in its review of this project under applicable local review standards.

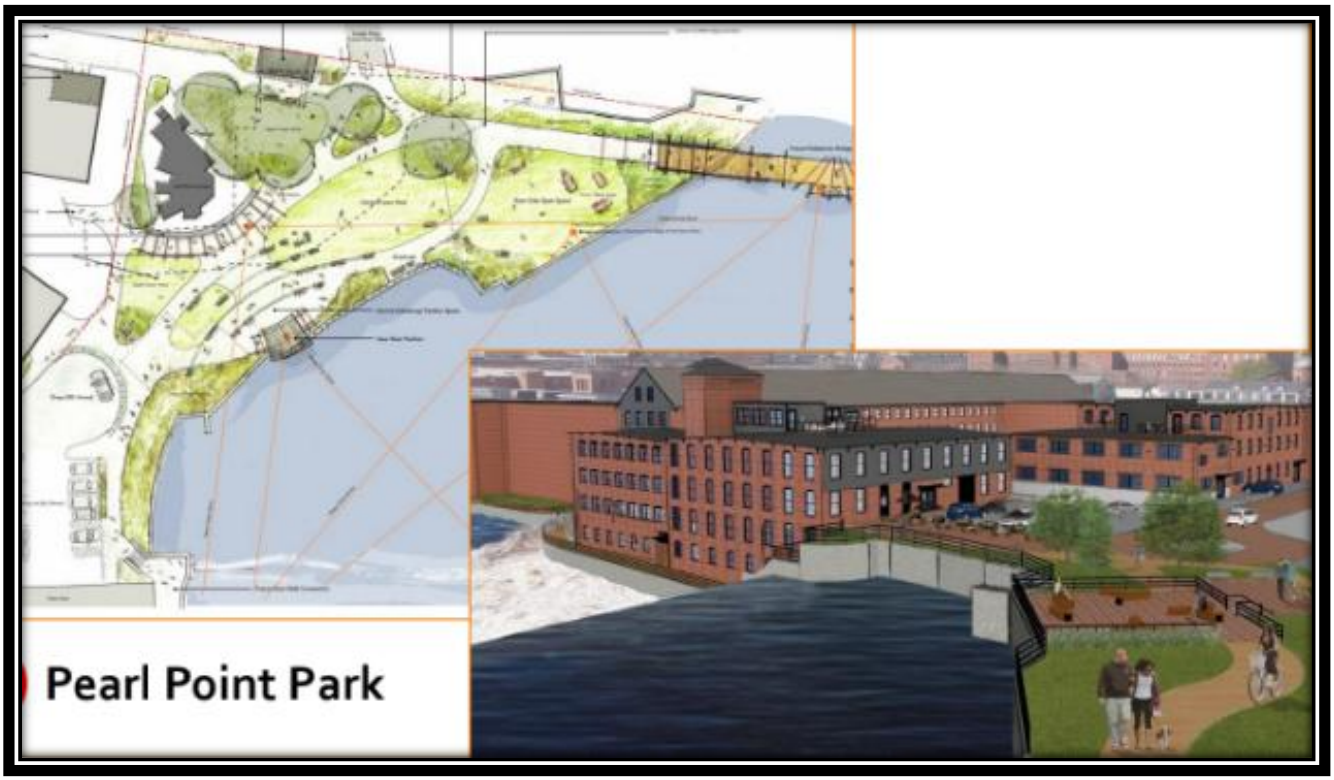
iv. Traffic Movement Permit: The applicant has initiated the traffic movement permit (TMP) process with Maine DOT and has held the required Scoping Meeting for the project, which is detailed in the submitted application. Once the Section 7 report is finalized for DOT's consideration, staff had a third-party traffic engineer review the report and provided feedback to Maine DOT to be included in the TMP.

v. Off-Street Parking Requirements: The applicant is seeking a parking waiver for the commercial space parking requirements. Justification was provided within the application, please see applicant's response to comments. It should be noted that the Planning Board previously approved a requested parking waiver for the project, the parking waiver was never approved by the City Council. As required under Section 49 – Performance Standards, Parking of the City's Zoning Ordinance states:

"*The Planning Board may reduce (waive) the off-street requirements of proposals for new or expanded residential uses in the MSRD Zones, and the W-2 Zone provided that any such reductions or waivers are then approved by the City Council".*

vi. Private Open Space: The site plan ordinance requires that 1,000 square feet of open space be set aside for each residential unit being proposed, which would amount to almost 5 acres. Staff would note that this is an urban development in the heart of downtown Biddeford, redeveloping a geographically constrained site. As part of the joint development agreement between the City and the applicant, the applicant has agreed to the establishment of a public access easement, which would allow the Riverwalk to traverse the property. Further, the development site will be proximate to the newly proposed Pearl Point Park, proposed at the end of Pearl Street, which will be directly connected to the

Riverwalk Trail.



Pearl Point Park / Riverwalk connection to and through project site

6. OUTSTANDING ITEMS:

A. Fire Department Comments:

1) The proposed "reinforced grass grid fire truck turn-around" is not acceptable. This area shall be paved and shall be constructed to support 78,000 lbs. to accommodate the City's fire apparatus.

2) Trees within the interior courtyard shall be species that have a maximum height of 15 feet. The Fire Department is not agreeable to have plant species that will need to be trimmed/maintained by the proposed Homeowner's Association as it will become an enforcement issue.

Revised plans shall reflect the above changes.

B. Private Way Maintenance Agreement: A private way perpetual maintenance agreement shall be provided for City review and approval. Following City approval, the signed agreement shall be recorded and electronic copies provided to the City's Planning and Engineering Departments, prior to the issuance of building permits for the project.

C. Parking Waiver: As outlined above, the application requires the proposed parking waiver, for the commercial uses of the site, to be granted by the Planning Board, followed by City Council review and approval of said waiver.

D. ROW Waiver: The proposed private way within a 30-foot wide easement will require the Board to grant a waiver to allow the roadway where a 50-foot wide right of way (ROW).

E. Openspace Waiver: The application will require a waiver to the City's openspace standards.

F. Stormwater Management Agreement: The Stormwwater Management for the entire MERC site was designed and installed underground, adjacent to the remaining MERC smokestack, to accommodate all the stormwater for all of the redevelopment of the former MERC site. Namely Lots 1A, 1B, 1C, Lot 2 (parking garage lot), and Lot 3 (proposed development). A shared responsibility and maintenance agreement, including proportionate cost sharing, needs to be drafted and executed prior to the issuance of any building permits.

G. Homeowner's Association Documents: Homeowner's Association Documents shall be submitted for City review and approval. These documents shall be submitted for review prior to Final Application Review.

H. Traffic Movement Permit (TMP): The project requires the Maine Department of Transportation (MDOT) to issue the project a Traffic Movement Permit (TMP). The TMP can't be issued until the Applicant closes / purchases the land which is currently owned by the City. A signed and recorded TMP shall be submitted to the City's Planning and Engineering Departments prior to the issuance of a building permit for the project is issued.

I. Maine Department of Environmental Protection (MDEP) Amendment: The proposed private way modification will require review and re-approval by the Maine Department of Environmental Protection (MDEP) permit which was previously approved in the Applicant's original (approved) project. The City is the underlying property owner of the fire lane and access easement so the City will need to bring the proposed amendment forward to MDEP. The Applicant's Engineering Consultant, Peter Heil (Acorn Engineering) has been involved with the redevelopment of the MERC site, so it is Staff's recommendation that Mr. Heil become the City's agent for processing this amendment (via a written agreement between the City and Acorn) with the Applicant being responsible for all costs associated with this needed amendment. An agreement of this nature will need to be drafted by the Applicant to be signed by the City. MDEP permits shall be obtained, and copies to be provided to the City prior to the issuance of any building permits.

J. Parking Garage Lease Agreement: The proposal requires 140 parking stalls to be provided within the City's adjacent parking garage. A signed perpetual (for the life of the project) lease agreement with the parking garage operators shall be provided to the City, prior to the issuance of any occupancy permits. However, the Applicant shall provide a letter from the garage operator that the required spaces are available.

7. STAFF RECOMMENDATION:

The Applicant is seeking Preliminary and Final Approval at this time. It should be noted that the revised application was submitted to the City on Monday, September 8, 2025, when the Board's Staff report was to be provided to the Board on September 10, 2025. **Staff are supportive of granting Preliminary Approval for the project. However, due to the seriously compressed review time afforded City Staff and our Peer Reviewer, since resubmittal, Staff is not comfortable recommending Final Approval of the Application at this time. The application is extensive and has many moving parts, therefore Staff believes it is unfair to expect all reviewing departments / people to have been able to review and support Final Application approval.**

SAMPLE MOTIONS:

A. *Motion to Approve: I motion to APPROVE Case # 2024.55 Preliminary Site Plan, Subdivision and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and WR-1 Shoreland Overlay zone as presented.*

B. *Motion to Deny I motion to DENY Case # 2024.55 Preliminary Site Plan, Subdivision and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and WR-1 Shoreland Overlay zone, for the following reasons:*

   1) _____.
   2) _____.
   3) _____.

C. *Motion to Table: I motion to TABLE the Case # 2024.55 Preliminary Site Plan, Subdivision and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and WR-1 Shoreland Overlay zone, for the following reasons:*

   1) _____.
   2) _____.
   3) _____

David C.M. Galbraith
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
David.Galbraith@biddefordmaine.org

ACORN ENGINEERING, INC

SITE PLAN & SUBDIVISION / SITE LOCATION OF DEVELOPMENT AMENDMENT

PEARL STREET (LOT 3) REDEVELOPMENT

CITY OF BIDDEFORD, ME





Prepared By:

ACORN ENGINEERING, INC.

For:

3 LINCOLN, LLC.

August, 2025

A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

ACORN ENGINEERING, INC.

Planning Board & Planning Department
Attn: Mr. David Galbraith
City of Biddeford, Maine
205 Main Street
Biddeford, ME 04005

August 26, 2025

Subject: Subdivision, Site Plan, and MDEP Site Law Amendment
Redevelopment of Pearl Street Lot 3, Biddeford Maine

Members of the Board & Mr. Galbraith:

On behalf of 3 Lincoln, LLC, we are pleased to submit the accompanying package of Subdivision, Site Plan, and Site Location of Development Amendment submission materials related to the proposed redevelopment 3 Lincoln Street, (Pearl Street, Lot 3) in Biddeford, Maine. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), and the Waterfront Renaissance (WR) Shoreland Overlay Zoning Districts. This project proposes to amend the previous Major Site Plan and Subdivision Approval 2024.55 (& 2022.02) programming from three (3) total buildings on Lot 3 to four (4) total buildings. The amendment includes the addition of five (5) townhomes and revises the original programming of Building A from 85 residential units to up to 52 units, Building B from 129 residential units to up to 85 units, and Building C will remain as a restaurant with approximately 154 total seats (previously 298 seats permitted). Additionally, under the City's Municipal Capacity Authority to review Site Location of Development permit applications, the applicant requests review of the previously issued Site Law permit for the proposed amendments.

Overall, this project aims to provide housing to a much-needed housing stock and build on the developing culture of Pearl Street through the addition of mixed-use developments, including residential and commercial use. The site will be enhanced by continuing the redevelopment of the old MERC facility, increasing green space and providing a connectivity to the future river front park. The team's vision for this site is to foster a community-based space for living adjacent to the scenic river. One of many redevelopments within the Mill district, this project will further increase the activity within the City's flourishing downtown.

We would respectively request the Site Plan/Subdivision/Site Law Application be placed on the next available Planning Board meeting. If you have any questions regarding these materials or the completeness of the application materials, please do not hesitate to contact us.

Sincerely,

Peter Heil P.E.
Senior Project Manager
Acorn Engineering, Inc.

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-3901

FOR DEP USE **FORM A PAGE 1**
ATS # _____
L-_____
Total Fees: _____
Date: Received _____

****

SITE LOCATION OF DEVELOPMENT PERMIT APPLICATION 38 M.R.SA. §§481-490

PLEASE TYPE OR PRINT IN *INK ONLY*

This application is for: (CHECK THE ONE THAT APPLIES)	☐ **20 acre development** ☐ **Planning Permit** ☐ **Metallic Mining**	☐ **Marine Oil Terminal** ☐ **Structure** ☐ **Subdivision**	■ **Major Amendment** ☐ **Minor Amendment**

1. Name of Applicant:	3 Lincoln, LLC Marieke Thorman	**6. Name of Agent (if applicable):**	Acorn Engineering, Inc Peter F. Heil, PE
2. Applicant's Mailing Address:	80 Exchange Street, Suite 400, Portland, ME	**7. Agent's Mailing Address:**	PO Box 3372, Portland, Maine 04104
3. Applicant's Daytime Phone #:	207-317-2818	**8. Agent's Daytime Phone # :**	207-775-2655
4. Applicant's Fax # (if available):		**9. Agent's Fax # (if available):**	
5. Applicant's *e-mail address* (REQUIRED -license will be sent via: e-mail):	Mthromann@fathomcompanies.com	**10. Agent's *e-mail address* (REQUIRED - license will be sent via e-mail):**	Pheil@acorn-engineering.com

PROJECT INFORMATION

11. Name of Development:	3 Lincoln Street, Lot 3, Biddeford, ME						
12. Map and Lot #'s:	**Map #:** 71	**Lot #:** 2	**13. Deed Reference #'s:**		**Book #:**		**Page #:**
14. Location of Project City/Town:	Biddeford		**15. County:**	York	**16. UTM Northing**	43.49612	**17. UTM Easting**	-70.454125
18. Brief Description of Project including total parcel size:	The project proposes to subdivide the larger 3 Lincoln Street parcel into four (4) separate lots and construct four (4) buildings on Lot 3 covering a total of 2.08 acres						

19. Type of Direct Watershed: (Check all that apply)

☐ Lake not most at risk ■ River, stream or brook ☐ Coastal wetland
☐ Lake most at risk ☐ Urban impaired stream ☐ Wellhead or public water
☐ Lake most at risk, severely blooming ☐ Freshwater wetland

20. Name of Waterbody Project Site drains to:	Saco River		
21. Amount of Developed Area:	Total acres: 2.08	Existing Developed area: ~~2.08~~ acres	New Developed area: ___ acres
22. Amount of Impervious Area:	Total acres: 1.56	Existing Impervious areas ~~1.95~~ acres	New Impervious area: ___ acres

23. Development started prior to obtaining a license?:	☐ **Yes** ■ **No**	
24. .Development or any portion of the site subject to enforcement action?	☐ **Yes** ■ **No**	**If yes**, name of enforcement staff involved?
25. Common scheme of development?:	☐ **Yes** ■ **No**	**26. Title, Right or Interest:** ☐ **own** ☐ **lease** ■ **purchase option** ☐ **written agreement**
27. Natural Resources Protection Act permit required?:	☐ **Yes** ■ **No**	**If yes:** ☐ **PBR** ☐ **Tier 1** ☐ **Full Permit** ☐ **Tier 2**
28. Existing DEP Permit number (if applicable):	L-10282-NJ-A-N, L-10282-05-A-N	
29. Names of DEP staff person(s) present at the pre-application meeting:	Christine Woodruff	
30. Does agent have an interest in project? If yes, what is the interest?	☐ **Yes** ■ **No**	

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

CERTIFICATIONS / SIGNATURES

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the electronic address located on the front page of this application (see #5 for the applicant and #10 for the agent)"..

Signed: _____ **Title** VP of Development **Date:** 8/26/2025

Notice of Intent to Comply with Maine Construction General Permit	**With this Site Law application form and my signature, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards.** **If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.** **Signed** _____ **Date:** 8/26/2025

NOTE: You must file a MCGP Notice of Termination (Form K) within 20 days of completing permanent stabilization of the project site.

CERTIFICATION

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for development approval is complete and accurate to the best of his/her knowledge.

Signature: _____

Name (print): Peter F. Heil, PE

Date: 8/26/25

Re/Cert/Lic No.: _____

Engineer 15318

Geologist _____

Soil Scientist _____

Land Surveyor _____

Site Evaluator _____

Active Member of the Maine Bar _____

Professional Landscape Architect _____

Other _____

FORM D

SUBMISSIONS CHECKLIST

If a provision is not applicable, put "NA"

Section 1. Development description

A. Narrative

x 1. Objectives and details

x 2. Existing facilities (with dates of construction)

B. Topographic map

x 1. Location of development boundaries

x 2. Quadrangle name

C. Construction plan

x 1. Outline of construction sequence (major aspects)

x 2. Dates

D. Drawings

x 1. Development facilities

x a. Location, function and ground area

n/a b. Length/cross-sections for roads

x 2. Site work (nature and extent)

x 3. Existing facilities (location, function ground area and floor area)

4. Topography

x a. Pre- and post-development (contours 2 ft or less)

x b. Previous construction, facilities and lot lines

x **Section 2. Title, right or interest** (copy of document)

Section 3. Financial capacity

x A. Estimated costs

B. Financing

x 1. Letter of commitment to fund

2. Self-financing

____ a. Annual report

____ b. Bank statement

3. Other

____ a. Cash equity commitment

____ b. Financial plan

____ c. Letter

____ 4. Affordable housing information

Section 4. Technical ability (description)

x A. Prior experience (statement)

x B. Personnel (documents)

Section 5. Noise

x A. Developments producing a minor noise impact (statement)

x 1. Residential developments

____ 2. Certain non-residential subdivisions

____ 3. Schools and hospitals

x 4. Other developments

x a. Type, source and location of noise

x b. Uses, zoning and plans

x c. Protected locations

x d. Minor nature of impact

x e. Demonstration
n/a B. Developments producing a major noise impact (full noise study)
1. Baseline
a. Uses, zoning and plans
b. Protected locations
c. Quiet area
2. Noise generated by the development
a. Type, source and location of noise
b. Sound levels
c. Control measures
d. Comparison with regulatory limits
e. Comparison with local limits

x **Section 6. Visual quality and scenic character**(narrative, description, visual impact analysis)

x **Section 7. Wildlife and fisheries** (narrative)

x **Section 8. Historic sites** (narrative)

x **Section 9. Unusual natural areas** (narrative)

Section 10. Buffers
x A. Site plan and narrative

Section 11. Soils
A. Soil survey map and report
1. Soil investigation narrative
2. Soil survey map
x B. Soil survey intensity level by development type
1. Class A (High Intensity) Soil Survey
2. Class B (High Intensity) Soil Survey
3. Class C (Medium High-Intensity) Soil Survey
x 4. Class D (Medium Intensity) Soil Survey
x C. Geotechnical Investigation
D. Hydric soils mapping

Section 12. Stormwater management
A. Narrative
x 1. Development location
x 2. Surface water on or abutting the site
x 3. Downstream ponds and lakes
x 4. General topography
n/a 5. Flooding
n/a 6. Alterations to natural drainage ways
x 7. Alterations to land cover
x 8. Modeling assumptions
9. Basic standard
x 10. Flooding standard
x 11. General standard
x 12. Parcel size
x 13. Developed area
x 14. Disturbed area
x 15. Impervious area
B. Maps
x 1. U.S.G.S. map with site boundaries
x 2. S.C.S. soils map with site boundaries
C. Drainage Plans (a pre-development plan and a post-development plan)

x 1. Contours
x 2. Plan elements
x 3. Land cover types and boundaries
x 4. Soil group boundaries
____ 5. Stormwater quantity subwatershed boundaries
____ 6. Stormwater quality subwatershed boundaries
____ 7. Watershed analysis points
____ 8. Hydrologic flow lines (w/flow types and flow lengths labeled)
____ 9. Runoff storage areas
x 10. Roads and drives
x 11. Buildings, parking lots, and other facilities
x 12. Drainage system layout for storm drains, catch basins, and culverts
____ 13. Natural and man-made open drainage channels
n/a 14. Wetlands
n/a 15. Flooded areas
n/a 16. Benchmark
x 17. Stormwater detention, retention, and infiltration facilities
x 18. Stormwater treatment facilities
x 19. Drainage easements
n/a 20. Identify reaches, ponds, and subwatersheds matching stormwater model
n/a 21. Buffers

n/a D. Runoff analysis (pre-development and post development)
____ 1. Curve number computations
____ 2. Time of concentration calculations
____ 3. Travel time calculations
____ 4. Peak discharge calculations
____ 5. Reservoir routing calculations

n/a E. Flooding Standard
____ 1. Variance submissions (if applicable)
____ a. Submissions for discharge to the ocean, great pond, or major river
____ i. Map
____ ii. Drainage plan
____ iii. Drainage system design
____ iv. Outfall design
____ v. Easements
____ b. Insignificant increase
____ i. Downstream impacts
____
____ c. Submissions for discharge to a public stormwater system
____ i. Letter of permission
____ ii. Proof of capacity
____ ii. Outfall analysis and design (pictures)
____ 2. Sizing of storm drains and culverts
____ 3. Stormwater ponds and basins
____ a. Impoundment sizing calculations
____ b. Inlet calculations
____ c. Outlet calculations
____ d. Emergency spillway calculations
____ e. Subsurface investigation report
____ f. Embankment specifications
____ g. Embankment seepage controls
____ h. Outlet seepage controls
____ i. Detail sheet
____ j. Basin cross sections
____ k. Basin plan sheet
____ 4. Infiltration systems
____ a. Well locations map
____ b. Sand and gravel aquifer map
____ c. Subsurface investigation report with test pit or boring logs

d. Permeability analysis
e. Infiltration structure design
f. Pollutant generation and transport analysis
g. Monitoring and operations plan
i. Locations of storage points of potential contaminants
ii. Locations of observation wells and infiltration monitoring plan
iii. Groundwater quality monitoring plan

5. Drainage easement declarations.

n/a F. Stormwater quality treatment plan peak discharge calculations

1. Basic stabilization plan
a. Ditches, swales, and other open channel stabilization
b. Culvert and storm-drain outfall stabilization
c. Earthen slope and embankment stabilization
d. Disturbed area stabilization
e. Gravel roads and drives stabilization

x 2. General Standard
a. Calculations for sizing BMP
b. Impervious area calculation
c. Developed area calculation
d. Summary spreadsheet of calculations

n/a 3. Phosphorus control plan
a. Calculations for the site's allowable phosphorus export
b. Calculations for determining the developed site's phosphorus export
c. Calculations for determining any phosphorus compensation fees

n/a 4. Offset Credits
a. Urban impaired stream
Offset credit calculation
b. Phosphorus credit determination
i. Location map
ii. Scaled plan
iii. Title and right
iv. Demolition plan
v. Vegetation plan
vi. Offset credit calculation
vii. Calculation for the new allowable export

n/a 5. Runoff treatment measures
a. structural measures
i. Design drawings and specifications
ii. Design calculations
iii. Maintenance plan
iv. TSS removal or phosphorus treatment factor determinations
v. Stabilization plan
b. Vegetated buffers
i. Soil survey
ii. Buffer plan
iii. Turnout and level spreader designs
iv. Deed restrictions

n/a 6. Control plan for thermal impacts to coldwater fisheries

n/a 7. Control plan for other pollutants

x 8. Engineering inspection of stormwater management facilities

x G. Maintenance of common facilities or property

1. Components of the maintenance plan
A. Maintenance of facilities by owner or operator
1. Site owner or operator (name legally responsible party)
2. Contact person responsible for maintenance
3. Transfer mechanism

4. List of facilities to be maintained
5. List of inspection and maintenance tasks for each facility
6. Identifications of any deed covenants, easements, or restrictions
7. Sample maintenance log
8. Copies of any third-party maintenance contracts

B. Maintenance of facilities by homeowner's association
1. Incorporation documents for the association
2. Membership criteria
3. Association officer responsible for maintenance
4. Establishment of fee assessment for maintenance work
5. Establishment of lien system
6. Reference to department order(s) in association charter
7. Transfer mechanism from developer to association
8. List of facilities to be maintained
9. Identification of any deed covenants, easements, or restrictions
10. Renewal of covenants and leases
11. List of inspection and maintenance tasks for each facility
12. Sample maintenance log
13. Copies of any third-party maintenance contracts

C. Maintenance of facilities by municipality or municipal district
1. Identification of the municipal department or utility district
2. Contact person responsible for maintenance
3. Evidence of acceptance of maintenance responsibility
4. Transfer mechanism from developer
5. List of facilities to be maintained
6. List of inspection and maintenance tasks for each facility
7. Identifications of any deed covenants, easements, or restrictions
8. Sample maintenance log

x 2. General inspection and maintenance requirements

a. Drainage easements

x b. Ditches, culverts, and catch-basin systems

x c. Roadways and parking surfaces

d. Stormwater detention and retention facilities
1. Embankment inspection and maintenance
2. Outlet inspection and clean-out
3. Spillway maintenance
4. Sediment removal and disposal

e. Stormwater infiltration facilities
1. Sediment protection plan
2. Infiltration rehabilitation plan
3. Sediment removal and disposal
4. Groundwater monitoring plan

f. Proprietary treatment devices

g. Buffers

h. Other practices and measures

Section 13. Urban Impaired Stream Submissions

n/a 1. Off-site credits

n/a 2. Compensation fees (Urban Impaired Stream/Phosphorus)

n/a 3. Development impacts

Section 14. Basic Standards

x A. Narrative

x 1. Soil types

x 2. Existing erosion problems

x 3. Critical areas

x 4. Protected natural resources

x 5. Erosion control measures

x 6. Site stabilization
x B. Implementation schedule
x C. Erosion and sediment control plan
x 1. Pre-development and post-development contours
x 2. Plan scale and elements
x 3. Land cover types and boundaries
x 4. Existing erosion problems
x 5. Critical areas
x 6. Protected natural resources
x 7. Locations (general)
x 8. Locations of controls
x 9. Disturbed areas
x 10. Stabilized construction entrance
x D. Details and specifications (for both temporary and permanent measures)
_____ E. Design calculations
x F. Stabilization plan
x 1. Temporary seeding
x 2. Permanent seeding
x 3. Sodding
x 4. Temporary mulching
x 5. Permanent mulching
x G. Winter construction plan
x 1. Dormant seeding
x 2. Winter mulching
x H. Third-party inspections
x 1. Inspector's name, address, and telephone number
x 2. Inspector's qualifications
_____ 3. Inspection schedule
_____ 4. Contractor contact
_____ 5. Reporting protocol

Section 15. Groundwater

x A. Narrative
_____ 1. Location and maps
_____ 2. Quantity
_____ 3. Sources
_____ 4. Measures to prevent degradation
x B. Groundwater protection plan
n/a C. Monitoring plan
_____ 1. Monitoring points
_____ 2. Monitoring frequency
_____ 3. Background conditions
_____ 4. Monitoring parameters
_____ 5. Personnel qualifications
_____ 6. Proof of training
_____ 7. Equipment and methods
_____ 8. Quality assurance/quality control
_____ 9. Reporting requirements
_____ 10. Remedial action plan
n/a D. Monitoring well installation report
_____ 1. Well location map
_____ 2. Elevation data
_____ 3. Well installation data
_____ 4. Well construction details
_____ 5. Borehole logs
_____ 6. Summary of depth measurements
_____ 7. Characteristics of subsurface strata
_____ 8. Well installation contract

____ 9. Schematic cross-sections
____ 10. Monitoring point summary table
____ 11. Protective casing
____ 12. On-site well identification

Section 16. Water supply

x A. Water supply method
____ 1. Individual wells (evidence of sufficient/healthful supply)
____ a. Support of findings by well drillers
____ b. Support of findings by geologist
____ 2. Common well(s) (reports)
____ a. Hydrogeology report
____ b. Engineering report
____ c. Well installation report
____ d. Long-term safe yield and zone of influence determination
____ e. Public water supply
____ i. Proposed well or wells
____ ii. Existing well or wells
____ iii. Water quality analysis
____ 3. Well construction in shallow-to-bedrock areas
____ 4. Additional information
x 5. Off-site utility company or public agency
____ 6. Other sources
n/a B. Subsurface wastewater disposal systems (locations of systems and wells)
x C. Total usage (statement re: total anticipated water usage)

Section 17. Wastewater disposal

n/a A. On-site subsurface wastewater disposal systems (investigation results)
____ 1. Site plan
2. Soil conditions summary table
____ 3. Logs of subsurface explorations
4. Additional test pits, borings or probes
____ a. Soil conditions A
____ b. Soils with Profiles 8 and 9 parent material
____ c. Soil conditions D
____ d. Disposal field length 60 feet or greater
____ 5. 3-bedroom design
____ 6. Larger disposal systems
a. System design details
____ b. Plan view
____ c. Cross sections
____ d. Test pit data
____ e. Mounding analysis
n/a B. Nitrate-nitrogen impact assessment
____ 1. When required
____ a. Exempted____
i. Conventional systems meeting certain setbacks
____ ii. Denitrification systems
____ b. Special conditions and other exemptions
____ 2. Assumptions
____ a. Initial concentration
____ b. Background concentration
____ c. Contribution from development
____ d. Mixing and dilution
____ e. Severe-drought scenario
____ f. Wastewater flow to subsurface wastewater disposal fields

n/a 3. Assessment report minimum requirements
____ a. Narrative and calculations
____ b. Site plan
____ i. Well locations
____ ii. 10 mg/l and 8 mg/l isocons
____ iii. Groundwater contours and groundwater flow divides
____ c. References
n/a 4. Denitrification systems
____ a. Design plans and specifications
____ b. Installation information
____ c. Monitoring plan
____ d. Maintenance
____ e. Backup system
x D. Municipal facility or utility company letter
n/a E. Storage or treatment lagoons

____ **Section 18. Solid waste** (list: type, quantity, method of collection and location)
x A. Commercial solid waste facility (final disposal location)
n/a B. Off-site disposal of construction/demolition debris (final disposal location)
C. On-site disposal of woodwaste/land clearing debris
____ 1. Applicability of rules (evidence re: applicability of rules)
2. Burning of wood wastes
____ a. Delineation on site plan
____ b. Plans for handling unburned woodwaste and woodash
____ c. Evidence of capacity to accept waste (approved facility)
____ d. Usage of materials
____ e. Data on mixing ratios and application rates
n/a D. Special or Hazardous Waste

Section 19. Flooding
x A. Explanation of flooding impact
x B. Site plan showing 100-year flood elevation
n/a C. Hydrology analysis
x D. FEMA flood zone map with site boundaries

Section 20. Blasting
n/a A. Site Plan or map
n/a B. Report
1. Assessment
2. Blasting plan

Section 21. Air emissions (narrative and summary)
n/a A. Point and non-point sources identified
n/a B. Emission components (point sources)

Section 22. Odors
x A. Identification of nature/source
x B. Estimate of areas affected
n/a C. Methods of control)

x **Section 23. Water vapor** (narrative)

x **Section 24. Sunlight** (statement and drawing, if required)

Section 25. Notices
x A. Evidence that notice sent
x B. List of abutters for purposes of notice

Supplemental requirements for Wind Energy Developments only:

Section 26. Shadow flicker

n/a A. A copy of the Windpro Analysis and associated narrative

Section 27. Public Safety

n/a A. Design safety certifications or other documents attesting to the safety of the wind turbine equipment.
n/a B. Evidence pertaining to overspeed controls
n/a C. Site plan documenting safety setbacks zones for each wind turbine
n/a D. Other documents as necessary to demonstrate safety considerations

Section 28. Tangible Benefits

n/a A. Narrative demonstration of tangible benefits

Section 29. Decommissioning

n/a A. Description of implementation trigger for decommissioning
n/a B. Description of extent of decommissioning
n/a C. Itemization of total cost to complete decommissioning
n/a D. Demonstration of financial assurance for completeness of decommissioning plan

Section 30. Generating Facility-visual Quality and Scenic Character

n/a A. (narrative, description, visual impact analysis)

City of Biddeford – Planning Department

Planning Board Application

P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

▪ Shoreland Zoning Permit ▪ Site Plan Review ☐ Extraction
☐ Conditional Use Permit ▪ Subdivision ☐ Private Way
☐ Other: _____

Applicant Information:

Name: 3 Lincoln, LLC - Marieke Thormann
Mailing Address: 80 Exchange Street, Suite 400, Portland, ME 04101
Telephone: 207-317-2818
Email: mthormann@fathomcompanies.com

What is your legal interest in the property?

☐ Owner ▪ Potential Buyer with Contract ☐ Lease/Rental Agreement

Owner's Information:

Name: City of Biddeford
Mailing Address: 205 Main Street, Biddeford, Maine 04005
Telephone: 207-571-0700
Email: _____

Agent's Information:

Name: Acorn Engineering, Inc - Peter F. Heil, PE, CPESC
Mailing Address: 16 Middle Street Suite #302, Portland, ME, 04101
Telephone: 207 - 775 - 2655
Email: Pheil@acorn-engineering.com

Engineer/Surveyor's Information:

Name: Acorn Engineering / Owen Haskell
Mailing Address: See above / 390 U.S. Rt 1. Unit #10 Falmouth, ME, 04105
Telephone: See above/ 207-774-0424
Email: See above / rloubier@owenhaskell.com

Project Location and Lot Information:

Street Address: Pearl Street, Biddeford, ME Drainage Watershed: Saco River
Tax Map: 71 Lot: 2
Current Zoning: MSRD3 Shoreland Zoning: Yes
Size of Lot: 2.08 (lot 3) (▪)acres (☐)s.f. Lot Frontage: 324' (Pearl Street)
Existing Use of Property: The existing lot is the location of the former MERC facility, which has been demolished. The existing lot is currently vacant.

Property currently serviced by:

▪ City Road ▪ Public Sewer ▪ Public Water ☐ Public Trash
☐ Private Road ☐ Septic System ☐ Private Well ☐ Private Hauler

Slope Conditions in Area of Construction (if applicable):

▪ Flat (0-3% slope) ☐ Rolling (3-8% slope) ☐ Hilly (8-15% slope) ☐ Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? ☐ (Yes) ▪ (No) if yes attach information
Is the project within the 100-year floodplain? ☐ (Yes) ▪ (No) if yes attach information
Do you plan to bring fill onto the lot? ☐ (Yes) ▪ (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

The project proposes to amend the previous major site plan and subdivision approval (2022.02) programming from three total buidlings on lot 3 to four total buildings. The amendment includes the addition of five townhomes and revises the original programming of building A from 85 to 52 units, building B from 129 to 85 units, building C is proposed to be a restaurant with 154 seats.

Property to be Serviced by:

▪ City Road ▪ Public Sewer ▪ Public Water ☐ Public Trash
☐ Private Road ☐ Septic System ☐ Private Well ▪ Private Hauler

Limits of Disturbance: 99,237SF (☐)acres (☐)s.f.
Net change in impervious cover: - 16,897 SF (☐)acres (☐)s.f.
Is this project part of a larger project? ☐(Yes) ▪(No)
Is the project proposing a new Private or Public Road? ☐(Yes, Private) ☐(Yes, Public) ▪(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) ▪(Yes) ☐(No)
Is the project proposing any Stormwater facilities/BMPs? ☐(Yes) ▪(No)
Will a Traffic Movement Permit (TMP) be required?: ▪(Yes) ☐(No)

▪ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): N/A
Percent of structure expansion (Max 30%): _____
▪ **If Subdivision Review, number of lots proposed:** 4 Lots previously approved (Approval ID: 2022.02)
☐ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: 31,056 SF
Total new square feet paving/parking: 13,275 SF

Waiver Requests (attach details):

1. See Section 33. Waivers
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letters of Approval
   __ Fire Department – Contact Chief or Deputy Chief – 282-9986
   __ Ability to Serve for Water Service – Maine Water – 282-1543
   __ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
   ☐ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
B. Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
C. Photographs of Site.
D. Architectural renderings/drawings of proposed buildings, as required.
E. Engineering Plans, as required.
F. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance?: X (Yes) __(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: _____ **Date** 8/26/25

Signature of Property Owner: _____ **Date** 8/26/25

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- All drawings & CAD reference files must be to-scale and within the following coordinate systems:

- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIUDAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

CITY OF BIDDEFORD - SITE PLAN & SUBDIVISION APPLICATION DRAWING CHECKLIST *LAST REVISED: 11/26/2024*

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant and included on all preliminary and final Site Plan & Subdivision submittals. No checklist is required for sketch submittals.
2. Applicant to confirm all of the items listed are included within the submittal. Any missing items must have adequate reasoning to justify their absence.
3. City to review applicant's submittal and checklist responses. Projects missing substantial submittal information with non-acceptable reasoning will be rejected and required to resubmit.
4. Items in **BLACK** are required for 'Preliminary' approval & 'Final' approval.
5. Items in **BLUE** are only required for 'Final' approval.

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT	
Project Name:	3 Lincoln Street, Lot 3, Redevelopment
Planning Board # (if available):	2024.55 (& 2022.02)
Applicant Name/Info:	3 Lincoln, LLC
Submittal #/Type (Prelim/Final):	Amendment
Submittal Date:	8/6/2025

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	
1	**GENERAL PLAN REQUIREMENTS**					
A	Drawing specific legends (linetypes, hatches, etc.)	YES	C-01			
B	Individual drawing layer control should be utilized: freeze/thawing, changing lineweights, and screening (i.e. screen existing layers on a proposed plan, freeze topography and underground utilities on a proposed site plan)	YES				
C	North arrows, standard engineering scale viewports, scale bars, dated revision blocks	YES				
D	All drawings and surveys must be in the following coordinate systems: NAD83 Maine State Plane West (Horizontal) and NAVD88 (Vertical)	YES	EX			
E	Drawings need to be designed, signed & sealed by a Maine licensed professional engineer (PE); all boundary survey data needs to be performed by a licensed professional land surveyor (PLS)	YES				
2	**COVER SHEET**					
A	Project Name & Property Address	YES	C-01			
B	Project Team Contact Information (Owner, Engineer, Contractor, etc.)	YES	C-01			
C	Site Location Map	YES	C-01			
D	Sheet Set List of Drawings	YES	C-01			
E	Tax Map and Lot ID	YES	C-01			
F	Zoning & Shoreland Zone Information	YES	C-01			
G	Existing Use Description	YES	C-01			
H	Proposed Use Description	YES	C-01			
I	Required Waiver/Variances (Yes/No); if yes, plan must clearly list waivers/variances requesting	YES	C-01			
J	Name of Drainage Watershed	YES	C-01			
K	Within the MS4 Urbanized Area (Yes/No)	YES	C-01			
L	Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	YES	C-01			
M	Within the 100-year Flood Zone (Yes/No)	NO	C-01			
N	Public Road Proposed (Yes/No)	NO	C-01			
O	Private Road Proposed (Yes/No)	NO	C-01			
P	Public Sewer Connection (Yes/No)	YES	C-01			
Q	Public Storm Drain Connection (Yes/No)	YES	C-01			
R	Limits of Disturbance in square feet and acres	YES	C-01			
S	Pervious Land Cover square footage, existing and proposed	YES	C-01			
T	Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	YES	C-01			
U	Building Roof square footage, existing and proposed	YES	C-01			
V	Assigned Planning Board Number	YES	C-01	2024.55 (& 2022.02)		
W	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	NO		N/A		
3	**EXISTING CONDITIONS PLAN**					
A	Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	YES	C-02			
B	Property & Right-of-Way Lines	YES	EX			
C	Boundary line information (bearings, distances, etc.)	YES	EX			
D	Property pin and monumentation locations	YES	EX			
E	Existing easements with proper ownership identified	YES				
F	Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	YES	EX			
G	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			
H	100-year Flood Zone Limits & Elevation	YES		Provided in FEMA map		
I	Existing contours with adequate contour labelling; minimum 1' contour interval	YES	EX			
J	Existing building FFEs annotated	YES	C-30			
K	Spot elevations for all tie-in locations (curb cuts, property line)	YES	C-30			
L	Existing buildings & structures	YES	EX			
M	Existing pavement areas & number of parking spaces	YES	EX			
N	Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	YES	EX			
O	Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters, fencing)	YES	EX			
P	Existing signage and striping	YES	EX			
Q	Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	YES	EX			
R	Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	EX			
S	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	NO	EX			
T	Existing tree lines, street trees, free-standing trees (12" or larger diameter at breast height), and vegetation	NO		There are no existing trees 12" or larger located on the subject parcel		
U	Location of any borings, drinking wells, and monitoring wells	YES	Section 11			
4	**SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN**					
A	Limits-of-disturbance outlined and acreage annotated	YES	C-03			
B	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			
C	100-year Flood Zone Limits	NO		N/A		
D	Callout existing site features to be demolished/removed/replaced	YES	C-03			
E	Callout existing utilities to be demolished/removed/abandoned-in-place	YES	C-03			
F	Hatch existing buildings and pavement to be removed	YES	C-03			
G	Construction Entrance location(s)	YES	C-03			
H	Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	YES	C-03			
I	Stockpile and staging area(s) identified (with proper perimeter control)	YES	C-03			
J	Inlet protection location(s)	YES	C-03			
K	Note requiring contractor to implement dust control measures throughout construction	YES	C-03			
L	Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	NO	N/A			
M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping routing	NO				
N	If large development is proposed with an extensive underground stormwater conveyance network, identify how SWM infrastructure and BMPs will be protected during construction and if sediment traps/basins are needed	NO		N/A		
5	**SITE PLAN/SUBDIVISION PLAN**					
A	Partial Site Plans needed for any viewport scale greater than 1"=20'	NO		N/A		
B	Existing property and right-of-way lines	YES	C-03			
C	Proposed subdivision lot lines and labels	YES	PLAT			
D	Required Zoning Setbacks shown with dimensions and annotation	YES	C-10			
E	Bulk requirement summary table (zoning/parking calculations)	YES	C-10			
F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			
G	100-year Flood Zone Limits	NO		N/A		
H	Proposed building outlines, door entrances and loading docks	YES	C-10			
I	Proposed building labels	YES	C-10			
J	Proposed road & sidewalk extents; provide clear annotation if roads will be public or private	YES	C-10			
K	Proposed parking and accessible parking locations; annotate parking space counts	YES	C-10			
L	Proposed signage, parking striping, and traffic striping	YES	C-10			
M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	YES	C-10			
N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	YES	C-10			
O	Proposed landscaping; detailed landscaping design should be shown on separate plans	YES	C-10			
P	Designated snow storage areas	YES	C-10	See General Note 7.		
Q	Proposed dumpster locations and trash removal access	YES	C-10			
R	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	YES	C-10			
S	Radial dimensions for all curbs, landscaped islands, sidewalks	YES	C-10			
T	Public/private road centerline stationing shown, labelled every 0+50' with curve data	N/A				

U	If Private Road is proposed, final recorded plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	N/A				
V	If Private Road is proposed, final recorded plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	N/A				
W	Planning Board signature block for final recording	YES	PLAT			
6	**GRADING PLAN**					
A	Partial Grading Plans needed for any viewport greater than 1"=20'	NO		N/A		
B	Limits-of-disturbance outlined and acreage annotated	YES	C-30			
C	Proposed Building Labels with Individual Finished Floor Elevations (FFEs)	YES	C-30			
D	Existing contours with adequate contour labelling, screened; minimum 1' contour interval	YES	C-30			
E	Proposed contours with adequate contour labelling; minimum 1' contour interval	YES	C-30			
F	Detailed grading for all ditches, swales, outfalls, and riprap	NO		N/A		
G	All proposed contours tie-into existing contours at limits-of-disturbance outline	YES	C-30			
H	Existing spot elevations for all asphalt, curb, and SWM BMP tie-in locations	YES	C-30			
I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			
J	100-year Flood Zone Limits	NO		N/A		
K	Proposed spot elevations for all important roadway geometric points (including but not limited to: parking/drive aisles, building corners/entrances, retaining walls, loading docks, EOP/curblines)	YES	C-30			
L	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	YES	C-30			
M	Proposed % slope arrows for all ADA parking spaces and sidewalks	YES	C-30			
N	Proposed longitudinal % slope arrows for drainage ditch centerlines	NO		There are no existing or proposed drainage ditches		
O	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	YES	C-30			
P	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	NO				
7	**ROAD PROFILES (if public/private road proposed)**					
A	Existing surface; dashed and screened	NO		N/A		
B	Proposed surface; continuous and bold	NO		N/A		
C	Road design speed must be clearly identified	NO		N/A		
D	Corresponding centerline stationing and curve data annotation	NO		N/A		
E	All vertical curves must identify the proposed 'K' values and confirm they meet the minimum design speed thresholds listed in AASHTO's Green Book Tables 3-35 & 3-37	NO		N/A		
F	Clear annotation if proposed road will be public or private	NO		N/A		
G	If Private Road is proposed, plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	NO		N/A		
H	If Private Road is proposed, plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	NO		N/A		
8	**UTILITY PLAN**					
A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	YES	C-20			
B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	YES	C-20			
C	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	YES	C-20,C-30			
D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	YES	C-20			
E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	C-20			
F	Proposed storm culverts, outfalls, and riprap locations and sizes	YES	C-20			
G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C-20, C-30			
H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C-20			
I	Flow directional arrows for storm & sewer pipes	YES	C-20			
J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	YES	C-10			
K	All storm drains must be sized to convey the 25-year storm	YES	Section 12			
L	Sewer force main sizes and invert elevations	YES	C-20			
M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W); additional details and hydraulic calculations required for any Public pump station proposed.	YES	C-20			
N	Locations, sizes, and elevations of any: grease traps, oil-water separators, septic systems, drinking wells	YES				
O	Proposed water sizes labelled	YES	C-20			
9	**UTILITY PROFILES**					
A	Utility profiles required for all gravity storm drain and sewer pipes proposed: within the right-of-way, within private or public roads, for non-driveway culverts, and for any public infrastructure tie-ins	NO		No gravity storm drain or sewer pipes are proposed within the right-of-way		
B	Existing surface; dashed and screened	NO				
C	Proposed surface; continuous and bold	NO				
D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C-30 & C-20			
E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C-30 & C-21			
F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance annotated	NO				
G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	NO	N/A	See typical utility trench details for depths of private utilties		
10	**DETAILS**					
A	Road section detail, including pavement/gravel depths & cross slopes	YES	C-41			
B	Sidewalk, paver, crosswalk, and any other pavement section details	YES	C-40, C-41			
C	Pavement sawcut & shiplap details	YES	C-40			
D	Utility trench/backfill detail	YES	C-42, C-43, C-44			
E	All site feature details; curbing, retaining walls, fencing, guiderails, dumpsters, etc.	YES	C-40, C-41			
F	Signage, striping, and ADA details	YES	C-40			
G	E&S notes and details	YES	C-48, C-49			
H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	YES	C-42, C-43, C-44, C-45, C-46, C-47			
I	Storm outfall & riprap details	NO		N/A		
J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	NO		N/A		
K	Pump station, grease trap, oil-water separator, septic, drinking well details	NO	C-43, C-44, C-45, C-46			
L	Conduit section details	YES	C-42			
11	**LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS**					
A	As required by ordinance; at a minimum: locations, counts, lighting models, and landscaping species must be identified	YES	SEE PHOTOMETRIC PLAN			
B	Landscaping & lighting details	YES	SEE PHOTOMETRIC PLAN CUT SHEETS			
12	**DOCUMENTS/REPORTS/CALCULATIONS**					
A	On initial preliminary submittal applications, applicant must submit a development review and inspection fee. Applicant to coordinate fee amount with City Planner prior to submittal. This fee will be drawn against to cover the following type of services throughout the project life cycle (and may require replenishing): i. 3rd Party City Peer-Review ii. Site Inspections during the permitting process iii. Erosion & Sediment Control Inspections during construction iv. Right-of-Way Inspections during construction v. Site Punchlist/As-Built Inspections post-construction	YES	N/A			

B	Stormwater Management Report, including: 1. Predevelopment & Post-development Drainage Area Maps, including: a. Subdrainage areas delineated and labeled b. Points of Interest/Analysis shown and labeled c. Hatching for different land cover areas (impervious, pervious, gravel) within each applicable USDA soil boundary d. Time of concentration (Tc) paths & durations e. Four City-standardized stormwater summary tables 2. If any SWM water quality BMP or detention facility is proposed, hydrologic model exports/hydrographs must be submitted for the for the 2, 10, 25, & 100-year storm frequencies 3. Sizing calculations for any SWM water quality BMP or detention facility 4. A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: a. Annual maintenance requirements b. Annual inspection requirements by a licensed PE; noting that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year, identifying what on-going maintenance has occurred and what remedial repairs are needed c. Signed Property Owner Agreement: including the current property owner's contact information and signature; it must be noted that all stormwater BMP maintenance requirements are linked to the property for perpetuity and transfer to any new ownership	Yes		The Stormwater Management Report includes calculations as required by the existing Stormwater Management Law Permit (L-10282-NJ-A-N). The Treatment BMP is currently located on Pearl Street (Lot 4) and has been designed as a plug and play system for Lots 1, 2, and 3 to tie into.		
C	An approved 'Sewer Ability-to-Serve Letter' from the Engineering Department: i. Applicant to submit proposed sewer flow calculations per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	YES	N/A	See Section 17 - We would like to note that the proposed sewer flows have decreased from our previouly approved Lot 3 Project (2022.02)		
D	A Performance Guarantee Cost Estimate utilizing Planning's template	NO	N/A	Understood PG required prior to issuance of Building Permits		
E	For any Site Location of Development (SLODA) project, the applicant's submittal must mimic a formal submittal to DEP. Submit must abide to DEP's SLODA application and include DEP's SLODA Submittal Checklist (Form D)	Yes	N/A			
F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches); starting tailwater conditions/documentation must be clearly identified	Yes	N/A			
K	Public sewer pump station sizing calculations and maintenance plan	Yes				
M	Grease trap sizing calculations	NO		We are currently assuming a grease trap will be located within Building C and designed by the MEP prior to Building C's building permit		
N	Homeowner Association (HOA) agreement for any private road serving two (2) lots or more	NO		N/A		
O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	NO		SRCC AND DEP STORMWATER MANAGEMENT LAW AMENDMENTS WILL BE PROVIDED UPON RECIEPT.		

CITY OF BIDDEFORD - SITE PLAN & SUBDIVISION APPLICATION DRAWING CHECKLIST *LAST REVISED: 11/26/2024*

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant and included on all preliminary and final Site Plan & Subdivision submittals. No checklist is required for sketch submittals.
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4. Items in **BLACK** are required for 'Preliminary' approval & 'Final' approval.
5. Items in BLUE are only required for 'Final' approval.

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT	
Project Name:	3 Lincoln Street, Lot 3, Redevelopment
Planning Board # (if available):	2024.55 (& 2022.02)
Applicant Name/Info:	3 Lincoln, LLC
Submittal #/Type (Prelim/Final):	Amendment
Submittal Date:	8/6/2025

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE				WP REVIEW RESPONSE		
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	Applicant Response Provided in 8/6/2025 Response Letter	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	7/9/2025 Comment	8/18/2025 Comment
1	**GENERAL PLAN REQUIREMENTS**							
A	Drawing specific legends (linetypes, hatches, etc.)	YES	C-01			YES		
B	Individual drawing layer control should be utilized: freeze/thawing, changing lineweights, and screening (i.e. screen existing layers on a proposed plan, freeze topography and underground utilities on a proposed site plan)	YES				YES		
C	North arrows, standard engineering scale viewports, scale bars, dated revision blocks	YES				YES		
D	All drawings and surveys must be in the following coordinate systems: NAD83 Maine State Plane West (Horizontal) and NAVD88 (Vertical)	YES	EX			YES		
E	Drawings need to be designed, signed & sealed by a Maine licensed professional engineer (PE); all boundary survey data needs to be performed by a licensed professional land surveyor (PLS)	YES				YES		
2	**COVER SHEET**							
A	Project Name & Property Address	YES	C-01			YES		
B	Project Team Contact Information (Owner, Engineer, Contractor, etc.)	YES	C-01			YES		
C	Site Location Map	YES	C-01			YES		
D	Sheet Set List of Drawings	YES	C-01			YES		
E	Tax Map and Lot ID	YES	C-01			YES		
F	Zoning & Shoreland Zone Information	YES	C-01		The zoning information on the Civil Sheet Cover Page (C-01) has been updated to reflect the shoreland overlay zone.	YES	Indication of shoreland overlay zone could not be located on cover.	Shoreland Overlay mentioned on C-01
G	Existing Use Description	YES	C-01			YES		
H	Proposed Use Description	YES	C-01			YES		
I	Required Waiver/Variances (Yes/No); if yes, plan must clearly list waivers/variances requesting	YES	C-01			YES		
J	Name of Drainage Watershed	YES	C-01			YES		
K	Within the MS4 Urbanized Area (Yes/No)	YES	C-01			YES		
L	Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	YES	C-01			YES		
M	Within the 100-year Flood Zone (Yes/No)	NO	C-01			YES		
N	Public Road Proposed (Yes/No)	NO	C-01			YES		
O	Private Road Proposed (Yes/No)	NO	C-01			YES		
P	Public Sewer Connection (Yes/No)	YES	C-01			YES		
Q	Public Storm Drain Connection (Yes/No)	YES	C-01			YES		
R	Limits of Disturbance in square feet and acres	YES	C-01			YES		
S	Pervious Land Cover square footage, existing and proposed	YES	C-01			YES		
T	Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	YES	C-01			YES		
U	Building Roof square footage, existing and proposed	YES	C-01			YES		
V	Assigned Planning Board Number	YES	C-01	2024.55 (& 2022.02)	We have confirmed with the Planning Department that the application is under review as an amendment to the existing approvals, and as such, the 2022.02 number should remain for reference to the existing approvals including easements, waivers, and conditions that remain valid. The current planning board number has been confirmed by the Planning Department to be for administrative purposes only and has been added to the amendment documentation for clarity.	YES	The old Planning Board number is included. Please confirm current number with Planning Department.	2024.55 and 2022.02 included on C-01
W	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	NO		N/A		YES		
3	**EXISTING CONDITIONS PLAN**							
A	Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	YES	C-02			YES		
B	Property & Right-of-Way Lines	YES	EX			YES		
C	Boundary line information (bearings, distances, etc.)	YES	EX			YES		
D	Property pin and monumentation locations	YES	EX			YES		
E	Existing easements with proper ownership identified	YES				YES		
F	Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	YES	EX			YES		
G	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			YES		
H	100-year Flood Zone Limits & Elevation	YES		Provided in FEMA map		YES		
I	Existing contours with adequate contour labelling: minimum 1' contour interval	YES	EX			YES		
J	Existing building FFEs annotated	YES	C-30			YES		
K	Spot elevations for all tie-in locations (curb cuts, property line)	YES	C-30			YES		
L	Existing buildings & structures	YES	EX			YES		
M	Existing pavement areas & number of parking spaces	YES	EX			YES		
N	Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	YES	EX			YES		
O	Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters,	YES	EX			YES		
P	Existing signage and striping	YES	EX			YES		
Q	Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	YES	EX			YES		
R	Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	EX			YES		
S	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	NO	EX			YES		
T	Existing tree lines, street trees, free-standing trees (12" or larger diameter at breast height), and vegetation	NO		There are no existing trees 12" or larger located on the subject parcel		YES		
U	Location of any borings, drinking wells, and monitoring wells	YES	Section 11			YES		
4	**SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN**							
A	Limits-of-disturbance outlined and acreage annotated	YES	C-03			YES		
B	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			YES		
C	100-year Flood Zone Limits	NO		N/A		YES		
D	Callout existing site features to be demolished/removed/replaced	YES	C-03			YES		
E	Callout existing utilities to be demolished/removed/abandoned-in-place	YES	C-03			YES		
F	Hatch existing buildings and pavement to be removed	YES	C-03		C-03 has been updated to include removal hatches.	YES	Removal hatches were not added to ex. concrete/foundations to be removed. just callouts.	Removal hatches have been added.
G	Construction Entrance location(s)	YES	C-03			YES		
H	Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	YES	C-03			YES		
I	Stockpile and staging area(s) identified (with proper perimeter control)	YES	C-03			YES		
J	Inlet protection location(s)	YES	C-03			YES		
K	Note requiring contractor to implement dust control measures throughout construction	YES	C-03			YES		
L	Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	NO	N/A			YES		
M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping	NO				YES		
N	If large development is proposed with an extensive underground stormwater conveyance network, identify how SWM infrastructure and BMPs will be protected during construction and if sediment traps/basins are needed	NO		N/A		YES		
5	**SITE PLAN/SUBDIVISION PLAN**							
A	Partial Site Plans needed for any viewport scale greater than 1"=20'	NO		N/A		YES		
B	Existing property and right-of-way lines	YES	C-03			YES		
C	Proposed subdivision lot lines and labels	YES	PLAT			YES		
D	Required Zoning Setbacks shown with dimensions and annotation	YES	C-10			YES		
E	Bulk requirement summary table (zoning/parking calculations)	YES	C-10			YES		
F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			YES		
G	100-year Flood Zone Limits	NO		N/A		YES		
H	Proposed building outlines, door entrances and loading docks	YES	C-10			YES		
I	Proposed building labels	YES	C-10			YES		
J	Proposed road & sidewalk extents; provide clear annotation if roads will be public or private	YES	C-10			YES		
K	Proposed parking and accessible parking locations; annotate parking space counts	YES	C-10			YES		
L	Proposed signage, parking striping, and traffic striping	YES	C-10			YES		
M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	YES	C-10		ADA signage locations have been indicated on the Site Plan. ADA signage will be installed on the building at the head of ADA parking spaces. See Sheet C-10 for additional information. Detectable warning plates are not required within private parking areas or across private driveways.	YES	ADA signage locations and detectable warnings not included on Site Plan.	ADA signage locations were added to the Plans.
N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	YES	C-10			YES		
O	Proposed landscaping; detailed landscaping design should be shown on separate plans	YES	C-10			YES		
P	Designated snow storage areas	YES	C-10	See General Note 7.	Temporary snow storage areas have been indicated on the site plan. During larger snow events the owner shall be responsible for hauling snow offsite. Final location is dependent on the future property maintenance providers means and methods.	YES	No snow storage locations identified, only states that snow removal is the responsibility of the Owner. Where will snow be removed to?	Temporary snow storage area has been called out on C-10 and more detail is provided in General Note 7.
Q	Proposed dumpster locations and trash removal access	YES	C-10		Buildings 3A, 3B, 3C, and the townhomes will store trash internally. Trash will be wheeled to the curbline of the internal drive aisle or parking garage access lane for removal on designated trash pickup days.	YES	Proposed dumpster and trash removal locations are not clear.	The Applicant has provided more detail regarding their plan for trash removal. The Applicant should confirm their understanding that private drive aisles and Pearl Street curbline can be utilized as refuse locations for trash bins/dumpsters wheeled out for
R	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	YES	C-10			YES		

S	Radial dimensions for all curbs, landscaped islands, sidewalks	YES	C-10		Radial dimensions have been added to all landscaped islands presented in the Site Plan. See Sheet C-10.	YES	Not all proposed landscaped islands have radial dimensions	Confirmed; all proposed landscaped islands now have radial dimensions.
T	Public/private road centerline stationing shown, labelled every 0+50' with curve data	N/A				YES		
U	If Private Road is proposed, final recorded plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	N/A				YES		
V	If Private Road is proposed, final recorded plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	N/A				YES		
W	Planning Board signature block for final recording	YES	PLAT			YES		
6	**GRADING PLAN**							
A	Partial Grading Plans needed for any viewport greater than 1"=20'	NO		N/A		YES		
B	Limits-of-disturbance outlined and acreage annotated	YES	C-30			YES		
C	Proposed Building Labels with Individual Finished Floor Elevations (FFEs)	YES	C-30			YES		
D	Existing contours with adequate contour labelling, screened; minimum 1' contour interval	YES	C-30			YES		
E	Proposed contours with adequate contour labelling; minimum 1' contour interval	YES	C-30			YES		
F	Detailed grading for all ditches, swales, outfalls, and riprap	NO		N/A		YES		
G	All proposed contours tie-into existing contours at limits-of-disturbance outline	YES	C-30			YES		
H	Existing spot elevations for all asphalt, curb, and SWM BMP tie-in locations	YES	C-30			YES		
I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C-10			YES		
J	100-year Flood Zone Limits	NO		N/A		YES		
K	Proposed spot elevations for all important roadway geometric points (including but not limited to: parking/drive aisles, building corners/entrances, retaining walls, loading docks,	YES	C-30			YES		
L	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	YES	C-30			YES		
M	Proposed % slope arrows for all ADA parking spaces and sidewalks	YES	C-30		Percent slope and arrows have been added to the ADA parking spaces and walkways. See Sheet C-30 for additional information.	YES	Proposed % slope arrows for ADA parking spaces and sidewalks not provided	Confirmed; a % slope arrow has been added for each proposed ADA parking stall, and cross-slope % arrows have been added for the proposed sidewalk.
N	Proposed longitudinal % slope arrows for drainage ditch centerlines	NO		There are no existing or proposed drainage ditches		YES		
O	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	YES	C-30			YES		
P	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	NO				YES		
7	**ROAD PROFILES (if public/private road proposed)**							
A	Existing surface: dashed and screened	NO		N/A		YES		
B	Proposed surface; continuous and bold	NO		N/A		YES		
C	Road design speed must be clearly identified	NO		N/A		YES		
D	Corresponding centerline stationing and curve data annotation	NO		N/A		YES		
E	All vertical curves must identify the proposed 'K' values and confirm they meet the minimum design speed thresholds listed in AASHTO's Green Book Tables 3-35 & 3-37	NO		N/A		YES		
F	Clear annotation if proposed road will be public or private	NO		N/A		YES		
G	If Private Road is proposed, plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	NO		N/A		YES		
H	If Private Road is proposed, plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	NO		N/A		YES		
8	**UTILITY PLAN**							
A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	YES	C-20			YES		
B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	YES	C-20			YES		
C	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	YES	C-20,C-30			YES		
D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	YES	C-20			YES		
E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	C-20			YES		
F	Proposed storm culverts, outfalls, and riprap locations and sizes	YES	C-20			YES		
G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C-20, C-30			YES		
H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C-20		Storm and sewer pipe materials have been added to the Utility and Grading & Drainage Plans. See Sheet C-20 and C-30 for additional information.	YES	Proposed storm and sewer pipe material not included in labels.	Confirmed; more details have been added to the pipe labels.
I	Flow directional arrows for storm & sewer pipes	YES	C-20		Flow direction arrows have been added to the proposed sewer line type. See Sheet C-20 for additional information.	YES	Flow direction not provided for proposed sewer pipe.	Confirmed; the applicable flow direction arrows have been added.
J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	YES	C-10			YES		
K	All storm drains must be sized to convey the 25-year storm	YES	Section 12		The Hydraflow Report indicates the pipe network has bene designed for a 25-year storm.	YES	A Hydraflow Report was included in Section 12; however, it does not indicate the design storm input or include a legend.	Confirmed; there is a note in the Hydraflow report stating the pipe network was designed to accommodate the 25-year design storm event.
L	Sewer force main sizes and invert elevations	YES	C-20		Sewer tee invert elevations have been added to the plans. See the Utility Plan for additional information.	YES	Forcemain tee invert elevations not provided.	Confirmed; forcemain tee invert elevations have been provided on the Plans.
M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W); additional details and hydraulic calculations required for any Public pump station proposed.	YES	C-20			YES		
N	Locations, sizes, and elevations of any: grease traps, oil-water separators, septic systems, drinking wells	YES				YES		
O	Proposed water sizes labelled	YES	C-20			YES		
9	**UTILITY PROFILES**							
A	Utility profiles required for all gravity storm drain and sewer pipes proposed: within the right-of-way, within private or public roads, for non-driveway culverts, and for any public infrastructure tie-ins	NO		No gravity storm drain or sewer pipes are proposed within the right-of-way		YES		
B	Existing surface; dashed and screened	NO				N/A		
C	Proposed surface: continuous and bold	NO				N/A		
D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C-30 & C-20			N/A		
E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C-30 & C-21			N/A		
F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance	NO				N/A		
G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	NO	N/A	See typical utility trench details for depths of private utilities		N/A		
10	**DETAILS**							
A	Road section detail, including pavement/gravel depths & cross slopes	YES	C-41		The cross slope within paved areas is variable therefore additional flow arrows and spot grades have been added to the Grading & Drainage Plan. See Sheet C-30 for additional information.	YES	Only inlcuded a pavement profile detail which doesn't include cross slopes. Grading on plan view.	No further comment.
B	Sidewalk, paver, crosswalk, and any other pavement section details	YES	C-40, C-41		A crosswalk is not proposed across the drive aisle into the internal courtyard (woonerf) area. Additionally, the project does not proposes any crosswalks therefore a detail has not been provided within the plan set.	YES	Missing crosswalk detail and proposed crosswalks for site and Pearl St on Site Plan.	No further comment.
C	Pavement sawcut & shiplap details	YES	C-40			YES		
D	Utility trench/backfill detail	YES	C-42, C-43, C-44			YES		
E	All site feature details: curbing, retaining walls, fencing, guiderails, dumpsters, etc.	YES	C-40, C-41			YES		
F	Signage, striping, and ADA details	YES	C-40			YES		
G	E&S notes and details	YES	C-48, C-49		A silt fence is not specifically proposed on this project as we callout an erosion control mix berm to be installed downgradient of all disturbed areas. A silt fence detail has also been added to the Erosion & Sedimentation Control Details sheet for the contractors reference.	YES	Include silt fence detail if to be used as erosion control barrier	Confirmed; a silt fence detail has been added to the Plans.
H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	YES	C-42, C-43, C-44, C-45, C-46, C-47			YES		
I	Storm outfall & riprap details	NO		N/A		YES		
J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	NO		N/A		YES		
K	Pump station, grease trap, oil-water separator, septic, drinking well details	NO	C-43, C-44, C-45, C-46			YES		
L	Conduit section details	YES	C-42			YES		
11	**LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS**							
A	As required by ordinance; at a minimum: locations, counts, lighting models, and landscaping species must be identified	YES	SEE PHOTOMETRIC PLAN			YES		
B	Landscaping & lighting details	YES	SEE PHOTOMETRIC PLAN CUT SHEETS			YES		
12	**DOCUMENTS/REPORTS/CALCULATIONS**							
A	On initial preliminary submittal applications, applicant must submit a development review and inspection fee. Applicant to coordinate fee amount with City Planner prior to submittal. This fee will be drawn against to cover the following type of services throughout the project life cycle (and may require replenishing): i. 3rd Party City Peer-Review ii. Site Inspections during the permitting process iii. Erosion & Sediment Control Inspections during construction iv. Right-of-Way Inspections during construction v. Site Punchlist/As-Built Inspections post-construction	YES	N/A			City to verify		

B	Stormwater Management Report, including: 1. Predevelopment & Post-development Drainage Area Maps, including: a. Subdrainage areas delineated and labeled b. Points of Interest/Analysis shown and labeled c. Hatching for different land cover areas (impervious, pervious, gravel) within each applicable USDA soil boundary d. Time of concentration (Tc) paths & durations e. Four City-standardized stormwater summary tables 2. If any SWM water quality BMP or detention facility is proposed, hydrologic model exports/hydrographs must be submitted for the for the 2, 10, 25, & 100-year storm frequencies 3. Sizing calculations for any SWM water quality BMP or detention facility 4. A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: a. Annual maintenance requirements b. Annual inspection requirements by a licensed PE; noting that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year, identifying what on-going maintenance has occurred and what remedial repairs are needed c. Signed Property Owner Agreement: including the current property owner's contact information and signature; it must be noted that all stormwater BMP maintenance requirements are linked to the property for perpetuity and transfer to any new ownership	Yes		The Stormwater Management Report includes calculations as required by the existing Stormwater Management Law Permit (L-10282-NJ-A-N). The Treatment BMP is currently located on Pearl Street (Lot 4) and has been designed as a plug and play system for Lots 1, 2, and 3 to tie into.	See responses [in memo] regarding Post-Construction Stormwater Management Plan.	YES	See Memo regarding Post-Construction Stormwater Management Plan comment.	No further comment.
C	An approved 'Sewer Ability-to-Serve Letter' from the Engineering Department: i. Applicant to submit proposed sewer flow calculations per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	YES	N/A	See Section 17 - We would like to note that the proposed sewer flows have decreased from our previouly approved Lot 3 Project (2022.02)		YES		
D	A Performance Guarantee Cost Estimate utilizing Planning's template	NO	N/A	Understood PG required prior to issuance of Building Permits	We would request that a Performance Guarantee would be a condition of approval to be provided prior to scheduling a pre-construction meeting to align with the existing condition of approval.	YES	Provide in later submittal	No further comment.
E	For any Site Location of Development (SLODA) project, the applicant's submittal must mimic a formal submittal to DEP. Submit must abide to DEP's SLODA application and include DEP's SLODA Submittal Checklist (Form D)	Yes	N/A			YES		
F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches); starting tailwater conditions/documentation must be clearly identified	Yes	N/A		The Hydraflow Report indicates the pipe network has bene designed for a 25-year storm.	YES	A Hydraflow Report was included in Section 12; however, it does not indicate the design storm input or include a legend.	Confirmed, there is a note in the Hydraflow report stating the pipe network was designed to accommodate the 25-year design storm event.
K	Public sewer pump station sizing calculations and maintenance plan	Yes				YES	See Memo.	In the memo, the Applicant stated that the pump station design has been updated since the previous submission and is currently in the process of being finalized in coordination with the City. Acorn met with City Engineering on 7/29/25. The pump station design is currently under review by the City of Biddeford Engineering Department.
M	Grease trap sizing calculations	NO		We are currently assuming a grease trap will be located within Building C and designed by the MEP prior to Building C's building permit		YES		
N	Homeowner Association (HOA) agreement for any private road serving two (2) lots or more	NO		N/A		YES		
O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	NO		SRCC AND DEP STORMWATER MANAGEMENT LAW AMENDMENTS WILL BE PROVIDED UPON RECIEPT.		YES		

ACORN ENGINEERING, INC.

David Galbraith - Deputy Director of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

August 26, 2025

Subject: Comment Response Letter III
3 Lincoln Street (Pearl Street – Lot 3) Redevelopment Amendment

David,

On behalf of 3 Lincoln, LLC, we are pleased to respond to the City Review Comments received on August 15th and comments received at the August 20th Planning Board Meeting. Please find our responses to outstanding comments below. All comments not specifically addressed below are assumed to be satisfied.

Staff Review Committee (SRC) Comments: *Wright Pierce follow up comments*

Comment – Article VI, Section 47, Paragraph D.2 of the LDR states that the proposed development shall assure safe interior circulation within its site, by separating pedestrian and vehicular traffic and by providing adequate parking and turnaround areas as set forth in the parking provisions of this ordinance. The Applicant should separate pedestrian and vehicular traffic on the site or request a waiver.

Response – Bollards have been incorporated between buildings A and C to delineate pedestrian vs vehicular traffic within the sites access aisle from Pearl Street. Additionally, a waiver is requested for the proposed courtyard woonerf. Please refer to Section 33. Waivers for additional information.

Comment – The pump station design is currently under review by the City of Biddeford Engineering Department.

Response – Understood. The development team will continue to coordinate with City Engineering as necessary.

Biddeford Fire Department Comments: *Wright Pierce follow up comments*

Comment – Applicant to confirm that all proposed interior landscaping will be limited in mature height of 15 feet. Additionally, Applicant to confirm that trees will not encroach on fire department access roads in such a way to lessen the 13 feet-6 inch minimum overhead clearance. Armstrong maple is proposed along the rear drive aisle, although columnar, its mature height is 30+ feet tall, which could encroach on fire department access roads in such a way as to lessen the required minimum overhead clearance.

Response – The landscape plan has been revised to include a note that reads "trees to be pruned to maintain a maximum height of 15' at all times". Please see Landscape Plan prepared by Soren DeNiord for additional information. The planting plan has been coordinated with the fire department and trees are not anticipated to encroach on the fire department access roads or general site access.

Comment – It appears the (firetruck) turnaround is still proposed reinforced grass grid. The Fire Department requires this area to be paved.

Response – The project team has had continuous coordination with the Fire Department regarding firetruck accessibility and it is our understanding that the reinforced grass grid turnaround is acceptable and rated to support City of Biddeford firetrucks.

City Checklist Comments: *Wright Pierce follow up comments*

Comment – Row 95: The Applicant has provided more detail regarding their plan for trash removal. The Applicant should confirm their understanding that private drive aisles and Pearl Street curbline can be utilized as refuse locations for trash bins/dumpsters wheeled out for collection.

Response – Trash rooms will be internal to the buildings and only moved outside the buildings for pickup. Potential refuse locations are shown on the Landscape Plan. Final locations will need to be coordinated with the solid waste company.

Off-Street Parking and Loading: *Wright Pierce follow up comments*

Comment – The proposed delivery/loading area along the northwest corner of the building within the Woonerf area is understood. It is recommended to add signage or bollards to prevent vehicle parking within the access lane along the west side of Building C for the reason mentioned in our original comment (Original reason: *a vehicle parked there could be in the way of cars pulling in and out of the parking garage of Building A*).

Response – Please refer to Wayfinding Plan, which provides signage in this area. See Section 36 for the Wayfinding Plan.

Signage: *Wright Pierce follow up comments*

Comment – As indicated on the Wayfinding Plan, General Note 3, "Wayfinding map represents site wayfinding signage related to access and parking only. Decorative and code required signage is not shown". Our comment regarding sign locations and details remains. (Original comment: The Applicant should add sign locations and details to the Plans if intending to have them for the restaurant or residences in compliance with Article VI, Section 59

Response – Sign locations as shown on the Wayfinding Plan have been incorporated to the Site Plan. Please see sheet C-10 for additional information. Decorative and code required signage is not shown at this time.

City Staff Comment: *Wright Pierce follow up comments*

Comment – FDC and Knox Box locations are shown for all buildings. Sprinkler room is only shown for Building
A.

Response – Please refer to the Utility Plan (C-20) with the Civil Plan Set and the Architectural floor plans. All proposed sprinkler services have been coordinated with the architect and have been directed to each building's associated sprinkler room.

Comment – The proposed hydrant is shown on both the Site Plan and Utility Plan; however, the existing hydrant is only shown on the utility plan.

Response – Please refer to the Site Plan (C-10), a callout has been added to clarify the existing hydrant will remain.

Landscape Plans Designs: *Wright Pierce follow up comments*

Comment – Bike racks and a bench are proposed; however, refuse receptacles are not shown.

Response – Refuse receptacles will be located in the interior spaces of each building and a potential refuse collection area for the retail building is shown on the Landscape Plan. Final location will be coordinated with the solid waste company and future tenant.

Comment – Courtyard lighting locations and styles are shown on the photometric plan, and specifications are provided in Section 31. Lights with label G1 appear to be set within the pavers between Building A and Building B. Are these G1 lights to illuminate a path between these two buildings? If so, why are the footcandle measurements for some of the G1 lights 0.0? Also, how will these fixtures be prevented from vehicular traffic, if traffic is allowed in the courtyard as the loading of the light fixture is listed as 10,000 pounds. The max footcandles in the Calculation Summary on the photometric plan indicates 28.5. It appears this is from one of the B1 light fixtures. This appears high. Additionally, it appears that an entrance to Building A (labelled Retail 1,110 SF) needs lighting.

Response – A single G1 fixture has been removed from the internal limits of the woonerf to prevent impact and potential damage from emergency vehicle egress. The lighting designer stated that the G1 fixture does not provide enough light spread photometrically along the ground plane to impact the foot candle reading. The lighting designer also stated the 28.5 footcandle reading is due to the pole mounted fixture and the bollard lighting fixtures proximity. The high light level will dissipate very quickly as you radiate away from the fixture. Lastly, lighting has been added for the retail egress. Please see the revised Photometric Plan for additional information.

Comment – A Wayfinding Plan was provided. It is recommended a title block be added to the plan.

Response – The Wayfinding Plan has been updated to include the Acorn Engineering title block. Please See Section 36. Wayfinding Plan for additional information.

Building Plans: *Wright Pierce follow up comments*

Comment – Updated building elevations in color were provided for the Townhomes and Buildings A and B. Updated building elevations in color were not provided for Building C (the restaurant).

Response – Building elevations in color for Building C are included as part of the application materials.

Comments Received at the August 20th Planning Board and Site Walk:

Comment – A Coveted Maintenance Agreement for private access road on Lot 2 should be provided by the applicant. Additionally, the private access road shall be widened from 20' to 22' feet to meet the residential access requirements within city code. The private access way will also need to be named accordingly. Based on the site visit with Planning Board and Engineering it was determined that as part of the street widening aspect of the project it would also make sense to relocate the exisitng concrete sidewalk to the eastern side of the private access lane.

Response – A maintenance agreement for the private access road is provided as part of the application materials. We are currently reaching out to the Police Department to start the process of assigning addresses for the proposed buildings (emails dating back to 6/27) and we have reached out again on 8/22 to formally name the private access lane on Lot 2. As part of our resubmission materials we have widened the private access lane from 20' to 22' and have relocated the existing concrete sidewalk to the eastern side of the private access lane. Please refer to the revised Civil Plans for additional information. See Section 27 for a Coveted Maintenance Agreement regarding the private access road.

Comment – A maintenance agreement for the proposed condominiums to enter into a stormwater agreement to maintain the subsurface detention and treatment system on Lot 4 should be provided.

Response – See Section 27 for the stormwater maintenance agreement.

Comment – The Planning Board would like to see in writing that all pedestrian (darker gray) pavers will be removed and replaced on Pearl Street as part of construction. The pavers will have to be reinstalled, and the final re-installed condition of the pavers will need to be approved by the city engineering and public works departments.

Response – See attached construction management plan that includes the following language "contractor to remove pedestrian paver (darker paver) and sections of flush granite curb prior to construction of building 3A and 3C & stockpile onsite. Contractor to reinstall pavers prior to building 3A and 3C certificate of occupancy. Contractor to notify engineering and public works prior to removing pavers, prior to replacing pavers, and at completion of work."

Sincerely,



Peter Heil, P.E.
Senior Project Manager,
Acorn Engineering, Inc.

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Site Location of Development Application Materials

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Supplemental Requirements for Wind Energy Developments are not applicable for the Redevelopment of 3 Lincoln Street (Lot 3) in Biddeford, Maine.

City Final Site Plan Amendment Materials

Section 26: Maine Tribe/Nations Correspondence
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Attachment A: Civil Site Plan Set – By Acorn Engineering
Attachment B: Photometric Plan – By Reflex Lighting
Attachment C: Architectural Plans for Building A, B, C, and D.
Attachment D: Landscape Plans by Soren DeNiord Design Studio

Section 1

Development Description

Section 1. Development Description

Site Information

- Parcel Size (Lot 3): 2.08 Acres
- Impervious Area
    - 3 Lincoln Street – Lot 3
        - Existing: 1.95 acres(94%)
        - Proposed: 1.56 acres (75%)

The City of Biddeford has municipal capacity to review the Site Location of Development application but does not have stormwater capacity, therefore the project anticipates submitting the Stormwater Management Law amendment application to MaineDEP for review and approval in the coming weeks.

The proposed project will also be subject to the City of Biddeford Site Plan & Subdivision approval and a Saco River Corridor Commission (SRCC) permit application due to the proximity to the Saco River.

A. Narrative

On behalf of 3 Lincoln, LLC, we are pleased to submit the accompanying package of Final Subdivision and Site Plan amendment submission materials related to the proposed redevelopment 3 Lincoln Street, (Pearl Street, Lot 3) in Biddeford, Maine. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning Districts. This project proposes to amend the previous Major Site Plan and Subdivision approval (2022.02) programming from three (3) total buildings on Lot 3 to four (4) total buildings. The amendment includes the addition of five (5) townhomes and revises the original programming of building A from 85 residential units to up to 52 units, building B from 129 residential units to up to 85 units, and building C will remain as a restaurant with 154 total seats (previously 298 seats).

The proposed project is subject to a Saco River Corridor Commission (SRCC) permit application due to the proximity to the Saco River.

B. Topographic Map

Included as part of this section.

C. Construction Plan

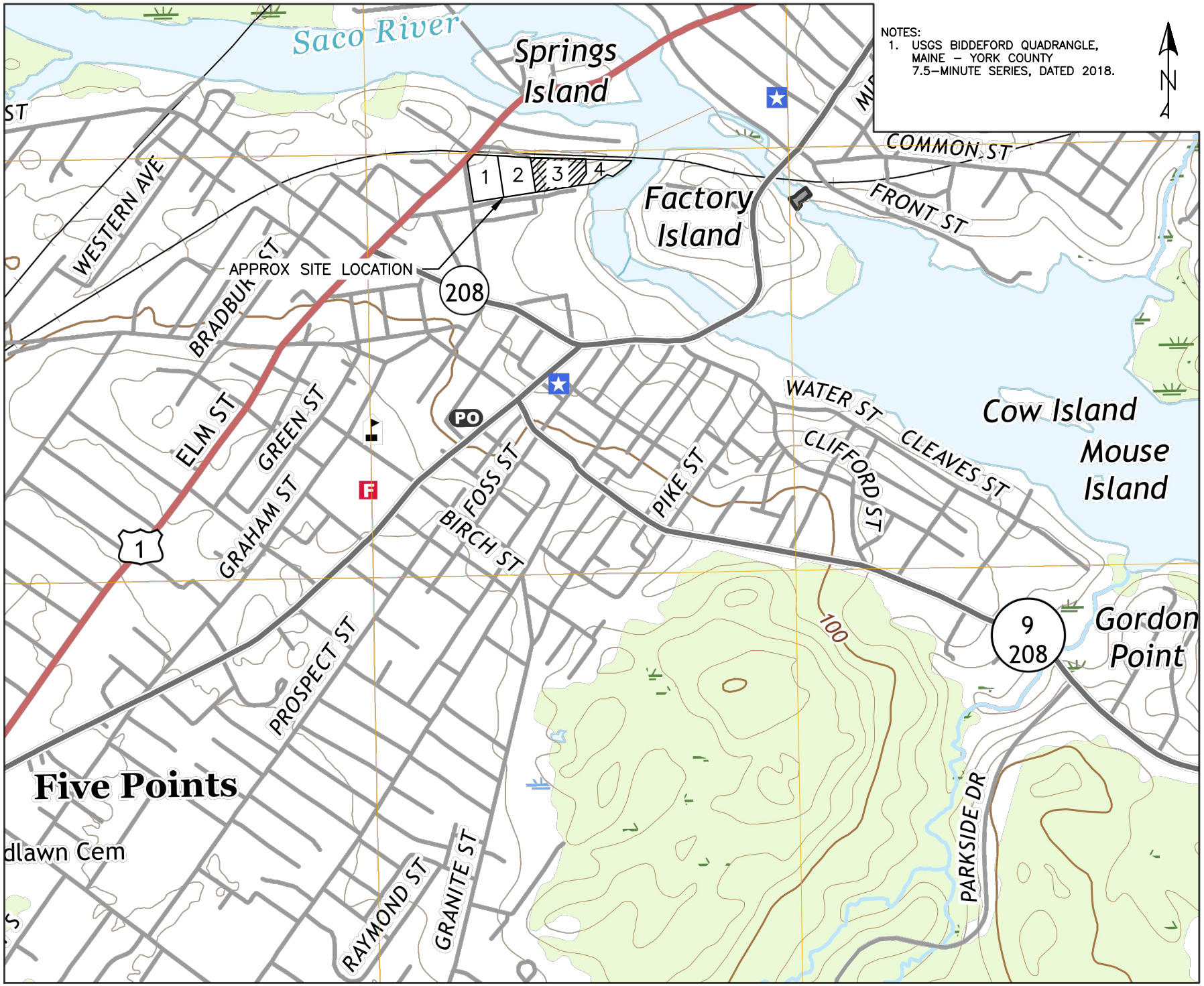
Please refer to Section 14 Erosion and Sediment Control Report & Civil Plan Set Sheet C-03 for information regarding construction.

Anticipated Construction Start date: Summer 2026
Anticipated Construction End date: Fall 2027

D. Drawings

All appropriate site drawings are attached. Individual plans are listed below.

Sheet Number	Sheet Title
C-01	COVER SHEET & LEGEND
C-02	GENERAL NOTES
EX	EXISTING CONDITIONS SURVEY – BY OWEN HASKELL, INC.
C-03	CONSTRUCTION MANAGEMENT & REMOVALS PLAN
C-10	SITE PLAN
C-20	UTILITY PLAN
C-30	GRADING & DRAINAGE PLAN
C-40	SITE DETAILS – 1
C-41	SITE DETAILS – 2
C-42	UTILITY DETAILS – 1
C-43	UTILITY DETAILS – 2
C-44	UTILITY DETAILS – 3
C-45	PUMP STATION DETAILS
C-46	DRAINAGE DETAILS – 1
C-47	DRAINAGE DETAILS – 2
C-48	EROSION & SEDIMENTATION CONTROL NOTES
C-49	EROSION & SEDIMENTATION CONTROL DETAILS



NOTES:
1. USGS BIDDEFORD QUADRANGLE, MAINE – YORK COUNTY 7.5–MINUTE SERIES, DATED 2018.

N

ISSUED FOR	BY	DATE

DRAWING NAME: VICINITY MAP

PROJECT NAME: PEARL STREET REDEVELOPMENT BIDDEFORD

CLIENT: 3 LINCOLN, LLC

ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775–2655

FILE:	1124 CIVIL
DATE:	10/12/2022
JN:	1124
SCALE:	1" : 1000'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.
VICINITY

Section 2

Right, Title, or Interest

Section 2: Right Title Interest

Please see attached for the Master Plan Development Agreement between 3 Lincoln, LLC and the City of Biddeford.

Master Plan Development Agreement

This Master Plan Development Agreement (this "Agreement") dated November 17, 2020 ("Effective Date"), is executed between 3 Lincoln, LLC, a Maine limited liability company (the "Developer"), having an address at P.O. Box 7486, Portland, Maine 04112 and the City of Biddeford, Maine, a Maine municipal corporation and body politic with offices at 205 Main Street, Biddeford, Maine (the "City"). The Developer and the City are collectively referred to as the "Parties."

RECITALS

WHEREAS, the City owns the parcel of land in Biddeford, Maine commonly known as the "MERC" site located at 3 Lincoln Street, a plan of which is attached hereto as Exhibit A and a legal description of which is attached as Exhibit B (the "Site"). The Site is an irregularly shaped parcel containing approximately 8.4 acres of land bound to the west by Lincoln Street, the east by the Saco River, to the north by the Boston & Maine Railroad, Gooch Street, and to the south by Pearl Street and several commercial/industrial buildings.

WHEREAS, the City, working with a team established by the City Council, developed the 3 Lincoln Street Redevelopment Market and Feasibility Study in conjunction with Camoin Associates (the "Camoin Study"), to establish a blueprint for the redevelopment of the Site (the "Project").

WHEREAS, the City has selected the Developer to serve as the master developer for the Project.

WHEREAS, the goals of the Project are to develop up to 400,000 square feet of new, mixed use commercial space, create between 800 and 1,800 new jobs, and increase the City's base property value by up to $63,000,000.

WHEREAS, the Project is expected to become an anchor within the City's so-called "Mill District," with the goal that the Project will support activities in the existing surrounding buildings, the RiverWalk and its amenities, and associated business development in the surrounding area.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein and other consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I
GENERAL TERMS & COMMITMENTS

1.1 Purpose. This Agreement sets forth the major terms and conditions under which the Parties intend to pursue the Project. The Parties recognize that, as the Project progresses, further definitions and agreements expanding the terms of this Agreement may be warranted and/or necessitated. The Parties have sought in this Agreement to (i) provide a sufficient degree of definition to facilitate planning, design and implementation within a broad scope and (ii) make certain commitments that are necessary to achieve the successful realization of the Project.

1.2 Description of the Project. The Project consists of the planning, permitting, and development of the Site, including coordination of the development by the City of a municipal parking garage (the "Municipal Parking Garage") on the portion of the Site shown on Exhibit A as the site for those improvements ("Garage Site") and the development of buildings adjacent to the Municipal Parking Garage generally located on the east and west sides of that structure on the development sites shown on Exhibit A (collectively the "Development Sites") as commercial, residential, academic, hospitality, retail or other uses (collectively the "Adjacent Buildings"). The Parties shall progress through each stage of the Project, consistent with Section 1.3 below, giving due consideration to Site conditions, financial feasibility, and other commercially reasonable development considerations. The Parties expressly acknowledge the need to provide reasonable flexibility to the Developer to enable the Developer to respond to changing market conditions and intend that the scope of the Project be interpreted and adjusted by the City and the Developer in a manner that will promote, and not hinder, a commercially reasonable and economically viable redevelopment of the Site. Without limitation of the foregoing, as of the date of the Agreement, the Project and its various elements are envisioned to be generally consistent with the Camoin Study. In the course of modifying and refining these initial plans throughout the development process, the Developer will seek to incorporate a mixture of residential, retail, office, hospitality, education and service uses with the adjacent Municipal Parking Garage, park area, street system, the RiverWalk and other amenities intended to foster the creation of an economically vibrant, urban style mixed use destination, generally as contemplated by the Camoin Study and in accordance with the principles enumerated in Section 3.1 of this Agreement.

1.3 Project Schedule. The Project shall proceed in accordance with the following schedule (the "Project Development Schedule"):

As of the Effective Date, the City shall deliver to Developer a garage concept plan deemed suitable by the Developer (as set forth in Section 3.2 below) including, without limitation, all four elevations, a section plan, parking space count, structural plan, and other AIA standard elements ("Garage Concept Plan") (the date of delivery referred to as the "Start Date").

1.3.2 Within three (3) months following the Start Date, the Developer shall prepare (or have prepared) and present to the City a concept plan for the development of each of the Development Sites (the "Preliminary Concept Plan"). In the event that the City determines that the Preliminary Concept Plan is not suitable, and the City and the Developer are unable to

agree to revisions to the Preliminary Concept Plan that make such plan suitable to the City, the City shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.2, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.3 Within the six (6) month period following written notice of acceptance of the Preliminary Concept Plan by the City, the Parties shall agree to a financial plan and, utilizing design plans associated with the Municipal Parking Garage, shall work together to create concept plans depicting the layout and design of the Development Sites and the Site as a whole, including site design concepts, internal layout, and building use scenarios (the "Site Concept Plans"). The Site Concepts Plans also shall set forth a timetable by which Developer shall complete the improvements described in the Site Concept Plans with agreed upon financial penalties if such timetables are not reasonably accomplished. In the event that the City or the Developer determines that the proposed Site Concept Plans are not suitable, and the City and the Developer are unable to agree to revisions to the Site Concept Plans that make such plans suitable to the City or the Developer, the City or Developer shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.3, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.4 During the six (6) month period following the approval by the City and Developer of the Site Concept Plans, each of the City and the Developer shall use commercially reasonable efforts to obtain all federal, state and municipal permits and approvals ("Governmental Approvals") necessary to proceed with the development and improvements described in the Site Concept Plans. The City shall have primary responsibility for the Governmental Approvals required for the Municipal Parking Garage and related improvements and the Developer shall have primary responsibility for the Governmental Approvals required for the buildings and related improvements to be located on the Development Sites; provided that the Parties acknowledge that as an integrated master development the Governmental Approvals are likely to be highly integrated and interdependent, and therefore agree to work cooperatively and on a coordinated basis to obtain the Governmental Approvals.

1.3.5 Throughout the period specified in Sections 1.3.2-1.3.4 above, the Parties shall work together to identify candidates as potential tenants, joint venture participants, co-developers, or other users for the Development Sites.

1.3.6 The milestone dates set forth in Sections 1.3.2, 1.3.3 and 1.3.4 shall be extended in the event the Municipal Parking Garage has not achieved the same milestone as specified in each Section for the Project. The extension of the applicable milestone shall be coterminous with the date the Municipal Parking Garage achieves its corresponding milestone, in order to assure that the pace of development of the Project does not proceed at a substantially

more rapid rate than the development of the Municipal Parking Garage, which is an critical element in the Developer's ability to successfully develop the Project.

1.4 Exclusive Development. The Parties shall work exclusively with each other, in good faith, to develop the Project. This Agreement shall not extend to any other activities, transactions or relationships other than with respect to the Project and the transactions contemplated by this Agreement. Nothing in this Agreement shall preclude or restrict either Party from conducting its business as it determines in its sole and absolute discretion other than in connection with the Project, and neither Party shall have any rights or obligations in and to the other Party's independent ventures or the income or profits derived therefrom, including any ventures located proximate to the site.

1.5 Personnel and Resources. Each Party shall make available, at all reasonable times and location, the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Project.

1.6 Manner of Development. The Parties acknowledge and agree that the development of the Adjacent Buildings may be undertaken by the Developer through whatever means or transaction structure the Developer determines appropriate, including through direct ownership and development by Developer, leasing or re-sale to third parties, co-development with joint venture partners, subdivision and sale for development of all or portions of the Development Sites or Adjacent Buildings, declaration of one or more condominiums or through use of any other means or transaction structures as Developer determines appropriate, with the overall goal of developing the Development Sites on the basis described herein (the foregoing being referred to herein as "Development Relationships"). Developer agrees that in the event the development of the Adjacent Buildings is undertaken by anyone other than Developer or its related entities, Developer shall first obtain the written consent of the City to the involvement of any third party individuals or entities, which consent shall not be unreasonably withheld.

ARTICLE II
PURCHASE OPTION

2.1 Purchase Option. The City hereby grants to the Developer an exclusive option (the "Option") to purchase either or both of the Development Sites, including all rights, privileges, easements and appurtenances thereto existing or as necessary or convenient for the construction, development and operation of the Adjacent Buildings and other improvements identified and defined in the Site Concept Plans, but specifically excluding the cell tower site (the "Subject Property"). This Option applies to the Subject Property both in its current state and in the event it is further developed. The Subject Property shall be conveyed together with all improvements thereon, all easements and rights of way relating thereto, all appurtenances thereto, as well as any common element interests therein, and subject to the terms and conditions set forth in this Agreement.

2.2 Terms of the Option. The Option granted hereby shall have the following terms and conditions:

2.2.1 Term: The Option shall have a term beginning on the Effective Date and expiring eighteen (18) months following receipt of all Governmental Approvals pursuant to Section 1.3.5 hereof, unless the same shall sooner be exercised or terminated in accordance with the terms hereof ("Option Term").

2.2.2 Purchase Price: The total purchase price for the Subject Properties if they are purchased together shall be One Million Two Hundred Thousand Dollars ($1,200,000) (the "Purchase Price").

2.2.3 Exercise of Option: Upon satisfaction of the Condition of Exercise described in Section 2.2.4 below, the Option may be exercised by the Developer by the transmittal of a signed written notice of the Developer's exercise of the Option ("Notice of Exercise"), and specifying the date, time and place for closing on the purchase of the Subject Property, which shall not be later than ninety (90) days following the date of the Notice of Exercise ("Closing Date"). The Developer shall have the right to exercise the Option with respect to either or both Subject Properties, and if exercised for one of the Subject Properties the Option shall continue in force for the other Subject Property for the remainder of the Option Term. If the Developer exercises the Option separately, the purchase price for the first property shall be Seven Hundred Thousand Dollars ($700,000) and the purchase price for the second property shall be Seven Hundred Thousand Dollars ($700,000) for a combined purchase price of One Million Four Hundred Thousand Dollars ($1,400,000).

2.2.4 Condition of Exercise: It shall be a condition of exercise of the Option that the Site Concept Plans shall have been completed pursuant to Section 1.3.3 above.

2.2.5 Closing: The closing of the purchase of each Subject Property hereunder shall be conducted in accordance with the following provisions:

(a) The City shall sell, assign, convey, transfer and deliver title to the Subject Property together with all easements, licenses, rights of way and appurtenant rights reasonably required in order to develop the Subject Property in accordance with the Site Concept Plan, and together therewith all surveys, plans, specifications, title commitments or policies and other records, files or information related to the development of the Subject Property in accordance with the Site Concept Plan, free and clear of any liens, encumbrances or restrictions of any nature, except for the Permitted Real Property Liens. "Permitted Real Property Liens" means: (i) real property taxes for the current tax year that are not due and payable as of the Closing date, (ii) any liens, encumbrances or other title exception or nonconformity accepted by, or not expressly objected to in writing by, the Developer at or before Closing, and (iii) local, state and federal laws, ordinances or governmental regulations, including but not limited to, building and zoning laws, ordinances and regulations.

(b) The Developer shall pay the Purchase Price by wire transfer to an account specified by the City, as increased or decreased by applicable prorations and adjustments, including (i) all real and personal property taxes and similar ad valorem obligations levied with respect to the Subject Property for a taxable period that includes (but does not end on) the Closing Date based on the number of days of such taxable period included in the period ending with and including the Closing Date, (ii) any and all other income and expenses items that relate to the Subject Property that are incurred during a period beginning before the Closing Date and ending after the Closing Date, including but not limited to (i) water, sewer, electricity, gas, oil, telephone and other utility expenses, and (ii) payments under any contracts or agreements related to the Subject Property that Developer agrees to accept an assignment (collectively, the "Prorations"). The Prorations shall be apportioned as of the Closing Date such that the City shall be liable for that portion of such Prorations relating to, or arising in respect of, periods through and including the Closing Date and Developer shall be liable for (and shall reimburse the City to the extent City shall have paid) that portion of such expense items relating to, or arising in respect to, periods after the Closing Date.

2.3 Memorandum of Option. The Parties agree that upon request of either Party, a Memorandum of Option incorporating the terms hereof may be filed in the York County Registry of Deeds in lieu of the filing of the whole of this Agreement.

ARTICLE III
RESPONSIBILITIES OF PARTIES

The Developer and the City have agreed to implement the vision and objectives embodied in the Camoin Study by agreeing to complete the responsibilities of each Party enumerated in this Agreement. The Parties acknowledge that this is a joint public and private enterprise in which the Parties will work closely together to further the completion of the Project. The following responsibilities are hereby assigned to the Parties:

3.1 Developer Responsibilities. The Developer shall use commercially reasonable efforts to:

3.1.1 Perform its obligations pursuant to Article I hereof.

3.1.2 Design, develop and construct the Adjacent Buildings in accordance with the Site Concept Plans, or arrange for their design, development and construction through one or more Development Relationships. The Parties agree that the development of the Adjacent Buildings may be phased.

3.1.3 In designing and developing the Adjacent Buildings, the Developer shall consider the following factors:

a. Site use plans that incorporate urban mixed use principles;

b. Transit and pedestrian orientation with existing or future facilities in the Mill District;

c. Connection to surrounding properties, including cross track connections to the Saco-Lowell Building, potential use of buildings and building sites on Elm Street and the potentially re-aligned Lincoln and Pearl Streets; and

d. Coordination with mill owners in the Mill District, particularly as it relates to energy self-sufficiency.

3.2 City Responsibilities. Perform its obligations pursuant to Article I hereof.

3.2.2 The City shall continue to move forward with and make progress on the development of the Municipal Parking Garage and shall use best efforts to keep the Developer apprised of all design plans and changes. The Developer's responsibilities under this Agreement shall be conditional upon the Developer's deeming suitable the Garage Concept Plan, which shall include the Developer having sufficient time and opportunity to review the Garage Concept Plan and to exercise the Developer's judgment, at its sole discretion, regarding the suitability of such Garage Concept Plan. In the event that the Developer determines that the Garage Concept Plan is not suitable, and the City and the Developer are unable to agree to revisions to the Garage Concept Plan that make such plan suitable to the Developer, the Developer shall be permitted to terminate this Agreement with no further obligation and without penalty, as specified in Article VI.

3.2.3 The City shall continue to move forward on the planning, design and construction of the next phase of the RiverWalk.

3.2.4 The City shall pursue the planning and design of smart infrastructure for the benefit of 3 Lincoln Street and downtown Biddeford, including without limitation, gigabit internet service, wireless broadband mesh network, LED lighting, video and sensor technology, and the software required to store, analyze and secure data transmitted through this smart infrastructure.

3.2.5 The City and Maine Energy Recovery Company, LP, the former owner of the Site, pursuant to a Voluntary Response Action Plan ("VRAP"), completed environmental remedial actions on the Site resulting in a Maine Department of Environmental Protection Certification of Completion of a Voluntary Response Action Plan. The Certification of Completion is recorded in the York County Registry of Deeds in Book 17072, Page 169. Developer recognizes and agrees that the Certification of Completion and the Declaration of Environmental Covenant recorded in the York County Registry of Deeds in Book 17098, Page 898 imposes certain covenants, conditions and restrictions on the Site that are binding upon Developer and its successors and assigns. Developer agrees that the Certification of Completion is satisfactory evidence that all required environmental remediation on the Site was completed as of the date of the Certification of Remediation and that the City's obligations to complete any additional environmental remediation at the Site required in order to allow for the development of the Site contemplated hereby, including the financing of such development with financial institutions, is limited to environmental conditions occurring after the date of the Certification of

Completion. In the event that any such remediation is necessary, the City will provide to Developer, on or before the Closing Date for each Subject Property, evidence of the required remediation in form reasonably acceptable to Developer and any financial institutions financing the Municipal Parking Garage and Adjacent Buildings, including the environmental clearances listed on Exhibit C hereto.

3.2.6 The City shall provide the Developer with all environmental site assessments (phase 1 and 2 together with any additional test results), geotech studies, the results from test borings, soil samples, monitoring wells, and all other background information in the City's possession, or under its control, pertaining to the Site.

3.2.7 The City will assist the Developer in any local or state reviews necessary for the development of the Site.

3.2.8 The City shall exercise best efforts to assure that the Developer is not required to bear the cost of all offsite improvements necessary to support the contemplated development of the Project, including any costs necessary to ensure that utilities adequate to support the contemplated development are delivered to the Subject Property.

3.2.9 The City will work with the Developer to identify a full range of financial, tax, and development incentives for the redevelopment of the Site; provided, that the City's obligations under this Section 3.2.9 are subject to the Developer's cooperation in providing reasonably requested financial and project-level information. Any such financial information provided by the Developer shall be treated as confidential information pursuant to this Agreement and as confidential business information to the extent allowed by law and protected as such.

3.2.10 The City shall promptly provide to the Developer all information it has related to potential Development Relationships.

3.3 Joint Party Responsibilities.

3.3.1 Performance: Time is of the essence and a material provision of this Agreement. The Developer and the City shall exercise commercially reasonable efforts to coordinate their development efforts and recognize that meeting the timelines contained herein are, in part, contingent upon the overall success of developing their respective portions of the Projects and market trends. The Parties may agree to mutually extend the timeframes specified herein as appropriate based on overall development progress; provided, however, that if one or more of the Parties does not meet a timeframe specified in this Agreement and the Parties cannot mutually agree upon an extension of such timeframe, such failure to meet the original timeframe shall be treated as an Event of Default, as defined below.

3.3.2 Access to Information: Upon reasonable request, each Party shall provide the other Party with full and complete access to data, documents, and any other information pertinent to the Project in order to permit each Party to perform an adequate due diligence review of matters related to the Project at each stage of development.

3.3.3 Cooperation: In addition to the actions recited herein and contemplated to be performed, executed and delivered by each Party, each Party shall perform, execute and deliver or cause to be performed, executed and delivered hereafter any and all further acts, deeds and assurances as the other Party may reasonably require to consummate or evidence the consummation of the transaction and/or the discharge of the obligations contemplated herein. The City and the Developer shall use reasonable efforts to coordinate the timing and installation/construction of all offsite improvements, if any, required in connection with the development of the Project.

3.3.4 Confidentiality: Neither Party, nor any permitted affiliate, agent or advisor of either Party shall: (a) disclose to any third party any information concerning the Project, the Site, prospective or actual Developer Relationships, the other Party, its affiliates or this Agreement; or (b) use any such information in any manner which may directly or indirectly negatively impact the Project, the other Party, or its affiliates, except that such information may be disclosed by such Party if required by law or, following written notice to the Party whose information is to be disclosed, to any lender or prospective lender or other entity necessary to develop or finance each portion of the Project. This confidentiality requirement shall not restrict the release of information which: (i) is or becomes generally available to the public other than as a result of disclosure by the other Party or its representatives, (ii) was or becomes available to the receiving Party on a non-confidential basis from a source other than the disclosing Party or its representatives; provided, that, to the receiving Party's knowledge and after due inquiry, such source is not prohibited from disclosing such information to the receiving Party by a contractual, legal or fiduciary obligation to the disclosing Party or its representatives, or (iii) is independently developed by the receiving Party without violating its obligations hereunder. In the event that this Agreement terminates prior to the purchase of the Subject Property by the Developer pursuant to Article 2 herein, then all such data, plans, proposals, and other materials furnished hereunder shall be returned to the Party from whom received, with an appropriate assurance that all copies thereof have been destroyed, except for those materials that were presented to the Developer, the Biddeford City Council or other governing body of the Parties. The obligations established pursuant to this section shall survive any termination of this Agreement and the withdrawal of a Party for a period of three (3) years.

ARTICLE IV
LIMIT OF LIABILITY

Notwithstanding any other provision of this Agreement, in no event shall the Parties or any of their Affiliates, by reason of any of their respective acts or omissions relating to the development, negotiation, design, financing, ownership, construction, operation or maintenance of the Project, or relation to any of their obligations under this Agreement, be liable whether in contract, tort, misrepresentation, warranty, negligence, strict liability, or otherwise for any special, indirect, or consequential damages arising out of or in connection with this Agreement, or the performance, non-performance or breach thereof.

ARTICLE V
INDEMNIFICATION

Each Party shall indemnify, defend, and hold harmless the other Party and its agents, servants, officers, directors, employees and Affiliates from and against any loss, cost, liability, claim, damage, expense (including, without limitation, all out-of-pocket expenses, reasonable attorneys' and paralegal fees, disbursements and costs), penalty or fine incurred in connection with any claim or cause of action arising from or in connection with any claim or cause of action arising from or in connection with the Project or this Agreement to the extent caused by the negligence, misrepresentation, fraud, fault or misconduct of the indemnifying Party or any of its Affiliates.

The City's duty to indemnify shall not waive any defense, immunity or limitations of liability, which may be available to the City, its officers, agents, or employees, under the Maine Tort Claims Act, 14 M.R.S. §8101, et seq., or any other privileges or immunities as may be provided by law.

The Developer shall maintain commercial general liability insurance with coverage for personal injury liability and/or property damage liability with minimum limits of not less than $1,000,000 per occurrence, and shall name the City as an additional insured on such policies.

ARTICLE VI
DEFAULT AND REMEDIES

6.1 Events of Default. The following shall each constitute an event of default under this Agreement (each, an "Event of Default"),

6.1.1 The Developer's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.2 The City's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.3 The filing by the Developer of any petition or the initiation of any proceedings under the United States Bankruptcy Code or under any act or acts, state or federal, dealing with, or relating to the subject or subjects of bankruptcy or insolvency, or under any amendment of such act or acts, either as a bankrupt or as an insolvent, or as a debtor, or in any similar capacity, by the Developer; or any involuntary petition in bankruptcy is filed against the Developer and the same is not stayed or discharged within sixty (60) days from such filing; or any other petition or any other proceedings of the foregoing or similar kind or character is filed or instituted or taken against the Developer, or a receiver of the business or of the property or assets

of the Developer, is appointed by any court, except a receiver appointed at the insistence or request of the City; or the Developer makes any assignment for the benefit of its creditors;

6.2 Opportunity to Cure. If an Event of Default occurs, the non-breaching Party shall give the breaching Party written notice of the Event of Default and an opportunity to cure of not less than thirty (30) days, and if the default is, of its nature, not curable within 30 days, then a reasonable period to effect a cure given the nature of the default.

6.3 Remedies. In the event that the breaching Party fails to cure an Event of Default within the cure period set forth in Section 6.2, then the non-breaching Party shall be entitled to pursue any and all legal or equitable remedies available to it under the circumstances.

ARTICLE VII
REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties. Each Party represents and warrants to the other that:

7.1.1 it is duly qualified to do business and is in good standing in the State of Maine;

7.1.2 it has full power and authority to execute, deliver and perform its obligations under this Agreement;

7.1.3 the execution, delivery and performance of this Agreement has been duly and validly authorized by all necessary action by such Party; and

7.1.4 the execution and delivery of this Agreement by such Party and the performance of the terms, covenants and conditions contained herein will not violate the articles of incorporation or by-laws of such Party, or any order of a court or arbitrator, and will not conflict with and will not constitute a material breach of, or default under, the provisions of any material contract by which either Party is bound.

ARTICLE VIII
FORCE MAJEURE

The timeframes and deadlines for performance of the obligations of the Parties shall be specified herein shall be extended during the period of any force majeure. For the purposes of this Agreement, "force majeure" shall mean and include all factors, circumstances, transactions, occurrences and other actions beyond the direct control of the Party, including without limiting the generality of the foregoing, labor disputes, civil disturbance, war, war-like operations, invasions, rebellion, hostilities, military or usurped power, sabotage, fires or other casualty, or acts of God that have the effect of rendering practically unavailable materials or labor or other resources necessary to perform the obligation or responsibility in a timely manner.

ARTICLE IX
MISCELLANEOUS

9.1 Right to Require Performance. The failure of either Party at any time to require performance by the other Party of any provisions hereof shall in no way affect the right of such Party thereafter to enforce same. Nor shall waiver by either Party of any breach of any provisions hereof be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself.

9.2 City Agencies and Regulators. This Agreement is not intended to supersede the authority granted by law to any regulatory board or agency of the City. Such regulatory boards and agencies must perform their responsibilities in accordance with the law governing that performance. Therefore, nothing in this Agreement shall be construed or implied to require the City's planning, zoning, land use or other regulatory boards or agencies (however designated) to approve the plans for any aspect of the Project or other action required under this Agreement. Such boards and agencies are not obligated in any way by this Agreement

9.3 Relationship of Parties This Agreement shall not be interpreted or construed to independently create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent of representative of, or to otherwise bind, the other Party.

9.4 Affiliates. The Developer may form or employ related Affiliates for purposes of participating in the Project. It is expressly recognized that the Developer contemplates use of one or more special purpose entities to develop the Adjacent Buildings.

9.5 Definition of Terms. It is agreed by the Parties hereto that reference in this Agreement to the City and the Developer, and all expressions referring thereto, shall mean the party, person, or persons named above as the City and the Developer, as the case may be, their successors and assigns, or any person, persons, or parties claiming by, through or under them.

9.6 Integration. This Agreement encompasses the entire Agreement of the Parties, and supersedes all previous understandings and agreements between the Parties, whether oral or written. The Parties hereby acknowledge and represent, by affixing their hands and seals hereto, that the Parties have not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this Agreement, made by or on behalf of any other Party or any other person or entity whatsoever, prior to the execution of this Agreement. The Parties hereby waive all rights and remedies, at law or in equity, arising or which may arise as the result of a Party's reliance on such representation, assertion, guarantee, warranty, collateral contract or other assurance, provided that nothing herein contained shall be construed as a restriction or limitation of the Party's right to remedies associated with the gross negligence, willful misconduct or fraud of

any person or party taking place prior to, or contemporaneously with, the execution of this Agreement.

9.7 No Oral Modifications. This Agreement may not be amended or terminated orally. This Agreement and all the covenants, terms and provisions contained herein shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns. Except for an affiliated single purpose entity organized by the Developer to construct and operate the Project, neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated by any Party, without the prior written consent of the other Party. This Agreement is not intended to confer any rights or benefits to any entity other than to the City and to the Developer, its affiliate entity organized to construct and operate the Project, and its affiliates.

9.8 Mutual Cooperation and Further Agreements. The Parties acknowledge that the obligations set further herein may be further described in other agreements as agreed to by the Parties. The City and the Developer agree to cooperate in good faith with regard to each and every aspect required for the completion of all operations contemplated by this Agreement. The Parties further agree to negotiate in good faith and to enter such other and further agreements as may be necessary to implement any aspect of design, engineering, construction or facility operation contemplated under this Agreement.

9.9 Expenses. Each Party shall pay all charges and fees in connection with employment of its respective attorneys relating to the negotiation of this Agreement, the Option, and the Definitive Agreement.

9.10 Notice. All notices required to be given to the City or the Developer under this Agreement shall be in writing and deemed given upon the earlier of actual receipt by personal delivery or two (2) days after being mailed by U.S. priority, registered or certified mail, return receipt requested, or a reputable overnight courier as follows:

City	City of Biddeford c/o James A. Bennett, (or the then current) City Manager P.O. Box 586 205 Main Street Biddeford, Maine 04005
With a copy to	Keith R. Jacques, Esq. Woodman Edmands Danylik Austin Smith & Jacques, P.A. P.O. Box 468 234 Main Street Biddeford, Maine 04005
Developer	3 Lincoln LLC

c/o James H. Brady, manager
P.O. Box 7486
Portland, ME 04112-7486

With a copy to Christopher E. Howard
Pierce Atwood LLP
254 Commercial Street
Portland, Maine 04101

9.11 Governing Law. This Agreement is and shall constitute a contract under and is to be construed in accordance with the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation, or such other method as may be mutually agreed to by the Parties shall be adjudicated within the jurisdiction of the State of Maine.

9.12 Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties, who agree that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provisions.

9.13 Survival. All express representations, warranties, indemnifications or limitations of liability made in or given in this Agreement shall survive the expiration or the termination of this Agreement for any reason.

9.14 Mediation/Arbitration. The Parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques such as mediation and arbitration to resolve all claims, counterclaims, disputes and other matters in question between the Parties arising out of this Agreement.

[*Remainder of page intentionally blank*]

IN WITNESS WHEREOF, the Parties hereto have set their hands and seals as of this 17 day of Nov, 2020.

DEVELOPER:
3 Lincoln, LLC

Witness Jonathan Benoit

By: _____
Its: manager

CITY OF BIDDEFORD

Witness

By: _____
Name: James A. Bennett
Title: City Manager

City of Biddeford, Maine

The Office of
City Manager
James A. Bennett
Email: jbennett@biddefordmaine.org

MEMORANDUM

TO:	**BE Fitler LLC**
FROM:	James A. Bennett, City Manager
DATE:	December 19, 2019
RE:	**Clarification to Master Plan Development Agreement**

This memo issued to clarify .section 1.3.6 of the Master Plan Development agreement. That section contemplates that milestone dates within the agreement shall be extended if the parking garage was unable to meet its milestone. This section shall be broadly interpreted to include any delays that might occur that are a result of any infrastructure design, approval or construction required to serve the parking garage, including, but not limited to:

- Pearl Street Road Design and Construction;
- Pearl Street Utilities Design and Construction, including water and sewer improvements; or
- Pearl Street Pedestrian and Landscape design and construction, including direct links to the Riverwalk.

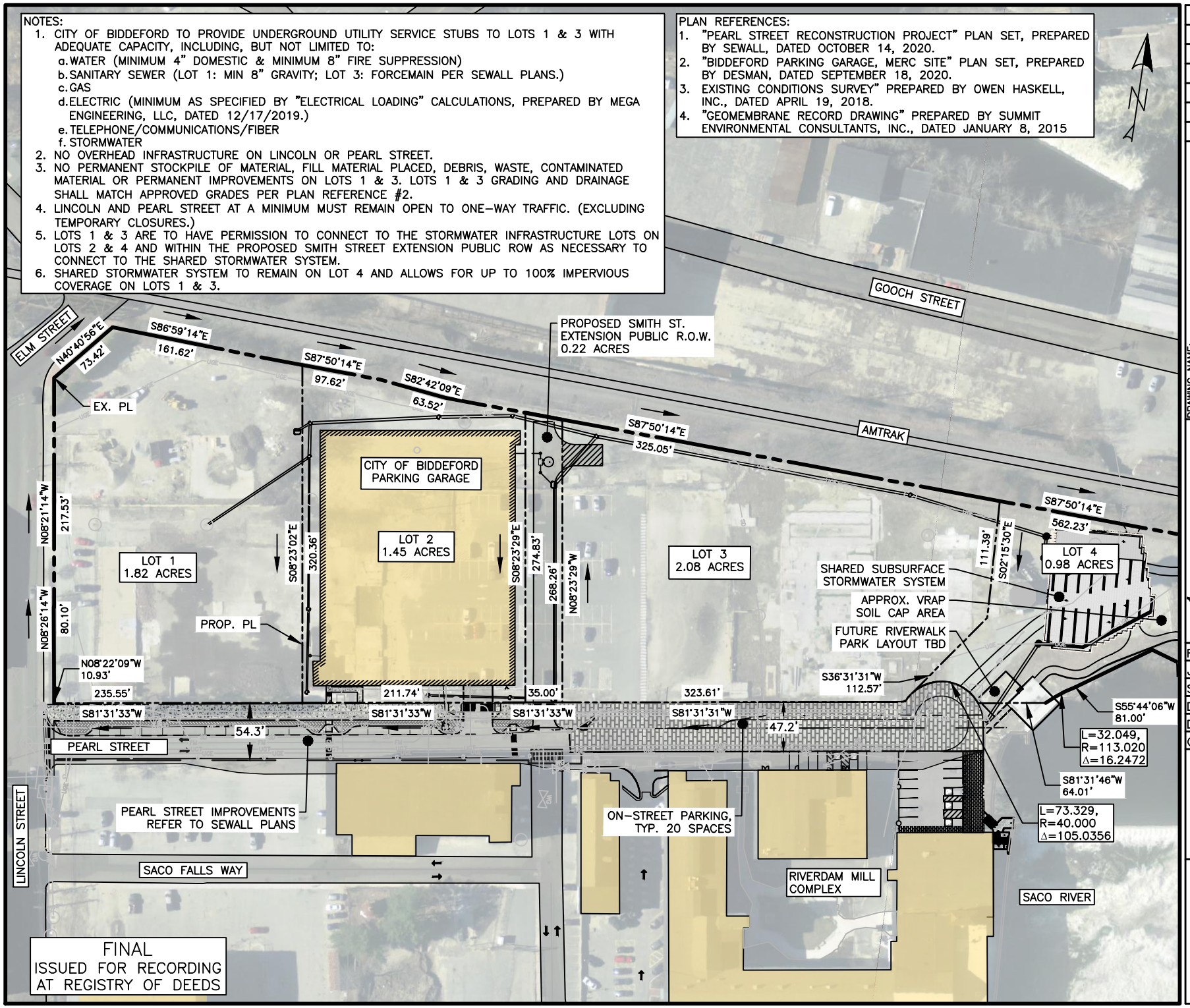
Finally, nothing within the agreement, nor within this memo prohibits the parties to mutually extend any deadline contained within the agreement. Any extension shall be done in writing.

Exhibit A
Site Plan

[insert Site Plan]

NOTES:
1. CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
   a. WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
   b. SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
   c. GAS
   d. ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
   e. TELEPHONE/COMMUNICATIONS/FIBER
   f. STORMWATER
2. NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
3. NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
4. LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
5. LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
6. SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

PLAN REFERENCES:
1. "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
2. "BIDDEFORD PARKING GARAGE, MERC SITE" PLAN SET, PREPARED BY DESMAN, DATED SEPTEMBER 18, 2020.
3. EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC., DATED APRIL 19, 2018.
4. "GEOMEMBRANE RECORD DRAWING" PREPARED BY SUMMIT ENVIRONMENTAL CONSULTANTS, INC., DATED JANUARY 8, 2015



FINAL
ISSUED FOR RECORDING AT REGISTRY OF DEEDS

ISSUED FOR	BY DATE
JDA EXHIBIT	PFH 11/12/20

DRAWING NAME: OVERALL SITE EXHIBIT
PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT
CLIENT: FATHOM/BE FITLER, LLC BIDDEFORD, MAINE

ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. 65 HANOVER ST. PORTLAND, MAINE 04104 (207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	1" = 120'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.

EX-A

ALSO REFER TO EX-A1 & EX-A2

NOTES:
1. CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
   a. WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
   b. SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
   c. GAS
   d. ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
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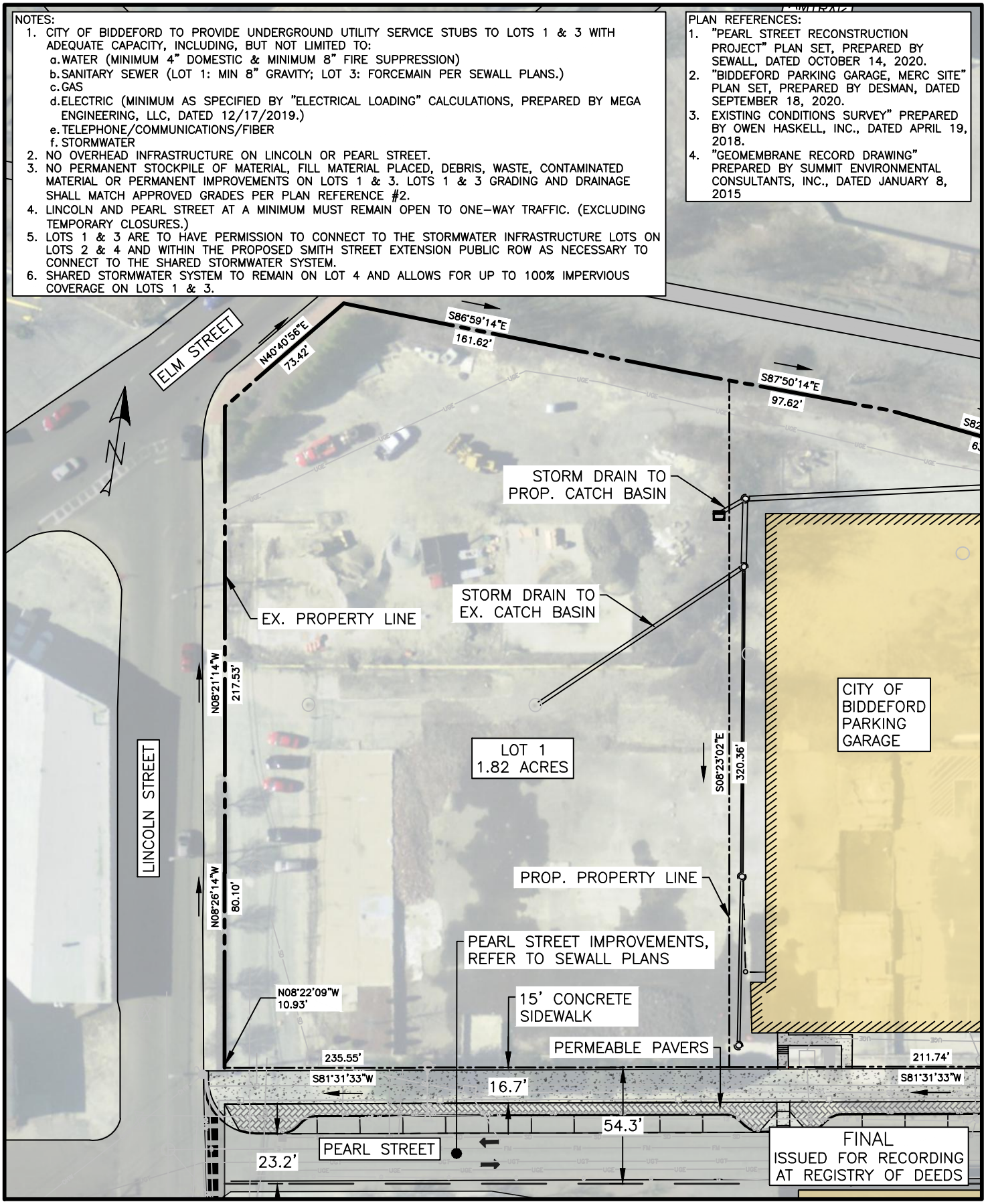


THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.
EX-A1
ALSO REFER TO EX-A & EX-A2

FILE:	1124_CIVIL
DATE:	11/12/20
JN:	1124
SCALE:	1" = 60'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

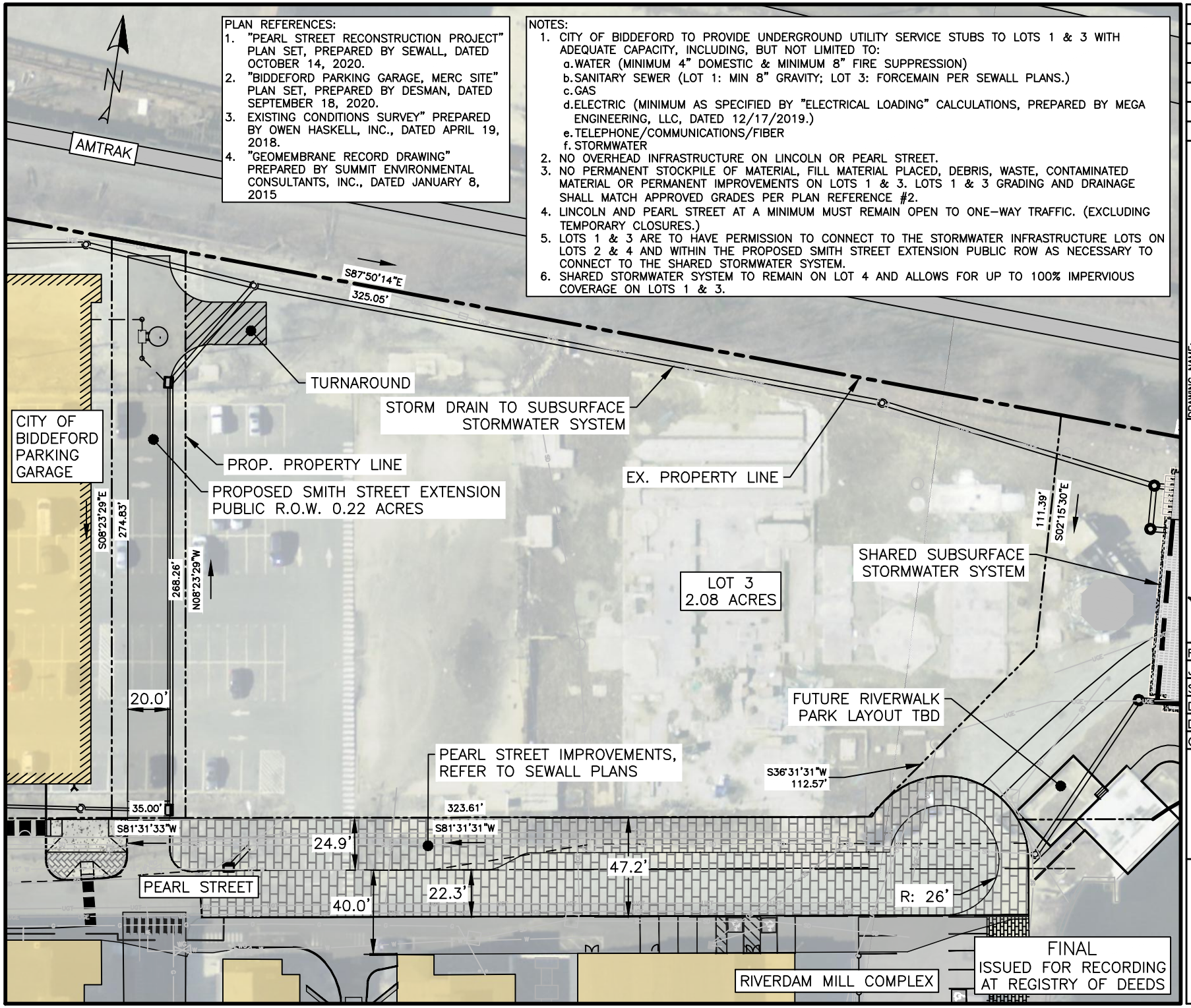
ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. P.O. BOX 3372
PORTLAND, MAINE 04104 (207) 775-2655

DRAWING NAME:
LOT 1 EXHIBIT

PROJECT NAME:
PEARL STREET & MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE

ISSUED FOR	BY	DATE
JDA EXHIBIT	PFH	11/12/20



ISSUED FOR	BY DATE
JDA EXHIBIT	PFH 11/12/20

DRAWING NAME: LOT 3 EXHIBIT

PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT

CLIENT: FATHOM/BE FITLER, LLC BIDDEFORD, MAINE

ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. 65 HANOVER ST. PORTLAND, MAINE 04104 (207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	1" = 60'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.

EX-A2

ALSO REFER TO EX-A & EX-A1

Exhibit B
Legal Description

[insert legal description of Site]

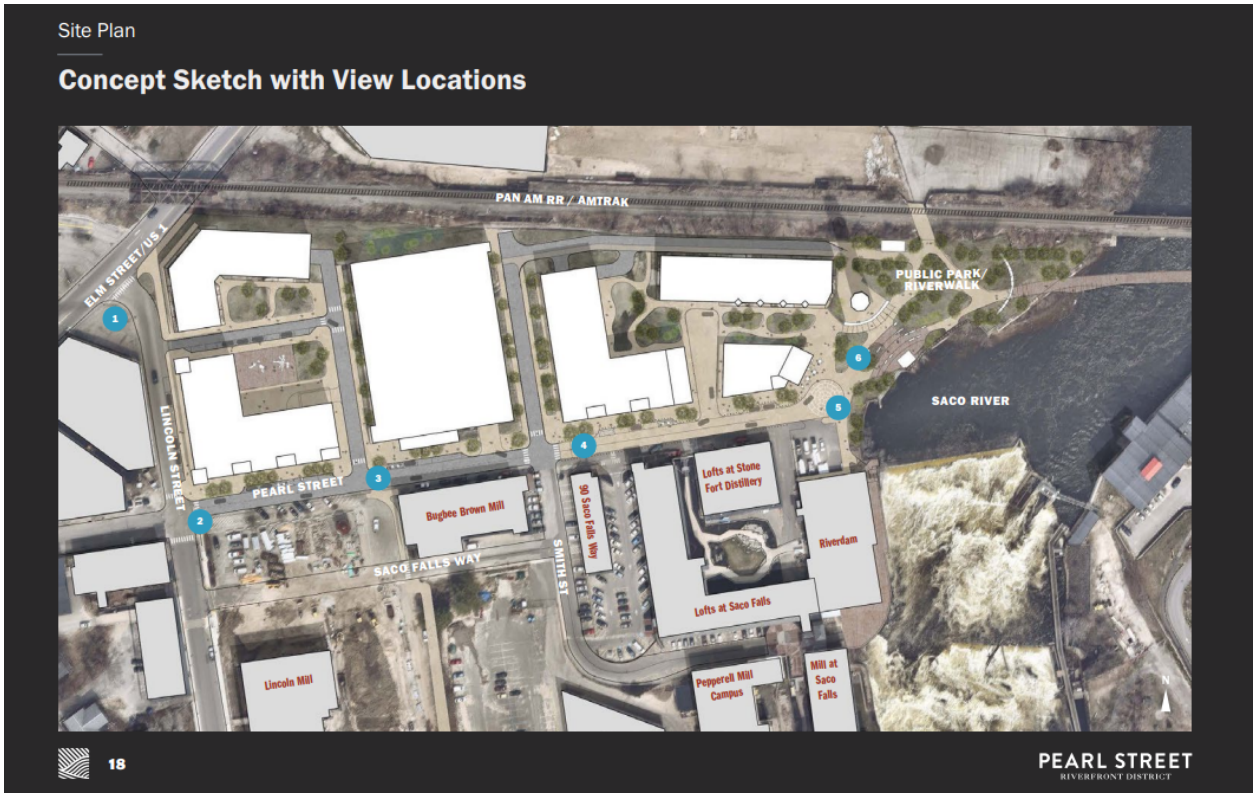
Exhibit C
Environmental Clearances

2021.134 IN BOARD OF CITY COUNCIL..DECEMBER 21, 2021

BE IT ORDERED, that the City Council approves the Preliminary Concept Plan submitted by 3-Lincoln LLC (the Fathom Company and partners) for the redevelopment of the so-called "MERC site" at 3 Lincoln Street, substantially in the form represented in the attached concept plan and consistent with the Master Plan Development Agreement, signed on November 13, 2020 and subject to the following conditions:

1. *The City of Biddeford will coordinate the DEP Shoreland Zoning amendment to allow the density proposed for the Pearl Street Riverfront District. This approval will allow the Site Plan Application for Lot 3 to be submitted and avoid further delays to the permitting process due to the existing amendment.*
2. *The timeline outlined in the Master Plan Development Agreement (Section 1.3 Project Schedule) will not start until the DEP Shoreland Zoning amendment is approved to allow the density proposed for the Pearl Street Riverfront District in the Preliminary Concept Plan and Lot 3 Site Plan Application.*

Preliminary Concept Plan:



City of Biddeford

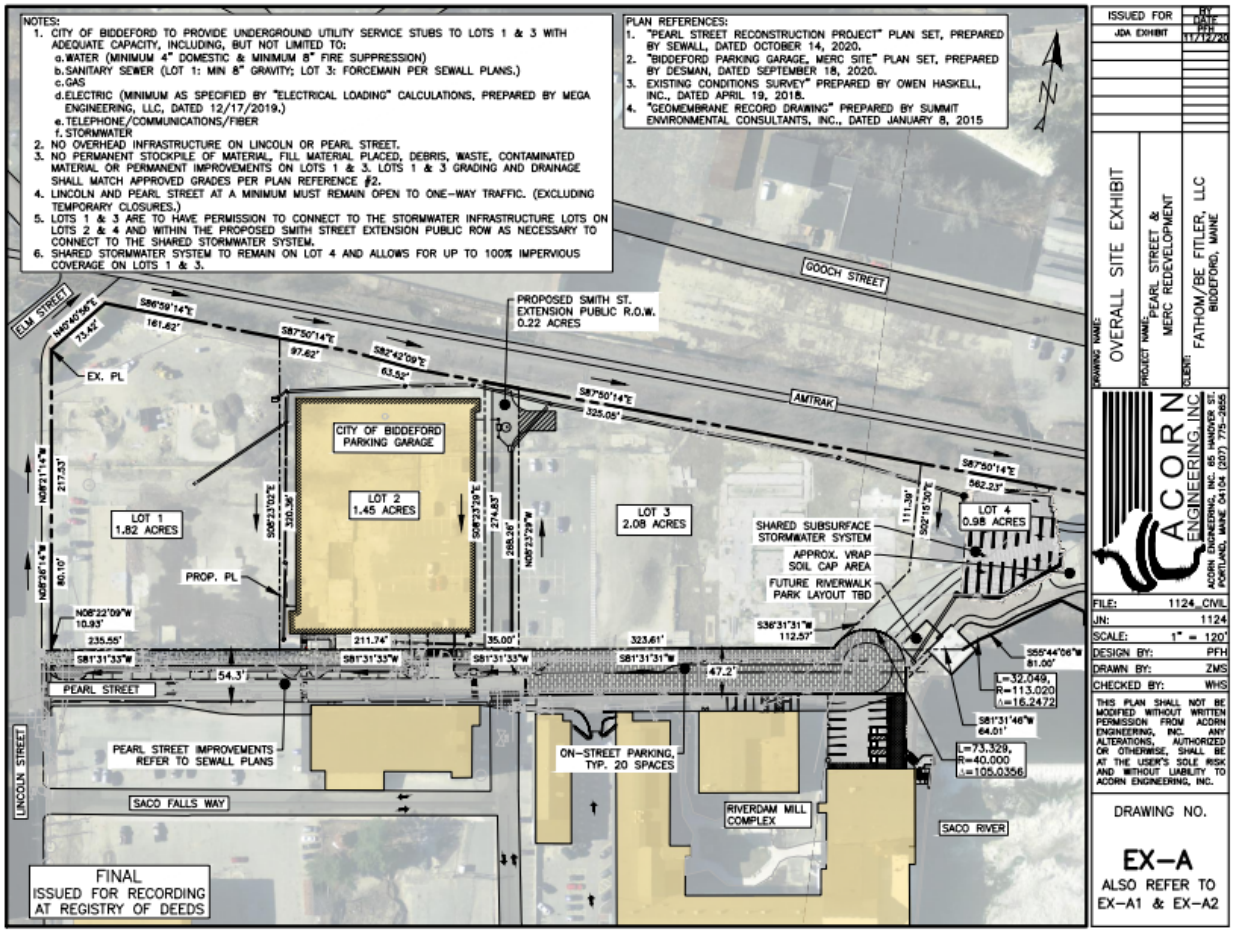
Site Plan

Potential Development Program

- **1A** **Building 1A**
  Floorplate 21,000SF; 3-5 stories; 60,000-100,000SF gross
- **1B** **Building 1B**
  Floorplate 14,500SF; 3-5 stories; 43,500-72,500SF gross
- **P** **Public Parking Structure & Transportation Hub**
  Retail, bike parking; 1 story; 1,000-1,500SF gross
- **3A** **Building 3A**
  Floorplate 22,500SF; 3-5 stories; 67,000-112,500SF gross
- **3B** **Building 3B**
  Floorplate 12,500SF; 3-5 stories; 37,000-62,500SF gross
- **3C** **Building 3C**
  Retail/Dining Floorplate 6,500SF; 1-2 stories; 6,500-13,000SF gross



Survey of Property



December 21, 2021

Motion by Councilor Clearwater, seconded by Councilor Lessard to grant the order.
Vote: Unanimous.

Attest by:_____
Carmen J. Morris, City Clerk

Section 3

Financial Capacity

Section 3. Financial Capacity

Please refer to the attached Certificate of Good Standing and letter from the Applicant's bank confirming financial capacity for the project.

Mascoma Bank

October 1 , 2022

To: City of Biddeford, Maine

The purpose of this letter is to express Mascoma Bank's support and interest in providing financing for The Fathom Companies' subsidiary 3 Lincoln, LLC and its Pearl Street Lofts (Lots 3A, 3B & 3C) mixed-use project. It is our understanding the project is for the construction of 85 residential apartment units on Lot 3A, 129 residential apartment units on Lot 3B, and a two-story commercial building on Lot 3C located in downtown of Biddeford, Maine with a maximum project budget of approximately $50 million.

Mascoma Bank has provided financing for a number of Jim Brady's and The Fathom Companies' projects in the State of Maine. All of these projects have been successful in every aspect, and just as important, each project has been a credit to the community. Mascoma has been fortunate to work with many successful builders and developers, but none who are more devoted than Jim and The Fathom Companies to ensuring that their developments provide positive, transformative impacts to the communities where their developments are located. Jim and The Fathom Companies' projects in Southern Maine are exceptional examples of such devotion.

Please know that this letter is an expression of support and interest, and is not a commitment. A commitment would require further review of appropriate information by the Bank.

I hope you find this letter helpful, and if you have any questions, please do not hesitate to contact me.

Sincerely,

Tad S. Atwell
Senior Vice President, Commercial Lending
48 Free Street, Portland, Maine 04101
(207) 613-0142
Tad.Atwell@MascomaBank.com



Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Mon Jun 09 2025 09:27:06. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
3 LINCOLN, LLC	20200610DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
07/31/2019	N/A	MAINE

Other Names **(A=Assumed ; F=Former)**

NONE

Principal Home Office Address

Physical	Mailing
80 EXCHANGE STREET SUITE 400 PORTLAND, ME 04101	80 EXCHANGE STREET SUITE 400 PORTLAND, ME 04101

Clerk/Registered Agent

Physical	Mailing
JAMES BRADY 80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101	JAMES BRADY 80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101

New Search

Click on a link to obtain additional information.

List of Filings	View list of filings	
Obtain additional information:		
Certificate of Existence (Good Standing) (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

Certificate of Legal Existence (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
If you encounter problems, visit the troubleshooting page.



If you encounter technical difficulties while using these services, please contact the Webmaster. If you are unable to find the information you need through the resources provided on this web site, please contact the Division of Corporations, UCC & Commissions Reporting and Information Section at 207-624-7752 or e-mail.

© Department of the Secretary of State

Section 4

Technical Capacity

Section 4. Technical Capacity

Fathom Development provides planning and development advisory services that put vision, strategy, and budget at the forefront. Through diligent project management and consultation, we maintain a focus on hitting milestones and achieving quality throughout design and construction while always watching the bottom line. We work to serve our clients with clear communication, organized project facilitation, and experience based on design, engineering, and constructability. With proven mixed use, hospitality, and historical rehabilitation experience, our expertise supports the project from planning, to groundbreaking, to opening and beyond. Our development portfolio includes many projects in southern Maine including The Press Hotel, 80 Exchange Street office building, and The Canopy Portland Waterfront Hotel all located in Portland, ME.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting, and construction administration. Acorn Engineering, Inc has successfully designed and permitted more than 20 Minor/Major projects in Portland & Biddeford during the past 5-10 years, including the Upper Falls Road Redevelopment, Riverdam, Munjoy Heights, East Bayside Lofts, and The Hiawatha.

Kaplan Thompson Architects combines the practicality of sustainable design with the artistry of architecture to deliver high-quality, low-impact buildings. Their portfolio includes multi-family projects of varying scales with both affordable housing and market rate developers across New England, including Dakota Partners and Avesta Housing. With national recognition for their achievements in high-performance construction and innovative design, Kaplan Thompson's multifamily projects have been the recipients of awards from AIA Maine and AIA New England, PHIUS, and Maine Smart Growth.

Soren DeNiord Design Studio (SDDS) is a professional landscape design firm located in Portland, Maine. Their portfolio includes award winning projects ranging in scale from residential to mixed use, commercial and institutional. As stewards of the environment and our clients' resources, we engage in projects with a commitment to sustainability and the intention of artfully responding to each site's unique challenges.

Section 5

Noise

Section 5. Noise

The proposed project is classified as a development producing a minor noise impact under (4) Other Developments

a. Type, source, and location of noise

   The noise generated by the residential and commercial buildings will be relatively minor for the urban zone. The source of the noise will be produced by vehicles circulating through the site.

b. Uses, zoning and plans

   The land use is described as mixed-use. There are residential and commercial uses within proximity to the site that generate similar noise than is expected from proposed project. Please find attached the zoning map with the subject parcel outlined. Note, the City's GIS map has not been updated to reflect the recently adopted Waterfront Renaissance Shoreland Zoning Overlay, and still shows the previous GD-1 shoreland overlay.

   The development is not anticipated to produce more than 55 db(A) and 67 db(C) of noise between the hours of 7:00 am and 10:00 pm as well as no more than 45 db(A) and 57 db(C) of noise between the hours of 10:00 pm and 7:00 am per the City of Biddeford Municipal Code of Ordinances Article III – Noise. Furthermore, Article III Section 34-56-Exceptions (4) provides an exemption from Article III for construction or demolition activity permitted and duly authorized during daytime hours. Construction is anticipated to occur during daylight hours.

c. Protected locations

   The development is adjacent to the Saco River.

d. Minor nature of impact

   The nature of vehicle circulation and materials handling on site will not produce significant noise levels.

e. Demonstration

   The site is adjacent to the Saco River to the east, Pearl Street with existing commercial and residential uses to the south, an existing parking garage to the west, and the Amtrack railroad to the north. The western property line of the development is approximately 650 feet from Lincoln Street. The noise generated by the vehicle circulation within the site is anticipated to be negligible. The commercial/restaurant and residential uses are not anticipated to generate high noise levels.

   There is a similar mixed-use residential development located directly across Pearl Street from the project site.

Home ▾ Biddeford Online Tax Map - Current

Details Add | Basemap | Save Share Print | Measure Bookmarks

About Content Legend

Legend

General Zoning

- SR1: Suburban Residential
- LRF: Limited Rural Farm
- R1A: Single Family Residential 1A
- R1B: Single Family Residential 1B
- RF: Rural Farm
- MSRD2: Residential Conservation
- R2: Multi-Family
- R3: Mixed Residential
- CR: Coastal Residential
- B1: General Business
- B2: Highway Business
- MSRD1: Commercial Core
- OR: Office Residential
- I1: General Industrial
- I2: Airport Industrial
- I3: Comercial Industrial
- MSRD3: High Density / Mixed Use
- IN: Institutional
- M: Medical
- W1: Mixed Waterfront
- W2: Commercial Waterfront
- W3: Pool Village Waterfront

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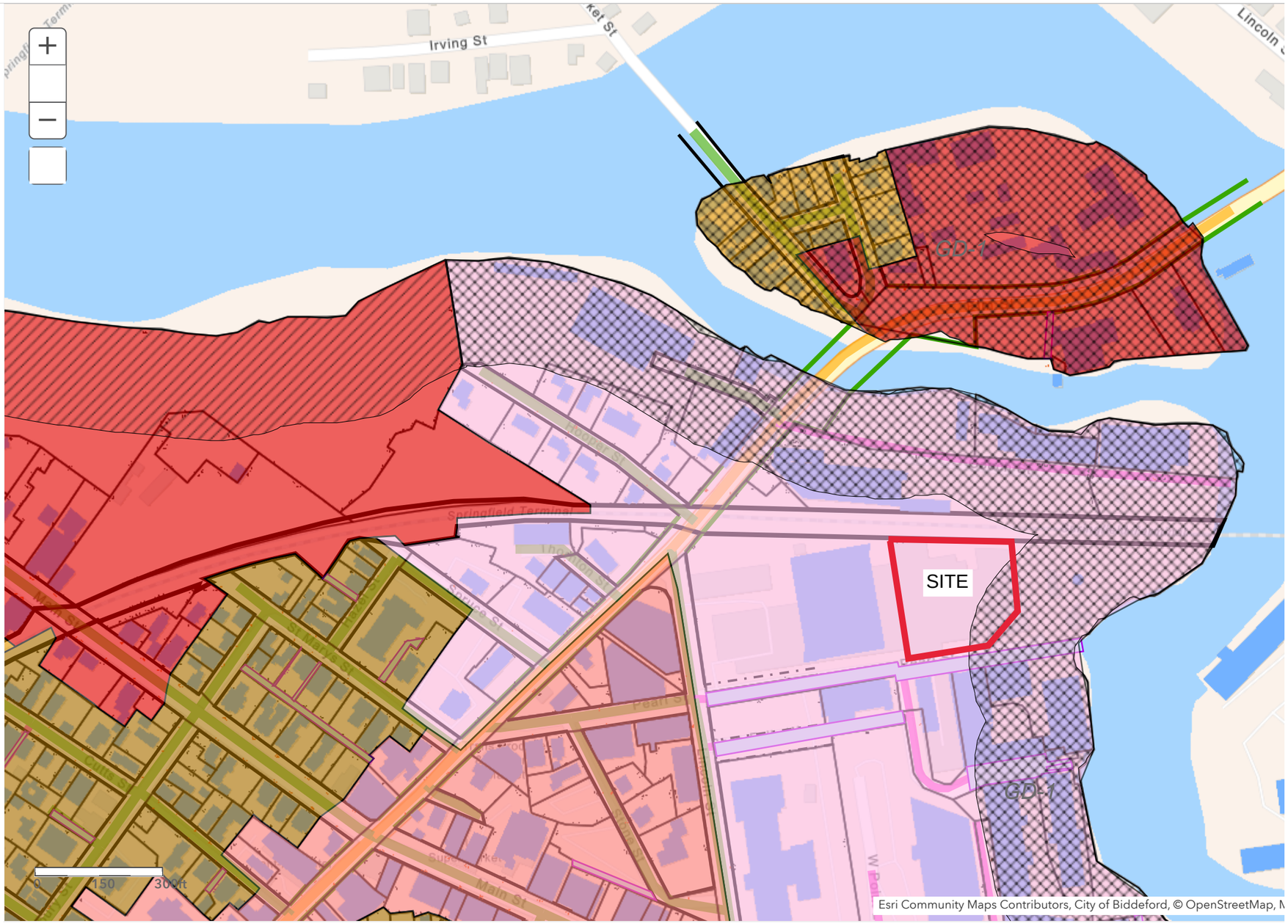


Section 6

Visual Quality & Scenic Character

6. Visual Quality and Scenic Character

The proposed project is not directly adjacent to the Saco River and as such will not disturb any land within 100' from the Saco River. An application was submitted to the Saco River Corridor Commission (SRCC) and granted approval in February 2023 (Permit #20-469) as part of the original permit approvals and an amendment application to the SRCC will be submitted in the upcoming weeks. The project proposes to redevelop the previous MERC facility site and greatly improve the previous character of the neighborhood.

Section 7

Wildlife & Fisheries

Section 7. Wildlife and Fisheries

See attached letter to Maine Wildlife and Fisheries.

ACORN ENGINEERING, INC.

Mr. John Perry
Maine Department of Inland Fisheries & Wildlife
41 State House Station
Augusta, Maine 04333

December 14th, 2022

Subject: Wildlife and Fisheries
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Perry:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford, Maine.

As part of the Site Location of Development application process, Acorn requests information from your department regarding potential fisheries and wildlife habitat impacts that could result from the proposed redevelopment.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:

EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

March 3, 2023

Zachary Stevens
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

RE: Information Request – 3 Lincoln Street Redevelopment Project, Biddeford

Dear Zachary:

Per your request received on January 11, 2023, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *3 Lincoln Street Redevelopment* project in Biddeford. For purposes of this review we are assuming tree clearing will not be part of your project.

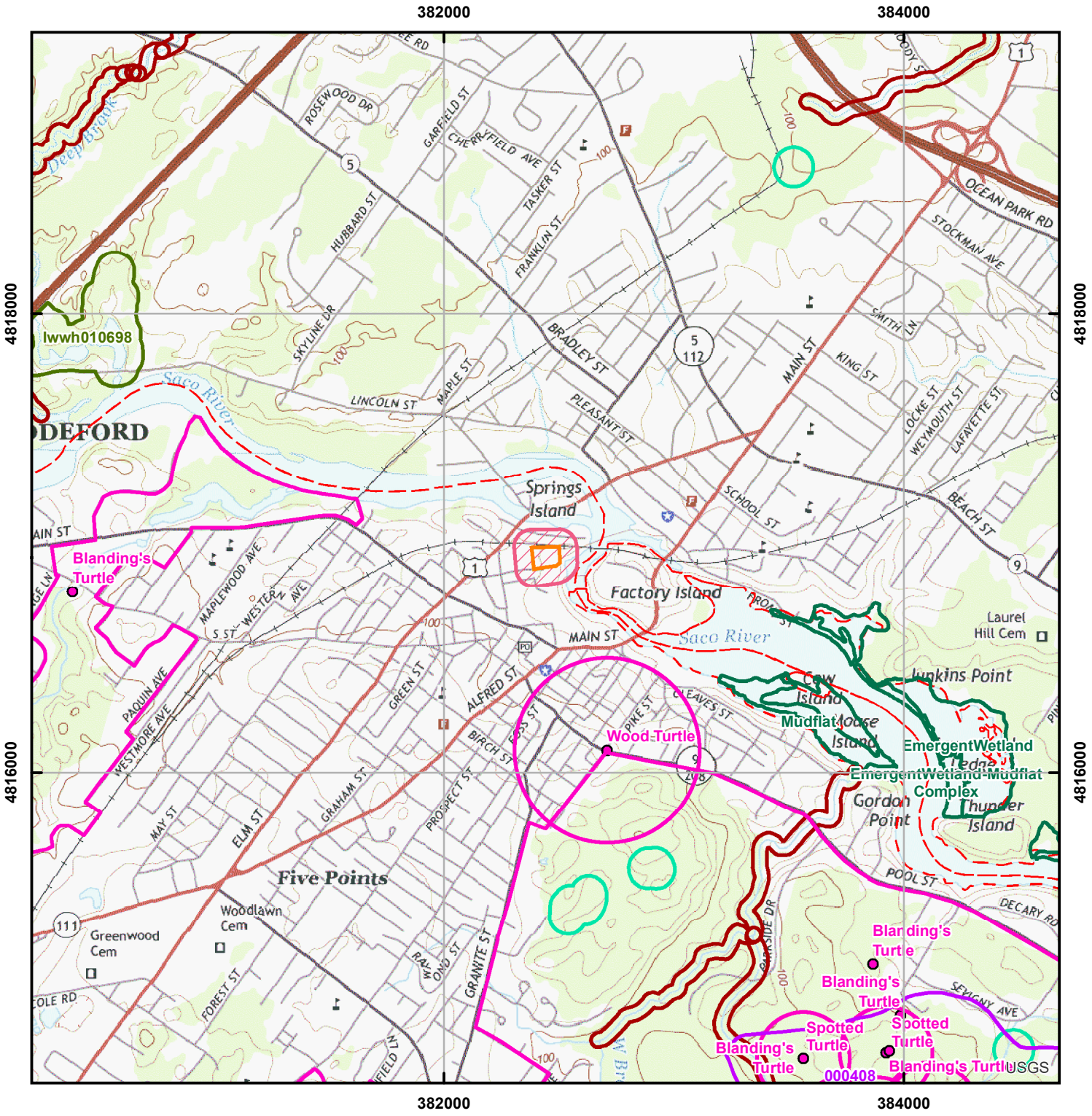
Our information indicates no locations of State-listed Endangered, Threatened, or Special Concern species within the project area that would be affected by your project. Additionally, our Department has not mapped any Essential or Significant Wildlife Habitats or inland fisheries habitats that would be directly affected by your project.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele
Wildlife Biologist



Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: 3 Lincoln Street Redevelopment, Biddeford (Version 1)

Maine Department of Inland Fisheries and Wildlife

0 0.125 0.25 0.5 0.75 1 Miles

Projection: UTM, NAD83, Zone 19N

Date: 1/11/2023

- ProjectSearchAreas - All Versions
- Maine Cliff and Talus Areas
- Deer Winter Area
- LUPC p-fw
- Cooperative DWAs
- Seabird Nesting Islands
- Shorebird Areas
- Inland Waterfowl and Wading Bird
- 2008 Iwwh - Shoreland Zoning
- Tidal Waterfowl and Wading Bird
- Significant Vernal Pools
- Environmental Review Polygons
- Roseate Tern
- Piping Plover and Least Tern
- Aquatic ETSc - 2.5 mi review
- Rare Mussels - 5 mi review
- Maine Heritage Fish Waters
- Arctic Charr Habitat
- Redfin Pickerel and Swamp Darter Habitats - buffer100ft
- Special Concern occupied habitats - 100ft buffer
- Wild Lake Trout Habitats



Section 8

Historic Sites

Section 8. Historic Sites

See attached letter to Maine Historic Preservation Commission and their corresponding response.

ACORN ENGINEERING, INC.

Mr. Kirk F. Mohney
Maine Historic Preservation Commission
55 Capitol Street, State House Station 65
Augusta, Maine 04333

December 14th, 2022

Subject: Presence of Historic Areas
3 Lincoln St*reet (Lot 3) Redevelopment*
Biddeford, Maine

Dear Mr. Mohney:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from your department in regard to the presence of any nearby structure or area with historical, architectural or archeological significance as defined by the National Historic Preservation Act.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:

EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

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

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

December 21, 2022

Mr. Zachary Stevens
Acorn Engineering
PO Box 3372
Portland, ME 04104

Project: MHPC #2210-22 3 Lincoln St
Proposed Redevelopment

Town: Biddeford, ME

Dear Mr. Stevens:

In response to your recent request, I have reviewed the information received December 14, 2022 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

In order to continue our review, please provide elevation drawings and renderings of the proposed new construction.

In addition, a historic archaeological survey is recommended. The proposed project area was part of an active industrial district throughout the 19th century with a number of properties and a canal and early river shore within the project area. Two images attached or the parcel due to the potential presence of two historic homestead sites of Morrill and R. Mosher present in 1857. Please see enclosed map.

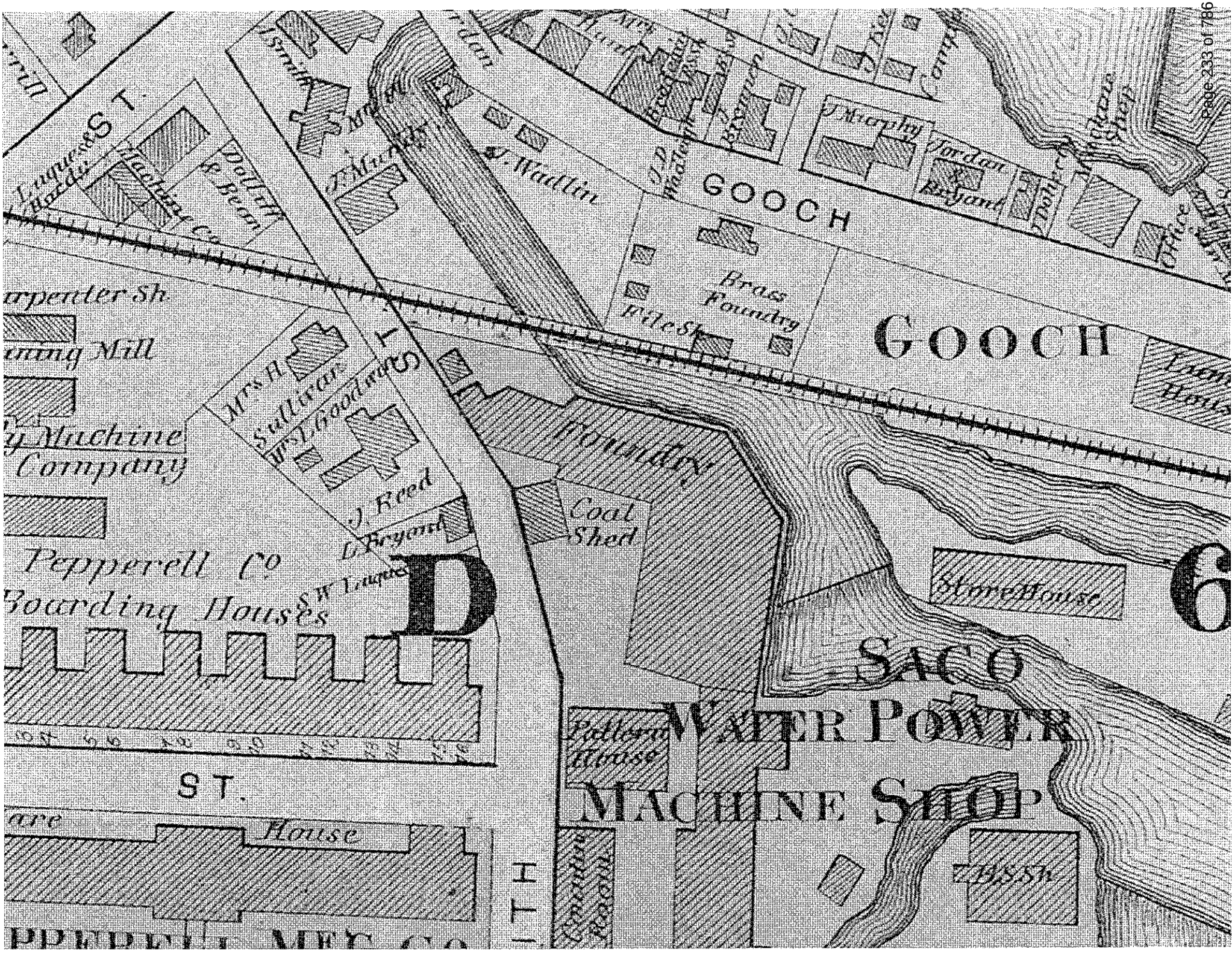
A list of qualified historic archaeologists can be found on our website:
https://www.maine.gov/mhpc/programs/survey/approved-consultants/historic

If you have any questions regarding archaeology, please contact Dr. Leith Smith of this office at Leith.Smith@maine.gov

If you have any questions regarding above ground properties, please contact Megan Rideout of this office at megan.m.rideout@maine.gov.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer


GOOCH
GOOCH
Brass Foundry
File Sh
J. Wadlin
J. Murphy
Jordan & Bryant
Office
Machine Shop
Dolliff & Bean
Machine Co
Mrs H. Sullivan
J. Reed
L. Bryant
S.W. Luques
Pepperell Co
Boarding Houses
Machine Company
Mill
Foundry
Coal Shed
Store House
SACO
WATER POWER
MACHINE SHOP
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MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

January 25, 2023

Mr. Zachary Stevens
Acorn Engineering
PO Box 3372
Portland, ME 04104

Project: MHPC #2210-22 — 3 Lincoln St
Proposed Redevelopment

Town: Biddeford, ME

Dear Mr. Stevens:

In response to your recent request, I have reviewed the information received January 4, 2023 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

In order to continue our review, please provide provide a visual simulation of the view from Pearl Street looking north between the parking garage and building 3A.

In addition, a historic archaeological survey is recommended. The proposed project area was part of an active industrial district throughout the 19th century with a number of properties and a canal and early river shore within the project area. Two images attached or the parcel due to the potential presence of two historic homestead sites of Morrill and R. Mosher present in 1857. Please see enclosed map.

A list of qualified historic archaeologists can be found on our website:
https://www.maine.gov/mhpc/programs/survey/approved-consultants/historic

If you have any questions regarding archaeology, please contact Dr. Leith Smith of this office at Leith.Smith@maine.gov

If you have any questions regarding above ground properties, please contact Megan Rideout of this office at megan.m.rideout@maine.gov.

Sincerely,

Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

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

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

March 6, 2023

Mr. Zachary Stevens
Acorn Engineering
PO Box 3372
Portland, ME 04104

Project: MHPC #2210-22 3 Lincoln St
Proposed Redevelopment

Town: Biddeford, ME

Dear Mr. Stevens:

In response to your recent request, I have reviewed the information received February 15, 2023 to continue consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

Based on the information provided, I have concluded that the proposed undertaking will have **no adverse effect** upon historic architectural (above ground) properties, as defined by Section 106.

A historic archaeological survey is still recommended for the proposed project. The proposed project area was part of an active industrial district throughout the 19th century with a number of properties and a canal and early river shore within the project area. Two images attached or the parcel due to the potential presence of two historic homestead sites of Morrill and R. Mosher present in 1857.

A list of qualified historic archaeologists can be found on our website:
https://www.maine.gov/mhpc/programs/survey/approved-consultants/historic

If you have any questions regarding archaeology, please contact Dr. Leith Smith of this office at Leith.Smith@maine.gov

If you have any questions regarding above ground properties, please contact Megan Rideout of this office at megan.m.rideout@maine.gov.

Sincerely,

Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

Section 9

Unusual Natural Areas

Section 9. Unusual Natural Areas

See attached letter to Maine Natural Areas Program and their corresponding response confirming the proposed project does not disturb rare botanical features.

ATTACHMENT 9-1: MNAP RESPONSE

ACORN ENGINEERING, INC.

Ms. Lisa St. Hilaire
Maine Natural Areas Program
93 State House Station
Augusta, Maine 04333

December 14th, 2022

Subject: Maine Natural Areas
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Ms. St. Hilaire,

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests confirmation from your department that the proposed redevelopment will not adversely affect any federally listed endangered or threatened species.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

December 15, 2022

Zachary Stevens
Acorn Engineering
PO Box 3372
Portland, ME 04104

Via email: zstevens@acorn-engineering.com

Re: Rare and exemplary botanical features in proximity to: #1124, 3 Lincoln Street Redevelopment (Lot 3), Biddeford, Maine

Dear Mr. Stevens:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received December 14, 2022 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Biddeford, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Section 10

Buffers

Section 10. Buffers

The existing lot is the former location of the old MERC facility, as such there is minimal vegetation onsite. The project anticipates incorporating trees, shrubs, and groundcover as part of the proposed programming. Please refer to the Landscape Plans prepared by Soren DeNoird for additional information.

Section 11

Soils

Section 11. Soils

The existing redevelopment project consists of approximately 2.08 acres of the existing 3 Lincoln Street parcel in Biddeford. The soils contain primarily urban fill, glacial till, and probable bedrock. Please see the attached geotechnical report including subsurface soil explorations by Summit Geoengineering Services for additional information.

Attachments:

1.) Medium Intensity Web Soil Survey for 3 Lincoln Street (Lot 3) in Biddeford.

2.) Geotechnical Report by Summit Geoengineering Services, Inc.

United States Department of Agriculture

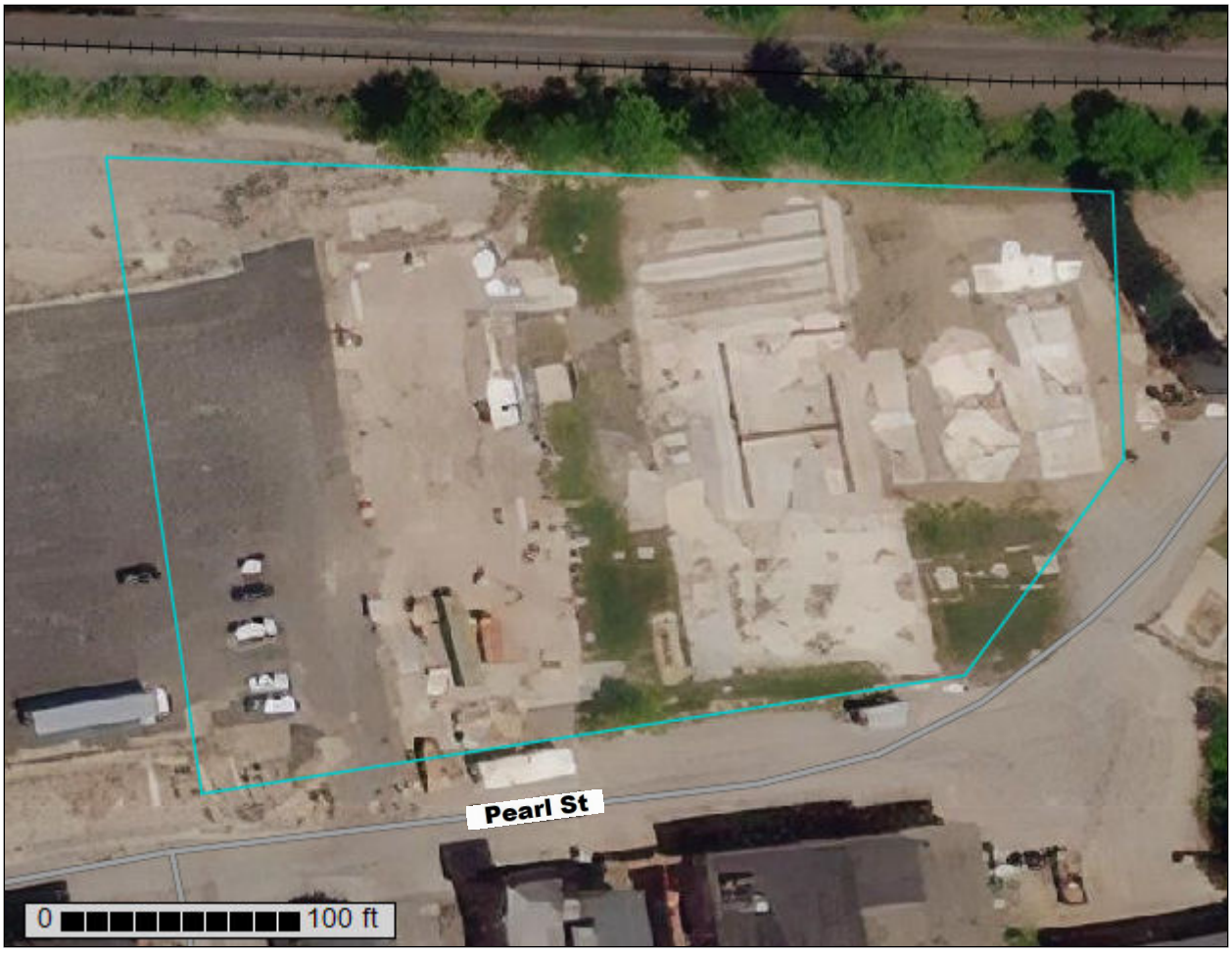
NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for York County, Maine

PL



Pearl St

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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Ur—Urban land.....13
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map



Map Scale: 1:713 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 30 60 120 180

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

MAP LEGEND

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

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: York County, Maine
Survey Area Data: Version 19, May 29, 2020

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	2.1	100.0%
Totals for Area of Interest		**2.1**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

York County, Maine

Ur—Urban land

Map Unit Setting

National map unit symbol: 9k6x
Elevation: 10 to 2,200 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Linear
Across-slope shape: Linear

Typical profile

H1 - 0 to 6 inches: variable

Properties and qualities

Slope: 0 to 8 percent
Drainage class: Moderately well drained
Depth to water table: About 24 to 72 inches
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Scantic

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sulfihemists

Percent of map unit: 2 percent
Landform: Salt marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear

Across-slope shape: Linear
Hydric soil rating: Yes

Adams

Percent of map unit: 2 percent
Landform: Outwash plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Buxton

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Croghan

Percent of map unit: 2 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

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The key to success starts with a solid foundation.
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Geotechnical Report

Proposed Buildings (Lot 3)
Pearl Street, Biddeford, ME



Client

Fathom Companies
80 Exchange Street, Suite 400
Portland, ME 04101

Project #: 22120
Date: 6/14/2022

SUMMIT
GEOENGINEERING SERVICES

210 Maine Avenue, Farmingdale, ME 04344
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Appendix A – Exploration Location Plan
Appendix B – Exploration Logs
Appendix C – Laboratory Results
Appendix D – Bedrock Recommendations

June 14, 2022
SGS Project #: 22120

Fathom Companies
80 Exchange Street, Suite 400
Portland, ME 04101
Attn: Robyn Payne, CMIT

Reference: Geotechnical Report – Proposed Buildings (Lot 3)
Pearl Street, Biddeford, ME

Dear Robyn;

Summit Geoengineering Services, Inc. (SGS) has completed a geotechnical investigation for the construction of the proposed buildings at the site referenced above. Our scope of services included the observation of ten test borings, eight probes, laboratory testing, and the preparation of this geotechnical report summarizing our findings and providing geotechnical recommendations.

Our scope of services for this project did not include an environmental site assessment or further investigation for the presence or absence of hazardous or toxic material on, below, or around the site. Any statements in this report, or on the exploration logs, regarding odors or unusual and suspicious conditions observed are for informational purposes and are not intended to constitute an environmental assessment.

1.0 Project Description

The project consists of the construction of three new buildings at Lot 3 at the site referenced above. The proposed conditions for the buildings are as follows:

- Building 3A
  - Approximate footprint area of 18,000 square feet
  - 7-stories; At-grade parking garage (Garage FFE = 57.00 feet)
  - 2 to 6 feet of cut
  - Large terraced area appending structure with cast-in-place and segmental block retaining walls. About 7 feet of fill will be necessary near the frost wall and above the footings to bring the terrace to grade.
- Building 3B
  - Approximate footprint area of 18,100 square feet
  - 7-stories; FFE = 62.00 feet; Lobby FFE = 57.50 feet
  - 0 to 5 feet of fill

- Building 3C
  - Approximate footprint area of 5,800 square feet
  - 1 to 2 stories; FFE = 56.90 feet
  - 0 to 1 foot of cut

A common area with paths, retaining walls, staircases, grassed areas, and access roads will append the new buildings. Retaining walls across the site will have heights ranging from 0.5 feet to 7.5 feet. The existing site is an open lot with a large stockpile of fill soil and a large smokestack to the east. The stockpile will be removed before the construction of the proposed buildings.

Structural loading provided by Thronton Tomasetti in an email dated June 2, 2022 is anticipated to approach a maximum interior column load of 250 kips. The maximum exterior columns are anticipated to be around 100 to 150 kips.

Existing and proposed conditions were referenced from a plan entitled *Grading Plan – Pearl Street Lot 3 Redevelopment Biddeford* by Acorn Engineering, Inc dated June 1, 2022.

2.0 Explorations

Summit Geoengineering Services (SGS) observed the subsurface conditions on May 3, 2022 and May 4, 2022 with the drilling of 10 test borings and 8 probes. The explorations were completed by SGS using a truck mounted AMS PowerProbe 9630 Pro-D drill rig.

The borings were drilled to depths ranging from 2.8 feet (auger refusal, elevation 54.2 feet) to 22 feet (no refusal, elevation 35 feet). The borings were completed using 2 ¼-inch hollow stem augers. Standard Penetration Tests (SPT) were performed in increments of 5 feet. Soils were visually classified (*ASTM D2488*) using SPT split spoon sampling (*ASTM D1586*).

The probes were drilled to depths ranging from 3.1 feet (elevation 53.9 feet) to 18.5 feet (elevation 42.5 feet), all to refusal. The probes were completed using solid stem augers and 2 ¼-inch hollow stem augers. Refusal was determined when the auger would grind on a dense stratum for an extended period. Changes in stratum were noted when ease or lack of ease of auguring occurred.

The exploration locations were determined by SGS and marked out by SGS prior to drilling. An exploration location plan and the exploration logs are included in *Appendix A* and *Appendix B*, respectively.

3.0 Laboratory Testing

A grain size analysis was performed in a composite sample of sand in B-3 and B-4 at a depth of 5 to 7 feet. This test was performed to determine the potential for reuse of this material on-site and to further classify the site soils.

Detailed results of the laboratory testing can be found in *Appendix C*.

4.0 Subsurface Conditions

4.1 Soil

From the explorations, the soil at this site generally consists of the following:

- **Topsoil**
- **Fill**
- **Glacial Marine**
- **Glacial Till**
- **Bedrock**

According to the *Surficial Geology Map* from the Maine Geological Survey, the surficial soil deposit at the site is classified as an artificial fill deposit over bedrock. The findings from the explorations are consistent with the geologic mapping with the addition of layers of glacial till and glacial marine.

The **topsoil** generally consists of dark brown fine sandy silt with trace gravel, clay, and roots. It is generally firm and damp to moist. It is 0.5 feet to 1.5 feet thick and is visually classified as ML, in accordance with the Unified Soil Classification System (USCS). The SPT N-values range from 2 blows per foot (bpf) to 7 bpf and average 4 bpf.

The **fill** generally consists of brown fine-coarse sand with little gravel and trace silt. The fill had occasional layers of sandy silt. Some portions of the fill had trace to little clay and occasional brick, metal, and asphalt pieces. Existing building rubble was encountered in some of the sampling and augering. Strong petroleum odors were encountered in B-5, B-6, and B-10 at depths ranging from 15 feet to 22 feet. The fill is generally very loose to very dense and damp to saturated. It is 3 feet to 21.5 feet thick and is visually classified as either SP, SW, SM, or ML, in accordance with the USCS. The SPT N-values range from 3 bpf to 55 bpf and average 20 bpf.

A 4-foot-thick concrete element was encountered at the surface in B-6. Broken pieces of plastic liners were seen in the auger cuttings for B-9 and B-10.

A grain size analysis was performed on a composite sample from B-3 and B-4 at a depth of 5 feet to 7 feet. The test indicated that the existing fill towards the southern portion of Building 3A consists of 10% gravel, 84% sand, and 6% fines. The sample had a moisture content of 5.9%. It is classified as SP-SM, in accordance with the USCS.

No organics or other undesirable materials were observed in the borings. We recommend SGS be contacted to observe the subgrade conditions across the site to ensure the fill is suitable for construction purposes.

FILL SUMMARY TABLE			
Exploration Location	**Fill Thickness (ft)**	**SPT N-Values**	**Description**
B-1	6.5	36, 7	SAND, trace Clay balls and brick
B-2	9.5	22, 17	SAND
B-3	8.5	24, 14	SAND
B-4	14	28, 35, 17	SAND, trace brick; SILT, little Clay, trace brick
B-5	22	11, 54, 18, 17	4 ft of an existing concrete element; SAND and SILT; Brick and metal piece at 12 ft Strong petroleum odor at 20 ft
B-6	20.5	5, 15, 6, 3	SAND, trace brick; Strong petroleum odor and sheen at 15 ft
B-7	5.5	12	SAND
B-8	2.8	26	SAND, trace brick
B-9	21.5	13, 8, 5, 4, 18	SAND; Re-worked CLAY; Melted rock piece at 11 ft; Plastic liner in auger cuttings at 14 ft; Trace ash at 20 ft
B-10	21	35, 6, 25, 36, 31	SAND, trace asphalt and metal pieces; Plastic liner in auger cuttings at 14 ft; Petroleum odor and sheen from 15 ft to 21 ft

The **glacial marine**, encountered in B-3 at a depth of 10 feet, generally consists of olive silty clay with little fine sand. It is generally firm and moist. It is 4.5 feet thick and is visually classified as CL, in accordance with the USCS. The SPT N-value is 7 bpf.

The **glacial till** generally consists of brown silty fine-medium sand with little clay and gravel and occasional cobbles and/or boulders. It is generally loose to very dense and moist to saturated. It is 1 foot to 5 feet thick and extended to bedrock, when encountered. It is visually classified as SM, in accordance with the USCS. The SPT N-values range from 7 bpf to 55 bpf and average 30 bpf.

Detailed descriptions of the soil can be found in the exploration logs in *Appendix B*.

4.2 Groundwater

Groundwater was encountered at the following depths and approximate elevations:

GROUNDWATER DEPTHS AND ELEVATIONS			
Location	**Depth (ft)**	**Approximate Elevation (ft +/-)**	**Reference**
B-1	11.0	50.0	Estimated in spoon samples
B-2	13.2	47.8	Measured with 15 ft augers
B-3	13.3	47.7	Measured with 15 ft augers
B-4	9.5	51.5	Estimated in spoon samples
B-5	15.7	41.3	Estimated in spoon samples
B-6	15.4	41.6	Measured with 20 ft augers
B-7	NE	NE	NE
B-8	NE	NE	NE
B-9	11.7	49.3	Measured with 20 ft augers
B-10	10.2	50.8	Measured with 20 ft augers

Note: NE = None Encountered
Elevations are approximated and based on the site plan referenced in *Section 1.0*

The groundwater elevations generally flow from west to east across the site towards the Saco River to the east of the site and generally follow the existing ground contours. Groundwater will fluctuate seasonally and with precipitation levels.

4.3 Bedrock

Refusal, considered to be probable bedrock, was encountered at the following depths and approximate elevations:

PROBABLE BEDROCK DEPTHS AND ELEVATIONS			
Location	**Depth (ft)**	**Approximate Elevation (ft +/-)**	**Reference/Notes**
B-1	12.2	48.8	Auger refusal
B-2	13.7	47.3	Auger refusal
B-3	15.3	45.7	Spoon refusal
B-4	15.7	45.3	Spoon refusal
B-5	> 22	< 35	No refusal
B-6	21.8	35.2	Spoon refusal
B-7	6.7	51.3	Spoon refusal
B-8	2.8	54.2	Auger refusal
B-9	> 22	< 39	No refusal
B-10	21.2	39.8	Spoon refusal
P-1	6.6	54.4	Used 2 ¼" HSA; Hard at 6.5 ft
P-1A	6.2	54.8	Hard at 6 ft
P-1B	6.2	54.8	Auger refusal
P-2	18.5	42.5	Easy drilling 7 - 15 ft; Hard drilling 17.5 - 18.5 ft
P-3	15.5	45.5	Hard at 1-3 ft; 7.5 ft; 11.5 ft; 13.5 ft
P-4	3.1	53.9	Auger refusal
P-4A	4.1	52.9	Used 2 ¼" HSA; Hard at 2.5 ft; 3.5 ft
P-5	6.3	50.7	Hard at 5.8 ft; plastic/blue fibers in cuttings

Note: Exploration locations were not survey located. Elevations are approximated and based on the site plan referenced in *Section 1.0*
All probes were completed using 1 ½" Solid Stem Augers, unless otherwise noted

Weathered bedrock was encountered in our explorations. The weathered regions were estimated through boring sampling, augering, and probing. These weathered regions are generally 2 inches to 5 inches thick and overly a harder bedrock surface.

Samples of the bedrock were not obtained for examination. According to the *Bedrock Geology Map* from the Maine Geological Survey, the bedrock around Pearl Street in Biddeford, ME is classified as a Kittery Formation. This formation consists of feldspathic and calcarous metawacke.

5.0 Geotechnical Evaluations

Based on the data collected during the field explorations, results of the laboratory testing, and subsequent analyses using the information provided to us, foundations at the site can be supported on conventional spread or continuous footings. Some of the potentially challenging geotechnical considerations for the proposed buildings are:

- The potential bedrock interference for footing construction to the north of Building 3A and the middle of Building 3B.
- The potential for differential settlement between footings bearing on bedrock and footings bearing on soil.

- The potential for many unconformities (rubble, cobbles, boulders, etc.) to be present in the footing and slab subgrade.
- The desire to retain a majority of the cut materials on-site to avoid excessive hauling from the site.

Bedrock will likely be encountered for the footing subgrade at the north side of Building 3A and near the proposed lobby section of Building 3B. We anticipate minimal removal of bedrock to be necessary. We will provide recommendations for footings bearing on bedrock and footings bearing on both bedrock and soil.

SGS performed settlement computations for the proposed loading conditions. Based on our analysis, we estimate less than 0.75 inches of settlement will occur at any given building. Differential settlement between footings bearing on soil and footings bearing on bedrock will be within tolerable limits.

Many unconformities were encountered in our explorations. Cobbles, boulders, and existing foundation and rubble elements may be encountered in the footing and slab subgrades. To mitigate the effects of these large elements, we recommend they be removed, when encountered, in their entirety to a competent material and replaced with either ¾-inch crushed stone (CS) or Structural Fill (SF).

We understand that a majority of the cut materials on-site are desired to be reused. We will provide recommendations for different fill areas on-site including fill in the terraced areas, backfill for retaining walls, foundation backfill, and landscaped areas.

The existing fill at a depth of 5 feet to 7 feet, towards the south end of the proposed Building 3A, will meet the requirements for Granular Borrow (GB). If this material is desired to be reused within frost susceptible areas on-site, frequent testing and inspections should take place to ensure only clean (< 7% fines) and viable materials are used.

6.0 Geotechnical Recommendations

The sections below provide design and construction recommendations for the geotechnical aspects of the proposed buildings. If the building loads, proposed grades, or any other significant component of the project change from the time of submission of this report, Summit Geoengineering Services (SGS) should be notified so we can evaluate the impacts on the recommendations below to determine if changes are needed.

6.1 Subgrade Preparation

Based on the results of our subsurface explorations, we recommend that the bottom of the footings for the proposed buildings be constructed on a minimum of 6 inches of ¾-inch crushed stone (CS) placed over glacial till, existing fill, proposed fill, or bedrock.

6.1.1 Footings on Soil

Assuming that the recommendations below are followed, the footings bearing on 6 inches of CS over soil can be proportioned using a maximum allowable bearing pressure of **3,000 pounds per square foot (psf)**. Total settlement is expected to be 0.75 inches or less and differential settlement is expected to remain within tolerable limits. The allowable bearing pressure is based on the following construction sequences across the site:

- After grubbing the entire building footprint, proofroll the exposed soil within the building footprint by making a minimum of 4 passes in each of two perpendicular directions using a vibratory compactor with a minimum operating weight of 8 tons.

- Excavate to 6 inches below the proposed bottom of footing elevation. Remove any unconformities in the subgrade and replace with ¾-inch crushed stone (CS) or Structural Fill (SF). Proofroll the exposed soil by making a minimum of 4 passes using a plate compactor. Soft, wet, or unstable areas should be removed and replaced with CS or SF. A layer of woven geotextile may be necessary if the subgrade is excessively wet, soft, or unstable.

- Place and compact a minimum of 6 inches of CS. CS should be compacted to lock the particles together.

- SGS should observe the footing subgrade conditions after proofrolling and prior to the placement of the CS.

- The footings can be constructed directly on the compacted CS.

- In no case shall footings be constructed in standing water or frozen soil.

6.1.2 Footings on Bedrock

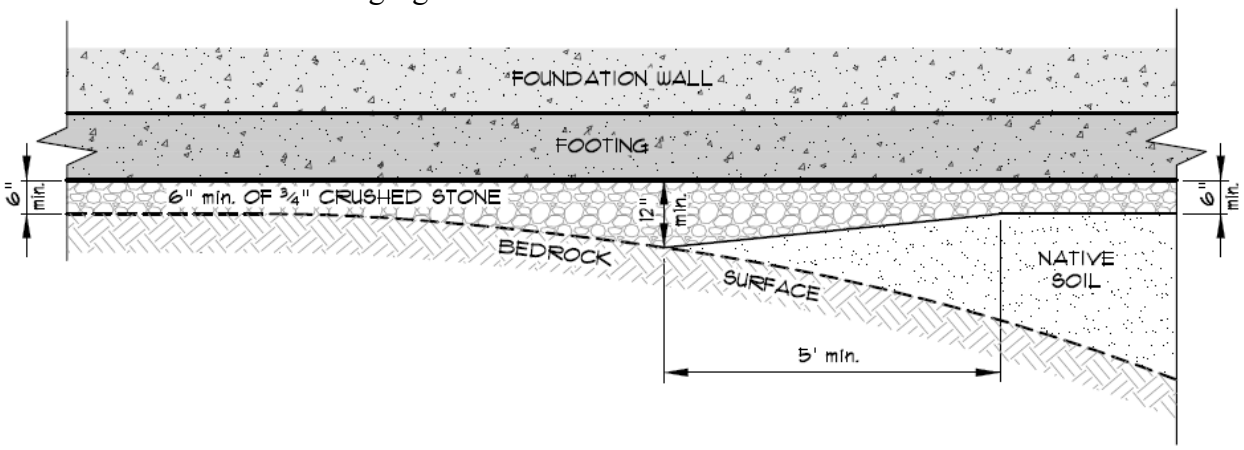
If bedrock is encountered in the footing subgrade, we recommend they be constructed on a minimum of 6 inches of CS. Footings on 6 inches of CS over bedrock can be proportioned using a maximum allowable bearing pressure of **10,000 psf**. The allowable bearing pressure is based on the following construction sequence:

- When bedrock is encountered, footings should bear on a minimum of 6 inches of compacted CS placed above proofrolled weathered, fractured bedrock or placed above hard, intact bedrock. Any large gaps or voids created by removing loose pieces of bedrock should be filled with CS.

- Footings bearing on CS over bedrock do not need the full frost protection, since intact bedrock is non-frost susceptible. We recommend that any footings bearing on CS over bedrock, not extended to the full frost depth, be backfilled with CS. We recommend that footings bearing on CS over bedrock be a minimum of 2 feet below the exterior finished

grade or the slab-on-grade. Where bedrock is cut, it should be sloped, if possible, to prevent ponding of water.

- If footings are bearing on both soil bedrock, we recommend a CS transition zone be constructed with the CS becoming a uniform bearing surface between the bedrock and the soil. The following figure shows the CS transition zone:



If footings need to be dowelled into bedrock to provide lateral sliding resistance, we recommend the 6-inch CS layer be removed in these areas and the footing be cast directly on a hard, intact bedrock surface with dowels already installed.

Construction techniques for bedrock interference can be found in *Section 7.1*. The gradation requirements for both CS and SF can be found in *Section 7.2*.

6.2 Design Parameters

SGS recommends the following design parameters be used for foundation and exterior retaining walls across the site:

DESIGN PARAMETERS FOR SOILS ACROSS THE SITE			
Parameter	**Structural Fill (SF)**	**Granular Borrow (GB)**	**Existing Fill**
Total Natural Unit Weight (Υ_t)	135 pcf	125 pcf	120 pcf
Buoyant Unit Weight (Υ_b)	73 pcf	63 pcf	58 pcf
Friction Coefficient (f)*	0.55	0.5	0.45
Passive Earth Pressure Coefficient (K_p)	3.54	3.25	3.00
Active Earth Pressure Coefficient (K_a)	0.28	0.31	0.33
At Rest Pressure Coefficient (K_o)	0.44	0.47	0.5
Effective Friction Angle ($\varphi°$)	34°	32°	30°
Undrained Shear Strength (S_u)	0 psf	0 psf	0 psf

Note: The equivalent fluid pressure for computing retaining wall lateral loads can be taken as the product $\gamma_t \cdot$ (K_a, K_0, or K_p)

*The friction coefficient is assumed to be the interface between cast-in-place footings and the soil

Live loading, to account for construction equipment, transportation, and pedestrian loads, should be included in the design of the segmental block, cast-in-place, and foundation walls.

Active earth pressure coefficients assume structures are free to rotate at the top. At-rest earth pressure coefficients assume the top of structures are braced and no lateral movement occurs. All walls across the site should have an underdrain system installed at the base of the wall to prevent the build-up of hydrostatic pressure behind the wall.

6.3 Frost Protection

The design air freezing index for the Biddeford, Maine area is approximately 1,190-degree F days (10-year, 90% probability). Based on this, exterior footings and other footings exposed to freezing temperatures should be placed at a minimum depth of **4 feet** in order to provide adequate frost protection. We recommend that all foundations exposed to freezing temperatures be backfilled with Granular Borrow (GB). The existing fill towards the south portion of Building 3A may meet the requirements for GB, see *Section 7.2* for gradation requirements.

Interior footings in continuously heated areas can be constructed at a minimum depth of 24 inches below the finished floor elevation.

6.4 Seismic Design

Based on the discovered soils and their properties, this site can be classified as **Seismic Site Class C** in accordance with ASCE 7-10. The following seismic design coefficients should be used:

SUBGRADE SITE SEISMIC DESIGN COEFFICIENTS – ASCE 7-10	
Seismic Coefficient	**ASCE 7-10 (Class C)**
Short period spectral response (S_S)	0.251
1 second spectral response (S_1)	0.079
Maximum short period spectral response (S_{MS})	0.301
Maximum 1 second spectral response (S_{M1})	0.135
Design short period spectral response (S_{DS})	0.201
Design 1 second spectral response (S_{D1})	0.090

No liquefiable soils were encountered in our explorations.

6.5 Groundwater Control

Based on observed groundwater levels, groundwater is anticipated to be below the proposed bottom of footing elevation for the buildings. Based on these conditions, underdrains are not strictly necessary, however, it is generally good practice to install underdrains along the exterior and interior foundations of the building to account for any local and regional changes in the hydrogeology and to control infiltration of rainfall adjacent to the foundation walls.

Underdrains, if used, should consist of 4-inch rigid PVC or flexible ADS pipe surrounded by 6 inches of ¾-inch crushed stone (CS) which is then surrounded by Mirafi 140N or equivalent. Underdrains should be outlet to a free draining location. Where exposed at the ground surface, a screen or other device should be placed over the outlet to prevent the migration of animals into the underdrain system.

In addition, we recommend all exterior grades slope away from the building footprint to reduce runoff water from infiltrating the foundation backfill soils.

Cast-in-place and segmental block retaining walls will require underdrains to prevent the hydrostatic loading on the walls, see *Section 6.8*.

6.6 Slabs-on-Grade

All fill should be compacted to a minimum of 95% of *ASTM D1557*. The gradation requirements for Granular Borrow (GB), ¾-inch crushed stone (CS), and Structural Fill (SF) can be found in *Section 7.2*.

6.6.1 Interior Slabs

To provide a uniform support condition for slabs-on-grade, we recommend the following steps be taken for construction:

- After grubbing the entire building footprint, proofroll the exposed soil, by making a minimum of 4 passes in each of two perpendicular directions using a vibratory compactor.

- Soft or wet pockets should be removed and replaced with SF or CS. Geotextile may be required in excessively wet and soft areas.

- Fill and/or cut the entire building footprint, if necessary, to 8 or 12 inches below the proposed finished slab-on-grade elevation, depending on the material being used as the slab subbase (CS or SF). Fill required to raise the grade to the bottom of the slab subbase soil should consist of GB or SF. The maximum particle size for these materials should be limited to 6 inches. GB, and SF should be compacted to a minimum of 95% of *ASTM D1557*.

- Place either 8 inches of CS or 12 inches of SF. The CS should be compacted to lock the particles together. The SF should be compacted to a minimum of 95% of *ASTM D1557*. The slab can be constructed directly on the compacted SF or CS.

6.6.2 Exterior Slabs

For slabs in unheated areas, the following options should be considered for frost protection:

- **6-inch slab** over **2 inches of rigid insulation** over **12 inches CS or SF (compacted)**
- **6-inch slab** over **36 inches CS or SF (compacted)**

We recommend that insulation, if used, be extended 2 feet beyond the edge of the slabs and that it consist of a rigid polystyrene product.

6.7 Pavement Section Recommendations

The mean annual freezing index for the Biddeford, Maine area is estimated at 890-degree F days (2-year, 50% probability). Based on the subgrade and mean annual freezing index, the anticipated mean annual frost penetration depth is 36 inches.

For the parking lots and access roads, we recommend a minimum total section thickness of **18 inches**. We further recommend that the pavement section consist of the following materials:

PAVEMENT SECTION MATERIALS AND THICKNESSES		
Material	**Thickness (in)**	**Specifications**
Asphalt Surface Course	1 1/4	MDOT 703.09 Type 9.5 mm or 12.5 mm
Asphalt Binder Course	1 3/4	MDOT 703.09 Type 19 mm
Base Soil	3	MDOT 703.06 Type A
Subbase Soil	12	MDOT 703.06 Type D

Reference: *MDOT Standard Specifications, 2014*

The following specifications are for MDOT base and subbase gravel:

BASE SOIL – TYPE A	
Sieve Size	**Percent finer**
1 inch	95 to 100
¾ inch	90 to 100
No. 4	40 to 65
No. 10	10 to 45
No. 200	0 to 7

Reference: MDOT Specification 703.06, Type A (2020)

SUBBASE SOIL – TYPE D	
Sieve Size	**Percent finer**
3 inch	100
½ inch	35 to 80
¼ inch	25 to 65
No. 40	0 to 30
No. 200	0 to 7

Reference: MDOT Specification 703.06, Type D (2014)

Fill beneath the subbase soil can consist of the existing fill (free from rubble, organics, or other

unsuitable materials), glacial till, SF, or GB, placed and compacted to a minimum of 95% of *ASTM D1557*.

Underdrains are not necessary beneath paved areas. Paved areas should be side sloped to prevent water ponding on the surface.

If paved areas are heated (not allowed to be below freezing temperatures), the base and subbase soils can be reduced in thickness to 1.5 inches and 6 inches, respectively.

6.8 Proposed Retaining Walls

The following recommendations are for both segmental block and cast-in-place retaining walls. Retaining walls across the site will have heights ranging from 0.5 feet to 7.5 feet.

6.8.1 Cast-in-Place Retaining Walls

We recommend that all cast-in-place retaining walls be backfilled with Structural Fill (SF) or Granular Borrow (GB). We further recommend that the soil properties and earth pressures summarized in *Section 6.2* be used for the structural design of the foundation walls. An underdrain system should be installed at the base of the wall (*Section 6.5*).

We recommend the footings for the cast-in-place retaining walls bear on a minimum of 6 inches of CS and be proportioned using an allowable bearing pressure of 3,000 psf. The friction coefficient between the concrete and the CS should be taken as 0.60.

When on bedrock, cast-in-place retaining walls should be constructed on a minimum of 6 inches of CS and may need to be dowelled into the bedrock. The allowable bearing pressure for footings on bedrock can be designed using 10,000 psf.

6.8.2 Segmental Block Retaining Walls

We recommend that all proposed segmental block retaining walls on-site be designed by a Maine Licensed Professional Engineer.

For all walls on site, we recommend that a ¾-inch crushed stone (CS) column with a minimum thickness of 12 inches be installed behind the entire wall, between the back of the blocks and the wall backfill, to prevent infiltrated water behind the wall from creating a hydrostatic load on the wall. An underdrain system should be provided continuously behind the retaining wall near its base to prevent the buildup of hydrostatic pressures.

Underdrains for the wall should consist of a 4-inch rigid perforated PVC surrounded by a minimum of 6 inches of ¾-inch crushed stone (CS) and filter fabric to prevent clogging from the migration of the fine soil particles in the foundation backfill soils. Underdrains should outlet at the ends of the wall or through the face at a maximum spacing of 50 feet.

We anticipate that the walls on site will be constructed on the existing fill or glacial till. We recommend that the walls be constructed on a leveling pad consisting of a minimum 9-inch-thick layer of CS. A geotextile fabric (such as Mirafi 180N) should be placed on the existing soil beneath the wall leveling pad. We recommend that all topsoil is removed and the exposed soil beneath the leveling pad, if granular and not containing clay, be proofrolled prior to placing the geotextile and CS. All rubble and/or other unconformities should be removed before proofrolling.

The walls should be designed in accordance with the *National Concrete Masonry Association (NCMA), 3rd Edition*, design manual. Retaining wall backfill for gravity retaining walls and reinforced soil for geogrid reinforced retaining walls should consist of GB or SF, compacted to a minimum of 95% of its maximum dry density in accordance with *ASTM D1557*. The maximum particle size should be limited to 4 inches, when used as a reinforced soil behind walls.

The walls can be designed with the wall backfill properties stated in *Section 6.2* using an allowable bearing pressure of 3,000 psf.

Since modular blocks are tolerable to some shifting, the blocks do not need to be placed to full frost depth. We recommend the following minimum embedment depths:

MINIMUM SEGMENTAL RETAINING WALL EMBEDMENT DEPTH	
Slope in Front of Wall	**Minimum Embedment to Top of Leveling Pad**
Horizontal	H/20
3H:1V	H/10
2H:1V	H/7
Minimum Embedment	0.5 feet

Note: H is the exposed height of the wall in (ft). The minimum embedment depth will also be in feet.

Passive resistance of embedded portions of the wall should be ignored.

7.0 Earthwork Considerations

7.1 Earthwork for Construction

SF, CS, GB and the existing native soil on-site are classified as an OSHA Type C classification. Based on this, any excavation deeper than 5 feet in these materials should have temporary side slopes which do not exceed 1.5H:1V.

If seepage occurs in any excavation deeper than 5 feet, de-watering techniques should be considered and side slopes shall not exceed 1.5H:1V.

Adequate proof rolling of the subgrade soil is important to the success of any fill as a uniform bearing material, especially if the subgrade soil is loose in isolated areas.

To the extent possible, construction should occur during periods of dry weather to minimize disturbance to excavated subgrade areas. If excavations and construction occur during wet periods, the contractor should employ the necessary measures to eliminate disturbance to the subgrade from heavy rainfall, surface water runoff, freeze/thaw softening, or any other potential weather-related cause of subgrade disturbance.

Cuts into bedrock may be required for bottom of footing elevations. If bedrock prevents the desired elevation, excavation of the bedrock, mechanically or by controlled blasting, may be necessary. If controlled blasting is necessary, we recommend it be performed in general accordance with the guidelines presented in *Appendix D*. We recommend a pre-construction survey be completed prior to blasting.

Once excavation for the footings is initiated, SGS should be contacted to observe the subgrade conditions after proofrolling and prior to the placement of any fill.

7.2 Materials

The gradation requirements reflect the portion of soil passing the 3-inch sieve size. The following table presents the recommended grain sizes for the materials to be used at the site:

GRADATION REQUIREMENTS FOR SITE MATERIALS			
Sieve Size	**[1] Structural Fill (SF)**	**[2] Crushed Stone (CS)**	**[3] Granular Borrow (GB)**
4 Inch	---	---	---
3 Inch	100	---	100
2 Inch	---	---	---
1 Inch	---	100	---
¾ Inch	---	90 – 100	---
½ Inch	35 – 80	20 – 55	---
⅜ Inch	---	0 – 15	---
¼ Inch	25 – 65	---	---
No. 4	---	0 – 5	---
No. 40	0 – 30	---	0 – 70
No. 200	0 – 7	---	0 – 7
Maximum Particle Size	6”	1”	6”
[4] Minimum Compaction Requirement	95%	---	[5] 95%

[1]Maine DOT Specification 703.06, 2014, Type D
[2]Maine DOT Specification 703.13, 2020, Crushed Stone ¾-Inch
[3]Maine DOT Specification 703.19, 2020, Granular Borrow
[4]Per ASTM D1557
[5]Compaction requirement for GB can be reduced to 90%, when in landscaping areas.

CS should be placed in 12-inch maximum lifts and compacted with a minimum of 4 passes with a vibratory compactor.

GB should consist of a free draining, granular soil.

The existing fill at a depth of 5 feet to 7 feet, towards the south end of the proposed Building 3A, will meet the requirements for Granular Borrow (GB). If this material is desired to be reused within frost susceptible areas on-site, frequent testing and inspections should take place to ensure only clean (< 7% fines) and viable materials are used.

7.3 Fill Recommendations Across the Site

7.3.1 Terraced Area and Landscaping Areas

We recommend the terraced area and any other landscaping area be filled with Common Borrow (CB). CB used at the site should consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or previously contaminated by chemical, radiological, or biological agents and should be able to be placed and compacted to a stable state. The existing fill soil at the site will meet or can be made suitable to meet the specifications of CB.

When in the terraced area, the CB should be compacted to a minimum of 90% of *ASTM D1557*. It is the responsibility of the wall designers across the site to determine the minimum distance of retaining wall backfill needed behind the site walls. We recommend a filter fabric be installed between the interface of the CB and the retaining wall backfill across the site to minimize the infiltration of fine particles into the retaining wall backfill.

7.3.2 Foundation and Retaining Wall Backfill

Foundation and retaining wall backfill across the site should consist of GB or SF.

7.3.3 Other Uses of Fill

Non-frost-susceptible areas within the building footprint (not including slabs-on-grade) and underneath the pavement sections may be filled with CB. CB in these areas should be compacted to a minimum of 95% of *ASTM D1557*.

8.0 Closure

Our recommendations are based on professional judgment, generally accepted principles of geotechnical engineering and project information provided by others. Some changes in subsurface conditions from those presented in this report may occur. Should the subsurface conditions, finish grades, or foundation loadings differ materially from those described in this report, SGS should be notified so that we can re-evaluate our recommendations.

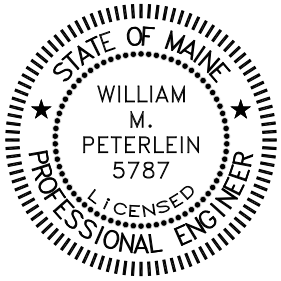
We recommend that a qualified third-party testing agency be retained to provide QA/QC services during construction.

SGS should be contacted to provide subgrade inspections prior to placement of the foundations to observe the subgrade conditions.

We appreciate the opportunity to serve you during this phase of your project. If there are any questions or if additional information is required, please do not hesitate to call.

Sincerely,
Summit Geoengineering Services, Inc.

Colin M. Plante, E.I.
Geotechnical Engineer



William M. Peterlein, P.E.
President & Principal Engineer

Appendix A

Exploration Location Plan

SCALE: 1" = 40'

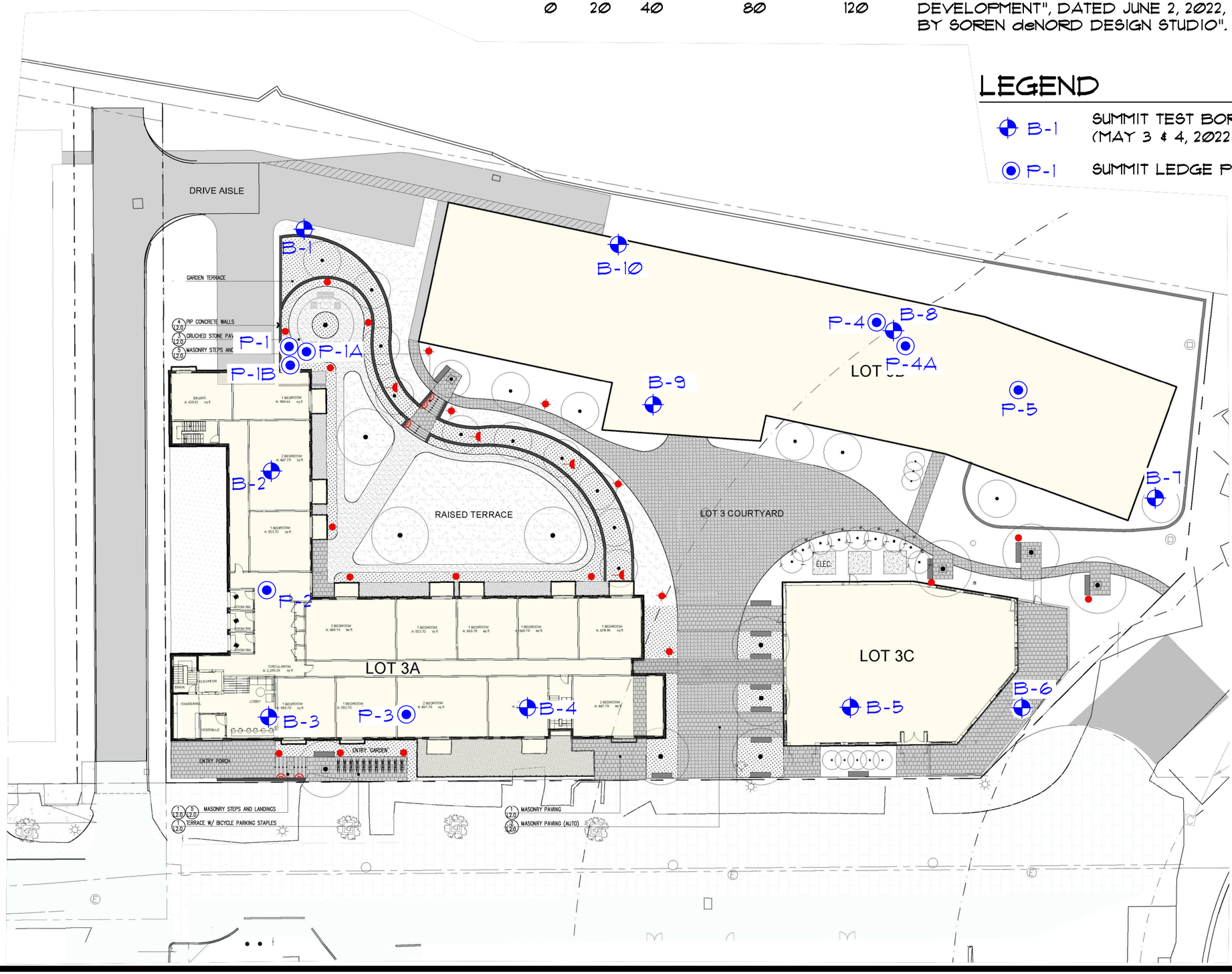
0 20 40 80 120

PLAN REFERENCE

"LANDSCAPE PLAN, PEARL STREET: LOT 3 DEVELOPMENT", DATED JUNE 2, 2022, PREPARED BY SOREN deNORD DESIGN STUDIO".

LEGEND

- B-1 — SUMMIT TEST BORING (MAY 3 & 4, 2022)
- P-1 — SUMMIT LEDGE PROBE



PROJECT: LOT 3 REVELOPMENT
PEARL STREET - BIDDEFORD, MAINE

CLIENT: FATHOM COMPANIES

TITLE: EXPLORATION LOCATION PLAN

SCALE: 1" = 40'

DRAWN BY: KRF

APPR. BY: WMP

DATE: JUNE 8, 2022

145 LISBON ST. - SUITE 101
LEWISTON, ME 04240
Tel: (207) 576-3313

113 PLEASANT STREET
ROCKLAND, ME 04841
Tel: (207) 318-7161

SUMMIT
GEOENGINEERING SERVICES

PROJ.#: 22120

FIGURE: 1

Appendix B

Exploration Logs

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-1**

Project:	Proposed Buildings (Lot 3)	Project #:	22120
Location:	Pearl Street	Sheet:	1 of 1
City, State:	Biddeford, ME	Chkd by:	

Drilling Co:	Summit Geoengineering Services, Inc.	Boring Elevation	61 ft +/-
Driller:	S. Floyd	Reference:	Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Summit Staff:	C. Plante, EI	Date started: 5/3/2022	Date Completed: 5/3/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/3/2022	11 ft	50.0 ft +/-	Estimated in spoon samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/23	0-2	2	60.5	Dk brn f Sandy SILT, tr Gravel/roots/Clay, firm, moist, ML		TOPSOIL
1				15		Brown fine-medium SAND, some Gravel, little Silt, trace		
				21		brick, dense, damp, SP		FILL
2				31				
3								
4								
5								
	S-2	24/15	5-7	3		Brown medium-coarse SAND, little Gravel, trace Silty		
6				3		Clay balls and brick streaks, loose, damp, SW		
				4				
7				2	54			
						Hard drilling at 7 ft		
8								GLACIAL TILL
9								
10								
	S-3	24/17	10-12	18		Gray/black weathered rock with fine-medium SAND		
11				7	▽	Reddish brown Silty fine-medium SAND, little Gravel,		
				7		compact, wet, SM		
12				50 for 5"	48.8	Gray weathered rock in spoon tip		WEATHERED ROCK
						End of Boring at 12.2 ft - Auger refusal		(PROBABLE) BEDROCK
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-2**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 61 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/3/2022 Date Completed: 5/3/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/3/2022	13.2 ft	47.8 ft +/-	Measured with 15 ft augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/18	0-2	3	60.5	Dk brn f Sandy SILT, little Clay, tr Gravel/roots, firm, damp, ML		TOPSOIL
1				10		Brown medium-coarse SAND, little Gravel, trace Silt,		
				12		compact, damp, SW		FILL
2				20				
3								
4								
5								
	S-2	24/11	5-7	3		Brown medium-coarse SAND, trace Gravel and Silt,		
6				7		compact, moist, SW		
				10				
7				17				
8								
9								
10					51			
	S-3	24/17	10-12	3		Olive fine SAND, some Silt, trace Gravel, slightly mottled,		
11				7		compact, wet, SM		GLACIAL TILL
				17				
12				21				
						Frequent Cobbles/Boulders in augering		
13					▽			
					47.3			
14						End of Boring at 13.7 ft - Auger refusal		(PROBABLE) BEDROCK
15								
16								
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-3**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 61 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/3/2022 Date Completed: 5/3/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/3/2022	13.3 ft	47.7 ft +/-	Measured with 15 ft augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/24	0-2	2		Dark brown fine SAND, some Silt, trace Gravel and roots,		
1				5		compact, damp, SM		TOPSOIL
				10	59.5			
2				14		Brown medium-coarse SAND, some Gravel, trace Silt,		
						compact, damp, SW		FILL
3								
4								
5								
	S-2	24/18	5-7	3		Brown medium-coarse SAND, little Gravel, trace Silt,	10% GRAVEL	
6				6		compact, damp, SW	84% SAND	
				8			6% FINES	
7				14		Black weathered rock in spoon tip	MC = 5.9%	
8								
9								
10					51			
	S-3	24/24	10-12	1		Olive Silty CLAY, little fine Sand, slightly mottled, firm,	PP = 1.8 - 2.5 tsf	
11				3		moist, CL		GLACIAL MARINE
				4				
12				5				
13					▽			
14								
					46.5			
15					46	Hard drilling at 14.5 ft		GLACIAL TILL
	S-4	24/10	15-17	50 for 3"	45.7	Dark gray weathered rock		WEATHERED ROCK
16						End of Boring at 15.3 ft - Spoon refusal		(PROBABLE) BEDROCK
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-4**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 61 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/3/2022 Date Completed: 5/3/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/3/2022	9.5 ft	51.5 ft +/-	Estimated in spoon samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/18	0-2	3	60.6	4" Topsoil		TOPSOIL
1				14		Brown medium-coarse SAND, little Gravel, trace Silt		
				14		and brick, compact, damp, SW		FILL
2				18				
3								
4								
5								
	S-2	24/20	5-7	9		Brown medium-coarse SAND, little Gravel, trace Silt,	10% GRAVEL	
6				16		dense, damp, SW	84% SAND	
				19			6% FINES	
7				22			MC = 5.9%	
8								
9								
					▽			
10								
	S-3	24/17	10-12	9		Brown medium-coarse SAND, little Gravel, trace Silt,		
11				11		compact, saturated, SW		
				6		Black fine Sandy SILT, little Clay, trace brick, stiff, wet,		
12				5		ML		
13								
14								
					46.5			
15						Hard at 14.5 ft		
	S-4	24/8	15-17	7		Olive gray Silty f SAND, little Clay, loose, wet, SM		GLACIAL TILL
16				25 for 2"	45.3	Some Silt, trace Gravel in spoon tip		
						End of Boring at 15.7 ft - Spoon refusal		(PROBABLE) BEDROCK
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-5**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 57 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/4/2022 Date Completed: 5/4/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	1 1/2" SSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/4/2022	15.7 ft	41.3 ft +/-	Estimated in spoon samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
1						4 ft of Concrete		EXISTING CONCRETE ELEMENT
2								
3								
4					53			
	S-1	24/24	4-6	5		Concrete/cement cuttings		
5				5		Brown medium-coarse SAND, little Gravel, trace Silt,		FILL
				6		compact, damp, SW		
6				4				
7								
8								
9								
10								
	S-2	24/24	10-12	23		Blackish olive fine Sandy SILT, trace to little Gravel,		
11				20		very dense, moist, ML		
				34				
12				35		Brick and metal nail in spoon tip		
13								
14								
15								
	S-3	24/24	15-17	3	▽	Black Silty f SAND, tr Gravel, compact, moist, SM		
16				6		Olive brown medium-coarse SAND, little Silt and Gravel,		
				12		compact, saturated, SW		
17				22				
18								
19								
20						Strong petroleum odor in spoon sample		
	S-4	24/24	20-22	3		Brown fine-medium SAND, little Silt, trace Gravel, loose,		
21				5		saturated, SP		
				12		Black Silty fine SAND, trace Gravel, compact, saturated,		
22				19	35	SM		
						End of Boring at 22 ft - No refusal		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-6**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 57 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/4/2022 Date Completed: 5/4/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/4/2022	15.4 ft	41.6 ft +/-	Measured with 20 ft augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/16	0-2	3		Brown fine-medium SAND, little Silt and Gravel, trace		
1				3		brick, loose, damp, SP		FILL
				2		Light brown medium-coarse SAND, trace Gravel, loose,		
2				5		damp, SW		
3								
4								
5						Hard drilling at 4.5 ft		
	S-2	24/11	5-7	6		Dark brown Silty fine SAND, trace Gravel, compact,		
6				9		moist, SM		
				6				
7				7				
8								
9								
10								
	S-3	24/13	10-12	5		Reddish brown fine SAND, some Silt, little Gravel, loose,		
11				4		moist, SM		
				2				
12				1				
13								
14								
15								
	S-4	24/17	15-17	1	▽	Black Silty fine SAND, very loose, saturated, SM		
16				3		Trace Gravel 1st 4"		
				WH		Strong petroleum odor and sheen in spoon		
17				3				
18								
19								
20								
	S-5	24/17	20-22	15	36.5	Black Silty fine SAND, compact, saturated, SM		
21				20		Black fine-medium SAND, with weathered rock, very		
				35		dense, saturated, SP		GLACIAL TILL
22				50 for 3"	35.2			
						End of Boring at 21.8 ft - Spoon refusal		(PROBABLE) BEDROCK

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-7**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 58 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/4/2022 Date Completed: 5/4/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/4/2022			None observed

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/14	0-2	5		Brown fine-medium SAND, little Gravel, trace Silt,		
1				6		compact, damp, SP		FILL
				6				
2				6				
3								
4								
5								
	S-2	24/11	5-7	4	52.5	Brn f-med SAND, tr Gravel/Silt, compact, moist, SP		
6				12	52	Black Silty fine SAND, little Gravel, dense, moist, SM		GLACIAL TILL
				40	51.3	Black weathered rock in spoon tip		WEATHERED ROCK
7				50 for 2"		End of Boring at 6.7 ft - Spoon refusal		(PROBABLE) BEDROCK
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Proposed Buildings (Lot 3)	Boring #:	**B-8**
Location:	Pearl Street	Project #:	22120
City, State:	Biddeford, ME	Sheet:	1 of 1
		Chkd by:	

Drilling Co:	Summit Geoengineering Services, Inc.	Boring Elevation	57 ft +/-
Driller:	S. Floyd	Reference:	Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Summit Staff:	C. Plante, EI	Date started: 5/4/2022	Date Completed: 5/4/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH			
Date	Depth	Elevation	Reference
5/4/2022			None observed

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	**SAMPLE DESCRIPTION**	Geological/ Test Data	Geological Stratum
	S-1	24/18	0-2	18		Brown fine SAND, little Silt, trace Gravel, compact,		
1				12		moist, SP		FILL
				14		Weathered rock and brick streaks throughout		
2				30				
3					54.2			
						End of Boring at 2.8 ft - Auger refusal		(PROBABLE) BEDROCK
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-9**

Project: Proposed Buildings (Lot 3) | Project #: 22120
Location: Pearl Street | Sheet: 1 of 1
City, State: Biddeford, ME | Chkd by:

Drilling Co: Summit Geoengineering Services, Inc.
Driller: S. Floyd
Summit Staff: C. Plante, EI

Boring Elevation 61 ft +/-
Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Date started: 5/3/2022 Date Completed: 5/3/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/3/2022	11.7 ft	49.3 ft +/-	Measured with 20 ft augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/18	0-2	3	60.6	4" Topsoil		TOPSOIL
1				5		Brown medium-coarse SAND, little Gravel, trace Silt,		
				8		compact, damp, SW		FILL
2				7				
3								
4								
5								
	S-2	24/11	5-7	2		Brown fine-medium SAND, trace Gravel, loose, damp,		
6				2		SP		
				6				
7				3				
8								
9								
10								
	S-3	24/13	10-12	1		Brown medium-coarse SAND, little Silt, trace Gravel,		
11				2		loose, wet, SW		
				3	▽	Melted rock piece (igneous rock) in spoon		
12				2				
13								
14								
						Plastic liner in auger cuttings		
15								
	S-4	24/9	15-17	1		Gray Silty CLAY, little fine Sand, trace Gravel, soft, wet,	PP = 1.0 - 4.0 tsf	
16				2		CL		
				2		Sample appears re-worked		
17				5				
18								
19								
20								
	S-5	24/12	20-22	6		Grayish black Gravelly SAND, some Silt and Clay, trace		
21				7		ash, compact, saturated, SM		
				11				
22				10	39			
						End of Boring at 22 ft - No refusal		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-10**

Project:	Proposed Buildings (Lot 3)	Project #:	22120
Location:	Pearl Street	Sheet:	1 of 1
City, State:	Biddeford, ME	Chkd by:	

Drilling Co:	Summit Geoengineering Services, Inc.	Boring Elevation	61 ft +/-
Driller:	S. Floyd	Reference:	Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022
Summit Staff:	C. Plante, EI	Date started: 5/3/2022	Date Completed: 5/3/2022

DRILLING METHOD		SAMPLER	
Vehicle:	AMS PP	Length:	24" SS
Model:	9630 Pro-D	Diameter:	2"OD/1.5"ID
Method:	2 1/4" HSA	Hammer:	140 lb
Hammer Style:	Automatic	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/3/2022	10.2 ft	50.8 ft +/-	Measured with 20 ft augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/19	0-2	3	60.6	4" Topsoil		TOPSOIL
1				14		Brown fine-medium SAND, some Gravel, little Silt, dense,		
				21		damp, SP		FILL
2				20		Metal piece in spoon tip		
3						Hard drilling to 5 ft		
4								
5								
	S-2	24/10	5-7	3		Brown fine-medium SAND, little Gravel, trace Silt, loose,		
6				3		damp, SP		
				3				
7				4				
8								
9								
10					▽			
	S-3	24/18	10-12	3		Dark brown fine-medium SAND, some Gravel and Silt,		
11				5		trace asphalt, compact, saturated, SP		
				20				
12				13				
13								
						Hard driling 13 ft to 15 ft		
14								
						Plastic liner in auger cuttings		
15								
	S-4	24/15	15-17	31		Black medium-coarse SAND, some Silt, trace Gravel,		
16				26		dense, saturated, SW		
				10		Black fine-coarse SAND, some Silt and Gravel, trace		
17				3		Clay, dense, saturated, SM		
						Petroleum odor in spoon		
18								
19								
						Petroleum odor and sheen in spoon		
20						Black fine-medium SAND, some Silt, trace Gravel,		
	S-5	24/24	20-22	8		compact, saturated, SM		
21				23	40	Black fine-coarse SAND, some Silt and Gravel, SM		
				50 for 2"	39.8	Black weathered rock		WEATHERED ROCK
22						End of Boring at 21.2 ft - Spoon refusal		(PROBABLE) BEDROCK

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

22120 PROBE REFUSAL			
Location	**Depth (ft)**	**Elevation (ft +/-)**	**Notes**
P-1	6.6	54.4	Used 2 ¼" HSA; Hard at 6.5 ft
P-1 A	6.2	54.8	Hard at 6 ft
P-1 B	6.2	54.8	---
P-2	18.5	42.5	Easy drilling 7 - 15 ft; Hard drilling 17.5 - 18.5 ft
P-3	15.5	45.5	Hard at 1-3 ft; 7.5 ft; 11.5 ft; 13.5 ft
P-4	3.1	53.9	---
P-4 A	4.1	52.9	Used 2 ¼" HSA; Hard at 2.5 ft; 3.5 ft
P-5	6.3	50.7	Hard at 5.8 ft; plastic/blue fibers in cuttings

Note: All probes were completed using 1 ½" Solid Stem Augers, unless otherwise noted

Appendix C

Laboratory Testing

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GRAIN SIZE ANALYSIS - ASTM D6913

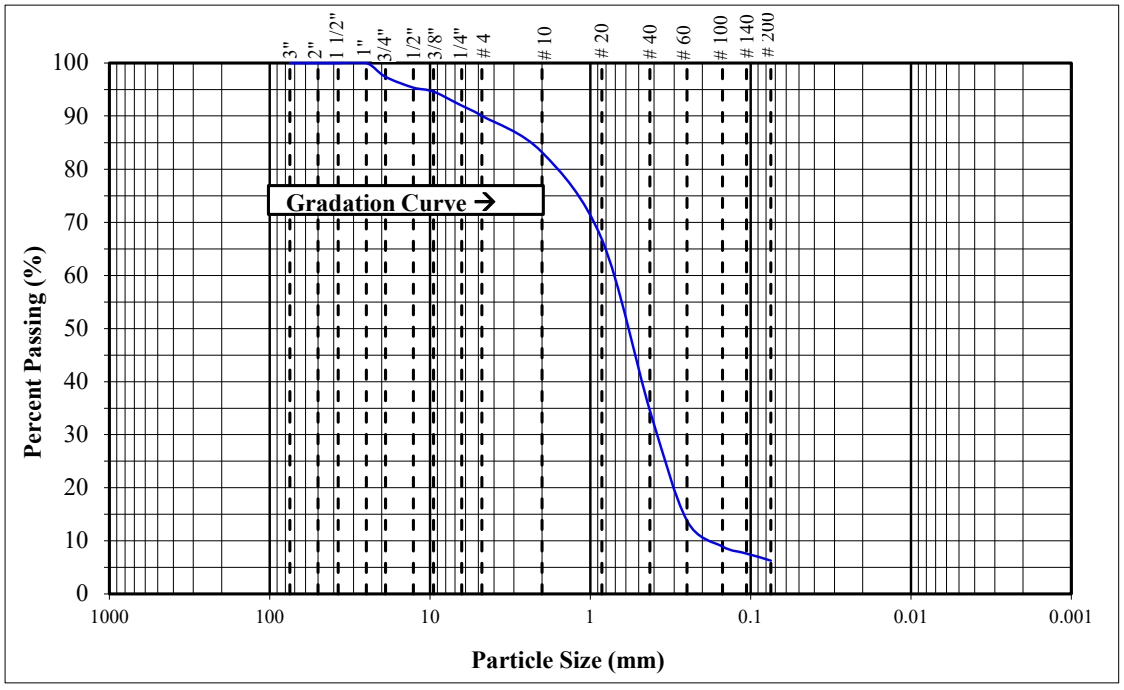
PROJECT NAME:	Proposed Buildings Lot 3	PROJECT #:	22120
PROJECT LOCATION:	Pearl Street, Biddeford, Maine	EXPLORATION #:	B-3 & B-4 (Composite)
CLIENT:	Fathom Companies	SAMPLE #:	S-2
TECHNICIAN:	Colleen Sullivan, E.I.	SAMPLE DEPTH:	5' - 7'
SOIL DESCRIPTION:	Med-fine SAND, little Gravel & Silt, SP-SM	TEST DATE:	5/9/2022

TEST PROCEDURE

Sample Source: Split Spoon	**Sieve Stack:** Composite	**Specimen Procedure:** Air Dry
Test Method: Method A	**Separating Sieve(s):** 3/8 Inch	**Dispersion Type:** Tap Water

DATA

STANDARD SIEVE DESIGNATION (mm)	ALTERNATIVE SIEVE DESIGNATION (in)	PERCENT PASSING (%)
75	(3 in)	100
50	(2 in)	100
37.5	(1-1/2 in)	100
25.0	(1 in)	100
19.0	(3/4 in)	97
12.7	(1/2 in)	95
9.5	(3/8 in)	95
6.35	(1/4 in)	92
4.75	(No. 4)	90
2.00	(No. 10)	83
0.850	(No. 20)	67
0.425	(No. 40)	35
0.250	(No. 60)	14
0.150	(No. 100)	9
0.106	(No. 140)	8
0.075	(No. 200)	6



REMARKS: Moisture Content = 5.9%. Composite sample at 5' - 7' from B-3 & B-4.

Appendix D

Bedrock Recommendations

GENERAL BLASTING RECOMMENDATIONS

Introduction

Blasting operations will be performed in general accordance with the applicable Maine Revised Statute Title 125 and Title 38, U.S. Department of the Interior Rules, the recommendations provided below, and a normal standard of care.

Blast Design

The blasting contractor shall submit a blasting plan to the Owner for approval prior to blasting operations. The blasting plan shall include a schedule, sketches of the drill patterns (hole spacing and depth), type and amount of explosives, number and sequence of delays, methods for minimizing flyrock, and any other information pertinent to demonstrating compliance with the applicable U.S. Department of the Interior Rules and the requirements of the applicable Statute requirements of 38 MRSA.

Notification

Oral notification to the abutters within one-half mile of the blast area shall be provided prior to blasting. Warning and all clear signals of different character or pattern that are audible within one-half mile from the point of the blast shall be given. The meaning of the signals shall be conveyed to the abutters at the time they are notified.

Pre-blast Surveys

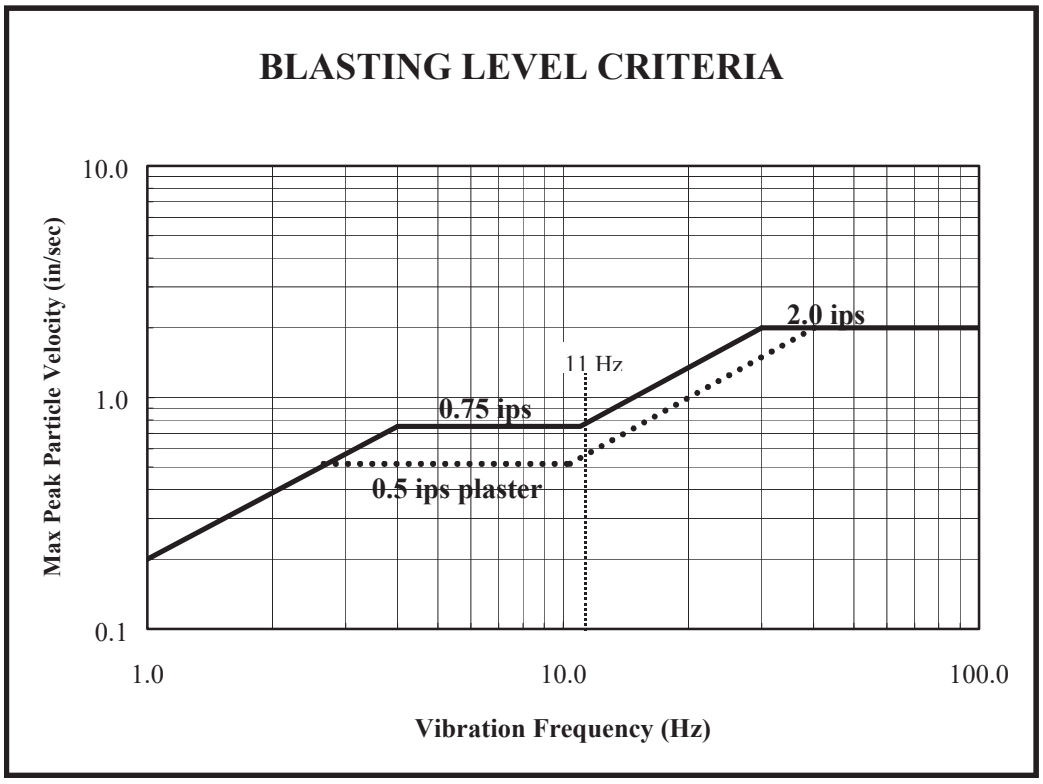
All blasting operations are the direct responsibility of the Blasting Contractor. Reports of damage to structures caused by blasting operations are the sole responsibility of the Blasting Contractor. Therefore, it is incumbent upon the Blasting Contractor to perform pre-blast surveys as they deem necessary.

Airblast Limits

Airblast overpressure shall not exceed the limits stipulated in 38 MRSA 490-Z(14)(H) at the nearest structure. This currently requires sound from blasting to not exceed 129 decibels peak at inhabited structures and 140 decibels peak at uninhabited structures.

Ground Vibration Limits

The maximum ground vibration at any structure shall not exceed the limits presented in the following chart:



REFERENCE: OSM alternative blasting criteria (Modified from figure B-1, Bureau of Mines, RI 8507)

The Blasting Contractor shall provide a seismographic record to the Owner for each blast event at the nearest off-site structure. The record shall include the date and time of the blast, peak and resultant particle velocities and associated frequencies, and the airblast overpressure.

Flyrock

Sufficient stemming, matting, or natural protective cover shall be provided to prevent flyrock from leaving property owned or under control of the operator or from entering protected natural resources or natural buffer strips.

Records

Records of blasts shall be recorded in accordance with Maine Statute 38 MRSA 490-Z(14)(L). The current requirements are as follows.

- Name of blasting company or blasting contractor
- Location, date and time of blast
- Name, signature and social security number of blaster
- Type of material blasted
- Number and spacing of holes and depth of burden or stemming
- Diameter and depth of holes
- Type of explosives used
- Total amount of explosives used
- Maximum amount of explosives used per delay period of 8 milliseconds or greater
- Maximum number of holes per delay period of 8 milliseconds or greater
- Method of firing and type of circuit
- Direction and distance in feet to the nearest dwelling, public building, school, church or commercial or institutional building neither owned nor controlled by the developer
- Weather conditions, including factors such as wind direction and cloud cover
- Height or length of stemming
- Amount of mats or other protection used
- Type of detonators used and delay periods used
- The exact location of each seismograph and the distance of each seismograph from the blast
- Seismographic readings
- Name and signature of the person operating each seismograph
- Names of the person and the firm analyzing the seismographic data

MAXIMUM PARTICLE VELOCITY/DISTANCE CRITERIA
FOR BLASTING NEAR UNCURED CONCRETE

Time From Batching (hr)	Non-Structural Concrete	Structural Concrete
0 – 4	4D	2D
4 – 24	1D	0.25D
24 – 72	1.5D	1D
72 – 168	3D	2D
168 – 240	8D	5D
Over 240	15D	10D

Distance (ft)	D (in/sec)
0 to 50	1.0
50 to 150	0.8
150 to 250	0.7
Over 250	0.6

NOTE: Allowable vibration levels are reduced with increasing distance since concrete can withstand higher vibration levels at higher frequencies. Vibration frequencies decrease as the distance from the blast increases because there is an attenuation of frequency with distance.

Reference: Wyllie, Duncan C. Foundations on Rock, 1st Ed, Chapman & Hall, London, 1992

ACORN ENGINEERING, INC.

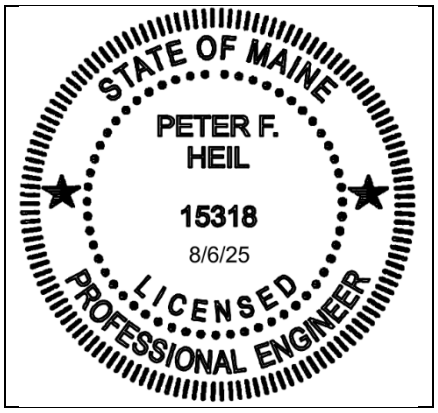
STORMWATER MANAGEMENT REPORT

Prepared For:

3 Lincoln, LLC
80 Exchange Street, Suite 400
Portland Maine 04101

Prepared By:

Acorn Engineering, Inc.
16 Middle Street, Suite 302
Portland, Maine 04101



August 2025

INTRODUCTION

This project proposes to amend the previous Major Site Plan and Subdivision approval (2022.02) programming from three (3) total buildings on Lot 3 to four (4) total buildings. The amendment includes the addition of five (5) townhomes and revises the original programming of building A from 85 residential units to 52 units, building B from 129 residential units to 85 units, and building C will remain as a restaurant with 154 total seats (previously 298 seats).

EXISTING CONDITIONS

The existing site address is 15 Pearl Street, with frontage on Pearl Street. The existing lot sizes total approximately 6.95 acres, and a section of the site is located within the 250' shoreland overlay zone due to the proximity from the Saco River. An Existing Conditions Survey has been prepared by Owen Haskell Inc. dated February 28, 2025.

The proposed Lot 3 site is currently vacant and has recently been stabilized with grass coverage associated with the recent City parking garage project. The existing grades on site are relatively flat ranging from 0 to 5 percent west to east toward the Saco River.

The project team is not aware of the presence of any existing significant natural features located on the site. Furthermore, the project is not within an urban impaired stream.

PROPOSED DEVELOPMENT

The project includes subdividing the existing lot into a total of 4 separate parcels. The limit of work for the proposed project will be contained within Lot 3 which is proposed to be approximately 2.08 acres.

As part of the redevelopment of the overall MERC parcel, and construction of the municipal Pearl Street garage on Lot 2, a DEP Stormwater permit was issued (L-10282-NJ-A-N), which included the installation of the subsurface stormwater system located primarily on Lot 4 (with a small section installed on Lot 3). As part of the stormwater system design, each lot was allocated a conservative impervious coverage / redevelopment pollutant ranking threshold for the individual lots to remain under once actual designs progress. The DEP Stormwater Permit includes a condition of approval that all "future development on other sections of the overall parcel, the applicants must submit a Stormwater Management application that shows the proposed project, a grading plan that includes the stormwater drainage system connections, the weighted average pollutant impacting rating with supporting information for the portion of the parcel proposed to be developed, and other material to demonstrate that the proposed development will not change the percentage of developed area that must be treated."

As part of the proposed project, the Lot 3 programming including building layouts, impervious coverages, and drainage patterns are proposed to be amended from the previous approval (L-10282-NJ-C-A). Catch basins, foundation drains, and roof drains are proposed on site and will be directed to a network of storm drains and tie into the existing stormwater treatment system located primarily on Lot 4. Stormwater and Erosion Control Best Management Practices will be implemented during construction.

BASIC STANDARDS – EROSION & SEDIMENT CONTROL

The project proposes measures to meet the basic standards requirements as outlined in Chapter 500. Please refer to Section 14: Basic Standards Submission

GENERAL STANDARDS - WATER QUALITY

The existing subsurface stormwater system previously installed as part of the overall DEP Stormwater Permit L-10282-NJ-A-N will be utilized to provide the water quality treatment for the runoff from the site. As part of the stormwater system design, each lot was allocated a conservative impervious coverage / redevelopment pollutant ranking threshold for the individual lots to remain under once actual designs progress.

The previously approved (permitting) post-development land use rankings are as follows:

Table 1 – Land Use and Pollutant Summary Table: Previously Approved (Permitted) Condition			
Land use	**Pollutant Ranking**	**Existing Area**	**Weighed Impact**
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	2.03 ac.	8.10
Other parking lots and driveways; flat roof asphalt rooftops	3	0.00 ac.	0.00
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.30ac.	0.60
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.06 ac.	0.06
TOTAL		2.38 ac.	8.76

The corresponding previously approved stormwater permit, and previously approved (existing) pollutant rankings can be viewed in Attachments 1 & 2 of this report.

The area of this lot in the previously-approved (permitted) calculations in Attachment 2 included 0.3 acre that is no longer included as part of the redevelopment. It is assumed the 0.3 acres accounts for the drive aisle between the City Parking Garage and Lot 3, which is not included as part of this project. See the adjusted table below that shows an adjusted Pollutant Summary Table

Table 2 – Land Use and Pollutant Summary Table: Previously Approved (Adjusted) Condition			
Land use	**Pollutant Ranking**	**Existing Area**	**Weighed Impact**
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	1.73 ac.	6.92

Other parking lots and driveways; flat roof asphalt rooftops	3	0.00 ac.	0.00
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.30ac.	0.60
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.06 ac.	0.06
TOTAL		2.08 ac.	7.58

The pollutant ranking for the existing site condition is 7.58 divided by 2.08 acres, or 3.64.

The proposed post development land use rankings are as follows:

Table 3 – Land Use and Pollutant Summary Table: Proposed Condition			
Land use	**Pollutant Ranking**	**Existing Area**	**Weighed Impact**
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	0.00 ac.	0.00
Other parking lots and driveways; flat roof asphalt rooftops	3	1.05ac.	3.15
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.77 ac.	1.54
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.26 ac.	0.26
TOTAL		2.08 ac.	4.95

The corresponding post-redevelopment map can be viewed in Attachment 3 of this report. The pollutant ranking for the proposed site condition is 4.95 divided by 2.08 acres, or 2.38.

From Tables 1 & 2 above, the difference between the proposed pollutant ranking (2.38) and the previously approved (permitted) pollutant ranking (3.64) is -1.26. Per Table 3 in Chapter 500, a negative difference means that no additional treatment is required beyond what was already approved for a site subject to Stormwater Law, which had been conservatively designed.

Therefore, the proposed development is in compliance with the requirements set forth in the previously approved stormwater permit. This pollutant breakdown will also be submitted to DEP as part of the Stormwater Law amendment application in the upcoming weeks.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County
- Geotechnical Report by Summit Geoengineering

The area within and surrounding the project includes soils types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 4 - "K" Value		
Soils Type	**Subsurface**	**Substratum**
Urban Land (Ur)	0.27	0.27

The soil "K" values for the soils, listed above, show a low to moderate susceptibility to erosion. The site's susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil "K" values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance, given the proximity to the Saco River.

Please refer to Section 11. for the Soils Section.

PHOSPHOROUS STANDARD

As the project is not located in a watershed of a lake most-at-risk, or a proposing development of any other lake watershed, the Phosphorous Standard does not apply to this project.

URBAN IMPAIRED STREAM STANDARD

As the project is not located in an urban impaired stream watershed, the Urban Impaired Stream Standard does not apply to this project.

FLOODING STANDARD

As part of the overall MERC parcel development stormwater design and DEP Stormwater Permit, the site requested and was granted a waiver from the Flooding Standard as the project stormwater runoff discharges directly to a major river segment (Saco River), and request that the waiver be extended. The plans are designed to be in accordance with the City's Land Development Regulations, Article IV: Performance Standards, Section 61: Stormwater Management.

CONCLUSION

With the previously approved conservative design of the existing subsurface stormwater treatment system, and proposed redevelopment pollutant rankings associated with the Lot 3 development, adequate treatment will be provided to the proposed site conditions. The project does not anticipate creating erosion, drainage, or runoff problems for the development, the City, or abutting properties. Please let me know if you have any questions or comments.

ATTACHMENTS

Attachment 1: Previously Approved DEP Stormwater Permit (L-10282-NJ-A-N & L-10282-NJ-C-A)
Attachment 2: Previously Approved Pollutant Rankings
Attachment 3: Post Redevelopment Map
Attachment 4: Post Watershed Map
Attachment 5: Stormwater Inspection & Maintenance Plan
Attachment 6: Hydraflow Report

Sincerely,



Peter Heil, P.E.
Senior Project Manager
Acorn Engineering, Inc.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF BIDDEFORD &	) STORMWATER MANAGEMENT LAW
BIDDEFORD RIVERWALK	)
COMMUNITY 1, LLC	)
Biddeford, York County	)
PARKING GARAGE	)
L-10282-NJ-A-N (Approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. § 420-D, and Chapter 500 (06-096 C.M.R. Chapter 500, last amended August 12, 2015) of the Department's Regulations, the Department of Environmental Protection has considered the application of CITY OF BIDDEFORD and BIDDEFORD RIVERWALK COMMUNITY 1, LLC with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History: In Department Order #L-10282-05-A-N, dated December 19, 1984, the Department issued a permit to the City of Biddeford and the Maine Energy Recovery Company which approved the construction and operation of a refuse derived fuel solid waste disposal facility. The Department subsequently issued numerous solid waste permits including Department Order #S-10282-WG-AN-A, dated September 30, 2013, which was an amendment for the closure of the facility. The facility was subsequently demolished with the exception that the building foundation slabs were left in place; some of the building slabs have subsequently been used for parking. The property has a Department issued Commissioner's Certification of Completion of Remedial Actions Under A Voluntary Response Action Plan (VRAP). There are buried and capped PCB contaminated soils in the area adjacent to the river and the railroad. The parcel is located on the northeast corner of the intersection of Lincoln Street and Pearl Street in the City of Biddeford

B. Summary: The applicants propose to remove existing building foundation slabs, divide the parcel into two lots and construct a 44,895 square foot parking garage and a fire lane on Lot 2, which is a 1.63 acre lot in the approximate middle of the 7.28 acre parcel. The project also includes the construction of another fire lane and areas to be converted to lawn on Lot 1, which is 5.32 acres in size. Plan C-102 of the plan set shows an approximately 1.29 acre parking lot to the east of the proposed parking garage; most of this parking lot exists on old building foundation slabs. The applicants propose to reconstruct that parking lot to provide 114 parking spaces for use during construction of the parking garage.

When the parking garage construction is complete this parking lot will be removed and replaced with lawn, as shown on plan number C-102B titled "Biddeford Parking Garage, MERC Site, Biddeford, Maine, Site Plan Layout Phase B," prepared by Desman Design Management dated March 27, 2020. Any changes to this plan will require a modification of this permit. The project is shown on a set of plans submitted with the application and plan number C-104 is titled "Biddeford Parking Garage, MERC Site, Biddeford, ME, Site Plan-Grading and Utilities," prepared by Desman Design Management and dated March 9, 2020 with a most recent revision date on any of the plans of March 27, 2020.

The first 500 feet of Pearl Street, from the intersection with Lincoln Street, is proposed to be reconstructed as a 24-foot wide street with on street parking on the north side and eight-foot wide concrete sidewalks on both sides. The reconstruction of Pearl Street is considered to be a maintenance activity as defined by Chapter 500, § 3(R) and does not require approval from the Department.

The Department accepted a Natural Resources Protection Act (NRPA) Permit by Rule Notification Form (PBR #69437) on March 18, 2020, for activities associated with the proposed stormwater management system, shown on Plan C-102B, adjacent to the Saco River. The project will be constructed in accordance with Chapter 305, Section 2 of the Permit by Rule Standards.

C. Current Use of the Site: The site is bound by Lincoln Street to the west, Pearl Street to the south, the Saco River to the east and the Boston & Maine Railroad to the north. The site is partially occupied by the building foundation slabs that remain from the Maine Energy Recovery Company that are currently used as parking lots, gravel areas, surface parking areas, and a smoke stack with cell tower equipment.

2. STORMWATER STANDARDS:

The stormwater management system for the project has been designed to meet the stormwater management requirements for the proposed parking garage and fire lane on the 1.63 acre parcel identified as Lot 2 on Plan C-102, plus additional development on the remaining 5.65 acres. The City of Biddeford anticipates additional redevelopment on the parcel and has based the post development pollutant impact ranking calculations, the treatment level for the redevelopment project, and the sizing of the subsurface sand filter and R-Tanks to accommodate the development shown on Lots 1-4 on drawing number C-10 titled "Master Site Plan, Pearl Street & MERC Redevelopment for Fathom/BE Filter, LLC," prepared by Acorn Engineering and dated November 19, 2019. The design of the stormwater management system for the theoretical buildout of the entire parcel shown on Plan C-10 includes 6.94 acres of developed area of which 5.66 acres is impervious area. It lies within the watershed of the Saco River. The applicants submitted a stormwater management plan based on the Basic, General and Flooding Standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of a subsurface sand filter with R-Tanks™.

This Order approves the stormwater management system, the proposed parking garage, the fire lanes and Pearl Street extended to the eastern fire lane.

Future development on other sections of the overall parcel, the applicants must submit a Stormwater Management application that shows the proposed project, a grading plan that includes the stormwater drainage system connections, the weighted average pollutant impact rating with supporting information for the portion of the parcel proposed to be developed, and other material to demonstrate that the proposed development will not change the percentage of developed area that must be treated.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicants submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, the Cumberland County Soil and Water Conservation District (CCSWCD).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicants submitted a maintenance plan that addresses both short and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by and revised in response to the comments of the CCSWCD. The applicants will be responsible for the maintenance of the stormwater management system.

Prior to use of the proposed parking garage, the applicants must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR.

Grit, sediment and other materials removed from the stormwater structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500, § (4)(B) provided that grit, sediment and other materials removed from the stormwater structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules and the applicants must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR prior to the use of the parking garage.

B. General Standards:

The applicants' stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential thermal impacts. The applicants are using treatment requirements for a redevelopment project as allowed under Chapter 500, § 4(C)(2)(d). The applicants calculated the existing and proposed pollutant impact rating using Table 2 in Chapter 500 and based on these calculations determined using Table 3 in Chapter 500 that 50 percent of development must be treated. The applicants propose to treat runoff from 70.8% of the proposed developed area on both lots.

The stormwater management system proposed by the applicants was reviewed by the CCSWCD and revised in response to comments from the CCSWCD. After a final review, the CCSWCD commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standards.

Based on the stormwater system's design and CCSWCD's review, the Department finds that the applicants have made adequate provision to ensure that the proposed project will meet the General Standards in Chapter 500, § 4(C)(2)(d).

C. Flooding Standard:

The applicants are proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20 from the U.S.D.A. Soil Conservation Service and detains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving waters will not be increased as a result of stormwater runoff from the development site. The subsurface sand filter and R-Tank™ system will be connected to an existing storm drain in the east end of Pearl Street that discharges into the Saco River.

The CCSWCD commented that the proposed system is designed in accordance with the Flooding Standard contained in Chapter 500, § 4(F).

Based on the system's design and BLR's review, the Department finds that the applicants have made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500, § 4(F) for peak flow from the project site.

The Department further finds that the proposed project will meet the Chapter 500 standards for discharges to public storm sewer systems.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. § 420-D, and Chapter 500 of the Department's Regulations:

A. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity provided that grit, sediment and other materials removed from the stormwater structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules and that the applicants must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR prior to the use of the parking garage.

B. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards.

C. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 Flooding Standard.

D. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 standards for discharges to public storm sewer systems.

THEREFORE, the Department APPROVES the above noted application of the CITY OF BIDDEFORD and BIDDEFORD RIVERWALK COMMUNITY 1, LLC to construct a stormwater management system for a parking garage and other development as described above in Biddeford, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control measures described in this order, the applicants shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. The applicants shall include in all conveyances of subdivision lots deed restrictions making the conveyance subject to all terms and conditions of this Department Order, particularly those conditions related to maintenance of the stormwater management system. These terms and conditions may be incorporated by specific and prominent reference to the permit in the deed. All conveyances required by this approval to contain

restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.

5. Grit, sediment and other materials removed from stormwater structures during maintenance activities shall be disposed of in compliance with the Maine Solid Waste Management Rules.

6. The applicants shall submit a copy of an executed long-term maintenance contract for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR prior to the use of the parking garage.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 8TH DAY OF APRIL, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For: Gerald D. Reid, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

CGW/L10282AN/ATS#85869

FILED
April 8, 2020
State of Maine
Board of Environmental Protection

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

(6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.

(8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.

(c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.

(d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.

(e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.

(9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department, and must reference the permit number.

(10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: November 2018 **Contact: (207) 287-2452**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S. §§ 341-D(4) & 346; the *Maine Administrative Procedure Act*, 5 M.R.S. § 11001; and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed more than 30 calendar days after the date on which the Commissioner's decision was filed with the Board will be dismissed unless notice of the Commissioner's license decision was required to be given to the person filing an appeal (appellant) and the notice was not given as required.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017. An appeal may be submitted by fax or e-mail if it contains a scanned original signature. It is recommended that a faxed or e-mailed appeal be followed by the submittal of mailed original paper documents. The complete appeal, including any attachments, must be received at DEP's offices in Augusta on or before 5:00 PM on the due date; materials received after 5:00 pm are not considered received until the following day. The risk of material not being received in a timely manner is on the sender, regardless of the method used. The appellant must also send a copy of the appeal documents to the Commissioner of the DEP; the applicant (if the appellant is not the applicant in the license proceeding at issue); and if a hearing was held on the application, any intervenor in that hearing process. All of the information listed in the next section of this information sheet must be submitted at the time the appeal is filed.

INFORMATION APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time the appeal is submitted:

1. *Aggrieved Status*. The appeal must explain how the appellant has standing to maintain an appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error*. The appeal must identify the specific findings of fact, conclusions regarding compliance with the law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing requirements that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested*. The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for public hearing must be filed as part of the notice of appeal, and must include an offer of proof in accordance with Chapter 2. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed evidence must be submitted with the appeal. The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered in an appeal only under very limited circumstances. The proposed evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Specific requirements for supplemental evidence are found in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made easily accessible by the DEP. Upon request, the DEP will make application materials available during normal working hours, provide space to review the file, and provide an opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a license holder may proceed with a project pending the outcome of an appeal, but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, and will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, any materials submitted in response to the appeal, and relevant excerpts from the DEP's application review file will be sent to Board members with a recommended decision from DEP staff. The appellant, the license holder if different from the appellant, and any interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. The appellant and the license holder will have an opportunity to address the Board at the Board meeting. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452, or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

3 LINCOLN, LLC	) STORMWATER MANAGEMENT LAW
Biddeford, York County	)
3 LINCOLN STREET REDEVELOPMENT	) AMENDMENT
L-10282-NJ-C-A (Approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. § 420-D, and Chapter 500 (06-096 C.M.R. ch.500, last amended August 12, 2015) of the Department's Regulations, the Department of Environmental Protection (Department) has considered the application of 3 LINCOLN, LLC (applicant) with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History: In Department Order #L-10282-05-A-N, dated December 19, 1984, the Department issued a permit to the City of Biddeford and the Maine Energy Recovery Company (MERC) which approved the construction and operation of a refuse derived fuel solid waste disposal facility. The Department subsequently issued numerous solid waste permits including Department Order #S-10282-WG-AN-A, dated September 30, 2013, which was an amendment for the closure of the facility. The facility was subsequently demolished except that some of the building foundation slabs were left in place and used for parking. The property has a Department issued Commissioner's Certification of Completion of Remedial Actions Under A Voluntary Response Action Plan. There are buried and capped contaminated soils in the area adjacent to the Saco River and the existing rail line.

The City of Biddeford, as part of its redevelopment master plan, split the 7.28-acre parcel into two lots. The proposed redevelopment was subject to review pursuant to 38 M.R.S. §§ 481 – 490, the Site Location of Development Law (Site Law), because the redeveloped site resulted in greater than three acres of stripped, graded and non-revegetated area. The City of Biddeford has municipal capacity to review Site Law applications pursuant to 38 M.R.S. § 488 (19); therefore, the proposed redevelopment project was exempt from Department review under the Site Law.

In Department Order #L-10282-NJ-A-N, dated April 8, 2020, the Department approved a stormwater management system for a redevelopment project consisting of a 44,895-square foot parking garage and a fire lane on Lot 2, and another fire lane and areas to be converted to lawn on Lot 1. The approved stormwater management system consisted of a subsurface sand filter with R-Tanks™ located at the base of the smokestack with the attached cellular tower equipment that was to remain at the site. The project is located on

the northeast corner of the intersection of Lincoln Street and Pearl Street in the City of Biddeford.

In Department Order #L-10282-NJ-B-M, dated January 5, 2021, the Department approved the relocation of portions of the subsurface sand filter and R-Tanks due to conflicts with subsurface communication lines, communication manholes, and subsurface concrete encased electric lines where the subsurface sand filter and R-Tanks were previously designed to be located.

B. Summary: The applicant proposes to subdivide the original 7.28-acre parcel into four lots and to redevelop Lot #3. Lot #3, which encompasses 2.08 acres, will be redeveloped with three buildings: Building A, an 85-unit, 17,802-square foot, residential/mixed use structure to be built over a new parking area; Building B, a 129-unit 17,337-square foot, residential building; and Building C, a 5,520-square foot commercial/restaurant building. Together with access drives and sidewalks, the overall development on Lot #3 will result in 2.08 acres of new redeveloped area, of which 1.44 acres will be new impervious area. Stormwater runoff from the redevelopment will be directed to the existing stormwater management system that serves the overall parcel. The project is shown on a set of plans, the first of which is titled "Pearl Street Redevelopment," prepared by Acorn Engineering, Inc., dated January 17, 2022, with the most recent revision date of November 7, 2022.

C. Current Use of the Site: The project site has been redeveloped. The MERC facility has been demolished and a parking garage has been built on Lot #2. Portions of the site have been stabilized as lawn until redevelopment plans receive Department and City approvals.

D. Title, Right, or Interest: An application must demonstrate that the applicant has title, right, or interest in the property proposed to be developed or used for the project sufficient for the nature and duration of the proposed development or use. The applicant submitted a Master Plan Development Agreement signed by the applicant and the City of Biddeford, dated November 17, 2020, that includes, in part, joint party responsibilities, limits of liability, and purchase options.

2. FINDING:

The proposed redevelopment project includes approximately 2.08 acres of new developed area, of which 1.44 acres are new impervious area. The applicant provided a revised Land Use and Pollutant Summary Table, in accordance with the General Standards contained in Chapter 500(4)(C)(2)(d) of the Department's *Stormwater Management* rules (06-096 C.M.R. ch. 500, effective August 12, 2015), and compared the results with the table used to calculate the conceptual redevelopment of the site as approved in Department Order #L-10282-NJ-A-N. The proposed project will result in less impervious area because of a reduction in the area to be used for parking and roads. The applicant determined that the proposed project will not require additional treatment beyond that which was approved in in Department Order #L-10282-NJ-A-N.

The applicant noted that the proposed project would still be eligible for the exemption to the Flooding Standard in Chapter 500(4)(F)(3) because runoff from the project site discharges directly to the Saco River, a major river segment.

Based on its review of the application, the Department finds the requested amendment to be in accordance with all relevant Departmental standards. All other findings of fact, conclusions, and conditions remain as approved in in Department Order #L-10282-NJ-A-N, and subsequent Orders.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. § 420-D, and Chapter 500 of the Department's Regulations:

A. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity.

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards.

THEREFORE, the Department APPROVES the above noted application of 3 LINCOLN, LLC to construct a stormwater management system as described above in Biddeford, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control measures described in this order, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 28th DAY OF MARCH 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

RLG/L10282CA/ATS90291

FILED
March 29th, 2023
State of Maine
Board of Environmental Protection

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

(6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.

(8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.

(c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.

(d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.

(e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.

(9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department and must reference the permit number.

(10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

November 16, 2005 (revised August 15, 2015)

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: August 2021 **Contact: (207) 314-1458**

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner.

Except as provided below, there are two methods available to an aggrieved person seeking to appeal a licensing decision made by the DEP Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

A person filing an appeal with the Board should review Organization and Powers, 38 M.R.S. §§ 341-D(4) and 346; the Maine Administrative Procedure Act, 5 M.R.S. § 11001; and the DEP's *Rule Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Not more than 30 days following the filing of a license decision by the Commissioner with the Board, an aggrieved person may appeal to the Board for review of the Commissioner's decision. The filing of an appeal with the Board, in care of the Board Clerk, is complete when the Board receives the submission by the close of business on the due date (5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board, as determined by the received time stamp on the document or electronic mail). Appeals filed after 5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board will be dismissed as untimely, absent a showing of good cause.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection
c/o Board Clerk
17 State House Station
Augusta, ME 04333-0017
ruth.a.burke@maine.gov

The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee; and if a hearing was held on the application, (3) any intervenors in that hearing proceeding. **Please contact the DEP at 207-287-7688 with questions or for contact information regarding a specific licensing decision.**

REQUIRED APPEAL CONTENTS

A complete appeal must contain the following information at the time the appeal is submitted.

1. *Aggrieved status*. The appeal must explain how the appellant has standing to bring the appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions of law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing criteria that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license to changes in specific license conditions.
5. *All the matters to be contested*. The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for hearing must be filed as part of the notice of appeal, and it must include an offer of proof regarding the testimony and other evidence that would be presented at the hearing. The offer of proof must consist of a statement of the substance of the evidence, its relevance to the issues on appeal, and whether any witnesses would testify. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed supplemental evidence must be submitted with the appeal. The Board may allow new or additional evidence to be considered in an appeal only under limited circumstances. The proposed supplemental evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Requirements for supplemental evidence are set forth in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made accessible by the DEP. Upon request, the DEP will make application materials available to review and photocopy during normal working hours. There may be a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing the appeal.* DEP staff will provide this information upon request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a licensee may proceed with a project pending the outcome of an appeal, but the licensee runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of an appeal, and it will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials admitted by the Board as supplementary evidence, any materials admitted in response to the appeal, relevant excerpts from the DEP's administrative record for the application, and the DEP staff's recommendation, in the form of a proposed Board Order, will be provided to Board members. The appellant, the licensee, and parties of record are notified in advance of the date set for the Board's consideration of an appeal or request for a hearing. The appellant and the licensee will have an opportunity to address the Board at the Board meeting. The Board will decide whether to hold a hearing on appeal when one is requested before deciding the merits of the appeal. The Board's decision on appeal may be to affirm all or part, affirm with conditions, order a hearing to be held as expeditiously as possible, reverse all or part of the decision of the Commissioner, or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the licensee, and parties of record of its decision on appeal.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board Clerk at 207-287-2811 or the Board Executive Analyst at 207-314-1458 bill.hinkel@maine.gov, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal. The DEP provides this information sheet for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

REDEVELOPMENT POLLUTANT RANKING - BREAKDOWN OF SITE

Project: Biddeford Parking Garage
ATS:

Notes:
1. Lots 1-4 delineations are based loosely on the Lots shown on the Master Site Plan prepared by Acorn Engineering dated 11/19/19
2. The sum of the proposed areas calculated in Lots 1-4 can be found on the Redevelopment Pollutant Ranking worksheet dated 1/7/20 under 'Proposed Area & Use'

PROPOSED AREA & USE - LOT 1 (ASSUMED BASED ON MASTERPLAN)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	0	0.00	5	0.00	
Medium Use Parking Lots	68,971	1.58	4	6.33	85% assumed
Other Use Parking Lots/Driveways	0	0.00	3	0.00	
Rooftops	4,045	0.09	2	0.19	5% assumed
Walkways/Grassed Areas	6,086	0.14	2	0.28	7.5% assumed
Non-Grassed Landscaped Areas	2,040	0.05	1	0.05	2.5% assumed
	81,142	1.86		6.85	
	Verify that Existing Area = Proposed Area				

PROPOSED AREA & USE - LOT 2 (DESIGNED COVERAGE)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	45,380	1.04	5	5.21	parking garage top level and entry drive
Medium Use Parking Lots	0	0.00	4	0.00	
Other Use Parking Lots/Driveways	5,820	0.13	3	0.40	fire lane to east of garage
Rooftops	0	0.00	2	0.00	
Walkways/Grassed Areas	17,858	0.41	2	0.82	sidewalks and grass
Non-Grassed Landscaped Areas	1,870	0.04	1	0.04	landscape beds
	70,928	1.63		6.47	
	Verify that Existing Area = Proposed Area				

PROPOSED AREA & USE - LOT 3 (ASSUMED BASED ON MASTERPLAN)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	0	0.00	5	0.00	
Medium Use Parking Lots	88,247	2.03	4	8.10	85% assumed
Other Use Parking Lots/Driveways	0	0.00	3	0.00	
Rooftops	5,185	0.12	2	0.24	5% assumed
Walkways/Grassed Areas	7,787	0.18	2	0.36	7.5% assumed
Non-Grassed Landscaped Areas	2,601	0.06	1	0.06	2.5% assumed
	103,820	2.38		8.76	
	Verify that Existing Area = Proposed Area				

PROPOSED AREA & USE - LOT 4 (ASSUMED BASED ON MASTERPLAN)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	0	0.00	5	0.00	
Medium Use Parking Lots	3,907	0.09	4	0.36	8% assumed roundabout
Other Use Parking Lots/Driveways	5,780	0.13	3	0.40	12% assumed paved surfaces/cell tower
Rooftops	0	0.00	2	0.00	
Walkways/Grassed Areas	32,244	0.74	2	1.48	70% assumed grass and walkways
Non-Grassed Landscaped Areas	4,689	0.11	1	0.11	10% Landscape Beds
	46,620	1.07		2.34	
	Verify that Existing Area = Proposed Area				

PEARL STREET LOT 3 LAND USE AND POLLUTANT SUMMARY TABLE				
LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS		5	0.00 AC	0.00
OTHER ROADS; MEDIUM USE PARKING LOTS		4	0.00 AC	0.00
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY		3	1.05 AC	3.15
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT		2	0.77 AC	1.54
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)		1	0.26 AC	0.26
TOTAL			2.08 AC	4.95



20 0 20 40

SCALE: 1" = 20'

DRAFT
NOTE ISSUED FOR CONSTRUCTION

ISSUED FOR	BY / DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/25/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 1/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25

DRAWING NAME: POST REDEVELOPMENT MAP

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND, MAINE 04101
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/6/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

EX-3

NOTE:

1. REFER TO STORMWATER REPORT AND SHEET C-30 FOR MORE INFORMATION.

FLOW LINE

SUBCATCHMENT WITH TREATMENT EXTENTS



20 0 20 40

SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY / DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/25/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 1/11/23
SITE PLAN AMENDMENT	PFH 6/11/25

DRAWING NAME: POST WATERSHED MAP

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

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PO BOX 3372, PORTLAND MAINE 04101
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FILE:	1124_CIVIL
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DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
6/11/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

EX-1

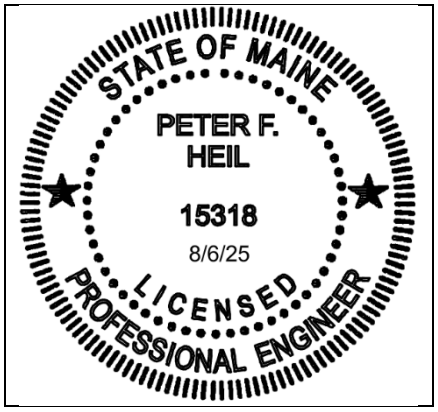
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

3 Lincoln, LLC
80 Exchange Street, Suite 400
Portland Maine 04101

Prepared By:

Acorn Engineering, Inc.
16 Middle Street, Suite 302
Portland, Maine 04101



August 2025

ACORN ENGINEERING, INC.

RESPONSIBLE PARTY

The owner, 3 Lincoln, LLC. and/or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall conduct an annual inspection and provide, on or by March 1st of each year, a copy of the inspection report and a completed and signed certification to the enforcement authority in a form approved by the City Engineer.

The following is an example of a qualified stormwater professional that the owner may contract through.

Organization: Acorn Engineering, Inc.
Peter F. Heil, PE, CPESC
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The inspection and maintenance criteria is based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual and City of Biddeford Code of Ordinances Chapter 34, Article VI Post-Construction Stormwater Discharge.

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules.

The applicant shall be responsible for retaining post construction and maintenance documents for at least 5 years. The Department of Environmental Protection's 5-year recertification will apply to

this permit.

OPERATION AND MAINTENANCE ACTIVITY

A storm size of 0.5-inch or greater rainfall in 24 hours is considered a storm event that triggers a post-construction inspection of the below BMP's.

Sweeping:

Annual sweeping of the driveways and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

Catch Basins/Field Inlets:

Catch basins shall be inspected to confirm that the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
- Appropriately dispose of all collected material.

Landscaped and Vegetated Areas:

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the contract documents.

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Sweeping	X			X
Catch Basins/Field Inlets	X			X
Landscaped/Vegetated Areas	X			X

OFF-SITE STORMWATER FACILITIES

The proposed stormwater infrastructure on site will be directed to a network of storm drains and tie into the existing stormwater treatment system located primarily on Lot 4. See attached subdivision

PLAT for more information regarding the applicant's sufficient property interest in the property where the off-site facility is located.

Stormwater Control BMP Inspection Log

CATCH BASINS & FIELD INLETS							
Location: There are catch basins and field inlets located in various locations through out the site.					**Latitude:** 43.496106		
					Longitude: -70.454292		
Description of Located Point:					**Inspector:**		
					Date of Inspection:		
					Weather Conditions:		
DOT Region:							
MATS Asset Number:	**WIN:**				**Design Drawings:**		

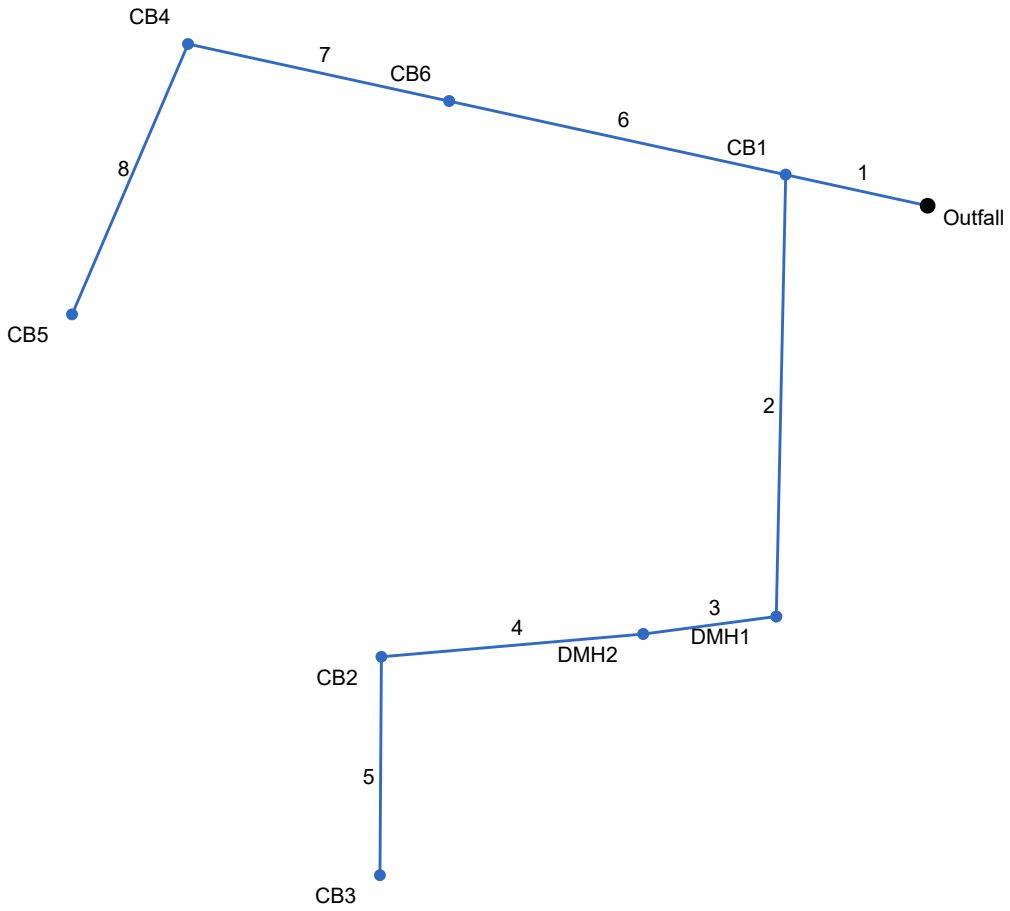
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Catch Basins							
Catch basin/Field inlet is working properly and is free of debris and sediment	☐	☑	☐	☑ Yes ☐ No ☐ N/A			
Basin outlet hood (if any) is working properly.	☐	☑	☐	☐ Yes ☐ No ☐ N/A			
Inter-basin storm drain is functioning properly and free of sediment and debris.	☐	☑	☐	☐ Yes ☐ No ☐ N/A			
Sediment sacks and hydrocarbon absorptive pads are working properly.	☐	☐	☑	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☐	☑	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☐	☑	☐				Photographs are attached.
Additional Comments:							

Stormwater Control BMP Inspection Log

VEGETATED AREAS:							
Location: Various areas within the site					**Latitude:**		43.496106
					Longitude:		-70.454292
Description of Located Point:					**Inspector:**		
					Date of Inspection:		
					Weather Conditions:		
DOT Region:							
MATS Asset Number:		**WIN:**			**Design Drawings:**		

Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Embankments							
Slopes and embankments are in good condition.	☑	☐	☑	☐ Yes ☐ No ☐ N/A			
Site is free of rill erosion	☑	☐	☑	☐ Yes ☐ No ☐ N/A			
General							
Site is free of locations with less than 90% vegetative cover	☑	☐	☑	☐ Yes ☐ No ☐ N/A			
Plantings are capable of withstanding concentrated flows	☑	☐	☑	☐ Yes ☐ No ☐ N/A			
Access to facility is adequate	☑	☐	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☑	☐	☐				Photographs are attached.
Additional Comments:							

Hydraflow Storm Sewers Plan



Project File: Hydraflow - Site Plan Submission.stm	Number of lines: 8	Date: 07-31-2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line shape	N value (n)	J-loss coeff (K)	Inlet/ Rim El (ft)	
1	End	62	-175	DrGrt	0.00	0.24	0.68	6.0	50.68	0.76	51.15	24	Cir	0.010	1.50	57.25	1
2	1	77	-92	MH	0.00	0.00	0.00	0.0	51.15	0.51	51.54	24	Cir	0.010	1.00	58.15	2
3	2	58	84	MH	0.00	0.31	0.75	6.0	51.64	0.50	51.93	24	Cir	0.010	0.15	57.05	3
4	3	114	1	DrGrt	0.00	0.60	0.75	6.0	52.03	0.59	52.70	18	Cir	0.010	1.50	56.50	4
5	4	38	-87	DrGrt	0.00	0.09	0.75	6.0	52.80	0.50	52.99	15	Cir	0.010	1.00	56.30	5
6	1	147	0	DrGrt	0.00	0.39	0.90	6.0	51.15	0.65	52.10	24	Cir	0.010	0.50	59.40	6
7	6	114	0	DrGrt	0.00	0.02	0.79	6.0	52.20	0.79	53.10	24	Cir	0.010	1.17	59.50	7
8	7	69	-48	DrGrt	0.00	0.21	0.77	6.0	54.15	0.51	54.50	24	Cir	0.010	1.00	59.70	8

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Date: 07-31-2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.	Junction Type
1	1	10.63	24	Cir	62	50.68	51.15	0.758	52.68	52.68	0.40	53.08	End	DropGrate
2	2	3.82	24	Cir	77	51.15	51.54	0.506	53.31	53.32	0.03	53.34	1	Manhole
3	3	3.82	24	Cir	58	51.64	51.93	0.500	53.34	53.34	0.01	53.35	2	Manhole
4	4	3.82	18	Cir	114	52.03	52.70	0.588	53.35	53.45	n/a	53.84 i	3	DropGrate
5	5	0.50	15	Cir	38	52.80	52.99	0.500	53.84	53.84	0.00	53.84	4	DropGrate
6	6	3.90	24	Cir	147	51.15	52.10	0.646	53.27	53.27	0.03	53.31	1	DropGrate
7	7	1.31	24	Cir	114	52.20	53.10	0.789	53.37	53.51	n/a	53.64 i	6	DropGrate
8	8	1.19	24	Cir	69	54.15	54.50	0.507	54.47	54.89	n/a	55.01 i	7	DropGrate

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Run Date: 07-31-2025

NOTES: Return period = 25 Yrs. ; i - Inlet control.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	62	0.24	1.86	0.68	0.16	1.44	6.0	6.0	7.4	10.63	25.60	3.75	24	0.76	50.68	51.15	52.68	52.68	57.18	57.25	1
2	1	77	0.00	1.00	0.00	0.00	0.75	0.0	6.0	7.4	3.82	20.93	1.25	24	0.51	51.15	51.54	53.31	53.32	57.25	58.15	2
3	2	58	0.31	1.00	0.75	0.23	0.75	6.0	6.0	7.4	3.82	20.79	1.48	24	0.50	51.64	51.93	53.34	53.34	58.15	57.05	3
4	3	114	0.60	0.69	0.75	0.45	0.52	6.0	6.0	7.4	3.82	10.47	3.34	18	0.59	52.03	52.70	53.35	53.45	57.05	56.50	4
5	4	38	0.09	0.09	0.75	0.07	0.07	6.0	6.0	7.4	0.50	5.94	0.51	15	0.50	52.80	52.99	53.84	53.84	56.50	56.30	5
6	1	147	0.39	0.62	0.90	0.35	0.53	6.0	6.0	7.4	3.90	23.64	1.64	24	0.65	51.15	52.10	53.27	53.27	57.25	59.40	6
7	6	114	0.02	0.23	0.79	0.02	0.18	6.0	6.0	7.4	1.31	26.13	1.78	24	0.79	52.20	53.10	53.37	53.51	59.40	59.50	7
8	7	69	0.21	0.21	0.77	0.16	0.16	6.0	6.0	7.4	1.19	20.94	3.20	24	0.51	54.15	54.50	54.47	54.89	59.50	59.70	8

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Run Date: 07-31-2025

NOTES: Intensity = 40.35 / (Inlet time + 3.90) ^ 0.74; Return period = 25 Yrs. ; Total flows limited to inlet captured flows. ; Pipe travel time suppressed. ; c = cir e = ellip b = box

MyReport

Line No.	Area Dn (sqft)	Area Up (sqft)	Energy Loss (ft)	Coeff C1 (C)	Coeff C2 (C)	Coeff C3 (C)	Capac Full (cfs)	Crit Depth (ft)	Cross Sl, Sw (ft/ft)	Cross Sl, Sx (ft/ft)	Curb Len (ft)	Defl Ang (Deg)	Depth Dn (ft)	Depth Up (ft)	DnStm Ln No	Drng Area (ac)	Easting X (ft)	EGL Dn (ft)	EGL Up (ft)	EGL Jnct (ft)	Energy Loss (ft)	
1	3.14	2.58	0.087	0.20	0.50	0.90	25.60	1.15	0.020	0.020	....	-175	2.00	1.53	Outfall	0.24	380.56	52.86	52.95	53.34	0.087	
2	3.14	2.95	0.012	0.20	0.50	0.90	20.93	0.69	....	....	....	-92	2.00	1.78	1	0.00	376.53	53.33	53.34	53.37	0.012	
3	2.85	2.37	0.011	0.20	0.50	0.90	20.79	0.69	....	....	....	84	1.70	1.41	2	0.31	318.61	53.37	53.38	53.39	0.011	
4	1.64	0.88	0.409	0.20	0.50	0.90	10.47	0.75	0.020	0.020	....	1	1.32	0.75**	3	0.60	204.68	53.43	53.74 i	53.84	0.409	
5	1.09	0.89	0.002	0.20	0.50	0.90	5.94	0.28	0.020	0.020	....	-87	1.04	0.85	4	0.09	204.01	53.84	53.84	53.85	0.002	
6	3.14	1.92	0.044	0.20	0.50	0.90	23.64	0.70	0.020	0.020	....	0	2.00	1.17	1	0.39	234.12	53.29	53.34	53.37	0.044	
7	1.90	0.46	0.262	0.20	0.50	0.90	26.13	0.41	0.020	0.020	....	0	1.17	0.41**	6	0.02	120.55	53.37	53.63 i	53.64	0.262	
8	0.33	0.43	0.333	0.20	0.50	0.90	20.94	0.39	0.020	0.020	....	-48	0.32	0.39**	7	0.21	70.09	54.68	55.01 i	55.01	0.333	

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Date: 07-31-2025

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

MyReport

Flow Rate (cfs)	Sf Ave (%)	Sf Dn (%)	Grate Area (sqft)	Grate Len (ft)	Grate Width (ft)	Gnd/Rim El Dn (ft)	Gnd/Rim El Up (ft)	Gutter Depth (ft)	Gutter Slope (ft/ft)	Gutter Spread (ft)	Gutter Width (ft)	HGL Dn (ft)	HGL Up (ft)	HGL Jnct (ft)	HGL Jmp Dn (ft)	Hw (ft)	HGL Jmp Up (ft)	Incr CxA	Incr Q (cfs)	Inlet Depth (ft)	Inlet Eff (%)	
10.63	0.140	0.131	4.00	2.00	2.00	57.18	57.25	0.25	Sag	26.52	2.00	52.68	52.68	53.08	....	1.93	....	0.16	1.20	0.25	100	
3.82	0.016	0.017	....	....	....	57.25	58.15	....	....	....	....	53.31	53.32	53.34	....	1.80	....	0.00	0.00	....	....	
3.82	0.020	0.016	....	....	....	58.15	57.05	....	....	....	....	53.34	53.34	53.35	....	1.42	....	0.23	1.71	....	....	
3.82	n/a	n/a	4.00	2.00	2.00	57.05	56.50	0.27	Sag	28.72	2.00	53.35	53.45 j	53.84 i	53.30	1.14	53.09	0.45	3.32	0.27	100	
0.50	0.004	0.003	2.00	2.00	2.00	56.50	56.30	0.08	Sag	9.54	2.00	53.84	53.84	53.84	....	0.85	....	0.07	0.50	0.08	100	
3.90	0.030	0.018	4.00	2.00	2.00	57.25	59.40	0.23	Sag	24.64	2.00	53.27	53.27	53.31	....	1.21	....	0.35	2.59	0.23	100	
1.31	n/a	n/a	4.00	2.00	2.00	59.40	59.50	0.03	Sag	4.86	2.00	53.37	53.51 j	53.64 i	53.33	0.54	53.16	0.02	0.12	0.03	100	
1.19	n/a	n/a	4.00	2.00	2.00	59.50	59.70	0.13	Sag	15.50	2.00	54.47	54.89	55.01 i	....	0.51	....	0.16	1.19	0.13	100	

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Date: 07-31-2025

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

MyReport

Inlet ID	Inlet Loc	Inlet Spread (ft)	Inlet Time (min)	i Sys (in/hr)	i Inlet (in/hr)	Invert Dn (ft)	Invert Up (ft)	Jump Loc (ft)	Jump Len (ft)	Vel Hd Jmp Dn (ft)	Vel Hd Jmp Up (ft)	J-Loss Coeff	Junct Type	Known Q (cfs)	Cost RCP ($)	Cost CMP ($)	Cost PVC ($)	
CB1	Sag	26.52	6.0	7.37	7.37	50.68	51.15	....	....	0.00	0.00	1.50	Dp-Grate	0.00	3,354	3,019	2,851	
DMH1	Sag	....	0.0	7.37	0.00	51.15	51.54	....	....	0.00	0.00	1.00	MH	0.00	4,134	3,721	3,514	
DMH2	Sag	....	6.0	7.37	7.37	51.64	51.93	....	....	0.00	0.00	0.15	MH	0.00	2,840	2,556	2,414	
CB2	Sag	28.72	6.0	7.37	7.37	52.03	52.70	68.40	4.36	0.20	0.44	1.50	Dp-Grate	0.00	4,508	4,057	3,832	
CB3	Sag	9.54	6.0	7.37	7.37	52.80	52.99	....	....	0.00	0.00	1.00	Dp-Grate	0.00	1,240	1,116	1,054	
CB6	Sag	24.64	6.0	7.37	7.37	51.15	52.10	....	....	0.00	0.00	0.50	Dp-Grate	0.00	7,774	6,997	6,608	
CB4	Sag	4.86	6.0	7.37	7.37	52.20	53.10	79.80	2.49	0.07	0.29	1.17	Dp-Grate	0.00	6,058	5,452	5,149	
CB5	Sag	15.50	6.0	7.37	7.37	54.15	54.50	....	....	0.00	0.00	1.00	Dp-Grate	0.00	3,156	2,840	2,683	

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Date: 07-31-2025

NOTES: Intensity = 40.35 / (Inlet time + 3.90) ^ 0.74 -- Return period = 25 Yrs. ; i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

MyReport

Line ID	Line Length (ft)	Line Size (in)	Line Slope (%)	Line Type	Local Depr (in)	n-val Gutter	n-val Pipe	Minor Loss (ft)	Northing Y (ft)	Pipe Travel (min)	Q Byp (cfs)	Q Capt (cfs)	Q Carry (cfs)	Line Rise (in)	Runoff Coeff (C)	Line Span (in)	Area A1 (ac)	Area A2 (ac)	Area A3 (ac)	Tc (min)
1	62	24	0.76	Cir	....	....	0.010	0.40	178.18	0.00	0.00	2.92	1.71	24	0.68	24	0.00	0.00	0.00	6.0
2	77	24	0.51	Cir	....	....	0.010	0.03	101.29	0.00	....	....	....	24	0.00	24	0.00	0.00	0.00	6.0
3	58	24	0.50	Cir	....	....	0.010	0.01	98.25	0.00	....	....	....	24	0.75	24	0.00	0.00	0.00	6.0
4	114	18	0.59	Cir	....	....	0.010	n/a	94.27	0.00	0.00	3.32	0.00	18	0.75	18	0.00	0.00	0.00	6.0
5	38	15	0.50	Cir	....	....	0.010	0.00	56.28	0.00	0.00	0.50	0.00	15	0.75	15	0.00	0.00	0.00	6.0
6	147	24	0.65	Cir	....	....	0.010	0.03	190.99	0.00	0.00	2.59	0.00	24	0.90	24	0.00	0.00	0.00	6.0
7	114	24	0.79	Cir	....	....	0.010	n/a	200.93	0.00	0.00	0.12	0.00	24	0.79	24	0.00	0.00	0.00	6.0
8	69	24	0.51	Cir	....	....	0.010	n/a	153.87	0.00	0.00	1.19	0.00	24	0.77	24	0.00	0.00	0.00	6.0

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Date: 07-31-2025

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

MyReport

Throat Ht (in)	Total Area (ac)	Total CxA	Total Runoff (cfs)	Vel Ave (ft/s)	Vel Dn (ft/s)	Vel Hd Dn (ft)	Vel Hd Up (ft)	Vel Up (ft/s)	Cover Dn (ft)	Cover Up (ft)	Storage (cft)
....	1.86	1.44	10.63	3.75	3.38	0.18	0.26	4.12	4.50	4.10	180.46
....	1.00	0.75	5.53	1.25	1.21	0.02	0.03	1.29	4.10	4.61	238.77
....	1.00	0.75	5.53	1.48	1.34	0.03	0.04	1.61	4.51	3.12	151.74
....	0.69	0.52	3.82	3.34	2.32	0.08	0.29	4.35	3.52	2.30	146.23
....	0.09	0.07	0.50	0.51	0.46	0.00	0.00	0.56	2.45	2.06	37.68
....	0.62	0.53	3.90	1.64	1.24	0.02	0.06	2.03	4.10	5.30	394.98
....	0.23	0.18	1.31	1.78	0.69	0.01	0.13	2.87	5.20	4.40	131.96
....	0.21	0.16	1.19	3.20	3.61	0.20	0.12	2.80	3.35	3.20	26.06

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Date: 07-31-2025

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1	24	10.63	50.68	52.68	2.00	3.14	3.38	0.18	52.86	0.131	62	51.15	52.68	1.53	2.58	4.12	0.26	52.95	0.150	0.140	0.087	1.50	0.40
2	24	3.82	51.15	53.31	2.00	3.14	1.21	0.02	53.33	0.017	77	51.54	53.32	1.78	2.95	1.29	0.03	53.34	0.015	0.016	0.012	1.00	0.03
3	24	3.82	51.64	53.34	1.70	2.85	1.34	0.03	53.37	0.016	58	51.93	53.34	1.41	2.37	1.61	0.04	53.38	0.024	0.020	0.011	0.15	0.01
4	18	3.82	52.03	53.35	1.32	1.64	2.32	0.08	53.43	n/a	114	52.70	53.45 j	0.75**	0.88	4.35	0.29	53.74i	n/a	n/a	n/a	1.50	n/a
5	15	0.50	52.80	53.84	1.04	1.09	0.46	0.00	53.84	0.003	38	52.99	53.84	0.85	0.89	0.56	0.00	53.84	0.005	0.004	0.002	1.00	0.00
6	24	3.90	51.15	53.27	2.00	3.14	1.24	0.02	53.29	0.018	147	52.10	53.27	1.17	1.92	2.03	0.06	53.34	0.042	0.030	0.044	0.50	0.03
7	24	1.31	52.20	53.37	1.17	1.90	0.69	0.01	53.37	n/a	114	53.10	53.51 j	0.41**	0.46	2.87	0.13	53.63i	n/a	n/a	n/a	1.17	n/a
8	24	1.19	54.15	54.47	0.32*	0.33	3.61	0.20	54.68	n/a	69	54.50	54.89	0.39**	0.43	2.80	0.12	55.01i	n/a	n/a	n/a	1.00	n/a

Project File: Hydraflow - Site Plan Submission.stm | Number of lines: 8 | Run Date: 07-31-2025

Notes: * Normal depth assumed.; ** Critical depth.; j-Line contains hyd. jump. ; c = cir e = ellip b = box

Hydraflow HGL Computation Procedure

General Procedure: Hydraflow computes the HGL using the Bernoulli energy equation. Manning's equation is used to determine energy losses due to pipe friction. In a standard step, iterative procedure, Hydraflow assumes upstream HGLs until the energy equation balances. If the energy equation cannot balance, supercritical flow exists and critical depth is temporarily assumed at the upstream end. A supercritical flow Profile is then computed using the same procedure in a downstream direction using momentum principles. The computed HGL is checked against inlet control.

Col. 1 The line number being computed. Calculations begin at Line 1 and proceed upstream.

Col. 2 The line size. In the case of non-circular pipes, the line rise is printed above the span.

Col. 3 Total flow rate in the line.

Col. 4 The elevation of the downstream invert.

Col. 5 Elevation of the hydraulic grade line at the downstream end. This is computed as the upstream HGL + Minor loss of this line's downstream line.

Col. 6 The downstream depth of flow inside the pipe (HGL - Invert elevation) but not greater than the line size.

Col. 7 Cross-sectional area of the flow at the downstream end.

Col. 8 The velocity of the flow at the downstream end, (Col. 3 / Col. 7).

Col. 9 Velocity head (Velocity squared / 2g).

Col. 10 The elevation of the energy grade line at the downstream end, HGL + Velocity head, (Col. 5 + Col. 9).

Col. 11 The friction slope at the downstream end (the S or Slope term in Manning's equation).

Col. 12 The line length.

Col. 13 The elevation of the upstream invert.

Col. 14 Elevation of the hydraulic grade line at the upstream end.

Col. 15 The upstream depth of flow inside the pipe (HGL - Invert elevation) but not greater than the line size.

Col. 16 Cross-sectional area of the flow at the upstream end.

Col. 17 The velocity of the flow at the upstream end, (Col. 3 / Col. 16).

Col. 18 Velocity head (Velocity squared / 2g).

Col. 19 The elevation of the energy grade line at the upstream end, HGL + Velocity head, (Col. 14 + Col. 18) .

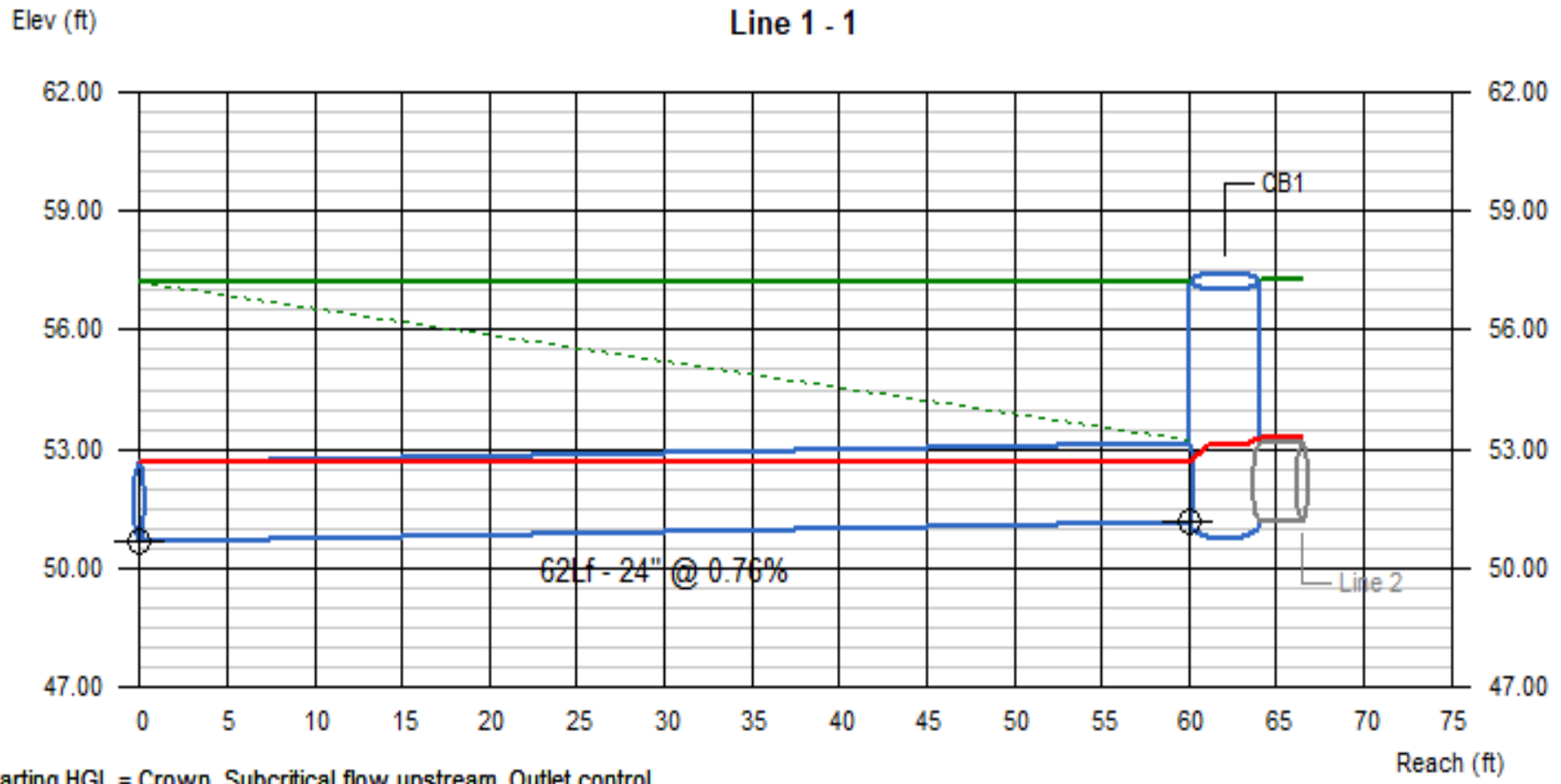
Col. 20 The friction slope at the upstream end (the S or Slope term in Manning's equation).

Col. 21 The average of the downstream and upstream friction slopes.

Col. 22 Energy loss. Average Sf/100 x Line Length (Col. 21/100 x Col. 12). Equals (EGL upstream - EGL downstream) +/- tolerance.

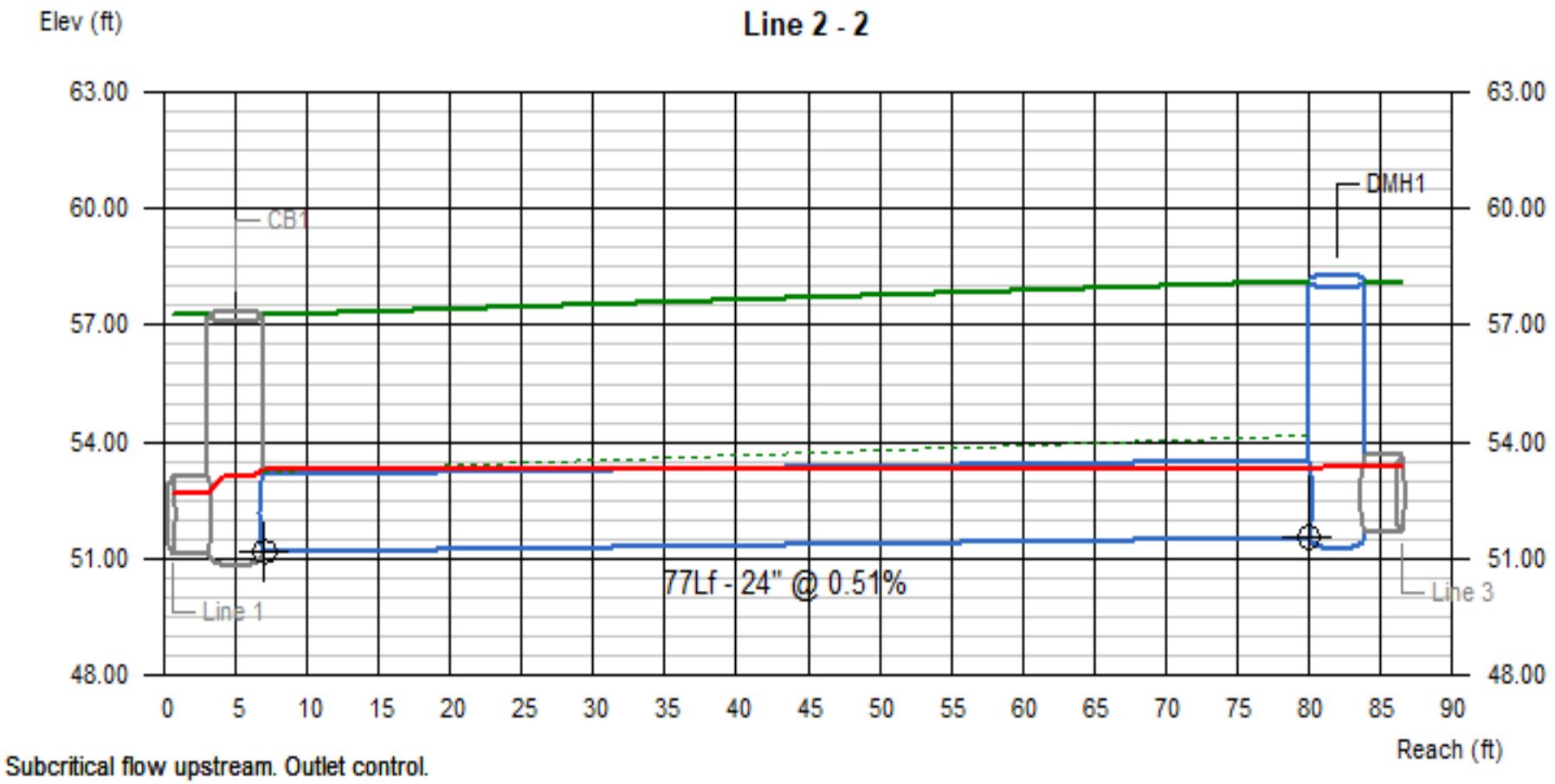
Col. 23 The junction loss coefficient (K).

Col. 24 Minor loss. (Col. 23 x Col. 18). Is added to upstream HGL and used as the starting HGL for the next upstream line(s).

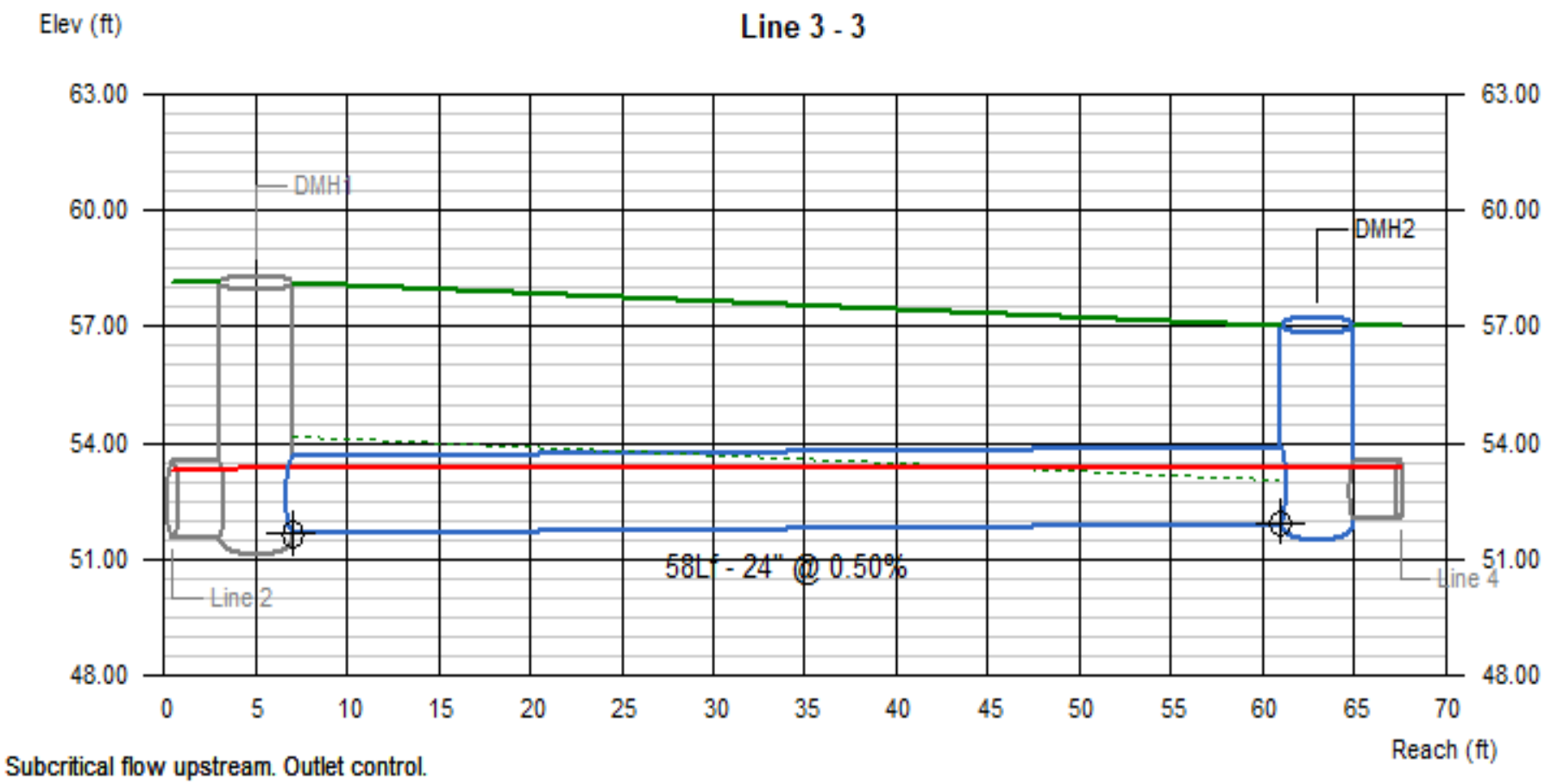


Starting HGL = Crown. Subcritical flow upstream. Outlet control.

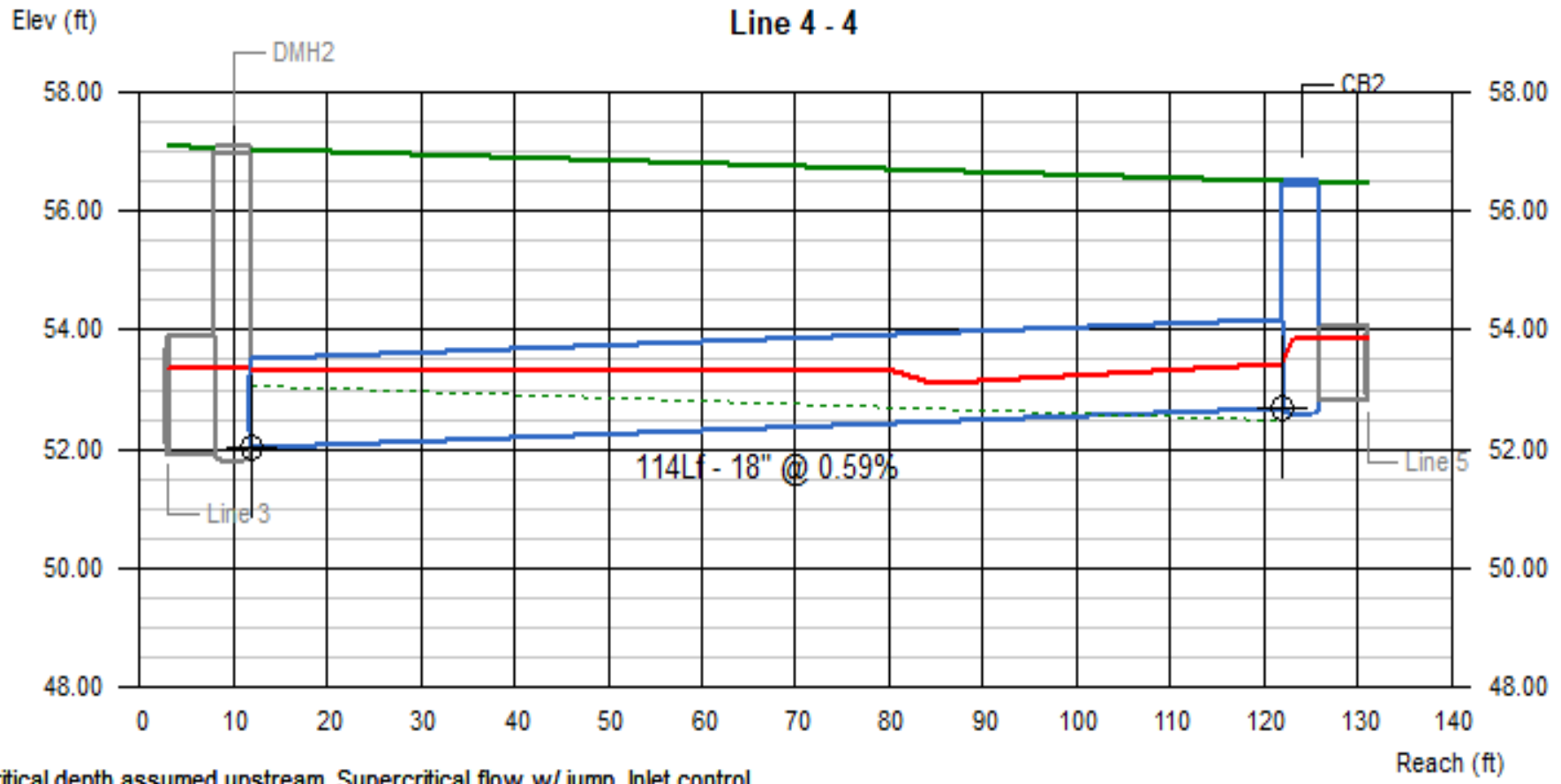
Design Storm Input = 25 year Storm



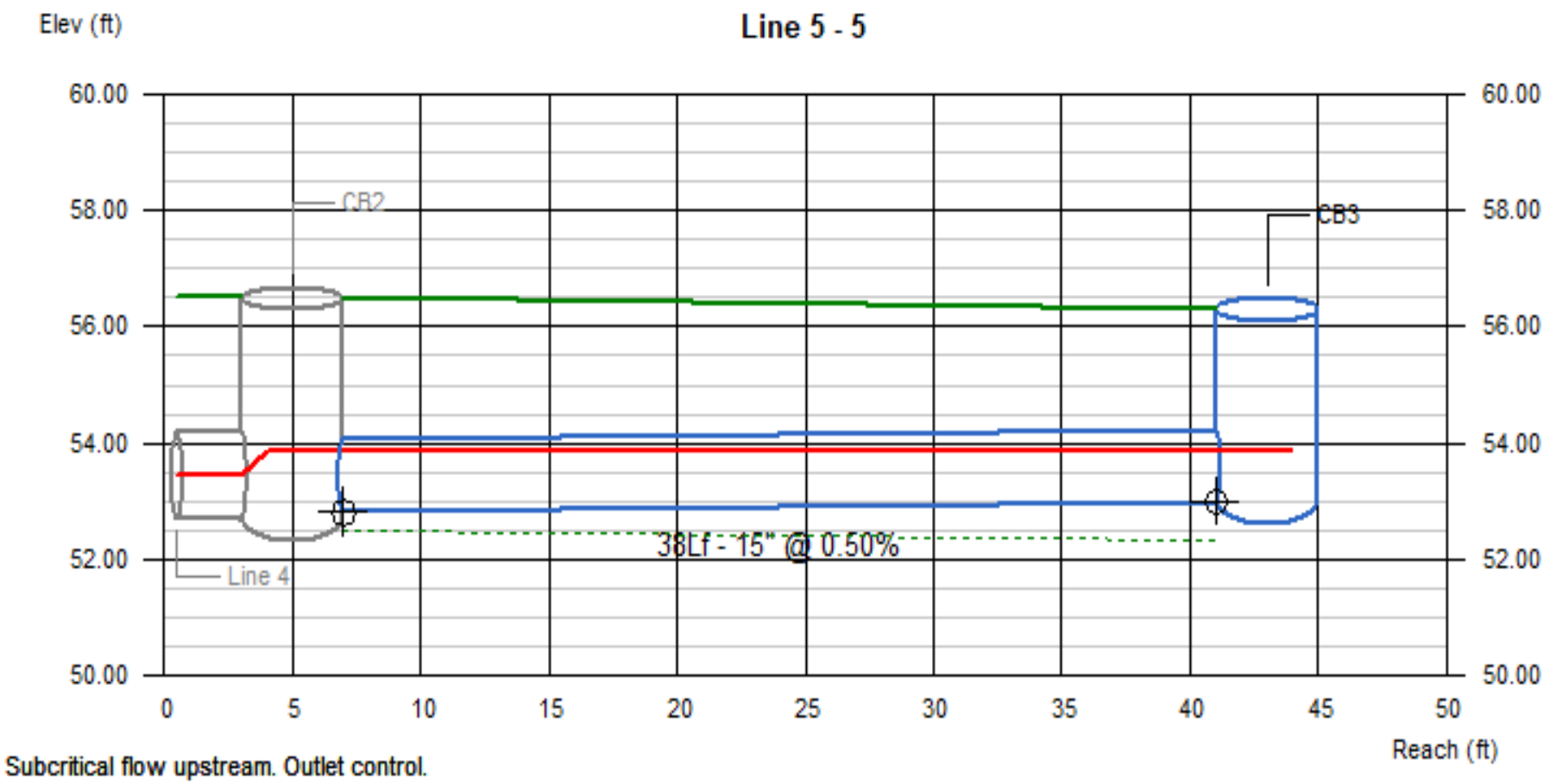
Subcritical flow upstream. Outlet control.



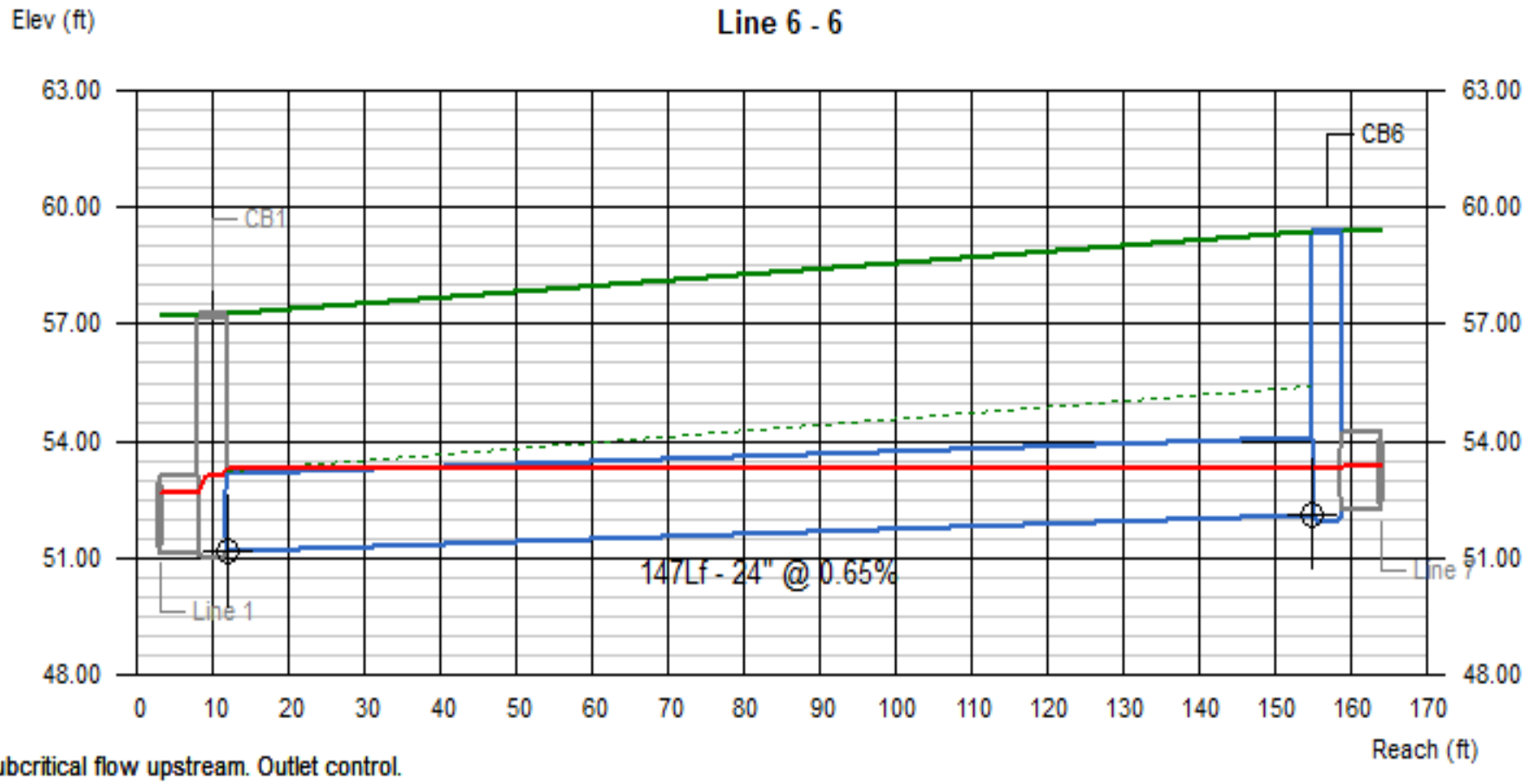
Subcritical flow upstream. Outlet control.



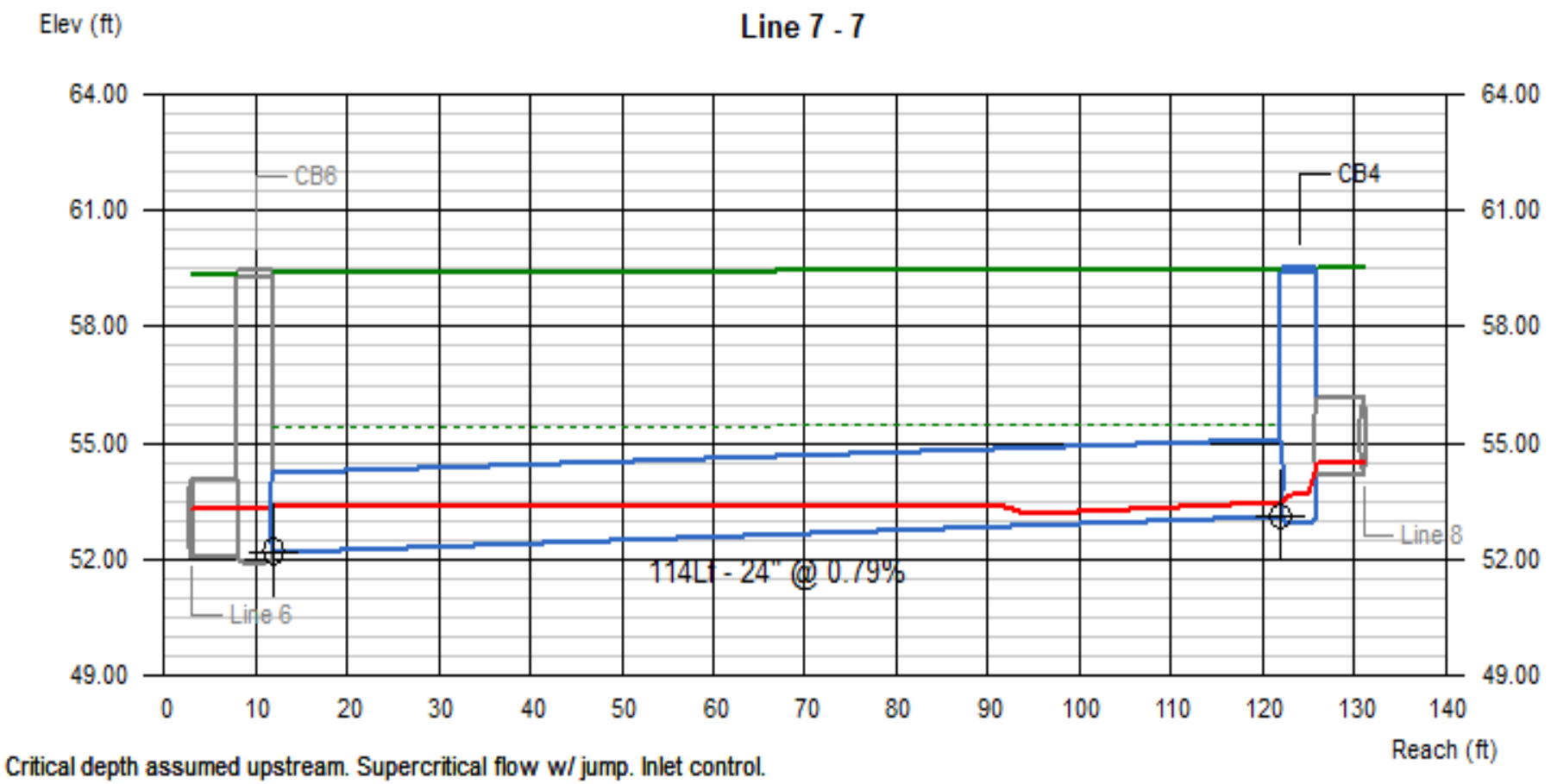
Critical depth assumed upstream. Supercritical flow w/ jump. Inlet control.



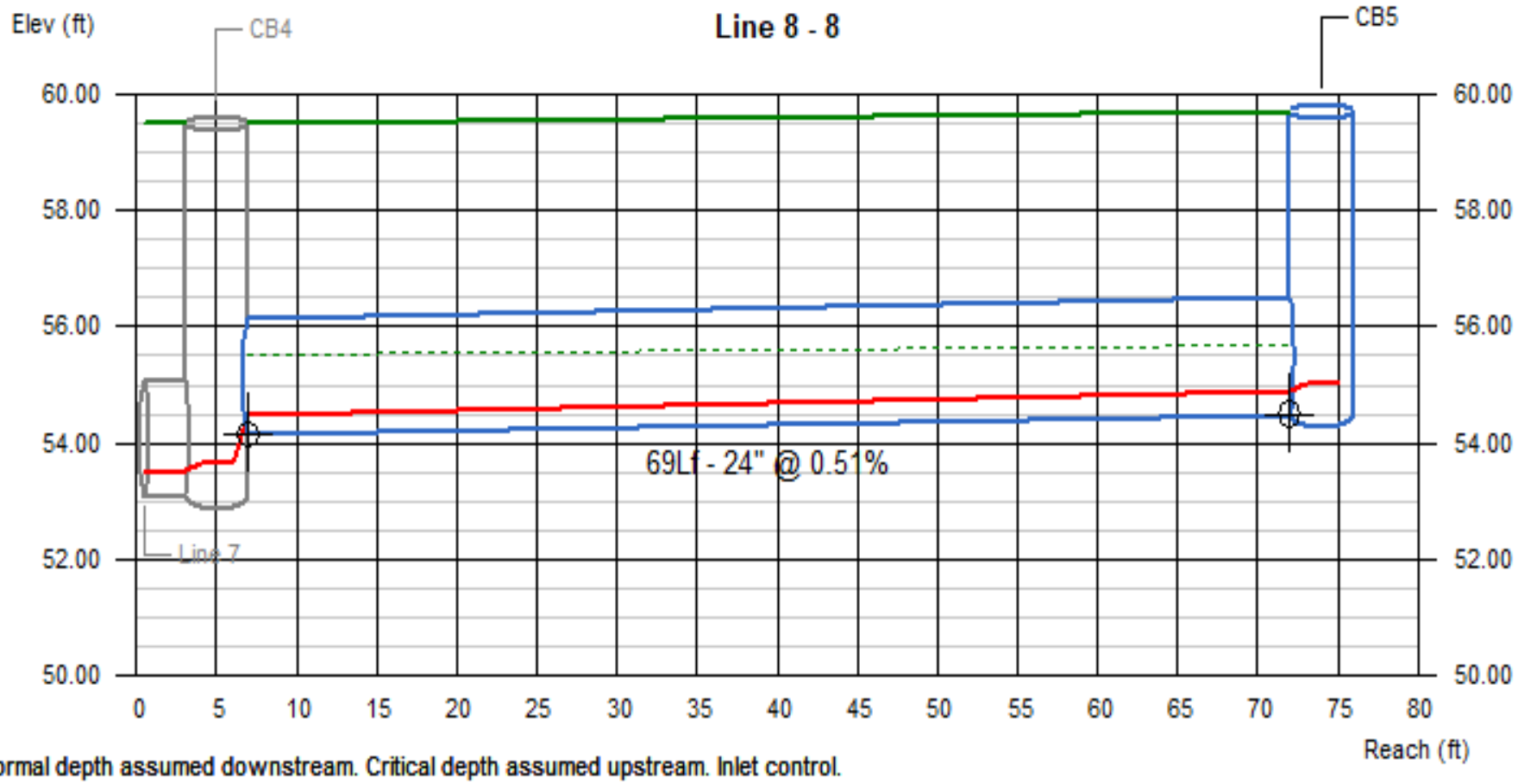
Subcritical flow upstream. Outlet control.



Subcritical flow upstream. Outlet control.



Critical depth assumed upstream. Supercritical flow w/ jump. Inlet control.



Normal depth assumed downstream. Critical depth assumed upstream. Inlet control.

Section 13

Urban Impaired Stream Submissions

Section 13. Urban Impaired Stream Submissions

The proposed project is not located within an urban impaired stream watershed.

ACORN ENGINEERING, INC.

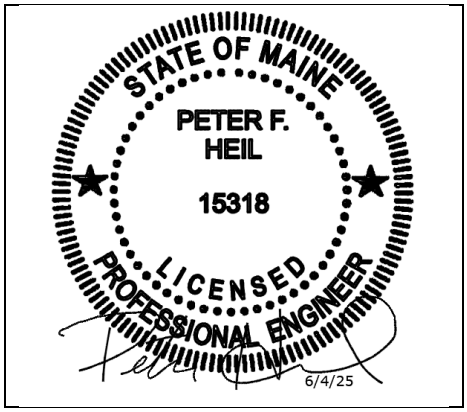
Basic Standard Submission (Erosion & Sedimentation Control Report)

Prepared For:

3 Lincoln, LLC
80 Exchange Street, Suite 400
Portland Maine 04101

Prepared By:

Acorn Engineering, Inc.
16 Middle Street, Suite 302
Portland, Maine 04101



June 2025

INTRODUCTION

Acorn Engineering, Inc. has been retained by 3 Lincoln, LLC to provide civil engineering services for the proposed development of 3 Lincoln Street (Pearl Street Lot 3). This project proposes to amend the previous Major Site Plan and Subdivision approval (2022.02) programming from three (3) total buildings on Lot 3 to four (4) total buildings. The amendment includes the addition of five (5) townhomes and revises the original programming of building A from 85 residential units to 52 units, building B from 129 residential units to 85 units, and building C will remain as a restaurant with 154 total seats (previously 298 seats).

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Biddeford Land Development Regulations, Article VI: Performance Standards, Section 26: Erosion Control and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed site address is 15 Pearl Street, Lot 3 and it only has frontage on Pearl Street. A section of the site is location within the 250' shoreland overlay zone due to the proximity from the Saco River. An Existing Conditions Survey has been prepared by Owen Haskell Inc. dated February 28, 2025.

Abutting Uses:

- North MSRD3 — Amtrack/Mixed-Use Residential/Commercial
- East MSRD3 — Saco River
- South MSRD3 — Mixed use Residential/Commercial
- West MSRD3 — Parking Garage

The site is currently vacant and has recently been stabilized with grass coverage associated with the recent City parking garage project. Additionally, contaminated soils and foundation remnants remain on site, which the applicant understands the City will be removing from the site prior to the end of the year. The existing grades on site are relatively flat ranging from 0 to 5 percent west to east toward the Saco River.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County
- Geotechnical Report prepared by Summit Geoengineering

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 1 - "K" Value		
Soils Type	**Subsurface**	**Substratum**
Urban Land (Ur)	0.27	0.27

The soil "K" values for the soils, listed above, show a low to moderate susceptibility to erosion. The site's susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil "K" values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the proximity of the site to the Saco River.

1.2 Existing Erosion Problems

There are no signs of existing erosion.

1.3 Critical Areas

There are no known critical areas on site.

1.4 Protected Natural Resource

The site is located near the Saco River, which is a Protected Natural Resource, and located within the 250' shoreland zone setback. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

As part of the recently constructed municipal parking garage, the overall 3 Lincoln Street parcel has recently been redeveloped, with removals associated from the old MERC facility, utility installation within the adjacent Pearl Street and site stabilization from the garage project.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.

2.1.2 Erosion control berm mix with hay bale reinforcement shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket BioNet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

2.1.5 Pearl Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.

2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes

and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.

2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.

2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached ½ the design height.

2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.

2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.

2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.

2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.

2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

2.2.2 All stormwater devices shall be installed, and tributary areas stabilized prior to receiving stormwater.

2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November

1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.

- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil 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.

- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. 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.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. 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 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.

- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. 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 shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a "storm event". A "storm event" shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Peter F. Heil, PE, CPESC
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified in Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above-described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter erosion control berm with hay bale reinforcement
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence earthwork operations, associated with the roadway construction.
5. Commence installation of any utility work.
6. Continue earthwork and grading to subgrade as necessary for construction.
7. Complete installation of utilities.
8. Complete remaining earthwork operations.
9. Install sub-base and base gravels in paved areas.
10. Install paving, curbing and brickwork.
11. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
12. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
13. Touch up areas without a vigorous catch of grass with loam and seed.
14. Complete site signage and striping.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Housekeeping Plan

TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.

PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.

HOUSEKEEPING PLAN

The following housekeeping plan has is developed in accordance with Maine DEP Chapter 500 Stormwater Management standards. For additional information, reference Appendix C of Chapter 500.

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at : http://www.maine.gov/dep/spills/emergspillresp/

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. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

   See Chapter 500 Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

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 may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation 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 and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, 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.

NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. **Authorized 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:

(a) Discharges from firefighting activity;

(b) Fire hydrant flushings;

(c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);

(d) Dust control runoff in accordance with permit conditions and Section 3, above;

(e) Routine external building washdown, not including surface paint removal, that does not involve detergents;

(f) 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;

(g) Uncontaminated air conditioning or compressor condensate;

(h) Uncontaminated groundwater or spring water;

(i) Foundation or footer drain-water where flows are not contaminated;

(j) Uncontaminated excavation dewatering (see requirements in Section 5, above);

(k) Potable water sources including waterline flushings; and

(l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under Chapter 500 does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Section 6, above. Specifically, the Department's approval does not authorize discharges of the following:

(a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

(d) Toxic or hazardous substances from a spill or other release.

(8) Additional requirements. Additional requirements may be applied on a site-specific basis.

Section 15

Groundwater

Section 15. Groundwater

A. Narrative and Report

Location

See this Section 11 Soils for a copy of a Bedrock and Surficial Geology map with the project location depicted.

Quantity

There will be no groundwater use or subsurface wastewater disposal. Potable water will be provided by Maine Water Company and sanitary sewer will discharge into the municipal system.

Sources

The project will generate normal residential and commercial quantities of wastewater, solid waste, fuel and solvents. As the project will be serviced by municipal sewer, none of these items will be discharged into the groundwater.

Measures to Prevent Degradation

The impervious areas associated with the project are directed to catch basins or stormwater treatment systems and will ultimately outlet to the Saco River. Groundwater is not anticipated to be adversely affected as a result of the proposed project.

B. Groundwater Protection Plan

There are no development plans to store or use petroleum products, pesticides, herbicides, solvents, acids or other materials with the potential to contaminate groundwater.

C. Monitoring Plan

Not applicable

D. Monitoring Well Installation Report

Not applicable

Section 16

Water Supply

Section 16. Water Supply

A. Water Supply Method

This project proposes to extend the 8" D.I. water main within the lot and provide 6" D.I. fire protection water services with a 6" gate valves and 4" domestic D.I. water services with 4" gate valves for buildings A, B and C. Building D will have a single 6" D.I. fire protection water service with a 6" gate valve. Each townhome within building D will be individually served by a 2" domestic water service with 2" curb stops. Please see the attached Utility Plan for more information.

B. Subsurface Wastewater Disposal

Not applicable. The development will be serviced by a 2" force main sewer within Pearl Street.

C. Total Usage

This project anticipates an estimated water supply of 23,230 gpd.

Based upon the Section 4 of the Maine Subsurface Water Disposal Rules, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Vacant Lot	N/A	N/A	N/A	0
Total Gallons per Day (Existing)				**0**
Proposed Flow				
Building A				
Residential Units	1-Bedroom	19	120	2,280
Residential Units	1-Bedroom + den	23	120	2,760
Residential Units	2-Bedroom	10	180	1,800
Total Gallons per Day (Proposed)				6,840
Building B				
Residential Units	Studio	4	120	480
Residential Units	1-Bedroom	26	120	3,120
Residential Units	1-Bedroom + den	29	120	3,480
Residential Units	2-Bedroom	26	180	4,680
Total Gallons per Day (Proposed)				11,760
Building C				
Restaurant	10 Employees	154 Seats	20gpd per seat + 12gpd per employee	3,280
Total Gallons per Day (Proposed)				3,280
Building D				
Townhomes	3-Bedroom	5	270	1,350
Total Gallons per Day (Proposed)				1,350
Total Gallons per Day (Proposed)				**23,230**
Net Change				**23,230**

October 12th, 2021

Acorn Engineering, Inc
Zachary Stevens, EI
PO Box 3372
Portland, ME 04104

Re: Ability to Serve Determination – Pearl Street – Lot 3 Redevelopment - Biddeford

Greetings,

The Maine Water Company (MWC) has received your request for an Ability to Serve Determination on behalf of your client, 3 Lincoln LLC, for the above referenced project. The request indicates a plan to redevelop Lot 3 of Pearl Street into 3 separate lots for residential high density / mixed use. The anticipated domestic demand has been presented as 33,650 gallons per day at full build out based on Maine subsurface wastewater disposal rules. Sprinkler demand information is not yet available. Based on the criteria that has been presented, MWC does have sufficient capacity in the 12-inch ductile iron main on Pearl Street to serve the needs of this project. The static pressure in the area is approximately **60psi**. Additional infrastructure improvements may be required at the expense of the developer to meet the overall needs of this project.

Conditions of Service

- Configuration of domestic and fire services will require additional review.
- Additional plan approval, paperwork and fees associated with services for this project will require further coordination with MWC. Please allow 2-4 weeks before construction begins on waterworks materials to finalize all paperwork and fees.
- A hydrant flow test will be required to be conducted at the expense of the developer and analyzed by the sprinkler designer to ensure adequate flows in the event of a fire.
- Existing services to the parcel may be required to be retired.
- MWC may require a public main extension to serve the 3 lots of this development. In the case of a public main extension – only one water main would enter the development and all other fire and domestic services would be served from the main entering the development. Further review is required for this determination.

Should a Customer Agreement for service not be executed within one year of the date of this letter, MWC reserves the right to reevaluate its ability to serve this project.

All work must be completed in accordance with Maine Water Company material and installation specifications. All appropriate paperwork must be completed and the deposit paid prior to the start of construction. Please forward all design plan revisions as the project develops to prevent construction delays.

Water service will be provided in accordance with our standard terms and conditions as well as Maine Public Utilities Commission rules. If you have any additional questions, please do not hesitate to contact our office at 1-800-287-1643 or by email at Marcus.Knipp@mainewater.com. We look forward to working with you throughout design and construction.

Sincerely,
The Maine Water Company

Marcus Knipp, E.I.T.
Engineer

The Maine Water Company
93 Industrial Park Road
Saco, ME 04072
T: 207.282.1543
www.mainewater.com

Section 17

Wastewater Disposal

Section 17. Wastewater Disposal

A. On-Site Subsurface Wastewater Disposal System

The project will not be serviced by individual on-site subsurface sewage disposal systems. However, pump stations will be included in the design to route sewage to the existing municipal sewer system within Pearl Street.

B. Nitrate-Nitrogen Impact Assessment

Not applicable.

C. Municipal Facility or Utility Company Letter

An Ability to Serve Letter from the City's Engineering Department is attached, it should be noted that the anticipated daily flows for this amendment application are lower than the original approval. The proposed project includes multiple pump stations to be installed to convey sewage to the existing force main within Pearl Street. See the Civil Plan Set for additional information.

Design flows are provided attached based on Section 4 of the Maine Subsurface Water Disposal Rules. Additionally, pump station sizing received from Pump Systems Inc can be found attached. All four buildings on Lot 3 are proposed to be services by centrifugal pumps as requested by the Town Engineer.

D. Wastewater discharge information

Not applicable.

E. Storage or Treatment Lagoons

Not applicable.

Based upon the Section 4 of the Maine Subsurface Water Disposal Rules, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Vacant Lot	N/A	N/A	N/A	0
Total Gallons per Day (Existing)				**0**
Proposed Flow				
Building A				
Residential Units	1-Bedroom	19	120	2,280
Residential Units	1-Bedroom + den	23	120	2,760
Residential Units	2-Bedroom	10	180	1,800
Total Gallons per Day (Proposed)				6,840
Building B				
Residential Units	Studio	4	120	480
Residential Units	1-Bedroom	26	120	3,120
Residential Units	1-Bedroom + den	29	120	3,480
Residential Units	2-Bedroom	26	180	4,680
Total Gallons per Day (Proposed)				11,760
Building C				
Restaurant	10 Employees	154 Seats	20gpd per seat + 12gpd per employee	3,280
Total Gallons per Day (Proposed)				3,280
Building D				
Townhomes	3-Bedroom	5	270	1,350
Total Gallons per Day (Proposed)				1,350
Total Gallons per Day (Proposed)				**23,230**
Net Change				**23,230**

City of Biddeford, Maine

City of Biddeford
Public Works Department / Engineering Division/Wastewater Administration Division
P.O. Box 586, 205 Main Street, Suite 301
Biddeford, ME 04005
Phone: (207) 284-9118, Fax: (207) 571-0662

Letter of Wastewater Treatment Plant Capacity to Serve
Mixed Use Development, Residential flow only
3 Pearl Street

Peter Heil
Acorn Engineering, Inc.
P O Box 3372
Portland, Me 04104

December 29, 2022

Brief description of project: **Proposed Mixed Use Development Project on 3 Pearl Street Biddeford, Maine-** Estimated new flows: **29,610 gpd**.

Determination

The applicant is proposing a mixed use development on 3 Pearl Street. Based on an email received from Acorn Engineers, Inc., dated November 21, 2022, it is currently projected that the proposed mixed use development will discharge 29,610 gallons per day of flow from the residential portion of the project into the system. Commercial flows will be calculated at the time the application is submitted.

The City of Biddeford Wastewater Department has reviewed the request to serve the above described project. It has been determined that at this time, once the flow reaches the wastewater treatment facility, the City has sufficient capacity to treat the estimated flows from the above described project. Changes to the project from that presented to this department may require a new review of the request for ability to serve. This determination will be effective for a period of one year from the date above.

Upon approval of the Planning Board, the applicant must make application for sewer service. Flow amounts for the project will be determined at the time application is made and may or may not be the amount stated above. The applicant will be required to pay all fees based on the flow amount calculated at the time application is made and prior to the issuance of any building permits and/or the issuance of a certificate of occupancy. Any roof drains connected into the sewer system shall be removed.

The City of Biddeford is an equal opportunity provider. To file a complaint, write to Human Resource Director, 205 Main Street Biddeford, ME 04005, or call (207) 286-0593.

This Capacity to Serve Letter is intended only to indicate that the City of Biddeford Wastewater Treatment Facilities has the ability to handle and treat the flow from the above stated project once it is received at the treatment facility. Project design plans must be submitted to the City for review and comment. The Planning Department, Engineering Department or other persons from the Wastewater Department may require further studies, calculations or documentation to determine any actions that may need to be taken to address any impacts/capacity issues and/or any system upgrades that may be needed to address any impacts this project may have on the City's sewer collection and conveyance system(s) or its components.

Thomas Milligan, PE
City Engineer Emeritus
City of Biddeford Engineering Department
Tom.milligan@biddefordmaine.org
207-284-9118

CC: Jeff Demers, Public Works/Wastewater Director
Roby Fecteau, Code Enforcement
David Galbraith, City Planner
Alex Buechner, Wastewater Superintendent
Craig Chekan, City Engineer

Biddeford

Controls to suit Pearl Street A/B

PART 1

1.01 SECTION General

2.12 ELECTRICAL CONTROL COMPONENTS

A. The pump station control panel shall be tested as an integral unit by the pump station manufacturer.

B. The electrical control equipment shall be mounted within a NEMA 4X, TYPE 1 stainless steel enclosure with 3-point latch. The enclosure door shall be hinged and sealed with a neoprene gasket. It shall include a removable plated steel back panel on which control components shall be mounted. Back panel shall be secured to enclosure with collar studs. Operator controls shall be mounted on the enclosure door. The control enclosure shall be mounted within the fiberglass valve enclosure. The control panel shall be equipped with vapor emission type corrosion inhibitors.

C. All control components shall be securely fastened to a removable back panel with screws and lock washers. Switches, indicators and instruments shall be mounted through the control panel door. All control devices and instruments shall be secured to the sub-plate with machine screws and lock washers. Mounting holes shall be drilled/tapped, and self-tapping screws shall not be used to mount any components. All connections from the back panel to door mounted or remote devices shall be made through terminal blocks. All control devices shall be clearly labeled to indicate function.

D. A main terminal block and ground bar shall be furnished for field connection of the electrical supply. The connections shall be designed to accept copper conductors of sufficient size to serve the pump station loads. The main terminal block shall be mounted to allow incoming wire bending space in accordance with Article 373 of the National Electrical Code (NEC).

E. Motor Branch Components
   1. A properly sized heavy duty air circuit breaker shall be furnished for each pump motor, and shall have a symmetrical RMS interrupting rating of 18,000 amperes at 460 volts, 25,000 amperes at 230 volts All circuit breakers shall be sealed by the manufacturer after calibration to prevent tampering.

F. Oil-tight pilot lights for each pump motor shall be provided. Each light shall be wired in parallel with the related pump motor starter to indicate that the motor is on or should be running. Pilot lights shall be in addition to any lights provided as a part of automatic level controller that may be specified herein. All pilot lights shall be suitable for 120VAC, and shall be mounted in keyed openings on the inner door of the control panel

G. Individual pilot lights shall be provided to alert maintenance personnel to a "high temperature" or "seal leak" alarm condition for each pump and the pump control panel shall be equipped to terminate pump operation due to high motor winding temperature or moisture in the motor housing, utilizing contacts in the pump motor housing. As noted above pilot lights shall be in addition to any lights provided as a part of automatic level controller that may be specified herein. All pilot lights shall be suitable for 120VAC, and shall be mounted in keyed openings on the door of the control panel.

H. The control circuit shall be protected by a normal duty thermal-magnetic air circuit breaker which shall be connected in such a manner as to allow control power to be disconnected from all control circuits.

I. Pump mode selector switches shall be connected to permit manual start and manual stop for each pump individually, and to select automatic operation of each pump under control of the liquid level control system. Manual operation shall override the liquid level control system. Selector switches shall be heavy duty, oil-tight design, with contacts rated NEMA A300 minimum.

Control panel designs that utilize float switches for level sensing and control shall be provided with a separate alternating relay, as well as a lead-lag-auto selector switch .

J. The control panel, as furnished by the manufacturer, shall be completely wired. The contractor shall field connect the power feeder lines to the main terminal block, final connections to the remote alarm devices, and the connections between the pump and the pump motor control. All wiring, workmanship, and schematic wiring diagrams shall be in compliance with applicable standards and specifications set forth by the National Electric Code (NEC). All user serviceable wiring shall be type MTW or THW, 600 volts, and shall be color coded as follows:

▪ Line and load circuits, AC or DC power	Black
▪ AC control circuit less than line voltage	Red
▪ DC control circuit	Blue
▪ Interlock control circuit, from external source	Yellow
▪ Equipment grounding conductor	Green
▪ Current carrying ground	White
▪ Hot with circuit breaker open	Orange

K. Control circuit wiring inside the panel, with the exception of internal wiring of individual components, shall be 16-gauge minimum, type MTW or THW, 600 volts. Power wiring shall be 14-gauge minimum. Motor branch and other power conductors shall not be loaded above the temperature rating of the connected termination. Wires shall be clearly

numbered at each end in accordance with the electrical diagrams. All wires on the sub-plate shall be bundled and tied.

L. Wires connected to components mounted on the enclosure door shall be bundled and tied in accordance with good commercial practice. Bundles shall be made flexible at the hinged side of the enclosure. Adequate length and flex shall be provided to allow the door to swing to its full open position without undue stress or abrasion on the wire or insulation. Bundles shall be held in place on each side of the hinge by mechanical fastening devices.

M. All conduit and fittings shall be UL listed. Liquid tight flexible metal conduit shall be constructed of smooth, flexible galvanized steel core with smooth abrasion resistant, liquid tight, polyvinyl chloride cover. Conduit shall be supported in accordance with articles 346, 347, and 350 of the National Electric Code. Conduit shall be sized according to the National Electric Code.

N. The pump control manufacturer shall provide a common ground bar mounted on the enclosure back plate. The mounting surface of the ground bar shall have any paint removed before making final connections. The contractor shall make the field connections to the main ground lug and each pump motor in accordance with the National Electric Code.

O. A permanent corrosion resistant name plate(s) shall be attached to the control and include the following information:

- Equipment serial number
- Control panel short circuit rating
- Supply voltage, phase and frequency
- Current rating of the minimum main conductor
- Electrical wiring diagram number
- Motor horsepower and full load current
- Motor overload heater element
- Motor circuit breaker trip current rating
- Name and location of equipment manufacturer

P. Control components shall be permanently marked using the same identification shown on the electrical diagram. Identification label shall be mounted adjacent to the device. Switches, indicators, and instruments shall be plainly marked to indicate function, position, etc. Marking shall be mounted adjacent to and above the device.

2.13 LIQUID LEVEL CONTROL

A. The level control system shall start and stop the pump motors in response to changes in wet well level, as set forth herein.

B. The level control system shall utilize alternation to select first one pump, then the second pump to run as lead pump for a pumping cycle. Alternation shall occur at the end of a pumping cycle.

C. Float System – Sealed mercury-free float switches shall be provided. All floats shall have the same length of cable to allow for full height adjustment and interchangeability. Stainless steel float mounting brackets with strain relief grommets shall be provided, to allow for easy adjustment of the float levels. Additional float wire supports shall be provided to prevent float wires from crossing hatch openings.

2.14 Alarm System

A. A local red beacon alarm shall be affixed to the top of the control cabinet, activated on closure of the alarm float switch. A test-off-auto switch shall be proved.

A "sonalert" buzzer shall be mounted on the enclosure exterior to provide audible alarm locally. A push-to-silence button shall be provided for the sonalert, In the event to push-to-silence button is depressed, the audible alarm shall be silenced but the beacon shall continue to be activated until the alarm condition has been repaired.

A cellular autodialer shall be provided activation on the following conditions:

1. High level alarm
2. Seal leak alarm
3. Motor overtempt (each motor)
4. Loss of station AC power

The autodialer and its monitoring shall be capable of maintaining input signals for at least 7 days, in the cloud.

Specification based on Sensaphone Sentinel. Please note that this is a subscription service, requiring annual renewal. The first year subscription shall be paid for and activated by the Contractor. Coordinate with the Owner to enter the correct dial-out telephone/text or emails for intended recipients.

PART 3 EXECUTION

3.01 EXAMINATION

A. Contractor shall off-load equipment at installation site using equipment of sufficient size and design to prevent injury or damage. Station manufacturer shall provide written instruction for proper handling. Immediately after off-loading, contractor shall inspect complete pump station and appurtenances for shipping damage or missing parts. Any

damage or discrepancy shall be noted in written claim with shipper prior to accepting delivery. Validate all station serial numbers and parts lists with shipping documentation. Notify the manufacturer's representative of any unacceptable conditions noted with shipper.

3.02 INSTALLATION

A. The contractor shall install, level, align, and lubricate all equipment associated with the pump station as shown indicated on the project drawings, and as outlined in the O&M manual provided with the equipment. Installation must be in accordance with written instructions supplied by the manufacturer at time of delivery.

B. Check motor and control data plates for compatibility to site voltage. Install and test the station ground prior to connecting line voltage to station control panel.

C. Prior to applying electrical power to any motors or control equipment, check all wiring for tight connection. Verify that all protective devices (fuses and circuit breakers) conform to project design documents. Manually operate circuit breakers and switches to ensure operation without binding. Open all circuit breakers and disconnects before connecting utility power. Verify line voltage, phase sequence and ground before actual start-up.

3.03 FIELD QUALITY CONTROL

A. Operational Test

1. Prior to acceptance by owner, an operational test of all pumps, and control systems shall be conducted to verify that the installed equipment meets the purpose and intent of these specifications. Tests shall demonstrate that all equipment provided is electrically, mechanically, structurally, and otherwise acceptable; that it is safe and in optimum working condition; and that it conforms to the specified operating characteristics.

2. After construction debris and foreign material has been removed from the wet well, contractor shall supply clear water volume adequate to operate station through several pumping cycles. Observe and record operation of pumps, discharge gauge readings, ampere draw, pump controls, and liquid level controls. Check calibration of all instrumentation equipment, test manual control devices, and automatic control systems. Be alert to any undue noise, vibration or other operational problems.

B. Manufacturer's Start-up Services

1. Coordinate station start-up with the manufacturer's technical representative. The representative or factory service technician will inspect the completed installation, calibrate and adjust instrumentation, correct or supervise correction of defects or malfunctions, and instruct operating personnel in proper operation and maintenance procedures. The pump station warranty is contingent on receipt of a complete start-up report in accordance with specification Section 1.08.E.

3.04 CLEANING

A. Prior to acceptance, inspect interior and exterior of pump station for dirt, splashed material or damaged paint. Clean or repair accordingly. Remove from the job site all tools, surplus materials, scrap and debris.

3.05 PROTECTION

A. The pump station should be placed into service immediately upon completion of field startup. If operation is delayed, the station shall be stored and maintained per the manufacturer's written instructions until it is ready for use.

Pearl Street Lot 3 Bldg A

Wastewater Pump Station

&

Force Main

Design Calculations

Project Name:	**Pearl Street Bldg A**
Location:	**Biddeford ME**
Designed By:	**John Benham**
Checked By:	
Date:	**7/24/25**
Project no.:	
Revision	**Revised 8/1/25**

Pearl Street Lot 3 Bldg A

Wastewater Pump Station

&

Force Main

Project Summary

Project Name:	**Lot 3 Bldg A**	
Average Daily Flow (gpm):	**6,840 gpd**	
Pump Operational Point No. 1 (gpm@tdh):	**47 GPM at 59 FT TDH**	
Pump Manufacturer:	**Ebara**	
Model Number:	**50DGFU62.2**	
Impeller Diameter:	**123 mm**	
Horse Power:	**3**	
Voltage:	**230 (single or three)**	
Force Main Diameter (in):	**2**	
Force Main Length (ft):	**750**	**plus 805 ft 4"**

Tributary
Wastewater Flow Calculations

Establishment	Unit Value (Gal/Day/Unit)	Unit Type	# of Units	Discharge, GPD
Residential 1 BR	120	Unit	19	2,280
Residential 1 BR + Den	120	Unit	23	2,760
Residential 2 BR	180	Unit	10	1,800
		Average Daily Flow (gallons per day)		**6,840**

Design Pumping Flow Rate

Peaking Factor Calculation	
Service Area Population =	100
Peak Factor =	$\frac{18 + \sqrt{P}}{4 + \sqrt{P}}$
Calculated Peak Factor =	4.2
Design Peak Factor =	4.2

Determine Minimum Pump Rate		
Average Daily Flow =	6,840	GPD
Peak Flow =	29,026	GPD
Minimum Pumping Rate Required =	20	GPM
Design Pumping Rate =	**47**	GPM

Cycle Time & Wet Well Geometry

Target Cycles Per Hour			
ADF	=	5	gpm
Pumping Rate	=	47	gpm
Time	=	40.0	min.
Cycles Per Hour =		**1.5**	
Check Cycles Per Hour:		**OK**	
Check Cycles Per Hour:		**OK**	

Determine Wet well Diameter		
Required Volume =	171	Gallons
Pick Wet Well Diameter =	**4.0**	Ft
Pick Wet Well Cycle =	**3.0**	Vert. Ft
Volume in Cycle =	282	Gallons

Vertical Datum Used: **By Engineer**

Determine Wet Well Invert & Float Elevations

Wet well Dia. = **4.0** Ft

Top Elev=	56.65		
Gnd Elev=	56.65		
SS Invert In=	51.10		
		Alarm =	49.10
		Lag On =	49.10
		Lead On =	48.10
		Pumps Off	45.10
Bottom Invert Elev* =	43.65		

*As required for complete submergence

OK

Force Main & Piping Design

Off-Site Force Main Data		
Design Pump Rate (gpm) =	47	
Select Force Main Size (in) =	**2**	plus 805 ft 4"
Velocity (fps) =	4.80	
Meets Minimum Velocity Requirement?	**OK**	
Meets Maximum Velocity Requirement?	**OK**	
Required Pump?	**Use Grinder Pump**	
Line Length (ft) =	**750**	
Account for Minor Losses =	5%	
Equiv Length (ft) =	788	

Connection Point:	**Intersection at Lincoln Street SMH**

Pump Station Piping Data			
Design Pump Rate (gpm) =			47
Pick Wet Well & Valve Vault Piping Size (in) =			**2**
Velocity (fps) =			4.80
Meets Minimum Velocity Requirement?			**OK > 2 FPS**
Meets Maximum Velocity Requirement?			**OK < 8 FPS**
Item	Number of Fittings	L/D Ratio	Equivalent Length
45 bend	0	16	0.00
90 bend	2	30	10.00
22.5 bend	1	9	1.50
Branch Tee Flow	1	60	10.00
Check valve	1	135	22.50
Plug Valve	1	17	2.83
			0.00
			0.00
			0.00
Equivalent Fitting Length (ft) =			47
Wet Well & Valve Vault Piping Length (ft) =			**20**
Total Equivalent Pump Station Pipe Length (ft) =			67
Equivalent Off-Site Diameter Length (ft) =			67
Total Equivalent Force Main Length (ft) =			***854***

Pump Selection

Force Main Diameter (in) =	2
Equivalent Force Main Length (ft) =	854
Hazen-Williams C Factor =	150
Minimum Required Pump Rate (GPM) =	20
Design Pumping Rate (GPM) =	47

GPM	Pressure Head at Connection "All On" (feet)	Pressure Head at Connection "Only Proposed Pump Station On" (feet)	Static Head (feet)	"All On" TDH (feet)	"Only Proposed Pump Station On" TDH (feet)	Velocity (fps)	Pump Head (feet)
40	0	0	22	0	49	4.1	65
45	0	0	22	0	56	4.6	61
50	0	0	22	0	63	5.1	58
55	0	0	22	0	71	5.6	54
60	0	0	22	0	80	6.1	50

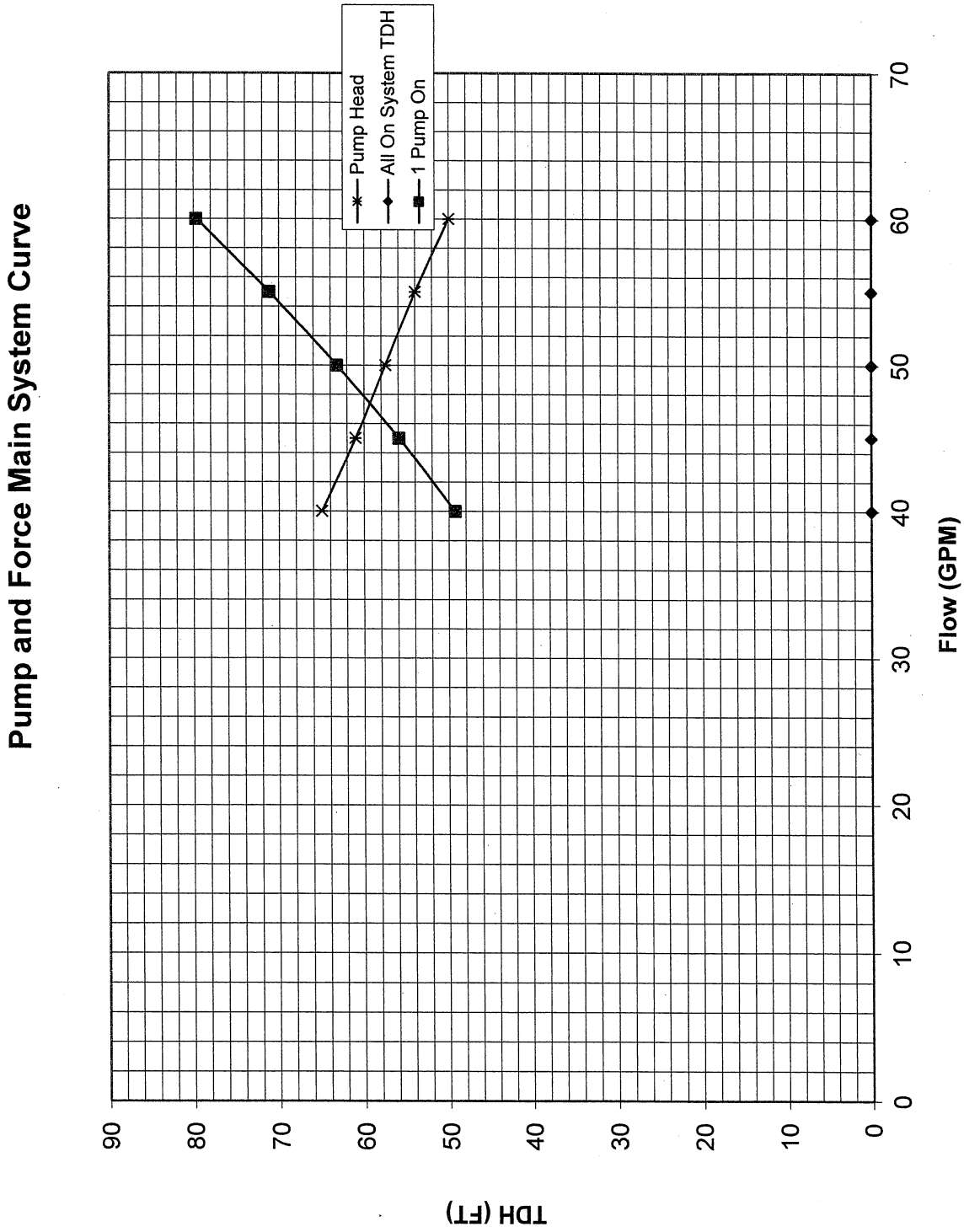
Pump Manufacturer: **Ebara Fluid Handling**

Model Number: **50DGFU62.2(S)**

Impeller Diameter: **123 mm**

Horsepower: **3**

Voltage: **230 (single or three)**


Pump and Force Main System Curve
Pump Head
All On System TDH
1 Pump On
TDH (FT)
Flow (GPM)
0
10
20
30
40
50
60
70
80
90
0
10
20
30
40
50
60
70

Station Operation Check

Proposed Operational Point No.1

47	GPM @	59	TDH

Check Wet well Cycle Times

Wet well Diameter (feet)	Wet well Area (gal / VF)	Wet well Cycle (ft)	Wet well Volume (gal)
4.0	94	3.0	282

Fill = $\frac{\text{Wet well Volume}}{\text{ADF}}$ = 59.3 minutes

Run = $\frac{\text{Wet well Volume}}{\text{Pump Rate - ADF}}$ = 6.7 minutes

Total = 66.0 minutes

Cycle Time = 0.9 Cycles / Hour

Buoyancy Calculations

Wet well Outside Dimensions	**5.00**	Feet
Wet well Inside Dimensions	4.00	Feet
Wet well Top Slab Elevation	56.65	Feet
Wet well Invert Elevation	43.65	Feet
Extended Base Slab Diameter	**5.00**	Feet
Extended Base Slab Thickness	**1.00**	Feet
Top Slab Thickness	**1.00**	Feet

Calculate Total Volume of Wet well Structure

Volume of Wet well Riser Sections=	255	cf
Volume of Wet well Extended Base=	20	cf
Total Volume of Wet well Structure=	275	cf

Calculate Total Volume of Water Displaced

H20 Displaced = (Volume of Wet well Structure) * (62.4 lbs/cf)

H20 Displaced= 17144 lbs

Calculate Weight of Wet well Components

Section	Total Ht	Weight
Top Slab Thickness (ft.)	1.00	2945
Riser - Total Vertical Ft.	13.00	13784
Base Slab Thickness (ft.)	1.00	2945
Totals=	15	19674

Total Weight of Concrete in Wet well= 19674 lbs.

Calculate Submerged Weight of Soil Above Extended Base/Footing

Total Area of Extended Base	20	sf
Total Area of Wet well Riser	20	sf
Area of Extended Base less Wet well	0	sf
Height of Soil Above Extended Base	13	ft
Volume of Soil Above Extended Base	0	cf
Weight of Soil Above Extended Base (estimated)	**50**	lbs/cf
Total Weight of Soil Above Extended Base	0	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base	19674	lbs
Weight of Water Displaced By Wet Well:	17144	lbs
Flotation Protection Required?	NO	

Pearl Street Lot 3 Bldg B

Wastewater Pump Station

&

Force Main

Design Calculations

Project Name:	**Pearl Street Bldg B**
Location:	**Biddeford ME**
Designed By:	**John Benham**
Checked By:	
Date:	**7/24/25**
Project no.:	
Revision	**Revised 8/1/25**

Pearl Street Lot 3 Bldg B

Wastewater Pump Station

&

Force Main

Project Summary

Project Name:	**Lot 3 Bldg B**	
Average Daily Flow (gpm):	**11,760 GPD**	
Pump Operational Point No. 1 (gpm@tdh):	**45 GPM at 60 FT TDH**	
Pump Manufacturer:	**Ebara**	
Model Number:	**50DGFU62.22**	
Impeller Diameter:	**123 mm**	
Horse Power:	**3**	
Voltage:	**230 single or three**	
Force Main Diameter (in):	**2**	
Force Main Length (ft):	**830**	**of 2"**
	805	**of 4"**

Tributary
Wastewater Flow Calculations

Establishment	Unit Value (Gal/Day/Unit)	Unit Type	# of Units	Discharge, GPD
Residential, Studio	120	Unit	4	480
Residential, 1 BR + den	120	Unit	26	3,120
Residential, 1 BR + den	120	Unit	29	3,480
Residential, 2 BR	180	Unit	26	4,680
		Average Daily Flow (gallons per day)		**11,760**

Design Pumping Flow Rate

Peaking Factor Calculation	
Service Area Population =	166
Peak Factor =	$\frac{18 + \sqrt{P}}{4 + \sqrt{P}}$
Calculated Peak Factor =	4.2
Design Peak Factor =	4.2

Determine Minimum Pump Rate		
Average Daily Flow =	11,760	GPD
Peak Flow =	49,115	GPD
Minimum Pumping Rate Required =	34	GPM
Design Pumping Rate =	**45**	GPM

Cycle Time & Wet Well Geometry

Target Cycles Per Hour			
ADF	=	8	gpm
Pumping Rate	=	45	gpm
Time	=	40.0	min.
Cycles Per Hour =		**1.5**	
Check Cycles Per Hour:		**OK**	
Check Cycles Per Hour:		**OK**	

Determine Wet well Diameter		
Required Volume =	267	Gallons
Pick Wet Well Diameter =	**4.0**	Ft
Pick Wet Well Cycle =	**4.0**	Vert. Ft
Volume in Cycle =	376	Gallons

Vertical Datum Used: **By Engineer**

Determine Wet Well Invert & Float Elevations

Wet well Dia. = **4.0** Ft

Top Elev=	60.00
Gnd Elev=	60.00
SS Invert In=	55.00
Alarm =	53.00
Lag On =	53.00
Lead On =	52.00
Pumps Off =	48.00
Bottom Invert Elev* =	45.00

*As required for complete submergence

OK

Force Main & Piping Design

Off-Site Force Main Data	
Design Pump Rate (gpm) =	45
Select Force Main Size (in) =	**2**
Velocity (fps) =	4.60
Meets Minimum Velocity Requirement?	**OK**
Meets Maximum Velocity Requirement?	**OK**
Required Pump?	**Use Grinder Pump**
Line Length (ft) =	**830**
Account for Minor Losses =	5%
Equiv Length (ft) =	872

Connection Point:	**Intersection at Lincoln Street SMH**

Pump Station Piping Data	
Design Pump Rate (gpm) =	45
Pick Wet Well & Valve Vault Piping Size (in) =	**2**
Velocity (fps) =	4.60
Meets Minimum Velocity Requirement?	**OK > 2 FPS**
Meets Maximum Velocity Requirement?	**OK < 8 FPS**

Item	Number of Fittings	L/D Ratio	Equivalent Length
45 bend	0	16	0.00
90 bend	2	30	10.00
22.5 bend	1	9	1.50
Branch Tee Flow	1	60	10.00
Check valve	1	135	22.50
Plug Valve	1	17	2.83
			0.00
			0.00
			0.00
Equivalent Fitting Length (ft) =			47
Wet Well & Valve Vault Piping Length (ft) =			**20**
Total Equivalent Pump Station Pipe Length (ft) =			67
Equivalent Off-Site Diameter Length (ft) =			67
Total Equivalent Force Main Length (ft) =			***938***

Pump Selection

Force Main Diameter (in) =	2
Equivalent Force Main Length (ft) =	938
Hazen-Williams C Factor =	150
Minimum Required Pump Rate (GPM) =	34
Design Pumping Rate (GPM) =	45

GPM	Pressure Head at Connection "All On" (feet)	Pressure Head at Connection "Only Proposed Pump Station On" (feet)	Static Head (feet)	"All On" TDH (feet)	"Only Proposed Pump Station On" TDH (feet)	Velocity (fps)	Pump Head (feet)
45	0	0	23	60	0	4.6	61
50	0	0	23	68	0	5.1	58
55	0	0	23	77	0	5.6	54
60	0	0	23	86	0	6.1	50
65	0	0	23	96	0	6.6	45

Pump Manufacturer: **Ebara Fluid Handling**

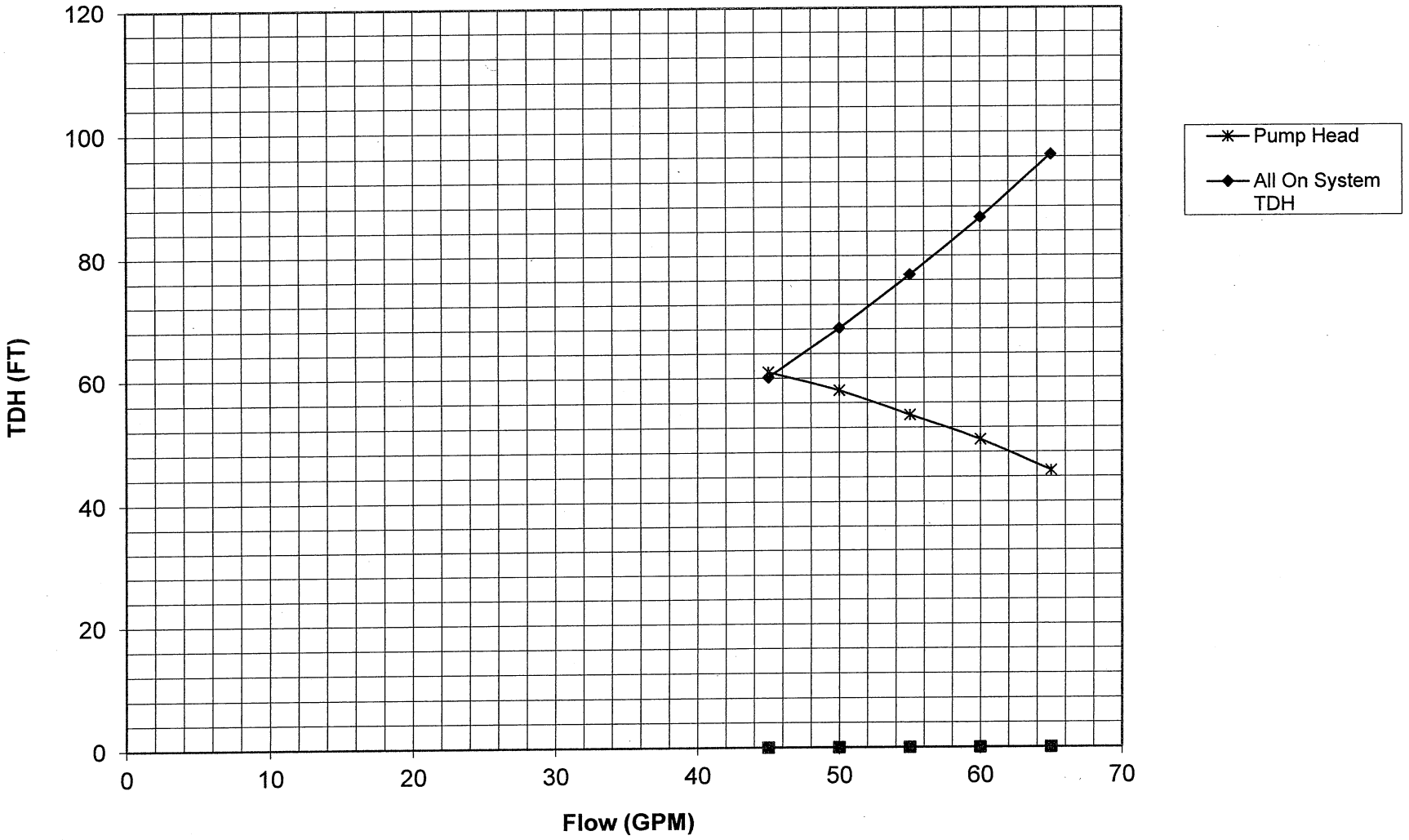
Model Number: **50DGFU62.2(S)**

Impeller Diameter: **123 mm**

Horsepower: **3**

Voltage: **230 (single or three)**

Pump and Force Main System Curve



Station Operation Check

Proposed Operational Point No.1

45	GPM @	60	TDH

Check Wet well Cycle Times

Wet well Diameter (feet)	Wet well Area (gal / VF)	Wet well Cycle (ft)	Wet well Volume (gal)
4.0	94	4.0	376

Fill = $\frac{\text{Wet well Volume}}{\text{ADF}}$ = 46.0 minutes

Run = $\frac{\text{Wet well Volume}}{\text{Pump Rate - ADF}}$ = 10.2 minutes

Total = 56.2 minutes

Cycle Time = 1.1 Cycles / Hour

Buoyancy Calculations

Wet well Outside Dimensions	5.00	Feet
Wet well Inside Dimensions	4.00	Feet
Wet well Top Slab Elevation	60.00	Feet
Wet well Invert Elevation	46.00	Feet
Extended Base Slab Diameter	5.00	Feet
Extended Base Slab Thickness	1.00	Feet
Top Slab Thickness	1.00	Feet

Calculate Total Volume of Wet well Structure

Volume of Wet well Riser Sections=	275	cf
Volume of Wet well Extended Base=	20	cf
Total Volume of Wet well Structure=	294	cf

Calculate Total Volume of Water Displaced

H20 Displaced = (Volume of Wet well Structure) * (62.4 lbs/cf)

H20 Displaced= 18369 lbs

Calculate Weight of Wet well Components

Section	Total Ht	Weight
Top Slab Thickness (ft.)	1.00	2945
Riser - Total Vertical Ft.	14.00	14844
Base Slab Thickness (ft.)	1.00	2945
Totals=	16	20734

Total Weight of Concrete in Wet well= 20734 lbs.

Calculate Submerged Weight of Soil Above Extended Base/Footing

Total Area of Extended Base	20	sf
Total Area of Wet well Riser	20	sf
Area of Extended Base less Wet well	0	sf
Height of Soil Above Extended Base	14	ft
Volume of Soil Above Extended Base	0	cf
Weight of Soil Above Extended Base (estimated)	50	lbs/cf
Total Weight of Soil Above Extended Base	0	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base	20734	lbs
Weight of Water Displaced By Wet Well:	18369	lbs
Flotation Protection Required?	**NO**	

Pearl Street Lot 3 Bldg C

Wastewater Pump Station

&

Force Main

Design Calculations

Project Name:	**Pearl Street Bldg C**
Location:	**Biddeford ME**
Designed By:	**John Benham**
Checked By:	
Date:	**7/24/25**
Project no.:	
Revision	**revised 8/1/25**

Pearl Street Lot 3 Bldg C

Wastewater Pump Station

&

Force Main

Project Summary

Project Name:	**Lot 3 Bldg C**	
Average Daily Flow (gpm):	**3,280 GPD**	
Pump Operational Point No. 1 (gpm@tdh):	**48 GPM at 58 FT TDH**	
Pump Manufacturer:	**Ebara**	
Model Number:	**50DGFU62.2**	
Impeller Diameter:	**123 mm**	
Horse Power:	**3**	
Voltage:	**230 (single or three)**	
Force Main Diameter (in):	**2**	
Force Main Length (ft):	**720**	**of 2"**
	805	**of 4"**

Tributary
Wastewater Flow Calculations

Establishment	Unit Value (Gal/Day/Unit)	Unit Type	# of Units	Discharge, GPD
Food & Drink - Restaurants, Full Service	20	Seat	158	3,160
Food & Drink - Restaurants, Full Service	12	employees	10	120
Other -				0
		Average Daily Flow (gallons per day)		**3,280**

Design Pumping Flow Rate

Peaking Factor Calculation	
Service Area Population =	10
Peak Factor =	$\frac{18 + \sqrt{P}}{4 + \sqrt{P}}$
Calculated Peak Factor =	4.4
Design Peak Factor =	4.4

Determine Minimum Pump Rate		
Average Daily Flow =	3,280	GPD
Peak Flow =	14,480	GPD
Minimum Pumping Rate Required =	10	GPM
Design Pumping Rate =	**48**	GPM

Cycle Time & Wet Well Geometry

Target Cycles Per Hour			
ADF	=	2	gpm
Pumping Rate	=	48	gpm
Time	=	40.0	min.
Cycles Per Hour =		**1.5**	
Check Cycles Per Hour:		**OK**	
Check Cycles Per Hour:		**OK**	

Determine Wet well Diameter		
Required Volume =	87	Gallons
Pick Wet Well Diameter =	**4.0**	Ft
Pick Wet Well Cycle =	**1.0**	Vert. Ft
Volume in Cycle =	94	Gallons

Vertical Datum Used: **By Engineer**

Determine Wet Well Invert & Float Elevations

Wet well Dia. = **4.0** Ft

Top Elev=	56.50
Gnd Elev=	56.50
SS Invert In=	52.40
Alarm =	50.40
Lag On =	50.40
Lead On =	49.40
Pumps Off =	45.40
Bottom Invert Elev* =	43.40

*As required for complete submergence

OK

Force Main & Piping Design

Off-Site Force Main Data		
Design Pump Rate (gpm) =	48	
Select Force Main Size (in) =	**2**	plus 805 ft 4"
Velocity (fps) =	4.90	
Meets Minimum Velocity Requirement?	**OK**	
Meets Maximum Velocity Requirement?	**OK**	
Required Pump?	**Use Grinder Pump**	
Line Length (ft) =	**720**	
Account for Minor Losses =	5%	
Equiv Length (ft) =	756	

Connection Point:	**Intersection at Lincoln Street SMH**

Pump Station Piping Data	
Design Pump Rate (gpm) =	48
Pick Wet Well & Valve Vault Piping Size (in) =	**2**
Velocity (fps) =	4.90
Meets Minimum Velocity Requirement?	**OK > 2 FPS**
Meets Maximum Velocity Requirement?	**OK < 8 FPS**

Item	Number of Fittings	L/D Ratio	Equivalent Length
45 bend	0	16	0.00
90 bend	2	30	10.00
22.5 bend	1	9	1.50
Branch Tee Flow	1	60	10.00
Check valve	1	135	22.50
Plug Valve	1	17	2.83
			0.00
			0.00
			0.00
Equivalent Fitting Length (ft) =			47
Wet Well & Valve Vault Piping Length (ft) =			**20**
Total Equivalent Pump Station Pipe Length (ft) =			67
Equivalent Off-Site Diameter Length (ft) =			67
Total Equivalent Force Main Length (ft) =			***823***

Pump Selection

Force Main Diameter (in) =	2
Equivalent Force Main Length (ft) =	823
Hazen-Williams C Factor =	150
Minimum Required Pump Rate (GPM) =	10
Design Pumping Rate (GPM) =	48

GPM	Pressure Head at Connection "All On" (feet)	Pressure Head at Connection "Only Proposed Pump Station On" (feet)	Static Head (feet)	"All On" TDH (feet)	"Only Proposed Pump Station On" TDH (feet)	Velocity (fps)	Pump Head (feet)
40	0	0	22	48	0	4.1	65
45	0	0	22	55	0	4.6	61
50	0	0	22	62	0	5.1	58
55	0	0	22	69	0	5.6	54
60	0	0	22	78	0	6.1	50

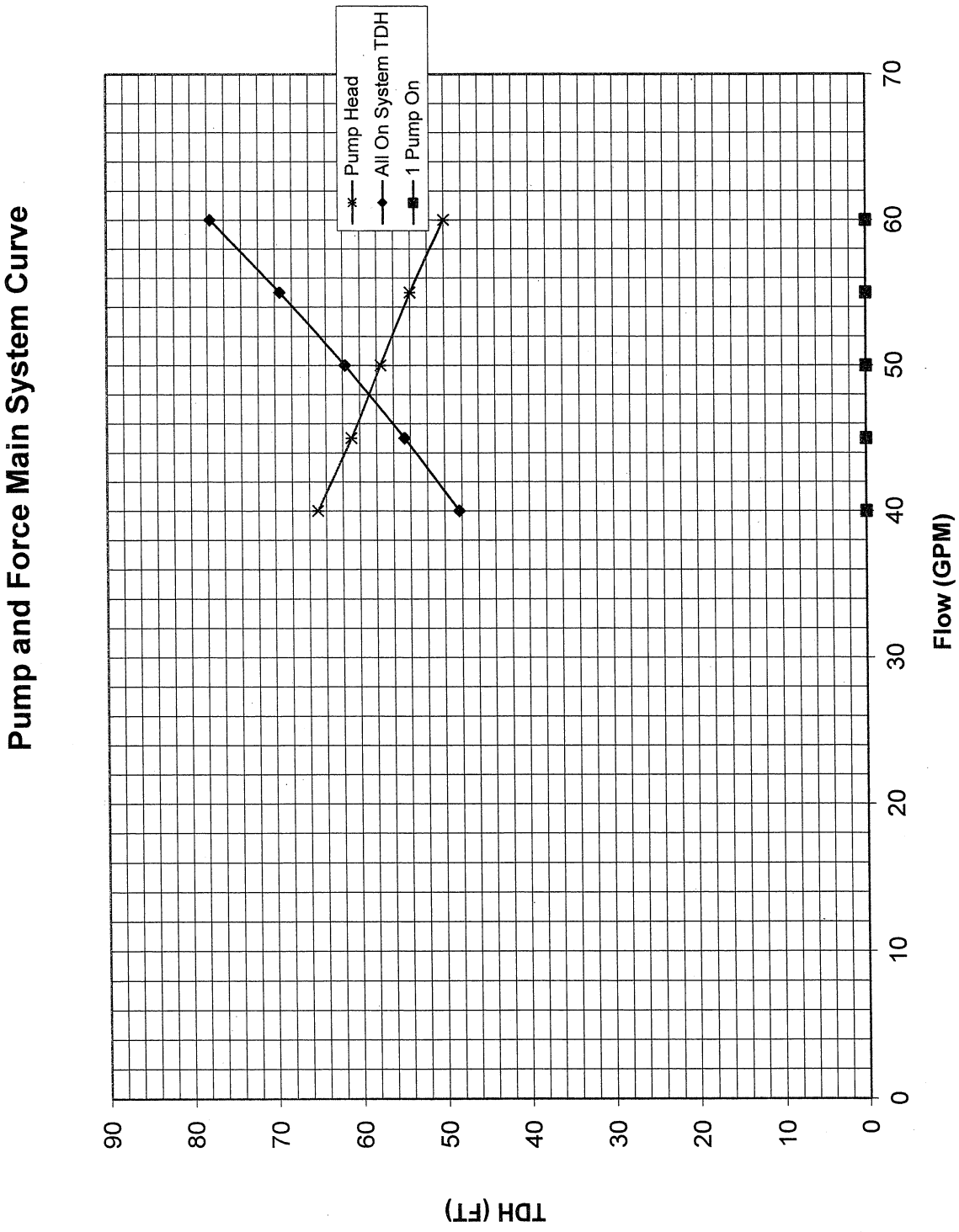
Pump Manufacturer: **Ebara Fluid handling**

Model Number: **50DGFU62.2(S)**

Impeller Diameter: **123 mm**

Horsepower: **3**

Voltage: **230 (single or three)**


Pump and Force Main System Curve
Pump Head
All On System TDH
1 Pump On
TDH (FT)
Flow (GPM)
0
10
20
30
40
50
60
70
80
90
0
10
20
30
40
50
60
70

Station Operation Check

Proposed Operational Point No.1

48	GPM @	58	TDH

Check Wet well Cycle Times

Wet well Diameter (feet)	Wet well Area (gal / VF)	Wet well Cycle (ft)	Wet well Volume (gal)
4.0	94	1.0	94

Fill = $\frac{\text{Wet well Volume}}{\text{ADF}}$ = 41.2 minutes

Run = $\frac{\text{Wet well Volume}}{\text{Pump Rate - ADF}}$ = 2.1 minutes

Total = 43.3 minutes

Cycle Time = 1.4 Cycles / Hour

Buoyancy Calculations

Wet well Outside Dimensions	**5.00**	Feet
Wet well Inside Dimensions	4.00	Feet
Wet well Top Slab Elevation	56.50	Feet
Wet well Invert Elevation	43.40	Feet
Extended Base Slab Diameter	**5.00**	Feet
Extended Base Slab Thickness	**1.00**	Feet
Top Slab Thickness	**1.00**	Feet

Calculate Total Volume of Wet well Structure

Volume of Wet well Riser Sections=	257	cf
Volume of Wet well Extended Base=	20	cf
Total Volume of Wet well Structure=	277	cf

Calculate Total Volume of Water Displaced

H20 Displaced = (Volume of Wet well Structure) * (62.4 lbs/cf)

H20 Displaced= 17267 lbs

Calculate Weight of Wet well Components

Section	Total Ht	Weight
Top Slab Thickness (ft.)	1.00	2945
Riser - Total Vertical Ft.	13.10	13890
Base Slab Thickness (ft.)	1.00	2945
Totals=	15.1	19780

Total Weight of Concrete in Wet well= 19780 lbs.

Calculate Submerged Weight of Soil Above Extended Base/Footing

Total Area of Extended Base	20	sf
Total Area of Wet well Riser	20	sf
Area of Extended Base less Wet well	0	sf
Height of Soil Above Extended Base	13	ft
Volume of Soil Above Extended Base	0	cf
Weight of Soil Above Extended Base (estimated)	**50**	lbs/cf
Total Weight of Soil Above Extended Base	0	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base	19780	lbs
Weight of Water Displaced By Wet Well:	17267	lbs
Flotation Protection Required?	**NO**	

Pearl Street Lot 3 Bldg D

Wastewater Pump Station

&

Force Main

Design Calculations

Project Name:	**Pearl Street Bldg D**
Location:	**Biddeford ME**
Designed By:	**John Benham**
Checked By:	
Date:	**7/24/25 revised 8/1/25**
Project no.:	

Pearl Street Lot 3 Bldg D

Wastewater Pump Station

&

Force Main

Project Summary

Project Name:	**Lot 3 Bldg D**
Average Daily Flow (gpm):	**1,350 GPD**
Pump Operational Point No. 1 (gpm@tdh):	**44 GPM at 62 FT TDH**
Pump Manufacturer:	**Ebara**
Model Number:	**50DGFU62.2**
Impeller Diameter:	**123 mm**
Horse Power:	**3**
Voltage:	**230 single or three**
Force Main Diameter (in):	**2**
Force Main Length (ft):	**920**

Tributary
Wastewater Flow Calculations

Establishment	Unit Value (Gal/Day/Unit)	Unit Type	# of Units	Discharge, GPD
Townhouse, 3 BR	270	Townhouse	5	1,350
Other -				0
		Average Daily Flow (gallons per day)		**1,350**

Design Pumping Flow Rate

Peaking Factor Calculation	
Service Area Population =	18
Peak Factor =	$\frac{18 + \sqrt{P}}{4 + \sqrt{P}}$
Calculated Peak Factor =	4.4
Design Peak Factor =	4.4

Determine Minimum Pump Rate		
Average Daily Flow =	1,350	GPD
Peak Flow =	5,922	GPD
Minimum Pumping Rate Required =	4	GPM
Design Pumping Rate =	**44**	GPM

Cycle Time & Wet Well Geometry

Target Cycles Per Hour			
ADF	=	1	gpm
Pumping Rate	=	44	gpm
Time	=	40.0	min.
Cycles Per Hour =		**1.5**	
Check Cycles Per Hour:		**OK**	
Check Cycles Per Hour:		**OK**	

Determine Wet well Diameter		
Required Volume =	37	Gallons
Pick Wet Well Diameter =	**4.0**	Ft
Pick Wet Well Cycle =	**1.0**	Vert. Ft
Volume in Cycle =	94	Gallons

Vertical Datum Used: **By Engineer**

Determine Wet Well Invert & Float Elevations

Wet well Dia. = **4.0** Ft

Top Elev=	62.00
Gnd Elev=	62.00
SS Invert In=	56.50
Alarm =	54.50
Lag On =	54.50
Lead On =	53.50
Pumps Off =	49.50
Bottom Invert Elev* =	46.50

*As required for complete submergence

OK

Force Main & Piping Design

Off-Site Force Main Data		
Design Pump Rate (gpm) =	44	
Select Force Main Size (in) =	**2**	plus 705 ft 4"
Velocity (fps) =	4.49	
Meets Minimum Velocity Requirement?	**OK**	
Meets Maximum Velocity Requirement?	**OK**	
Required Pump?	**Use Grinder Pump**	
Line Length (ft) =	**920**	
Account for Minor Losses =	5%	
Equiv Length (ft) =	966	

Connection Point:	**Intersection at Lincoln Street SMH**

Pump Station Piping Data			
Design Pump Rate (gpm) =			44
Pick Wet Well & Valve Vault Piping Size (in) =			**2**
Velocity (fps) =			4.49
Meets Minimum Velocity Requirement?			**OK > 2 FPS**
Meets Maximum Velocity Requirement?			**OK < 8 FPS**
Item	Number of Fittings	L/D Ratio	Equivalent Length
45 bend	0	16	0.00
90 bend	2	30	10.00
22.5 bend	1	9	1.50
Branch Tee Flow	1	60	10.00
Check valve	1	135	22.50
Plug Valve	1	17	2.83
			0.00
			0.00
			0.00
Equivalent Fitting Length (ft) =			47
Wet Well & Valve Vault Piping Length (ft) =			**20**
Total Equivalent Pump Station Pipe Length (ft) =			67
Equivalent Off-Site Diameter Length (ft) =			67
Total Equivalent Force Main Length (ft) =			***1033***

Pump Selection

Force Main Diameter (in) =	2
Equivalent Force Main Length (ft) =	1033
Hazen-Williams C Factor =	150
Minimum Required Pump Rate (GPM) =	4
Design Pumping Rate (GPM) =	44

GPM	Pressure Head at Connection "All On" (feet)	Pressure Head at Connection "Only Proposed Pump Station On" (feet)	Static Head (feet)	"All On" TDH (feet)	"Only Proposed Pump Station On" TDH (feet)	Velocity (fps)	Pump Head (feet)
40	0	0	22	55	0	4.1	65
45	0	0	22	63	0	4.6	61
50	0	0	22	72	0	5.1	58
55	0	0	22	81	0	5.6	54
60	0	0	22	91	0	6.1	50

Pump Manufacturer: **Ebara Fluid handling**

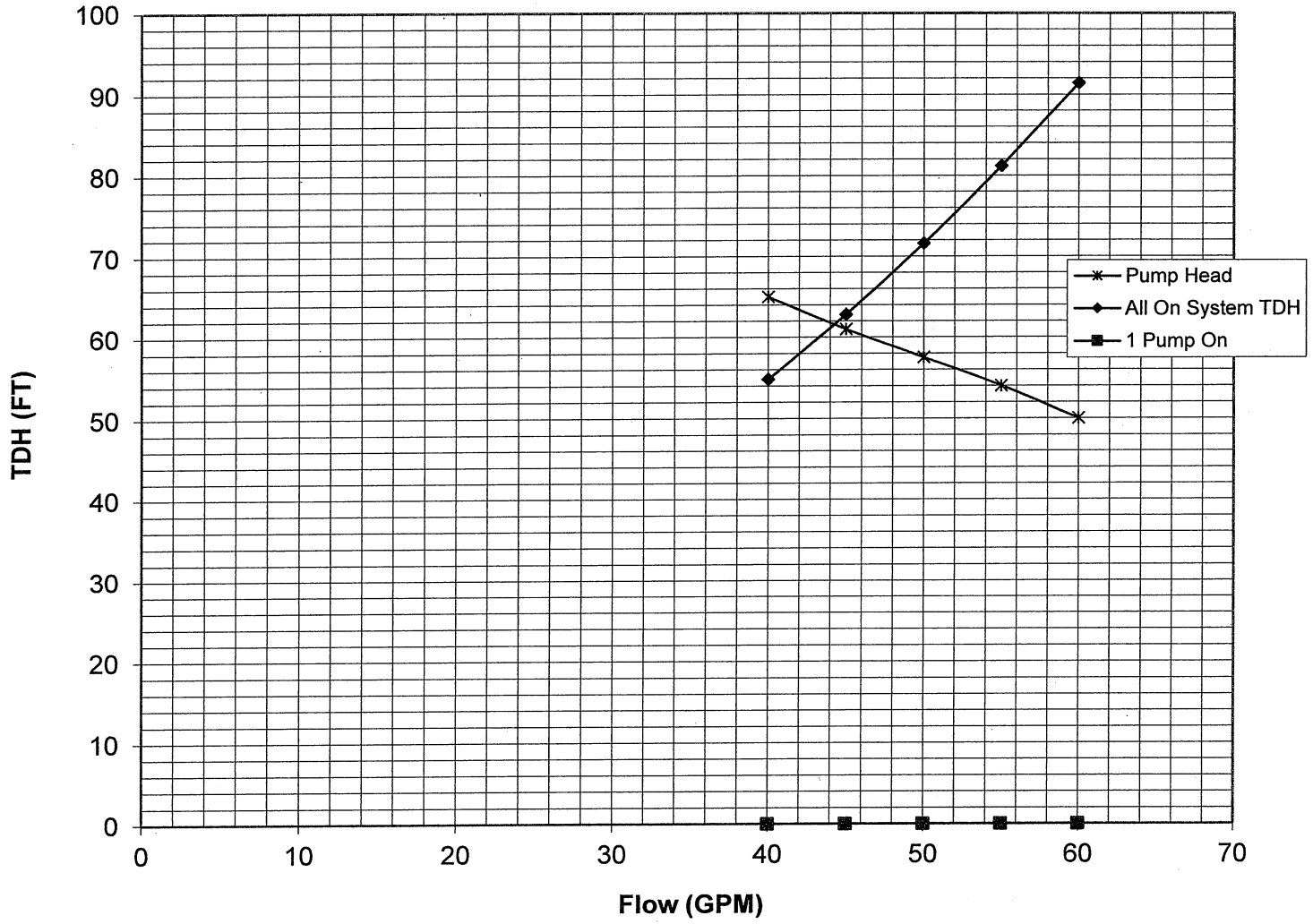
Model Number: **50DGFU62.2(S)**

Impeller Diameter: **123 mm**

Horsepower: **3**

Voltage: **230 (single or three)**

Pump and Force Main System Curve



Station Operation Check

Proposed Operational Point No.1

44	GPM @	62	TDH

Check Wet well Cycle Times

Wet well Diameter (feet)	Wet well Area (gal / VF)	Wet well Cycle (ft)	Wet well Volume (gal)
4.0	94	1.0	94

Fill = $\frac{\text{Wet well Volume}}{\text{ADF}}$ = 100.2 minutes

Run = $\frac{\text{Wet well Volume}}{\text{Pump Rate - ADF}}$ = 2.2 minutes

Total = 102.4 minutes

Cycle Time = 0.6 Cycles / Hour

Buoyancy Calculations

Wet well Outside Dimensions	**5.00**	Feet
Wet well Inside Dimensions	4.00	Feet
Wet well Top Slab Elevation	62.00	Feet
Wet well Invert Elevation	46.50	Feet
Extended Base Slab Diameter	**5.00**	Feet
Extended Base Slab Thickness	**1.00**	Feet
Top Slab Thickness	**1.00**	Feet

Calculate Total Volume of Wet well Structure

Volume of Wet well Riser Sections=	304	cf
Volume of Wet well Extended Base=	20	cf
Total Volume of Wet well Structure=	324	cf

Calculate Total Volume of Water Displaced

H20 Displaced = (Volume of Wet well Structure) * (62.4 lbs/cf)

H20 Displaced= 20206 lbs

Calculate Weight of Wet well Components

Section	Total Ht	Weight
Top Slab Thickness (ft.)	1.00	2945
Riser - Total Vertical Ft.	15.50	16434
Base Slab Thickness (ft.)	1.00	2945
Totals=	17.5	22325

Total Weight of Concrete in Wet well= 22325 lbs.

Calculate Submerged Weight of Soil Above Extended Base/Footing

Total Area of Extended Base	20	sf
Total Area of Wet well Riser	20	sf
Area of Extended Base less Wet well	0	sf
Height of Soil Above Extended Base	16	ft
Volume of Soil Above Extended Base	0	cf
Weight of Soil Above Extended Base (estimated)	**50**	lbs/cf
Total Weight of Soil Above Extended Base	0	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base	22325	lbs
Weight of Water Displaced By Wet Well:	20206	lbs
Flotation Protection Required?	**NO**	

Section 18

Solid Waste

Section 18. Solid Waste

The property management company or owner shall be responsible for managing and contracting with a private hauler to remove solid waste. The expectation is that solid waste would be collected as needed by the private hauler. All solid waste containers are anticipated to be located internally.

Solid waste produced by the residential redevelopments is predictable in that it will generate a fair amount of recyclable material such as cardboard and plastic due to residents' daily needs. Garbage generation for the residential buildings is anticipated to be relatively low when compared to a typical residential use given the urban environment that provides amenities and services in proximity to the living space. Solid waste produced by the proposed commercial use restaurant will be predicable in that it will generate a fair amount of trash and compostable material.

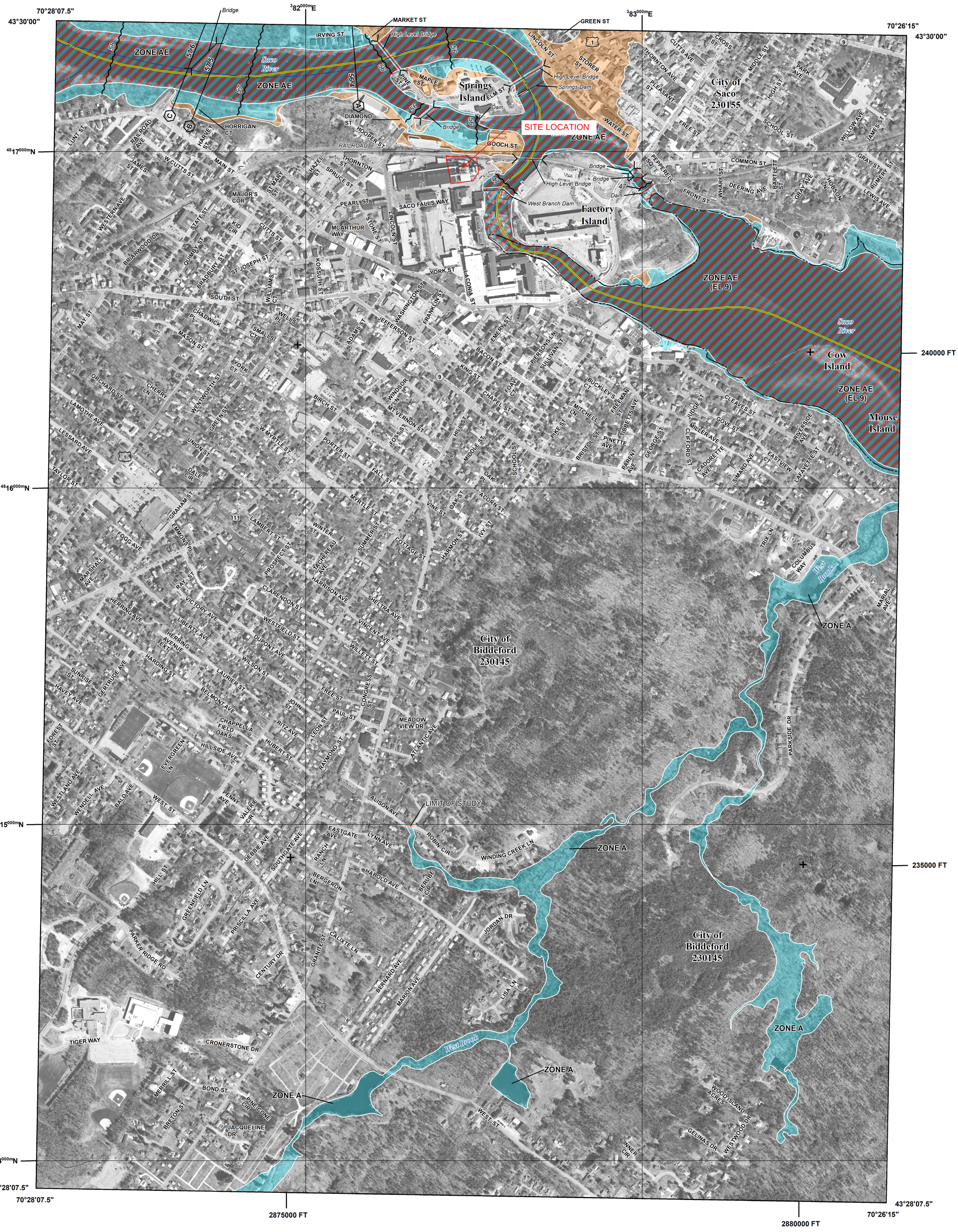
Section 19

Flooding

Section 19. Flooding

The proposed redevelopment project does not anticipate increasing peak flow runoff rates due to the decrease in impervious area from the previous MERC facility conditions. In addition, the projects stormwater will be directed to an existing subsurface treatment system that has been conservatively sized to treat and store stormwater for the site. The project is located near a major river segment (Saco River) and is eligible for a waiver from the flooding standard per Chapter 500, Section F, 3.

Attached is the FEMA flood map 23031C0452G dated 7/17/2024 which shows the site.



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A,V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- E 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 — Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM provided in digital format by State of Maine, Maine office of GIS (MeGIS). This information was derived from MeGIS, dated 2012.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and FDTs may reflect stream channel distances that differ from what is shown on the map.

SCALE

Map Projection:
NAD 1983 UTM Zone 19N;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 500 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

YORK COUNTY, MAINE
All Jurisdictions

PANEL 0452 OF 0800

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
BIDDEFORD, CITY OF	230145	0452	G
SACO, CITY OF	230155	0452	G

VERSION NUMBER
2.3.2.1

MAP NUMBER
23031C0452G

EFFECTIVE DATE
July 17, 2024

Section 20

Blasting

Section 20. Blasting

The project does anticipate some blasting during construction. Please refer to the General Blasting Recommendations and Boring Logs within the Geotechnical Report by Summit Geoengineering Services, Inc (found in Section 11. Soils). If required, the contractor shall be responsible for obtaining a blasting permit by the City of Biddeford's Fire Department and in conformance with the Code of Ordinances, Chapter 34, Article V: Blasting.

Section 21

Air Emissions

Section 21. Air Emissions

The project will not produce any point source air emissions. The project will also not produce any non-point source air emissions besides the vehicle traffic circulating throughout the site.

Section 22

Odors

Section 22. Odors

The project does not anticipate to produce any odors other than typical vehicle exhaust. The affected areas will be within the site where vehicles may idle.

Section 23

Water Vapor

Section 23. Water Vapor

The project is not anticipated to produce significant amounts of water vapor.

Section 24

Sunlight

Section 24. Sunlight

The proposed project does not anticipate blocking direct sunlight for abutting structures utilizing solar energy.

Section 25

Notices

Section 25. Notices

Notices for the public information meeting and for the intent to file application have been sent to all abutters and to City Planning Department officials on 6/9/25 as part of this Site Law Amendment submission to the city of Biddeford. The Newspaper notice is anticipated to be circulated on 6/10/2025.See attached for the list of abutters within 1,000 ft and associated abutter map.

It should be noted that the old certification form is provided that requests for mailings to be sent to direct abutters. (The mailings were sent to all abutters within 1,000 ft of the project to meet the DEPs updated requirements). New forms are not found on the DEPs website at this time. It is our understanding the DEP has been working on their new MELS system and this could be a reason why forms are not readily available.

Public Notice

Notice of Intent to File

Please take notice that 3 Lincoln, LLC, with a mailing address of 80 Exchange Street, Suite 400, Portland ME 04101, is intending to file a Stormwater Management Law Permit Application with the Maine Department of Environmental Protection (DEP) pursuant to the provisions of 38 M.R.S. § 420-D on or about: June 27th, 2025.

The project proposes to amend the previously approved DEP Stormwater Permits (L-10282-NJ-A-N & L-10282-NJ-C-A) programming on Pearl Street (Lot 3) in Biddeford from three total buildings to four. The amendment includes the addition of 5 townhomes and revises the original programming of building A from 85 to 52 units, building B from 129 to 85 units and building C will remain a restaurant use.

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application must be received by the Department in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Environmental Protection's office in Portland during normal working hours. A copy of the application may also be seen at the municipal offices in Biddeford, Maine.

Written or public comments may be sent to the regional office in Portland where the application is filed for public inspection: MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine, 04103.

PUBLIC NOTICE FILING AND CERTIFICATION

Department Rules, Chapter 2, require an applicant to provide public notice for all Stormwater Management Law projects within 30 days prior to filing the application. In the notice, the applicant must provide the information included in the attached Notice of Intent to File form. "Abutter" for the purposes of the notice provision means any person who owns property that is contiguous with the property on which the project requiring a license from the Department is proposed.

1. **Newspaper:** You must publish the Notice of Intent to File in a newspaper circulated in the area where the activity is located. The notice must appear in the newspaper within 30 days prior to the filing of the application with the Department. You may use the attached Notice of Intent to File form, or one containing identical information, for newspaper publication.

2. **Abutters and Others Owning Land Within 1,000 Feet:** You must mail a copy of the Notice of Intent to File to abutters and all persons owning land within 1,000 feet of the proposed project. Their names and addresses can be obtained from the town tax maps or local officials. They must receive notice within 30 days prior to the filing of the application with the Department.

3. **Municipal Office or County Commissioner(s):** You must mail a copy of the Notice of Intent to File and a duplicate of the entire application to the Municipal Office or, if the proposed project is located in an unorganized or deorganized area of the State, to the county commissioner(s). The Municipal Office or county commissioner(s) must receive notice within 30 days prior to the filing of the application with the Department.

ATTACH a copy of the published notice and a list of persons to whom notice was provided.

CERTIFICATION

By signing below, the applicant or authorized agent certifies that:

1. A Notice of Intent to File was published in a newspaper circulated in the area where the project site is located within 30 days prior to filing the application;

2. A mailing of the Notice of Intent to File was sent to all abutters and all other persons owning land within 1,000 feet of the proposed project within 30 days prior to filing of the application;

3. A mailing of the Notice of Intent to File, and a duplicate copy of the application was sent to the town office of the municipality in which the project is located or, if applicable, to the county commissioner(s); and

4. Provided notice of and held a public informational meeting, if required, in accordance with the Department's Chapter 2 rules, Processing of Applications and Other Administrative Matters, Section 12, prior to filing the application. Notice of the meeting was sent to abutters and all other persons owning land within 1,000 feet of the proposed project and to the town office of the municipality in which the project is located or to the county commissioner(s), as applicable, at least at least ten days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least seven days prior to the meeting.

The Public Informational Meeting was held on N/A.
(Date)

Approximately _____ members of the public attended the Public Informational Meeting.

Zachary Stevens
_____
Signature of Applicant or Authorized Agent

6/17/25
_____
Date

MBLU	Owner Name 1 Owner Name 2	Mailing Address 1	Mailing City Mailing State Mailing Zip
38-376	LUCID PROPERTIES, LLC	215 MAIN ST	BIDDEFORD, ME 04005
38-111	COMMUNITY HOUSING OF MAI	1 CITY CENTER 4TH FL	PORTLAND, ME 04101
40-37	TRUMPLER, NICHOLAS A	6 TALL PINES LN	SACO, ME 04072-9577
40-55	PRECISION SCREW MACHINE F	PO BOX 1944	BIDDEFORD, ME 04005
38-114	OUELLETTE, ROLANDE M	37 STONE ST	BIDDEFORD, ME 04005
40-10	B & D MEREALTY, LLC	172 WORCESTER RD	NATICK, MA 01760
38-119	LU, QIU SHUN	2 HEMLOCK DR	SACO, ME 04072
40-55-1	BIF II US RENEWABLE LLC	BARCLAY DAMON LLP (AMO)	SYRACUSE, NY 13202
38-372	CITY OF BIDDEFORD SHEVENE	PO BOX 586	BIDDEFORD, ME 04005-0586
38-124-1	BIDDEFORD SAVINGS BANK	MAINE COMMUNITY BANK ATTN: ACC	WESTBROOK, ME 04098-0558
40-10-1	B & D MEREALTY, LLC	172 WORCESTER RD	NATICK, MA 01760
38-379	TERCAT NORTH REALTY LLC C/	375 TOTTEN POND RD STE 200	WALTHAM, MA 02451
40-38	CITY OF BIDDEFORD	PO BOX 586	BIDDEFORD, ME 04005-0586
40-14	DO, TRANG THI & LE, TRUNG Q	555 DAISEY RD	LILESVILLE, NC 28091
40-57	JB PROPERTIES, LLC	PO BOX 2148	BIDDEFORD, ME 04005
40-67-1	PELONE, LLC	419 PRESUMPSCOT ST	PORTLAND, ME 04103
	MILLS AT PEPPERELL LLC THE	2 MAIN ST SUITE 17301E	BIDDEFORD, ME 04005
40-67	C & T REALTY, LLC	4 INNKEEPER LN	FALMOUTH, ME 04105-2530
38-377	SACO RIVER REALTY LLC	193 MAIN ST SUITE 106	BIDDEFORD, ME 04005
40-52-1	BIF II US RENEWABLE LLC	BARCLAY DAMON LLP (AMO)	SYRACUSE, NY 13202
40-28	YD HOLDINGS, LLC	5 RITA RD	KENNEBUNKPORT, ME 04046
40-52-2	LI, RI TENG WANG, WEI YI	PO BOX 495	MOODY, ME 04054
40-10-2	B & D MEREALTY, LLC	172 WORCESTER RD	NATICK, MA 01760
40-31	PORCELLA, BREWSTER	6720 SPRINGHILL DR	FREDERICK, MD 21702
40-13	WEBB, DOREEN A	15 HOOPER ST	BIDDEFORD, ME 04005-2016
40-70	ROWELL, LLC	PO BOX 157	SPRINGVALE, ME 04083
	MILLS AT PEPPERELL LLC THE	2 MAIN ST SUITE 17301E	BIDDEFORD, ME 04005
40-52	KITCHEN, STEPHEN C	560 ELM ST	MERCER, ME 04957
40-58	BOSTON & MAINE RAILROAD C	500 WATER ST J-910	JACKSONVILLE, FL 32202
38-134	FULL CIRCLE PROPERTIES LLC	215 MAIN ST	BIDDEFORD, ME 04005
40-5	J E PROPERTIES LLC C/O DUPU	2 SPRUCE ST	BIDDEFORD, ME 04005
40-42	FIVE GAS, LLC	778 PORTLAND RD	SACO, ME 04072
40-32	CLARK, WILLIAM E JR & KATHER	38 MAPLE ST	BIDDEFORD, ME 04005-2021
40-73	DROWN, WILLIAM C	30 STONE ST	BIDDEFORD, ME 04005-2005
38-135	THE 227 GROUP	PO BOX 1259	BIDDEFORD, ME 04005
40-23	88 ELM STREET, LLC	172 WORCESTER RD	NATICK, MA 01760-2229
40-1	FJH PROPERTIES, LLC	35 CARROLL ST	FALMOUTH, ME 04105
40-25-1	GLOVES ETC INC C/O BRIAN T	PO BOX 546	BIDDEFORD, ME 04005-0546
	NORTH DAM LLC	2 MAIN ST 17-301E	BIDDEFORD, ME 04005
40-16	O'KEEFE, SEAN & REBECCA	31 HOOPER ST	BIDDEFORD, ME 04005
40-26	ANASTASOFF, ALEXANDER P	PO BOX 2895	SOUTH PORTLAND, ME 04106
71-9	RIVERDAM MILL LLC	PO BOX 535	BUXTON, ME 04093
38-350	KEELY, VINCENT ET AL	25 OCEANVIEW DR	BIDDEFORD, ME 04005

38-127	244 MAIN ST PROPERTIES INC	MAINE COMMUNITY BANK ATTN: ACC	WESTBROOK, ME 04098-0558
40-67-2	PELONE, LLC	419 PRESUMPSCOTT ST	PORTLAND, ME 04103
40-71-1	SHAI PROPERTY MANAGEMENT	316 MAIN ST STE 202	BIDDEFORD, ME 04005
40-12	TREADWELL, ASHLEY	11 HOOPER ST	BIDDEFORD, ME 04005
40-24	PFP LAWRENCE INC. NORTHE	56 KEARNEY RD	NEEDHAM, MA 02494
40-6	VANCE, WARREN VANCE, MICH	PO BOX 661	SACO, ME 04072
38-113	P&C HOLDINGS, LLC	260 MAIN ST	BIDDEFORD, ME 04005
40-56	FIFTY NINE ELM STREET LLC	380 WARREN AVE	PORTLAND, ME 04103
38-338-1	SACO RIVER REALTY LLC	193 MAIN ST SUITE 106	BIDDEFORD, ME 04005
40-36	POULIN, MAURICE C	487 LIMERICK RD	ARUNDEL, ME 04046
38-112	YORK COUNTY COMMUNITY AC	PO BOX 72	SANFORD, ME 04073-0072
40-5-1	BOSTON & MAINE RAILROAD C	500 WATER ST J-910	JACKSONVILLE, FL 32202
40-69	ROWELL, LLC	PO BOX 157	SPRINGVALE, ME 04083
38-29	DE DONUTS HOLDINGS LLC C/	476 ALFRED ST	BIDDEFORD, ME 04005
40-20-1	ARGETES, DEBRA M	22 HOOPER ST	BIDDEFORD, ME 04005
38-123	MCARTHUR LIBRARY ASSOCIAT	270 MAIN ST	BIDDEFORD, ME 04005-2413
40-8	BOUCHER, NELSON & ROBERT	9 THORNTON ST	BIDDEFORD, ME 04005-2023
	MILLS AT PEPPERELL LLC THE	2 MAIN ST SUITE 17301E	BIDDEFORD, ME 04005
71-9-4	COUNTING HOUSE LLC	25 SUMMER ST	PORTLAND, ME 04102
40-25	RSTBR LLC	18 KELLY LN	SCARBOROUGH, ME 04070
40-29	LAPIERRE, GERARD H & JANICE	17 PINE ST	BIDDEFORD, ME 04005-2032
40-35	COVEHEAD BAY HOLDINGS, LL	48 OCEANSIDE DR	SACO, ME 04072
40-71	23 LINCOLN, LLC	PO BOX 2456	OGUNQUIT, ME 03907-2456
40-39-1	NEW DAM, LLC	14 ELM ST	BIDDEFORD, ME 04005
40-5-2	J E PROPERTIES, LLC	2 SPRUCE ST	BIDDEFORD, ME 04005
38-351	208 MAIN BIDDEFORD, LLC	1504 STANFORD DR NE	ALBUQUERQUE, NM 87106
38-128	BIDDEFORD SAVINGS BANK	MAINE COMMUNITY BANK ATTN: ACC	WESTBROOK, ME 04098-0558
40-68	FRECHETTE PROPERTIES, LLC	129 COTTAGE RD	GRAY, ME 04039
40-55-2	BIF II US RENEWABLE LLC	BARCLAY DAMON LLP (AMO)	SYRACUSE, NY 13202
38-115	GARNER, ELIZABETH W	10 PEARL ST	BIDDEFORD, ME 04005
40-30	GMMG PROPERTIES, LLC	58 NEW COUNTY RD	SACO, ME 04072
40-18	TIBBETTS, MARK P	24 HOOPER ST	BIDDEFORD, ME 04005
38-129-1	FOURTH GEN, LLC	30 ORCHARD ST	BIDDEFORD, ME 04005
38-338	THACHER HOTEL LLC	193 MAIN ST	BIDDEFORD, ME 04005
40-33	MCFARLAND, RICHARD A	976 BRIGHTON AVE	PORTLAND, ME 04102-1008
38-130	BANGOR SAVINGS BANK	PO BOX 930	BANGOR, ME 04402-0930
40-27	LAURIE AND DAVID, LLC	307 EAST BRIDGE ST	WESTBROOK, ME 04092
40-8-1	FORZLEY, CHARLES N	329 STARLIT WAY	MYRTLE BEACH, SC 29579
38-129	NEW MORNING BIDDEFORD, LI	230 MAIN ST	BIDDEFORD, ME 04005
40-41	ARMSTRONG, C D	14 ELM ST	BIDDEFORD, ME 04005-2008
40-40	NEW DAM, LLC	14 ELM ST	BIDDEFORD, ME 04005
38-378	EHDG DEVELOPMENT PROPER	26 PLYMOUTH DR	SACO, ME 04072-1734
71-9-2	THE LOFTS AT SACO FALLS, LP	10 FREE ST, 3RD FLOOR	PORTLAND, ME 04101

,

40-11	TRACY, SUSAN A HALE, SHER A	3 HOOPER ST	BIDDEFORD, ME 04005
40-43	FIVE GAS, LLC	778 PORTLAND RD	SACO, ME 04072
40-51	BIF II US RENEWABLE LLC	BARCLAY DAMON LLP (AMO)	SYRACUSE, NY 13202
40-56-1			,
38-124	P&C HOLDINGS, LLC	260 MAIN ST #1	BIDDEFORD, ME 04005
40-7	DEVLIN, MARTIN	416 MAIN ST #2	SACO, ME 04072-1523
40-20	WILMOT, KELLY T & DANIEL J	20 HOOPER ST	BIDDEFORD, ME 04005
38-116	BROWN, VANESSA	6 PEARL ST APT 202	BIDDEFORD, ME 04005
40-22	LANDRY, ANDREW D	6 HOOPER ST	BIDDEFORD, ME 04005
40-6-1	POIRIER, ROLAND & CECILE T	43 SHADAGEE RD	SACO, ME 04072
40-50	ARMSTRONG, CHARLES D C/O	14 ELM ST	BIDDEFORD, ME 04005-2008
38-117	TRAN, CAM & SANG	110 WESTERN AVE	BIDDEFORD, ME 04005
40-39	READY, FRANCES	18 MAPLE ST	BIDDEFORD, ME 04005-2021
40-26-1	ANASTASOFF APARTMENTS, LL	PO BOX 2895	SOUTH PORTLAND, ME 04116
40-72	ATRIX NORTH REALTY LLC C/O	375 TOTTEN POND RD STE 200	WALTHAM, MA 02451
38-133	CITY OF BIDDEFORD MUNICIP/	PO BOX 586	BIDDEFORD, ME 04005-0586
			,
			,
71-9-1	THE MILL AT SACO FALLS LP C	10 FREE ST, 3RD FLOOR	PORTLAND, ME 04101
			,
			,
71-2	CITY OF BIDDEFORD	PO BOX 586	BIDDEFORD, ME 04005
40-55-3	PRECISION SCREW MACHINE F	PO BOX 1944	BIDDEFORD, ME 04005
38-134-1	THE 227 GROUP	PO BOX 1259	BIDDEFORD, ME 04005
38-132	CITY OF BIDDEFORD CITY PARI	PO BOX 586	BIDDEFORD, ME 04005-0586
			,
71-9-3	MACHINE SHOP #1 STUMP, LLC	PO BOX 535	BUXTON, ME 04093
38-125	BIDDEFORD SAVINGS BANK	MAINE COMMUNITY BANK ATTN: ACC	WESTBROOK, ME 04098-0558
71-4	TLC BUGBEE BROWN BUILDING	1 BLACKBERRY LN	SACO, ME 04072
71-5	LHL HOLDINGS, LLC	3 PENSTOCK WAY	NEWMARKET , NH 03857
38-126	BIDDEFORD SAVINGS BANK	MAINE COMMUNITY BANK ATTN: ACC	WESTBROOK, ME 04098-0558
38-131	BANGOR SAVINGS BANK	PO BOX 930	BANGOR, ME 04402-0930
71-8	CITY OF BIDDEFORD	PO BOX 586	BIDDEFORD, ME 04005-0586
71-5-1	GALLAGHER'S RAINBOW INC	36 MAY ST	BIDDEFORD, ME 04005
71-10			,

Saco

037002000000	BUILDING 108 ASSOCIATES LP	PO BOX 759	ME,04072
37004000000	BROOKFIELD WHITE PINE HYDI	BARCLAY DAMON LLP	NY,NY,13202
37003000000	CENTRAL ME POWER CO	LOCAL TAXES	ME,04101
37010000000	CITY OF SACO	300 MAIN ST	ME,04072
37999000000	BOSTON & MAINE RAILROAD	IRON HORSE PARK	NORTH BILLERICA, MA 018862

37002000000	BUILDING 108 ASSOCIATES LP	PO BOX 759	ME,04072
37001001000	MILLER SETH	1 SACO ISLAND TERRACE 406	ME,04072
037001000000	THE ROTM LOFTS LLC	PO BOX 596	ME,04345
37008001000	SACO MILL NO 4 LLC	3 PENSTOCK WAY	NH,03857

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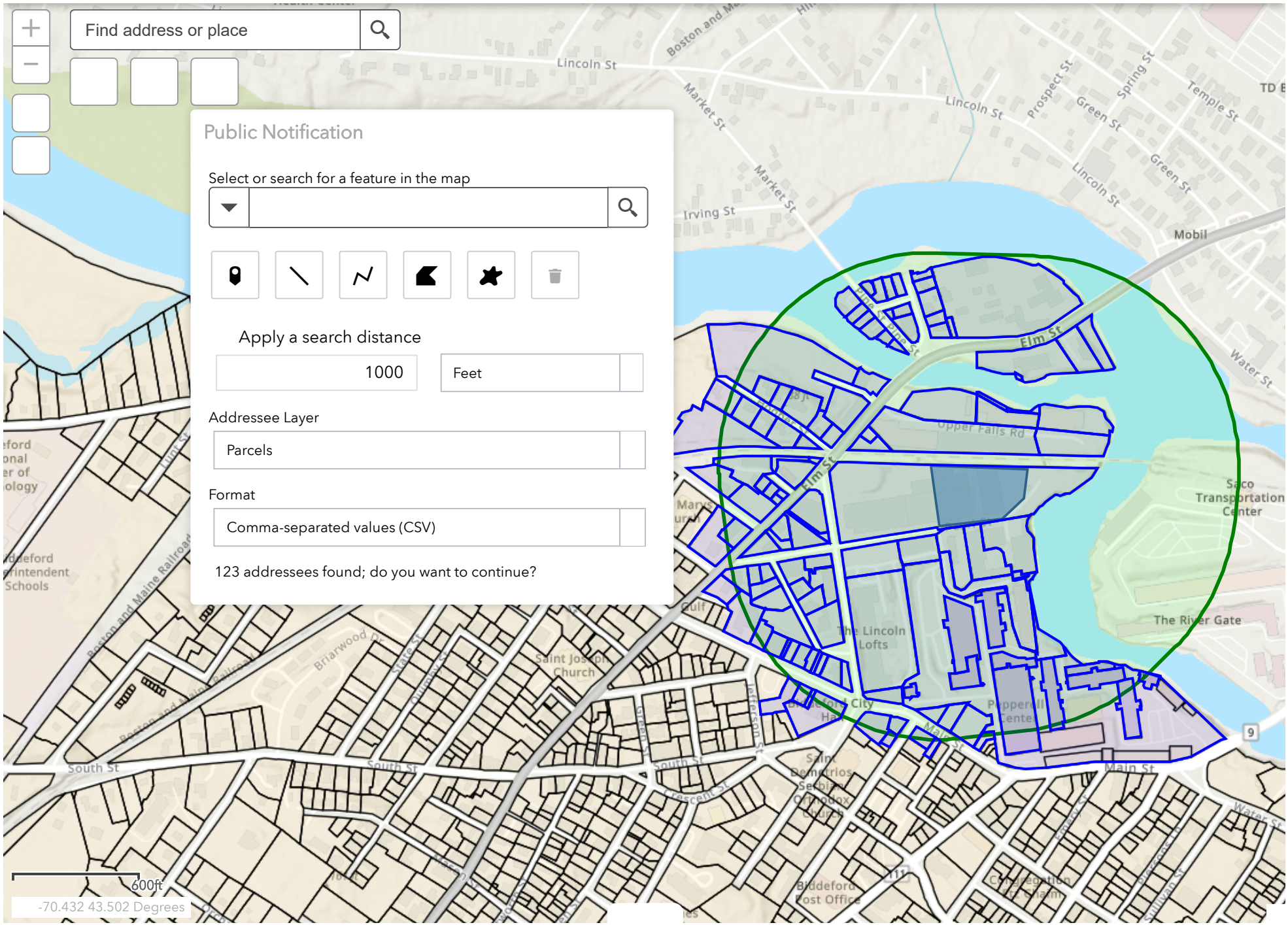
with ArcGIS Web AppBuilder



Section 26

Maine Tribe & Nations Correspondence

Section 26. Maine Tribes/Nations Correspondence

See attached letters to associated Maine Tribes and their corresponding responses received thus far.

ACORN ENGINEERING, INC.

Mr. Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Pleasant Point & Indian Township Reservation
PO Box 343
Perry, Maine 04667

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Donald Soctomah:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from the Tribe of Passamaquoddy Tribe of Indians regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Tribal Historic Preservation Office
Passamaquoddy Tribe
PO Box 159 Princeton, Me. 04668
207-214-4051

December 14, 2022

Zachary Stevens, E.I.
Project Engineer
Licensed in Maine
Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

- Re: Biddeford – 3 Lincoln St Project

Dear Zachary;

The Passamaquoddy THPO has reviewed the following applications regarding the historic properties and significant religious and cultural properties in accordance with NHPA, NEPA, AIRFA, NAGPRA, ARPA, Executive Order 13007 Indian Sacred Sites, Executive Order 13175 Consultation and Coordination with Indian Tribal 107 Maine State Governments, and Executive Order 12898 Environmental Justice.

The Projects listed above will not have any impact on cultural and historical concerns of the Passamaquoddy Tribe. Should buried artifacts, human remains, cultural sites or ground features be unexpectedly unearthed during ground disturbing activities, all construction should immediately cease and the resources be examined by a professional archaeologist. Additionally, all appropriate authorities-including all pertinent tribal entities should be notified.

Sincerely;

Donald Soctomah
Soctomah@gmail.com
THPO
Passamaquoddy Tribe

ACORN ENGINEERING, INC.

Kendyl Reis, THPO
Mi'Kmaq Nation
7 Northern Road
Presque Isle, ME 04769

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Kendyl

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from Mi'Kmaq Nation regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Tribal Historic Preservation Office
Mi'kmaq Nation (Formerly known as the Aroostook Band of Micmac)
Kendyl Reis
Tribal Historic Preservation Officer
7 Northern Road
Presque Isle, ME 04769
Phone: (207)764-1972 ext. 161
kreis@micmac-nsn.gov

3 Lincoln Street Redevelopment Biddeford
January 5th, 2023

Based on the project description, we do not have knowledge of any specific sites or cultural features that exist at the proposed project location(s).

However, this geographic area does constitute traditional areas that were historically utilized by members of the Mi'kmaq Nation and the other Wabanaki Tribes. Therefore, we respectfully request that if during the course of excavation/construction activities, human remains, artifacts, or any other evidence of Native American presence is discovered, that site activities in the vicinity of the discovery immediately cease, pending notification to us.

In addition, if this project results in wetland disturbances requiring mitigation, we are requesting that you utilize the black ash (Fraginus nigra) as the principal wetland species for wetland restoration activities. The black ash tree has special significance in the culture of the northeastern Tribes and is used extensively for weaving baskets and other Native American crafts. The black ash tree also provides valuable food and habitat for migratory waterfowl and other wildlife. Unfortunately, however, this species has been selected against by foresters and landowners who favor other tree species. As a result of this, and other environmental factors, the black ash tree is in serious decline in Maine. The Mi'kmaq Nation has completed several black ash wetland restoration projects and have a dependable source for highly-quality seedlings, and the experience and expertise to assist you with black ash wetland restoration projects.

On the subject of human remains, artifacts, or any other evidence of Native American presence is discovered. The human remains will be reburied with the appropriate respect for the remains that is required at a distinctive and respectable site. The artifacts and other evidence of Native American discovery will be documented with appropriate detail. The items will be analyzed for the precise period of the items' distinctive period and will be documented by the Tribal Historic Preservation Officer for the Mi'kmaq Nation.

If you have any questions or comments, please feel free to contact me.

Sincerely,

Kendyl Reis
Tribal Historic Preservation Officer

ACORN ENGINEERING, INC.

Environmental Planner
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

To Environmental Planner:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from the Houlton Band of Maliseet Indians regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Zach Stevens

From: Isaac St John <istjohn@maliseets.com>
Sent: Tuesday, January 24, 2023 8:31 AM
To: Zach Stevens
Subject: RE: 3 Lincoln Street Redevelopment - Biddeford

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning,

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

Thank you,

Isaac St. John
Tribal Historic Preservation Officer
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730

From: Zach Stevens [mailto:zstevens@acorn-engineering.com]
Sent: Wednesday, December 14, 2022 2:33 PM
To: Isaac St John <istjohn@maliseets.com>
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: 3 Lincoln Street Redevelopment - Biddeford

Hello,

As part of the Site Location of Development Application for the project located at 3 Lincoln Street in Biddeford, we are reaching out to confirm the proposed redevelopment has no adverse effects to any historical or archaeological land.

Please find the attached letter and vicinity map to facilitate your review. Please let us know if you need any additional information.

Zachary Stevens, E.I.
Project Engineer

Licensed in Maine

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104
Acorn's Website | Instagram | LinkedIn

B. 207.775.2655
C. 207.240.2993

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ACORN ENGINEERING, INC.

Mr. Christopher Sockalexis, THPO
Cultural & Historic Preservation Department
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Sockalexis:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from Penobscot Nation regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Section 27

Declaration of Easements, Covenants, and Restrictions

Section 27: Declaration of Easements, Covenants, and Restrictions

Please refer to the plans listed below for the existing easements across the property.

1. Existing Conditions Survey prepared by Owen Haskell, Inc. on February 28, 2025.

See below for the easements proposed as part of this project:

1. Public access easement in perpetuity over the internal courtyard (woonerf) area. See the Subdivision Plat for additional information.

See attached for the proposed Covenants:

August 27, 2025

City of Biddeford
c/o Brian Phinney, Acting City Manager
P.O. Box 586
205 Main Street
Biddeford, Maine 04005

Re: Covenant Regarding Future Maintenance Agreement By and Between 3 Lincoln, LLC ("Developer") and the City of Biddeford, Maine ("City").

Dear Sir:

This letter shall serve as evidence of Developer's obligation to enter into a maintenance agreement for repair and maintenance of the accessway identified as "Proposed Access and Maintenance Easement E from the City of Biddeford to the Owners of Lot 3" on a plan titled "Subdivision Plat, Pearl Street Redevelopment, Biddeford, Maine" prepared by Acorn Engineering, Inc. and approved on July 2, 2025 (the "Plan"). Developer hereby agrees to enter into such maintenance agreement following approval by the Planning Board but prior to the issuance of any Certificates of Occupancy for the project. The exact terms of the maintenance agreement shall be commercially reasonable and mutually acceptable to the Developer and the City. The agreement shall, at a minimum, require the Developer to pay its proportional share of all snow removal costs and to perform regular maintenance of the accessway to ensure that its condition remains suitable to support the project, its associated uses, and to remain in compliance with the Ordinances of the City of Biddeford. This letter also serves as confirmation that the Developer will design the accessway to include widening it to 22 feet and relocating the sidewalk to the opposite side of the accessway, as requested by the City.

Sincerely,

3 LINCOLN LLC

By: _____
James H. Brady, Manager

Cc: Keith R. Jacques, Esquire
Woodman Edmands Danylik Austin Smith & Jacques, P.A.
P.O. Box 468
234 Main Street
Biddeford, Maine 04005

Harry B. Center, II, Esquire
Woodman Edmands Danylik Austin Smith & Jacques, P.A.
P.O. Box 468
234 Main Street
Biddeford, Maine 04005

David Galbraith, City Planner, Deputy Director of Planning & Development

August 27, 2025

City of Biddeford
c/o Brian Phinney, Acting City Manager
P.O. Box 586
205 Main Street
Biddeford, Maine 04005

Re: Covenant Regarding Future Maintenance Agreement By and Between 3 Lincoln, LLC ("Developer") and the City of Biddeford, Maine ("City").

Dear Sir:

This letter shall serve as evidence of Developer's obligation to enter into a stormwater maintenance agreement with the City for maintenance of the shared stormwater maintenance system located underneath Lot 4, adjacent to the project, identified on Department of Environmental Protection permits "L-10282-NJ-A-N" and "L-10282-NJ-C-A" as amended and approved on April 8, 2020 and March 28, 2023, respectively. The Agreement shall provide that, unless otherwise mutually agreed, the Developer shall be responsible for 20.15% of the maintenance costs, reflecting Lot 3's proportional contribution to pollutant levels, as determined by the pollutant ranking. Developer hereby agrees to enter into such maintenance agreement following approval of the Lot 3 project by the Planning Board but prior to the issuance of any Certificates of Occupancy for the project. The exact terms of the maintenance agreement shall be commercially reasonable and mutually acceptable to the Developer and the City.

Sincerely,

3 LINCOLN LLC

By: _____
James H. Brady, Manager

Cc: Keith R. Jacques, Esquire
Woodman Edmands Danylik Austin Smith & Jacques, P.A.
P.O. Box 468
234 Main Street
Biddeford, Maine 04005

Harry B. Center, II, Esquire
Woodman Edmands Danylik Austin Smith & Jacques, P.A.
P.O. Box 468
234 Main Street
Biddeford, Maine 04005

David Galbraith, City Planner, Deputy Director of Planning & Development

Section 28

Traffic & Parking Overview

Section 28: Traffic & Parking Overview

This project proposes to amend the previous Major Site Plan and Subdivision approval (2022.02) programming from three (3) total buildings on Lot 3 to four (4) total buildings. The amendment includes the addition of five (5) townhomes and revises the original programming of building A from 85 residential units to 52 units, building B from 129 residential units to 85 units, and building C will remain as a restaurant with 154 total seats (previously 298 seats).

Access to Building B covered parking will be available from the drive aisle located on Lot 2, and access to Building A will be located directly from Pearl Street. As the project will produce greater than 100 peak hour trips, the project required a Maine DOT Traffic Movement Permit. A copy of the previously approved TMP application is attached to this section. It should be noted that the amended programming of the site, as reported in the breakdown below, is a reduction in units and trips to the previously approved TMP. We understand the DOT has a draft TMP ready for issuance.

In accordance with the City's Land Development Regulations, Performance Standards for off-street parking and loading, Table 6-49B: Parking space requirements, the project parking demand requires two (2) parking spaces per dwelling unit (One (1) if designed exclusively for, and occupancy is restricted to, senior housing, studio apartments and 1-bedroom apartments), plus an additional 5% for residential visitors, 1 space for every 3 restaurant seats, and 1 space for every 300 square feet of floor space for retail. This results in a total of 240 spaces required ((1 space/D.U. x 5 D.U.) + (0.05 x 5 D.U.) + (1 space/D.U. x 42 1-bedroom D.U.) + (2 space/D.U. x 10 2-bedroom D.U.) + (0.05 x 52 D.U.) + (1 space/D.U. x 59 1-bedroom D.U.) + (2 space/D.U. x 26 2-bedroom D.U.) + (0.05 x 85 D.U.) + (1 space / 300 sf of floor space x 953 sf) + (1 space/3 seats x 154 estimated restaurant seats) = 240 spaces).

The project proposes a waiver to exclude the 55 Commercial use parking spaces required from the restaurant which would bring the 240 parking spaces requirement down to 185.

The project proposes providing covered parking on the lower level of building A totaling 22 spaces, and covered parking on the lower level of building B totaling 18 spaces, and each townhome will have an associated 1 car garage for each unit. Therefore, an additional 140 spaces are required to be leased from the Pearl Street City parking garage located on Lot 2. The applicant is working with the garage operating managers to secure the lease for these spaces and can forward a copy upon receipt.

Attachments:

1. Maine Department of Transportation Traffic Movement Permit Application prepared by TYLIN
2. Preliminary Traffic Impact Review prepared by Sewall
3. Comment Response Letter prepared by TYLIN
4. City of Biddeford TMP Letter

MAINE DEPARTMENT OF TRANSPORTATION

TRAFFIC MOVEMENT PERMIT APPPLICATION

REQUEST FOR SCOPING MEETING

3 Lincoln Street Project

Residential Apartments and Restaurant

Pearl Street, Biddeford, Maine

September 20, 2021

Submitted by:

T.Y. Lin International
12 Northbrook Drive
Building A, Suite One
Falmouth, Maine 04105

T·Y·LIN INTERNATIONAL

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID#

Total Fees:
Date Received:

****

PERMIT APPLICATION - TRAFFIC

TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 - A

Please type or print:

This application is for: Traffic 100-200 PCE's ___
Traffic 200+ PCE's **X**

Name of Applicant **3 Lincoln, LLC**

Address: **80 Exchange Street, Suite 400, Portland, ME 04101** Telephone: **207.808.8787**

Name of local contact or agent: **Thomas A. Errico, P.E., T.Y. Lin International**

Address: **12 Northbrook Drive, Falmouth, Maine** Telephone: **207.347.4354**

Name and type of development: **3 Lincoln Street Project – Residential Apartments and Restaurant**

Location of development including road, street, or nearest route number: **Lot 3 Pearl Street**

City/Town/Plantation: **Biddeford**, County: **York**, Parcel #: **Map 71 / Lot 2**

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes ___ No **X**

Was this development started prior to obtaining a traffic permit? **No**

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 - A, chapter 187)?

Yes **X** No _

Is this project located within a compact area of an urban compact municipality? Yes **X** No _

Is this development or any portion of the site currently subject to state or municipal enforcement action?

No

Existing DEP or MDOT permit number (if applicable): **N/A**

Name(s) of DOT staff person(s) contacted concerning this application: **N/A**

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: **N/A**

CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: Thomas A. Errico Re/Cert/Lic No.: ME 6618

Name (print): Thomas A. Errico, PE

Date: September 20, 2021

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Signature of applicant 8/26/21

Signature of applicant Date

NOTICE OF INTENT TO FILE

Please take notice that 3 Lincoln, LLC, 80 Exchange Street, Suite 400, Portland ME 04092, (207) 808-8787 is intending to file a Traffic Movement Permit application with the Maine Department of Transportation pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about August 25, 2021.

The application is for:
The development of 191 apartment units and a 298 seat restaurant. The project is expected to generate 61 new trips during the weekday AM peak hour, 296 trips during the weekday PM peak hour and 245 trips during the Saturday peak hour. Access and egress will be via Pearl Street.

At the following location:
Lot 3 Pearl Street in Biddeford, Tax Map 71 / Lot 2

A request for a public hearing must be received by the Department, in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Transportation Division office in Scarborough during normal working hours. A copy of the application may also be seen at the municipal offices in **Biddeford, Maine**.

Written public comments may be sent to the Department of Transportation, Traffic Engineering Division, 16 State House Station, Augusta, Maine 04333.

SECTION 1
SITE AND TRAFFIC INFORMATION

1.A. Site Plan

The project consists of the following:

Lot 3A – 83 Residential Apartments Units
- (17) studio
- (32) 1-bedroom
- (23) 2-bedroom
- (11) 3-bedroom
- 50 parking spaces underground parking garage

Lot 3B – 108 Residential Apartments Units
- (42) studio
- (42) 1-bedroom
- (24) 2-bedroom
- 37 parking spaces underground parking garage

Lot 3C – (2) Restaurants - 298 seats total
- 170 seats in lower level
- 128 seats in upper level

Parking for the residential uses will be provided within each residential building and the adjacent parking gararge. Parking for the restaurant use will be via area public parking sites and for this study it is assumed to be in the recently opened Pearl Street parking garage. A site plan prepared by Acorn Engineering Inc. is attached.

1.B. Existing and Proposed Site Uses

The project site is located on Pearl Street located off Lincoln Street in Biddeford. The parcel to be developed is identified on Biddeford Tax Map #: Lot 71 /Lot 2. Currently the site is vacant and as noted above will consist of residential and restaurant land uses.

1.C. Site and Vicinity Boundaries

Figure 1 depicts a location map illustrating roads in the vicinity of the project.

1.D. Proposed Uses in the Vicinity of the Proposed Development

TYLI has contacted the Biddeford Planning office for proposed developments that may impact the study area. Projects that have been approved and not occupied will be included as background traffic in the analysis.

1.E. Trip Generation

Trip generation from the site was based upon information contained in the Trip Generation Manual, Institute of Transportation Engineers, 10th Edition. **Table 1** summarizes Weekday AM and PM peak hour traffic volumes (see Appendix for supporting information). Traffic generated by the proposed project was based on Land Use Code 221 Multifamily Housing (Mid-Rise) and Land Use Code 932 High-Turnover (Sit-Down Restaurant). The volumes represent trip generation for the Peak Hour of Generator. The following summarizes the trip generation rates and trip distribution used for the project.

- Land Use Code 221 Multifamily Housing (Mid-Rise)
  - AM Peak Hour of Generator
    - Average Rate Per – 0.32 per unit
    - **Ln(T) = 0.83 Ln(X) – 0.27 [used for this Application]**
    - Directional Distribution: 20% Entering, 73% Exiting
  - PM Peak Hour of Generator
    - Average Rate Per – 0.41 per unit
    - **Ln(T) = 0.83 Ln(X) – 0.05 [used for this Application]**
    - Directional Distribution: 60% Entering, 40% Exiting
  - Saturday Peak Hour of Generator
    - Average Rate Per – 0.44 per unit
    - **T = 0.42 (X) + 6.73 [used for this Application]**
    - Directional Distribution: 49% Entering, 51% Exiting
- Land Use Code 932 High-Turnover (Sit-Down Restaurant)
  - AM Peak Hour of Generator
    - Average Rate Per – 0.59 per seat [Restaurant will not be open and thus excluded]
    - Equation not given
  - PM Peak Hour of Generator
    - **Average Rate Per – 0.73 per seat [used for this Application]**
    - Equation not given
    - Directional Distribution: 52% Entering, 48% Exiting
  - Saturday Peak Hour of Generator
    - **Average Rate Per – 0.53 per seat [used for this Application]**
    - Equation not given
    - Directional Distribution: 53% Entering, 47% Exiting

Given the type of land uses proposed, internal capture trip activity will occur (residents dining at the restaurant or employees of the restaurant living in the proposed housing, as examples). To estimate the internal capture influence NCHRP 684 methods were used. The NCHRP 684 method estimates a modest 5% reduction in the PM peak hour and 9% during the Saturday peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, no adjustments were included. Additionally, not all traffic generated by the project are new trips to area roadways. Some site trips comprise of "Pass-By" trips. According to ITE, a pass-by trip is made as an intermediate stop on the way from an origin to a primary trip destination without a route diversion. Pass-By trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. According to ITE a Restaurant (Land Use Code 932) has an average Pass-By trip percentage of 43 percent. Saturday Pass-By percentages are not provided, and the Weekday percentages was used As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 162 new trips during the afternoon peak hour and 127 new trips during the Saturday peak hour.

Table 1
Trip Generation
Peak Hour of Generator

	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Residential Apartment (191 Units)	16	45	61	47	31	78	43	44	87
Restaurant (298 Seats)[1]	N/A	N/A	N/A	113	105	218	84	74	158
Sub-Total	16	45	61	160	136	296	127	118	245

Internal Capture Trips	N/A	N/A	N/A	-7	-7	-14	-11	-11	-22
Total Entering and Exiting Site	16	45	61	153	129	282	116	107	223
Restaurant Pass-By Trips (43%)[2]	N/A	N/A	N/A	-60	-60	-120	-48	-48	-96
Total New Traffic	16	45	61	93	69	162	68	59	127

1 – The restaurant is not open during the morning peak hour

2 – Saturday Pass-By trips not provided, and weekday PM utilized.

1.F Trip Distribution

The assignment of trips to the area roadway system was based upon existing traffic volume patterns and approved assignment percentages defined in the Riverdam Redevelopment Traffic Impact Study. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Lincoln Street onto Pearl Street – 58%
- Right-turn from Lincoln Street onto Pearl Street – 22%
- Through movement on Pearl from Elm Street – 20%

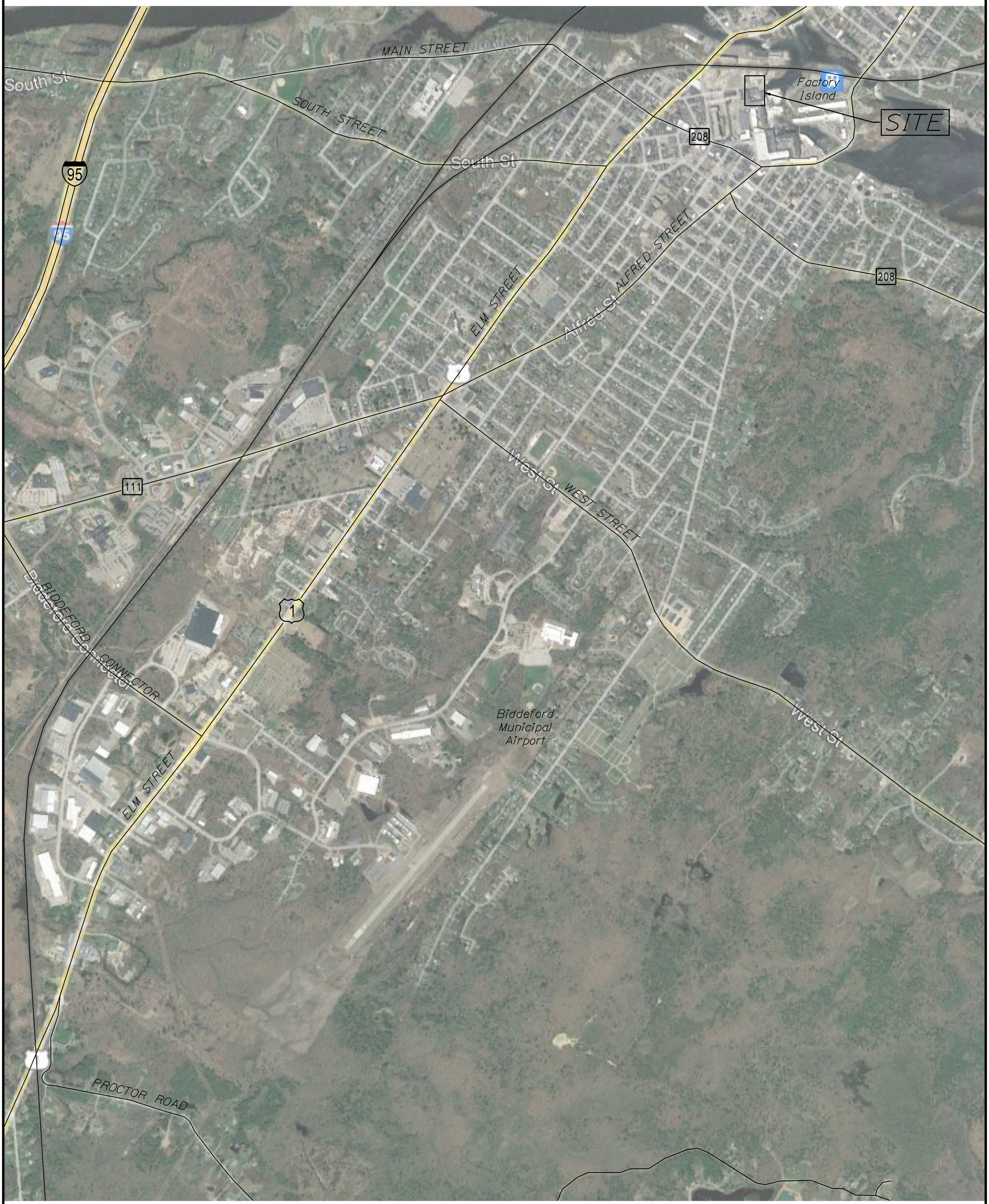
Exiting Trips

- Left-turn from Pearl Street onto Lincoln Street – 38%
- Through movement on Pearl Street to Elm Street – 10%
- Right-turn from Pearl Street onto Lincoln Street – 52%

Trips distributed above were assigned to the Main Street/Lincoln Street/Adams Street, Elm Street/Lincoln Street, Elm Street/Main Street and Pearl Street/Main Street intersections according to existing peak hour turning movement volumes. Data is not available at Elm Street and Pine and Elm Street/Water Street/Lincoln Street and was estimated according to our local knowledge. Assignments at these locations will be revised as necessary. The turning movements volumes are provided in the Appendix.

1.G Trip Assignment

Figures 2, 3 and 4 present the assignment of Primary, Pass-By and Total trips during the Weekday AM and PM peak hours and the Saturday peak hour.



T-Y-LIN INTERNATIONAL

FIGURE NUMBER	BIDDEFORD 3 LINCOLN STREET PROJECT	PROJ. MANAGER	T. ERRICO	BY	DATE		
1	STUDY LOCATION PLAN	DESIGN-DETAILED	S. DAVIS			SIGNATURE	MaineDOT TMP APPLICATION
		CHECKED-REVIEWED				P.E. NUMBER	
		DESIGN2-DETAILED2				DATE	
		DESIGN3-DETAILED3					
		REVISIONS 1					
		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4					
		FIELD CHANGES					

Filename: ...\Figure 2 Primary Trips.dgn Division: HIGHWAY Username: Date:9/17/2021

MAPLE STREET
MAPLE STREET
MAPLE STREET
PINE STREET
WALNUT STREET
LINCOLN STREET
GREEN STREET
THORNTON AVENUE
ELM STREET
PLEASANT STREET
STORER STREET
WATER STREET
DIAMOND STREET
GOOCH STREET
HOOPER STREET
SOUTH STREET
SPRUCE STREET
ST. MARYS STREET
PEARL STREET
SACO FALLS WAY
STONE STREET
LINCOLN STREET
CENTER STREET
JEFFERSON STREET
ADAMS STREET
YORK STREET
MAIN STREET
GOOCH STREET
MAIN STREET

LOT 3B
LOT 3A
LOT 3C

29(24)
5(5)
5(5)
21(16)
34(29)
20(10)
10(10)
21(26)
54(39)
36(31)
36(31)
7(6)
26(22)
54(39)
7(6)
18(14)
18(14)
21(15)
2(1)
5(5)
3(2)
15(12)
10(9)
16(13)
12(8)
9(7)

NOTE:
1. XX(XX) = WEEKDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

T-Y LIN INTERNATIONAL

MaineDOT TMP APPLICATION

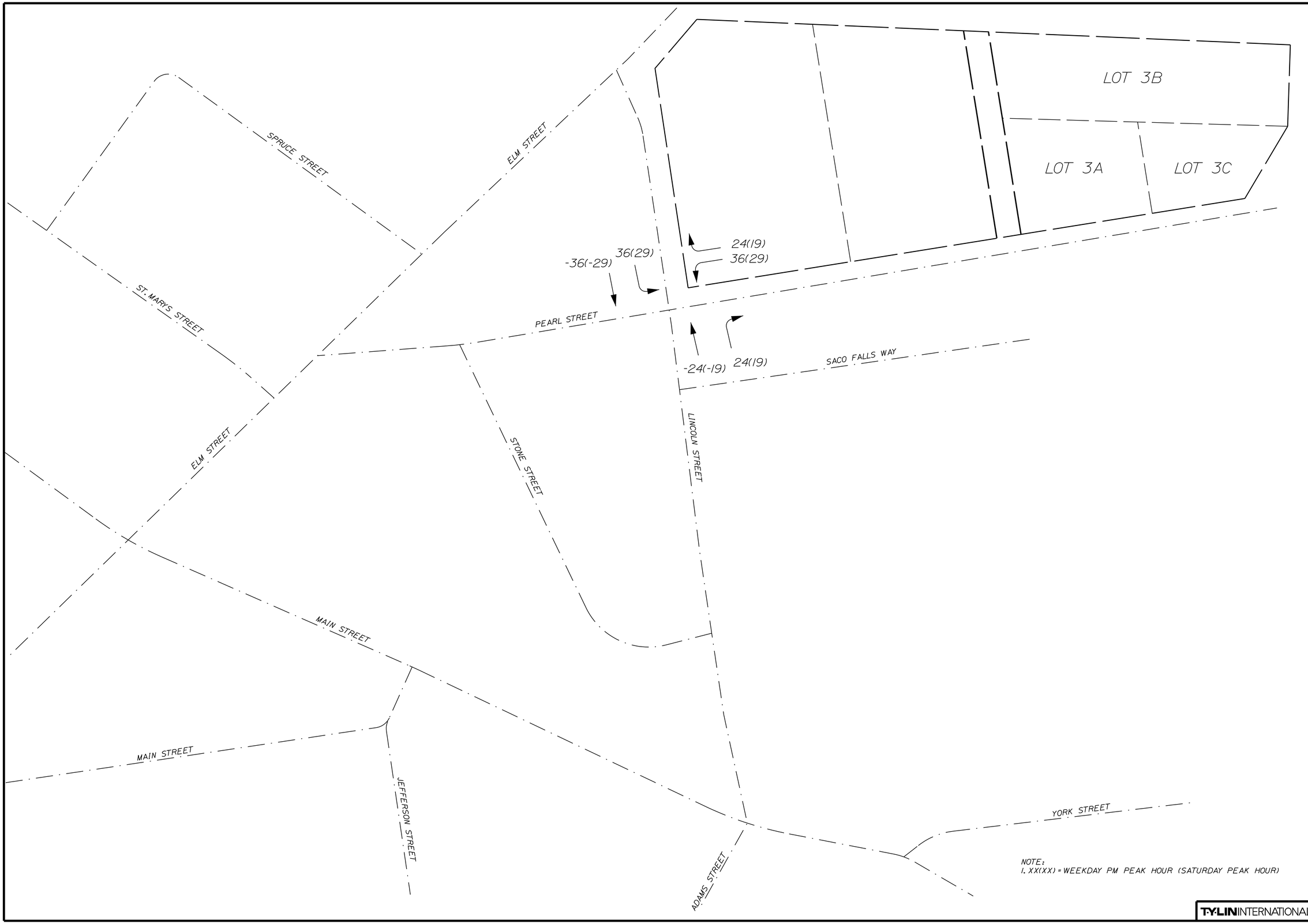
SIGNATURE
P.E. NUMBER
DATE

	BY	DATE
PROJ. MANAGER	T. ERRICO	
DESIGN-DETAILED	S. DAVIS	
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BIDDEFORD
3 LINCOLN STREET PROJECT
PRIMARY SITE TRIPS

FIGURE NUMBER
2

Filename: ...\Figure 3 Pass-By Trips.dgn Division: HIGHWAY Username: Date:9/17/2021



T-Y LIN INTERNATIONAL

MaineDOT TMP APPLICATION

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	T. ERRICO		
DESIGN-DETAILED	S. DAVIS		
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BIDDEFORD
3 LINCOLN STREET PROJECT

PASS-BY SITE TRIPS

FIGURE NUMBER

3

Filename: ...\Figure 4 Total Site Trips.dgn Division: HIGHWAY Username: Date:9/17/2021

MAPLE STREET
MAPLE STREET
MAPLE STREET
PINE STREET
WALNUT STREET
LINCOLN STREET
GREEN STREET
THORNTON AVENUE
ELM STREET
PLEASANT STREET
STORER STREET
WATER STREET
DIAMOND STREET
GOOCH STREET
HOOPER STREET
SOUTH STREET
SPRUCE STREET
ST. MARYS STREET
PEARL STREET
SACO FALLS WAY
STONE STREET
LINCOLN STREET
MAIN STREET
CENTER STREET
JEFFERSON STREET
ADAMS STREET
YORK STREET
GOOCH STREET
MAIN STREET

LOT 3B
LOT 3A
LOT 3C

29(24)
5(5)
5(5)
21(16)
34(29)
20(10)
10(10)
21(26)
54(39)
36(31)
-36 90
(-29)(68)
60(50)
7(6)
62(51)
7(6)
18(14)
45(34)
18(14)
-24(-19)
2(1)
5(5)
3(2)
15(12)
10(9)
16(13)
12(8)
9(7)

NOTE:
1. XX(XX) = WEEKDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

T-Y LIN INTERNATIONAL

MaineDOT TMP APPLICATION

SIGNATURE
P.E. NUMBER
DATE

	BY	DATE
PROJ. MANAGER	T. ERRICO	
DESIGN-DETAILED	S. DAVIS	
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BIDDEFORD
3 LINCOLN STREET PROJECT

TOTAL SITE TRIPS

FIGURE NUMBER
4

SECTION 2
ACCIDENTS

Computer crash reports and Collison Crash Diagrams for High Crash Locations (attached at the end of this section) were obtained from MaineDOT for the most recent available three-year period (2018-2020) for the following roadways in the vicinity of the project:

- Route 1/Elm Street – Main Street to Saco TL
- Pearl Street
- Lincoln Street
- Main Street – Lincoln Street to Elm Street

Table 2 summarizes the crash data at locations that are High Crash Locations (HCL) or close to meeting the criteria.

Table 2
Crash Data

Location	2018-2020 Crashes	Critical Rate Factor
Elm Street/Main Street	22	0.94
Elm Street/St. Mary's Street	7	1.16
Elm Street/Spruce Street	17	0.92
Elm Street/Lincoln Street	9	1.32
Elm Street/Pine Street	14	2.00
Main Street/Lincoln Street/Adams Street	18	4.31
Main Street/Jefferson Street	8	2.90

As noted, there are four HCL's in the study area and a preliminary assessment is provided as follows:

- **Elm Street/Lincoln Street** – The crash diagram indicates turn crashes are the most prevalent type. Four crashes involved vehicles turning left onto Lincoln Street, one involving a vehicle turning left from Lincoln Street and one crash involving a motorist turning left into a nearby driveway. Traffic volumes turning left onto Lincoln Street are high as is the opposing volume on northbound Elm Street. Limited gaps may be contributing to crashes. While it is an HCL, only 9 crashes were reported. Sight distance is adequate. A mitigation improvement strategy is not evident at this time.
- **Elm Street/Pine Street** – A number of different types of crashes were reported at this location. Three rear-end collisions occurred on eastbound Elm Street; two angle crashes involving right-turns from Pine Street; Three single vehicle crashes; one crash involving a pedestrian; one crash avoiding a bicyclist; and two crashes involving movements to and from Pine Street. There was not a specific pattern that would warrant a mitigation improvement strategy.
- **Main Street/Lincoln Street/Adams Street** - This location was reviewed in conjunction with the Riverdam Redevelopment project and the TMP required mitigation (four-way STOP) to address safety deficiencies. As of September 17, 2021 the improvements have not been implemented.
- **Main Street/Jefferson Street** – Four of the crashes involved vehicles turning from Jefferson Street. Two crashes involved bicyclists on the Jefferson Street crosswalk. It is likely parked vehicles obstructed sight for motorists turning off Jefferson Street. Recent improvements that tightened the intersection likely prevent vehicles from parking too close to the intersection and thus have reduced crashes. I would note that there are mailboxes on the southeast corner that do impact sight, and relocation may make sense. While it is an HCL, only 8 crashes were reported.

Further analysis of these locations will be performed in conjunction with the Section 7 study.

SECTION 3
DEVELOPMENT ENTRANCES AND EXITS

3.A. Entrance and Exit Location

The project will utilize Pearl Street to access each residential building parking garage. Restaurant customers will utilize the new Pearl Street parking garage or other public parking facilities. A service driveway is provided for the restaurant. The attached site plan illustrates the existing driveway locations.

3.B. Entrance Plan

The attached plans provide information on proposed driveways to be utilized for the project including sight distances and the posted speed limit. Sight distances for the project driveways are noted below.

Location	Measured Sight Distance (Feet)		Minimum Standard (Feet)
	Looking Left	Looking Right	
Lot 3A/3B Driveway	Sight to End of Pearl Street	200+	200’
Restaurant Service Driveway	Sight to End of Pearl Street	200+	200’

SECTION 4
TITLE, RIGHT, OR INTEREST

A copy of the deed documenting ownership rights is in the Appendix.

SECTION 5
PUBLIC OR PRIVATE RIGHTS-OF-WAY

No new right-of-way is proposed as part of this project. All work will be conducted on private property.

SECTION 6
SCHEDULE

Construction of the project is expected to be completed in 2022.

APPENDIX

TRIP GENERATION

Multifamily Housing (Mid-Rise)
(221)

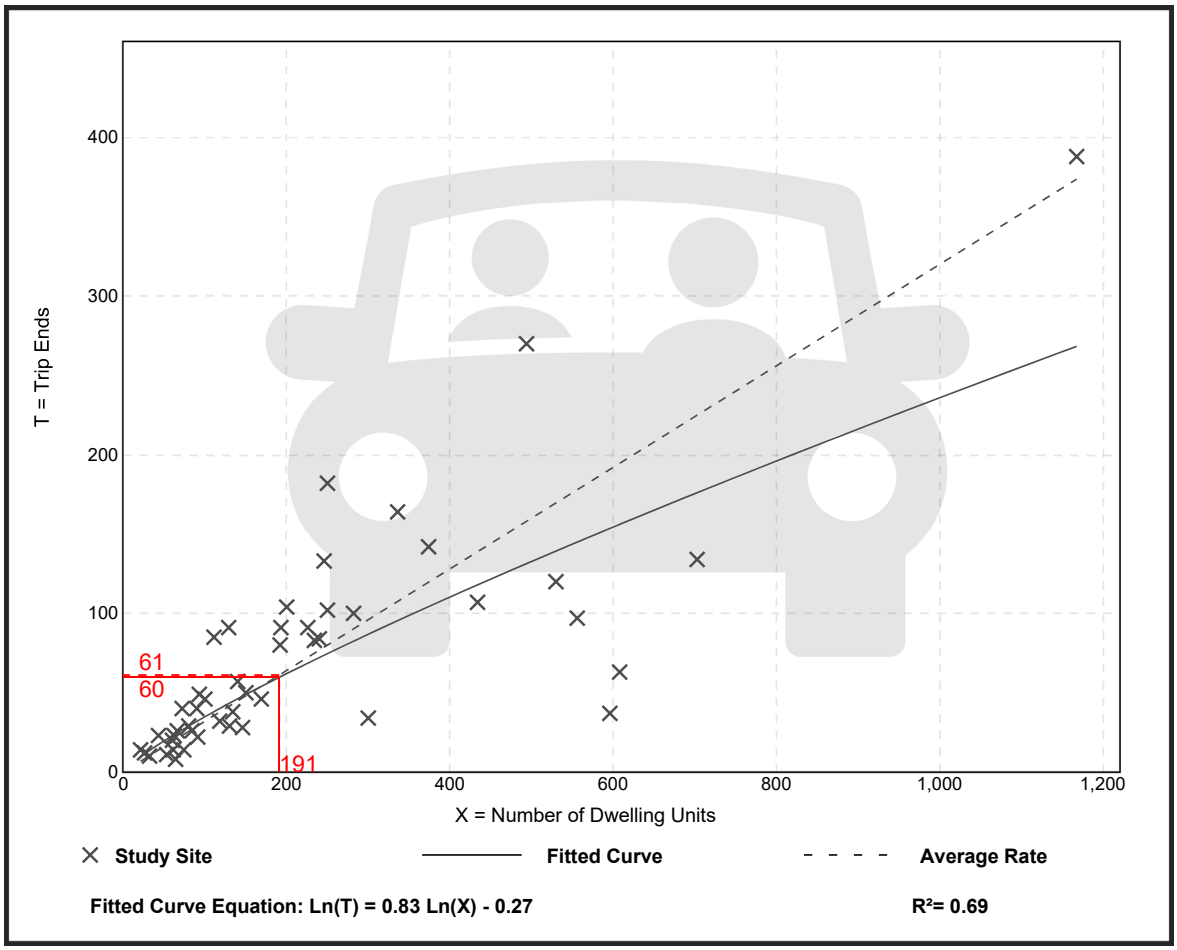
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 48
Avg. Num. of Dwelling Units: 225
Directional Distribution: 27% entering, 73% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.06 - 0.77	0.17

Data Plot and Equation



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Multifamily Housing (Mid-Rise)
(221)

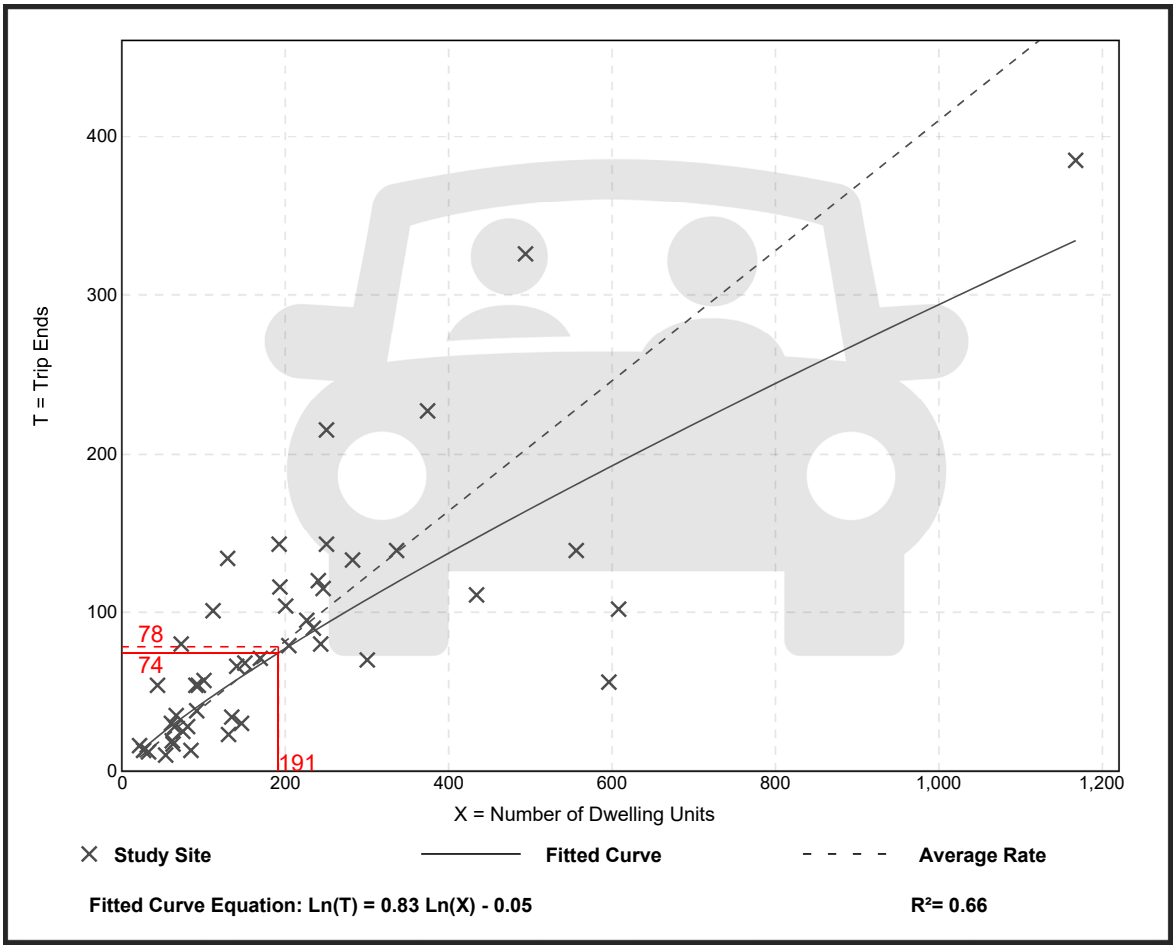
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 47
Avg. Num. of Dwelling Units: 211
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.09 - 1.26	0.22

Data Plot and Equation



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Multifamily Housing (Mid-Rise)
(221)

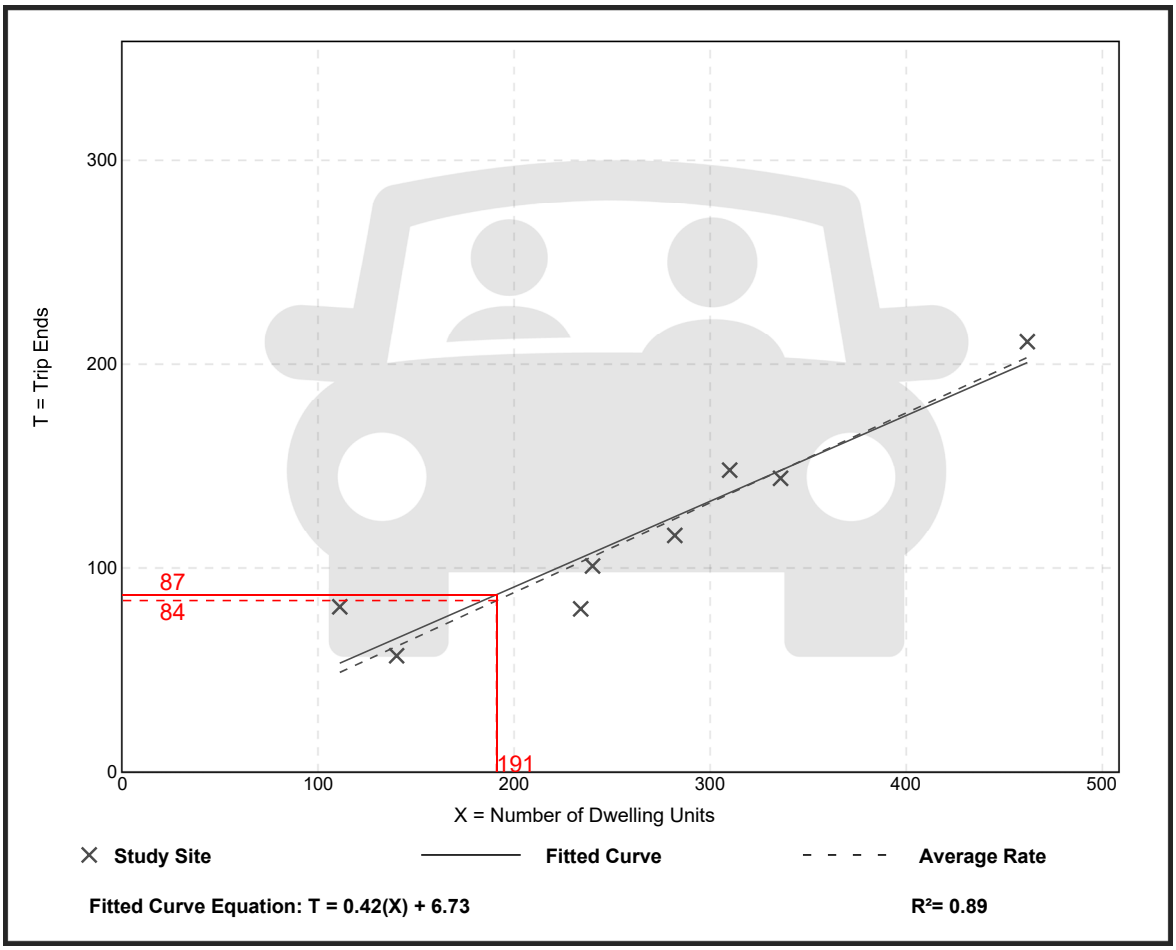
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Dwelling Units: 264
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.34 - 0.73	0.08

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

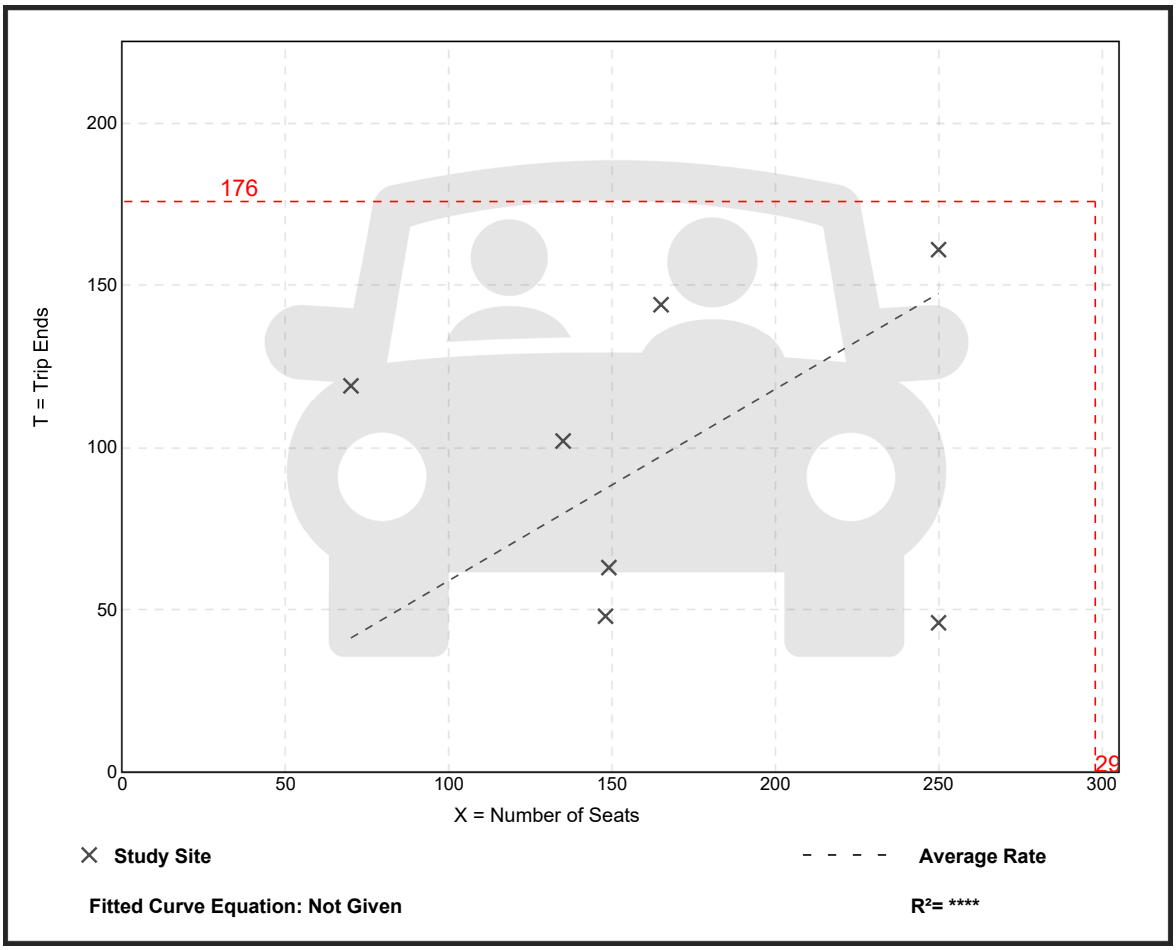
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Seats: 167
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.59	0.18 - 1.70	0.40

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

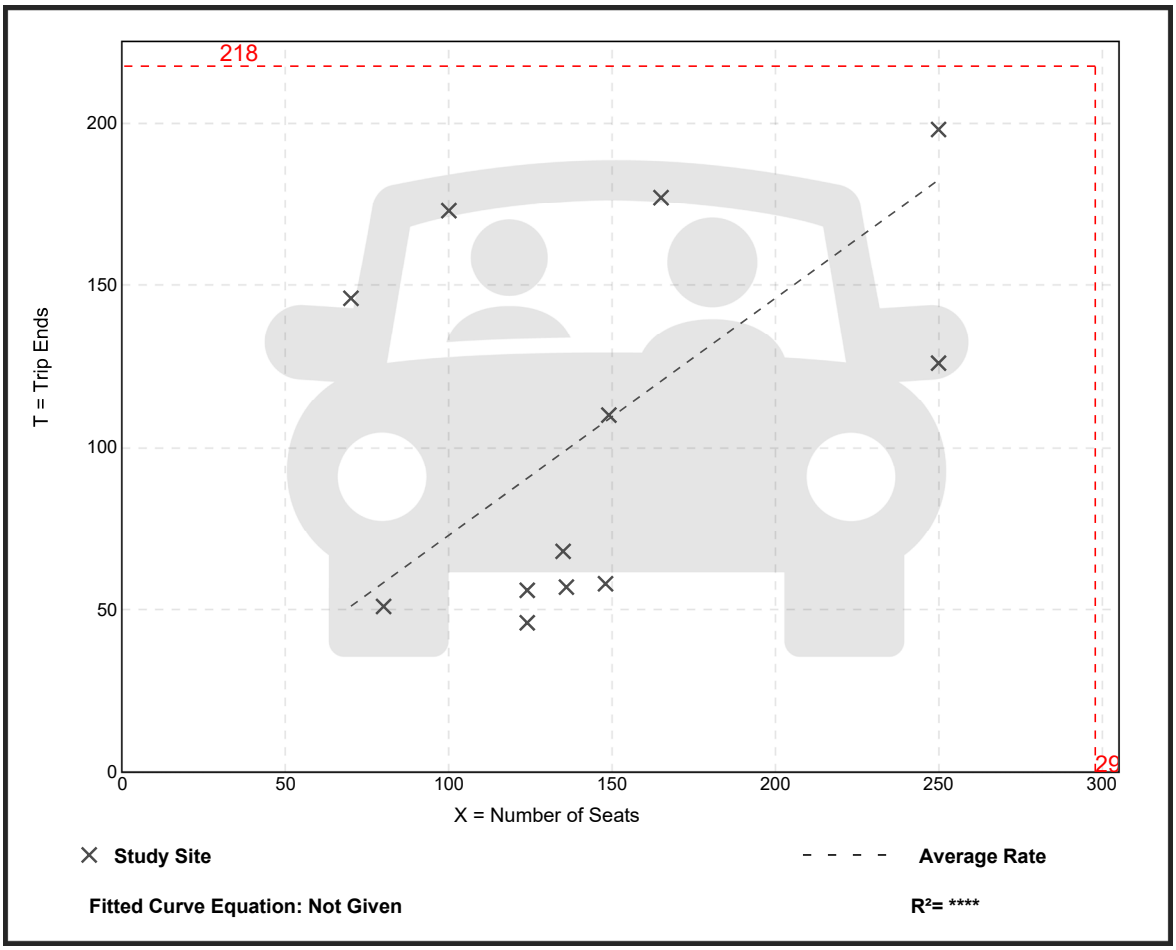
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. Num. of Seats: 144
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.73	0.37 - 2.09	0.45

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

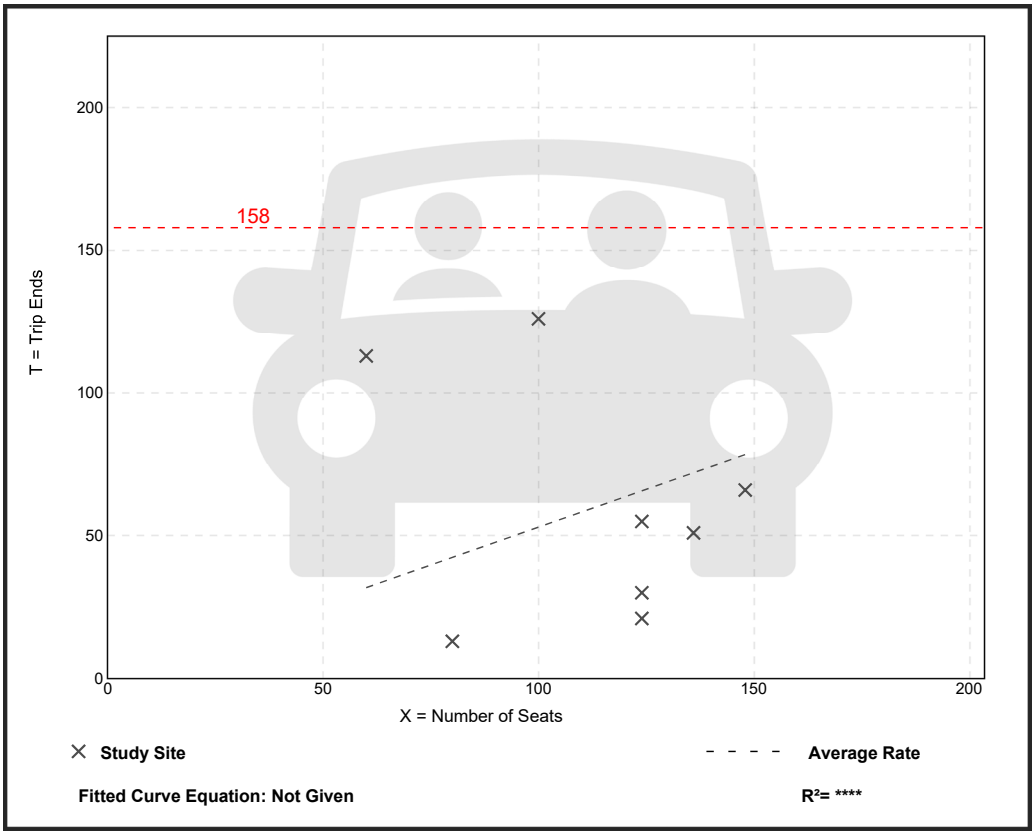
Vehicle Trip Ends vs: **Seats**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Seats: 112
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.53	0.16 - 1.88	0.51

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Pearl Street	**Organization:**	T.Y. Lin International
Project Location:	Biddeford, Maine	**Performed By:**	Tom Errico, PE
Scenario Description:	Build	**Date:**	15-Sep-21
Analysis Year:	2022	**Checked By:**	
Analysis Period:	**PM Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	218	113	105
Cinema/Entertainment				0		
Residential	221	191	Units	78	47	31
Hotel				0		
All Other Land Uses[2]				0		
				296	160	136

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	296	160	136
Internal Capture Percentage	5%	5%	6%
External Vehicle-Trips[5]	280	152	128
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	2%
Cinema/Entertainment	N/A	N/A
Residential	4%	19%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Pearl Street	**Organization:**	T.Y. Lin International
Project Location:	Biddeford, Maine	**Performed By:**	Tom Errico, PE
Scenario Description:	Build	**Date:**	15-Sep-21
Analysis Year:	2022	**Checked By:**	
Analysis Period:	**Saturday Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	158	84	74
Cinema/Entertainment				0		
Residential	221	191	Units	87	43	44
Hotel				0		
All Other Land Uses[2]				0		
				245	127	118

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	245	127	118
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips[5]	223	116	107
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	11%	3%
Cinema/Entertainment	N/A	N/A
Residential	5%	20%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

CRASH DATA

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **56644** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

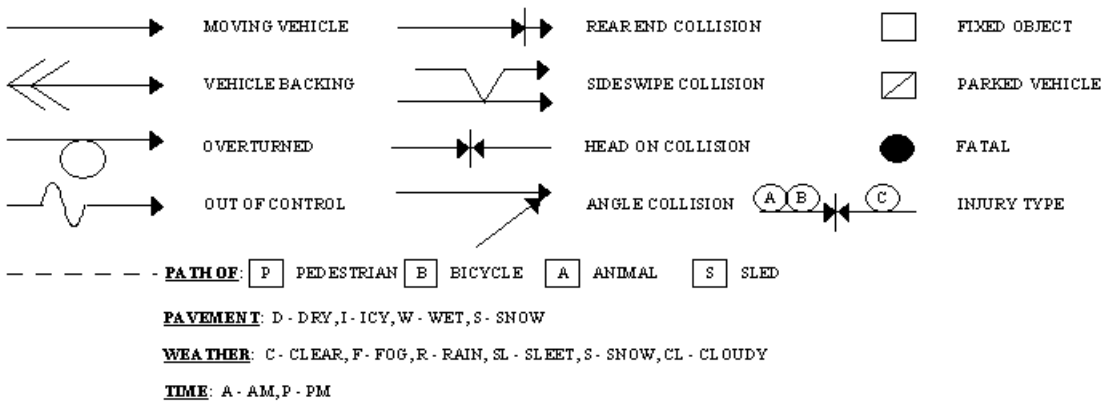
DESCRIPTION: **Jct of Elm St & Lincoln St**

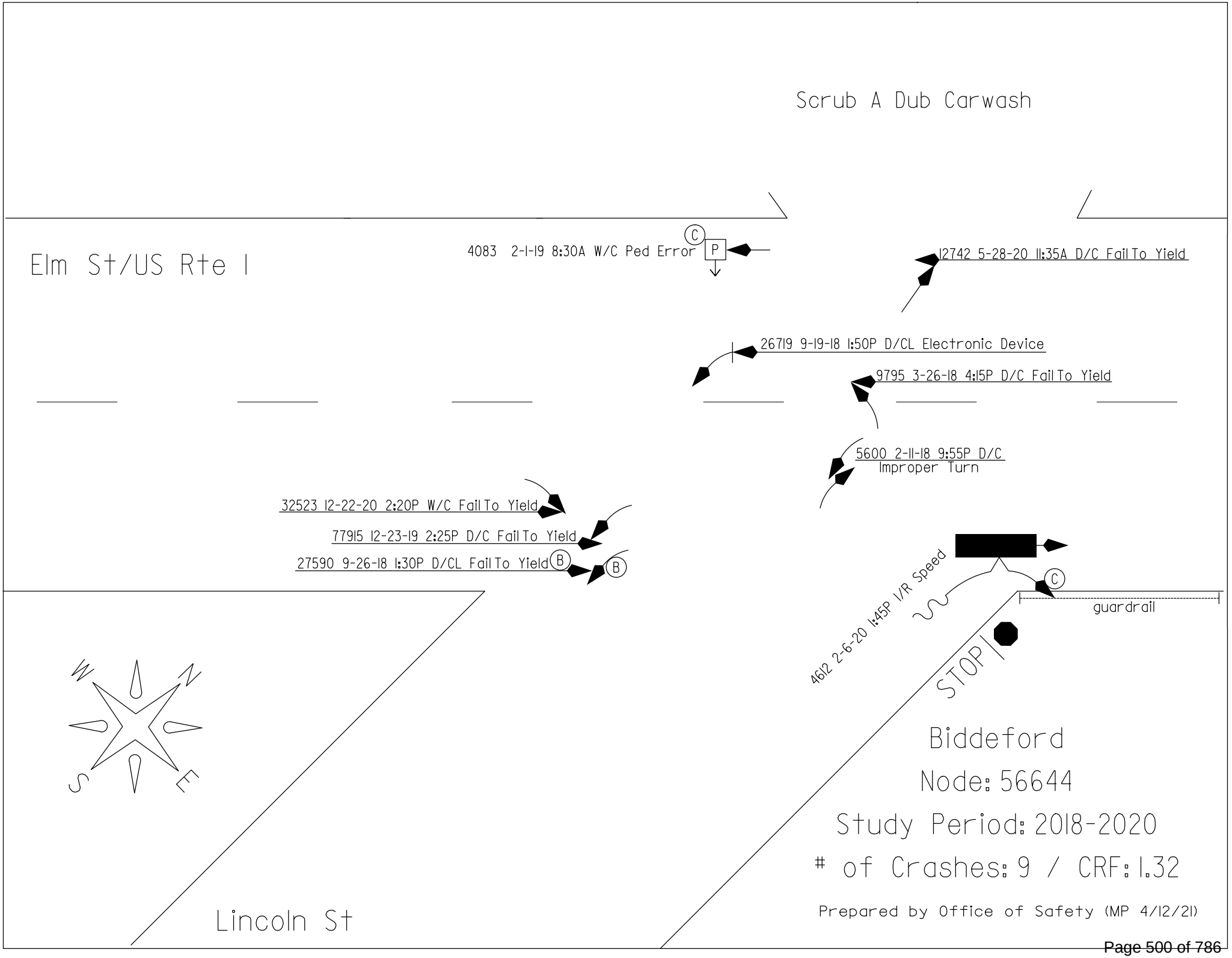
RTE # / RD #: **0001X** DATE DRAWN: **4/12/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **0.49** CRF: **1.32** % INJURY: **33.3** TOTAL CRASHES: **9**

LEGEND




Scrub A Dub Carwash
Elm St/US Rte 1
4083 2-1-19 8:30A W/C Ped Error
C
P
12742 5-28-20 11:35A D/C Fail To Yield
26719 9-19-18 1:50P D/CL Electronic Device
9795 3-26-18 4:15P D/C Fail To Yield
5600 2-11-18 9:55P D/C
Improper Turn
32523 12-22-20 2:20P W/C Fail To Yield
77915 12-23-19 2:25P D/C Fail To Yield
27590 9-26-18 1:30P D/CL Fail To Yield
B
B
4612 2-6-20 1:45P I/R Speed
C
guardrail
STOP
N
E
S
W
Lincoln St
Biddeford
Node: 56644
Study Period: 2018-2020
# of Crashes: 9 / CRF: 1.32
Prepared by Office of Safety (MP 4/12/21)

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

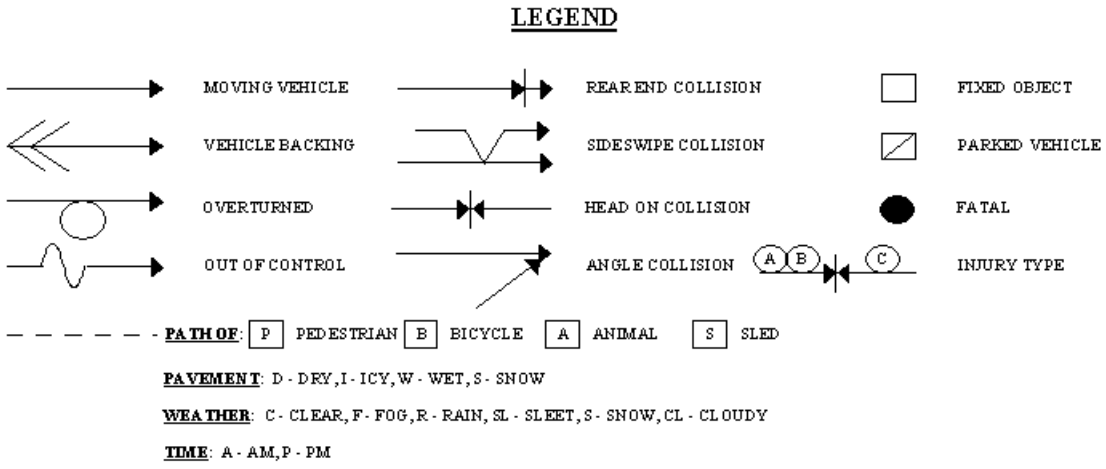
LOW NODE: **56648** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

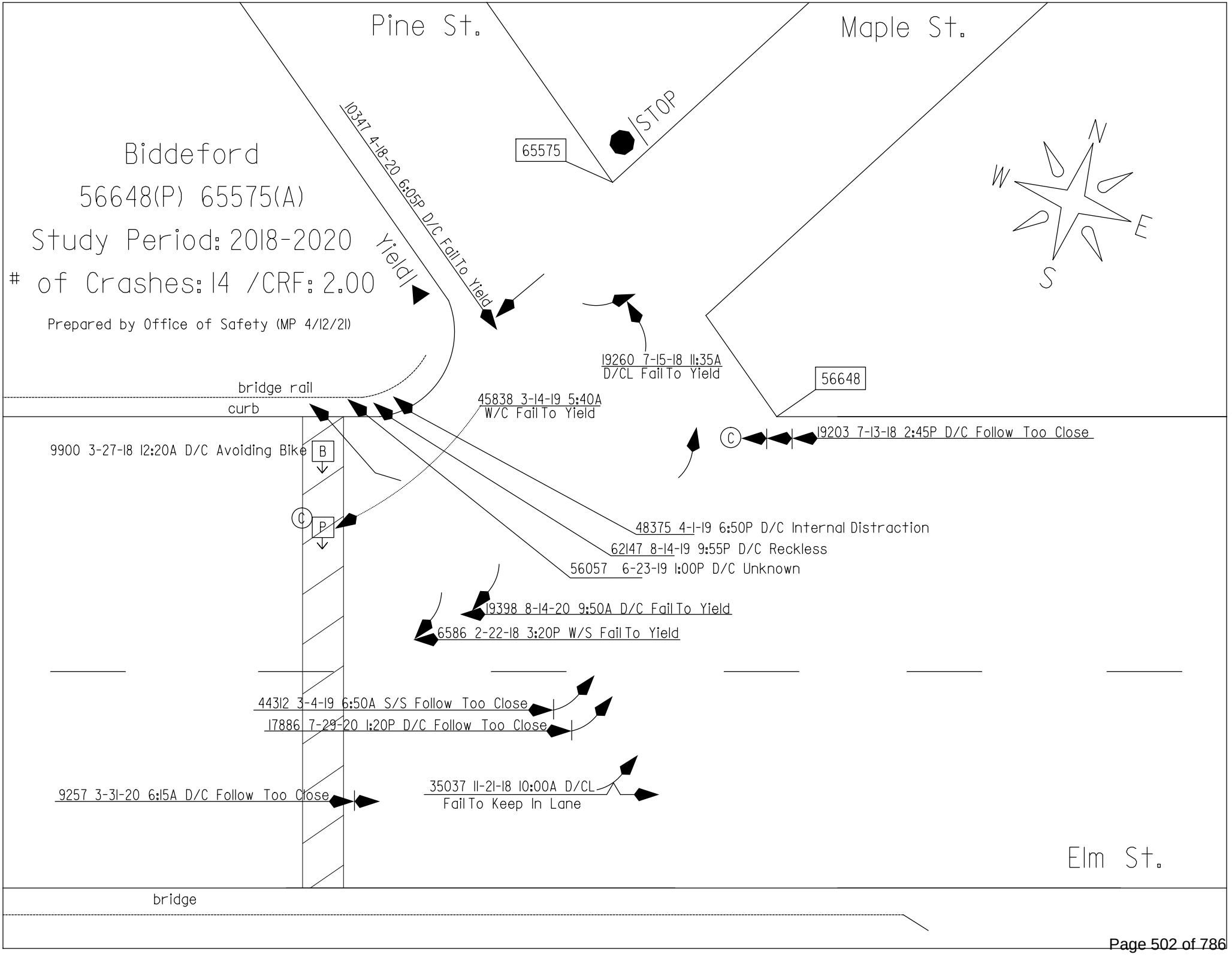
DESCRIPTION: **Jct of Elm St & Pine St**

RTE # / RD #: **0001S** DATE DRAWN: **4/12/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **0.74** CRF: **2** % INJURY: **14.3** TOTAL CRASHES: **14**




Pine St.
Maple St.
Biddeford
56648(P) 65575(A)
Study Period: 2018-2020
# of Crashes: 14 /CRF: 2.00
Prepared by Office of Safety (MP 4/12/21)
10347 4-18-20 6:05P D/C Fail To Yield
Yield
65575
STOP
N
W
E
S
19260 7-15-18 11:35A
D/CL Fail To Yield
56648
bridge rail
curb
45838 3-14-19 5:40A
W/C Fail To Yield
19203 7-13-18 2:45P D/C Follow Too Close
9900 3-27-18 12:20A D/C Avoiding Bike
B
C
P
48375 4-1-19 6:50P D/C Internal Distraction
62147 8-14-19 9:55P D/C Reckless
56057 6-23-19 1:00P D/C Unknown
19398 8-14-20 9:50A D/C Fail To Yield
6586 2-22-18 3:20P W/S Fail To Yield
44312 3-4-19 6:50A S/S Follow Too Close
17886 7-29-20 1:20P D/C Follow Too Close
9257 3-31-20 6:15A D/C Follow Too Close
35037 11-21-18 10:00A D/CL
Fail To Keep In Lane
Elm St.
bridge

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **58493** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

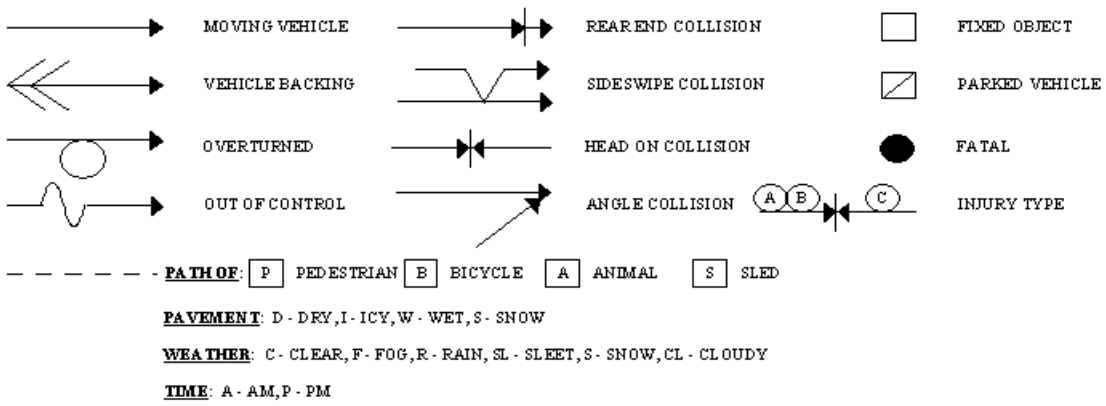
DESCRIPTION: **Jct of Main St & Jefferson St**

RTE # / RD #: **3110086** DATE DRAWN: **4/9/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **1.39** CRF: **2.9** % INJURY: **25** TOTAL CRASHES: **8**

LEGEND



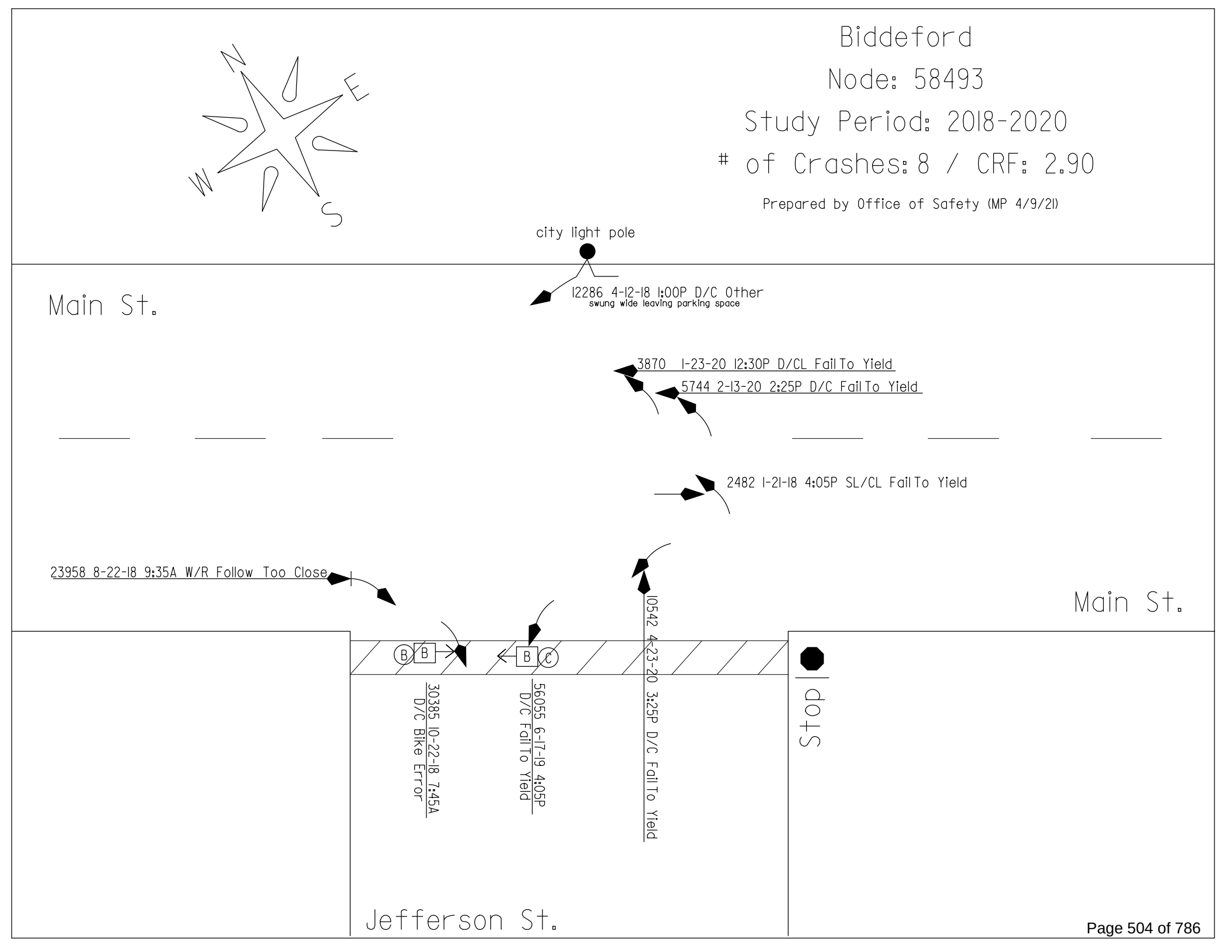
Biddeford

Node: 58493

Study Period: 2018-2020

of Crashes: 8 / CRF: 2.90

Prepared by Office of Safety (MP 4/9/21)



H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **58494** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

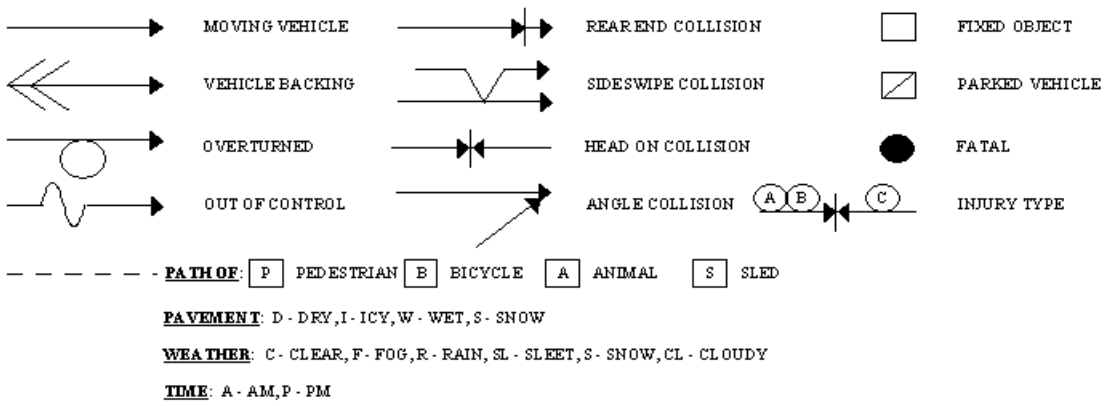
DESCRIPTION: **Jct of Main St & Adams St/Lincoln St**

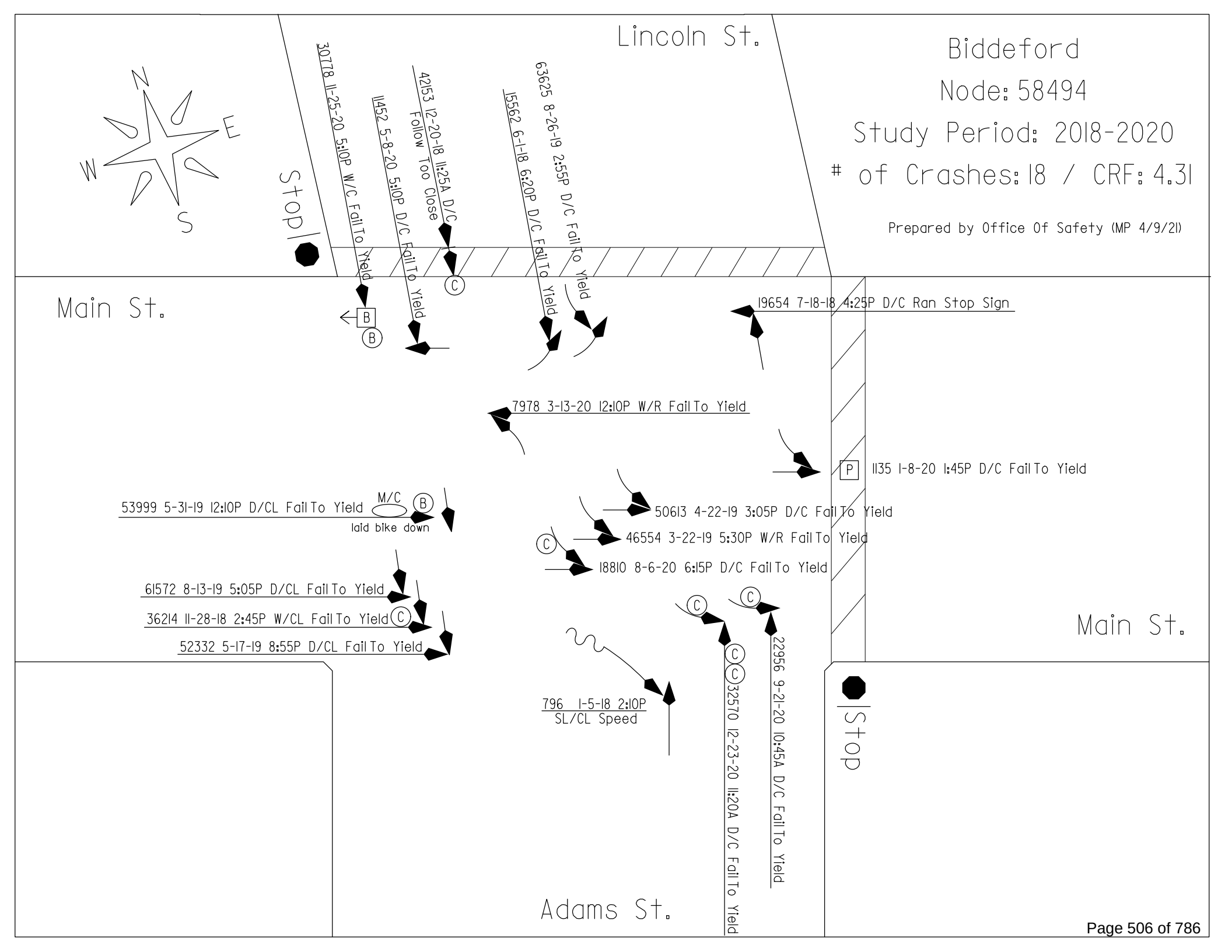
RTE # / RD #: **3110002** DATE DRAWN: **4/9/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **1.79** CRF: **4.31** % INJURY: **38.9** TOTAL CRASHES: **18**

LEGEND




Biddeford
Node: 58494
Study Period: 2018-2020
# of Crashes: 18 / CRF: 4.31
Prepared by Office Of Safety (MP 4/9/21)
Lincoln St.
Main St.
Main St.
Adams St.
Stop
Stop
N
E
S
W
30778 11-25-20 5:10P W/C Fail To Yield
11452 5-8-20 5:10P D/C Fail To Yield
42153 12-20-18 11:25A D/C Follow Too Close
15562 6-1-18 6:20P D/C Fail To Yield
63625 8-26-19 2:55P D/C Fail To Yield
19654 7-18-18 4:25P D/C Ran Stop Sign
7978 3-13-20 12:10P W/R Fail To Yield
1135 1-8-20 1:45P D/C Fail To Yield
53999 5-31-19 12:10P D/CL Fail To Yield M/C
laid bike down
50613 4-22-19 3:05P D/C Fail To Yield
46554 3-22-19 5:30P W/R Fail To Yield
18810 8-6-20 6:15P D/C Fail To Yield
61572 8-13-19 5:05P D/CL Fail To Yield
36214 11-28-18 2:45P W/CL Fail To Yield
52332 5-17-19 8:55P D/CL Fail To Yield
796 1-5-18 2:10P
SL/CL Speed
32570 12-23-20 11:20A D/C Fail To Yield
22956 9-21-20 10:45A D/C Fail To Yield

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Biddeford
Elm St./Lincoln St./Main St./Pearl St. Area

REPORT PARAMETERS

Year 2018, Start Month 1 through Year 2020 End Month: 12

Route: **0001X**	Start Node: **56640**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **56649**	End Offset: **0**	☐ **Exclude Last Node**
Route: **3110126**	Start Node: **58512**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **58514**	End Offset: **0**	☑ **Exclude Last Node**
Route: **3110102**	Start Node: **56644**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **58494**	End Offset: **0**	☑ **Exclude Last Node**
Route: **3110104**	Start Node: **58494**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **56640**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0001S**	Start Node: **58711**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **56648**	End Offset: **0**	☑ **Exclude Last Node**

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
56640	0001X - 33.99	Int of ELM ST MAIN ST	9	22	0	0	1	4	17	22.7	6.161	1.19	1.27	0.94
												Statewide Crash Rate:	0.77	
56641	0001X - 34.04	Int of ELM ST ST MARYS ST	2	7	0	0	0	2	5	28.6	5.192	0.45	0.39	1.16
												Statewide Crash Rate:	0.16	
58514	0001X - 34.05	Int of ELM ST PEARL ST	2	3	0	0	1	0	2	33.3	4.797	0.21	0.40	0.00
												Statewide Crash Rate:	0.16	
56642	0001X - 34.09	Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	9	17	0	0	0	6	11	35.3	4.585	1.24	1.34	0.92
												Statewide Crash Rate:	0.77	
58517	0001X - 34.13	Int of ELM ST THORNTON ST	2	0	0	0	0	0	0	0.0	4.588	0.00	0.40	0.00
												Statewide Crash Rate:	0.16	
56644	0001X - 34.16	Int of ELM ST, LINCOLN ST	2	9	0	0	1	2	6	33.3	6.080	0.49	0.37	1.32
												Statewide Crash Rate:	0.16	
56645	0001X - 34.19	Int of ELM ST HOOPER ST	2	1	0	0	0	0	1	0.0	6.086	0.05	0.37	0.00
												Statewide Crash Rate:	0.16	
58519	0001X - 34.25	Int of DIAMOND ST ELM ST	2	6	0	0	2	2	2	66.7	6.084	0.33	0.37	0.00
												Statewide Crash Rate:	0.16	
56647	0001X - 34.29	BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	2	0	0	0	0	0	0	0.0	2.972	0.00	0.45	0.00
												Statewide Crash Rate:	0.16	
P56648	0001X - 34.31	Int of ELM ST PINE ST	2	14	0	0	0	2	12	14.3	6.277	0.74	0.37	2.00
												Statewide Crash Rate:	0.16	
58711	0001X - 34.33	Non Int ELM ST	2	0	0	0	0	0	0	0.0	4.753	0.00	0.40	0.00
												Statewide Crash Rate:	0.16	
56649	0001X - 34.48	TL - Biddeford, Saco	2	0	0	0	0	0	0	0.0	5.132	0.00	0.39	0.00
												Statewide Crash Rate:	0.16	
58513	3110126 - 0.06	Int of PEARL ST STONE ST	2	0	0	0	0	0	0	0.0	0.519	0.00	0.63	0.00
												Statewide Crash Rate:	0.15	
58512	3110102 - 0.07	Int of LINCOLN ST PEARL ST	2	1	0	0	0	0	1	0.0	2.008	0.17	0.47	0.00
												Statewide Crash Rate:	0.15	
58515	3110102 - 0.17	Int of LINCOLN ST STONE ST	2	0	0	0	0	0	0	0.0	2.144	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
58494	3110104 - 0.15	Int of ADAMS ST LINCOLN ST MAIN ST	2	18	0	0	2	5	11	38.9	3.353	1.79	0.41	4.31
												Statewide Crash Rate:	0.15	
58493	3110104 - 0.25	Int of JEFFERSON ST MAIN ST	2	8	0	0	1	1	6	25.0	1.923	1.39	0.48	2.90
												Statewide Crash Rate:	0.15	
Study Years:	3.00	**NODE TOTALS:**		106	0	0	8	24	74	30.2	72.654	0.49	0.33	1.46

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	56641	3130112	0 - 0.05	0001X - 33.99	0.05	2	3	0	0	0	1	2	33.3	0.00235	425.56	624.97	0.00
Int of ELM ST MAIN ST				US 1											Statewide Crash Rate: 230.30		
56641	58514	3114278	0 - 0.01	0001X - 34.04	0.01	2	0	0	0	0	0	0	0.0	0.00049	0.00	909.62	0.00
Int of ELM ST ST MARYS ST				US 1											Statewide Crash Rate: 230.30		
56642	58514	3130113	0 - 0.04	0001X - 34.05	0.04	2	1	0	0	1	0	0	100.0	0.00177	188.67	672.93	0.00
Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD				US 1											Statewide Crash Rate: 230.30		
56642	58517	3944217	0 - 0.04	0001X - 34.09	0.04	2	0	0	0	0	0	0	0.0	0.00188	0.00	662.61	0.00
Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD				US 1											Statewide Crash Rate: 230.30		
56644	58517	3114282	0 - 0.03	0001X - 34.13	0.03	2	4	0	0	0	1	3	25.0	0.00133	1001.36	723.66	1.38
Int of ELM ST, LINCOLN ST				US 1											Statewide Crash Rate: 230.30		
56644	56645	3114280	0 - 0.03	0001X - 34.16	0.03	2	1	0	0	0	0	1	0.0	0.00179	186.48	670.90	0.00
Int of ELM ST, LINCOLN ST				US 1											Statewide Crash Rate: 230.30		
56645	58519	3937825	0 - 0.06	0001X - 34.19	0.06	2	2	0	0	0	0	2	0.0	0.00372	179.33	555.64	0.00
Int of ELM ST HOOPER ST				US 1											Statewide Crash Rate: 230.30		
56647	58519	3114285	0 - 0.04	0001X - 34.25	0.04	2	2	0	0	0	1	1	50.0	0.00238	280.41	623.08	0.00
BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)				US 1											Statewide Crash Rate: 230.30		
56647	56648	2837611	0 - 0.02	0001X - 34.29	0.02	2	3	0	0	0	2	1	66.7	0.00119	841.23	744.72	1.13
BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)				US 1											Statewide Crash Rate: 230.30		
56648	58711	3139816	0 - 0.02	0001X - 34.31	0.02	2	0	0	0	0	0	0	0.0	0.00045	0.00	922.12	0.00
Int of ELM ST PINE ST				US 1											Statewide Crash Rate: 230.30		
56649	58711	3116620	0 - 0.15	0001X - 34.33	0.15	2	6	0	0	0	0	6	0.0	0.00744	268.98	469.63	0.00
TL - Biddeford, Saco				US 1											Statewide Crash Rate: 230.30		
58512	58513	239919	0 - 0.06	3110126 - 0	0.06	2	1	0	0	0	0	1	0.0	0.00012	2855.67	1776.07	1.61
Int of LINCOLN ST PEARL ST				RD INV 31 10126											Statewide Crash Rate: 411.49		
58513	58514	239921	0 - 0.04	3110126 - 0.06	0.04	2	1	0	0	0	0	1	0.0	0.00011	3064.57	1771.95	1.73
Int of PEARL ST STONE ST				RD INV 31 10126											Statewide Crash Rate: 411.49		
56644	58512	3114281	0 - 0.07	3110102 - 0	0.07	2	1	0	0	0	0	1	0.0	0.00123	270.11	615.24	0.00
Int of ELM ST, LINCOLN ST				RD INV 31 10102											Statewide Crash Rate: 180.89		
58512	58515	3114626	0 - 0.10	3110102 - 0.07	0.10	2	4	0	0	0	1	3	25.0	0.00206	647.69	540.79	1.20
Int of LINCOLN ST PEARL ST				RD INV 31 10102											Statewide Crash Rate: 180.89		
58494	58515	3132475	0 - 0.04	3110102 - 0.17	0.04	2	0	0	0	0	0	0	0.0	0.00066	0.00	706.27	0.00
Int of ADAMS ST LINCOLN ST MAIN ST				RD INV 31 10102											Statewide Crash Rate: 180.89		
58493	58494	4046830	0 - 0.06	3110104 - 0.15	0.06	2	6	0	0	1	1	3	40.0	0.00093	2147.29	657.37	3.27
Int of JEFFERSON ST MAIN ST				RD INV 31 10104											Statewide Crash Rate: 180.89		
58493	58494	4046830	0.06 - 0.10	3110104 - 0.21	0.04	2	0	0	0	0	0	0	0.0	0.00062	0.00	715.21	0.00
Int of JEFFERSON ST MAIN ST				RD INV 31 10104											Statewide Crash Rate: 180.89		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	58493	3114277	0 - 0.09	3110104 - 0.25	0.09	2	5	0	0	0	2	2	50.0	0.00162	1030.79	575.27	1.79
Int of ELM ST	MAIN ST			RD INV 31 10104											Statewide Crash Rate: 180.89		
58711	56648	3129094	0 - 0.02	0001S - 23.94	0.02	2	0	0	0	0	0	0	0.0	0.00045	0.00	922.12	0.00
Non Int ELM ST				US 1 SB											Statewide Crash Rate: 230.30		
Study Years: 3.00				**Section Totals:**	1.01		40	0	0	2	9	27	27.5	0.03258	409.23	338.05	1.21
				Grand Totals:	1.01		146	0	0	10	33	101	29.5	0.03258	1493.69	479.58	3.11

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
56640	56641	3130112	0 - 0.05	0001X - 33.99	3	0	0	0	1	2	2018-4672	02/07/2018	34.01	PD
											2019-44415	03/03/2019	34.02	C
											2018-25216	09/05/2018	34.02	PD
56641	58514	3114278	0 - 0.01	0001X - 34.04	0	0	0	0	0	0				
56642	58514	3130113	0 - 0.04	0001X - 34.05	1	0	0	1	0	0	2018-32156	10/30/2018	34.07	B
56642	58517	3944217	0 - 0.04	0001X - 34.09	0	0	0	0	0	0				
56644	58517	3114282	0 - 0.03	0001X - 34.13	4	0	0	0	1	3	2019-42440	02/15/2019	34.15	C
											2018-2357	01/21/2018	34.15	PD
											2020-20414	08/25/2020	34.15	PD
											2018-24502	08/24/2018	34.15	PD
56644	56645	3114280	0 - 0.03	0001X - 34.16	1	0	0	0	0	1	2018-3772	01/31/2018	34.18	PD
56645	58519	3937825	0 - 0.06	0001X - 34.19	2	0	0	0	0	2	2018-6440	02/21/2018	34.20	PD
											2019-46111	03/15/2019	34.24	PD
56647	58519	3114285	0 - 0.04	0001X - 34.25	2	0	0	0	1	1	2018-30221	10/23/2018	34.26	PD
											2018-18747	07/06/2018	34.28	C
56647	56648	2837611	0 - 0.02	0001X - 34.29	3	0	0	0	2	1	2020-15927	07/05/2020	34.30	C
											2020-16535	07/11/2020	34.30	C
											2020-25311	10/20/2020	34.30	PD
56648	58711	3139816	0 - 0.02	0001X - 34.31	0	0	0	0	0	0				
56649	58711	3116620	0 - 0.15	0001X - 34.33	6	0	0	0	0	6	2018-26829	09/24/2018	34.34	PD
											2020-14282	06/11/2020	34.34	PD
											2018-22465	08/13/2018	34.39	PD
											2019-4073	01/25/2019	34.42	PD
											2019-75562	12/08/2019	34.43	PD
											2018-10382	04/02/2018	34.44	PD
58512	58513	239919	0 - 0.06	3110126 - 0	1	0	0	0	0	1	2020-6373	02/21/2020	0.01	PD
58513	58514	239921	0 - 0.04	3110126 - 0.06	1	0	0	0	0	1	2018-4617	02/06/2018	0.09	PD
56644	58512	3114281	0 - 0.07	3110102 - 0	1	0	0	0	0	1	2019-43804	02/18/2019	0.02	PD
58512	58515	3114626	0 - 0.10	3110102 - 0.07	4	0	0	0	1	3	2020-26347	10/31/2020	0.08	PD
											2019-48376	04/06/2019	0.09	C
											2019-67427	10/01/2019	0.16	PD
											2020-5056	02/13/2020	0.16	PD
58494	58515	3132475	0 - 0.04	3110102 - 0.17	0	0	0	0	0	0				
58493	58494	4046830	0.06 - 0.10	3110104 - 0.15	0	0	0	0	0	0				

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
58493	58494	4046830	0 - 0.06	3110104 - 0.15	6	0	0	1	1	3	2018-7638	03/05/2018	0.20	PD
											2020-22459	09/18/2020	0.22	B
											2019-62667	08/24/2019	0.22	C
											2018-1561	01/16/2018	0.22	PD
											2018-32265	11/03/2018	0.23	
											2019-75926	10/21/2019	0.24	PD
56640	58493	3114277	0 - 0.09	3110104 - 0.25	5	0	0	0	2	2	2018-9686	03/17/2018	0.27	PD
											2018-26434	09/17/2018	0.28	PD
											2018-17433	06/23/2018	0.31	C
											2018-9357	03/19/2018	0.31	C
											2018-3953	02/02/2018	0.32	
58711	56648	3129094	0 - 0.02	0001S - 23.94	0	0	0	0	0	0				
				Totals:	40	0	0	2	9	27				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												Hour of Day PM												
Day Of Week	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Un**	**Tot**
SUNDAY	1	1	0	0	0	0	0	0	0	0	1	2	1	1	2	1	0	1	1	0	0	1	0	0	0	13
MONDAY	0	0	0	0	0	0	1	1	1	0	3	0	3	1	3	4	3	2	2	0	0	0	0	0	0	24
TUESDAY	1	0	0	0	0	0	1	0	0	1	4	1	1	3	1	1	3	1	0	1	0	1	0	0	0	20
WEDNESDAY	0	1	0	0	0	0	0	1	0	1	2	4	2	4	2	0	4	3	1	0	0	1	0	0	0	26
THURSDAY	0	0	0	0	0	1	0	0	1	0	0	4	1	4	1	3	2	1	1	0	0	1	0	0	0	20
FRIDAY	1	0	0	0	0	1	2	3	2	3	0	0	3	2	3	0	1	4	1	0	1	0	0	1	0	28
SATURDAY	0	0	0	0	0	0	0	1	1	1	0	1	1	0	2	1	1	1	2	2	0	0	1	0	0	15
Totals	3	2	0	0	0	2	4	6	5	6	10	12	12	15	14	10	14	13	8	3	1	4	1	1	0	**146**

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	137
2-(Sport) Utility Vehicle	67
3-Passenger Van	8
4-Cargo Van (10K lbs or Less)	6
5-Pickup	39
6-Motor Home	0
7-School Bus	1
8-Transit Bus	1
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	1
12-Moped	1
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	1
17-Medium/Heavy Trucks (More than 10,000 lbs)	6
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	5
23-Bicyclist	5
24-Witness	18
25-Other	1
26-Construction	0
27-Farm Vehicle	0
Total	**297**

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	9	112	3	2	0	0	126
Ran Off Roadway	7	0	0	0	0	0	7
Failed to Yield Right-of-Way	38	0	0	0	0	0	38
Ran Red Light	4	0	0	0	0	0	4
Ran Stop Sign	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	1	0	0	0	0	0	1
Exceeded Posted Speed Limit	1	1	0	0	0	0	2
Drove Too Fast For Conditions	6	0	0	0	0	0	6
Improper Turn	3	0	0	0	0	0	3
Improper Backing	6	0	0	0	0	0	6
Improper Passing	3	0	0	0	0	0	3
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	34	0	1	0	0	0	35
Failed to Keep in Proper Lane	9	0	0	0	0	0	9
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	18	0	0	0	0	0	18
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	2	0	0	0	0	0	2
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	0	0	0	0	0	2
Unknown	1	1	0	0	0	0	2
Total	**145**	**114**	**4**	**2**	**0**	**0**	**265**

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	134	118	4	2	0	0	258
Physically Impaired or Handicapped	2	0	0	0	0	0	2
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	5	1	0	0	0	0	6
Other	0	0	0	0	0	0	0
Total	**144**	**120**	**4**	**2**	**0**	**0**	**270**

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	24	0	0	0	0	24
20-24	33	0	0	0	0	33
25-29	26	0	0	0	0	26
30-39	53	0	0	0	0	53
40-49	33	0	0	0	0	33
50-59	31	0	0	0	0	31
60-69	33	0	0	0	0	33
70-79	27	0	0	0	0	27
80-Over	5	0	0	0	0	5
Unknown	4	5	0	5	0	14
Total	**269**	**5**	**0**	**5**	**0**	**279**

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	2
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	1	**Total**	**269**
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	5		
10-Pedalcycle	5		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	231		
14-Parked Motor Vehicle	6		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	1		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	2		
22-Cable Barrier	0		
23-Culvert	1		
24-Curb	5		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	1		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	6		
33-Traffic Sign Support	1		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	10	11
C	33	42
PD	101	0
Total	**144**	**53**

Road Character

Road Grade	Total
1-Level	98
2-On Grade	39
3-Top of Hill	1
4-Bottom of Hill	8
5-Other	0
Total	**146**

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	41
2-Traffic Signals (Flashing)	1
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	60
6-Yield Sign	9
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	32
14-Other	3
Total	**146**

Light

Light Condition	Total
1-Daylight	124
2-Dawn	2
3-Dusk	0
4-Dark - Lighted	19
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	**146**

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2018	2019	2020	Total
JANUARY	7	3	3	13
FEBRUARY	7	4	4	15
MARCH	6	6	4	16
APRIL	4	3	2	9
MAY	3	3	2	8
JUNE	3	5	2	10
JULY	7	1	7	15
AUGUST	5	8	5	18
SEPTEMBER	7	0	2	9
OCTOBER	6	3	3	12
NOVEMBER	5	3	2	10
DECEMBER	3	4	4	11
Total	**63**	**43**	**40**	**146**

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Rear End - Sideswipe	13	0	20	29	0	6	1	0	0	0	0	0	0	0	69
Head-on - Sideswipe	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Intersection Movement	0	0	18	22	0	4	0	0	0	0	0	0	0	0	44
Pedestrians	1	0	2	1	0	1	0	0	0	0	0	0	0	0	5
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	5	2	4	2	0	2	0	0	0	0	0	0	0	0	15
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	2	2	0	1	0	0	0	0	0	0	0	0	5
Other	1	0	0	1	0	0	4	0	0	0	0	0	0	0	6
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**21**	**2**	**46**	**57**	**0**	**14**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**146**

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	13	0	0	0	0	0	0	0	0	0	2	15
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	1	2
Daylight	78	1	0	0	0	0	0	0	0	0	4	83
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	1	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	21	0	0	0	0	0	3	1	0	0	4	29
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

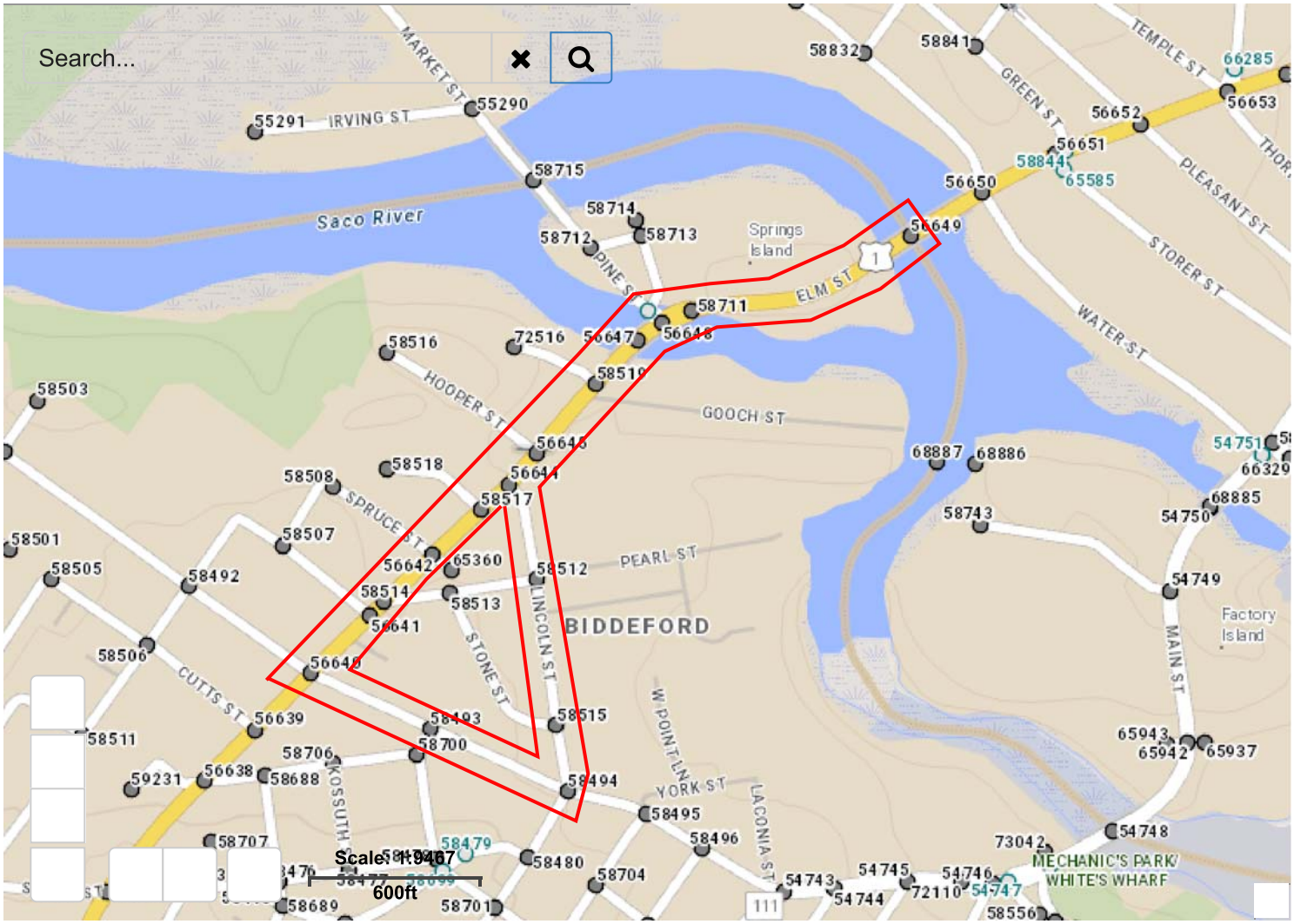
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	5	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	4	0	0	2	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**116**	**2**	**0**	**0**	**0**	**0**	**3**	**6**	**0**	**0**	**19**	**146**


Search...
Saco River
Springs Island
Factory Island
BIDDEFORD
MECHANIC'S PARK/ WHITE'S WHARF
IRVING ST
MARKET ST
GREEN ST
TEMPLE ST
PLEASANT ST
STORER ST
WATER ST
ELM ST
PINE ST
HOOPER ST
GOOCH ST
SPRUCE ST
PEARL ST
LINCOLN ST
STONE ST
CUTTS ST
KOSSUTH
W POINT LN
YORK ST
LACONIA ST
MAIN ST
Scale: 1:9467
600ft

EXISTING TURNING MOVEMENT VOLUMES

Cover

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

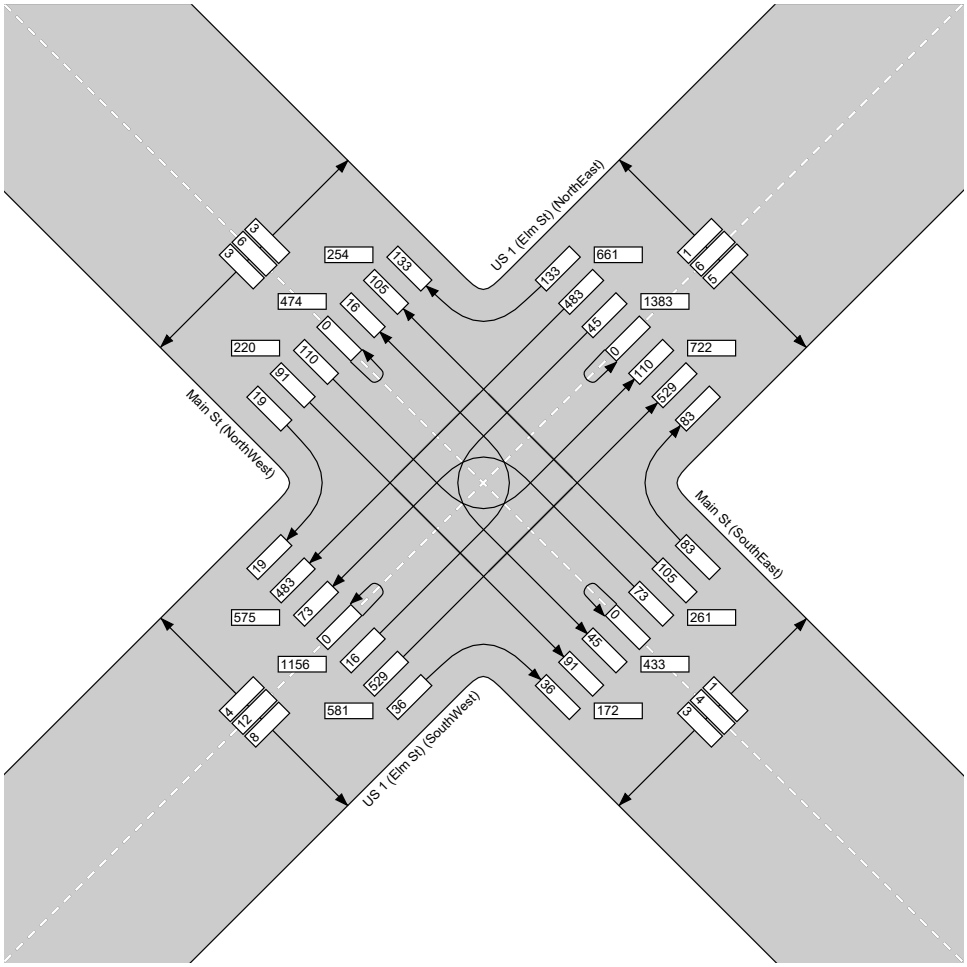
Study Name	US 1 (Elm St), Main St, 05/08/2021
Study Description	US 1 (Elm St), Main St, 05/08/2021 turning movement
Date of Survey	Thursday, August 5, 2021
Time Period	06:00 - 18:00
Comments	-
Location	

Classes

Mcl
Car
Bus
SUT
Semis
Bicycle

Diagram

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021



Time Period:

- ○ All times
- ○ AM Peak Hour:11:00 - 12:00
- ○ PM Peak Hour:15:30 - 16:30
- ○ Overall Peak Hour:15:30 - 16:30
- ◉ Custom: 16:30 - 17:30

Traffic Bins:

- ☑ Mcl
- ☑ Car
- ☑ Bus
- ☑ SUT
- ☑ Semis
- ☑ Bicycle

Crossing Bins:

- ☑ Bicycle
- ☑ Ped

Traffic total: 1723

Movements

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

From: Main St (NorthWest)																								
To: Main St (NorthWest)									To: US 1 (Elm St) (NorthEast)								To: Main St (SouthEast)							
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle		
06:00	0	0	0	0	0	0	0	06:00	0	10	0	0	0	0	10	06:00	0	7	0	0	0	0		
06:15	0	0	0	0	0	0	0	06:15	0	14	0	0	0	0	14	06:15	0	5	0	0	0	0		
06:30	0	0	0	0	0	0	0	06:30	0	23	0	0	0	0	23	06:30	0	10	0	0	0	0		
06:45	0	0	0	0	0	0	0	06:45	1	26	0	0	0	0	27	06:45	0	16	0	0	0	0		
07:00	0	0	0	0	0	0	0	07:00	0	28	0	1	0	0	29	07:00	0	7	0	0	0	0		
07:15	0	0	0	0	0	0	0	07:15	0	34	0	0	0	0	34	07:15	0	16	0	0	0	0		
07:30	0	0	0	0	0	0	0	07:30	0	24	0	0	0	0	24	07:30	0	20	0	0	0	0		
07:45	0	0	0	0	0	0	0	07:45	0	34	0	0	0	0	34	07:45	0	21	0	0	0	0		
08:00	0	0	0	0	0	0	0	08:00	0	32	0	0	0	0	32	08:00	0	21	0	0	0	0		
08:15	0	0	0	0	0	0	0	08:15	0	16	0	2	0	0	18	08:15	0	16	0	1	0	0		
08:30	0	0	0	0	0	0	0	08:30	0	30	0	0	0	0	30	08:30	0	12	0	0	1	0		
08:45	0	0	0	0	0	0	0	08:45	0	22	0	0	0	0	22	08:45	0	21	0	1	1	0		
09:00	0	0	0	0	0	0	0	09:00	0	14	0	1	0	0	15	09:00	0	13	0	0	0	0		
09:15	0	0	0	0	0	0	0	09:15	0	19	0	0	1	0	20	09:15	0	14	0	0	0	0		
09:30	0	0	0	0	0	0	0	09:30	0	22	0	0	0	0	22	09:30	0	10	0	0	0	0		
09:45	0	0	0	0	0	0	0	09:45	0	22	0	0	0	0	22	09:45	0	15	0	1	0	0		
10:00	0	0	0	0	0	0	0	10:00	0	15	0	2	0	0	17	10:00	0	12	0	0	0	0		
10:15	0	0	0	0	0	0	0	10:15	0	27	0	1	0	0	28	10:15	0	17	0	0	0	0		
10:30	0	0	0	0	0	0	0	10:30	0	26	0	0	0	0	26	10:30	0	21	0	0	0	0		
10:45	0	0	0	0	0	0	0	10:45	0	16	0	0	0	0	16	10:45	0	21	0	0	0	0		
11:00	0	0	0	0	0	0	0	11:00	0	15	0	0	0	0	15	11:00	0	18	0	2	0	0		
11:15	0	0	0	0	0	0	0	11:15	0	18	0	1	0	0	19	11:15	0	14	0	0	0	0		
11:30	0	0	0	0	0	0	0	11:30	0	20	0	1	0	0	21	11:30	0	13	0	1	0	0		
11:45	0	0	0	0	0	0	0	11:45	0	22	0	0	0	0	22	11:45	0	20	0	0	0	0		
12:00	0	0	0	0	0	0	0	12:00	0	30	0	0	0	0	30	12:00	0	24	0	0	0	0		
12:15	0	0	0	0	0	0	0	12:15	0	24	0	0	0	0	24	12:15	0	19	0	0	0	0		
12:30	0	0	0	0	0	0	0	12:30	0	25	0	0	0	0	25	12:30	0	18	0	1	0	0		
12:45	0	0	0	0	0	0	0	12:45	2	27	1	1	0	0	31	12:45	0	20	0	0	0	0		
13:00	0	0	0	0	0	0	0	13:00	0	29	0	0	0	0	29	13:00	0	24	0	0	0	0		
13:15	0	0	0	0	0	0	0	13:15	0	23	0	1	0	0	24	13:15	0	23	0	0	0	0		
13:30	0	0	0	0	0	0	0	13:30	0	25	0	0	0	0	25	13:30	0	21	0	0	0	0		
13:45	0	0	0	0	0	0	0	13:45	0	19	0	0	1	0	20	13:45	0	23	0	0	0	0		
14:00	0	0	0	0	0	0	0	14:00	0	29	0	0	0	0	29	14:00	0	17	0	3	0	0		
14:15	0	0	0	0	0	0	0	14:15	1	24	0	0	0	0	25	14:15	1	13	0	0	0	0		
14:30	0	0	0	0	0	0	0	14:30	1	27	0	2	0	0	30	14:30	0	8	0	0	1	0		
14:45	0	0	0	0	0	0	0	14:45	0	18	0	0	0	0	18	14:45	0	33	0	1	0	0		

15:00	0	0	0	0	0	0	0	15:00	0	23	0	1	0	0	24	15:00	0	18	0	0	0	
15:15	0	0	0	0	0	0	0	15:15	0	28	0	0	0	0	28	15:15	0	15	0	0	0	
15:30	**0**	**0**	**0**	**0**	**0**	**0**	**0**	15:30	**0**	**30**	**0**	**0**	**0**	**0**	**30**	15:30	**0**	**27**	**0**	**0**	**0**	
15:45	**0**	**0**	**0**	**0**	**0**	**0**	**0**	15:45	**0**	**19**	**0**	**3**	**0**	**0**	**22**	15:45	**1**	**27**	**0**	**0**	**0**	
16:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	16:00	**0**	**29**	**0**	**1**	**0**	**0**	**30**	16:00	**0**	**14**	**0**	**0**	**0**	
16:15	**0**	**0**	**0**	**0**	**0**	**0**	**0**	16:15	**0**	**27**	**0**	**0**	**0**	**0**	**27**	16:15	**1**	**22**	**0**	**0**	**0**	
16:30	0	0	0	0	0	0	0	16:30	0	27	0	0	0	0	27	16:30	0	22	0	0	0	
16:45	0	0	0	0	0	0	0	16:45	0	24	0	0	0	0	24	16:45	1	27	0	0	0	
17:00	0	0	0	0	0	0	0	17:00	0	29	0	0	0	0	29	17:00	0	22	0	0	0	
17:15	0	0	0	0	0	0	0	17:15	0	30	0	0	0	0	30	17:15	1	17	0	0	0	
17:30	0	0	0	0	0	0	0	17:30	0	33	0	0	0	0	33	17:30	0	19	0	0	0	
17:45	0	0	0	0	0	0	0	17:45	1	31	0	0	0	0	32	17:45	0	20	0	0	0	
Total	0	0	0	0	0	0	0	Total	6	1159	1	18	2	0	1186	Total	5	853	0	11	3	
% of Total	-	-	-	-	-	-	-	% of Total	0.5%	97.7%	0.1%	1.5%	0.2%	0%	100%	% of Total	0.6%	97.6%	0%	1.3%	0.3%	0.2
% of Approach	0%	0%	0%	0%	0%	0%	0%	% of Approach	54.5%	52.6%	100%	60%	40%	0%	52.6%	% of Approach	45.5%	38.7%	0%	36.7%	60%	100

From: US 1 (Elm St) (NorthEast)

To: Main St (NorthWest)								**To: US 1 (Elm St) (NorthEast)**								**To: Main St (SouthEast)**						
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle
06:00	0	7	0	0	0	0	7	06:00	0	0	0	0	0	0	0	06:00	0	4	0	0	0	
06:15	0	4	0	0	0	0	4	06:15	0	0	0	0	0	0	0	06:15	0	1	0	0	0	
06:30	0	8	0	0	0	0	8	06:30	0	0	0	0	0	0	0	06:30	0	5	0	1	0	
06:45	0	9	0	0	0	0	9	06:45	0	0	0	0	0	0	0	06:45	0	6	0	0	0	
07:00	0	11	0	0	0	0	11	07:00	0	0	0	0	0	0	0	07:00	0	4	0	0	0	
07:15	0	15	0	1	0	0	16	07:15	0	0	0	0	0	0	0	07:15	0	4	0	1	0	
07:30	0	17	0	0	0	0	17	07:30	0	0	0	0	0	0	0	07:30	0	7	0	0	0	
07:45	0	19	0	0	0	0	19	07:45	0	0	0	0	0	0	0	07:45	0	8	0	0	0	
08:00	0	12	0	0	0	0	12	08:00	0	0	0	0	0	0	0	08:00	0	4	0	0	0	
08:15	0	8	0	0	0	0	8	08:15	0	0	0	0	0	0	0	08:15	0	7	0	0	0	
08:30	0	14	0	0	0	0	14	08:30	0	0	0	0	0	0	0	08:30	0	13	0	0	0	
08:45	0	12	0	0	0	0	12	08:45	0	0	0	0	0	0	0	08:45	0	10	0	0	0	
09:00	0	15	0	0	0	0	15	09:00	0	0	0	0	0	0	0	09:00	0	10	0	0	0	
09:15	0	14	0	0	0	0	14	09:15	0	0	0	0	0	0	0	09:15	0	14	0	0	0	
09:30	0	12	0	0	0	0	12	09:30	0	0	0	0	0	0	0	09:30	0	6	0	0	0	
09:45	0	6	0	0	0	0	6	09:45	0	0	0	0	0	0	0	09:45	0	4	0	0	0	
10:00	0	14	0	0	0	0	14	10:00	0	0	0	0	0	0	0	10:00	0	5	0	0	0	
10:15	0	12	0	0	0	0	12	10:15	0	0	0	0	0	0	0	10:15	0	12	0	0	0	
10:30	0	13	0	1	0	0	14	10:30	0	0	0	0	0	0	0	10:30	0	6	0	0	0	
10:45	0	13	0	1	0	0	14	10:45	0	0	0	0	0	0	0	10:45	0	12	0	0	0	
11:00	0	13	0	0	0	0	13	11:00	0	0	0	0	0	0	0	11:00	0	13	0	0	0	
11:15	0	17	0	0	0	0	17	11:15	0	0	0	0	0	0	0	11:15	0	12	0	0	0	
11:30	0	23	0	0	0	0	23	11:30	0	0	0	0	0	0	0	11:30	0	11	0	0	0	
11:45	0	15	0	0	0	0	15	11:45	0	0	0	0	0	0	0	11:45	0	13	0	0	0	
12:00	0	18	0	1	0	0	19	12:00	0	0	0	0	0	0	0	12:00	0	11	0	0	0	
12:15	4	21	0	0	0	0	25	12:15	0	0	0	0	0	0	0	12:15	0	10	0	0	0	
12:30	2	27	0	1	0	0	30	12:30	0	0	0	0	0	0	0	12:30	0	7	0	0	0	
12:45	0	22	0	0	0	0	22	12:45	0	0	0	0	0	0	0	12:45	0	17	0	0	0	
13:00	0	21	0	0	0	0	21	13:00	0	0	0	0	0	0	0	13:00	1	7	0	0	0	
13:15	1	32	0	0	0	0	33	13:15	0	0	0	0	0	0	0	13:15	0	19	0	0	1	
13:30	0	19	0	1	0	0	20	13:30	0	0	0	0	0	0	0	13:30	1	12	0	0	0	
13:45	0	18	0	0	0	0	18	13:45	0	0	0	0	0	0	0	13:45	0	9	0	0	0	
14:00	0	26	0	0	0	0	26	14:00	0	0	0	0	0	0	0	14:00	0	9	0	0	0	
14:15	0	21	0	0	0	0	21	14:15	0	0	0	0	0	0	0	14:15	0	11	0	0	0	
14:30	0	18	0	0	0	0	18	14:30	0	0	0	0	0	0	0	14:30	0	10	0	0	0	
14:45	0	28	0	0	0	0	28	14:45	0	0	0	0	0	0	0	14:45	0	11	0	0	0	
15:00	1	27	0	1	0	0	29	15:00	0	0	0	0	0	0	0	15:00	0	11	0	0	0	
15:15	0	25	0	0	1	0	26	15:15	0	0	0	0	0	0	0	15:15	0	7	0	0	0	
15:30	**0**	**24**	**0**	**2**	**0**	**0**	**26**	15:30	**0**	**0**	**0**	**0**	**0**	**0**	**0**	15:30	**1**	**13**	**0**	**1**	**0**	
15:45	**0**	**34**	**0**	**0**	**0**	**1**	**35**	15:45	**0**	**0**	**0**	**0**	**0**	**0**	**0**	15:45	**0**	**12**	**0**	**0**	**0**	
16:00	**0**	**29**	**0**	**0**	**0**	**0**	**29**	16:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	16:00	**0**	**10**	**0**	**0**	**0**	
16:15	**0**	**29**	**0**	**0**	**0**	**0**	**29**	16:15	**0**	**0**	**0**	**0**	**0**	**0**	**0**	16:15	**0**	**12**	**0**	**0**	**0**	
16:30	1	28	0	1	0	0	30	16:30	0	0	0	0	0	0	0	16:30	0	10	0	0	0	
16:45	0	35	0	0	0	0	35	16:45	0	0	0	0	0	0	0	16:45	0	10	0	0	0	
17:00	0	36	0	0	0	0	36	17:00	0	0	0	0	0	0	0	17:00	0	12	0	0	0	
17:15	0	32	0	0	0	0	32	17:15	0	0	0	0	0	0	0	17:15	0	13	0	0	0	
17:30	0	44	0	0	0	0	44	17:30	0	0	0	0	0	0	0	17:30	0	11	0	0	0	
17:45	0	34	0	0	0	0	34	17:45	0	0	0	0	0	0	0	17:45	0	11	0	0	0	
Total	9	951	0	10	1	1	972	Total	0	0	0	0	0	0	0	Total	3	456	0	3	1	
% of Total	0.9%	97.8%	0%	1%	0.1%	0.1%	100%	% of Total	-	-	-	-	-	-	-	% of Total	0.6%	98.1%	0%	0.6%	0.2%	0.4
% of Approach	28.1%	14.7%	0%	6.9%	4.5%	25%	14.6%	% of Approach	0%	0%	0%	0%	0%	0%	0%	% of Approach	9.4%	7.1%	0%	2.1%	4.5%	50

From: Main St (SouthEast)

To: Main St (NorthWest)								**To: US 1 (Elm St) (NorthEast)**								**To: Main St (SouthEast)**						
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle
06:00	0	1	0	0	0	0	1	06:00	0	5	0	0	1	0	6	06:00	0	0	0	0	0	
06:15	0	0	0	0	0	0	0	06:15	0	12	0	0	0	0	12	06:15	0	0	0	0	0	
06:30	0	2	0	0	0	0	2	06:30	0	8	0	0	0	0	8	06:30	0	0	0	0	0	
06:45	0	5	0	0	0	0	5	06:45	0	9	0	0	0	0	9	06:45	0	0	0	0	0	
07:00	0	10	0	0	0	0	10	07:00	0	10	0	0	0	0	10	07:00	0	0	0	0	0	
07:15	0	5	0	0	0	0	5	07:15	0	12	0	0	0	0	12	07:15	0	0	0	0	0	
07:30	0	10	0	1	0	0	11	07:30	0	19	0	0	0	0	19	07:30	0	0	0	0	0	
07:45	0	11	0	1	0	0	12	07:45	0	12	0	0	0	0	12	07:45	0	0	0	0	0	
08:00	0	11	0	0	0	0	11	08:00	0	17	0	0	0	0	17	08:00	0	0	0	0	0	
08:15	0	9	0	1	0	0	10	08:15	0	18	0	0	0	0	18	08:15	0	0	0	0	0	
08:30	0	5	0	1	0	0	6	08:30	0	16	0	0	0	0	16	08:30	0	0	0	0	0	
08:45	0	9	0	2	0	0	11	08:45	0	24	0	0	0	0	24	08:45	0	0	0	0	0	
09:00	0	13	0	0	0	0	13	09:00	0	13	0	0	0	0	13	09:00	0	0	0	0	0	
09:15	0	13	0	0	0	0	13	09:15	0	17	0	0	0	0	17	09:15	0	0	0	0	0	
09:30	0	10	0	0	0	0	10	09:30	0	14	0	1	0	0	15	09:30	0	0	0	0	0	
09:45	0	11	0	1	0	0	12	09:45	0	24	0	0	0	0	24	09:45	0	0	0	0	0	
10:00	0	7	0	0	0	0	7	10:00	0	15	0	0	0	0	15	10:00	0	0	0	0	0	
10:15	0	14	0	1	0	0	15	10:15	0	18	0	0	0	0	18	10:15	0	0	0	0	0	
10:30	0	12	0	0	0	0	12	10:30	0	21	0	0	0	0	21	10:30	0	0	0	0	0	
10:45	0	15	0	0	0	0	15	10:45	0	25	0	0	0	0	25	10:45	0	0	0	0	0	
11:00	0	9	0	1	0	0	10	11:00	0	15	0	2	0	0	17	11:00	0	0	0	0	0	
11:15	0	5	0	0	0	0	5	11:15	0	20	0	0	0	0	20	11:15	0	0	0	0	0	
11:30	0	15	0	0	0	0	15	11:30	0	20	0	0	0	0	20	11:30	0	0	0	0	0	
11:45	0	12	0	1	0	0	13	11:45	0	27	0	0	0	0	27	11:45	0	0	0	0	0	
12:00	1	15	0	0	0	0	16	12:00	0	22	0	0	0	0	22	12:00	0	0	0	0	0	
12:15	0	14	0	0	0	0	14	12:15	1	21	0	1	0	0	23	12:15	0	0	0	0	0	
12:30	2	17	0	0	0	1	20	12:30	0	17	0	0	0	0	17	12:30	0	0	0	0	0	
12:45	0	17	0	0	0	0	17	12:45	0	15	0	0	0	0	15	12:45	0	0	0	0	0	
13:00	0	16	0	0	0	0	16	13:00	0	23	0	0	0	0	23	13:00	0	0	0	0	0	
13:15	1	18	0	0	0	0	19	13:15	0	19	0	0	0	0	19	13:15	0	0	0	0	0	
13:30	0	18	0	0	0	0	18	13:30	0	23	0	0	0	0	23	13:30	0	0	0	0	0	
13:45	0	14	0	0	0	0	14	13:45	0	16	0	0	0	0	16	13:45	0	0	0	0	0	
14:00	0	14	0	0	0	0	14	14:00	0	14	0	0	0	0	14	14:00	0	0	0	0	0	
14:15	0	13	0	0	1	0	14	14:15	0	17	0	1	0	0	18	14:15	0	0	0	0	0	

14:30	0	16	0	1	0	1	18	14:30	0	12	0	0	0	0	12	14:30	0	0	0	0	0	
14:45	0	20	0	0	0	0	20	14:45	0	14	0	0	0	0	14	14:45	0	0	0	0	0	
15:00	0	24	0	0	0	0	24	15:00	1	15	0	0	0	1	17	15:00	0	0	0	0	0	
15:15	0	15	0	1	0	0	16	15:15	0	15	0	0	0	0	15	15:15	0	0	0	0	0	
15:30	**0**	**17**	**0**	**0**	**0**	**0**	**17**	15:30	**1**	**14**	**0**	**0**	**0**	**0**	**15**	15:30	**0**	**0**	**0**	**0**	**0**	
15:45	**0**	**17**	**0**	**2**	**0**	**0**	**19**	15:45	**1**	**15**	**0**	**0**	**0**	**0**	**16**	15:45	**0**	**0**	**0**	**0**	**0**	
16:00	**1**	**25**	**0**	**0**	**0**	**0**	**26**	16:00	**0**	**13**	**0**	**0**	**0**	**0**	**13**	16:00	**0**	**0**	**0**	**0**	**0**	
16:15	**0**	**15**	**0**	**0**	**0**	**0**	**15**	16:15	**0**	**24**	**0**	**0**	**0**	**0**	**24**	16:15	**0**	**0**	**0**	**0**	**0**	
16:30	0	18	0	0	0	0	18	16:30	0	22	0	0	0	0	22	16:30	0	0	0	0	0	
16:45	0	31	0	0	0	0	31	16:45	0	20	0	0	0	0	20	16:45	0	0	0	0	0	
17:00	1	24	0	0	0	0	25	17:00	0	18	0	0	0	0	18	17:00	0	0	0	0	0	
17:15	0	31	0	0	0	0	31	17:15	0	23	0	0	0	0	23	17:15	0	0	0	0	0	
17:30	1	21	0	0	0	1	23	17:30	0	23	0	0	0	0	23	17:30	0	0	0	0	0	
17:45	0	13	0	0	0	0	13	17:45	0	15	0	0	0	0	15	17:45	0	0	0	0	0	
Total	7	657	0	14	1	3	682	Total	4	821	0	5	1	1	832	Total	0	0	0	0	0	
% of Total	1%	96.3%	0%	2.1%	0.1%	0.4%	100%	% of Total	0.5%	98.7%	0%	0.6%	0.1%	0.1%	100%	% of Total	-	-	-	-	-	
% of Approach	41.2%	30.3%	0%	45.2%	25%	75%	30.6%	% of Approach	23.5%	37.9%	0%	16.1%	25%	25%	37.4%	% of Approach	0%	0%	0%	0%	0%	0

From: US 1 (Elm St) (SouthWest)

To: Main St (NorthWest)								To: US 1 (Elm St) (NorthEast)								To: Main St (SouthEast)						
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle
06:00	0	0	0	0	0	0	0	06:00	0	19	0	1	0	0	20	06:00	0	3	2	0	0	
06:15	0	0	0	0	0	0	0	06:15	0	32	0	2	0	0	34	06:15	0	0	0	0	0	
06:30	0	1	0	0	0	0	1	06:30	0	40	0	1	1	0	42	06:30	0	1	0	1	0	
06:45	0	1	0	0	0	0	1	06:45	0	48	0	2	2	0	52	06:45	0	3	0	0	0	
07:00	0	0	0	0	0	0	0	07:00	0	50	0	0	0	0	50	07:00	0	6	0	0	0	
07:15	0	2	0	0	0	0	2	07:15	0	62	0	1	0	0	63	07:15	0	8	0	0	0	
07:30	0	2	0	0	0	0	2	07:30	0	71	0	3	1	0	75	07:30	0	4	0	0	0	
07:45	0	0	0	0	0	0	0	07:45	0	82	0	1	0	0	83	07:45	0	6	0	1	0	
08:00	0	0	0	1	0	0	1	08:00	0	46	0	3	3	0	52	08:00	0	6	0	0	0	
08:15	0	1	0	0	0	0	1	08:15	0	71	0	5	0	0	76	08:15	0	5	1	0	0	
08:30	0	1	0	0	0	0	1	08:30	1	74	0	1	2	0	78	08:30	0	3	0	0	0	
08:45	0	2	0	0	0	0	2	08:45	0	65	0	2	1	0	68	08:45	0	12	0	0	0	
09:00	0	0	0	0	0	0	0	09:00	0	65	0	5	2	0	72	09:00	0	8	0	1	0	
09:15	0	1	0	0	0	0	1	09:15	0	68	0	0	1	0	69	09:15	0	10	0	0	0	
09:30	0	4	0	0	0	0	4	09:30	0	72	0	1	2	0	75	09:30	0	7	0	0	0	
09:45	0	1	0	0	0	0	1	09:45	0	92	0	2	1	0	95	09:45	0	8	0	0	0	
10:00	0	4	0	0	0	0	4	10:00	0	94	0	4	0	0	98	10:00	0	3	0	0	0	
10:15	0	2	0	0	0	0	2	10:15	0	99	0	4	0	0	103	10:15	0	12	0	0	0	
10:30	0	1	0	0	0	0	1	10:30	0	81	0	5	0	0	86	10:30	0	8	0	1	0	
10:45	0	2	0	0	0	0	2	10:45	0	103	0	5	0	0	108	10:45	0	19	1	0	0	
11:00	0	2	0	0	0	0	2	11:00	0	81	0	4	1	0	86	11:00	0	2	0	0	0	
11:15	0	0	0	0	0	0	0	11:15	0	126	0	7	0	0	133	11:15	0	13	0	0	0	
11:30	0	1	0	0	0	0	1	11:30	0	112	0	5	1	0	118	11:30	0	13	0	0	0	
11:45	0	2	0	0	0	0	2	11:45	0	95	0	6	0	0	101	11:45	0	15	0	1	0	
12:00	0	3	0	0	0	0	3	12:00	2	99	0	2	2	0	105	12:00	0	17	0	0	0	
12:15	1	1	0	0	0	0	2	12:15	0	98	0	4	1	0	103	12:15	0	8	0	0	0	
12:30	0	1	0	0	0	0	1	12:30	0	116	0	4	0	1	121	12:30	0	10	0	0	1	
12:45	0	7	0	0	0	0	7	12:45	2	100	0	7	1	0	110	12:45	0	13	0	0	0	
13:00	0	2	0	0	0	0	2	13:00	0	116	0	1	0	0	117	13:00	0	10	0	0	0	
13:15	2	3	0	0	0	0	5	13:15	0	97	0	1	1	0	99	13:15	0	10	1	0	0	
13:30	0	2	0	1	0	0	3	13:30	1	114	1	4	0	0	120	13:30	0	9	0	0	0	
13:45	0	4	0	0	0	0	4	13:45	5	119	0	7	0	0	131	13:45	0	15	0	0	0	
14:00	0	2	0	0	0	0	2	14:00	0	92	1	2	0	0	95	14:00	0	7	0	0	0	
14:15	1	2	0	0	0	0	3	14:15	1	119	0	2	1	0	123	14:15	0	16	0	0	0	
14:30	0	3	0	0	0	0	3	14:30	0	128	0	0	2	0	130	14:30	0	14	0	0	0	
14:45	0	5	0	0	0	0	5	14:45	1	140	0	1	1	0	143	14:45	0	13	0	0	0	
15:00	0	2	0	0	0	0	2	15:00	1	124	1	4	2	0	132	15:00	1	15	0	0	0	
15:15	0	2	0	1	0	0	3	15:15	1	119	0	4	1	0	125	15:15	0	12	0	0	0	
15:30	**0**	**2**	**0**	**0**	**0**	**0**	**2**	15:30	**4**	**144**	**0**	**2**	**0**	**0**	**150**	15:30	**0**	**5**	**0**	**0**	**0**	
15:45	**0**	**2**	**0**	**0**	**0**	**0**	**2**	15:45	**1**	**144**	**0**	**0**	**0**	**0**	**145**	15:45	**0**	**15**	**1**	**0**	**0**	
16:00	**0**	**1**	**0**	**0**	**0**	**0**	**1**	16:00	**1**	**139**	**0**	**3**	**1**	**0**	**144**	16:00	**0**	**11**	**0**	**0**	**0**	
16:15	**0**	**2**	**0**	**0**	**0**	**0**	**2**	16:15	**0**	**152**	**0**	**4**	**1**	**0**	**157**	16:15	**0**	**11**	**0**	**0**	**0**	
16:30	0	1	0	0	0	0	1	16:30	0	126	0	1	0	0	127	16:30	0	10	0	0	0	
16:45	1	2	0	0	0	0	3	16:45	2	126	0	3	0	0	131	16:45	0	9	0	0	0	
17:00	0	7	0	0	0	0	7	17:00	1	122	0	0	1	0	124	17:00	0	9	0	0	0	
17:15	0	5	0	0	0	0	5	17:15	1	145	0	1	0	0	147	17:15	0	8	0	0	0	
17:30	0	2	0	0	0	0	2	17:30	1	111	0	2	0	0	114	17:30	0	9	0	0	0	
17:45	0	2	0	0	0	0	2	17:45	0	120	0	1	0	0	121	17:45	1	8	0	0	0	
Total	5	95	0	3	0	0	103	Total	26	4658	3	130	33	1	4851	Total	2	439	6	5	1	
% of Total	4.9%	92.2%	0%	2.9%	0%	0%	100%	% of Total	0.5%	96%	0.1%	2.7%	0.7%	0%	100%	% of Total	0.4%	96.9%	1.3%	1.1%	0.2%	0
% of Approach	15.2%	1.8%	0%	2.2%	0%	0%	1.9%	% of Approach	78.8%	89.7%	33.3%	94.2%	97.1%	100%	89.7%	% of Approach	6.1%	8.5%	66.7%	3.6%	2.9%	0

Legs

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

Main St (NorthWest)

Towards Junction								Away From Junction								Both Directions							
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total
06:00	0	20	0	0	0	0	20	06:00	0	8	0	0	0	0	8	06:00	0	28	0	0	0	0	28
06:15	0	22	0	0	0	0	22	06:15	0	4	0	0	0	0	4	06:15	0	26	0	0	0	0	26
06:30	0	34	0	0	0	0	34	06:30	0	11	0	0	0	0	11	06:30	0	45	0	0	0	0	45
06:45	1	44	0	0	0	0	45	06:45	0	15	0	0	0	0	15	06:45	1	59	0	0	0	0	60
07:00	0	37	0	1	0	0	38	07:00	0	21	0	0	0	0	21	07:00	0	58	0	1	0	0	59
07:15	0	50	0	0	0	0	50	07:15	0	22	0	1	0	0	23	07:15	0	72	0	1	0	0	73
07:30	0	50	0	0	0	0	50	07:30	0	29	0	1	0	0	30	07:30	0	79	0	1	0	0	80
07:45	0	57	0	0	0	0	57	07:45	0	30	0	1	0	0	31	07:45	0	87	0	1	0	0	88
08:00	0	57	0	0	0	0	57	08:00	0	23	0	1	0	0	24	08:00	0	80	0	1	0	0	81
08:15	0	33	0	3	0	0	36	08:15	0	18	0	1	0	0	19	08:15	0	51	0	4	0	0	55
08:30	0	42	0	0	1	0	43	08:30	0	20	0	1	0	0	21	08:30	0	62	0	1	1	0	64
08:45	0	49	0	1	1	0	51	08:45	0	23	0	2	0	0	25	08:45	0	72	0	3	1	0	76
09:00	0	29	0	1	0	0	30	09:00	0	28	0	0	0	0	28	09:00	0	57	0	1	0	0	58
09:15	0	36	0	0	1	0	37	09:15	0	28	0	0	0	0	28	09:15	0	64	0	0	1	0	65
09:30	0	37	0	0	0	0	37	09:30	0	26	0	0	0	0	26	09:30	0	63	0	0	0	0	63
09:45	0	43	0	1	0	0	44	09:45	0	18	0	1	0	0	19	09:45	0	61	0	2	0	0	63
10:00	0	28	0	2	0	0	30	10:00	0	25	0	0	0	0	25	10:00	0	53	0	2	0	0	55
10:15	0	48	0	1	0	0	49	10:15	0	28	0	1	0	0	29	10:15	0	76	0	2	0	0	78
10:30	0	51	0	0	0	0	51	10:30	0	26	0	1	0	0	27	10:30	0	77	0	1	0	0	78
10:45	0	42	0	0	0	0	42	10:45	0	30	0	1	0	0	31	10:45	0	72	0	1	0	0	73
11:00	0	37	0	2	0	0	39	11:00	0	24	0	1	0	0	25	11:00	0	61	0	3	0	0	64
11:15	0	34	0	1	0	0	35	11:15	0	22	0	0	0	0	22	11:15	0	56	0	1	0	0	57
11:30	0	37	0	2	0	0	39	11:30	0	39	0	0	0	0	39	11:30	0	76	0	2	0	0	78
11:45	0	49	0	0	0	0	49	11:45	0	29	0	1	0	0	30	11:45	0	78	0	1	0	0	79
12:00	0	65	0	0	0	0	65	12:00	1	36	0	1	0	0	38	12:00	1	101	0	1	0	0	103
12:15	0	45	0	0	0	0	45	12:15	5	36	0	0	0	0	41	12:15	5	81	0	0	0	0	86

12:30	0	51	0	2	0	0	53	12:30	4	45	0	1	0	1	51	12:30	4	96	0	3	0	1	104	1
12:45	2	52	1	1	0	0	56	12:45	0	46	0	0	0	0	46	12:45	2	98	1	1	0	0	102	1
13:00	0	57	0	0	0	0	57	13:00	0	39	0	0	0	0	39	13:00	0	96	0	0	0	0	96	1
13:15	0	49	0	1	0	0	50	13:15	4	53	0	0	0	0	57	13:15	4	102	0	1	0	0	107	1
13:30	0	48	0	0	0	0	48	13:30	0	39	0	2	0	0	41	13:30	0	87	0	2	0	0	89	1
13:45	0	44	0	0	1	0	45	13:45	0	36	0	0	0	0	36	13:45	0	80	0	0	1	0	81	1
14:00	0	49	0	3	0	0	52	14:00	0	42	0	0	0	0	42	14:00	0	91	0	3	0	0	94	1
14:15	2	42	0	0	0	0	44	14:15	1	36	0	0	1	0	38	14:15	3	78	0	0	1	0	82	1
14:30	1	42	0	2	1	1	47	14:30	0	37	0	1	0	1	39	14:30	1	79	0	3	1	2	86	1
14:45	0	61	0	1	0	0	62	14:45	0	53	0	0	0	0	53	14:45	0	114	0	1	0	0	115	1
15:00	0	43	0	1	0	0	44	15:00	1	53	0	1	0	0	55	15:00	1	96	0	2	0	0	99	1
15:15	0	46	0	0	0	0	46	15:15	0	42	0	2	1	0	45	15:15	0	88	0	2	1	0	91	1
15:30	**0**	**60**	**0**	**0**	**0**	**0**	**60**	15:30	**0**	**43**	**0**	**2**	**0**	**0**	**45**	15:30	**0**	**103**	**0**	**2**	**0**	**0**	**105**	1
15:45	**1**	**49**	**0**	**3**	**0**	**0**	**53**	15:45	**0**	**53**	**0**	**2**	**0**	**1**	**56**	15:45	**1**	**102**	**0**	**5**	**0**	**1**	**109**	1
16:00	**0**	**47**	**0**	**1**	**0**	**0**	**48**	16:00	**1**	**55**	**0**	**0**	**0**	**0**	**56**	16:00	**1**	**102**	**0**	**1**	**0**	**0**	**104**	1
16:15	**1**	**55**	**0**	**0**	**0**	**0**	**56**	16:15	**0**	**46**	**0**	**0**	**0**	**0**	**46**	16:15	**1**	**101**	**0**	**0**	**0**	**0**	**102**	1
16:30	0	51	0	0	0	0	51	16:30	1	47	0	1	0	0	49	16:30	1	98	0	1	0	0	100	1
16:45	1	56	0	0	0	1	58	16:45	1	68	0	0	0	0	69	16:45	2	124	0	0	0	1	127	1
17:00	0	57	0	0	0	0	57	17:00	1	67	0	0	0	0	68	17:00	1	124	0	0	0	0	125	1
17:15	1	53	0	0	0	0	54	17:15	0	68	0	0	0	0	68	17:15	1	121	0	0	0	0	122	1
17:30	0	62	0	0	0	0	62	17:30	1	67	0	0	0	1	69	17:30	1	129	0	0	0	1	131	1
17:45	1	55	0	0	0	0	56	17:45	0	49	0	0	0	0	49	17:45	1	104	0	0	0	0	105	1
Total	11	2205	1	30	5	2	2254	Total	21	1703	0	27	2	4	1757	Total	32	3908	1	57	7	6	4011	T
% of Total	0.5%	97.8%	0%	1.3%	0.2%	0.1%	100%	% of Total	1.2%	96.9%	0%	1.5%	0.1%	0.2%	100%	% of Total	0.8%	97.4%	0%	1.4%	0.2%	0.1%	100%	%

US 1 (Elm St) (NorthEast)

Towards Junction								**Away From Junction**								**Both Directions**								
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	P
06:00	0	42	0	1	1	1	45	06:00	0	34	0	1	1	0	36	06:00	0	76	0	2	2	1	81	0
06:15	0	50	0	0	0	0	50	06:15	0	58	0	2	0	0	60	06:15	0	108	0	2	0	0	110	0
06:30	0	78	0	4	1	0	83	06:30	0	71	0	1	1	0	73	06:30	0	149	0	5	2	0	156	0
06:45	0	99	1	3	0	0	103	06:45	1	83	0	2	2	0	88	06:45	1	182	1	5	2	0	191	0
07:00	0	85	0	2	0	0	87	07:00	0	88	0	1	0	0	89	07:00	0	173	0	3	0	0	176	0
07:15	0	114	0	4	0	0	118	07:15	0	108	0	1	0	0	109	07:15	0	222	0	5	0	0	227	0
07:30	0	114	0	2	0	0	116	07:30	0	114	0	3	1	0	118	07:30	0	228	0	5	1	0	234	0
07:45	0	124	0	7	0	0	131	07:45	0	128	0	1	0	0	129	07:45	0	252	0	8	0	0	260	0
08:00	1	110	0	2	2	0	115	08:00	0	95	0	3	3	0	101	08:00	1	205	0	5	5	0	216	0
08:15	0	113	0	3	1	0	117	08:15	0	105	0	7	0	0	112	08:15	0	218	0	10	1	0	229	0
08:30	0	108	0	2	1	0	111	08:30	1	120	0	1	2	0	124	08:30	1	228	0	3	3	0	235	0
08:45	0	139	0	6	0	0	145	08:45	0	111	0	2	1	0	114	08:45	0	250	0	8	1	0	259	0
09:00	0	105	0	2	1	0	108	09:00	0	92	0	6	2	0	100	09:00	0	197	0	8	3	0	208	0
09:15	0	117	0	7	0	0	124	09:15	0	104	0	0	2	0	106	09:15	0	221	0	7	2	0	230	0
09:30	0	123	0	4	0	0	127	09:30	0	108	0	2	2	0	112	09:30	0	231	0	6	2	0	239	0
09:45	0	116	0	3	2	0	121	09:45	0	138	0	2	1	0	141	09:45	0	254	0	5	3	0	262	0
10:00	0	137	0	3	0	0	140	10:00	0	124	0	6	0	0	130	10:00	0	261	0	9	0	0	270	0
10:15	0	143	0	5	0	0	148	10:15	0	144	0	5	0	0	149	10:15	0	287	0	10	0	0	297	0
10:30	0	137	0	4	0	0	141	10:30	0	128	0	5	0	0	133	10:30	0	265	0	9	0	0	274	0
10:45	0	127	0	1	1	0	129	10:45	0	144	0	5	0	0	149	10:45	0	271	0	6	1	0	278	0
11:00	0	136	0	2	0	0	138	11:00	0	111	0	6	1	0	118	11:00	0	247	0	8	1	0	256	0
11:15	0	141	0	4	0	0	145	11:15	0	164	0	8	0	0	172	11:15	0	305	0	12	0	0	317	0
11:30	0	148	0	5	1	0	154	11:30	0	152	0	6	1	0	159	11:30	0	300	0	11	2	0	313	0
11:45	0	136	0	3	1	0	140	11:45	0	144	0	6	0	0	150	11:45	0	280	0	9	1	0	290	0
12:00	0	126	1	2	1	0	130	12:00	2	151	0	2	2	0	157	12:00	2	277	1	4	3	0	287	0
12:15	4	134	0	0	1	0	139	12:15	1	143	0	5	1	0	150	12:15	5	277	0	5	2	0	289	0
12:30	4	153	0	6	0	0	163	12:30	0	158	0	4	0	1	163	12:30	4	311	0	10	0	1	326	0
12:45	1	164	0	3	1	0	169	12:45	4	142	1	8	1	0	156	12:45	5	306	1	11	2	0	325	0
13:00	3	140	0	3	0	0	146	13:00	0	168	0	1	0	0	169	13:00	3	308	0	4	0	0	315	0
13:15	2	167	0	2	1	0	172	13:15	0	139	0	2	1	0	142	13:15	2	306	0	4	2	0	314	0
13:30	2	157	1	5	0	0	165	13:30	1	162	1	4	0	0	168	13:30	3	319	2	9	0	0	333	0
13:45	0	146	0	3	0	0	149	13:45	5	154	0	7	1	0	167	13:45	5	300	0	10	1	0	316	0
14:00	0	135	1	3	0	0	139	14:00	0	135	1	2	0	0	138	14:00	0	270	2	5	0	0	277	0
14:15	0	160	0	6	0	0	166	14:15	2	160	0	3	1	0	166	14:15	2	320	0	9	1	0	332	0
14:30	1	143	0	2	1	0	147	14:30	1	167	0	2	2	0	172	14:30	2	310	0	4	3	0	319	0
14:45	0	152	1	2	1	0	156	14:45	1	172	0	1	1	0	175	14:45	1	324	1	3	2	0	331	0
15:00	1	156	0	3	0	0	160	15:00	2	162	1	5	2	1	173	15:00	3	318	1	8	2	1	333	0
15:15	2	156	0	2	2	0	162	15:15	1	162	0	4	1	0	168	15:15	3	318	0	6	3	0	330	0
15:30	**1**	**164**	**0**	**6**	**0**	**0**	**171**	15:30	**5**	**188**	**0**	**2**	**0**	**0**	**195**	15:30	**6**	**352**	**0**	**8**	**0**	**0**	**366**	0
15:45	**2**	**177**	**0**	**2**	**0**	**1**	**182**	15:45	**2**	**178**	**0**	**3**	**0**	**0**	**183**	15:45	**4**	**355**	**0**	**5**	**0**	**1**	**365**	0
16:00	**1**	**150**	**0**	**1**	**0**	**1**	**153**	16:00	**1**	**181**	**0**	**4**	**1**	**0**	**187**	16:00	**2**	**331**	**0**	**5**	**1**	**1**	**340**	0
16:15	**0**	**161**	**0**	**3**	**0**	**1**	**165**	16:15	**0**	**203**	**0**	**4**	**1**	**0**	**208**	16:15	**0**	**364**	**0**	**7**	**1**	**1**	**373**	0
16:30	2	163	0	2	0	0	167	16:30	0	175	0	1	0	0	176	16:30	2	338	0	3	0	0	343	0
16:45	2	174	0	0	0	0	176	16:45	2	170	0	3	0	0	175	16:45	4	344	0	3	0	0	351	0
17:00	0	158	0	1	0	0	159	17:00	1	169	0	0	1	0	171	17:00	1	327	0	1	1	0	330	0
17:15	1	154	0	4	0	0	159	17:15	1	198	0	1	0	0	200	17:15	2	352	0	5	0	0	359	0
17:30	1	159	0	4	2	0	166	17:30	1	167	0	2	0	0	170	17:30	2	326	0	6	2	0	336	0
17:45	1	171	0	1	0	0	173	17:45	1	166	0	1	0	0	168	17:45	2	337	0	2	0	0	341	0
Total	32	6462	5	145	22	4	6670	Total	36	6638	4	153	36	2	6869	Total	68	13100	9	298	58	6	13539	T
% of Total	0.5%	96.9%	0.1%	2.2%	0.3%	0.1%	100%	% of Total	0.5%	96.6%	0.1%	2.2%	0.5%	0%	100%	% of Total	0.5%	96.8%	0.1%	2.2%	0.4%	0%	100%	%

Main St (SouthEast)

Towards Junction								**Away From Junction**								**Both Directions**								
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	P
06:00	0	7	0	0	1	0	8	06:00	0	14	2	0	0	1	17	06:00	0	21	2	0	1	1	25	0
06:15	0	18	1	0	0	0	19	06:15	0	6	0	0	0	0	6	06:15	0	24	1	0	0	0	25	0
06:30	0	10	0	0	0	0	10	06:30	0	16	0	2	0	0	18	06:30	0	26	0	2	0	0	28	0
06:45	0	20	0	0	0	0	20	06:45	0	25	0	0	0	0	25	06:45	0	45	0	0	0	0	45	0
07:00	0	23	0	0	0	0	23	07:00	0	17	0	0	0	0	17	07:00	0	40	0	0	0	0	40	0
07:15	0	24	0	1	0	0	25	07:15	0	28	0	1	0	0	29	07:15	0	52	0	2	0	0	54	0
07:30	0	40	0	2	0	0	42	07:30	0	31	0	0	0	0	31	07:30	0	71	0	2	0	0	73	0
07:45	0	33	0	1	0	0	34	07:45	0	35	0	1	0	0	36	07:45	0	68	0	2	0	0	70	0
08:00	0	33	0	0	0	0	33	08:00	0	31	0	0	0	0	31	08:00	0	64	0	0	0	0	64	0
08:15	0	35	0	1	0	0	36	08:15	0	28	1	1	0	0	30	08:15	0	63	1	2	0	0	66	0
08:30	0	33	0	1	0	0	34	08:30	0	28	0	0	1	0	29	08:30	0	61	0	1	1	0	63	0
08:45	0	47	1	2	0	0	50	08:45	0	43	0	1	1	0	45	08:45	0	90	1	3	1	0	95	0
09:00	0	45	0	0	0	0	45	09:00	0	31	0	1	0	0	32	09:00	0	76	0	1	0	0	77	0
09:15	0	43	0	0	0	0	43	09:15	0	38	0	0	0	0	38	09:15	0	81	0	0	0	0	81	0
09:30	0	33	0	1	0	0	34	09:30	0	23	0	0	0	0	23	09:30	0	56	0	1	0	0	57	0
09:45	0	54	0	1	0	0	55	09:45	0	27	0	1	0	0	28	09:45	0	81	0	2	0	0	83	0
10:00	0	41	0	1	0	0	42	10:00	0	20	0	0	0	0	20	10:00	0	61	0	1	0	0	62	0
10:15	0	45	0	1	0	0	46	10:15	0	41	0	0	0	0	41	10:15	0	86	0	1	0	0	87	0
10:30	0	52	0	0	0	0	52	10:30	0	35	0	1	0	0	36	10:30	0	87	0	1	0	0	88	0
10:45	0	54	0	1	0	0	55	10:45	0	52	1	0	0	0	53	10:45	0	106	1	1	0	0	108	0
11:00	0	44	0	3	0	0	47	11:00	0	33	0	2	0	0	35	11:00	0	77	0	5	0	0	82	0
11:15	0	40	1	1	0	0	42	11:15	0	39	0	0	0	0	39	11:15	0	79	1	1	0	0	81	0
11:30	0	48	0	1	0	0	49	11:30	0	37	0	1	0	0	38	11:30	0	85	0	2	0	0	87	0
11:45	0	55	0	2	0	0	57	11:45	0	48	0	1	0	0	49	11:45	0	103	0	3	0	0	106	0
12:00	1	64	0	0	0	0	65	12:00	0	52	0	0	0	0	52	12:00	1	116	0	0	0	0	117	0
12:15	1	53	0	1	0	0	55	12:15	0	37	0	0	0	0	37	12:15	1	90	0	1	0	0	92	0

12:30	2	51	0	0	0	1	54	12:30	0	35	0	1	1	0	37	12:30	2	86	0	1	1	1	91	1
12:45	0	48	0	1	1	0	50	12:45	0	50	0	0	0	0	50	12:45	0	98	0	1	1	0	100	1
13:00	2	57	0	1	1	0	61	13:00	1	41	0	0	0	0	42	13:00	3	98	0	1	1	0	103	1
13:15	2	54	0	0	0	0	56	13:15	0	52	1	0	1	0	54	13:15	2	106	1	0	1	0	110	1
13:30	0	64	0	0	0	0	64	13:30	1	42	0	0	0	0	43	13:30	1	106	0	0	0	0	107	1
13:45	0	45	1	0	0	0	46	13:45	0	47	0	0	0	0	47	13:45	0	92	1	0	0	0	93	1
14:00	0	49	0	0	0	0	49	14:00	0	33	0	3	0	0	36	14:00	0	82	0	3	0	0	85	1
14:15	1	39	0	1	1	0	42	14:15	1	40	0	0	0	0	41	14:15	2	79	0	1	1	0	83	1
14:30	0	49	0	1	0	1	51	14:30	0	32	0	0	1	1	34	14:30	0	81	0	1	1	2	85	1
14:45	0	48	0	0	0	0	48	14:45	0	57	0	1	0	0	58	14:45	0	105	0	1	0	0	106	1
15:00	1	61	0	0	0	1	63	15:00	1	44	0	0	0	0	45	15:00	2	105	0	0	0	1	108	1
15:15	0	46	0	1	0	0	47	15:15	0	34	0	0	0	0	34	15:15	0	80	0	1	0	0	81	1
15:30	**1**	**51**	**0**	**0**	**0**	**0**	**52**	15:30	**1**	**45**	**0**	**1**	**0**	**0**	**47**	15:30	**2**	**96**	**0**	**1**	**0**	**0**	**99**	1
15:45	**1**	**45**	**0**	**2**	**0**	**0**	**48**	15:45	**1**	**54**	**1**	**0**	**0**	**0**	**56**	15:45	**2**	**99**	**1**	**2**	**0**	**0**	**104**	1
16:00	**1**	**54**	**0**	**0**	**0**	**0**	**55**	16:00	**0**	**35**	**0**	**0**	**0**	**1**	**36**	16:00	**1**	**89**	**0**	**0**	**0**	**1**	**91**	1
16:15	**1**	**48**	**1**	**1**	**0**	**0**	**51**	16:15	**1**	**45**	**0**	**0**	**0**	**0**	**46**	16:15	**2**	**93**	**1**	**1**	**0**	**0**	**97**	1
16:30	0	62	0	1	0	0	63	16:30	0	42	0	0	0	0	42	16:30	0	104	0	1	0	0	105	1
16:45	0	69	0	0	0	0	69	16:45	1	46	0	0	0	1	48	16:45	1	115	0	0	0	1	117	1
17:00	1	54	0	1	0	0	56	17:00	0	43	0	0	0	0	43	17:00	1	97	0	1	0	0	99	1
17:15	0	73	0	0	0	0	73	17:15	1	38	0	0	0	0	39	17:15	1	111	0	0	0	0	112	1
17:30	1	60	0	0	0	1	62	17:30	0	39	0	0	0	0	39	17:30	1	99	0	0	0	1	101	1
17:45	1	44	0	0	0	0	45	17:45	1	39	0	0	0	0	40	17:45	2	83	0	0	0	0	85	1
Total	17	2165	5	31	4	4	2226	Total	10	1748	6	19	5	4	1792	Total	27	3913	11	50	9	8	4018	T
% of Total	0.8%	97.3%	0.2%	1.4%	0.2%	0.2%	100%	% of Total	0.6%	97.5%	0.3%	1.1%	0.3%	0.2%	100%	% of Total	0.7%	97.4%	0.3%	1.2%	0.2%	0.2%	100%	%

US 1 (Elm St) (SouthWest)

Towards Junction								Away From Junction								Both Directions								
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	P
06:00	0	22	2	1	0	0	25	06:00	0	35	0	1	1	0	37	06:00	0	57	2	2	1	0	62	0
06:15	0	32	0	2	0	0	34	06:15	0	54	1	0	0	0	55	06:15	0	86	1	2	0	0	89	0
06:30	0	42	0	2	1	0	45	06:30	0	66	0	3	1	0	70	06:30	0	108	0	5	2	0	115	0
06:45	0	52	0	2	2	0	56	06:45	0	92	1	3	0	0	96	06:45	0	144	1	5	2	0	152	0
07:00	0	56	0	0	0	0	56	07:00	0	75	0	2	0	0	77	07:00	0	131	0	2	0	0	133	0
07:15	0	72	0	1	0	0	73	07:15	0	102	0	3	0	0	105	07:15	0	174	0	4	0	0	178	0
07:30	0	77	0	3	1	0	81	07:30	0	107	0	3	0	0	110	07:30	0	184	0	6	1	0	191	0
07:45	0	88	0	2	0	0	90	07:45	0	109	0	7	0	0	116	07:45	0	197	0	9	0	0	206	0
08:00	0	52	0	4	3	0	59	08:00	1	103	0	2	2	0	108	08:00	1	155	0	6	5	0	167	0
08:15	0	77	1	5	0	0	83	08:15	0	107	0	3	1	0	111	08:15	0	184	1	8	1	0	194	0
08:30	1	78	0	1	2	0	82	08:30	0	93	0	2	1	0	96	08:30	1	171	0	3	3	0	178	0
08:45	0	79	0	2	1	0	82	08:45	0	137	1	6	0	0	144	08:45	0	216	1	8	1	0	226	0
09:00	0	73	0	6	2	0	81	09:00	0	101	0	2	1	0	104	09:00	0	174	0	8	3	0	185	0
09:15	0	79	0	0	1	0	80	09:15	0	105	0	7	0	0	112	09:15	0	184	0	7	1	0	192	0
09:30	0	83	0	1	2	0	86	09:30	0	119	0	4	0	0	123	09:30	0	202	0	5	2	0	209	0
09:45	0	101	0	2	1	0	104	09:45	0	131	0	3	2	0	136	09:45	0	232	0	5	3	0	240	0
10:00	0	101	0	4	0	0	105	10:00	0	138	0	4	0	0	142	10:00	0	239	0	8	0	0	247	1
10:15	0	113	0	4	0	0	117	10:15	0	136	0	5	0	0	141	10:15	0	249	0	9	0	0	258	1
10:30	0	90	0	6	0	0	96	10:30	0	141	0	3	0	0	144	10:30	0	231	0	9	0	0	240	1
10:45	0	124	1	5	0	0	130	10:45	0	121	0	1	1	0	123	10:45	0	245	1	6	1	0	253	1
11:00	0	85	0	4	1	0	90	11:00	0	134	0	2	0	0	136	11:00	0	219	0	6	1	0	226	1
11:15	0	139	0	7	0	0	146	11:15	0	129	1	5	0	0	135	11:15	0	268	1	12	0	0	281	1
11:30	0	126	0	5	1	0	132	11:30	0	131	0	6	1	0	138	11:30	0	257	0	11	2	0	270	1
11:45	0	112	0	7	0	0	119	11:45	0	131	0	4	1	0	136	11:45	0	243	0	11	1	0	255	1
12:00	2	119	0	2	2	0	125	12:00	0	135	1	1	1	0	138	12:00	2	254	1	3	3	0	263	1
12:15	1	107	0	4	1	0	113	12:15	0	123	0	0	1	0	124	12:15	1	230	0	4	2	0	237	1
12:30	0	127	0	4	1	1	133	12:30	2	144	0	6	0	0	152	12:30	2	271	0	10	1	1	285	1
12:45	2	120	0	7	1	0	130	12:45	1	146	0	4	2	0	153	12:45	3	266	0	11	3	0	283	1
13:00	0	128	0	1	0	0	129	13:00	4	134	0	4	1	0	143	13:00	4	262	0	5	1	0	272	1
13:15	2	110	1	1	1	0	115	13:15	2	136	0	2	0	0	140	13:15	4	246	1	3	1	0	255	1
13:30	1	125	1	5	0	0	132	13:30	1	151	1	4	0	0	157	13:30	2	276	2	9	0	0	289	1
13:45	5	138	0	7	0	0	150	13:45	0	136	1	3	0	0	140	13:45	5	274	1	10	0	0	290	1
14:00	0	101	1	2	0	0	104	14:00	0	124	1	3	0	0	128	14:00	0	225	2	5	0	0	232	1
14:15	2	137	0	2	1	0	142	14:15	1	142	0	6	0	0	149	14:15	3	279	0	8	1	0	291	1
14:30	0	145	0	0	2	0	147	14:30	1	143	0	2	1	0	147	14:30	1	288	0	2	3	0	294	1
14:45	1	158	0	1	1	0	161	14:45	0	137	1	2	1	0	141	14:45	1	295	1	3	2	0	302	1
15:00	2	141	1	4	2	0	150	15:00	0	142	0	2	0	0	144	15:00	2	283	1	6	2	0	294	1
15:15	1	133	0	5	1	0	140	15:15	2	143	0	2	1	0	148	15:15	3	276	0	7	2	0	288	1
15:30	**4**	**151**	**0**	**2**	**0**	**0**	**157**	15:30	**0**	**150**	**0**	**3**	**0**	**0**	**153**	15:30	**4**	**301**	**0**	**5**	**0**	**0**	**310**	1
15:45	**1**	**161**	**1**	**0**	**0**	**0**	**163**	15:45	**2**	**147**	**0**	**2**	**0**	**0**	**151**	15:45	**3**	**308**	**1**	**2**	**0**	**0**	**314**	1
16:00	**1**	**151**	**0**	**3**	**1**	**0**	**156**	16:00	**1**	**131**	**0**	**1**	**0**	**0**	**133**	16:00	**2**	**282**	**0**	**4**	**1**	**0**	**289**	1
16:15	**0**	**165**	**0**	**4**	**1**	**0**	**170**	16:15	**1**	**135**	**1**	**4**	**0**	**1**	**142**	16:15	**1**	**300**	**1**	**8**	**1**	**1**	**312**	1
16:30	0	137	0	1	0	0	138	16:30	1	149	0	2	0	0	152	16:30	1	286	0	3	0	0	290	1
16:45	3	137	0	3	0	0	143	16:45	2	152	0	0	0	0	154	16:45	5	289	0	3	0	0	297	1
17:00	1	138	0	0	1	0	140	17:00	0	128	0	2	0	0	130	17:00	1	266	0	2	1	0	270	1
17:15	1	158	0	1	0	0	160	17:15	1	134	0	4	0	0	139	17:15	2	292	0	5	0	0	299	1
17:30	1	122	0	2	0	0	125	17:30	1	130	0	4	2	0	137	17:30	2	252	0	6	2	0	262	1
17:45	1	130	0	1	0	0	132	17:45	2	146	0	1	0	0	149	17:45	3	276	0	2	0	0	281	1
Total	33	5192	9	138	34	1	5407	Total	26	5935	10	145	22	1	6139	Total	59	11127	19	283	56	2	11546	T
% of Total	0.6%	96%	0.2%	2.6%	0.6%	0%	100%	% of Total	0.4%	96.7%	0.2%	2.4%	0.4%	0%	100%	% of Total	0.5%	96.4%	0.2%	2.5%	0.5%	0%	100%	%

Movement Summary

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

From: Main St (NorthWest)							
To: Main St (NorthWest)		**To: US 1 (Elm St) (NorthEast)**		**To: Main St (SouthEast)**		**To: US 1 (Elm St) (SouthWest)**	
Total	0	Total	1186	Total	874	Total	194
% of Approach	0%	% of Approach	52.6%	% of Approach	38.8%	% of Approach	8.6%
AM Peak Hour	11:00 - 12:00 0	AM Peak Hour	11:00 - 12:00 77	AM Peak Hour	11:00 - 12:00 68	AM Peak Hour	11:00 - 12:00 17
AM PHF	-	AM PHF	0.875	AM PHF	0.85	AM PHF	0.607
PM Peak Hour	15:30 - 16:30 0	PM Peak Hour	15:30 - 16:30 109	PM Peak Hour	15:30 - 16:30 92	PM Peak Hour	15:30 - 16:30 16
PM PHF	-	PM PHF	0.908	PM PHF	0.821	PM PHF	0.667
Overall Peak Hour	15:30 - 16:30 0	Overall Peak Hour	15:30 - 16:30 109	Overall Peak Hour	15:30 - 16:30 92	Overall Peak Hour	15:30 - 16:30 16
Overall PHF	-	Overall PHF	0.908	Overall PHF	0.821	Overall PHF	0.667
From: US 1 (Elm St) (NorthEast)							
To: Main St (NorthWest)		**To: US 1 (Elm St) (NorthEast)**		**To: Main St (SouthEast)**		**To: US 1 (Elm St) (SouthWest)**	
Total	972	Total	0	Total	465	Total	5233
% of Approach	14.6%	% of Approach	0%	% of Approach	7%	% of Approach	78.5%
AM Peak Hour	11:00 - 12:00 68	AM Peak Hour	11:00 - 12:00 0	AM Peak Hour	11:00 - 12:00 49	AM Peak Hour	11:00 - 12:00 460
AM PHF	0.739	AM PHF	-	AM PHF	0.942	AM PHF	0.958
PM Peak Hour	15:30 - 16:30 119	PM Peak Hour	15:30 - 16:30 0	PM Peak Hour	15:30 - 16:30 50	PM Peak Hour	15:30 - 16:30 502
PM PHF	0.85	PM PHF	-	PM PHF	0.833	PM PHF	0.93

Overall Peak Hour	15:30 - 16:30	119	Overall Peak Hour	15:30 - 16:30	0	Overall Peak Hour	15:30 - 16:30	50	Overall Peak Hour	15:30 - 16:30	502
Overall PHF	0.85		Overall PHF	-		Overall PHF	0.833		Overall PHF	0.93	
From: Main St (SouthEast)											
To: Main St (NorthWest)			**To: US 1 (Elm St) (NorthEast)**			**To: Main St (SouthEast)**			**To: US 1 (Elm St) (SouthWest)**		
Total	682		Total	832		Total	0		Total	712	
% of Approach	30.6%		% of Approach	37.4%		% of Approach	0%		% of Approach	32%	
AM Peak Hour	11:00 - 12:00	43	AM Peak Hour	11:00 - 12:00	84	AM Peak Hour	11:00 - 12:00	0	AM Peak Hour	11:00 - 12:00	68
AM PHF	0.717		AM PHF	0.778		AM PHF	-		AM PHF	0.85	
PM Peak Hour	15:30 - 16:30	77	PM Peak Hour	15:30 - 16:30	68	PM Peak Hour	15:30 - 16:30	0	PM Peak Hour	15:30 - 16:30	61
PM PHF	0.74		PM PHF	0.708		PM PHF	-		PM PHF	0.762	
Overall Peak Hour	15:30 - 16:30	77	Overall Peak Hour	15:30 - 16:30	68	Overall Peak Hour	15:30 - 16:30	0	Overall Peak Hour	15:30 - 16:30	61
Overall PHF	0.74		Overall PHF	0.708		Overall PHF	-		Overall PHF	0.762	
From: US 1 (Elm St) (SouthWest)											
To: Main St (NorthWest)			**To: US 1 (Elm St) (NorthEast)**			**To: Main St (SouthEast)**			**To: US 1 (Elm St) (SouthWest)**		
Total	103		Total	4851		Total	453		Total	0	
% of Approach	1.9%		% of Approach	89.7%		% of Approach	8.4%		% of Approach	0%	
AM Peak Hour	11:00 - 12:00	5	AM Peak Hour	11:00 - 12:00	438	AM Peak Hour	11:00 - 12:00	44	AM Peak Hour	11:00 - 12:00	0
AM PHF	0.625		AM PHF	0.823		AM PHF	0.688		AM PHF	-	
PM Peak Hour	15:30 - 16:30	7	PM Peak Hour	15:30 - 16:30	596	PM Peak Hour	15:30 - 16:30	43	PM Peak Hour	15:30 - 16:30	0
PM PHF	0.875		PM PHF	0.949		PM PHF	0.672		PM PHF	-	
Overall Peak Hour	15:30 - 16:30	7	Overall Peak Hour	15:30 - 16:30	596	Overall Peak Hour	15:30 - 16:30	43	Overall Peak Hour	15:30 - 16:30	0
Overall PHF	0.875		Overall PHF	0.949		Overall PHF	0.672		Overall PHF	-	

Leg Summary

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

Main St (NorthWest)											
Towards Junction			**Away From Junction**			**Both Directions**			**Crossing**		
Total	2254		Total	1757		Total	4011		Total	39	
AM Peak Hour	11:00 - 12:00	162	AM Peak Hour	11:00 - 12:00	116	AM Peak Hour	11:00 - 12:00	278	AM Peak Hour	11:00 - 12:00	4
AM PHF	0.827		AM PHF	0.744		AM PHF	0.88		AM PHF	0.333	
PM Peak Hour	15:30 - 16:30	217	PM Peak Hour	15:30 - 16:30	203	PM Peak Hour	15:30 - 16:30	420	PM Peak Hour	15:30 - 16:30	4
PM PHF	0.904		PM PHF	0.906		PM PHF	0.963		PM PHF	0.333	
Overall Peak Hour	15:30 - 16:30	217	Overall Peak Hour	15:30 - 16:30	203	Overall Peak Hour	15:30 - 16:30	420	Overall Peak Hour	15:30 - 16:30	4
Overall PHF	0.904		Overall PHF	0.906		Overall PHF	0.963		Overall PHF	0.333	
US 1 (Elm St) (NorthEast)											
Towards Junction			**Away From Junction**			**Both Directions**			**Crossing**		
Total	6670		Total	6869		Total	13539		Total	48	
AM Peak Hour	11:00 - 12:00	577	AM Peak Hour	11:00 - 12:00	599	AM Peak Hour	11:00 - 12:00	1176	AM Peak Hour	11:00 - 12:00	4
AM PHF	0.937		AM PHF	0.871		AM PHF	0.927		AM PHF	0.333	
PM Peak Hour	15:30 - 16:30	671	PM Peak Hour	15:30 - 16:30	773	PM Peak Hour	15:30 - 16:30	1444	PM Peak Hour	15:30 - 16:30	6
PM PHF	0.922		PM PHF	0.929		PM PHF	0.968		PM PHF	0.5	
Overall Peak Hour	15:30 - 16:30	671	Overall Peak Hour	15:30 - 16:30	773	Overall Peak Hour	15:30 - 16:30	1444	Overall Peak Hour	15:30 - 16:30	6
Overall PHF	0.922		Overall PHF	0.929		Overall PHF	0.968		Overall PHF	0.5	
Main St (SouthEast)											
Towards Junction			**Away From Junction**			**Both Directions**			**Crossing**		
Total	2226		Total	1792		Total	4018		Total	62	
AM Peak Hour	11:00 - 12:00	195	AM Peak Hour	11:00 - 12:00	161	AM Peak Hour	11:00 - 12:00	356	AM Peak Hour	11:00 - 12:00	0
AM PHF	0.855		AM PHF	0.821		AM PHF	0.84		AM PHF	-	
PM Peak Hour	15:30 - 16:30	206	PM Peak Hour	15:30 - 16:30	185	PM Peak Hour	15:30 - 16:30	391	PM Peak Hour	15:30 - 16:30	4
PM PHF	0.936		PM PHF	0.826		PM PHF	0.94		PM PHF	0.5	
Overall Peak Hour	15:30 - 16:30	206	Overall Peak Hour	15:30 - 16:30	185	Overall Peak Hour	15:30 - 16:30	391	Overall Peak Hour	15:30 - 16:30	4
Overall PHF	0.936		Overall PHF	0.826		Overall PHF	0.94		Overall PHF	0.5	
US 1 (Elm St) (SouthWest)											
Towards Junction			**Away From Junction**			**Both Directions**			**Crossing**		
Total	5407		Total	6139		Total	11546		Total	71	
AM Peak Hour	11:00 - 12:00	487	AM Peak Hour	11:00 - 12:00	545	AM Peak Hour	11:00 - 12:00	1032	AM Peak Hour	11:00 - 12:00	2
AM PHF	0.834		AM PHF	0.987		AM PHF	0.918		AM PHF	0.5	
PM Peak Hour	15:30 - 16:30	646	PM Peak Hour	15:30 - 16:30	579	PM Peak Hour	15:30 - 16:30	1225	PM Peak Hour	15:30 - 16:30	6
PM PHF	0.95		PM PHF	0.946		PM PHF	0.975		PM PHF	0.5	
Overall Peak Hour	15:30 - 16:30	646	Overall Peak Hour	15:30 - 16:30	579	Overall Peak Hour	15:30 - 16:30	1225	Overall Peak Hour	15:30 - 16:30	6
Overall PHF	0.95		Overall PHF	0.946		Overall PHF	0.975		Overall PHF	0.5	

Total Flow

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

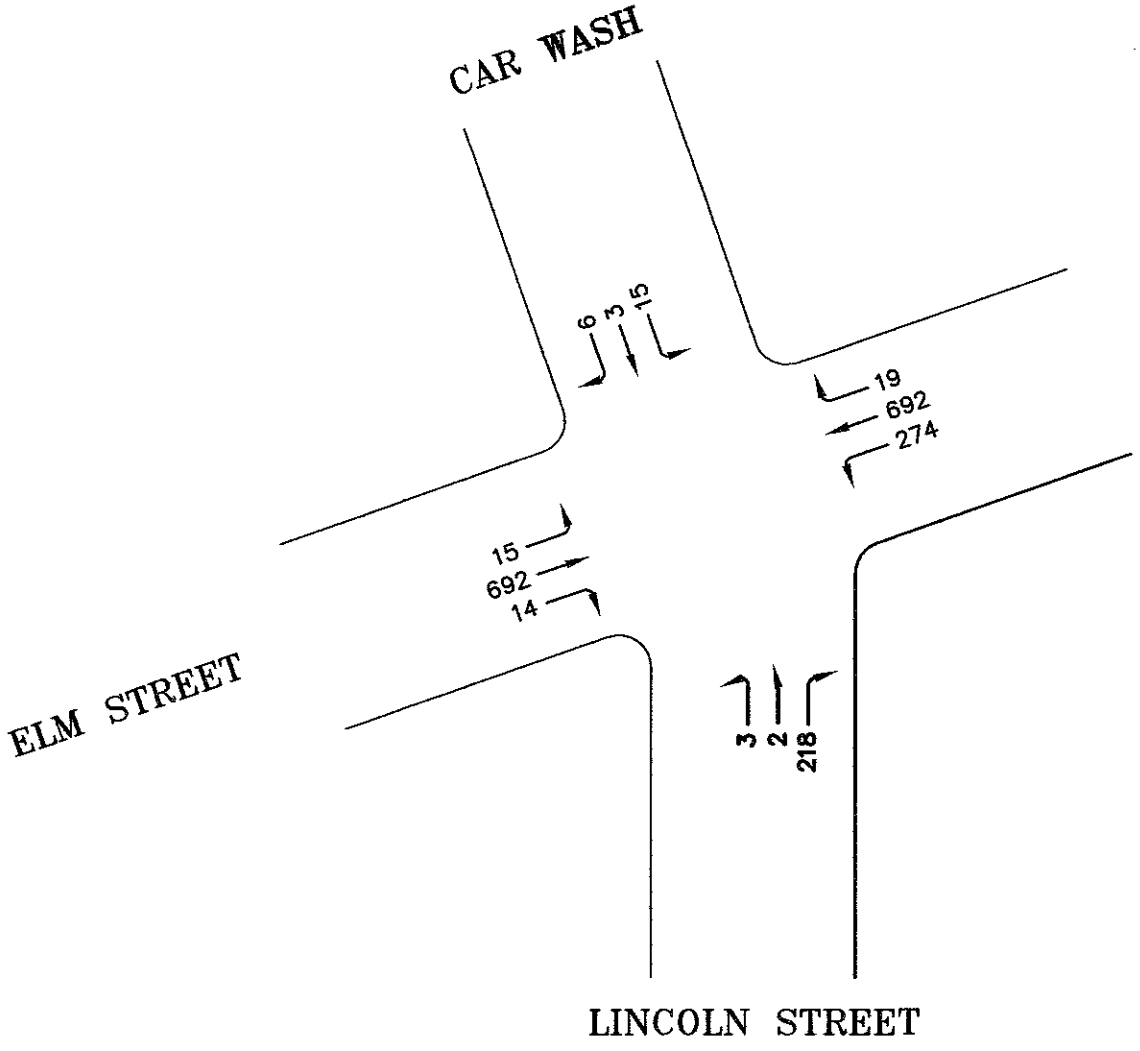
Traffic								Crossing			
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Bicycle	Ped	Total
06:00	0	91	2	2	2	1	98	06:00	0	0	0
06:15	0	122	1	2	0	0	125	06:15	0	5	5
06:30	0	164	0	6	2	0	172	06:30	0	3	3
06:45	1	215	1	5	2	0	224	06:45	0	1	1
07:00	0	201	0	3	0	0	204	07:00	0	1	1
07:15	0	260	0	6	0	0	266	07:15	0	1	1
07:30	0	281	0	7	1	0	289	07:30	0	1	1
07:45	0	302	0	10	0	0	312	07:45	0	2	2
08:00	1	252	0	6	5	0	264	08:00	0	1	1
08:15	0	258	1	12	1	0	272	08:15	0	1	1
08:30	1	261	0	4	4	0	270	08:30	1	2	3
08:45	0	314	1	11	2	0	328	08:45	0	0	0
09:00	0	252	0	9	3	0	264	09:00	0	5	5
09:15	0	275	0	7	2	0	284	09:15	0	6	6
09:30	0	276	0	6	2	0	284	09:30	0	1	1
09:45	0	314	0	7	3	0	324	09:45	0	1	1
10:00	0	307	0	10	0	0	317	10:00	0	2	2
10:15	0	349	0	11	0	0	360	10:15	0	4	4
10:30	0	330	0	10	0	0	340	10:30	1	4	5
10:45	0	347	1	7	1	0	356	10:45	0	1	1

11:00	0	302	0	11	1	0	314	11:00	0	1	1
11:15	0	354	1	13	0	0	368	11:15	0	4	4
11:30	0	359	0	13	2	0	374	11:30	0	4	4
11:45	0	352	0	12	1	0	365	11:45	0	1	1
12:00	3	374	1	4	3	0	385	12:00	1	3	4
12:15	6	339	0	5	2	0	352	12:15	1	10	11
12:30	6	382	0	12	1	2	403	12:30	1	4	5
12:45	5	384	1	12	3	0	405	12:45	2	12	14
13:00	5	382	0	5	1	0	393	13:00	0	9	9
13:15	6	380	1	4	2	0	393	13:15	1	8	9
13:30	3	394	2	10	0	0	409	13:30	0	5	5
13:45	5	373	1	10	1	0	390	13:45	0	5	5
14:00	0	334	2	8	0	0	344	14:00	0	4	4
14:15	5	378	0	9	2	0	394	14:15	0	5	5
14:30	2	379	0	5	4	2	392	14:30	0	4	4
14:45	1	419	1	4	2	0	427	14:45	7	7	14
15:00	4	401	1	8	2	1	417	15:00	1	7	8
15:15	3	381	0	8	3	0	395	15:15	3	4	7
15:30	**6**	**426**	**0**	**8**	**0**	**0**	**440**	15:30	**2**	**7**	**9**
15:45	**5**	**432**	**1**	**7**	**0**	**1**	**446**	15:45	**0**	**3**	**3**
16:00	**3**	**402**	**0**	**5**	**1**	**1**	**412**	16:00	**1**	**6**	**7**
16:15	**2**	**429**	**1**	**8**	**1**	**1**	**442**	16:15	**0**	**1**	**1**
16:30	2	413	0	4	0	0	419	16:30	1	2	3
16:45	6	436	0	3	0	1	446	16:45	2	5	7
17:00	2	407	0	2	1	0	412	17:00	1	5	6
17:15	3	438	0	5	0	0	446	17:15	1	11	12
17:30	3	403	0	6	2	1	415	17:30	0	6	6
17:45	4	400	0	2	0	0	406	17:45	0	8	8
Total	93	16024	20	344	65	11	16557	Total	27	193	220
% of Total	0.6%	96.8%	0.1%	2.1%	0.4%	0.1%	100%	% of Total	12.3%	87.7%	100%

Total Summary

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

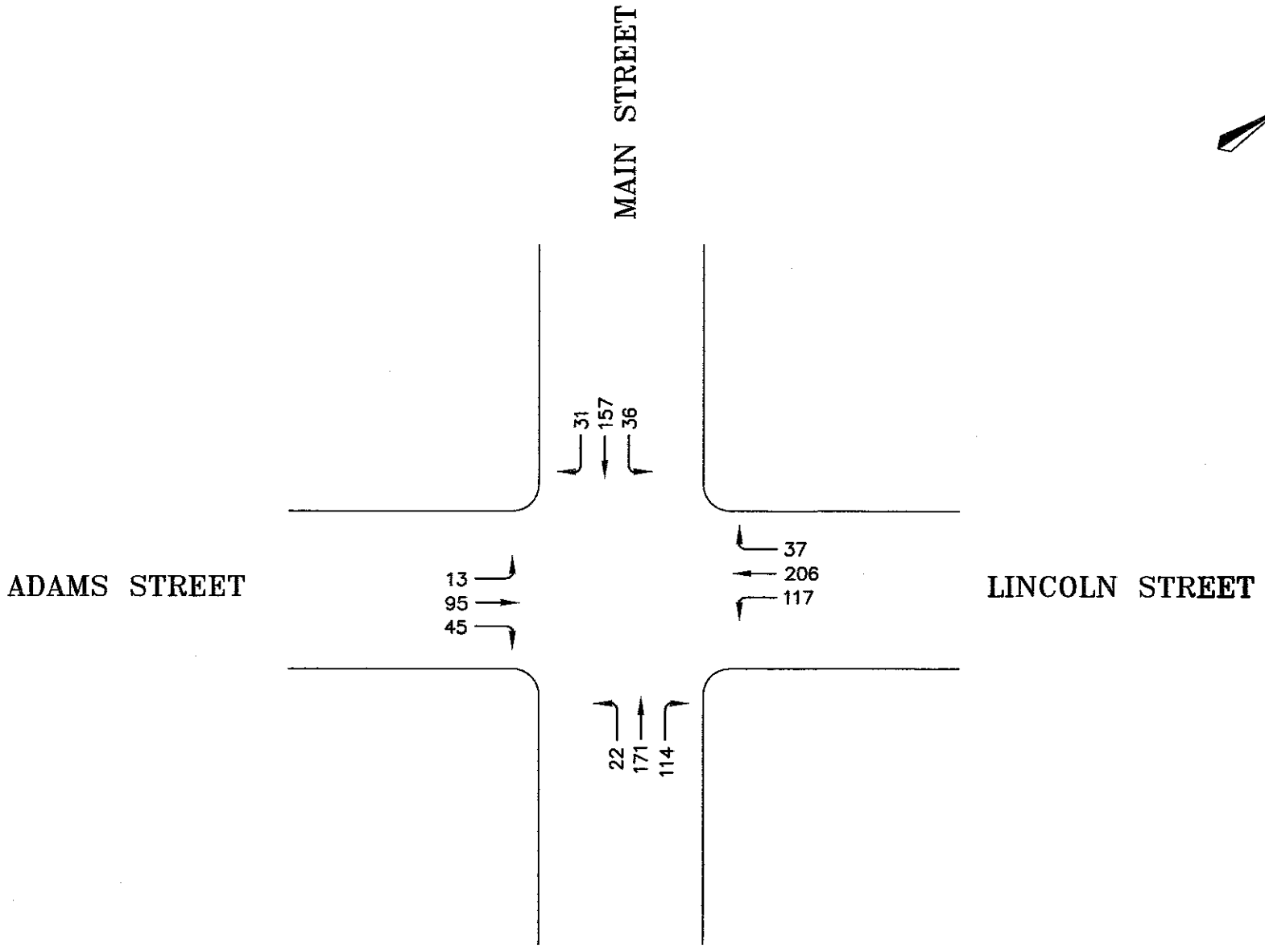
Traffic Summary			Crossing Summary		
Total	16557		Total	220	
AM Peak Hour	11:00 - 12:00	1421	AM Peak Hour	11:00 - 12:00	10
AM PHF	0.95		AM PHF	0.625	
PM Peak Hour	15:30 - 16:30	1740	PM Peak Hour	15:30 - 16:30	20
PM PHF	0.975		PM PHF	0.556	
Overall Peak Hour	15:30 - 16:30	1740	Overall Peak Hour	15:30 - 16:30	20
Overall PHF	0.975		Overall PHF	0.556	



EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1b

E:\LAND PROJECTS\34000\34399 TRAFFIC SOLUTIONS\RIVERDAM REDEVELOPMENT\PLANSET\RIVERDAM OCT3.DWG

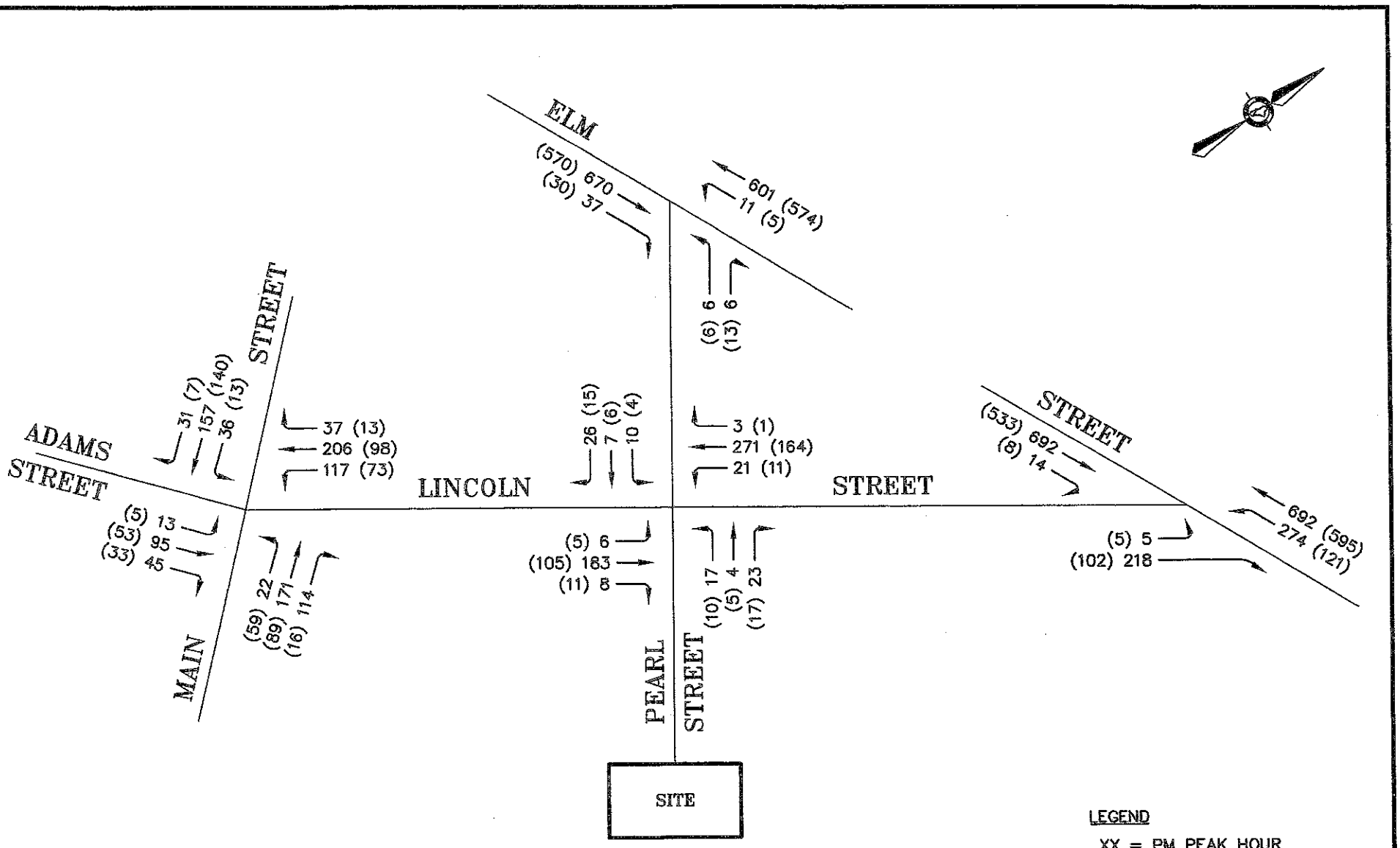
RIVERDAM REDEVELOPMENT BIDDEFORD, MAINE	TRAFFIC SOLUTIONS 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: OCTOBER, 2019	FIGURE: 1b



EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1a

E:\LAND PROJECTS\34000\34359 TRAFFIC SOLUTIONS\RIVERDAM REDEVELOPMENT\PLANSET\RIVERDAM OCT3.DWG

Project Name and Location: RIVERDAM REDEVELOPMENT, BIDDEFORD, MAINE	TRAFFIC SOLUTIONS, 17 MOUNTVIEW DRIVE, CORHAM, MAINE 04038
DATE: OCTOBER, 2019	FIGURE: 1a



EXISTING 2019 PEAK HOUR TRAFFIC
(PM PEAK HOUR & SATURDAY PEAK HOUR)
FIGURE 1

E:\LAND PROJECTS\34000\34399 TRAFFIC SOLUTIONS\RIVERDAM REDEVELOPMENT\PLANSET\RIVERDAM.DWG

RIVERDAM REDEVELOPMENT BIDDEFORD, MAINE	TRAFFIC SOLUTIONS 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: AUGUST, 2019	FIGURE: 1

SITE PLAN

GENERAL NOTES:

1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 10/14/2020
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021



BIDDEFORD FIRETRUCK

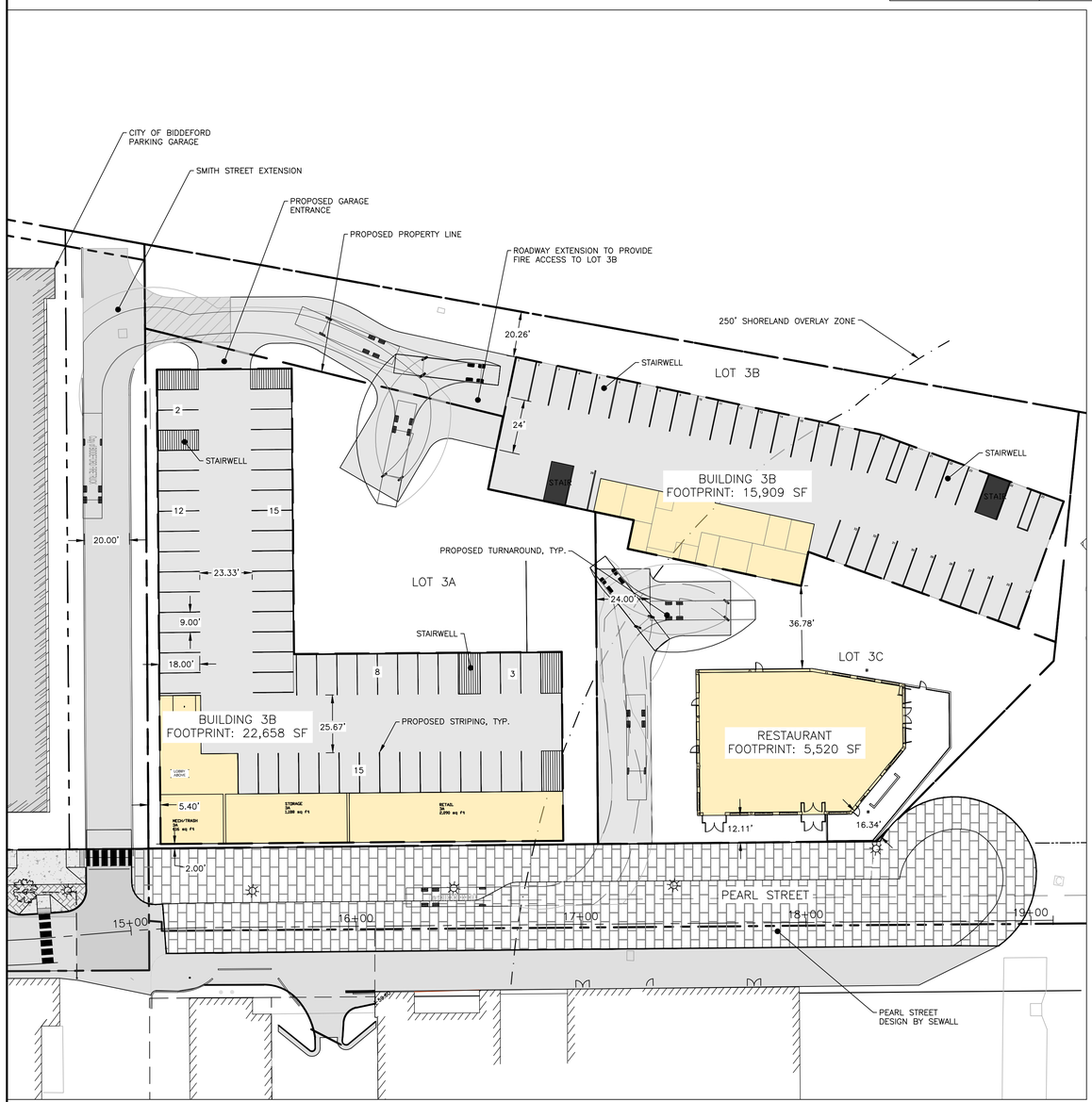
Overall Length	46.750ft
Overall Width	8.500ft
Overall Body Height	9.851ft
Min Body Ground Clearance	0.920ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

PARKING SUMMARY

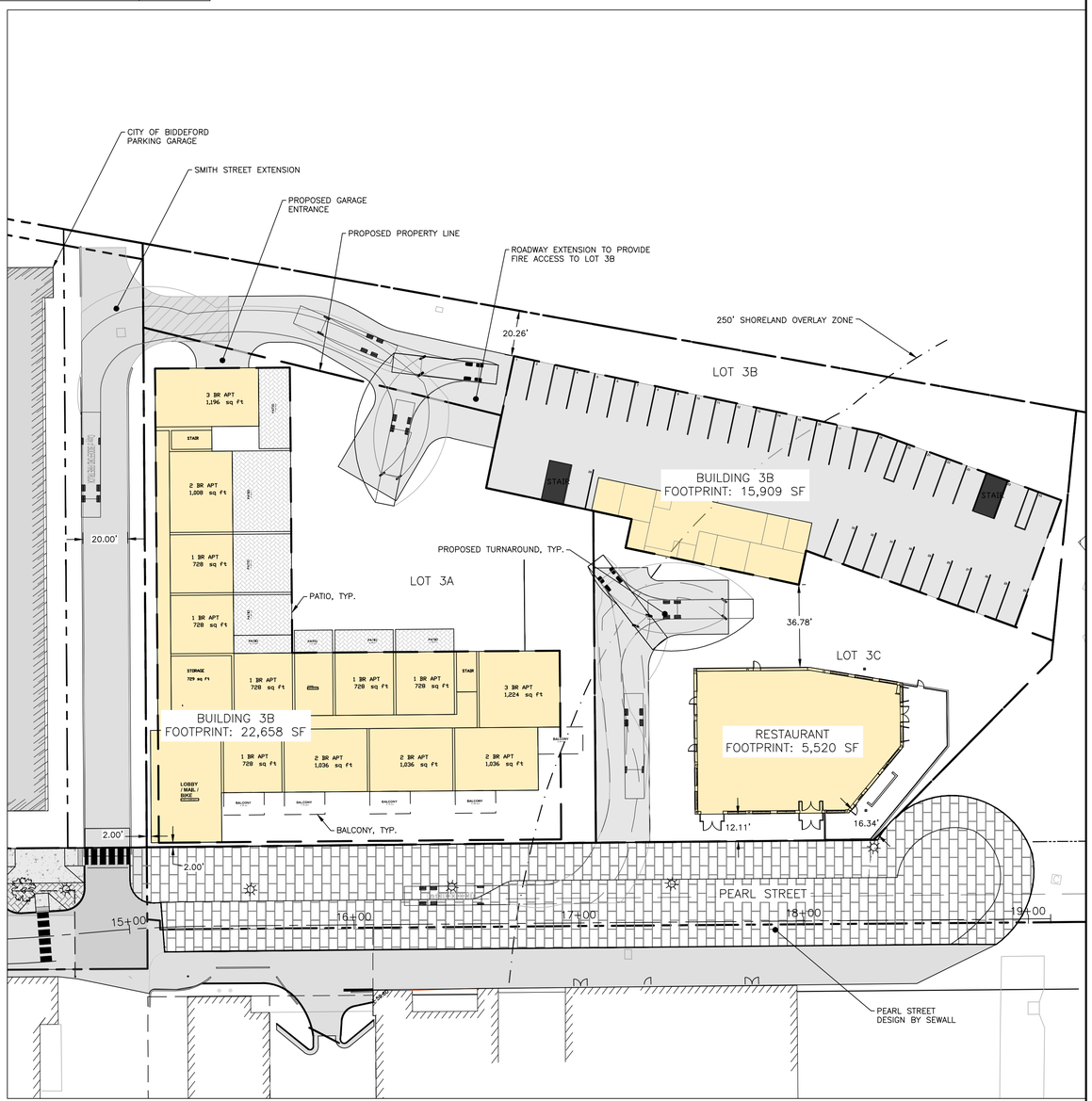
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 3A	64	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 64 SPACES	50
–	–	INCREASE OF 5% (OF 64 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	–
LOT 3B	76	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 76 SPACES	42
–	–	INCREASE OF 5% (OF 76 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	–
LOT 3C	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES	N/A
ADA (8'X18')	–	–	TBD
STANDARD (9'X18')	–	–	TBD
TOTAL SPACES	–	248	92
ADDITIONAL SPACES NEEDED IN PARKING GARAGE	–	–	156

LOT 3A SPACE AND BULK STANDARDS

ZONE:	REQUIRED (MSRD3)	REQUIRED (GD–1)	EXISTING LOT 3	PROPOSED LOT 3A	PROPOSED LOT 3B	PROPOSED LOT 3C
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	–	39,629 SF	30,230 SF	20,580 SF
MINIMUM STREET FRONTAGE	NONE	–	324'	200'	–	124'
MINIMUM FRONT YARD SETBACK	NONE	–	N/A	2.00'	0'	12.11'
MINIMUM REAR YARD SETBACK	NONE	–	N/A	5.18'	20.26'	36.78'
MINIMUM SIDE YARD SETBACK	NONE	–	N/A	2.00'	0'	16.34'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	–	N/A	TBD	TBD	TBD
MINIMUM SHORE FRONTAGE	–	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	–	–	–
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	–	100' FROM NORMAL HIGH–WATER LINE	–	–	–	–
SACO RIVER NO–CUT ZONE (SRCC)	–	75'	–	–	–	–
MAX LOT COVERAGE	100%	70% WITHN SHORELAND ZONE	–	57.2%	52.6%	26.8%



GARAGE FLOOR PLAN
1" = 30'



30 0 30 60
SCALE: 1" = 30'

PRELIMINARY
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
TMP REVIEW	PFH 9/9/21

SITE PLAN

DRAWING NAME:

PROJECT NAME: PEARL STREET LOT 3 REDEVELOPMENT

CLIENT: FATHOM COMPANIES
80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101

THESE PLANS, NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

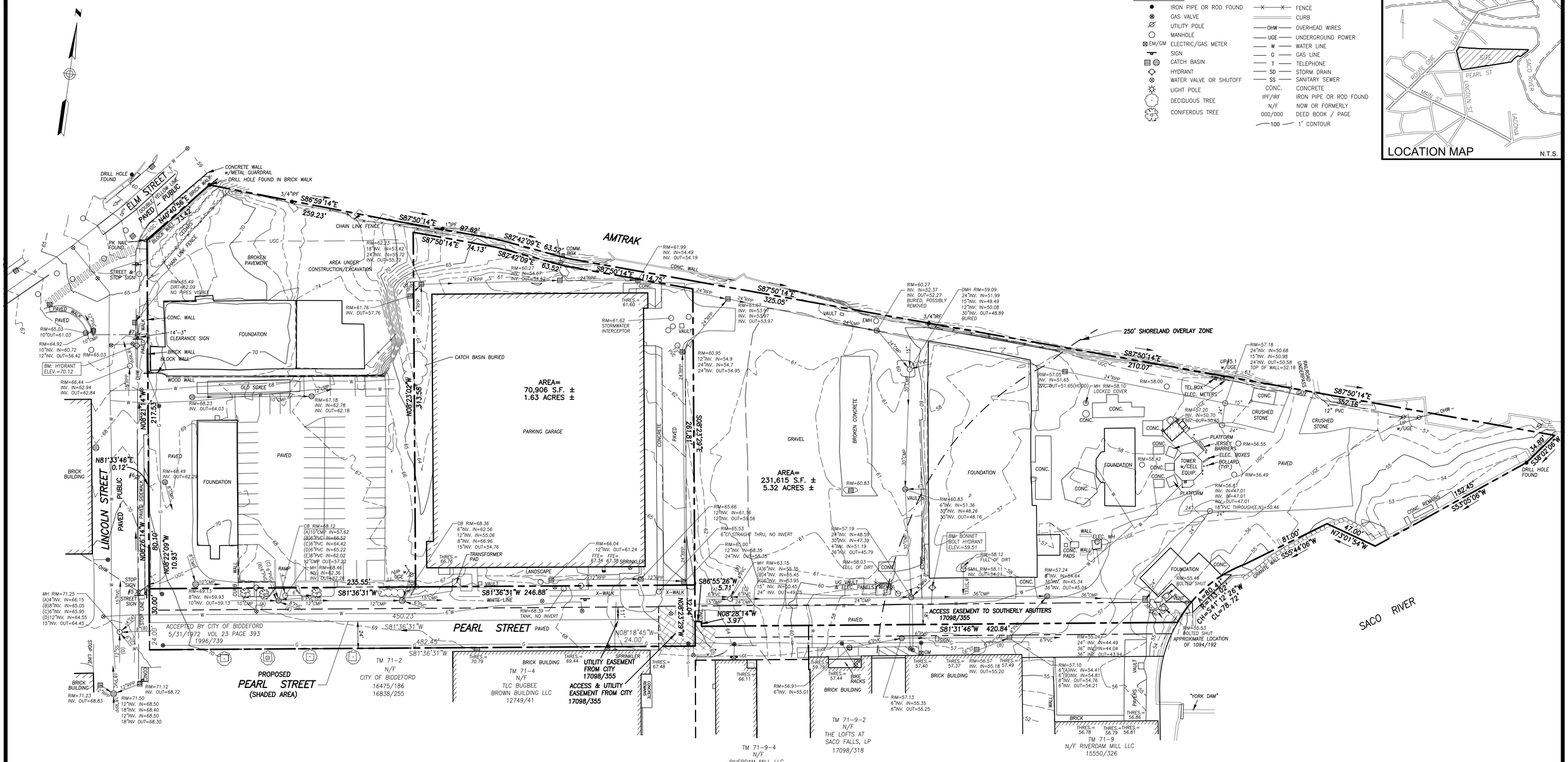
ACORN ENGINEERING, INC.
ENGINEERING, INC.
ACORN ENGINEERING, INC.
PO BOX 3427 KENNEBUNK, MAINE 04104
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS/PFH

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

BOUNDARY SURVEY



UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

SCALE : 1" = 40'

0' 20' 40' 80'

PLAN REFERENCES

1. PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD MAINE BY DOW & COULOMBE, INC. DATED JANUARY 15, 1985 REVISED THROUGH OCT. 4, 1986.

2. ALTA/ACSM LAND TITLE SURVEY (URBAN) MADE FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD, MAINE BY DOW & COULOMBE, INC. DATED MARCH 15, 1996 REVISED THROUGH MAY 14, 2009.

3. ALTA/NSPS LAND TITLE SURVEY AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED JULY 30, 2015 REVISED THROUGH 12-20-16.

4. EXHIBIT PLAN OF EASEMENT AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED AUGUST 27, 2015 REVISED THROUGH DEC. 20, 2106.

5. EXISTING CONDITIONS SURVEY ON PEARL STREET, BIDDEFORD, MAINE MADE FOR MILONE & MCBROOM BY OWEN HASKELL, INC. DATED APRIL 19, 2018.

6. LAND DIVISION PLAN ON LINCOLN STREET & PEARL STREET BIDDEFORD, MAINE MADE FOR DESMAN DESIGN MANAGEMENT BY OWEN HASKELL, INC. DATED FEB. 4, 2020.

GENERAL NOTES

1. OWNER OF RECORD: CITY OF BIDDEFORD
TAX MAP 71 LOT 2
Y.C.R.D. BOOK 16838 PAGE 255
Y.C.R.D. BOOK 16475 PAGE 186

2. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.

3. ELEVATIONS ARE BASED ON NAVD 88 DATUM.

STATE OF MAINE
RANDY R. LOUBIER 2407
PROFESSIONAL LAND SURVEYOR

RANDY R. LOUBIER, PLS #2407

Existing Conditions Survey
On
Pearl Street, Biddeford, Maine
Made for
City of Biddeford
205 Main St. Biddeford, ME 04005

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: RRL / JLW	DATE: AUGUST 20, 2021	JOB NO. 2021-168 B-Y	
CHECKED BY: RRL	SCALE: 1" = 40'	DRWG. NO. 1	

TITLE, RIGHT, OR INTEREST

Master Plan Development Agreement

This Master Plan Development Agreement (this "Agreement") dated November 17, 2020 ("Effective Date"), is executed between 3 Lincoln, LLC, a Maine limited liability company (the "Developer"), having an address at P.O. Box 7486, Portland, Maine 04112 and the City of Biddeford, Maine, a Maine municipal corporation and body politic with offices at 205 Main Street, Biddeford, Maine (the "City"). The Developer and the City are collectively referred to as the "Parties."

RECITALS

WHEREAS, the City owns the parcel of land in Biddeford, Maine commonly known as the "MERC" site located at 3 Lincoln Street, a plan of which is attached hereto as Exhibit A and a legal description of which is attached as Exhibit B (the "Site"). The Site is an irregularly shaped parcel containing approximately 8.4 acres of land bound to the west by Lincoln Street, the east by the Saco River, to the north by the Boston & Maine Railroad, Gooch Street, and to the south by Pearl Street and several commercial/industrial buildings.

WHEREAS, the City, working with a team established by the City Council, developed the 3 Lincoln Street Redevelopment Market and Feasibility Study in conjunction with Camoin Associates (the "Camoin Study"), to establish a blueprint for the redevelopment of the Site (the "Project").

WHEREAS, the City has selected the Developer to serve as the master developer for the Project.

WHEREAS, the goals of the Project are to develop up to 400,000 square feet of new, mixed use commercial space, create between 800 and 1,800 new jobs, and increase the City's base property value by up to $63,000,000.

WHEREAS, the Project is expected to become an anchor within the City's so-called "Mill District," with the goal that the Project will support activities in the existing surrounding buildings, the RiverWalk and its amenities, and associated business development in the surrounding area.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein and other consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I
GENERAL TERMS & COMMITMENTS

1.1 Purpose. This Agreement sets forth the major terms and conditions under which the Parties intend to pursue the Project. The Parties recognize that, as the Project progresses, further definitions and agreements expanding the terms of this Agreement may be warranted and/or necessitated. The Parties have sought in this Agreement to (i) provide a sufficient degree of definition to facilitate planning, design and implementation within a broad scope and (ii) make certain commitments that are necessary to achieve the successful realization of the Project.

1.2 Description of the Project. The Project consists of the planning, permitting, and development of the Site, including coordination of the development by the City of a municipal parking garage (the "Municipal Parking Garage") on the portion of the Site shown on Exhibit A as the site for those improvements ("Garage Site") and the development of buildings adjacent to the Municipal Parking Garage generally located on the east and west sides of that structure on the development sites shown on Exhibit A (collectively the "Development Sites") as commercial, residential, academic, hospitality, retail or other uses (collectively the "Adjacent Buildings"). The Parties shall progress through each stage of the Project, consistent with Section 1.3 below, giving due consideration to Site conditions, financial feasibility, and other commercially reasonable development considerations. The Parties expressly acknowledge the need to provide reasonable flexibility to the Developer to enable the Developer to respond to changing market conditions and intend that the scope of the Project be interpreted and adjusted by the City and the Developer in a manner that will promote, and not hinder, a commercially reasonable and economically viable redevelopment of the Site. Without limitation of the foregoing, as of the date of the Agreement, the Project and its various elements are envisioned to be generally consistent with the Camoin Study. In the course of modifying and refining these initial plans throughout the development process, the Developer will seek to incorporate a mixture of residential, retail, office, hospitality, education and service uses with the adjacent Municipal Parking Garage, park area, street system, the RiverWalk and other amenities intended to foster the creation of an economically vibrant, urban style mixed use destination, generally as contemplated by the Camoin Study and in accordance with the principles enumerated in Section 3.1 of this Agreement.

1.3 Project Schedule. The Project shall proceed in accordance with the following schedule (the "Project Development Schedule"):

As of the Effective Date, the City shall deliver to Developer a garage concept plan deemed suitable by the Developer (as set forth in Section 3.2 below) including, without limitation, all four elevations, a section plan, parking space count, structural plan, and other AIA standard elements ("Garage Concept Plan") (the date of delivery referred to as the "Start Date").

1.3.2 Within three (3) months following the Start Date, the Developer shall prepare (or have prepared) and present to the City a concept plan for the development of each of the Development Sites (the "Preliminary Concept Plan"). In the event that the City determines that the Preliminary Concept Plan is not suitable, and the City and the Developer are unable to

agree to revisions to the Preliminary Concept Plan that make such plan suitable to the City, the City shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.2, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.3 Within the six (6) month period following written notice of acceptance of the Preliminary Concept Plan by the City, the Parties shall agree to a financial plan and, utilizing design plans associated with the Municipal Parking Garage, shall work together to create concept plans depicting the layout and design of the Development Sites and the Site as a whole, including site design concepts, internal layout, and building use scenarios (the "Site Concept Plans"). The Site Concepts Plans also shall set forth a timetable by which Developer shall complete the improvements described in the Site Concept Plans with agreed upon financial penalties if such timetables are not reasonably accomplished. In the event that the City or the Developer determines that the proposed Site Concept Plans are not suitable, and the City and the Developer are unable to agree to revisions to the Site Concept Plans that make such plans suitable to the City or the Developer, the City or Developer shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.3, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.4 During the six (6) month period following the approval by the City and Developer of the Site Concept Plans, each of the City and the Developer shall use commercially reasonable efforts to obtain all federal, state and municipal permits and approvals ("Governmental Approvals") necessary to proceed with the development and improvements described in the Site Concept Plans. The City shall have primary responsibility for the Governmental Approvals required for the Municipal Parking Garage and related improvements and the Developer shall have primary responsibility for the Governmental Approvals required for the buildings and related improvements to be located on the Development Sites; provided that the Parties acknowledge that as an integrated master development the Governmental Approvals are likely to be highly integrated and interdependent, and therefore agree to work cooperatively and on a coordinated basis to obtain the Governmental Approvals.

1.3.5 Throughout the period specified in Sections 1.3.2-1.3.4 above, the Parties shall work together to identify candidates as potential tenants, joint venture participants, co-developers, or other users for the Development Sites.

1.3.6 The milestone dates set forth in Sections 1.3.2, 1.3.3 and 1.3.4 shall be extended in the event the Municipal Parking Garage has not achieved the same milestone as specified in each Section for the Project. The extension of the applicable milestone shall be coterminous with the date the Municipal Parking Garage achieves its corresponding milestone, in order to assure that the pace of development of the Project does not proceed at a substantially

more rapid rate than the development of the Municipal Parking Garage, which is an critical element in the Developer's ability to successfully develop the Project.

1.4 Exclusive Development. The Parties shall work exclusively with each other, in good faith, to develop the Project. This Agreement shall not extend to any other activities, transactions or relationships other than with respect to the Project and the transactions contemplated by this Agreement. Nothing in this Agreement shall preclude or restrict either Party from conducting its business as it determines in its sole and absolute discretion other than in connection with the Project, and neither Party shall have any rights or obligations in and to the other Party's independent ventures or the income or profits derived therefrom, including any ventures located proximate to the site.

1.5 Personnel and Resources. Each Party shall make available, at all reasonable times and location, the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Project.

1.6 Manner of Development. The Parties acknowledge and agree that the development of the Adjacent Buildings may be undertaken by the Developer through whatever means or transaction structure the Developer determines appropriate, including through direct ownership and development by Developer, leasing or re-sale to third parties, co-development with joint venture partners, subdivision and sale for development of all or portions of the Development Sites or Adjacent Buildings, declaration of one or more condominiums or through use of any other means or transaction structures as Developer determines appropriate, with the overall goal of developing the Development Sites on the basis described herein (the foregoing being referred to herein as "Development Relationships"). Developer agrees that in the event the development of the Adjacent Buildings is undertaken by anyone other than Developer or its related entities, Developer shall first obtain the written consent of the City to the involvement of any third party individuals or entities, which consent shall not be unreasonably withheld.

ARTICLE II
PURCHASE OPTION

2.1 Purchase Option. The City hereby grants to the Developer an exclusive option (the "Option") to purchase either or both of the Development Sites, including all rights, privileges, easements and appurtenances thereto existing or as necessary or convenient for the construction, development and operation of the Adjacent Buildings and other improvements identified and defined in the Site Concept Plans, but specifically excluding the cell tower site (the "Subject Property"). This Option applies to the Subject Property both in its current state and in the event it is further developed. The Subject Property shall be conveyed together with all improvements thereon, all easements and rights of way relating thereto, all appurtenances thereto, as well as any common element interests therein, and subject to the terms and conditions set forth in this Agreement.

2.2 Terms of the Option. The Option granted hereby shall have the following terms and conditions:

2.2.1 Term: The Option shall have a term beginning on the Effective Date and expiring eighteen (18) months following receipt of all Governmental Approvals pursuant to Section 1.3.5 hereof, unless the same shall sooner be exercised or terminated in accordance with the terms hereof ("Option Term").

2.2.2 Purchase Price: The total purchase price for the Subject Properties if they are purchased together shall be One Million Two Hundred Thousand Dollars ($1,200,000) (the "Purchase Price").

2.2.3 Exercise of Option: Upon satisfaction of the Condition of Exercise described in Section 2.2.4 below, the Option may be exercised by the Developer by the transmittal of a signed written notice of the Developer's exercise of the Option ("Notice of Exercise"), and specifying the date, time and place for closing on the purchase of the Subject Property, which shall not be later than ninety (90) days following the date of the Notice of Exercise ("Closing Date"). The Developer shall have the right to exercise the Option with respect to either or both Subject Properties, and if exercised for one of the Subject Properties the Option shall continue in force for the other Subject Property for the remainder of the Option Term. If the Developer exercises the Option separately, the purchase price for the first property shall be Seven Hundred Thousand Dollars ($700,000) and the purchase price for the second property shall be Seven Hundred Thousand Dollars ($700,000) for a combined purchase price of One Million Four Hundred Thousand Dollars ($1,400,000).

2.2.4 Condition of Exercise: It shall be a condition of exercise of the Option that the Site Concept Plans shall have been completed pursuant to Section 1.3.3 above.

2.2.5 Closing: The closing of the purchase of each Subject Property hereunder shall be conducted in accordance with the following provisions:

(a) The City shall sell, assign, convey, transfer and deliver title to the Subject Property together with all easements, licenses, rights of way and appurtenant rights reasonably required in order to develop the Subject Property in accordance with the Site Concept Plan, and together therewith all surveys, plans, specifications, title commitments or policies and other records, files or information related to the development of the Subject Property in accordance with the Site Concept Plan, free and clear of any liens, encumbrances or restrictions of any nature, except for the Permitted Real Property Liens. "Permitted Real Property Liens" means: (i) real property taxes for the current tax year that are not due and payable as of the Closing date, (ii) any liens, encumbrances or other title exception or nonconformity accepted by, or not expressly objected to in writing by, the Developer at or before Closing, and (iii) local, state and federal laws, ordinances or governmental regulations, including but not limited to, building and zoning laws, ordinances and regulations.

(b) The Developer shall pay the Purchase Price by wire transfer to an account specified by the City, as increased or decreased by applicable prorations and adjustments, including (i) all real and personal property taxes and similar ad valorem obligations levied with respect to the Subject Property for a taxable period that includes (but does not end on) the Closing Date based on the number of days of such taxable period included in the period ending with and including the Closing Date, (ii) any and all other income and expenses items that relate to the Subject Property that are incurred during a period beginning before the Closing Date and ending after the Closing Date, including but not limited to (i) water, sewer, electricity, gas, oil, telephone and other utility expenses, and (ii) payments under any contracts or agreements related to the Subject Property that Developer agrees to accept an assignment (collectively, the "Prorations"). The Prorations shall be apportioned as of the Closing Date such that the City shall be liable for that portion of such Prorations relating to, or arising in respect of, periods through and including the Closing Date and Developer shall be liable for (and shall reimburse the City to the extent City shall have paid) that portion of such expense items relating to, or arising in respect to, periods after the Closing Date.

2.3 Memorandum of Option. The Parties agree that upon request of either Party, a Memorandum of Option incorporating the terms hereof may be filed in the York County Registry of Deeds in lieu of the filing of the whole of this Agreement.

ARTICLE III
RESPONSIBILITIES OF PARTIES

The Developer and the City have agreed to implement the vision and objectives embodied in the Camoin Study by agreeing to complete the responsibilities of each Party enumerated in this Agreement. The Parties acknowledge that this is a joint public and private enterprise in which the Parties will work closely together to further the completion of the Project. The following responsibilities are hereby assigned to the Parties:

3.1 Developer Responsibilities. The Developer shall use commercially reasonable efforts to:

3.1.1 Perform its obligations pursuant to Article I hereof.

3.1.2 Design, develop and construct the Adjacent Buildings in accordance with the Site Concept Plans, or arrange for their design, development and construction through one or more Development Relationships. The Parties agree that the development of the Adjacent Buildings may be phased.

3.1.3 In designing and developing the Adjacent Buildings, the Developer shall consider the following factors:

a. Site use plans that incorporate urban mixed use principles;

b. Transit and pedestrian orientation with existing or future facilities in the Mill District;

c. Connection to surrounding properties, including cross track connections to the Saco-Lowell Building, potential use of buildings and building sites on Elm Street and the potentially re-aligned Lincoln and Pearl Streets; and

d. Coordination with mill owners in the Mill District, particularly as it relates to energy self-sufficiency.

3.2 City Responsibilities. Perform its obligations pursuant to Article I hereof.

3.2.2 The City shall continue to move forward with and make progress on the development of the Municipal Parking Garage and shall use best efforts to keep the Developer apprised of all design plans and changes. The Developer's responsibilities under this Agreement shall be conditional upon the Developer's deeming suitable the Garage Concept Plan, which shall include the Developer having sufficient time and opportunity to review the Garage Concept Plan and to exercise the Developer's judgment, at its sole discretion, regarding the suitability of such Garage Concept Plan. In the event that the Developer determines that the Garage Concept Plan is not suitable, and the City and the Developer are unable to agree to revisions to the Garage Concept Plan that make such plan suitable to the Developer, the Developer shall be permitted to terminate this Agreement with no further obligation and without penalty, as specified in Article VI.

3.2.3 The City shall continue to move forward on the planning, design and construction of the next phase of the RiverWalk.

3.2.4 The City shall pursue the planning and design of smart infrastructure for the benefit of 3 Lincoln Street and downtown Biddeford, including without limitation, gigabit internet service, wireless broadband mesh network, LED lighting, video and sensor technology, and the software required to store, analyze and secure data transmitted through this smart infrastructure.

3.2.5 The City and Maine Energy Recovery Company, LP, the former owner of the Site, pursuant to a Voluntary Response Action Plan ("VRAP"), completed environmental remedial actions on the Site resulting in a Maine Department of Environmental Protection Certification of Completion of a Voluntary Response Action Plan. The Certification of Completion is recorded in the York County Registry of Deeds in Book 17072, Page 169. Developer recognizes and agrees that the Certification of Completion and the Declaration of Environmental Covenant recorded in the York County Registry of Deeds in Book 17098, Page 898 imposes certain covenants, conditions and restrictions on the Site that are binding upon Developer and its successors and assigns. Developer agrees that the Certification of Completion is satisfactory evidence that all required environmental remediation on the Site was completed as of the date of the Certification of Remediation and that the City's obligations to complete any additional environmental remediation at the Site required in order to allow for the development of the Site contemplated hereby, including the financing of such development with financial institutions, is limited to environmental conditions occurring after the date of the Certification of

Completion. In the event that any such remediation is necessary, the City will provide to Developer, on or before the Closing Date for each Subject Property, evidence of the required remediation in form reasonably acceptable to Developer and any financial institutions financing the Municipal Parking Garage and Adjacent Buildings, including the environmental clearances listed on Exhibit C hereto.

3.2.6 The City shall provide the Developer with all environmental site assessments (phase 1 and 2 together with any additional test results), geotech studies, the results from test borings, soil samples, monitoring wells, and all other background information in the City's possession, or under its control, pertaining to the Site.

3.2.7 The City will assist the Developer in any local or state reviews necessary for the development of the Site.

3.2.8 The City shall exercise best efforts to assure that the Developer is not required to bear the cost of all offsite improvements necessary to support the contemplated development of the Project, including any costs necessary to ensure that utilities adequate to support the contemplated development are delivered to the Subject Property.

3.2.9 The City will work with the Developer to identify a full range of financial, tax, and development incentives for the redevelopment of the Site; provided, that the City's obligations under this Section 3.2.9 are subject to the Developer's cooperation in providing reasonably requested financial and project-level information. Any such financial information provided by the Developer shall be treated as confidential information pursuant to this Agreement and as confidential business information to the extent allowed by law and protected as such.

3.2.10 The City shall promptly provide to the Developer all information it has related to potential Development Relationships.

3.3 Joint Party Responsibilities.

3.3.1 Performance: Time is of the essence and a material provision of this Agreement. The Developer and the City shall exercise commercially reasonable efforts to coordinate their development efforts and recognize that meeting the timelines contained herein are, in part, contingent upon the overall success of developing their respective portions of the Projects and market trends. The Parties may agree to mutually extend the timeframes specified herein as appropriate based on overall development progress; provided, however, that if one or more of the Parties does not meet a timeframe specified in this Agreement and the Parties cannot mutually agree upon an extension of such timeframe, such failure to meet the original timeframe shall be treated as an Event of Default, as defined below.

3.3.2 Access to Information: Upon reasonable request, each Party shall provide the other Party with full and complete access to data, documents, and any other information pertinent to the Project in order to permit each Party to perform an adequate due diligence review of matters related to the Project at each stage of development.

3.3.3 Cooperation: In addition to the actions recited herein and contemplated to be performed, executed and delivered by each Party, each Party shall perform, execute and deliver or cause to be performed, executed and delivered hereafter any and all further acts, deeds and assurances as the other Party may reasonably require to consummate or evidence the consummation of the transaction and/or the discharge of the obligations contemplated herein. The City and the Developer shall use reasonable efforts to coordinate the timing and installation/construction of all offsite improvements, if any, required in connection with the development of the Project.

3.3.4 Confidentiality: Neither Party, nor any permitted affiliate, agent or advisor of either Party shall: (a) disclose to any third party any information concerning the Project, the Site, prospective or actual Developer Relationships, the other Party, its affiliates or this Agreement; or (b) use any such information in any manner which may directly or indirectly negatively impact the Project, the other Party, or its affiliates, except that such information may be disclosed by such Party if required by law or, following written notice to the Party whose information is to be disclosed, to any lender or prospective lender or other entity necessary to develop or finance each portion of the Project. This confidentiality requirement shall not restrict the release of information which: (i) is or becomes generally available to the public other than as a result of disclosure by the other Party or its representatives, (ii) was or becomes available to the receiving Party on a non-confidential basis from a source other than the disclosing Party or its representatives; provided, that, to the receiving Party's knowledge and after due inquiry, such source is not prohibited from disclosing such information to the receiving Party by a contractual, legal or fiduciary obligation to the disclosing Party or its representatives, or (iii) is independently developed by the receiving Party without violating its obligations hereunder. In the event that this Agreement terminates prior to the purchase of the Subject Property by the Developer pursuant to Article 2 herein, then all such data, plans, proposals, and other materials furnished hereunder shall be returned to the Party from whom received, with an appropriate assurance that all copies thereof have been destroyed, except for those materials that were presented to the Developer, the Biddeford City Council or other governing body of the Parties. The obligations established pursuant to this section shall survive any termination of this Agreement and the withdrawal of a Party for a period of three (3) years.

ARTICLE IV
LIMIT OF LIABILITY

Notwithstanding any other provision of this Agreement, in no event shall the Parties or any of their Affiliates, by reason of any of their respective acts or omissions relating to the development, negotiation, design, financing, ownership, construction, operation or maintenance of the Project, or relation to any of their obligations under this Agreement, be liable whether in contract, tort, misrepresentation, warranty, negligence, strict liability, or otherwise for any special, indirect, or consequential damages arising out of or in connection with this Agreement, or the performance, non-performance or breach thereof.

ARTICLE V
INDEMNIFICATION

Each Party shall indemnify, defend, and hold harmless the other Party and its agents, servants, officers, directors, employees and Affiliates from and against any loss, cost, liability, claim, damage, expense (including, without limitation, all out-of-pocket expenses, reasonable attorneys' and paralegal fees, disbursements and costs), penalty or fine incurred in connection with any claim or cause of action arising from or in connection with any claim or cause of action arising from or in connection with the Project or this Agreement to the extent caused by the negligence, misrepresentation, fraud, fault or misconduct of the indemnifying Party or any of its Affiliates.

The City's duty to indemnify shall not waive any defense, immunity or limitations of liability, which may be available to the City, its officers, agents, or employees, under the Maine Tort Claims Act, 14 M.R.S. §8101, et seq., or any other privileges or immunities as may be provided by law.

The Developer shall maintain commercial general liability insurance with coverage for personal injury liability and/or property damage liability with minimum limits of not less than $1,000,000 per occurrence, and shall name the City as an additional insured on such policies.

ARTICLE VI
DEFAULT AND REMEDIES

6.1 Events of Default. The following shall each constitute an event of default under this Agreement (each, an "Event of Default"),

6.1.1 The Developer's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.2 The City's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.3 The filing by the Developer of any petition or the initiation of any proceedings under the United States Bankruptcy Code or under any act or acts, state or federal, dealing with, or relating to the subject or subjects of bankruptcy or insolvency, or under any amendment of such act or acts, either as a bankrupt or as an insolvent, or as a debtor, or in any similar capacity, by the Developer; or any involuntary petition in bankruptcy is filed against the Developer and the same is not stayed or discharged within sixty (60) days from such filing; or any other petition or any other proceedings of the foregoing or similar kind or character is filed or instituted or taken against the Developer, or a receiver of the business or of the property or assets

of the Developer, is appointed by any court, except a receiver appointed at the insistence or request of the City; or the Developer makes any assignment for the benefit of its creditors;

6.2 Opportunity to Cure. If an Event of Default occurs, the non-breaching Party shall give the breaching Party written notice of the Event of Default and an opportunity to cure of not less than thirty (30) days, and if the default is, of its nature, not curable within 30 days, then a reasonable period to effect a cure given the nature of the default.

6.3 Remedies. In the event that the breaching Party fails to cure an Event of Default within the cure period set forth in Section 6.2, then the non-breaching Party shall be entitled to pursue any and all legal or equitable remedies available to it under the circumstances.

ARTICLE VII
REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties. Each Party represents and warrants to the other that:

7.1.1 it is duly qualified to do business and is in good standing in the State of Maine;

7.1.2 it has full power and authority to execute, deliver and perform its obligations under this Agreement;

7.1.3 the execution, delivery and performance of this Agreement has been duly and validly authorized by all necessary action by such Party; and

7.1.4 the execution and delivery of this Agreement by such Party and the performance of the terms, covenants and conditions contained herein will not violate the articles of incorporation or by-laws of such Party, or any order of a court or arbitrator, and will not conflict with and will not constitute a material breach of, or default under, the provisions of any material contract by which either Party is bound.

ARTICLE VIII
FORCE MAJEURE

The timeframes and deadlines for performance of the obligations of the Parties shall be specified herein shall be extended during the period of any force majeure. For the purposes of this Agreement, "force majeure" shall mean and include all factors, circumstances, transactions, occurrences and other actions beyond the direct control of the Party, including without limiting the generality of the foregoing, labor disputes, civil disturbance, war, war-like operations, invasions, rebellion, hostilities, military or usurped power, sabotage, fires or other casualty, or acts of God that have the effect of rendering practically unavailable materials or labor or other resources necessary to perform the obligation or responsibility in a timely manner.

ARTICLE IX
MISCELLANEOUS

9.1 Right to Require Performance. The failure of either Party at any time to require performance by the other Party of any provisions hereof shall in no way affect the right of such Party thereafter to enforce same. Nor shall waiver by either Party of any breach of any provisions hereof be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself.

9.2 City Agencies and Regulators. This Agreement is not intended to supersede the authority granted by law to any regulatory board or agency of the City. Such regulatory boards and agencies must perform their responsibilities in accordance with the law governing that performance. Therefore, nothing in this Agreement shall be construed or implied to require the City's planning, zoning, land use or other regulatory boards or agencies (however designated) to approve the plans for any aspect of the Project or other action required under this Agreement. Such boards and agencies are not obligated in any way by this Agreement

9.3 Relationship of Parties This Agreement shall not be interpreted or construed to independently create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent of representative of, or to otherwise bind, the other Party.

9.4 Affiliates. The Developer may form or employ related Affiliates for purposes of participating in the Project. It is expressly recognized that the Developer contemplates use of one or more special purpose entities to develop the Adjacent Buildings.

9.5 Definition of Terms. It is agreed by the Parties hereto that reference in this Agreement to the City and the Developer, and all expressions referring thereto, shall mean the party, person, or persons named above as the City and the Developer, as the case may be, their successors and assigns, or any person, persons, or parties claiming by, through or under them.

9.6 Integration. This Agreement encompasses the entire Agreement of the Parties, and supersedes all previous understandings and agreements between the Parties, whether oral or written. The Parties hereby acknowledge and represent, by affixing their hands and seals hereto, that the Parties have not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this Agreement, made by or on behalf of any other Party or any other person or entity whatsoever, prior to the execution of this Agreement. The Parties hereby waive all rights and remedies, at law or in equity, arising or which may arise as the result of a Party's reliance on such representation, assertion, guarantee, warranty, collateral contract or other assurance, provided that nothing herein contained shall be construed as a restriction or limitation of the Party's right to remedies associated with the gross negligence, willful misconduct or fraud of

any person or party taking place prior to, or contemporaneously with, the execution of this Agreement.

9.7 No Oral Modifications. This Agreement may not be amended or terminated orally. This Agreement and all the covenants, terms and provisions contained herein shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns. Except for an affiliated single purpose entity organized by the Developer to construct and operate the Project, neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated by any Party, without the prior written consent of the other Party. This Agreement is not intended to confer any rights or benefits to any entity other than to the City and to the Developer, its affiliate entity organized to construct and operate the Project, and its affiliates.

9.8 Mutual Cooperation and Further Agreements. The Parties acknowledge that the obligations set further herein may be further described in other agreements as agreed to by the Parties. The City and the Developer agree to cooperate in good faith with regard to each and every aspect required for the completion of all operations contemplated by this Agreement. The Parties further agree to negotiate in good faith and to enter such other and further agreements as may be necessary to implement any aspect of design, engineering, construction or facility operation contemplated under this Agreement.

9.9 Expenses. Each Party shall pay all charges and fees in connection with employment of its respective attorneys relating to the negotiation of this Agreement, the Option, and the Definitive Agreement.

9.10 Notice. All notices required to be given to the City or the Developer under this Agreement shall be in writing and deemed given upon the earlier of actual receipt by personal delivery or two (2) days after being mailed by U.S. priority, registered or certified mail, return receipt requested, or a reputable overnight courier as follows:

City	City of Biddeford c/o James A. Bennett, (or the then current) City Manager P.O. Box 586 205 Main Street Biddeford, Maine 04005
With a copy to	Keith R. Jacques, Esq. Woodman Edmands Danylik Austin Smith & Jacques, P.A. P.O. Box 468 234 Main Street Biddeford, Maine 04005
Developer	3 Lincoln LLC

c/o James H. Brady, manager
P.O. Box 7486
Portland, ME 04112-7486

With a copy to Christopher E. Howard
Pierce Atwood LLP
254 Commercial Street
Portland, Maine 04101

9.11 Governing Law. This Agreement is and shall constitute a contract under and is to be construed in accordance with the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation, or such other method as may be mutually agreed to by the Parties shall be adjudicated within the jurisdiction of the State of Maine.

9.12 Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties, who agree that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provisions.

9.13 Survival. All express representations, warranties, indemnifications or limitations of liability made in or given in this Agreement shall survive the expiration or the termination of this Agreement for any reason.

9.14 Mediation/Arbitration. The Parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques such as mediation and arbitration to resolve all claims, counterclaims, disputes and other matters in question between the Parties arising out of this Agreement.

[*Remainder of page intentionally blank*]

IN WITNESS WHEREOF, the Parties hereto have set their hands and seals as of this 17 day of Nov, 2020.

DEVELOPER:
3 Lincoln, LLC

Witness Jonathan Benoit

By: _____
Its: manager

CITY OF BIDDEFORD

Witness

By: _____
Name: James A. Bennett
Title: City Manager

City of Biddeford, Maine

The Office of
City Manager
James A. Bennett
Email: jbennett@biddefordmaine.org

MEMORANDUM

TO:	**BE Fitler LLC**
FROM:	James A. Bennett, City Manager
DATE:	December 19, 2019
RE:	**Clarification to Master Plan Development Agreement**

This memo issued to clarify .section 1.3.6 of the Master Plan Development agreement. That section contemplates that milestone dates within the agreement shall be extended if the parking garage was unable to meet its milestone. This section shall be broadly interpreted to include any delays that might occur that are a result of any infrastructure design, approval or construction required to serve the parking garage, including, but not limited to:

- Pearl Street Road Design and Construction;
- Pearl Street Utilities Design and Construction, including water and sewer improvements; or
- Pearl Street Pedestrian and Landscape design and construction, including direct links to the Riverwalk.

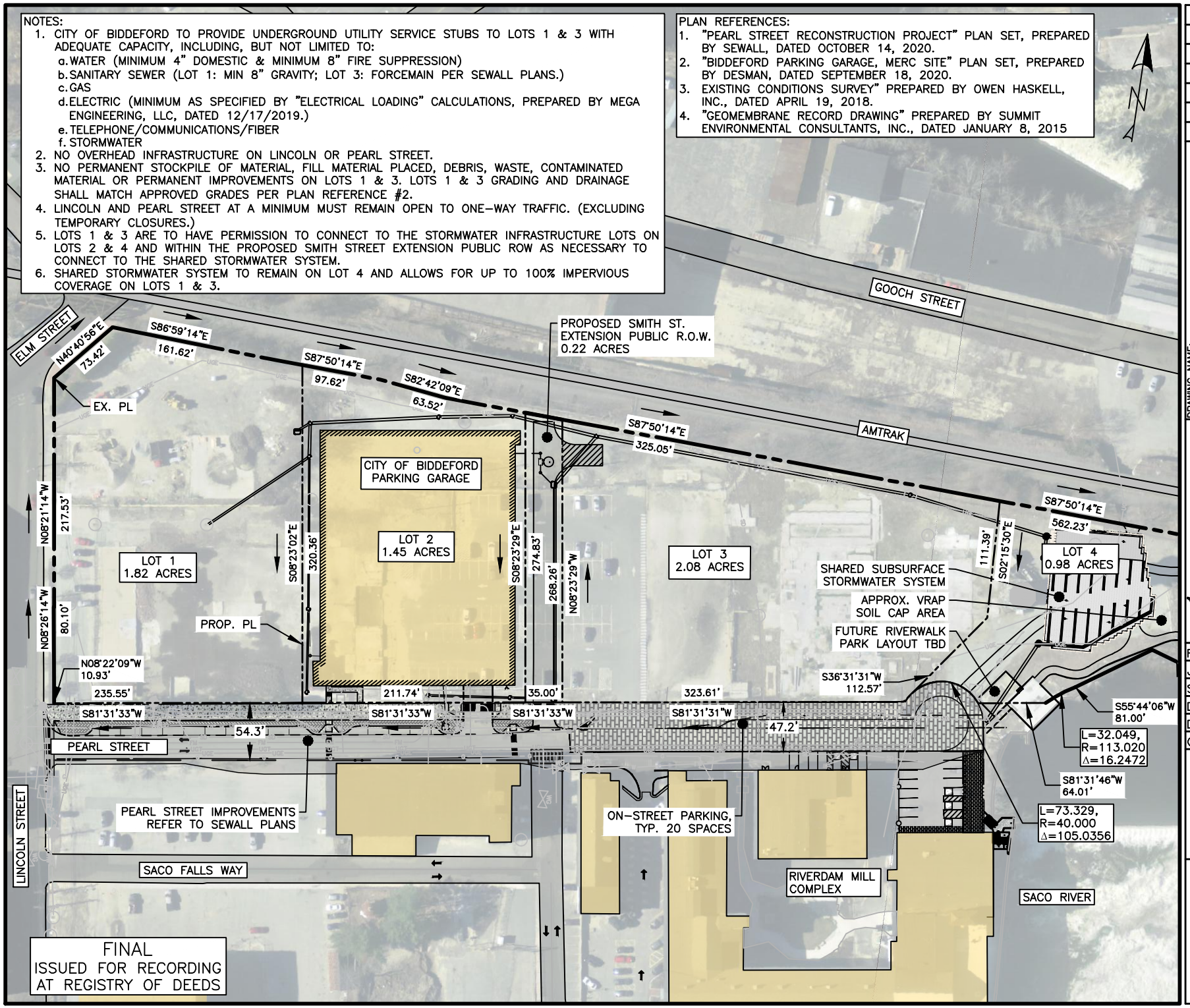
Finally, nothing within the agreement, nor within this memo prohibits the parties to mutually extend any deadline contained within the agreement. Any extension shall be done in writing.

Exhibit A
Site Plan

[insert Site Plan]

NOTES:
1. CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
   a. WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
   b. SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
   c. GAS
   d. ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
   e. TELEPHONE/COMMUNICATIONS/FIBER
   f. STORMWATER
2. NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
3. NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
4. LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
5. LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
6. SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

PLAN REFERENCES:
1. "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
2. "BIDDEFORD PARKING GARAGE, MERC SITE" PLAN SET, PREPARED BY DESMAN, DATED SEPTEMBER 18, 2020.
3. EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC., DATED APRIL 19, 2018.
4. "GEOMEMBRANE RECORD DRAWING" PREPARED BY SUMMIT ENVIRONMENTAL CONSULTANTS, INC., DATED JANUARY 8, 2015



FINAL
ISSUED FOR RECORDING AT REGISTRY OF DEEDS

ISSUED FOR	BY DATE
JDA EXHIBIT	PFH 11/12/20

DRAWING NAME: OVERALL SITE EXHIBIT
PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT
CLIENT: FATHOM/BE FITLER, LLC BIDDEFORD, MAINE

ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. 65 HANOVER ST. PORTLAND, MAINE 04104 (207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	1" = 120'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.

EX-A

ALSO REFER TO EX-A1 & EX-A2

NOTES:
1. CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
   a. WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
   b. SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
   c. GAS
   d. ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
   e. TELEPHONE/COMMUNICATIONS/FIBER
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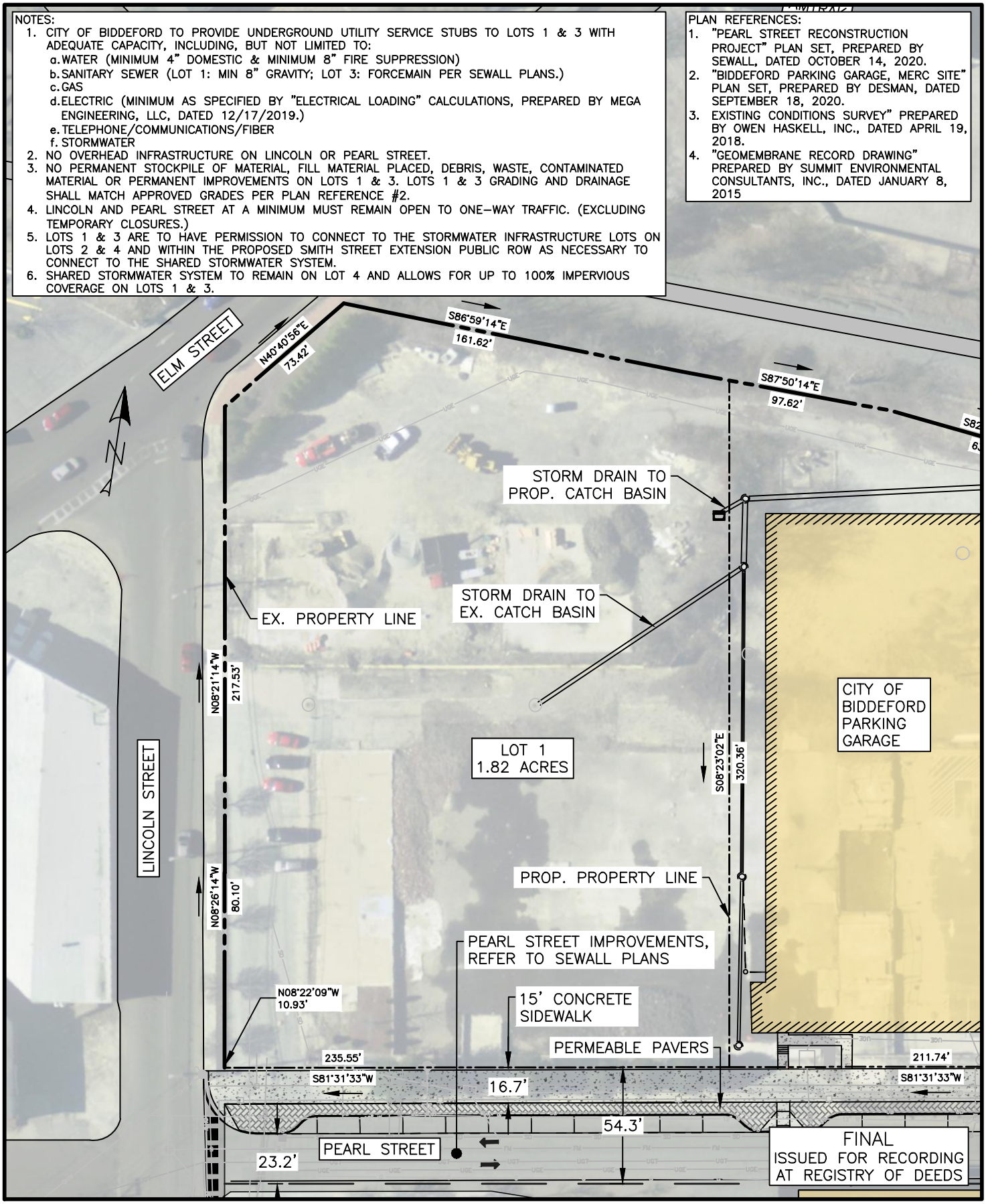

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DRAWING NO.
EX-A1
ALSO REFER TO EX-A & EX-A2

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DATE:	11/12/20
JN:	1124
SCALE:	1" = 60'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

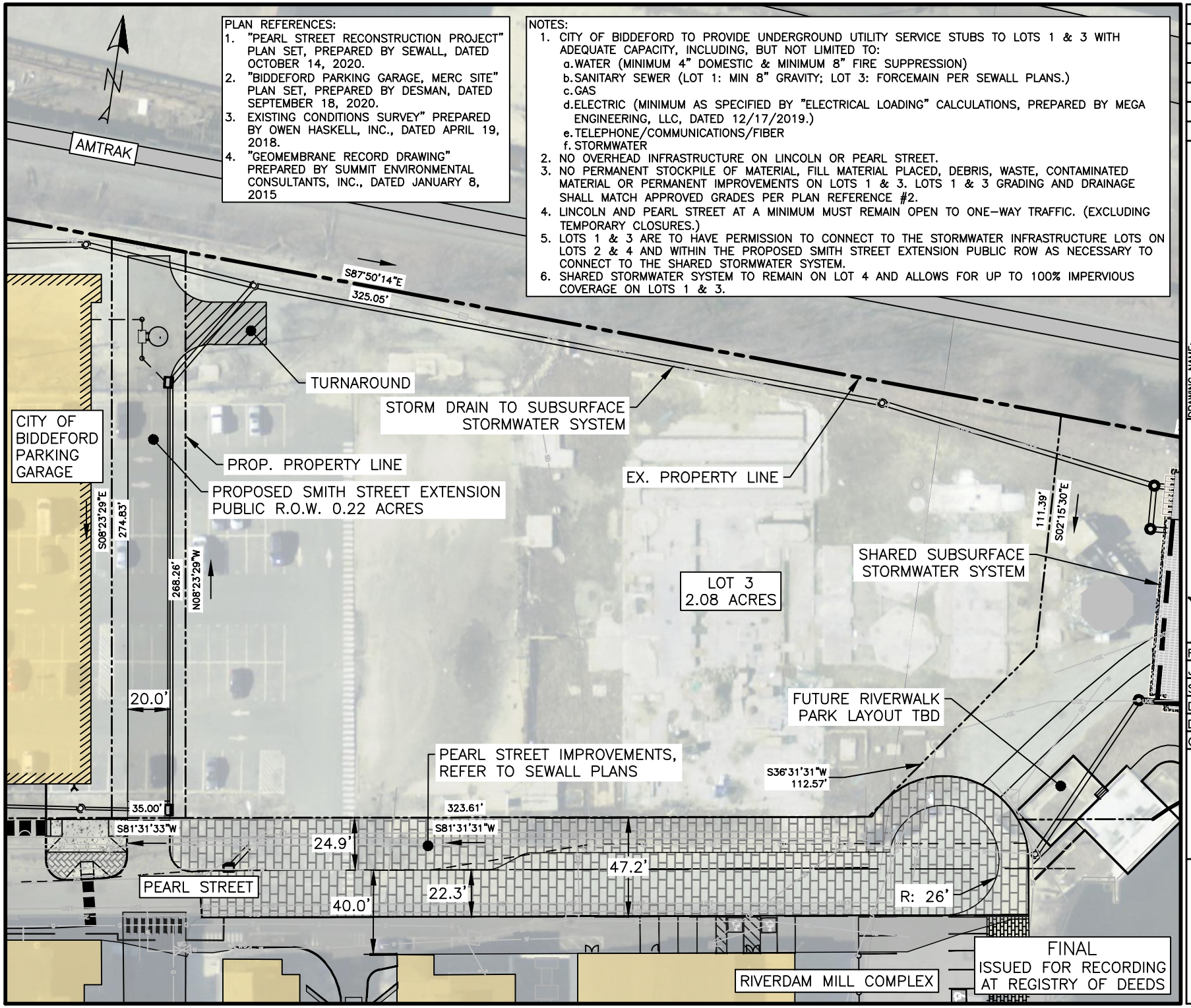
ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. P.O. BOX 3372
PORTLAND, MAINE 04104 (207) 775-2655

DRAWING NAME:
LOT 1 EXHIBIT

PROJECT NAME:
PEARL STREET & MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE

ISSUED FOR	BY	DATE
JDA EXHIBIT	PFH	11/12/20



ISSUED FOR	BY DATE
JDA EXHIBIT	PFH 11/12/20

DRAWING NAME: LOT 3 EXHIBIT

PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT

CLIENT: FATHOM/BE FITLER, LLC BIDDEFORD, MAINE

ACORN ENGINEERING, INC
ACORN ENGINEERING, INC. 65 HANOVER ST. PORTLAND, MAINE 04104 (207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	1" = 60'
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

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DRAWING NO.

EX-A2

ALSO REFER TO EX-A & EX-A1

MAINE DEPARTMENT OF TRANSPORTATION

TRAFFIC MOVEMENT PERMIT

SECTION 7

TRAFFIC IMPACT STUDY

3 Lincoln Street Project

Residential Apartments and Restaurant

Pearl Street, Biddeford, Maine

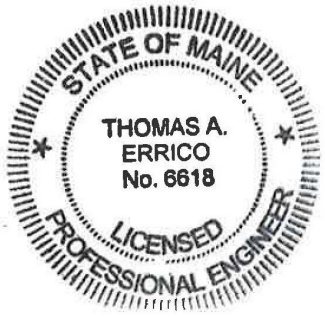
April 6, 2022

Revised April 26, 2022

Submitted by:

T.Y. Lin International
12 Northbrook Drive
Building A, Suite One
Falmouth, Maine 04105

T·Y·LIN INTERNATIONAL



Thomas A. Errico

1. Introduction

T.Y. Lin International (TYLI) was contracted by Acorn Engineering, Inc., and Fathom Company to conduct a Traffic Impact Study for the 3 Lincoln Street project located on Pearl Street in Biddeford, Maine (See **Figure 1**). The project consists of the following:

Lot 3A – 83 Residential Apartments Units

- (17) studio
- (32) 1-bedroom
- (23) 2-bedroom
- (11) 3-bedroom
- 50 parking spaces underground parking garage

Lot 3B – 108 Residential Apartments Units

- (42) studio
- (42) 1-bedroom
- (24) 2-bedroom
- 37 parking spaces underground parking garage

Lot 3C – (2) Restaurants - 298 seats total

- 170 seats in lower level
- 128 seats in upper level

Parking for the residential uses will be provided within each residential building and the adjacent parking garage. Parking for the restaurant use will be via area public parking sites and for this study it is assumed to be in the recently opened Pearl Street parking garage. A site plan prepared by Acorn Engineering Inc. is attached.

The purpose of this document is to support the MaineDOT Traffic Movement Permit process. A Traffic Movement Permit Application was submitted on September 20, 2021. A MaineDOT Traffic Movement Scoping Meeting was held on December 15, 2021. MaineDOT requested that the Traffic Impact Study evaluate specific traffic conditions at the following intersections.

- Elm Street/Pine Street
- Elm Street/Lincoln Street
- Lincoln Street/Pearl Street
- Elm Street/Pearl Street

The tasks that were undertaken in the study were as follows:

- Conduct field reconnaissance and traffic counting programs during the weekday PM and Saturday peak periods at study area intersections.
- Develop existing design hour traffic volumes from peak hour traffic volumes.

- Project existing design hour traffic volumes to a future year based on a traffic growth factor and include other approved land development projects not yet in operation as provided by the City and State.
- Develop anticipated traffic volumes to be generated by the planned project for the weekday PM and Saturday peak hour conditions.
- Conduct capacity analyses, level of service determination, and vehicle queuing analyses as appropriate for:
    - Future conditions without the project; and
    - Future conditions with the project.
- Based on the traffic analyses, determine any operational deficiencies at the study area intersections.
- Conduct a safety analysis at the following locations:
    - Pine Street/Elm Street
    - Lincoln Street/Elm Street
    - Lincoln Street/Pearl Street (Review sight distance issues)
    - Provide AADT for the above locations
- Perform a traffic impact fee calculation according to City methods.

2. Data Collection

TYLI performed field reconnaissance of the study area, assembled existing traffic counts, conducted a video turning movement count and gathered information on anticipated future developments in the vicinity of the project. A manual turning movement count was conducted on a typical weekday from 3:00-6:00 PM and a Saturday from 11:00-2:00 PM on the date noted:

- Elm Street/Lincoln Street (PM July 18, 2019, and Saturday July 20, 2019 Riverdam Study)
- Elm Street/Pine Street (PM November 2, 2021, and Saturday October 30, 2021)
- Lincoln Street/Pearl Street (PM June 13, 2019, and Saturday July 20, 2019 Riverdam Study)
- Elm Street/Pearl Street (PM July 17, 2019, and Saturday July 27, 2019 Riverdam Study)

Copies of the turning movement counts are provided in the **Appendix**.

3. Existing (2021) Design Hour Traffic Volumes

The primary purpose of this study is to determine the impact the proposed project will have on the local transportation system. In general, the critical time period for a given project is directly associated with peaking characteristics of both the project-related traffic and the area transportation system. As directed by MaineDOT, this study evaluates traffic conditions during the weekday PM and Saturday peak hours of the local roadway system.

Development of peak hour traffic volumes was based upon the traffic counts conducted or assembled. Because the traffic counts were collected in different years, two tasks were performed to estimate existing design hour volume conditions, adjusting 2019 traffic volumes to reflect 2021 conditions, and seasonally adjusting the volumes to reflect summer conditions.

The 2019 traffic counts were adjusted by a growth rate of 1.0 percent per year (see **Section 6** for growth rate assumption) and traffic from the Riverdam project was added to these intersections. The Riverdam project was occupied at the time of the 2021 counts and therefore trips were not added to the Elm Street/Pine Street intersection.

The traffic pattern on any highway shows considerable variation in traffic volumes during different hours of the day and during the year. It is therefore important to determine which hourly traffic volume to use for analysis and design. It would be wasteful to predicate the design on the (maximum) peak hour traffic of the year, yet the use of the average hourly traffic would result in an inadequate design. The hourly traffic volume used in design should not be exceeded very often or by very much. On the other hand, it should not be so high that traffic would rarely be great enough to make full use of the facility. Based upon the relationship between highest hourly volumes and daily traffic volumes, it has been concluded that the hourly traffic used in design should be the 30th Highest Hour Volume, or sometimes call Design Hour Volume. For this study, the 2021 peak hour traffic volumes were adjusted to obtain Design Hour Volumes by applying the MaineDOT Weekly Group Mean Factors. The adjustment factor used was 1.08. No adjustment was required for the 2019 counts as collection of data occurred during the summer. **Figure 2** presents the Existing (2021) Design Hour Traffic Volumes within the study area.

4. Future (2024) No-Build Traffic Volumes

In order to estimate traffic volumes during the No-Build condition, it is important to incorporate both historical traffic growth and traffic generated by other developments in the study area. The latter is necessary because conditions associated with nearby developments may generate traffic that impact roadways being studied. For this study, TYLI estimated an annual traffic growth rate of 1.0 percent based on previous experience in the region. Given the expected build out of the project in 2024, the Existing (2021) Design Hour traffic volumes were projected to Future (2024) No- Build traffic volumes (without the proposed development) by applying the annual traffic growth rate of 1.0 percent over a three-year period.

TYLI also reviewed other developments projected to occur in or near the study area. Based on feedback from the City of Biddeford at the MaineDOT Scoping meeting, the Lincoln Mill project (50% occupied) and the Building 11 Elderly Apartment project were identified and incorporated as part of the Future (2024) No-Build volumes.

Traffic from the Lincoln Mill project was based on information contained in the Riverdam Traffic Study. Fifty percent of traffic from the project was included in this study. It was assumed that 59 entering trips and 66 exiting trips during the weekday PM peak hour. Because Saturday peak hour trip generation information was not included, the weekday data was used.

Traffic from the Building 11 Elderly Apartment project was based on the ITE Trip Generation Manual (a traffic study is not available). According to the City, the project consists of 71 apartment units. This corelates to 19 weekday PM peak hour trips and 23 Saturday peak hour trips. The City suggested that we

assign 50% of these trips to Pearl Street. Assignment of the trips to the roadway system was based on a similar trip assignment pattern as the 3 Lincoln Street project.

Given that traffic counts at some intersections were collected in 2019, traffic from the Riverdam project were added to those intersections.

Figure 3 depicts traffic for the other development project during the PM and Saturday peak hours. **Figure 4** presents the estimated Future (2024) No-Build traffic volumes at the study area intersections.

5. Site Traffic Generation and Distribution

Trip generation from the site was based upon information contained in the Trip Generation Manual, Institute of Transportation Engineers, 10th Edition. **Table 1** summarizes Weekday AM and PM peak hour traffic volumes (see Appendix for supporting information). Traffic generated by the proposed project was based on Land Use Code 221 Multifamily Housing (Mid-Rise) and Land Use Code 932 High-Turnover (Sit-Down Restaurant). The volumes represent trip generation for the Peak Hour of Generator. The following summarizes the trip generation rates and trip distribution used for the project.

- Land Use Code 221 Multifamily Housing (Mid-Rise)
  - AM Peak Hour of Generator
    - Average Rate Per – 0.32 per unit
    - **Ln(T) = 0.83 Ln(X) – 0.27 [used for this Application]**
    - Directional Distribution: 20% Entering, 73% Exiting
  - PM Peak Hour of Generator
    - Average Rate Per – 0.41 per unit
    - **Ln(T) = 0.83 Ln(X) – 0.05 [used for this Application]**
    - Directional Distribution: 60% Entering, 40% Exiting
  - Saturday Peak Hour of Generator
    - Average Rate Per – 0.44 per unit
    - **T = 0.42 (X) + 6.73 [used for this Application]**
    - Directional Distribution: 49% Entering, 51% Exiting
- Land Use Code 932 High-Turnover (Sit-Down Restaurant)
  - AM Peak Hour of Generator
    - Average Rate Per – 0.59 per seat [Restaurant will not be open and thus excluded]
    - Equation not given
  - PM Peak Hour of Generator
    - **Average Rate Per – 0.73 per seat [used for this Application]**
    - Equation not given
    - Directional Distribution: 52% Entering, 48% Exiting
  - Saturday Peak Hour of Generator
    - **Average Rate Per – 0.53 per seat [used for this Application]**
    - Equation not given
    - Directional Distribution: 53% Entering, 47% Exiting

Given the type of land uses proposed, internal capture trip activity will occur (residents dinning at the restaurant or employees of the restaurant living in the proposed housing, as examples). To estimate the internal capture influence NCHRP 684 methods were used. The NCHRP 684 method estimates a modest 5%

reduction in the PM peak hour and 9% during the Saturday peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, no adjustments were included. Additionally, not all traffic generated by the project are new trips to area roadways. Some site trips comprise of "Pass-By" trips. According to ITE, a pass-by trip is made as an intermediate stop on the way from an origin to a primary trip destination without a route diversion. Pass-By trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. According to ITE a Restaurant (Land Use Code 932) has an average Pass-By trip percentage of 43 percent. Saturday Pass-By percentages are not provided, and the Weekday percentages was used As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 162 new trips during the afternoon peak hour and 127 new trips during the Saturday peak hour.

Table 1
Trip Generation
Peak Hour of Generator

	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Residential Apartment (191 Units)	16	45	61	47	31	78	43	44	87
Restaurant (298 Seats)[1]	N/A	N/A	N/A	113	105	218	84	74	158
Sub-Total	16	45	61	160	136	296	127	118	245
Internal Capture Trips	N/A	N/A	N/A	-7	-7	-14	-11	-11	-22
Total Entering and Exiting Site	16	45	61	153	129	282	116	107	223
Restaurant Pass-By Trips (43%)[2]	N/A	N/A	N/A	-60	-60	-120	-48	-48	-96
Total New Traffic	16	45	61	93	69	162	68	59	127

1 – The restaurant is not open during the morning peak hour

2 – Saturday Pass-By trips not provided, and weekday PM utilized.

The assignment of trips to the area roadway system was based upon existing traffic volume patterns and approved assignment percentages defined in the Riverdam Redevelopment Traffic Impact Study. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Lincoln Street onto Pearl Street – 58%
- Right-turn from Lincoln Street onto Pearl Street – 22%
- Through movement on Pearl from Elm Street – 20%

Exiting Trips

- Left-turn from Pearl Street onto Lincoln Street – 38%
- Through movement on Pearl Street to Elm Street – 10%
- Right-turn from Pearl Street onto Lincoln Street – 52%

Trips distributed above were assigned to the Elm Street and Pine Street intersection according to existing traffic volumes. Based on the data approximately 30% of the site traffic traveling north on Elm Street was assigned to Pine Street. **Figure 5** presents the assignment of trips during the Weekday PM and Saturday peak hours.

6. Future (2024) Build Traffic Volumes

Future (2024) traffic volumes with the planned project completed were estimated by adding the site generated traffic to the Future (2024) No-Build traffic. A growth rate of 1% per year was used based on two data sources. A review of historical AADT traffic volume data indicates Elm Street had a volume of 12,790 vehicles in 2016 and 13,260 vehicles in 2021. This corresponds to a 0.75% annual growth rate. In conjunction with the Biddeford Route 111 Transportations/South Street Connections Study traffic volume forecasts were developed by Kevin Hooper and Elm Street north of Main Street is expected to grow by 14% between 2021 and 2045 or about 0.58% per year. Accordingly, use of a 1% annual growth rate seems appropriate. **Figure 6** illustrates the estimate Future (2024) Build traffic volumes at the study area intersections.

7. Intersection Analysis

To evaluate the impact of traffic generated by the planned project, capacity analyses were performed at the study intersections under Future (2024) No-Build and Future (2024) Build conditions. The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). Level of Service provides a measurement of the delay experienced at an intersection as a result of traffic operations at that intersection. In general, there are six levels of service: Level of Service A to Level of Service F. The highest, Level of Service A, describes a condition of free flow, with low volumes and high speeds. Level of Service B represents a stable traffic flow with operating speeds beginning to be restricted somewhat by traffic conditions. Level of Service C, which is normally utilized for design purposes, describes a stable condition of traffic operation. It entails moderately restricted movements due to higher traffic volumes, but traffic conditions are not objectionable to motorists. Level of Service D reflects a condition of more restrictive movements for motorists and influence of congestion becomes more noticeable. Level of Service E is representative of the actual capacity of the roadway or intersection and involves delay to all motorists due to congestion. The lowest, Level of Service F, is described as force flow and is characterized by volumes greater than the theoretical roadway capacity. Complete congestion occurs, and in extreme cases, the volume passing a given point drops to zero. This is considered as an unacceptable traffic operating condition.

Table 2 highlights the level of service criteria for signalized intersections. The level of service criteria for signalized intersections is based on control delay per vehicle measured in seconds.

Table 2 LOS Criteria for Signalized Intersections	
Level of Service	Control Delay Per Vehicle (seconds)
A	≤10
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	> 80

Source: 2010 Highway Capacity Manual, Transportation Research Board

Table 3 highlights the level of service criteria for unsignalized intersections. The level of service criteria for un-signalized intersections is based on control delay per vehicle measured in seconds. The LOS procedure computes capacity for each movement that has a conflict, based upon the critical time gap required to complete the maneuver and the volume of traffic that is opposing the movement.

Table 3 LOS Criteria for Unsignalized Intersections	
Level of Service	Control Delay Per Vehicle (seconds)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	> 50

Source: 2010 Highway Capacity Manual, Transportation Research Board

For this study, level of service analysis of the study area intersections was conducted with Synchro/SimTraffic 11. Tables **4 through 7** present the results of the level of service analyses No-Build and Build future conditions within the study area.

Table 4 Elm Street/Pine Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm St. NB Left	B	12.0	B	13.8	A	7.5	A	8.6
Elm St. NB Through	A	2.8	A	2.9	A	2.0	A	2.4
Elm St. SB Through/Right	A	5.6	A	6.2	A	3.9	A	4.1
Pine St. Left/Right	F	639.0	F	812.3	F	282.3	F	321.9
Overall	F	51.8	F	54.3	E	40.0	D	46.3

Table 5 Elm Street/Lincoln Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm St. NB Left/Through/Right	A	2.3	A	2.8	A	1.1	A	1.4
Elm St. SB Left	C	22.6	D	30.3	A	7.8	A	8.4
Elm St. SB Through/Right	A	2.6	A	4.7	A	0.7	A	0.8
Lincoln St. Right	F	88.8	F	108.1	A	9.5	B	12.5
Car Wash Driveway	F	325.1	F	498.9	D	23.0	D	31.1
Overall	C	21.8	C	29.2	A	2.9	A	4.0

Table 6 Lincoln Street/Pearl Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Lincoln NB	B	15.0	C	21.5	A	0.7	A	0.8
Lincoln SB	A	2.4	A	3.7	A	1.9	A	2.8
Pearl EB	B	15.0	C	33.8	A	6.6	A	8.4
Pearl WB	F	79.1	F	223.1	A	6.8	B	11.3
Overall	C	23.9	F	70.2	A	3.5	A	5.9

Table 7 Elm Street/Pearl Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm NB	A	1.2	A	1.7	A	1.2	A	1.5
Elm SB	A	1.2	A	1.3	A	0.6	A	1.3
Pearl WB	E	37.8	F	68.7	E	36.7	E	66.7
Overall	A	2.1	A	3.8	A	2.3	A	4.9

Tables 8 through 11 present the 95th% vehicle queue estimates at the study intersection.

Table 8 Elm Street/Pine Street 95th% Queue Summary (Feet)					
Movement	Available Storage	PM Peak Hour		Saturday Peak Hour	
		2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm St. NB Left	100	156	168	107	115
Elm St. NB Through		138	139	4	58
Elm St. SB Through/Right		201	217	117	130
Pine St. Left/Right		835	812	861	872

Table 9 Elm Street/Lincoln Street 95th% Queue Summary (Feet)					
Movement	Available Storage	PM Peak Hour		Saturday Peak Hour	
		2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm St. NB Left/Through/Right		216	117	33	59
Elm St. SB Left	80*	206	250	82	100
Elm St. SB Through/Right		102	306	N/A	N/A
Lincoln St. Right		330	321	77	106
Car Wash Driveway		150	175	40	47

*The lane is not well defined and there is about 20 feet from the centerline to curb of a significant distance.

Table 10 Lincoln Street/Pearl Street 95th% Queue Summary (Feet)				
Movement	PM Peak Hour		Saturday Peak Hour	
	2024 No-Build	2024 Build	2024 No-Build	2024 Build
Lincoln NB	172	217	13	17
Lincoln SB	71	110	55	83
Pearl EB	71	137	56	62
Pearl WB	403	996	81	142

Table 11 Elm Street/Pearl Street 95th% Queue Summary (Feet)				
Movement	PM Peak Hour		Saturday Peak Hour	
	2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm SB	110	95	56	105
Pearl WB	53	126	70	135

The following summarizes the conclusion of the analysis.

Elm Street/Pine Street

Movements from Pine Street experience delay under both No-Build and Build conditions. Pine Street serves as a route between Biddeford, parts of Saco and Exit 36 of the Maine Turnpike and turn movements are significant. With heavy traffic volumes on Elm Street, right-turn movements onto Elm Street struggle to find a gap in traffic.

Elm Street/Lincoln Street

The SimTraffic model for this location assumed the TMP required improvements for the Riverdam project (prohibiting left and through movements from Lincoln Street). Even with these improvements, right-turn movements from Lincoln Street will experience long delays with and without the proposed project. Movements from the Car Wash will also experience long delays.

MaineDOT requested that a traffic signal warrant analysis be conducted at the location. Because limited traffic volume data is available only the Peak Hour Volume Warrant and the Crash Warrant were evaluated.

Warrant 3: Peak Hour

The MUTCD has a disclaimer for use of this warrant that reads "This signal warrant shall be applied only in unusual cases such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This location does not meet this criteria, but given the lack of data it is the only volume-based warrant evaluated.

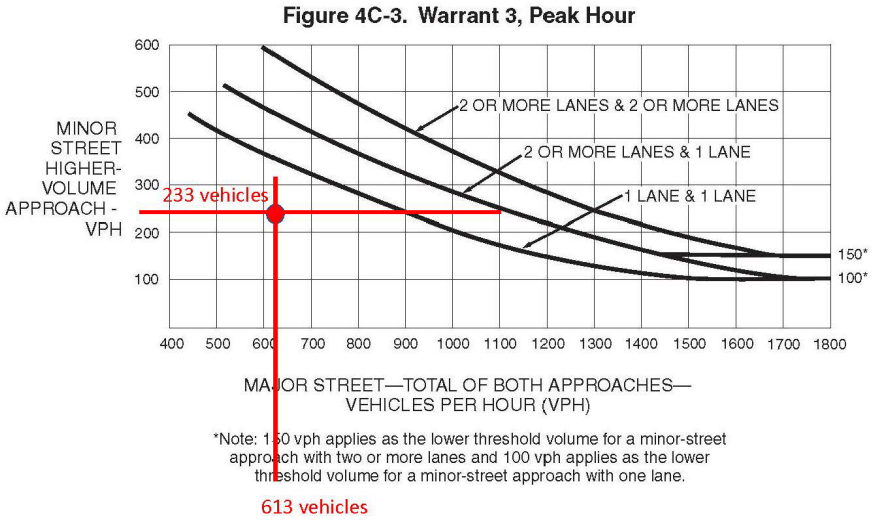
Warrant 3 is based on the sum of the major street traffic volume and the higher minor street traffic volume. The Peak Hour Warrant was evaluated for two volume conditions; 2019 Existing Conditions (when the traffic counts were performed) and for the 2024 Build Conditions. Given intersection turning movement volumes, the Elm Street southbound left-turn onto Lincoln Street is the volume that would trigger the warrant (the left-turn volume is greater than the right-turn volume from Lincoln Street). Accordingly, the left turn volume was used as the minor movement and the Elm Street northbound approach volumes was used as the major movement. The red mark on the following graphs represents the plot of major volume on northbound Elm Street and minor volume Elm Street southbound left-turn during the PM peak hour. As illustrated the warrant is not met for the 2019 existing volume condition but met for the 2024 Build volume scenario.

The following summarizes the actual 2019 volumes, adjustment to average conditions, and the 2024 Build volumes during the PM peak hour. The 2024 Build volumes used in the warrant evaluation were reduced by 15% to approximate average conditions.

<u>2019 Existing</u>

- Elm Street Southbound Left – 274 (7/18/2019) x 0.85 (group mean factor) = 233
- Elm Street Northbound Left+Through+Right (15+692+14) – 721 x 0.85 (group mean factor) = 613

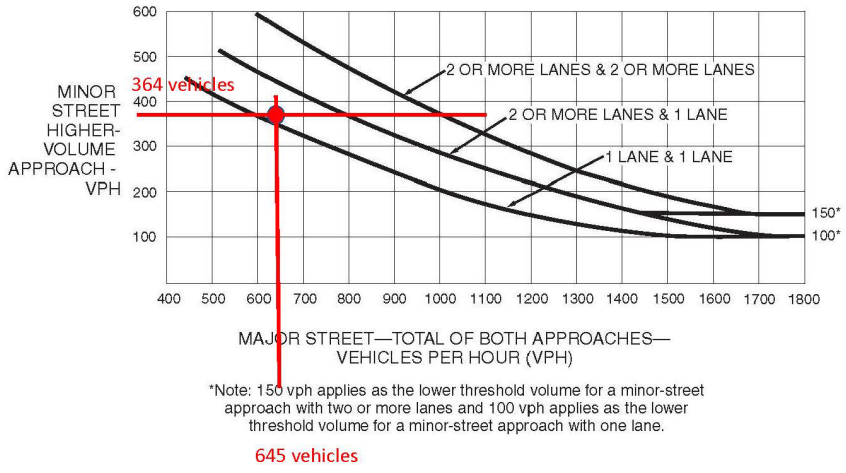
2019 Existing PM peak hour



2024 Build

- Elm Street Southbound Left – 428 x 0.85 (group mean factor) = 364
- Elm Street Northbound Left+Through+Right (16+727+16) – 759 x 0.85 (group mean factor) = 645

2024 Build PM peak hour



Warrant 7: Crash Experience

Warrant 7 states the need for a traffic control signal shall be considered if an engineering study finds that all the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency: and
B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements of a reportable crash: and
C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both the 80 percent column of Condition A in Table 4c-1, or the vph in both the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be the same for 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

This intersection is a High Crash Location (HCL). Based upon crash data there are not five crashes within a 12-month period that would be correctable by a traffic signal (See **Section 8**). Therefore, this warrant is not satisfied.

Lincoln Street/Pearl Street

Movements from Pearl Street (from the development) will experience long delays following project completion. Review of the simulation model indicated traffic is backing up along Lincoln Street from the Elm Street intersection and making it difficult to exit the site.

Elm Street/Pearl Street

Movements from Pearl Street will experience increased delay following project completion. Movements will decline from a level of service E in the No-Build condition to F following project completion.

8.0 Safety Analysis

Computer crash reports and Collison Crash Diagrams for High Crash Locations were obtained from MaineDOT for the most recent available three-year period (2018-2020) for the following roadways in the vicinity of the project:

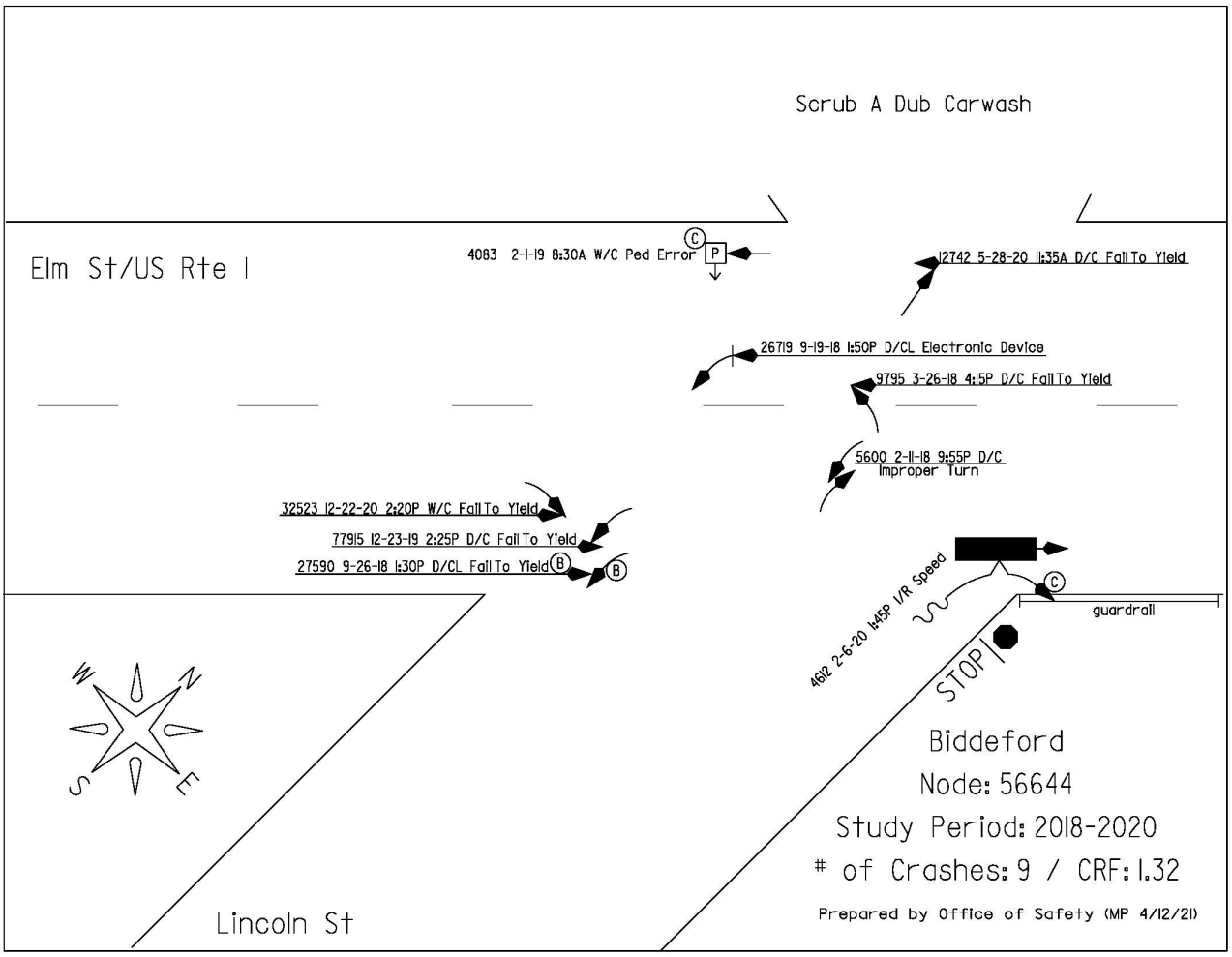
- Route 1/Elm Street – Main Street to Saco TL
- Pearl Street
- Lincoln Street
- Main Street – Lincoln Street to Elm Street

Table 12 summarizes the crash data at locations that are High Crash Locations (HCL) or close to meeting the criteria.

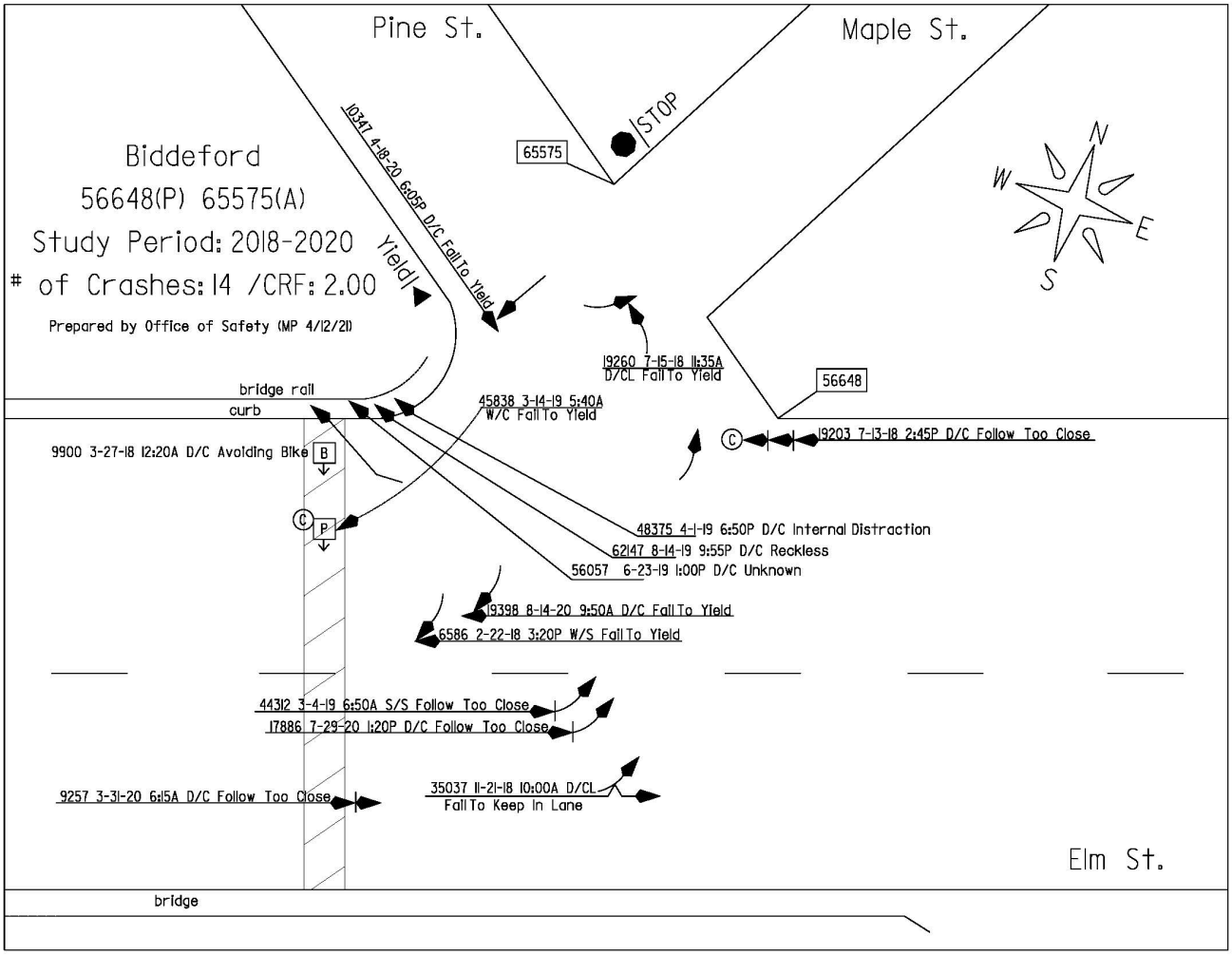
Table 12 Crash Data		
Location	**2018-2020 Crashes**	**Critical Rate Factor**
Elm Street/Main Street	22	0.94
Elm Street/St. Mary's Street	7	1.16
Elm Street/Spruce Street	17	0.92
Elm Street/Lincoln Street	9	1.32
Elm Street/Pine Street	14	2.00
Main Street/Lincoln Street/Adams Street	18	4.31
Main Street/Jefferson Street	8	2.90

At the scoping meeting the following locations were requested to be investigated: Elm Street/Pine Street, Elm Street/Lincoln Street, and Lincoln Street/Pearl Street.

- **Elm Street/Lincoln Street** – The crash diagram indicates turn crashes are the most prevalent type. Four crashes involved vehicles turning left onto Lincoln Street, one involving a vehicle turning left from Lincoln Street and one crash involving a motorist turning left into a nearby driveway. Traffic volumes turning left onto Lincoln Street are high as is the opposing volume on northbound Elm Street. Limited gaps may be contributing to crashes. While it is an HCL, only 9 crashes were reported. Sight distance is adequate. A mitigation improvement strategy is not evident. It should be noted that an improvement plan is being implemented for Elm Street between Main Street and Pine Street and these improvements would be expected to improve conditions at this location. The Elm Street Concept Improvements project proposes to close Lincoln Street between Elm Street and Pearl Street. Additionally, access management improvements at the Car Wash and general geometric improvements are included. In combination, these improvements would be expected to enhance safety.


Scrub A Dub Carwash
Elm St/US Rte 1
4083 2-1-19 8:30A W/C Ped Error
12742 5-28-20 11:35A D/C Fail To Yield
26719 9-19-18 1:50P D/CL Electronic Device
9795 3-26-18 4:15P D/C Fail To Yield
5600 2-11-18 9:55P D/C Improper Turn
32523 12-22-20 2:20P W/C Fail To Yield
77915 12-23-19 2:25P D/C Fail To Yield
27590 9-26-18 1:30P D/CL Fail To Yield
4612 2-6-20 1:45P I/R Speed
guardrail
STOP
Biddeford
Node: 56644
Study Period: 2018-2020
# of Crashes: 9 / CRF: 1.32
Prepared by Office of Safety (MP 4/12/21)
Lincoln St

- **Elm Street/Pine Street** – A number of different types of crashes were reported at this location. Three rear-end collisions occurred on eastbound Elm Street; two angle crashes involving right-turns from Pine Street; Three single vehicle crashes; one crash involving a pedestrian; one crash avoiding a bicyclist; and two crashes involving movements to and from Pine Street. There was not a specific pattern that would warrant a mitigation improvement strategy. This location is the northern limits of the Elm Street improvement plan. The Concept Improvement plan is recommending that the intersection become signalized and left-turns from Pine Street be prohibited. This change should improve safety.



- **Lincoln Street/Pearl Street –** For this location it was requested that sight distance from northbound Pearl Street be reviewed and if deemed to be substandard, investigation into the installation of an all-way STOP condition be considered. Sight distance is constrained by buildings for motorists traveling eastbound on Pearl Street approaching Lincoln Street. Lincoln Street has a posted speed of 25MPH, and this requires a minimum sight distance of 200 feet. Available sight is actually a function where a vehicle stops. Sight is significantly obstructed if a motorist complies and stops in advance of the stop line. It is possible for a motorist to move forward and obtain 200 feet of sight. Given increased traffic volumes investigation into whether a multi-way STOP condition is warranted and would not result in unreasonable traffic conditions.



According to the MUTCD, a multi-way stop control condition can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. The decision to install multi-way stop control should be based on an engineering study. The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

This criteria is not relevant.

B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

According to crash data obtained from the MaineDOT for the most recent available three-year period (2018-2020) only one crash was reported. This criteria is not met.

C. Minimum volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and

2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but

3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

For this warrant to be satisfied at least 300 vehicles per hour are required for 8 hours of an average day for Lincoln Street and 200 vehicles per hour for Pearl Street. During the 2024 Build PM Peak hour the Lincoln Street volume is 732 vehicles. Pearl Street is estimated to have 414 vehicles. Based upon the above data, it is possible this level of traffic is met for 8 hours of an average day.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

This would reduce the volume criteria to 240 vehicles for Lincoln Street and 160 vehicles for Pearl Street. Based upon the previously summarized volume data, it is likely volumes would meet the criteria for 8 hours on an average day.

The MUTCD notes the following other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;

This does not seem to be relevant.

B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;

This does not seem to be relevant.

C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop;

This is relevant as documented in the previous photograph where a building obstructs sight.

D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

This is not relevant.

Based upon the results of the warrant evaluation and increased traffic volumes at the intersection a multi-way STOP intersection should be considered. Refer to **Section 10** – Traffic Mitigation Considerations for additional details and conclusions.

MaineDOT Highway Safety Evaluation - The MaineDOT has process in which they use information provided in the Highway Safety Manual (HSM) to forecast potential safety impacts due to increasing traffic volumes at a specific location. Per the request of the MaineDOT, the forecasted Annual Average Daily Traffic (AADT) volume increase due to the proposed project at each of the previous noted locations has been estimated for use in completing their calculations. The Lincoln Street/Pearl Street location was not included because it is not a High Crash Location. It is our understanding that the results of their evaluation will then be used to determine a safety impact fee per high crash location in lieu of mitigation. **Table 13**

presents the Weekday trip generation for the project based on the 11th Edition of the ITE Trip Generation Manual.

Table 13 Trip Generation Weekday For Highway Safety Evaluation			
	Weekday		
	Enter	Exit	Total
Residential Apartment (191 Units)	434	434	868
Restaurant (298 Seats)	651	651	1302
Sub-Total	1085	1085	2170
Internal Capture Trips (5%)	-54	-54	-108
Total Entering and Exiting Site	1031	1031	2062
Restaurant Pass-By Trips (43%)	-443	-443	-886
Total New Traffic	588	588	1176

Table 14 presents the increase in AADT at the requested intersections. The assignment of weekday trips was similar to the assignment of peak hour trips, which is estimated to be 55% to and from Elm Street along Lincoln Street, 15% to and from Elm Street along Pearl Street and 30% to and from Main Street along Lincoln Street.

Table 14 Increase in AADT for Highway Safety Evaluation	
Intersection	**Increase in AADT**
Elm Street/Pine Street	
Elm Street NB	647
Elm Street SB	453
Pine Street	194
Elm Street/Lincoln Street	
Elm Street NB	0
Elm Street SB	647
Lincoln Street	647

Section 9 – Pedestrian Infrastructure Review

A review of pedestrian infrastructure was performed within the study area. The following streets/intersections were reviewed with the noted details.

Pearl Street

- Pearl Street north of Lincoln Street is currently being reconstructed and a sidewalk will be provided on the west side of the street with curb ramps provided at the two intersection corners at Lincoln Street.
- A sidewalk is not provided on Pearl Street from Lincoln Street to Elm Street (a short section of sidewalk in poor condition exists north of Stone Street). The Elm Street Concept Improvement Plan includes the construction of a sidewalk on the east side of Pearl Street.

Lincoln Street

- A sidewalk exists on Lincoln Street between Pearl Street and Elm Street.

Elm Street

- Elm Street has sidewalks on both sides of the street from Pearl Street to Gooch Street. Between Gooch Street and Pine Street a sidewalk is provided on the west side (only one sidewalk is provided on the bridge over the Saco River).
- Elm Street/Pearl Street intersection
    - A crosswalk across Pearl Street is provided, but ADA compliant ramps are not provided.
- Elm Street/Spruce Street
    - This location has a crosswalk on Spruce Street and the north leg of Elm Street. The ramps appear to be ADA compliant. It also includes compliant pedestrian signal heads and push buttons that were upgraded by MaineDOT.
- Elm Street Midblock Crosswalk
    - There is a midblock crosswalk between Spruce Street and Thornton Avenue. This crosswalk is not ADA compliant and does not have warning signs.
- Elm Street/Thornton Street
    - There are crosswalks on the north leg on Elm Street and on Thornton Avenue. The crosswalks are not ADA compliant and do not have warning signs.
- Elm Street/Lincoln Street
    - A crosswalk across Lincoln Street is provided, but ADA compliant ramps are not provided. It is also a very long crossing and has a “kinked” alignment.

- Elm Street/Hooper Street
    - A crosswalk across Hooper Street is provided, but ADA compliant ramps are not provided.
- Elm Street/Gooch Street/Diamond Street
    - This location has a crosswalk on Diamond Street and the south leg of Elm Street. The landings are not ADA compliant, and the Elm Street crosswalk does not have warning signs.
- Elm Street/Pine Street
    - This location has a crosswalk on Pine Street that is not ADA compliant.

Section 10 – City Traffic Impact Fee

As requested at the Scoping Meeting, an impact fee was calculated based upon the recommendations in the Biddeford-Saco Mill District Study Mitigation and Impact Fee Summary dated June 2015 prepared by Gorrill-Palmer. That report establishes an impact fee of $1,082 per PM peak hour trip end generated by the project. As noted in **Table 1**, the project is expected to generate 162 new PM peak hour trips entering and exiting the site. This results in an impact fee of $175,284.

It should be noted that this is provided for information purposes as there is an on-going study/project that identified conceptual improvements and costs for upgrading Elm Street between Main Street and Pine Street. That project may identify a revised set of impact fee contribution requirements. The concept study has been completed and generally consists of the following:

- The plan assumes the Elm Street/Spruce Street/Pearl Street is aligned and signalized.
- Lincoln Street is closed to through traffic between Pearl Street and Elm Street. A shared-use path is proposed, and local service vehicles will be permitted (possibly via a shared street).
- The Elm Street/Gooch Street/Diamond Street intersection is signalized.
- The Elm Street/Pine Street intersection is signalized.
- A small urban roundabout is proposed at the Lincoln Street/Pearl Street intersection.
- Bike lanes are provided on Elm Street between Lincoln Street and Gooch Street/Diamond Street.
- Sidewalks are fully upgraded and meet ADA standards. A sidewalk is proposed on Pearl Street between Elm Street and Lincoln Street.
- A refuge island and RRFB's are proposed at Elm Street/St. Mary's Street.
- A refuge island and RRFB's are proposed at the closed Lincoln Street on Elm Street.
- Various access management improvements.

MaineDOT prepared a conceptual planning-level cost estimate for the project as noted below:

- Construction Estimated cost: $9,000,000.00 + 25 % contingency= $11,225.00.00
- Total construction estimated cost: $11,225,000.00
- Construction Engineering(CE): $1,700,000
- Right of way:$1,500,000
- Preliminary Engineering: $1,000,000
- **Total estimated project cost is $15,425,000.**

Assumptions:

- Unknown right of way and plans have not been shown to the public (Property owners). This is a rough estimate as the project would have to acquire a domino's pizza business, and have other property impacts that would have to be addressed.
- Unknown utility upgrades.
- Unknown existing conditions of the drainage system.
- Historical or Environmental concerns have not been evaluated.

The City should be advised this fall whether or not the Elm Street/Route 1 federal earmark request will be funded. If successful, federal funds will be available after this October 1st to finalize the project design, secure required right-of-way and construct all improvements. The construction timing for this project will likely be no earlier than 2024.

Section 11 – Traffic Mitigation Considerations

Based upon the analysis and conclusions presented previously the following traffic mitigation strategies are suggested.

- **Elm Street/Pine Street –** As noted previously movements from Pine Street will experience long delays. We recommend the following actions:
    - Replace the "Yield" sign with a STOP sign. This was requested by the City.
    - Prohibit Left-turn movements from Pine Street. This change will reduce delay, but conditions will continue to be Level of Service F.

Movement	PM Peak Hour			
	2024 Build		2024 Build W/Improvements	
	LOS	Delay	LOS	Delay
Elm St. NB Left	B	13.8	B	13.2
Elm St. NB Through	A	2.9	A	3.0
Elm St. SB Through/Right	A	6.2	C	15.2
Pine St. Left/Right	F	812.3	F	411.9
Overall	F	54.3	F	51.7

- Or Pay the City Impact Fee estimate noted in Section 9.
- Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes this intersection will be signalized and left-turn movements from Pine Street will be prohibited.

- **Elm Street/Lincoln Street** - As noted previously movements from Lincoln Street will experience long delays, even with the Riverdam improvements. We recommend the following actions:
  - Pay the City Impact Fee estimate noted in Section 9.
  - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Lincoln Street will be closed between Elm Street and Pearl Street.
- **Lincoln Street/Pearl Street** – As noted previously movements from the development side of Pearl Street will experience long delays. We recommend the following actions:
  - Install STOP signs on Lincoln Street to address both sight limitations and delays on Pearl Street. We conducted an SimTraffic analysis with this change assuming Lincoln Street does not back up into the intersection. Results indicate the intersection will operate at Level of Service B (10.1 seconds/vehicle) overall and all movement will operate at LOS B or better. The following table summarizes levels of service, delay and queue lengths.

Movement	PM Peak Hour		
	2024 Build All-Way STOP		
	LOS	Delay	95th% Queue (feet)
Lincoln St. EB	A	7.4	63
Lincoln St. WB	A	8.1	106
Pearl St. NB	A	8.5	94
Pearl St. SB	B	12.0	185
Overall	B	10.1	

  - Pay the City Impact Fee estimate noted in Section 9.
  - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes either an All-Way STOP condition or construction of roundabout.
- **Elm Street/Pearl Street** - As noted previously movements from Pearl Street will experience long delays. We recommend the following actions
  - Pay the City Impact Fee estimate noted in Section 9.
  - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Pearl Street will be aligned with Spruce Street creating a four-way signalized intersection.

12. Site Access

The project will utilize Pearl Street to access each residential building parking garage. Restaurant customers will utilize the new Pearl Street parking garage or other public parking facilities. A service driveway is provided for the restaurant. The attached site plan illustrates the existing driveway locations and provides information on proposed driveways to be utilized for the project including sight distances and the posted speed limit. Sight distances for the project driveways are noted in **Table 15**.

Table 15
Driveway Sight Distance

Location	Measured Sight Distance (Feet)		Minimum Standard (Feet)
	Looking Left	Looking Right	
Lot 3A/3B Driveway	Sight to End of Pearl Street	200+	200’
Restaurant Service Driveway	Sight to End of Pearl Street	200+	200’

13. Conclusions and Recommendations

The proposed project is expected to generate 61 new vehicle trips during the weekday AM peak hour, 162 new vehicle trips during the weekday PM peak hour and 127 new trips during the Saturday peak hour. The purpose of this document is to support the MaineDOT Traffic Movement Permit process. A Traffic Movement Permit Application was submitted on September 20, 2021. A MaineDOT Traffic Movement Permit Scoping Meeting was held on December 15, 2021. MaineDOT requested that the Traffic Impact Study (Section 7) evaluate specific traffic conditions at the Elm Street/Pine Street, Elm Street/Lincoln Street, Elm Street/Pearl Street and Lincoln Street/Pearl Street. The following summarizes the results of the level of service analysis, safety evaluation and recommendation for the project.

1. The following presents the results and conclusions of the level of service analysis at the study intersections.

- **Elm Street/Pine Street** - Movements from Pine Street experience delay under both No-Build and Build conditions. Pine Street serves as a route between Biddeford, parts of Saco and Exit 36 of the Maine Turnpike and turn movements are significant. With heavy traffic volumes on Elm Street, right-turn movements onto Elm Street struggle to find a gap in traffic.

- **Elm Street/Lincoln Street** - The SimTraffic model for this location assumed the TMP required improvements for the Riverdam project (prohibiting left and through movements from Lincoln Street). Even with these improvements, right-turn movements from Lincoln Street will experience long delays with and without the proposed project. Movements from the Car Wash will also experience long delays.

- **Lincoln Street/Pearl Street** - Movements from Pearl Street (from the development) will experience long delays following project completion. Review of the simulation model indicated traffic is backing up along Lincoln Street from the Elm Street intersection and making it difficult to exit the site.

- **Elm Street/Pearl Street** - Movements from Pearl Street will experience increase delay following project completion. Movements will decline from a level of service E in the No-Build condition to F following project completion.

2. The following presents the results and conclusions at the locations evaluated as directed at the scoping meeting.

- **Elm Street/Pine Street –** As noted previously movements from Pine Street will experience long delays. We recommend the following actions:
    - Replace the "Yield" sign with a STOP sign. This was requested by the City.
    - Prohibit Left-turn movements from Pine Street. This change will reduce delay, but conditions will continue to be Level of Service F.
    - Or Pay the City Impact Fee estimate noted in Section 9.
    - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes this intersection will be signalized and left-turn movements from Pine Street will be prohibited.
- **Elm Street/Lincoln Street** - As noted previously movements from Lincoln Street will experience long delays, even with the Riverdam improvements. We recommend the following actions:
    - Pay the City Impact Fee estimate noted in Section 9.
    - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Lincoln Street will be closed between Elm Street and Pearl Street.
- **Lincoln Street/Pearl Street** – As noted previously movements from the development side of Pearl Street will experience long delays. We recommend the following actions:
    - Install STOP signs on Lincoln Street to address both sight limitations and delays on Pearl Street. We conducted an SimTraffic analysis with this change assuming Lincoln Street does not back up into the intersection. Results indicate the intersection will operate at Level of Service B (10.1 seconds/vehicle) overall and all movement will operate at LOS B or better.
    - Pay the City Impact Fee estimate noted in Section 9.
    - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes either an All-Way STOP condition or construction of roundabout.
- **Elm Street/Pearl Street** - As noted previously movements from Pearl Street will experience long delays. We recommend the following actions
    - Pay the City Impact Fee estimate noted in Section 9.
    - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Pearl Street will be aligned with Spruce Street creating a four-way signalized intersection.

Appendix

A. Figures
B. Traffic Counts/Traffic Volume Development
C. Synchro/SimTraffic Output
D. Crash Data
E. Site Plan

December 14, 2021

3 Lincoln Street Project

MaineDOT TMP Scoping Meeting Action Items

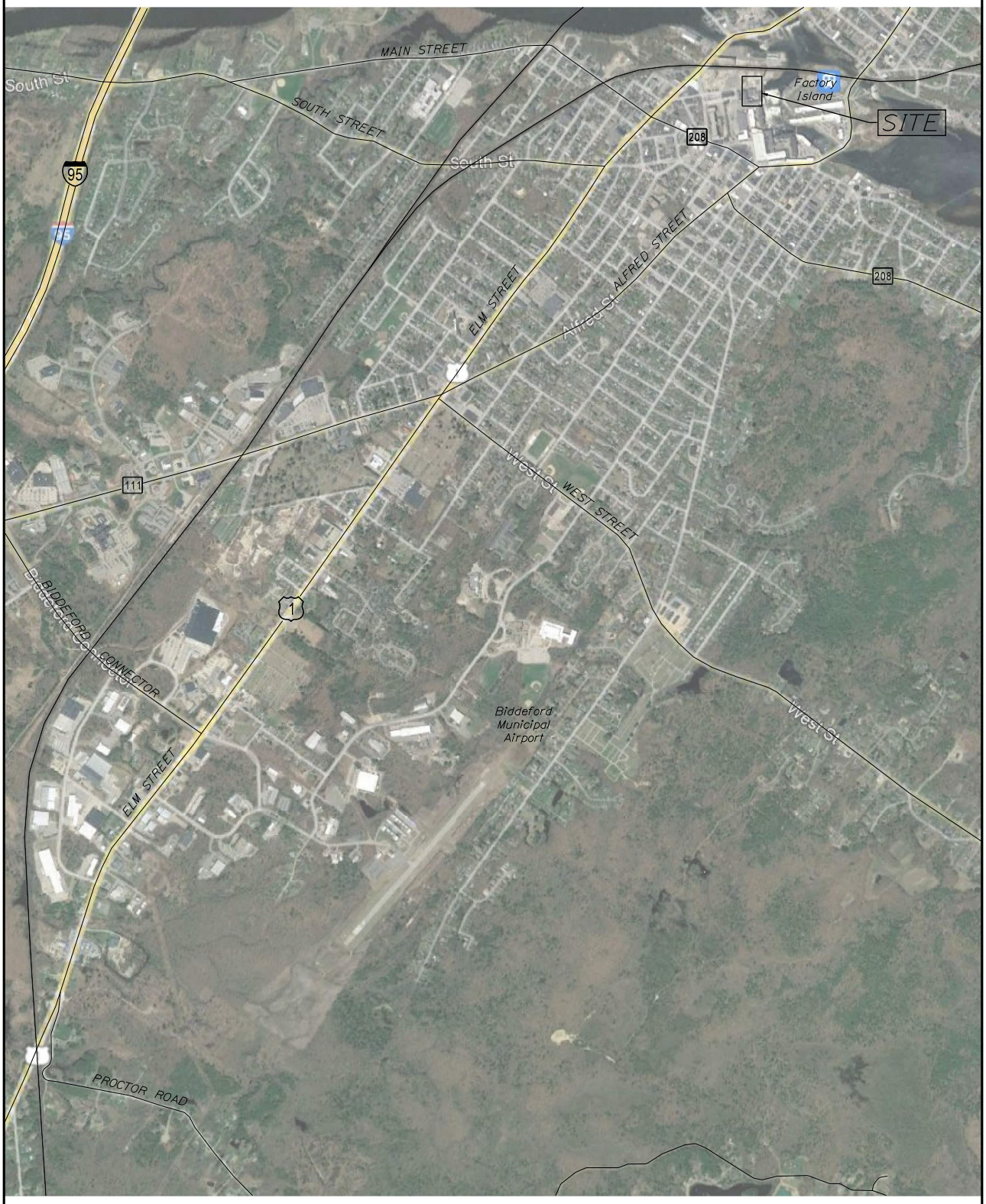
Prepared By Tom Errico, PE

Attendees:

Tom Errico, Pete, Marike, Bob V., Randy Illian, Tom M. Greg Tansley. , Craig Chekan

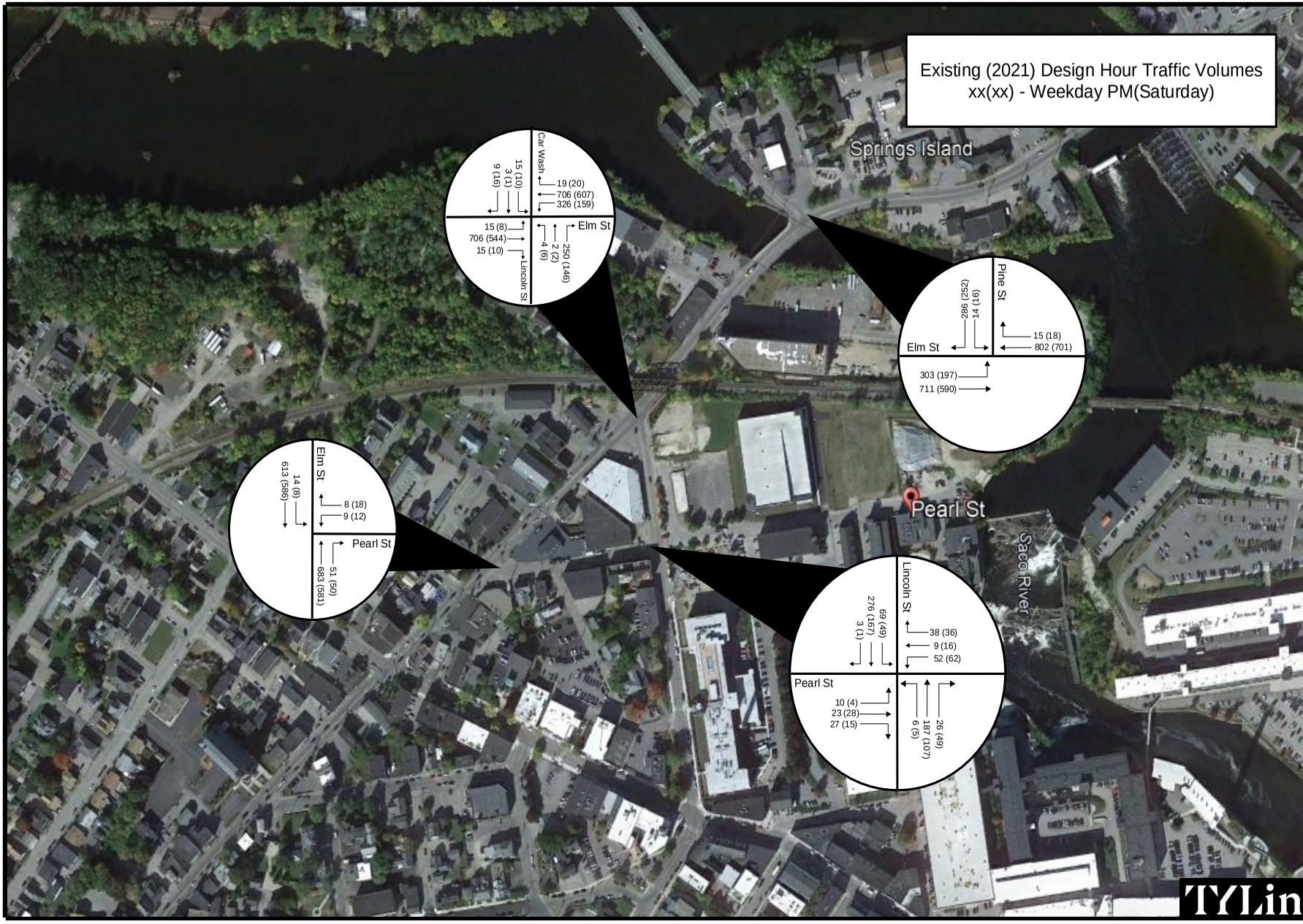
1. Greg noted that the STOP signs were being installed at the Main/Lincoln/Adams intersection soon with other improvements to be implemented when plans are approved.
2. Incorporate diverted trips from Elm Street into the trip assignment. This can be part of the 43% Pass-By reduction.
3. For other development:
    - Lincoln Mill is 50% occupied. The City will provide the Sebago study for use.
    - Riverdam is fully occupied
    - Building 11 will have 71 elderly apartment units. Access via Pearl and York. ITE will be used to estimate traffic.
4. Study area shall include:
    - Elm/Lincoln
    - Elm/Pine
    - Lincoln/Pearl
    - Elm/Pearl
5. Study will evaluate condition during the weekday PM and Saturday peak hours.
6. HCL analysis shall be performed at:
    - Pine/Elm
    - Lincoln/Elm
    - Lincoln/Pearl (look at sight distance issue – maybe a all-way STOP)
    - No need to do an analysis at Main/Lincoln/Adams
    - Provide AADT for the above locations
7. Perform an impact fee calculation according to GP study methods.
8. The Riverdam TMP mitigation shall be assumed complete (or to be implemented by this project or replaced with new Elm Street improvements.
9. Not specific action for pedestrian modes. ET is on Elm Street and will need to be a consideration when the concept plan is developed. Existing crosswalks that are not ADA compliant are the City's responsibility. It was noted that the Gooch Street Lot 1 project is installing a RRFB at Elm/Gooch crosswalk.
10. No specific action for transit.

A. Figures



T-Y LIN INTERNATIONAL

FIGURE NUMBER							
1	BIDDEFORD 3 LINCOLN STREET PROJECT STUDY LOCATION PLAN	PROJ. MANAGER	T. ERRICO	BY	DATE	SIGNATURE P.E. NUMBER DATE	MaineDOT TMP APPLICATION
		DESIGN-DETAILED	S. DAVIS				
		CHECKED-REVIEWED					
		DESIGN2-DETAILED2					
		DESIGN3-DETAILED3					
		REVISIONS 1					
		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4					
		FIELD CHANGES					



MaineDOT TMP APPLICATION

BIDDEFORD
3 LINCOLN STREET PROJECT

FIGURE NUMBER
2

PROJ. MANAGER T. ERRICO
DESIGN-DETAILED H. TRACY
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY DATE

SIGNATURE
P.E. NUMBER
DATE

Filename: ...\Desktop\Border.dgn Division: HIGHWAY Username: Date:3/18/2022

TYLin

FIGURE NUMBER 3

BIDDEFORD
3 LINCOLN STREET PROJECT

PROJ. MANAGER	T. ERICO		
DESIGN-DET.ALED	H. TRACY		
CHECKED-RE.WED			
DESIGN2-DET.MED2			
DESIGN3-DET.ALED3			
RE VISIONS 1			
RE VISIONS 2			
RE VISIONS 3			
RE VISIONS 4			
FIELD CHANGES			
	BY	DATE	

SIGNATURE

P.E. NUMBER

DATE

MaineDOT TMP APPLICATION

Filename: ...\Desktop\Border.dgn Division: HIGHWAY Username: Date:3/18/2022

FIGURE NUMBER 4

BIDDEFORD
3 LINCOLN STREET PROJECT

PROJ. MANAGER	T. ERICO		
DESIGN-DETAILED	H. TRACY		
CHECKED-RE'ME'D			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
RE'VISIONS 1			
RE'VISIONS 2			
RE'VISIONS 3			
RE'VISIONS 4			
FIELD CHANGES			

DATE	BY	
		SIGNATURE
		P.E. NUMBER
		DATE

Maine DOT TMP APPLICATION

BIDDEFORD
3 LINCOLN STREET PROJECT

FIGURE NUMBER 5

PROJ. MANAGER	T. ERICO			
DESIGN-DET.ALED	H. TRACY			
CHECKED-REVIED				
DESIGN2-DET.ALED2				
DESIGN3-DET.ALED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SIGNATURE
P.E. NUMBER
DATE

MaineDOT TMP APPLICATION

Filename: ...\Desktop\Border.dgn Division: HIGHWAY Username: Date:3/18/2022

TYLin

BIDDEFORD
3 LINCOLN STREET PROJECT

FIGURE NUMBER 6

PROJ. MANAGER	T. ERICO		
DESIGN-DETAILED	H. TRACY		
CHECKED-RE'ED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
RE'VISIONS 1			
RE'VISIONS 2			
RE'VISIONS 3			
RE'VISIONS 4			
FILE'D. CHANGES			
	BY	DATE	

SIGNATURE

P.E. NUMBER

DATE

MaineDOT TMP APPLICATION

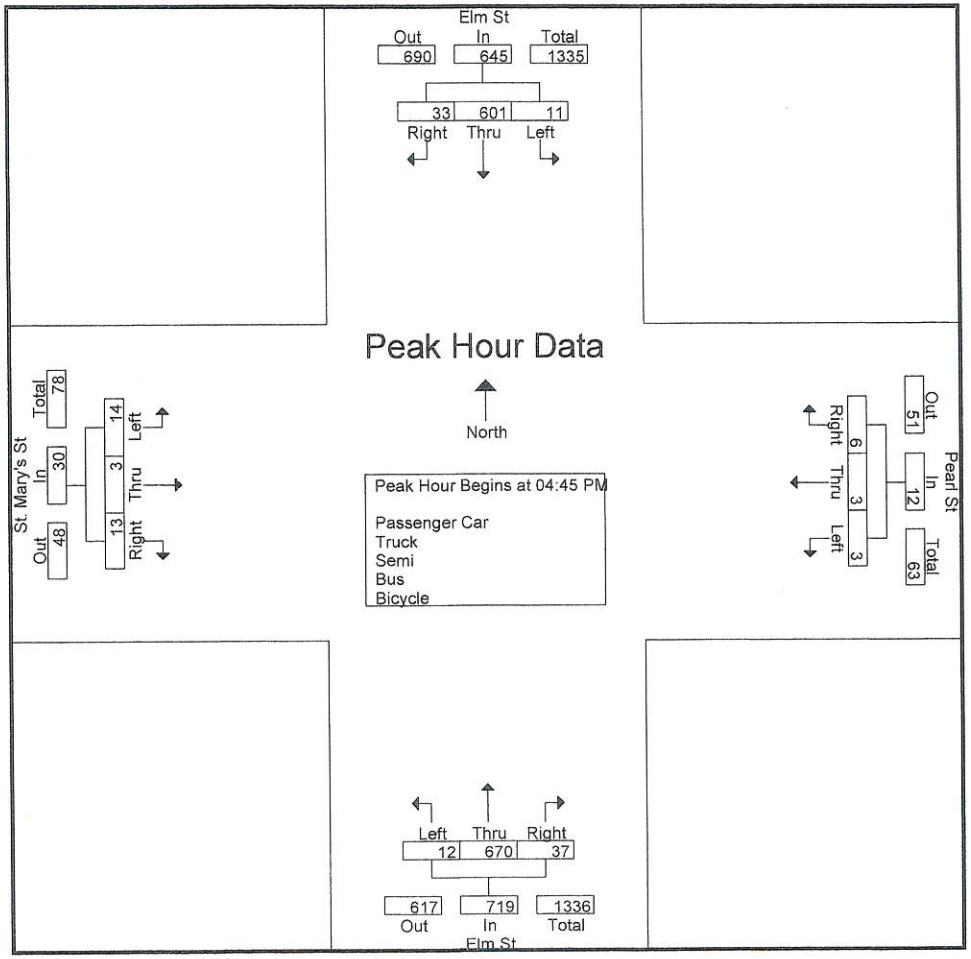
Filename: ...\Desktop\Border.dgn Division: HIGHWAY Username: Date:3/18/2022

B. Traffic Counts/Traffic Volume Development

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Biddeford Pearl, Elm & St. Mary's St
July 17, 2019 PM
Light Rain
Count by Jen Gilbert

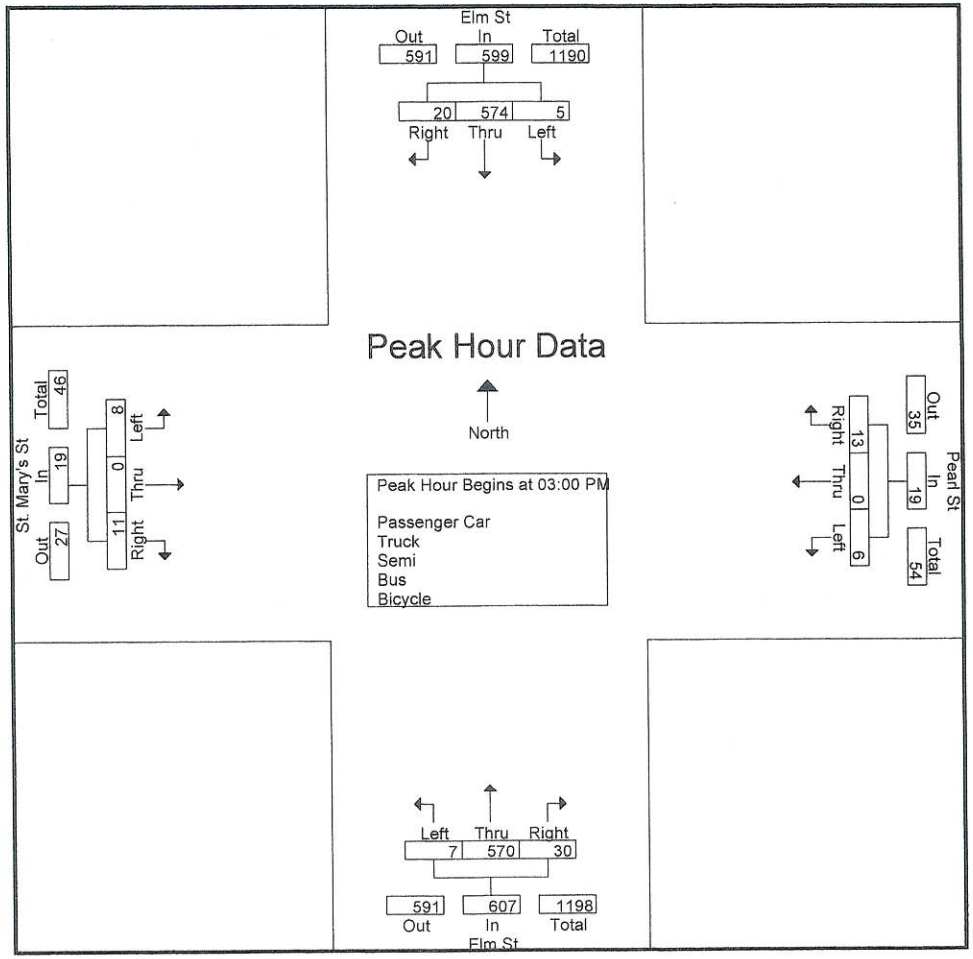
File Name : Biddeford Pearl St, Elm St & St. Mary's St 7-17-19 PM
Site Code : 00717192
Start Date : 7/17/2019
Page No : 6



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Biddeford Pearl, Elm & St. Marys
July 27, 2019 PM Saturday
Sunny
Count by Jen Gilbert

File Name : Biddeford Pearl St, Elm St & St. Mary's St 7-27-19 PM
Site Code : 00727192
Start Date : 7/27/2019
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 1

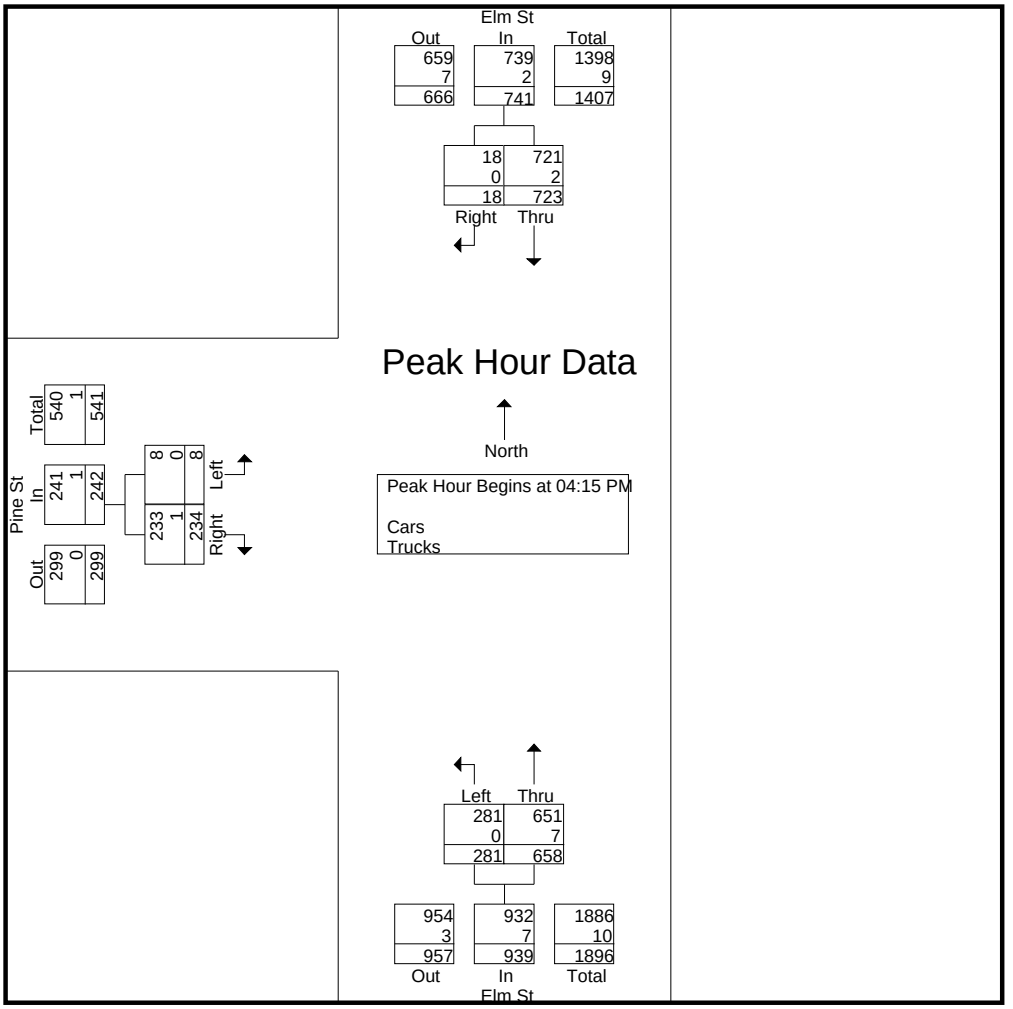
Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	179	4	51	181	0	54	469
03:15 PM	183	1	56	163	1	52	456
03:30 PM	163	5	64	155	2	76	465
03:45 PM	185	1	50	165	6	64	471
Total	710	11	221	664	9	246	1861
04:00 PM	174	5	51	169	4	70	473
04:15 PM	187	3	61	157	1	55	464
04:30 PM	158	5	78	152	2	57	452
04:45 PM	197	5	63	172	2	52	491
Total	716	18	253	650	9	234	1880
05:00 PM	181	5	79	177	3	70	515
05:15 PM	179	3	63	140	3	51	439
05:30 PM	186	1	65	136	0	49	437
05:45 PM	159	3	50	119	1	41	373
Total	705	12	257	572	7	211	1764
Grand Total	2131	41	731	1886	25	691	5505
Apprch %	98.1	1.9	27.9	72.1	3.5	96.5	
Total %	38.7	0.7	13.3	34.3	0.5	12.6	
Cars	2120	41	728	1870	25	685	5469
% Cars	99.5	100	99.6	99.2	100	99.1	99.3
Trucks	11	0	3	16	0	6	36
% Trucks	0.5	0	0.4	0.8	0	0.9	0.7

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	3	190	61	157	218	1	55	56	464
04:30 PM	158	**5**	163	78	152	230	2	57	59	452
04:45 PM	**197**	5	**202**	63	172	235	2	52	54	491
05:00 PM	181	5	186	**79**	**177**	**256**	**3**	**70**	**73**	**515**
Total Volume	723	18	741	281	658	939	8	234	242	1922
% App. Total	97.6	2.4		29.9	70.1		3.3	96.7		
PHF	.918	.900	.917	.889	.929	.917	.667	.836	.829	.933
Cars	721	18	739	281	651	932	8	233	241	1912
% Cars	99.7	100	99.7	100	98.9	99.3	100	99.6	99.6	99.5
Trucks	2	0	2	0	7	7	0	1	1	10
% Trucks	0.3	0	0.3	0	1.1	0.7	0	0.4	0.4	0.5

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 2

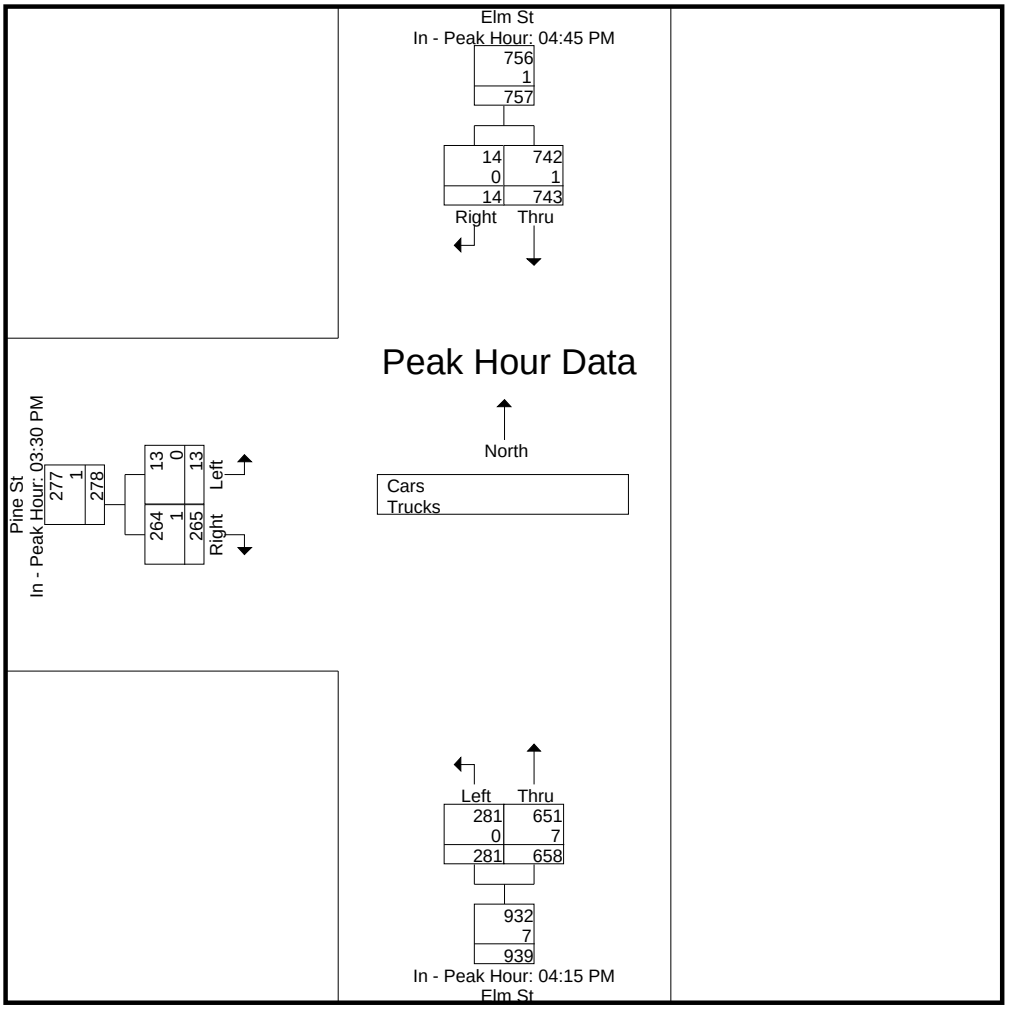


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			03:30 PM		
+0 mins.	**197**	**5**	**202**	61	157	218	2	**76**	**78**
+15 mins.	181	5	186	78	152	230	**6**	64	70
+30 mins.	179	3	182	63	172	235	4	70	74
+45 mins.	186	1	187	**79**	**177**	**256**	1	55	56
Total Volume	743	14	757	281	658	939	13	265	278
% App. Total	98.2	1.8		29.9	70.1		4.7	95.3	
PHF	.943	.700	.937	.889	.929	.917	.542	.872	.891
Cars	742	14	756	281	651	932	13	264	277
% Cars	99.9	100	99.9	100	98.9	99.3	100	99.6	99.6
Trucks	1	0	1	0	7	7	0	1	1
% Trucks	0.1	0	0.1	0	1.1	0.7	0	0.4	0.4

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 3



N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 4

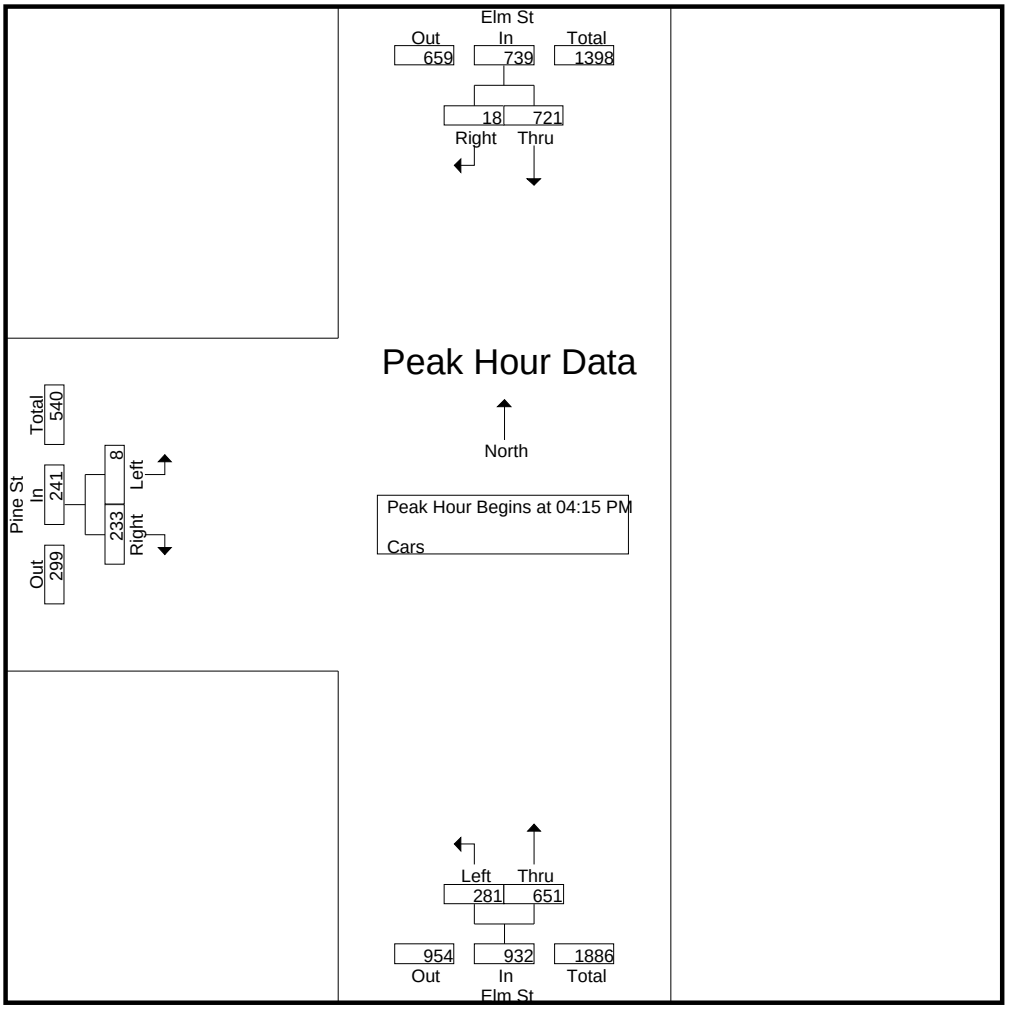
Groups Printed- Cars

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	175	4	49	178	0	52	458
03:15 PM	182	1	56	162	1	52	454
03:30 PM	163	5	64	154	2	75	463
03:45 PM	183	1	49	164	6	64	467
Total	703	11	218	658	9	243	1842
04:00 PM	173	5	51	168	4	70	471
04:15 PM	187	3	61	155	1	55	462
04:30 PM	157	5	78	150	2	57	449
04:45 PM	196	5	63	171	2	52	489
Total	713	18	253	644	9	234	1871
05:00 PM	181	5	79	175	3	69	512
05:15 PM	179	3	63	139	3	50	437
05:30 PM	186	1	65	135	0	48	435
05:45 PM	158	3	50	119	1	41	372
Total	704	12	257	568	7	208	1756
Grand Total	2120	41	728	1870	25	685	5469
Apprch %	98.1	1.9	28	72	3.5	96.5	
Total %	38.8	0.7	13.3	34.2	0.5	12.5	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	3	190	61	155	216	1	55	56	462
04:30 PM	157	**5**	162	78	150	228	2	57	59	449
04:45 PM	**196**	5	**201**	63	171	234	2	52	54	489
05:00 PM	181	5	186	**79**	**175**	**254**	**3**	**69**	**72**	**512**
Total Volume	721	18	739	281	651	932	8	233	241	1912
% App. Total	97.6	2.4		30.2	69.8		3.3	96.7		
PHF	.920	.900	.919	.889	.930	.917	.667	.844	.837	.934

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 5

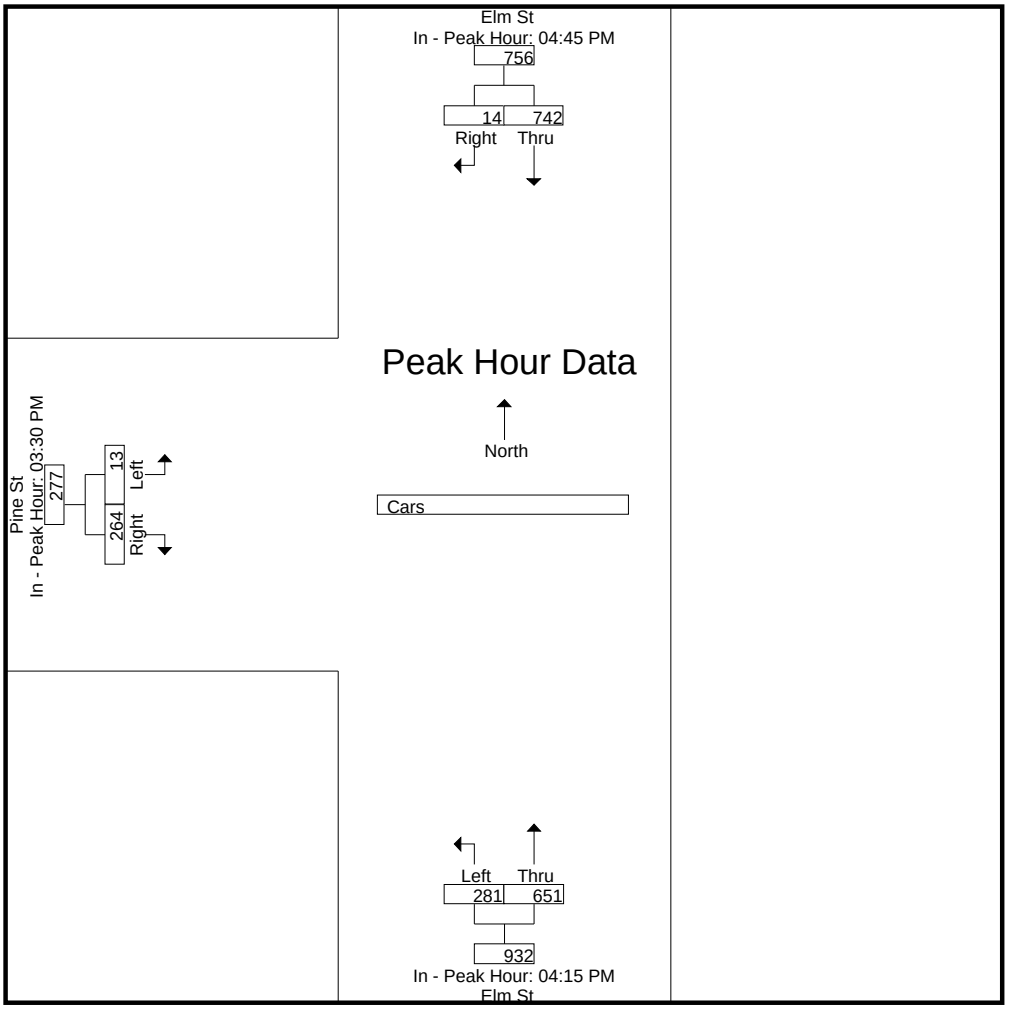


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			03:30 PM		
+0 mins.	**196**	**5**	**201**	61	155	216	2	**75**	**77**
+15 mins.	181	5	186	78	150	228	**6**	64	70
+30 mins.	179	3	182	63	171	234	4	70	74
+45 mins.	186	1	187	**79**	**175**	**254**	1	55	56
Total Volume	742	14	756	281	651	932	13	264	277
% App. Total	98.1	1.9		30.2	69.8		4.7	95.3	
PHF	.946	.700	.940	.889	.930	.917	.542	.880	.899

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 7

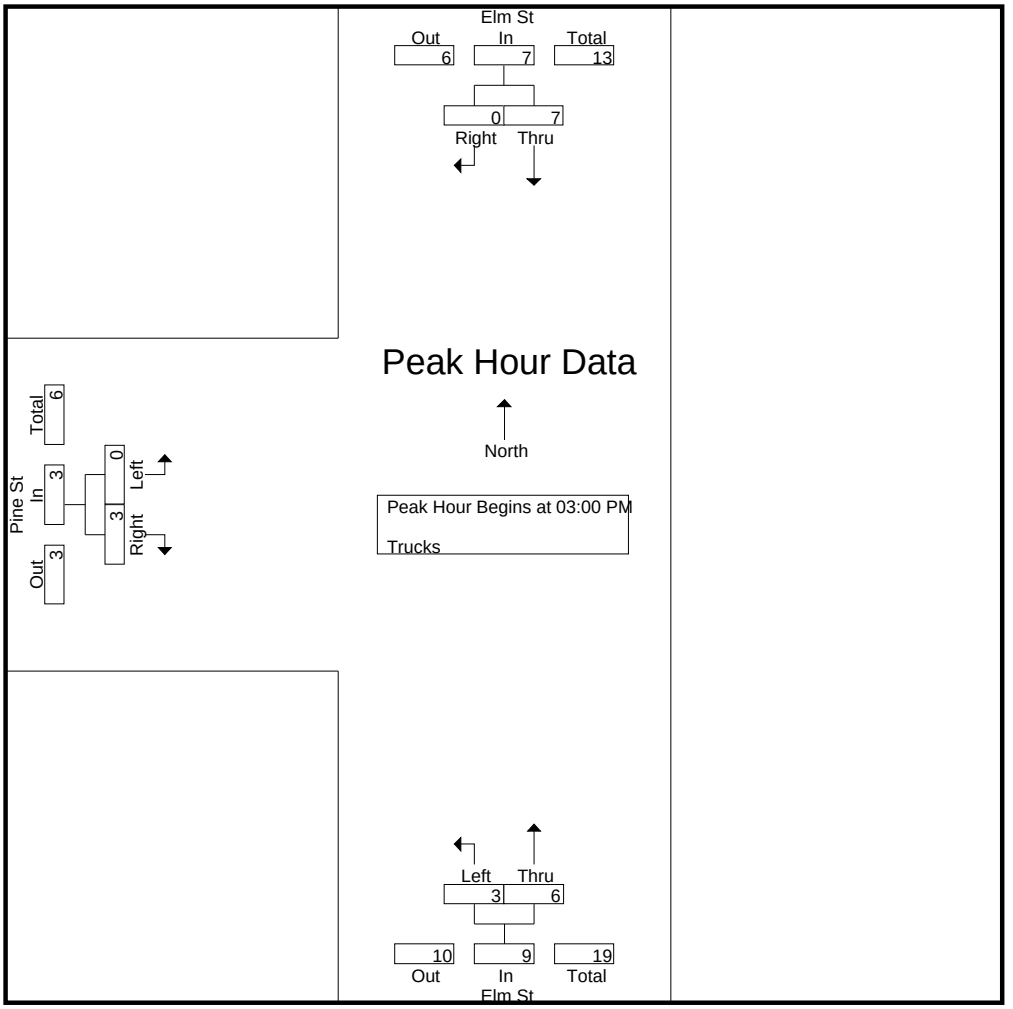
Groups Printed- Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	4	0	2	3	0	2	11
03:15 PM	1	0	0	1	0	0	2
03:30 PM	0	0	0	1	0	1	2
03:45 PM	2	0	1	1	0	0	4
Total	7	0	3	6	0	3	19
04:00 PM	1	0	0	1	0	0	2
04:15 PM	0	0	0	2	0	0	2
04:30 PM	1	0	0	2	0	0	3
04:45 PM	1	0	0	1	0	0	2
Total	3	0	0	6	0	0	9
05:00 PM	0	0	0	2	0	1	3
05:15 PM	0	0	0	1	0	1	2
05:30 PM	0	0	0	1	0	1	2
05:45 PM	1	0	0	0	0	0	1
Total	1	0	0	4	0	3	8
Grand Total	11	0	3	16	0	6	36
Apprch %	100	0	15.8	84.2	0	100	
Total %	30.6	0	8.3	44.4	0	16.7	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	**4**	0	**4**	**2**	**3**	**5**	0	**2**	**2**	**11**
03:15 PM	1	0	1	0	1	1	0	0	0	2
03:30 PM	0	0	0	0	1	1	0	1	1	2
03:45 PM	2	0	2	1	1	2	0	0	0	4
Total Volume	7	0	7	3	6	9	0	3	3	19
% App. Total	100	0		33.3	66.7		0	100		
PHF	.438	.000	.438	.375	.500	.450	.000	.375	.375	.432

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 8

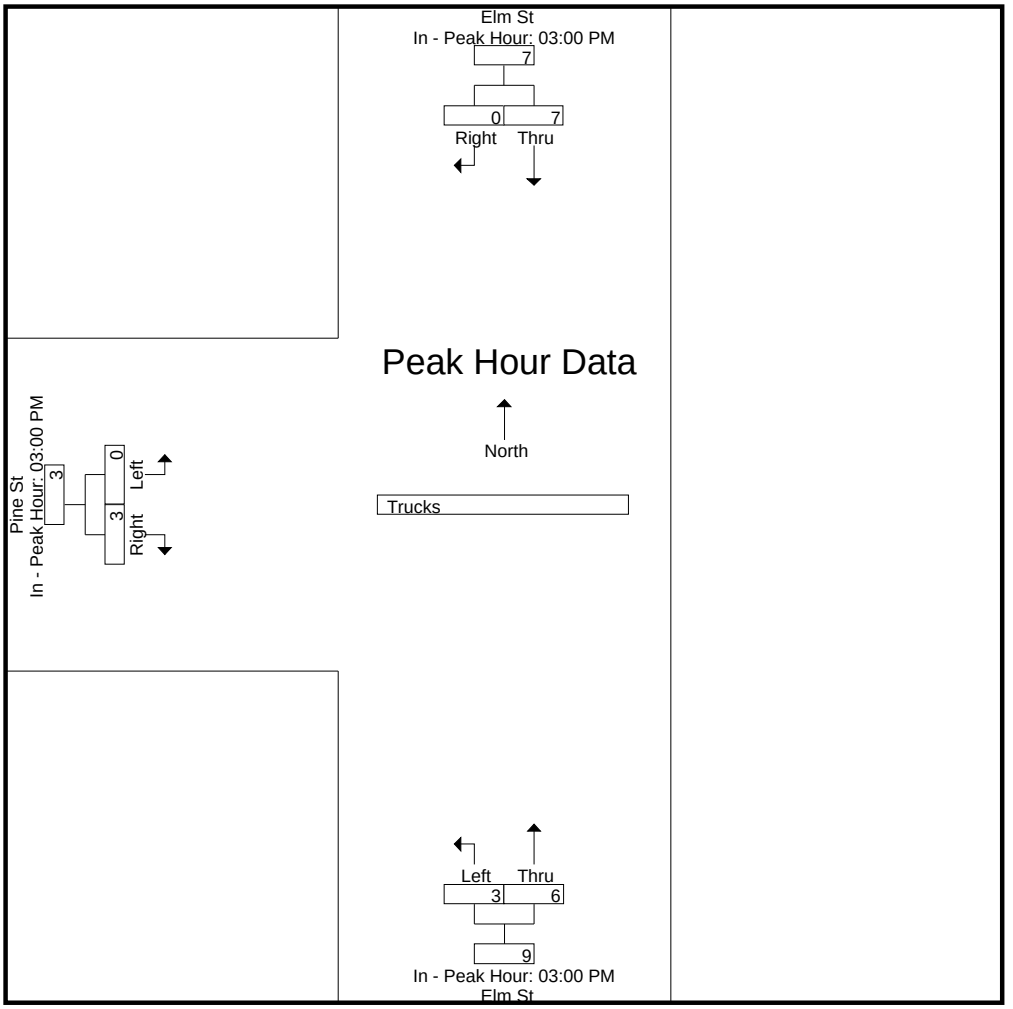


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM			03:00 PM			03:00 PM		
+0 mins.	**4**	0	**4**	**2**	**3**	**5**	0	**2**	**2**
+15 mins.	1	0	1	0	1	1	0	0	0
+30 mins.	0	0	0	0	1	1	0	1	1
+45 mins.	2	0	2	1	1	2	0	0	0
Total Volume	7	0	7	3	6	9	0	3	3
% App. Total	100	0		33.3	66.7		0	100	
PHF	.438	.000	.438	.375	.500	.450	.000	.375	.375

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 9



N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 10

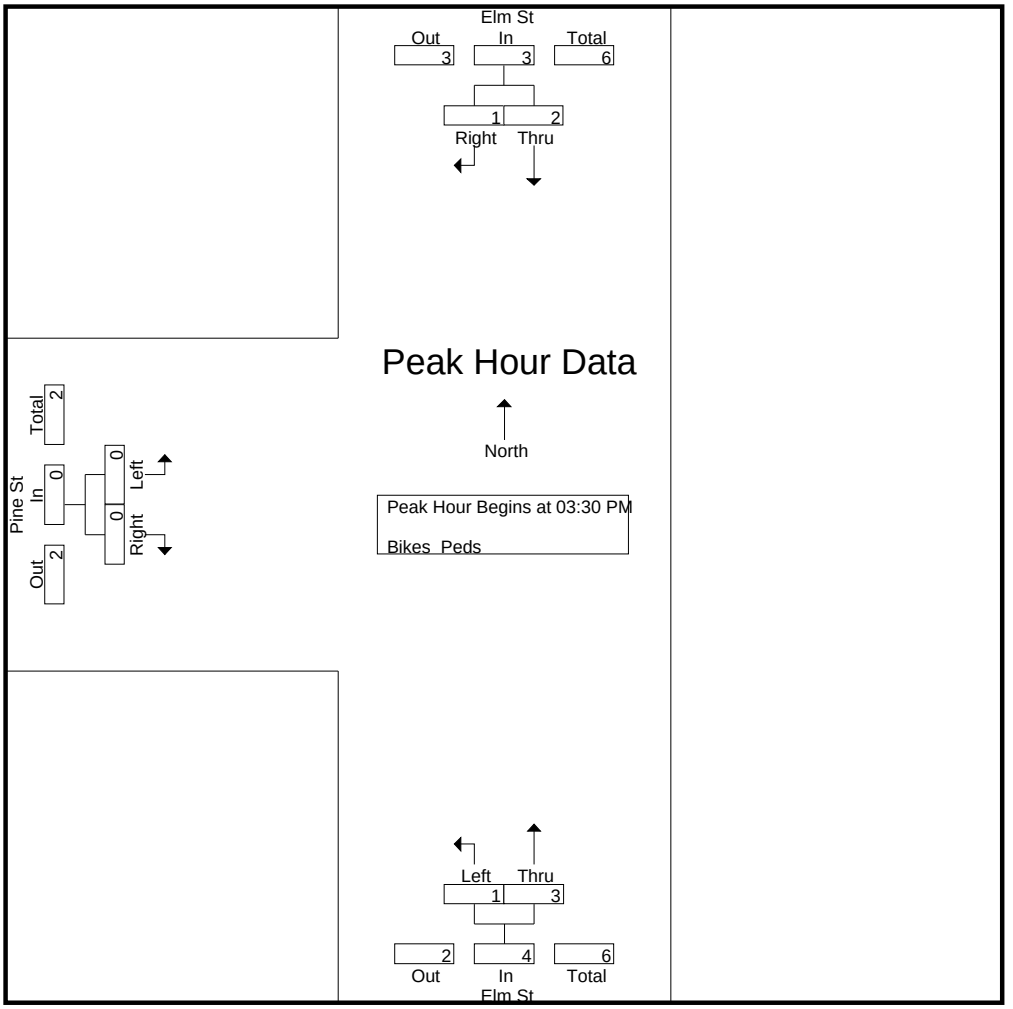
Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Pine St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	2	2	0	2
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	2	1	1	0	0	0	0	0	4	5	3	8
03:45 PM	0	0	0	1	2	0	0	0	5	5	3	8
Total	2	1	1	1	2	0	0	0	11	12	6	18
04:00 PM	0	0	0	0	0	0	0	0	3	3	0	3
04:15 PM	0	0	0	0	1	0	0	0	3	3	1	4
04:30 PM	1	0	0	0	0	0	0	0	6	6	1	7
04:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	1	0	0	0	1	0	0	0	14	14	2	16
05:00 PM	0	0	0	0	0	0	0	0	5	5	0	5
05:15 PM	0	0	0	0	0	0	0	0	2	2	0	2
05:30 PM	2	0	0	0	0	0	0	0	3	3	2	5
05:45 PM	0	0	0	0	1	0	0	0	3	3	1	4
Total	2	0	0	0	1	0	0	0	13	13	3	16
Grand Total	5	1	1	1	4	0	0	0	38	39	11	50
Apprch %	83.3	16.7		20	80		0	0				
Total %	45.5	9.1		9.1	36.4		0	0		78	22	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	**2**	**1**	**3**	0	0	0	0	0	0	**3**
03:45 PM	0	0	0	**1**	**2**	**3**	0	0	0	3
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	2	1	3	1	3	4	0	0	0	7
% App. Total	66.7	33.3		25	75		0	0		
PHF	.250	.250	.250	.250	.375	.333	.000	.000	.000	.583

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 11

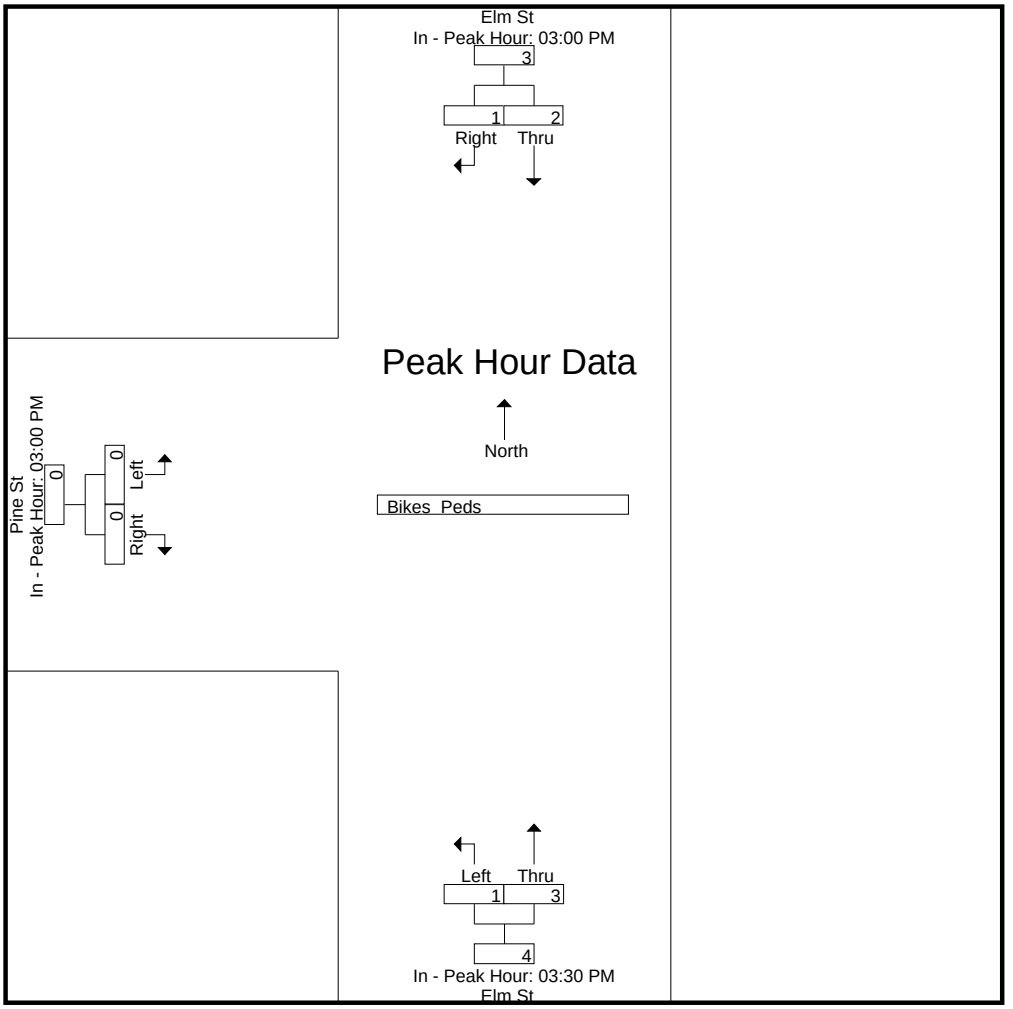


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM			03:30 PM			03:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	**1**	**2**	**3**	0	0	0
+30 mins.	**2**	**1**	**3**	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	2	1	3	1	3	4	0	0	0
% App. Total	66.7	33.3		25	75		0	0	
PHF	.250	.250	.250	.250	.375	.333	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 1

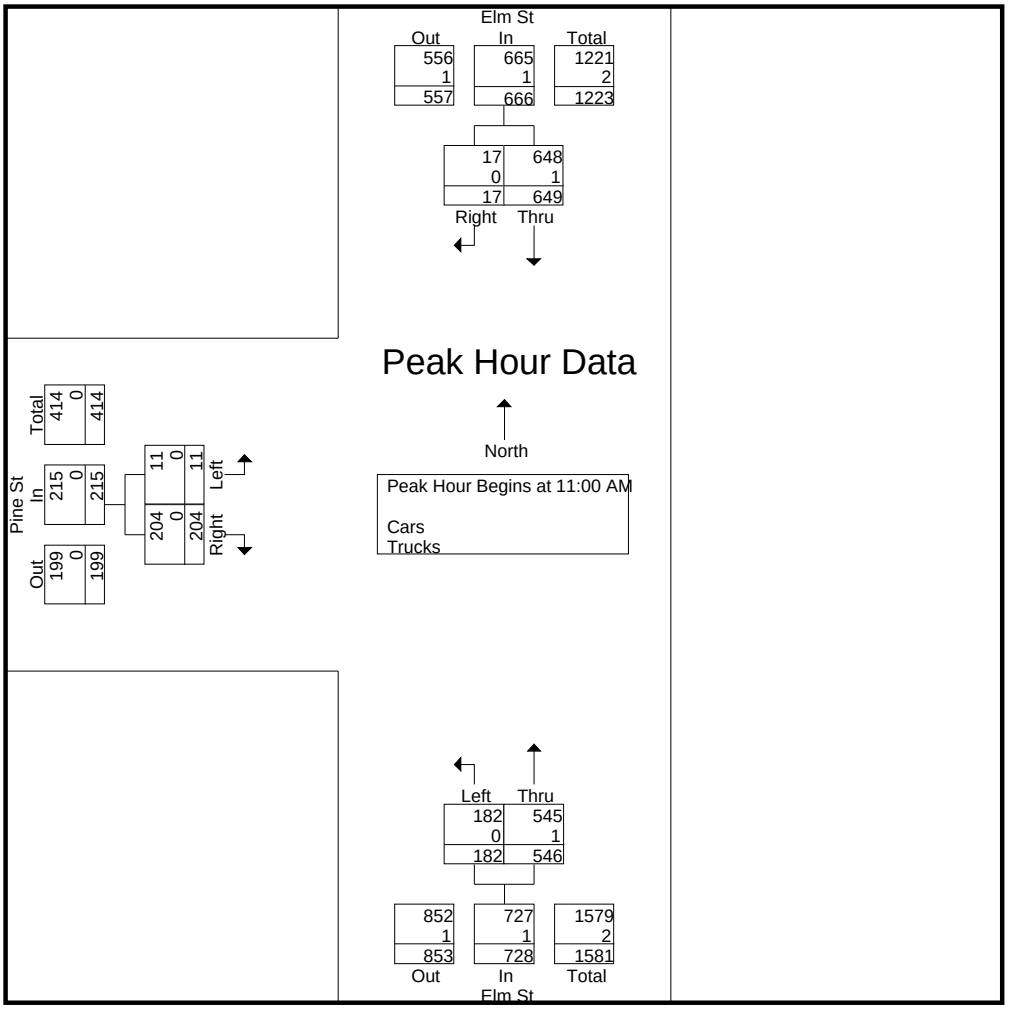
Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	174	9	47	130	3	59	422
11:15 AM	147	3	47	142	5	48	392
11:30 AM	177	2	43	146	2	46	416
11:45 AM	151	3	45	128	1	51	379
Total	649	17	182	546	11	204	1609
12:00 PM	147	4	35	134	6	59	385
12:15 PM	148	0	43	127	3	61	382
12:30 PM	166	5	38	136	5	52	402
12:45 PM	150	1	43	115	1	48	358
Total	611	10	159	512	15	220	1527
01:00 PM	156	4	37	116	4	61	378
01:15 PM	155	2	37	117	1	47	359
01:30 PM	155	4	40	104	1	58	362
01:45 PM	124	2	42	116	0	40	324
Total	590	12	156	453	6	206	1423
Grand Total	1850	39	497	1511	32	630	4559
Apprch %	97.9	2.1	24.8	75.2	4.8	95.2	
Total %	40.6	0.9	10.9	33.1	0.7	13.8	
Cars	1846	39	497	1507	32	630	4551
% Cars	99.8	100	100	99.7	100	100	99.8
Trucks	4	0	0	4	0	0	8
% Trucks	0.2	0	0	0.3	0	0	0.2

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	174	**9**	**183**	**47**	130	177	3	**59**	**62**	**422**
11:15 AM	147	3	150	47	142	**189**	**5**	48	53	392
11:30 AM	**177**	2	179	43	**146**	189	2	46	48	416
11:45 AM	151	3	154	45	128	173	1	51	52	379
Total Volume	649	17	666	182	546	728	11	204	215	1609
% App. Total	97.4	2.6		25	75		5.1	94.9		
PHF	.917	.472	.910	.968	.935	.963	.550	.864	.867	.953
Cars	648	17	665	182	545	727	11	204	215	1607
% Cars	99.8	100	99.8	100	99.8	99.9	100	100	100	99.9
Trucks	1	0	1	0	1	1	0	0	0	2
% Trucks	0.2	0	0.2	0	0.2	0.1	0	0	0	0.1

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 2

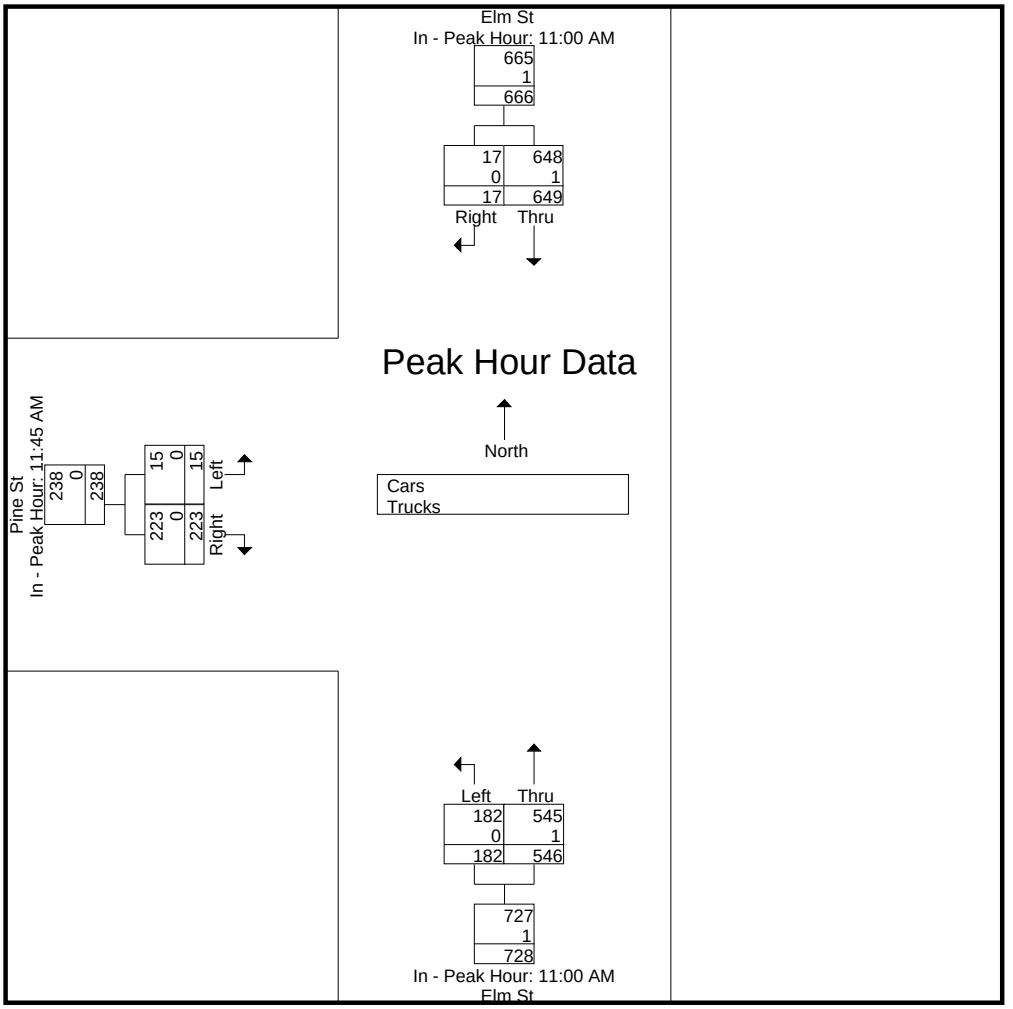


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:45 AM		
+0 mins.	174	**9**	**183**	**47**	130	177	1	51	52
+15 mins.	147	3	150	47	142	**189**	**6**	59	**65**
+30 mins.	**177**	2	179	43	**146**	189	3	**61**	64
+45 mins.	151	3	154	45	128	173	5	52	57
Total Volume	649	17	666	182	546	728	15	223	238
% App. Total	97.4	2.6		25	75		6.3	93.7	
PHF	.917	.472	.910	.968	.935	.963	.625	.914	.915
Cars	648	17	665	182	545	727	15	223	238
% Cars	99.8	100	99.8	100	99.8	99.9	100	100	100
Trucks	1	0	1	0	1	1	0	0	0
% Trucks	0.2	0	0.2	0	0.2	0.1	0	0	0

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 4

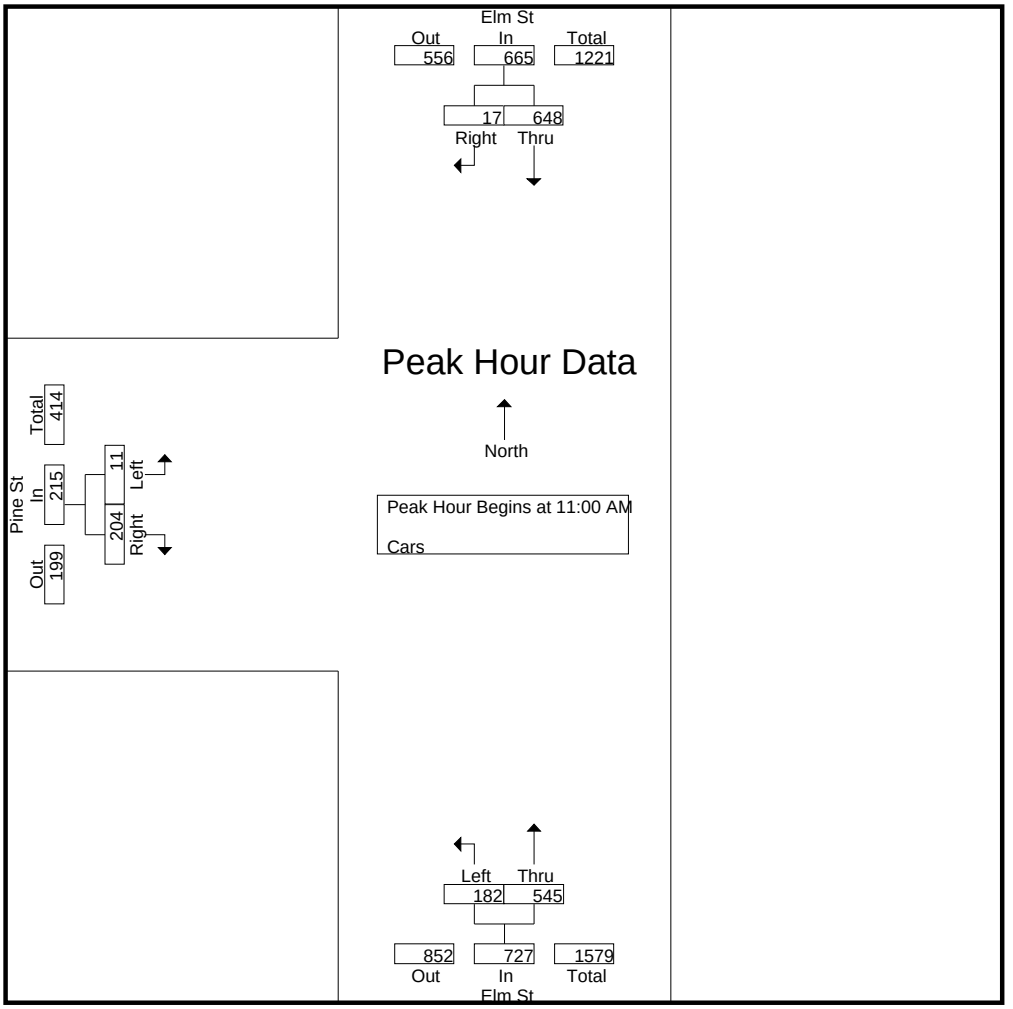
Groups Printed- Cars

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	174	9	47	130	3	59	422
11:15 AM	146	3	47	141	5	48	390
11:30 AM	177	2	43	146	2	46	416
11:45 AM	151	3	45	128	1	51	379
Total	648	17	182	545	11	204	1607
12:00 PM	147	4	35	134	6	59	385
12:15 PM	148	0	43	126	3	61	381
12:30 PM	164	5	38	135	5	52	399
12:45 PM	149	1	43	115	1	48	357
Total	608	10	159	510	15	220	1522
01:00 PM	156	4	37	115	4	61	377
01:15 PM	155	2	37	117	1	47	359
01:30 PM	155	4	40	104	1	58	362
01:45 PM	124	2	42	116	0	40	324
Total	590	12	156	452	6	206	1422
Grand Total	1846	39	497	1507	32	630	4551
Apprch %	97.9	2.1	24.8	75.2	4.8	95.2	
Total %	40.6	0.9	10.9	33.1	0.7	13.8	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	174	**9**	**183**	**47**	130	177	3	**59**	**62**	**422**
11:15 AM	146	3	149	47	141	188	**5**	48	53	390
11:30 AM	**177**	2	179	43	**146**	**189**	2	46	48	416
11:45 AM	151	3	154	45	128	173	1	51	52	379
Total Volume	648	17	665	182	545	727	11	204	215	1607
% App. Total	97.4	2.6		25	75		5.1	94.9		
PHF	.915	.472	.908	.968	.933	.962	.550	.864	.867	.952

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 5

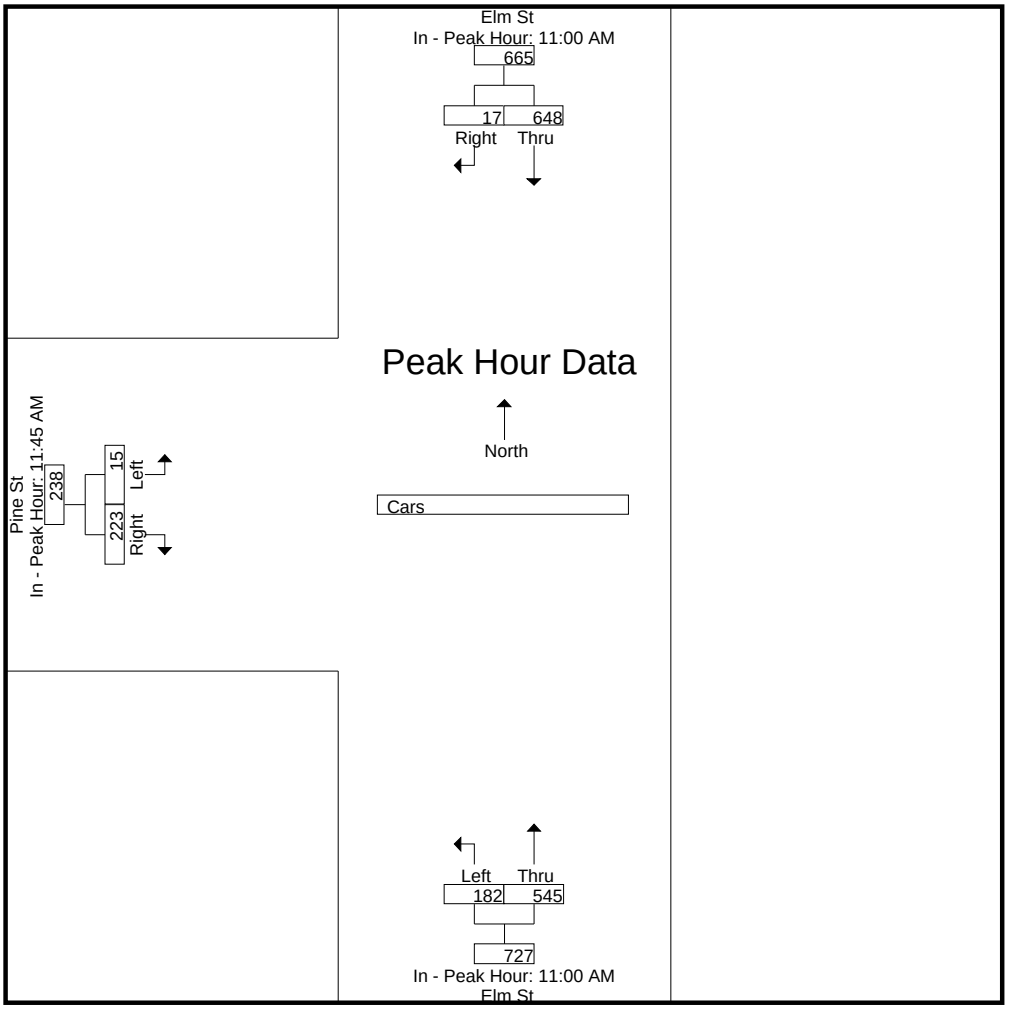


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:45 AM		
+0 mins.	174	**9**	**183**	**47**	130	177	1	51	52
+15 mins.	146	3	149	47	141	188	**6**	59	**65**
+30 mins.	**177**	2	179	43	**146**	**189**	3	**61**	64
+45 mins.	151	3	154	45	128	173	5	52	57
Total Volume	648	17	665	182	545	727	15	223	238
% App. Total	97.4	2.6		25	75		6.3	93.7	
PHF	.915	.472	.908	.968	.933	.962	.625	.914	.915

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 6



N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 7

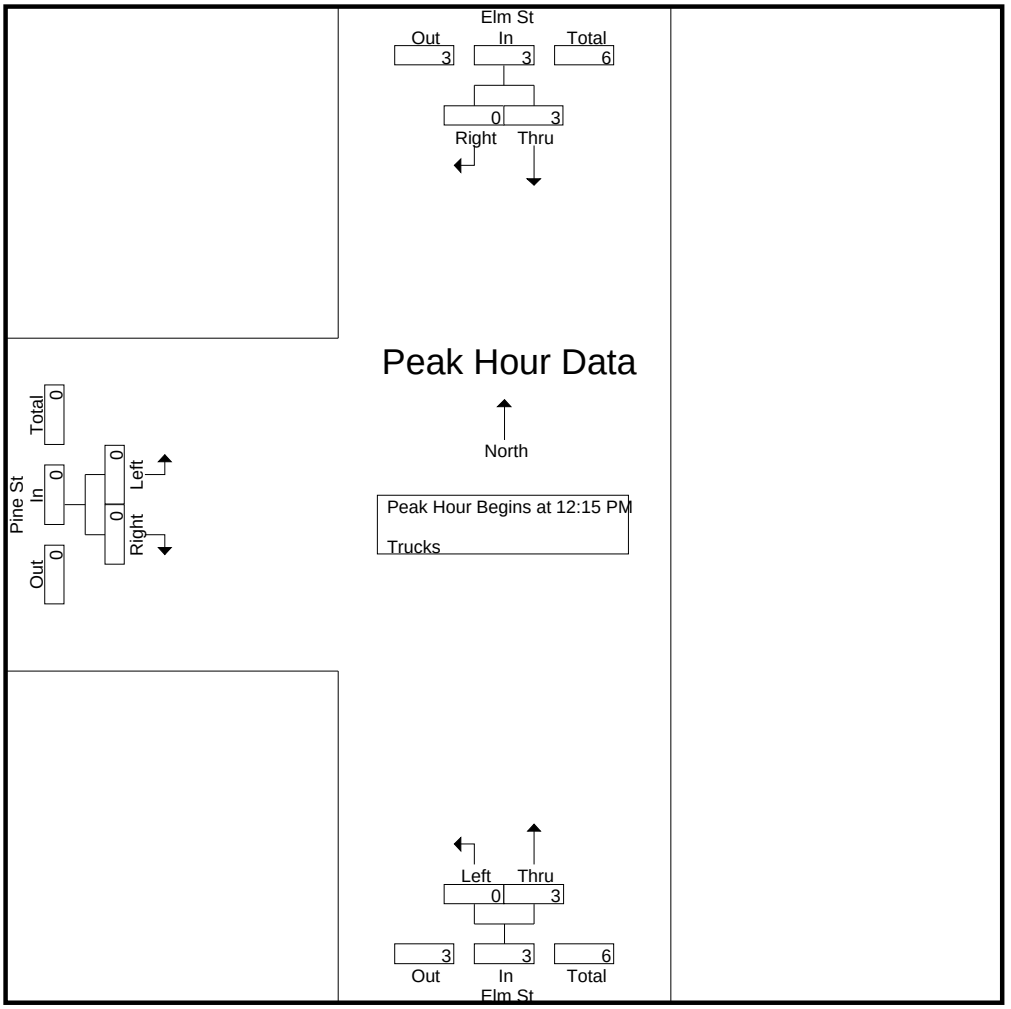
Groups Printed- Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	0	0	0	0	0	0	0
11:15 AM	1	0	0	1	0	0	2
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	2
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	1
12:30 PM	2	0	0	1	0	0	3
12:45 PM	1	0	0	0	0	0	1
Total	3	0	0	2	0	0	5
01:00 PM	0	0	0	1	0	0	1
01:15 PM	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	1
Grand Total	4	0	0	4	0	0	8
Apprch %	100	0	0	100	0	0	
Total %	50	0	0	50	0	0	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	0	0	0	0	**1**	**1**	0	0	0	1
12:30 PM	**2**	0	**2**	0	1	1	0	0	0	**3**
12:45 PM	1	0	1	0	0	0	0	0	0	1
01:00 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	3	0	3	0	3	3	0	0	0	6
% App. Total	100	0		0	100		0	0		
PHF	.375	.000	.375	.000	.750	.750	.000	.000	.000	.500

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 8

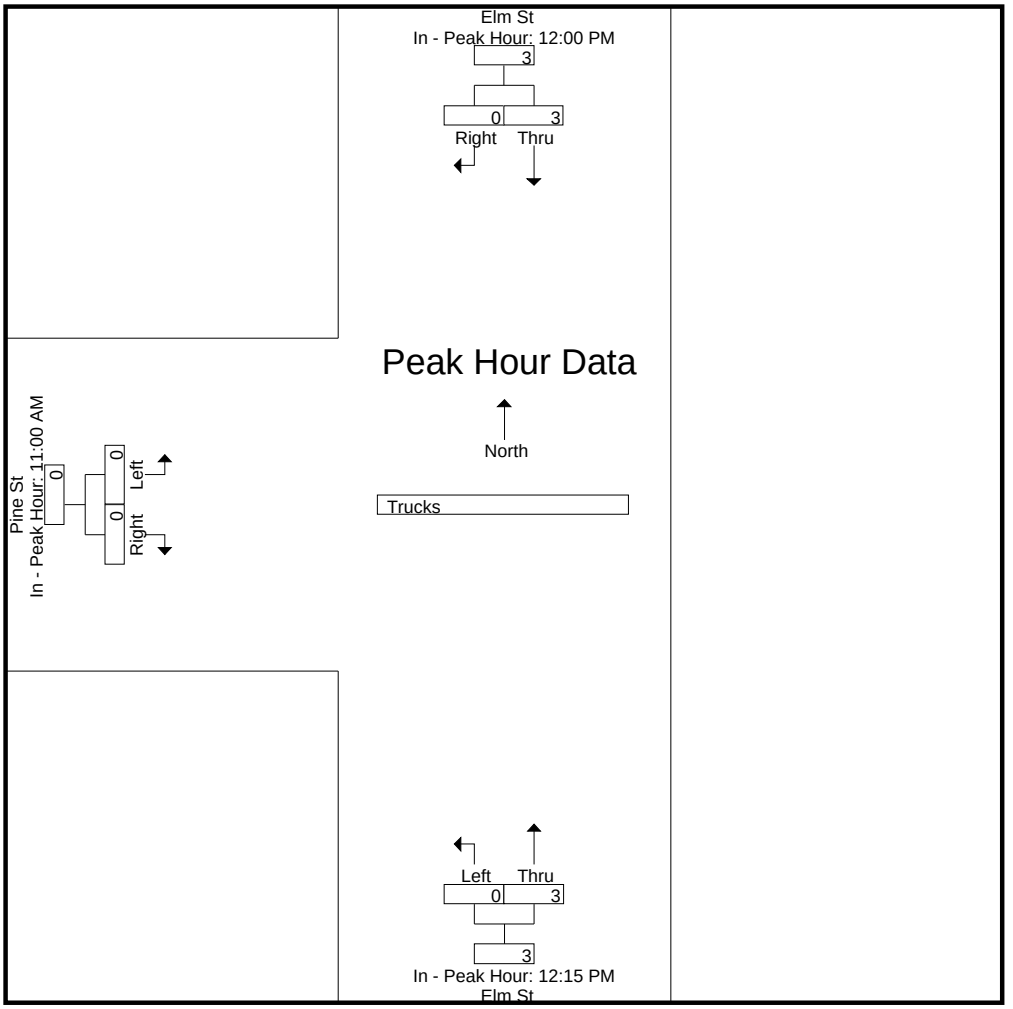


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM			12:15 PM			11:00 AM		
+0 mins.	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	**2**	0	**2**	0	0	0	0	0	0
+45 mins.	1	0	1	0	1	1	0	0	0
Total Volume	3	0	3	0	3	3	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.375	.000	.375	.000	.750	.750	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 9



N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 10

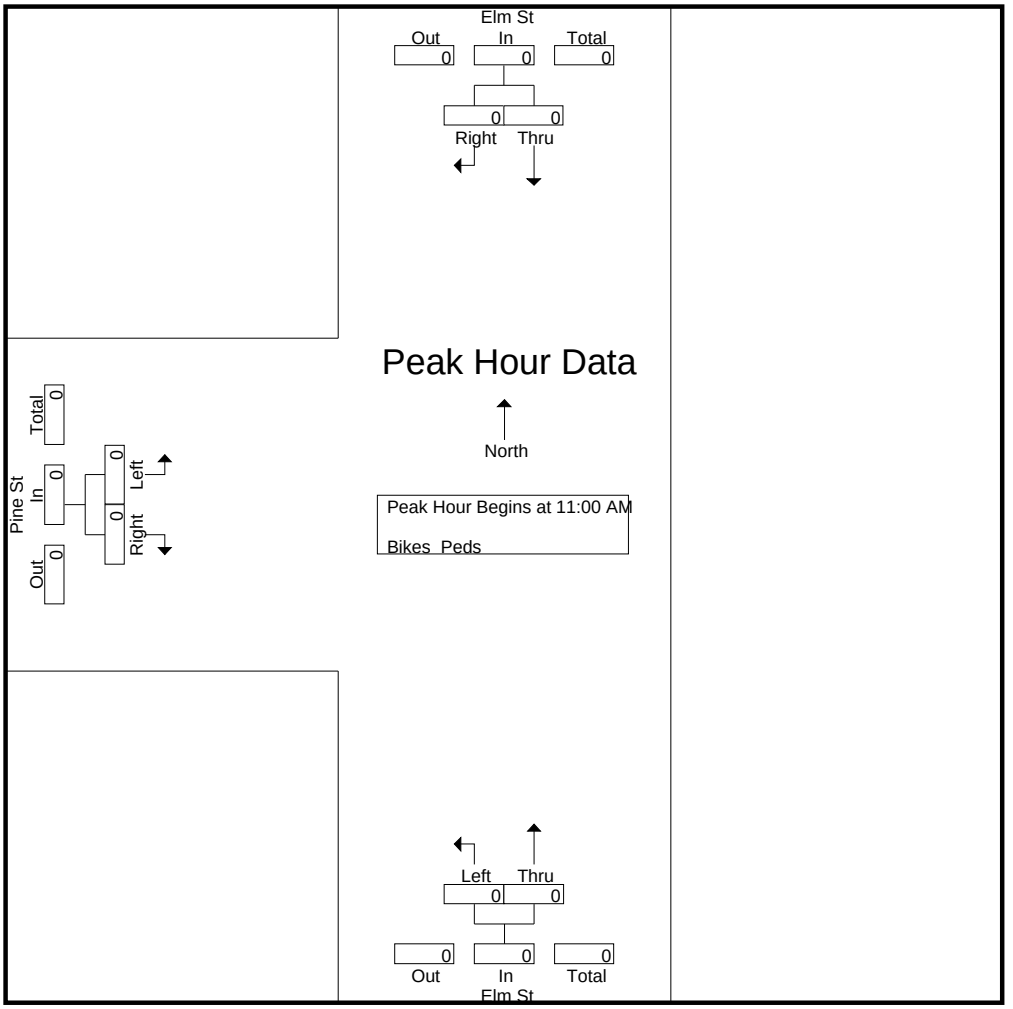
Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Pine St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	2	2	0	2
11:15 AM	0	0	0	0	0	0	0	0	3	3	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	0	0	0	7	7	0	7
12:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
12:30 PM	0	0	0	0	0	0	0	0	4	4	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	6	6	0	6
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	3	3	0	3
Total	0	0	0	0	0	0	0	0	4	4	0	4
Grand Total	0	0	0	0	0	0	0	0	17	17	0	17
Apprch %	0	0		0	0		0	0				
Total %										100	0	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 11

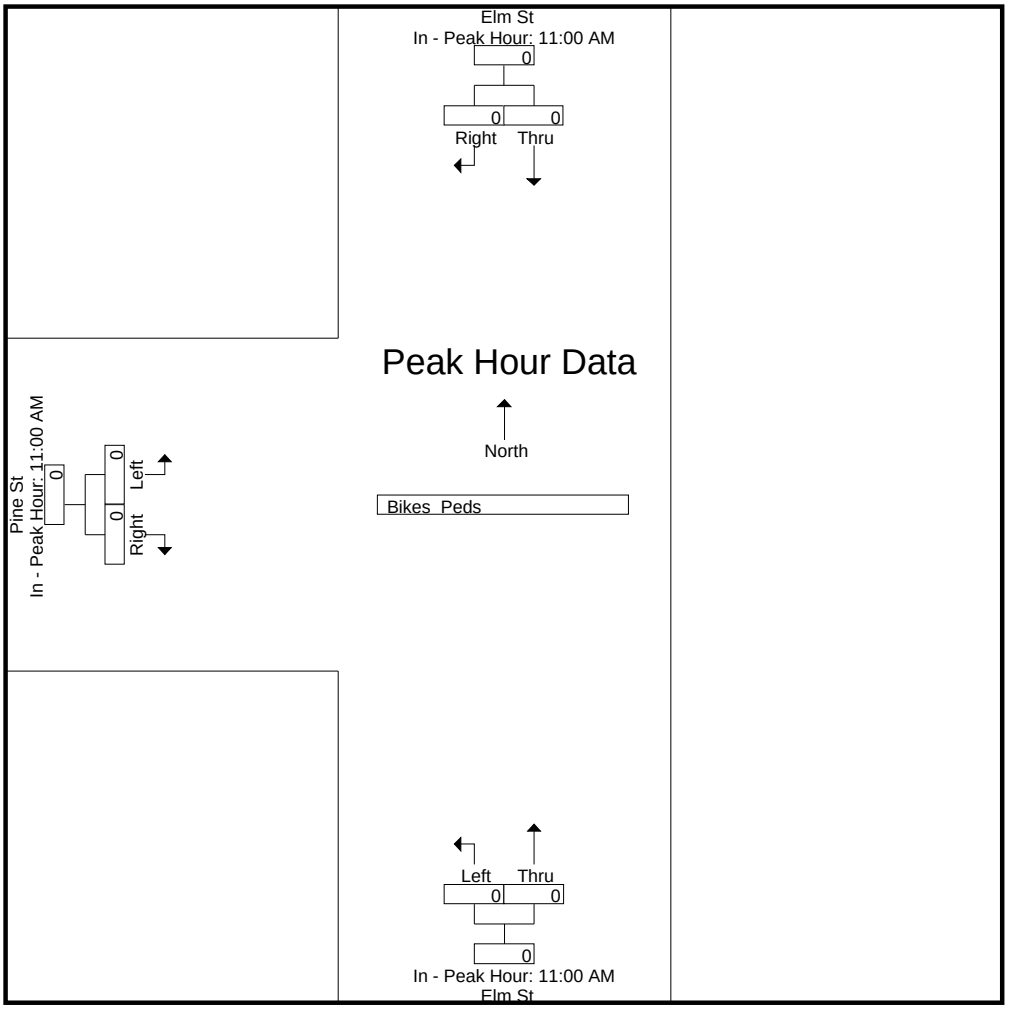


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

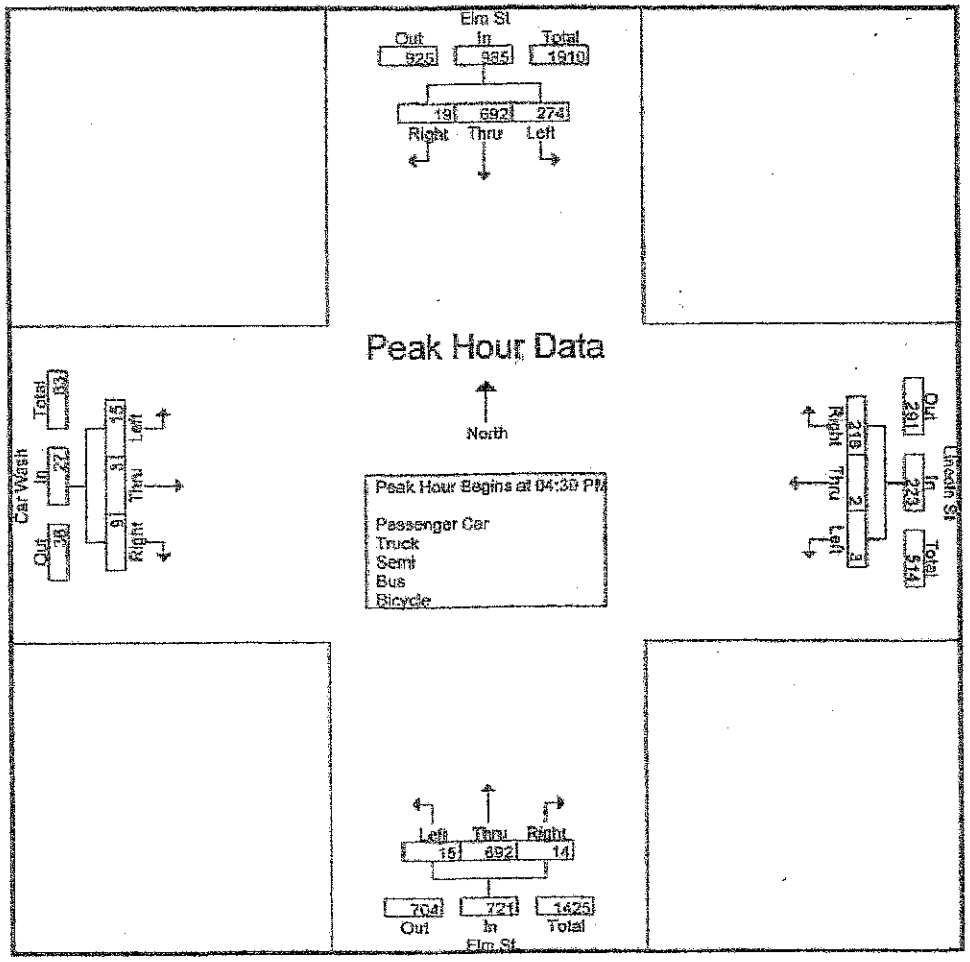
File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 12



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Biddeford Lincoln St & Elm St
July 18, 2019 PM
Sunny
Count by Jen Gilbert

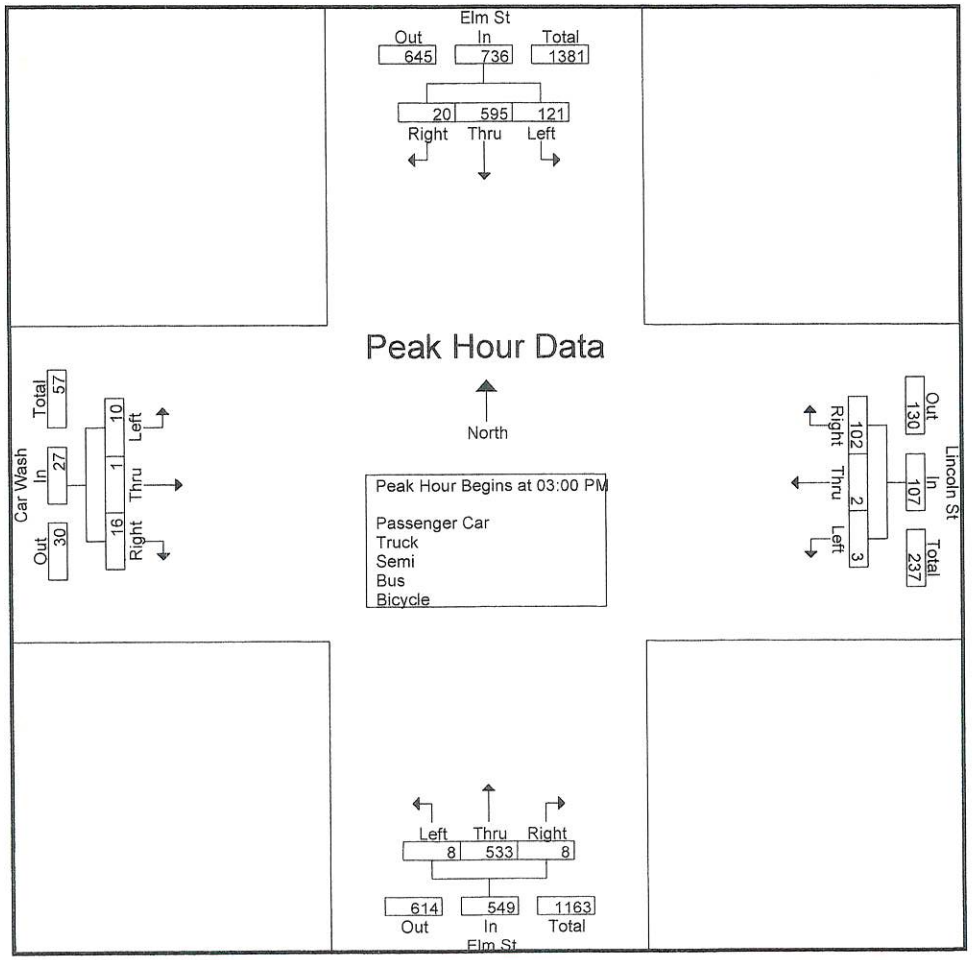
File Name : Biddeford Lincoln St & Elm St 7-18-19 PM
Site Code : 00718192
Start Date : 7/18/2019
Page No : 6

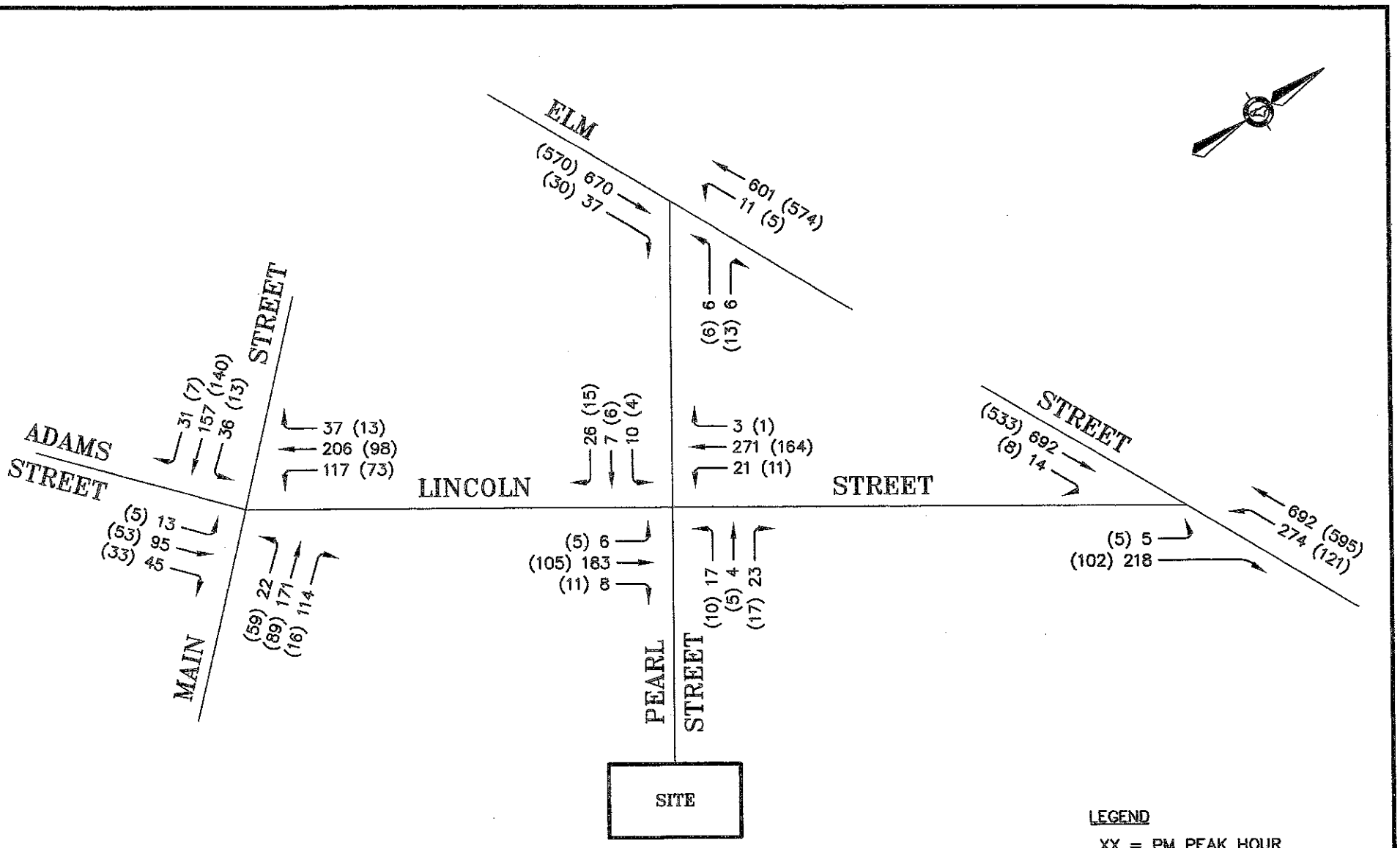


Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Biddeford Lincoln St & Elm St
July 20, 2019 PM Saturday
Sunny
Count By Nathaniel Tillson

File Name : Biddeford Lincoln St & Elm St 7-20-19 SATURDAY PM
Site Code : 00720193
Start Date : 7/20/2019
Page No : 6





EXISTING 2019 PEAK HOUR TRAFFIC
(PM PEAK HOUR & SATURDAY PEAK HOUR)
FIGURE 1

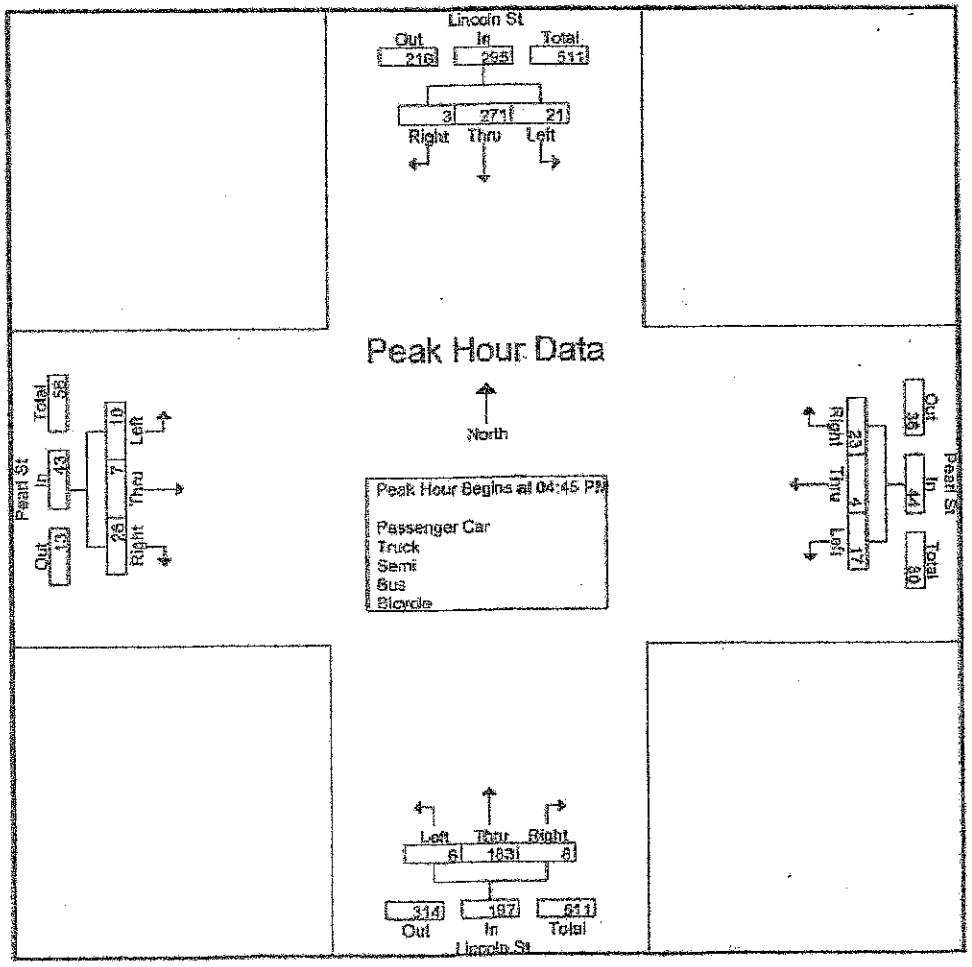
E:\LAND PROJECTS\34000\34399 TRAFFIC SOLUTIONS\RIVERDAM REDEVELOPMENT\PLANSET\RIVERDAM.DWG

RIVERDAM REDEVELOPMENT BIDDEFORD, MAINE	TRAFFIC SOLUTIONS 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: AUGUST, 2019	FIGURE: 1

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Biddeford Lincoln St & Pearl St
June 13, 2019 PM
Rain
Count by Jen Gilbert

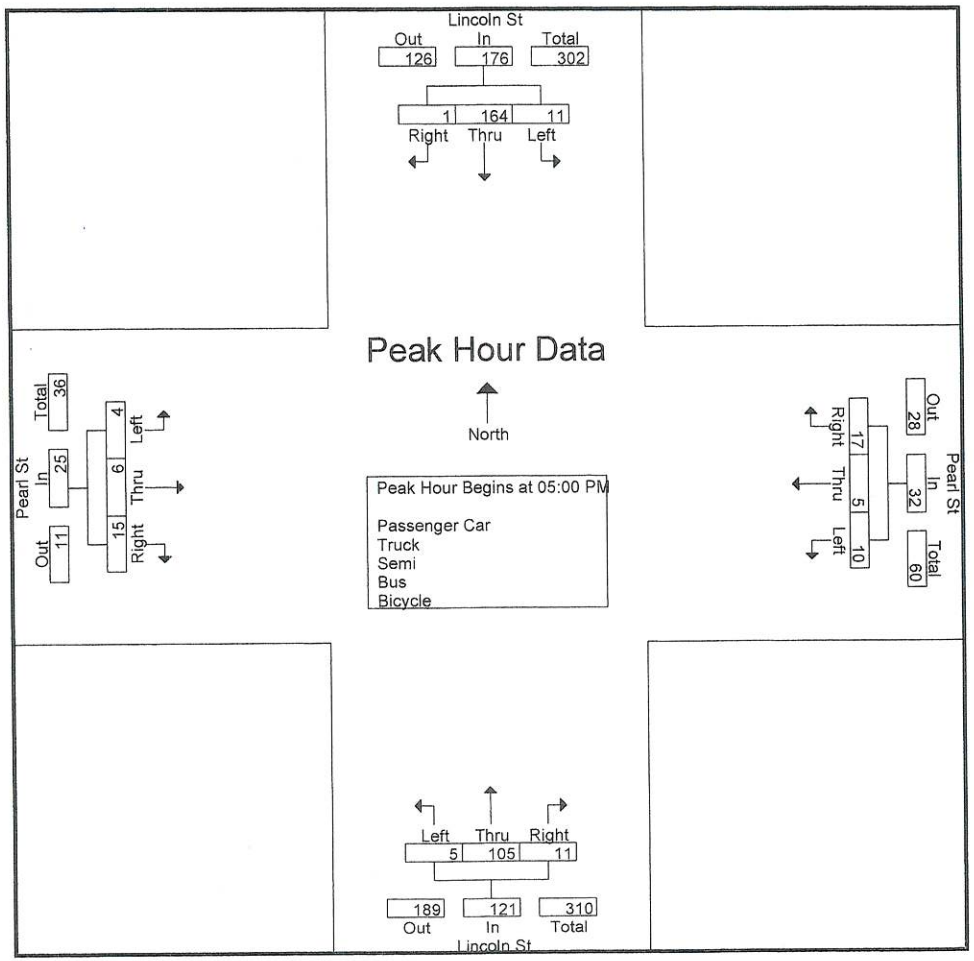
File Name : Biddeford Lincoln St & Pearl St 6-13-19 PM
Site Code : 00613192
Start Date : 6/13/2019
Page No : 6



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Biddeford Lincoln St & Pearl St
July 20, 2019 PM Saturday
Sunny
Count by Kim Gilbert

File Name : Biddeford Lincoln St & Pearl St 6-20-19 PM
Site Code : 00720192
Start Date : 7/20/2019
Page No : 6



Multifamily Housing (Mid-Rise)
(221)

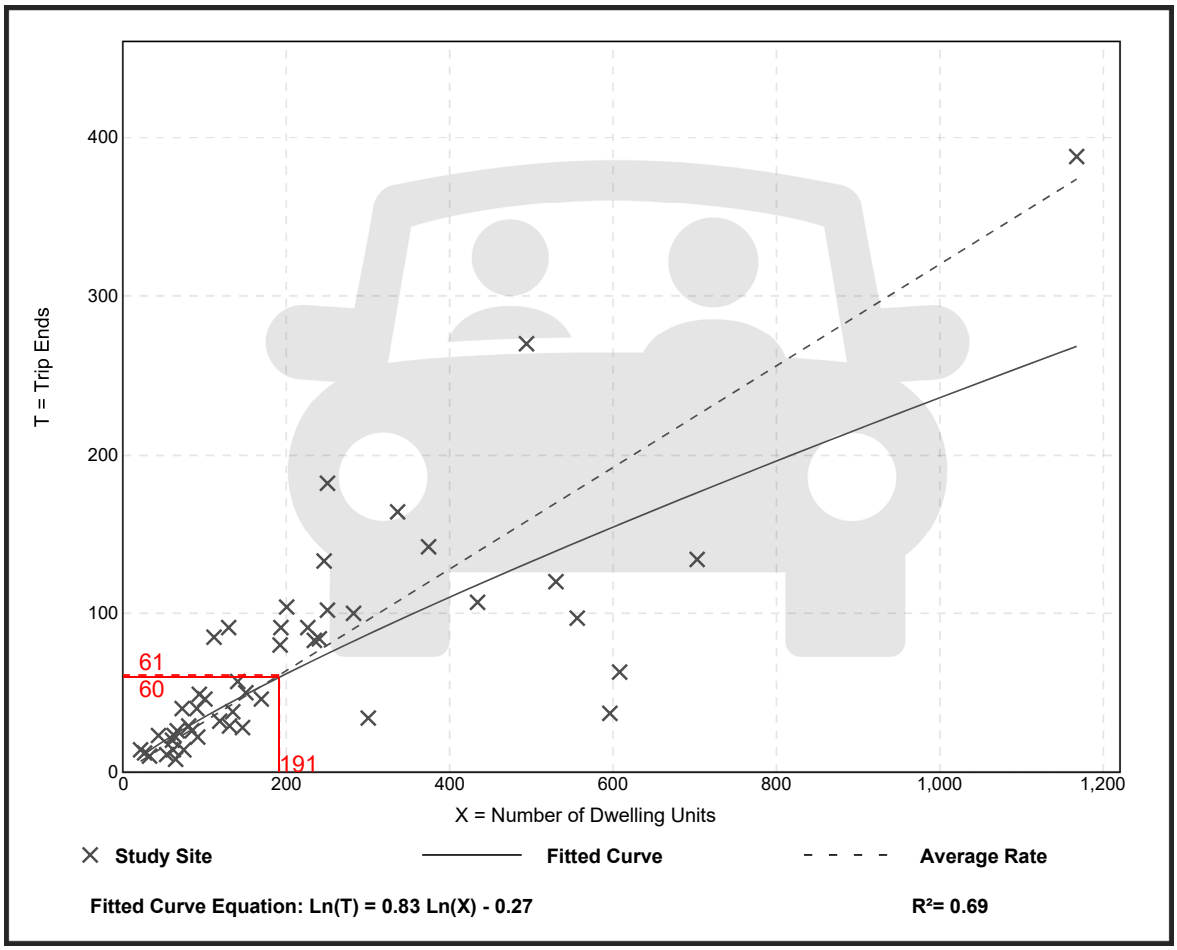
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 48
Avg. Num. of Dwelling Units: 225
Directional Distribution: 27% entering, 73% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.06 - 0.77	0.17

Data Plot and Equation



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Multifamily Housing (Mid-Rise)
(221)

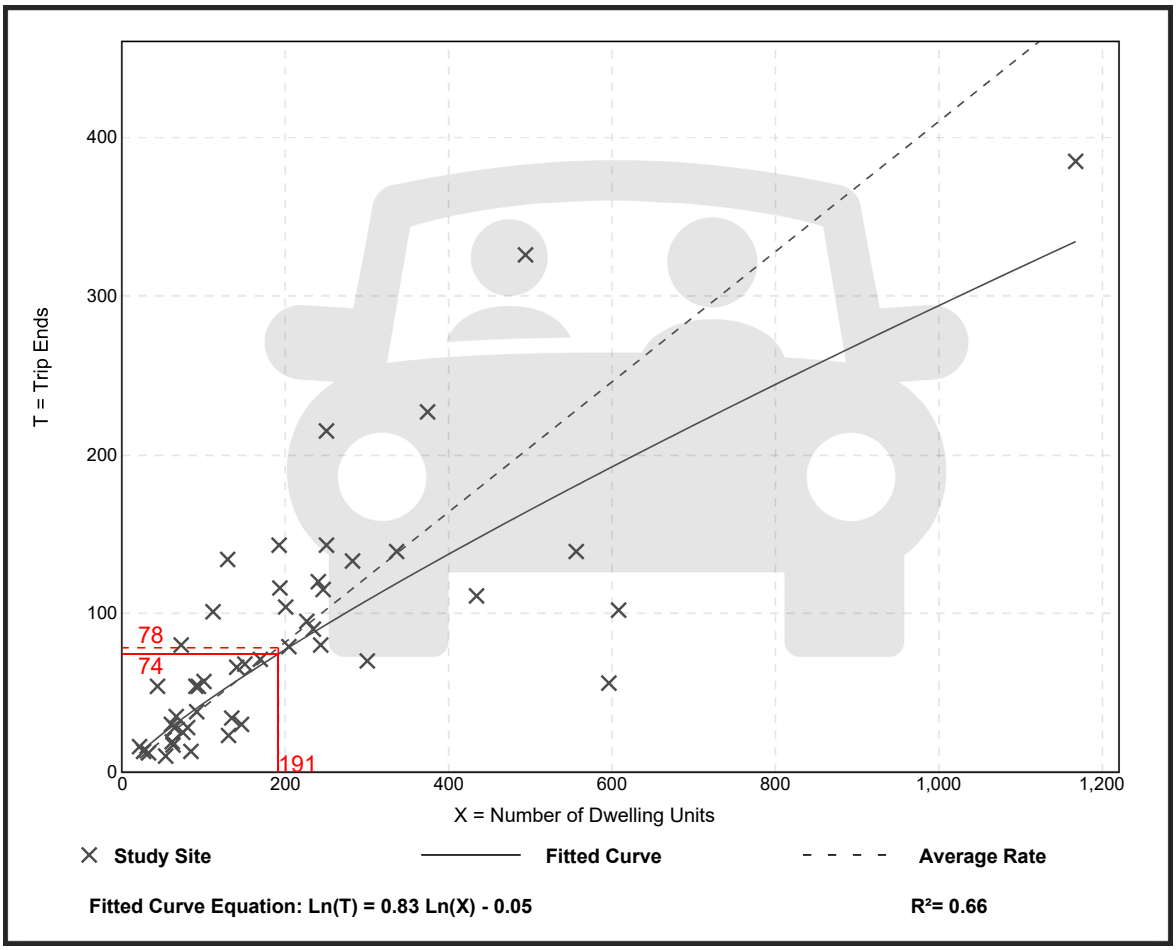
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 47
Avg. Num. of Dwelling Units: 211
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.09 - 1.26	0.22

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Multifamily Housing (Mid-Rise)
(221)

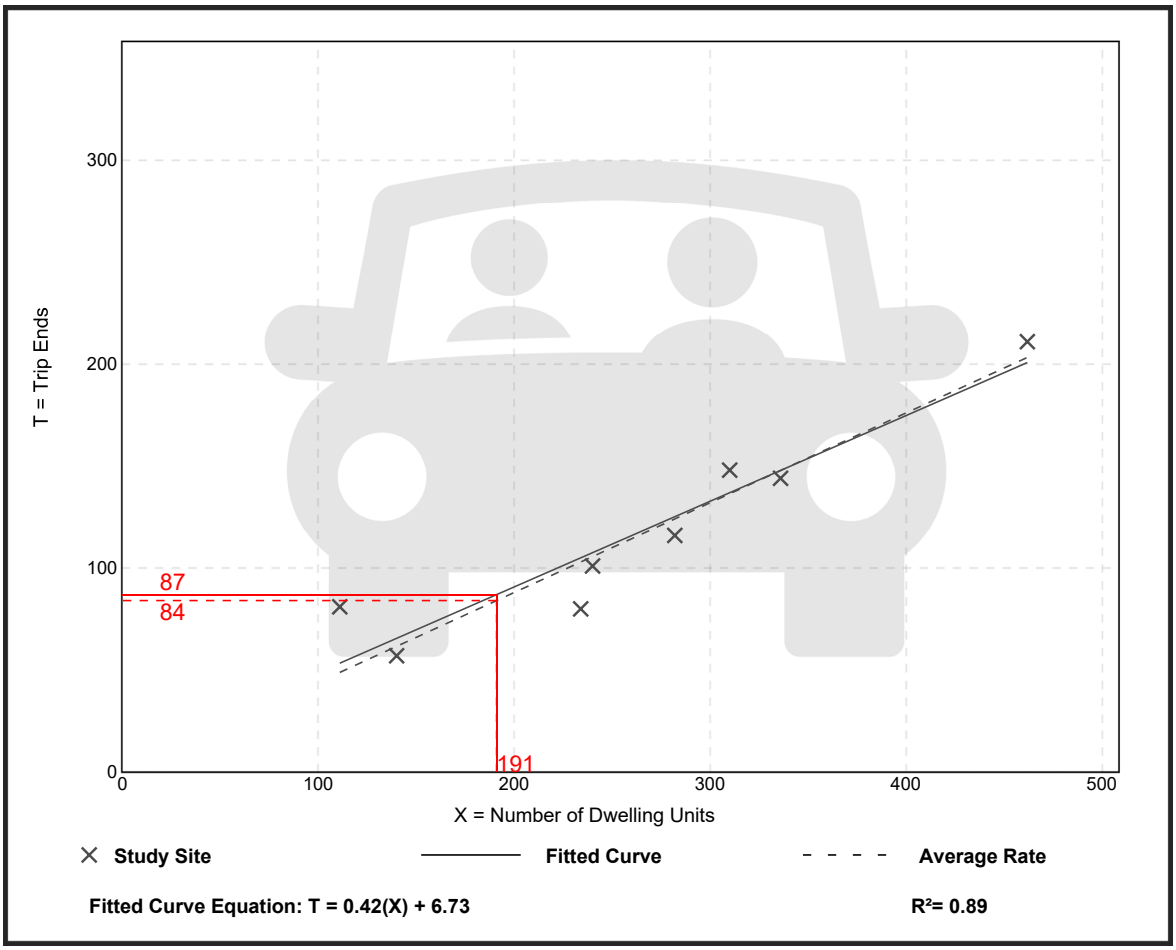
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Dwelling Units: 264
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.34 - 0.73	0.08

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

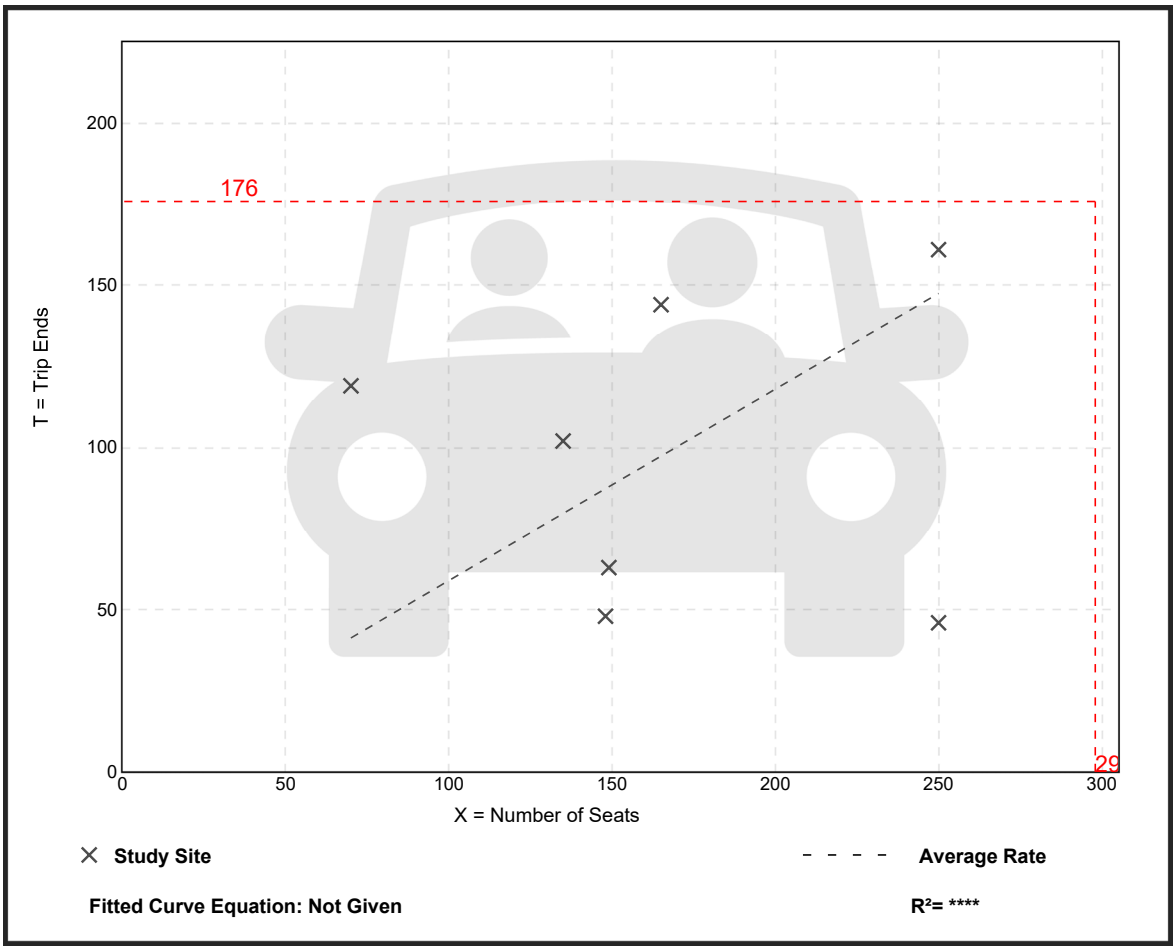
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Seats: 167
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.59	0.18 - 1.70	0.40

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

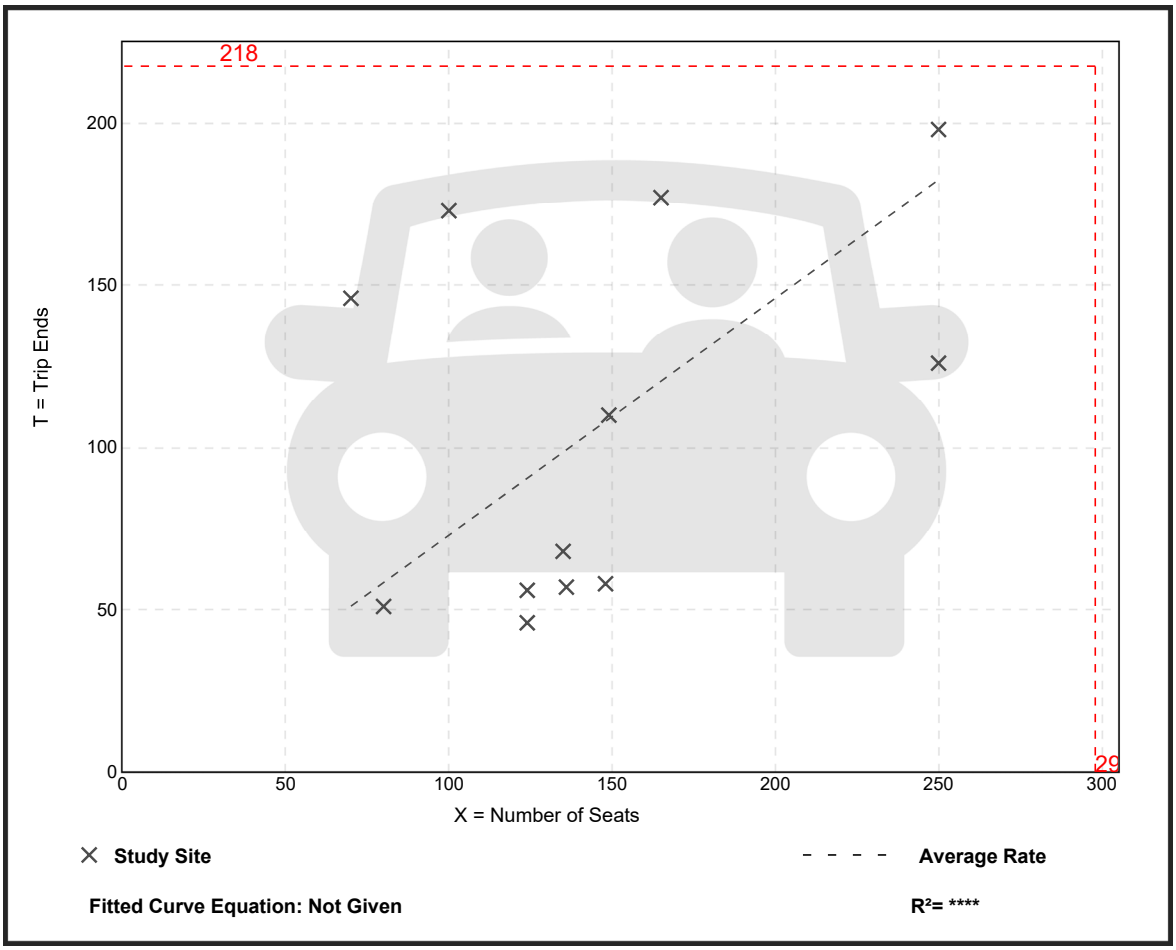
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. Num. of Seats: 144
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.73	0.37 - 2.09	0.45

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

High-Turnover (Sit-Down) Restaurant
(932)

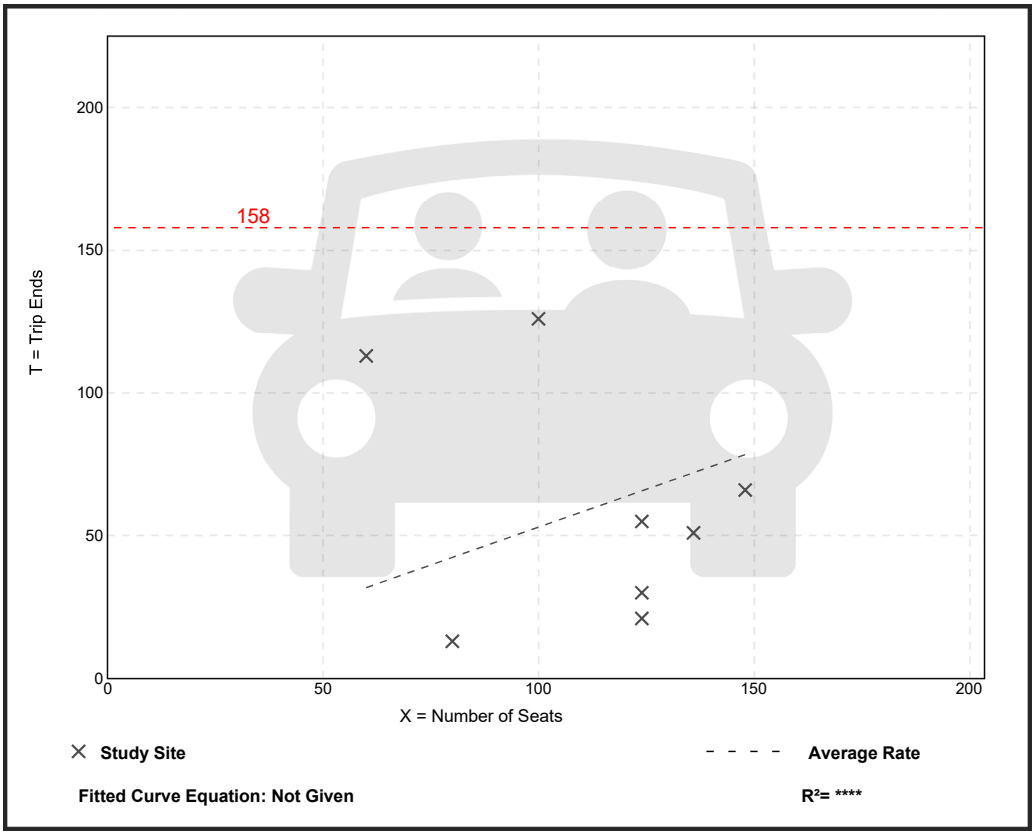
Vehicle Trip Ends vs: **Seats**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Seats: 112
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.53	0.16 - 1.88	0.51

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

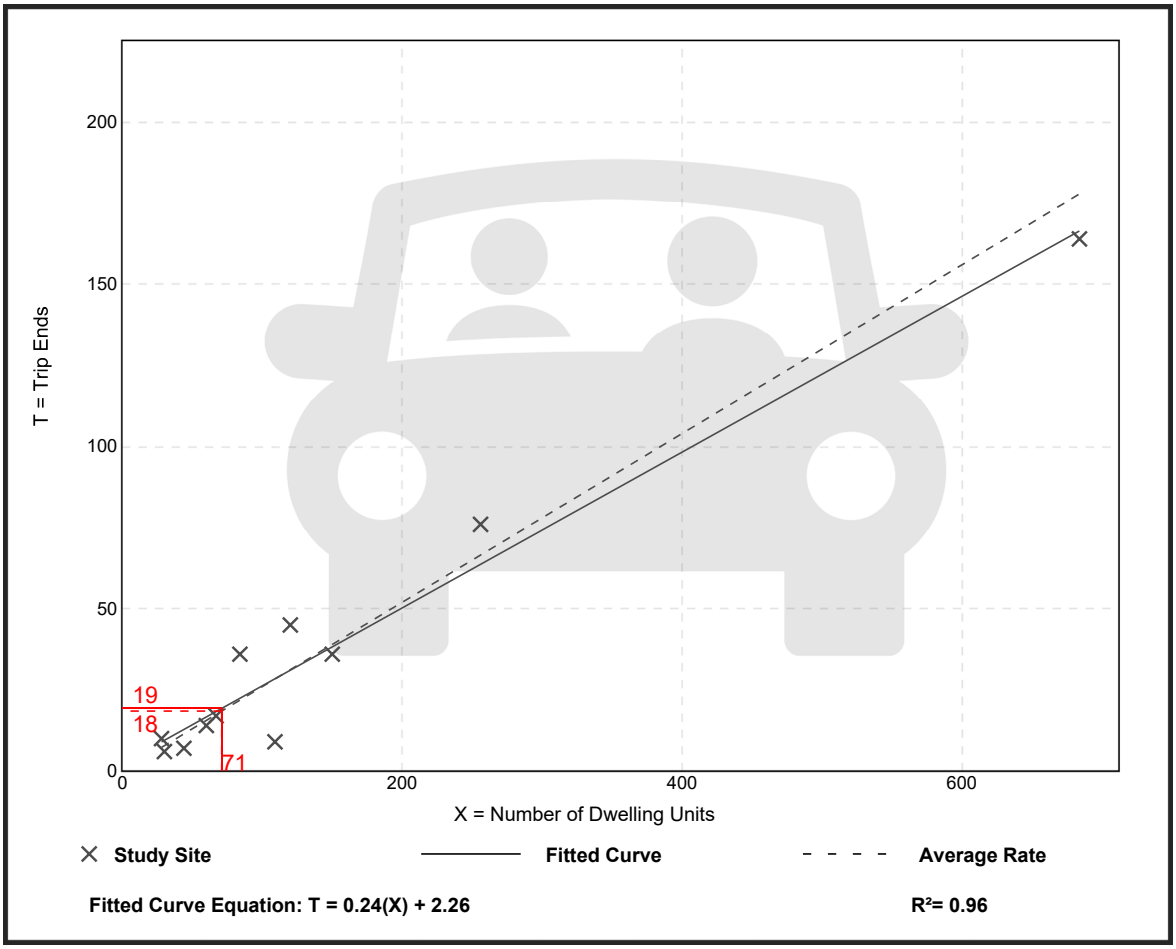
Senior Adult Housing - Attached
(252)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 11
Avg. Num. of Dwelling Units: 148
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.26	0.08 - 0.43	0.08

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Senior Adult Housing - Attached
(252)

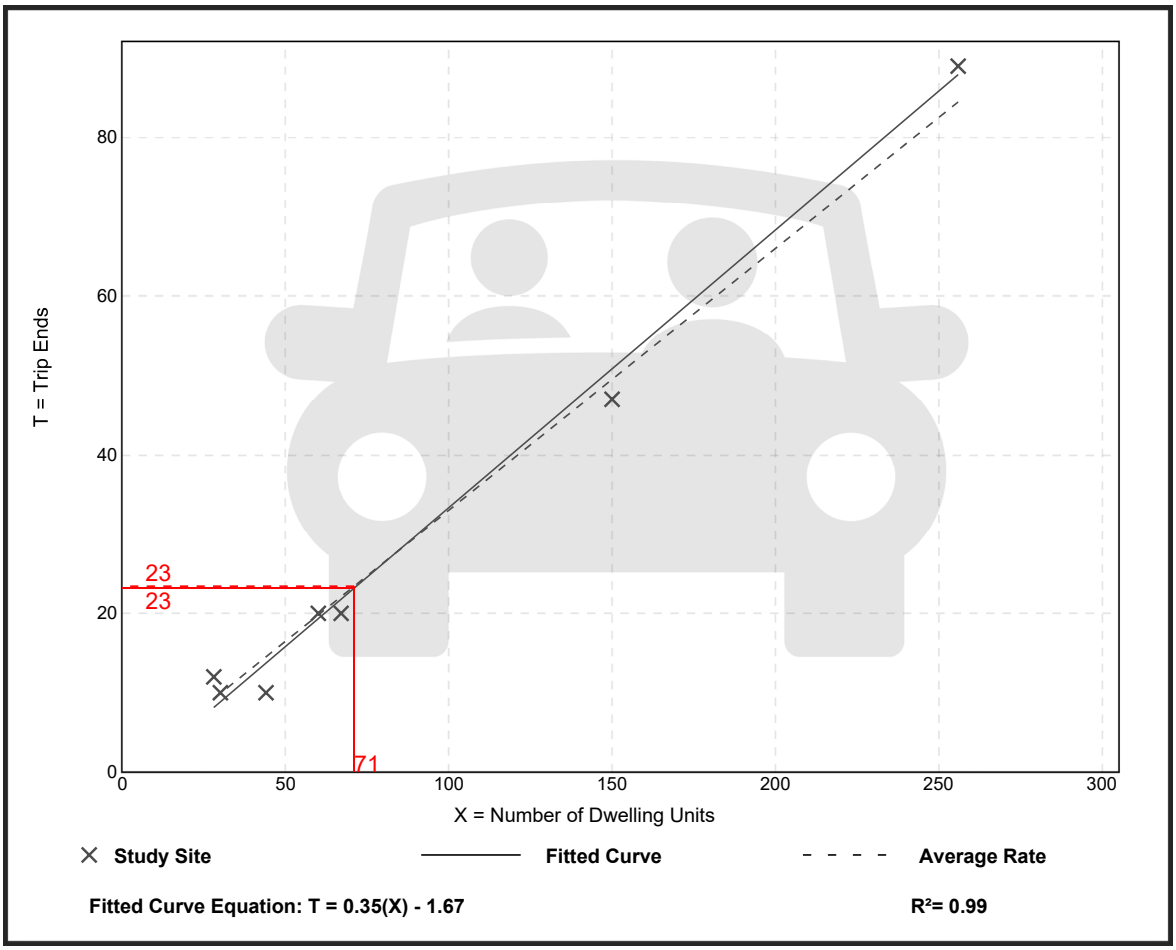
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Dwelling Units: 91
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.33	0.23 - 0.43	0.04

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Pearl Street	**Organization:**	T.Y. Lin International
Project Location:	Biddeford, Maine	**Performed By:**	Tom Errico, PE
Scenario Description:	Build	**Date:**	15-Sep-21
Analysis Year:	2022	**Checked By:**	
Analysis Period:	**PM Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	218	113	105
Cinema/Entertainment				0		
Residential	221	191	Units	78	47	31
Hotel				0		
All Other Land Uses[2]				0		
				296	160	136

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	296	160	136
Internal Capture Percentage	5%	5%	6%
External Vehicle-Trips[5]	280	152	128
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	2%
Cinema/Entertainment	N/A	N/A
Residential	4%	19%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Pearl Street	**Organization:**	T.Y. Lin International
Project Location:	Biddeford, Maine	**Performed By:**	Tom Errico, PE
Scenario Description:	Build	**Date:**	15-Sep-21
Analysis Year:	2022	**Checked By:**	
Analysis Period:	**Saturday Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	158	84	74
Cinema/Entertainment				0		
Residential	221	191	Units	87	43	44
Hotel				0		
All Other Land Uses[2]				0		
				245	127	118

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	245	127	118
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips[5]	223	116	107
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	11%	3%
Cinema/Entertainment	N/A	N/A
Residential	5%	20%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

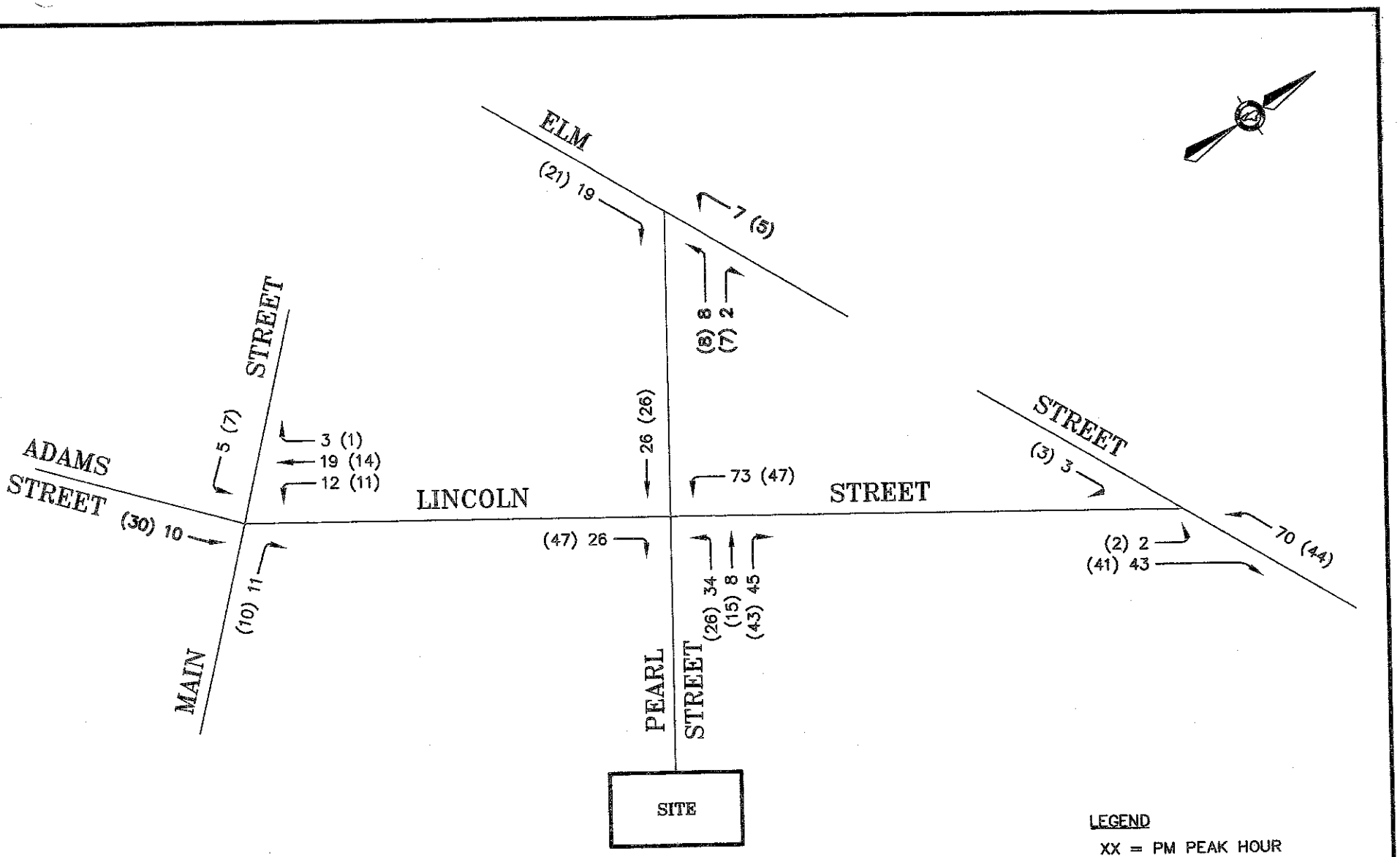
[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1



TOTAL "NET" TRIP ASSIGNMENT
(PM PEAK HOUR & SATURDAY PEAK HOUR)
FIGURE 5

E:\LAND PROJECTS\34000\34389 TRAFFIC SOLUTIONS\RIVERDAM REDEVELOPMENT\PLANSET\RIVERDAM.DWG

RIVERDAM REDEVELOPMENT BIDDEFORD, MAINE	TRAFFIC SOLUTIONS 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: AUGUST, 2019	FIGURE: 5

WHO BUT W.B.MASON

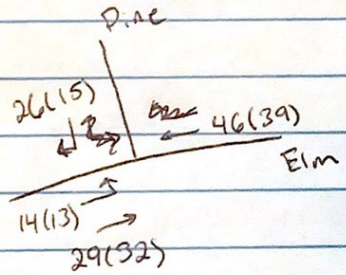
3 Lincoln St.

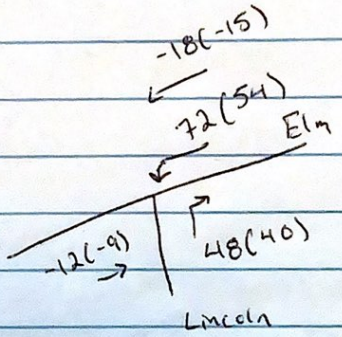
- TMC + Riverdam Traffic Volumes (Raw Data)

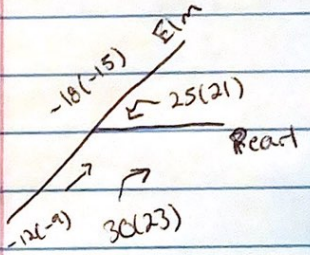
Additional trips

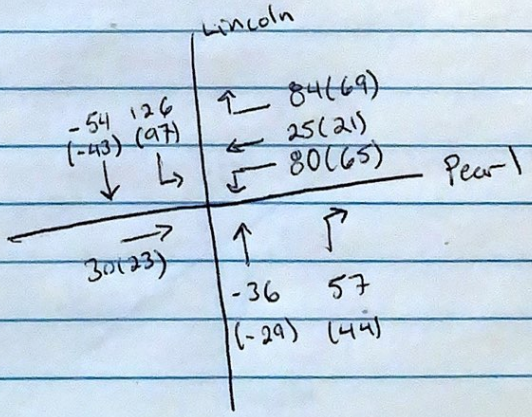
- Revised trip assignment
- Riverdam TMP
- Senior Housing PM + Saturday
- Lincoln Mill

Revised Trips

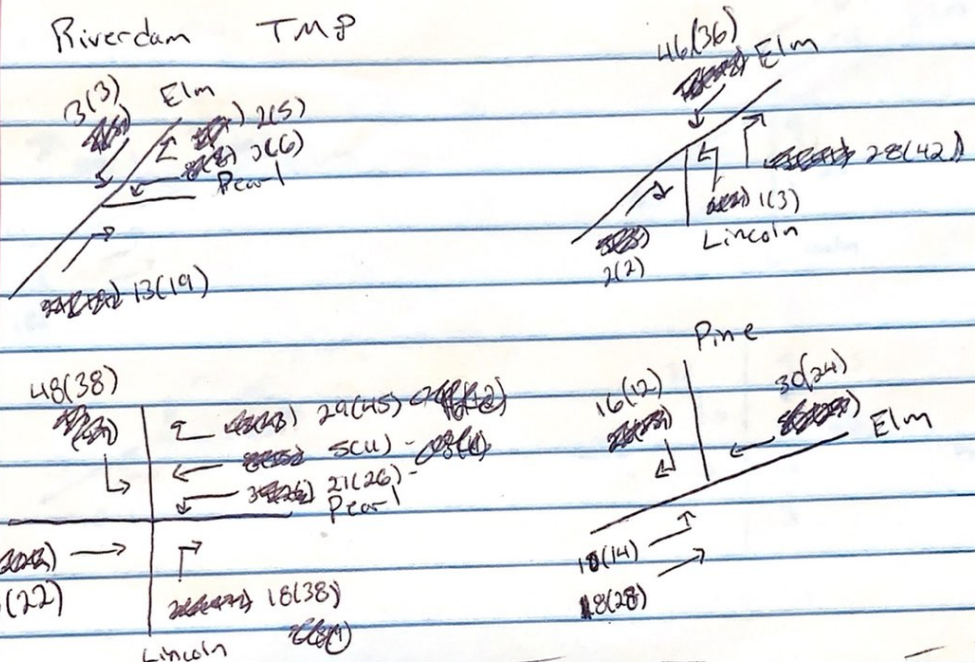








Riverdam TMP



Senior Housing 50% enter/exit from Pearl

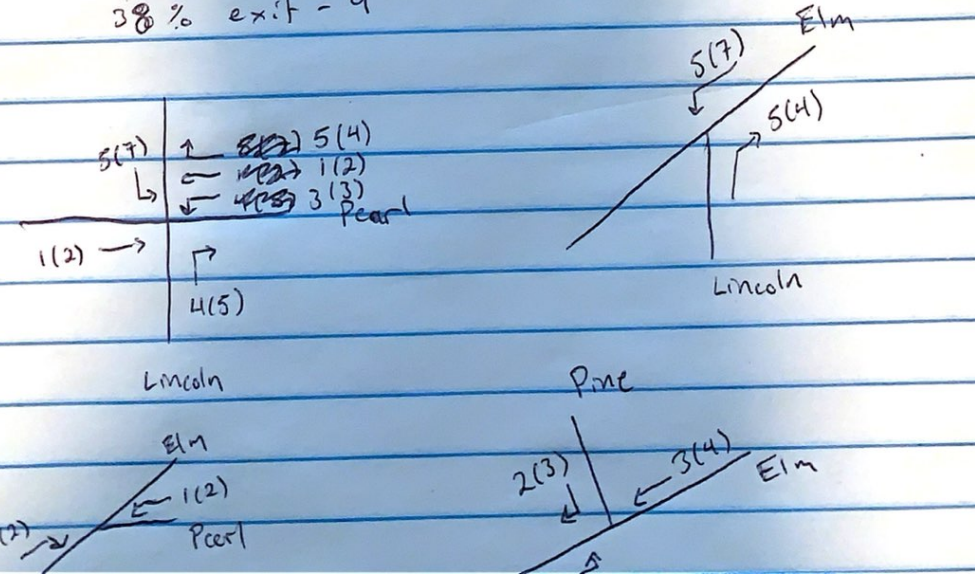
PM 55% enter - 10 > 19

45% exit - 9

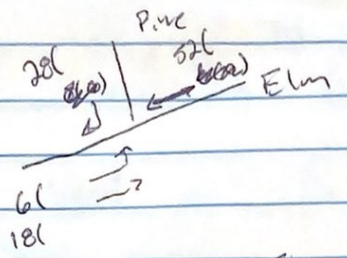
Saturday

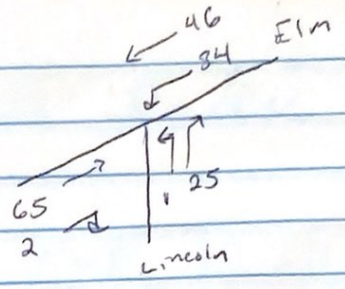
62% enter - 14 > 23

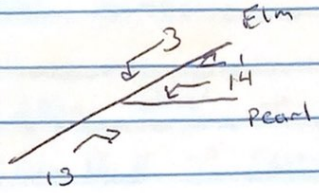
38% exit - 9

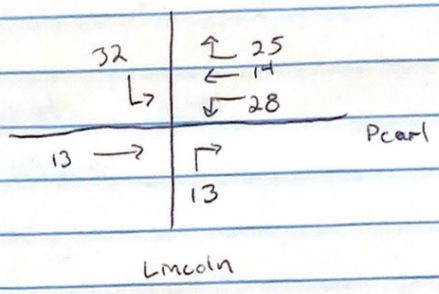


Lincoln Mill









C. Synchro/SimTraffic Output

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2402	2253	2298	2419	2293	2335
Vehs Exited	2367	2191	2236	2371	2286	2291
Starting Vehs	60	35	59	59	76	54
Ending Vehs	95	97	121	107	83	98
Travel Distance (mi)	1126	1055	1071	1129	1082	1092
Travel Time (hr)	141.9	221.1	202.1	166.3	107.9	167.9
Total Delay (hr)	99.4	181.2	161.7	123.5	67.1	126.6
Total Stops	1530	1280	1331	1611	1356	1422
Fuel Used (gal)	61.6	77.9	74.0	67.5	52.8	66.7

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2402	2253	2298	2419	2293	2335
Vehs Exited	2367	2191	2236	2371	2286	2291
Starting Vehs	60	35	59	59	76	54
Ending Vehs	95	97	121	107	83	98
Travel Distance (mi)	1126	1055	1071	1129	1082	1092
Travel Time (hr)	141.9	221.1	202.1	166.3	107.9	167.9
Total Delay (hr)	99.4	181.2	161.7	123.5	67.1	126.6
Total Stops	1530	1280	1331	1611	1356	1422
Fuel Used (gal)	61.6	77.9	74.0	67.5	52.8	66.7

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					122.2
Total Del/Veh (s)	5.6	639.0	12.0	2.8	51.8

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.8
Total Del/Veh (s)	88.8	325.1	2.3	22.6	2.6	21.8

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	15.0	79.1	15.0	2.4	23.9

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	37.8	1.2	1.2	2.1

Total Network Performance

Denied Del/Veh (s)	109.8
Total Del/Veh (s)	75.7

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	273	677	173	290	58
Average Queue (ft)	85	619	90	20	3
95th Queue (ft)	201	835	156	138	33
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		81		1	
Queuing Penalty (veh)		0		7	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			17	0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW	B5
Directions Served	R	LTR	LTR	L	TR	T
Maximum Queue (ft)	274	150	165	226	372	151
Average Queue (ft)	198	62	27	109	36	11
95th Queue (ft)	330	150	102	206	216	92
Link Distance (ft)	263	156	296		343	228
Upstream Blk Time (%)	21	10	0		2	0
Queuing Penalty (veh)	60	0	0		22	4
Storage Bay Dist (ft)				200		
Storage Blk Time (%)				5	0	
Queuing Penalty (veh)				35	0	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	88	536	228	84
Average Queue (ft)	36	142	46	26
95th Queue (ft)	71	403	172	71
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	SW	B15
Directions Served	LR	LT	T
Maximum Queue (ft)	78	189	12
Average Queue (ft)	20	28	0
95th Queue (ft)	53	110	8
Link Distance (ft)	399	157	296
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 150

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2230	2346	2209	2270	2214	2254
Vehs Exited	2206	2305	2167	2262	2195	2227
Starting Vehs	46	35	35	48	46	43
Ending Vehs	70	76	77	56	65	65
Travel Distance (mi)	975	1007	962	987	979	982
Travel Time (hr)	100.0	81.2	123.3	57.6	52.2	82.9
Total Delay (hr)	63.3	43.1	87.1	20.3	15.2	45.8
Total Stops	934	1051	948	1062	1131	1024
Fuel Used (gal)	48.0	44.8	53.2	38.5	37.5	44.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2230	2346	2209	2270	2214	2254
Vehs Exited	2206	2305	2167	2262	2195	2227
Starting Vehs	46	35	35	48	46	43
Ending Vehs	70	76	77	56	65	65
Travel Distance (mi)	975	1007	962	987	979	982
Travel Time (hr)	100.0	81.2	123.3	57.6	52.2	82.9
Total Delay (hr)	63.3	43.1	87.1	20.3	15.2	45.8
Total Stops	934	1051	948	1062	1131	1024
Fuel Used (gal)	48.0	44.8	53.2	38.5	37.5	44.4

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					39.6
Total Del/Veh (s)	3.9	282.3	7.5	2.0	40.0

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	9.5	23.0	1.1	7.8	0.7	2.9

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	6.6	6.8	0.7	1.9	3.5

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	36.7	1.2	0.6	2.3

Total Network Performance

Denied Del/Veh (s)	33.0
Total Del/Veh (s)	38.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE
Directions Served	LR	LR	L	R
Maximum Queue (ft)	156	677	125	9
Average Queue (ft)	52	488	57	0
95th Queue (ft)	117	861	107	4
Link Distance (ft)	1157	662		228
Upstream Blk Time (%)		46		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			150	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW
Directions Served	R	LTR	LTR	L
Maximum Queue (ft)	93	51	62	112
Average Queue (ft)	38	16	6	44
95th Queue (ft)	77	40	33	82
Link Distance (ft)	263	156	296	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	80	107	30	80
Average Queue (ft)	32	49	2	18
95th Queue (ft)	56	81	13	55
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	95	4	107	18
Average Queue (ft)	31	0	10	1
95th Queue (ft)	70	3	56	13
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2448	2505	2444	2460	2519	2478
Vehs Exited	2351	2398	2369	2396	2453	2392
Starting Vehs	60	61	74	77	67	65
Ending Vehs	157	168	149	141	133	150
Travel Distance (mi)	1125	1143	1117	1139	1154	1135
Travel Time (hr)	273.2	242.6	237.1	212.1	172.7	227.6
Total Delay (hr)	230.5	199.3	194.8	169.0	128.8	184.5
Total Stops	1657	1794	1566	1803	1786	1720
Fuel Used (gal)	91.9	85.5	83.7	78.2	69.9	81.8

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2448	2505	2444	2460	2519	2478
Vehs Exited	2351	2398	2369	2396	2453	2392
Starting Vehs	60	61	74	77	67	65
Ending Vehs	157	168	149	141	133	150
Travel Distance (mi)	1125	1143	1117	1139	1154	1135
Travel Time (hr)	273.2	242.6	237.1	212.1	172.7	227.6
Total Delay (hr)	230.5	199.3	194.8	169.0	128.8	184.5
Total Stops	1657	1794	1566	1803	1786	1720
Fuel Used (gal)	91.9	85.5	83.7	78.2	69.9	81.8

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					163.8
Total Del/Veh (s)	6.2	812.3	13.8	2.9	54.3

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.9
Total Del/Veh (s)	108.1	498.9	2.8	30.3	4.7	29.2

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					23.5
Total Del/Veh (s)	33.8	223.1	21.5	3.7	70.2

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	68.7	1.7	1.3	3.8

Total Network Performance

Denied Del/Veh (s)	147.4
Total Del/Veh (s)	101.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	321	677	168	214	65
Average Queue (ft)	89	636	99	22	3
95th Queue (ft)	217	812	168	139	32
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		89		1	
Queuing Penalty (veh)		0		6	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			3		
Queuing Penalty (veh)			24		

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW	B5
Directions Served	R	LTR	LTR	L	TR	T
Maximum Queue (ft)	276	154	207	225	392	209
Average Queue (ft)	245	73	33	144	69	21
95th Queue (ft)	321	175	117	250	306	131
Link Distance (ft)	263	156	296		343	228
Upstream Blk Time (%)	33	17	0		4	1
Queuing Penalty (veh)	110	0	1		48	16
Storage Bay Dist (ft)				200		
Storage Blk Time (%)				11	0	
Queuing Penalty (veh)				81	0	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	177	867	248	172
Average Queue (ft)	60	449	74	48
95th Queue (ft)	137	996	217	110
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)		27	3	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	149	4	138	7
Average Queue (ft)	37	0	24	0
95th Queue (ft)	126	3	95	5
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)	0		1	
Queuing Penalty (veh)	0		4	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 292

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2386	2547	2460	2356	2340	2418
Vehs Exited	2363	2503	2423	2339	2331	2392
Starting Vehs	53	37	38	54	57	45
Ending Vehs	76	81	75	71	66	70
Travel Distance (mi)	1040	1097	1063	1026	1028	1051
Travel Time (hr)	96.7	101.2	80.0	81.8	83.6	88.7
Total Delay (hr)	57.3	59.5	39.6	42.7	44.5	48.7
Total Stops	1221	1321	1263	1304	1276	1274
Fuel Used (gal)	49.4	52.2	45.9	45.5	46.0	47.8

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2386	2547	2460	2356	2340	2418
Vehs Exited	2363	2503	2423	2339	2331	2392
Starting Vehs	53	37	38	54	57	45
Ending Vehs	76	81	75	71	66	70
Travel Distance (mi)	1040	1097	1063	1026	1028	1051
Travel Time (hr)	96.7	101.2	80.0	81.8	83.6	88.7
Total Delay (hr)	57.3	59.5	39.6	42.7	44.5	48.7
Total Stops	1221	1321	1263	1304	1276	1274
Fuel Used (gal)	49.4	52.2	45.9	45.5	46.0	47.8

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					31.4
Total Del/Veh (s)	4.1	321.9	8.6	2.4	46.3

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	12.5	31.1	1.4	8.4	0.8	4.0

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	8.4	11.3	0.8	2.8	5.9

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	66.7	1.5	1.3	4.9

Total Network Performance

Denied Del/Veh (s)	25.3
Total Del/Veh (s)	45.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	183	677	138	106	58
Average Queue (ft)	55	569	63	5	4
95th Queue (ft)	130	872	115	58	54
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		64		0	
Queuing Penalty (veh)		0		3	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			1	0	
Queuing Penalty (veh)			5	0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW
Directions Served	R	LTR	LTR	L	TR
Maximum Queue (ft)	125	59	112	134	4
Average Queue (ft)	49	18	12	53	0
95th Queue (ft)	106	47	59	100	3
Link Distance (ft)	263	156	296		343
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				200	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	74	187	31	110
Average Queue (ft)	35	76	3	32
95th Queue (ft)	62	142	17	83
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	165	9	178	25
Average Queue (ft)	55	0	20	1
95th Queue (ft)	135	4	105	14
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			5	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 13

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1163	1210	1161	1138	1104	1155
Vehs Exited	1172	1209	1168	1134	1104	1158
Starting Vehs	16	10	15	10	7	12
Ending Vehs	7	11	8	14	7	9
Travel Distance (mi)	233	237	231	219	217	227
Travel Time (hr)	12.7	13.3	12.3	12.0	11.4	12.3
Total Delay (hr)	4.1	4.5	3.8	3.9	3.4	3.9
Total Stops	1166	1208	1164	1135	1104	1156
Fuel Used (gal)	10.6	11.0	10.5	10.0	9.8	10.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1163	1210	1161	1138	1104	1155
Vehs Exited	1172	1209	1168	1134	1104	1158
Starting Vehs	16	10	15	10	7	12
Ending Vehs	7	11	8	14	7	9
Travel Distance (mi)	233	237	231	219	217	227
Travel Time (hr)	12.7	13.3	12.3	12.0	11.4	12.3
Total Delay (hr)	4.1	4.5	3.8	3.9	3.4	3.9
Total Stops	1166	1208	1164	1135	1104	1156
Fuel Used (gal)	10.6	11.0	10.5	10.0	9.8	10.4

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.4
Total Del/Veh (s)	7.4	8.1	8.5	12.9	10.1

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	11.8

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	82	132	111	233
Average Queue (ft)	37	64	59	105
95th Queue (ft)	63	106	94	185
Link Distance (ft)	448	862	314	352
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2590	2606	2588	2471	2558	2564
Vehs Exited	2488	2483	2498	2376	2471	2463
Starting Vehs	55	62	69	76	65	64
Ending Vehs	157	185	159	171	152	165
Travel Distance (mi)	1178	1182	1176	1135	1167	1167
Travel Time (hr)	215.8	189.2	157.9	250.8	162.4	195.2
Total Delay (hr)	171.1	144.4	113.3	207.9	118.0	151.0
Total Stops	2069	2227	2059	2383	2246	2196
Fuel Used (gal)	80.4	74.2	67.3	86.9	67.8	75.3

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2590	2606	2588	2471	2558	2564
Vehs Exited	2488	2483	2498	2376	2471	2463
Starting Vehs	55	62	69	76	65	64
Ending Vehs	157	185	159	171	152	165
Travel Distance (mi)	1178	1182	1176	1135	1167	1167
Travel Time (hr)	215.8	189.2	157.9	250.8	162.4	195.2
Total Delay (hr)	171.1	144.4	113.3	207.9	118.0	151.0
Total Stops	2069	2227	2059	2383	2246	2196
Fuel Used (gal)	80.4	74.2	67.3	86.9	67.8	75.3

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	R	L	R	
Denied Del/Veh (s)					75.1
Total Del/Veh (s)	15.2	411.9	13.2	3.0	51.7

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						4.2
Total Del/Veh (s)	128.2	1103.7	3.2	33.5	7.4	35.9

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					35.6
Total Del/Veh (s)	10.9	288.3	115.2	13.3	110.8

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	73.4	1.7	1.6	4.1

Total Network Performance

Denied Del/Veh (s)	80.5
Total Del/Veh (s)	123.4

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	R	L	R	T
Maximum Queue (ft)	428	678	169	166	112
Average Queue (ft)	152	605	89	16	10
95th Queue (ft)	602	867	156	125	98
Link Distance (ft)	1163	663		222	343
Upstream Blk Time (%)	4	77		1	1
Queuing Penalty (veh)	0	0		15	7
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			3		
Queuing Penalty (veh)			21		

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	B15	SW	SW	B5
Directions Served	R	LTR	LTR	T	L	TR	T
Maximum Queue (ft)	276	171	234	9	225	420	229
Average Queue (ft)	260	109	36	0	159	108	41
95th Queue (ft)	319	207	144	7	256	397	186
Link Distance (ft)	263	156	296	157		343	222
Upstream Blk Time (%)	48	45	0			10	3
Queuing Penalty (veh)	160	0	3			125	39
Storage Bay Dist (ft)					200		
Storage Blk Time (%)					19	0	
Queuing Penalty (veh)					135	1	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	84	896	354	209
Average Queue (ft)	40	600	231	113
95th Queue (ft)	71	1146	413	188
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)		40	39	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	168	4	182	63
Average Queue (ft)	40	0	30	2
95th Queue (ft)	119	3	114	35
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			6	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 512

D. Crash Data

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **56644** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

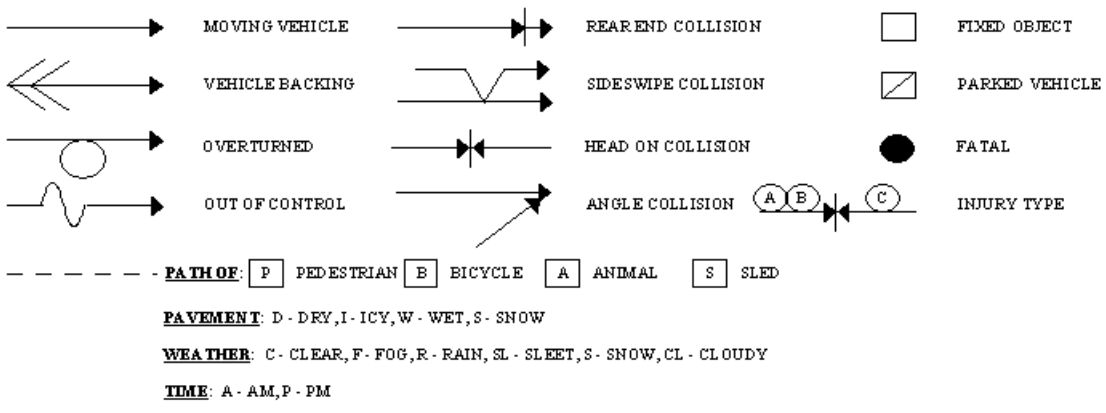
DESCRIPTION: **Jct of Elm St & Lincoln St**

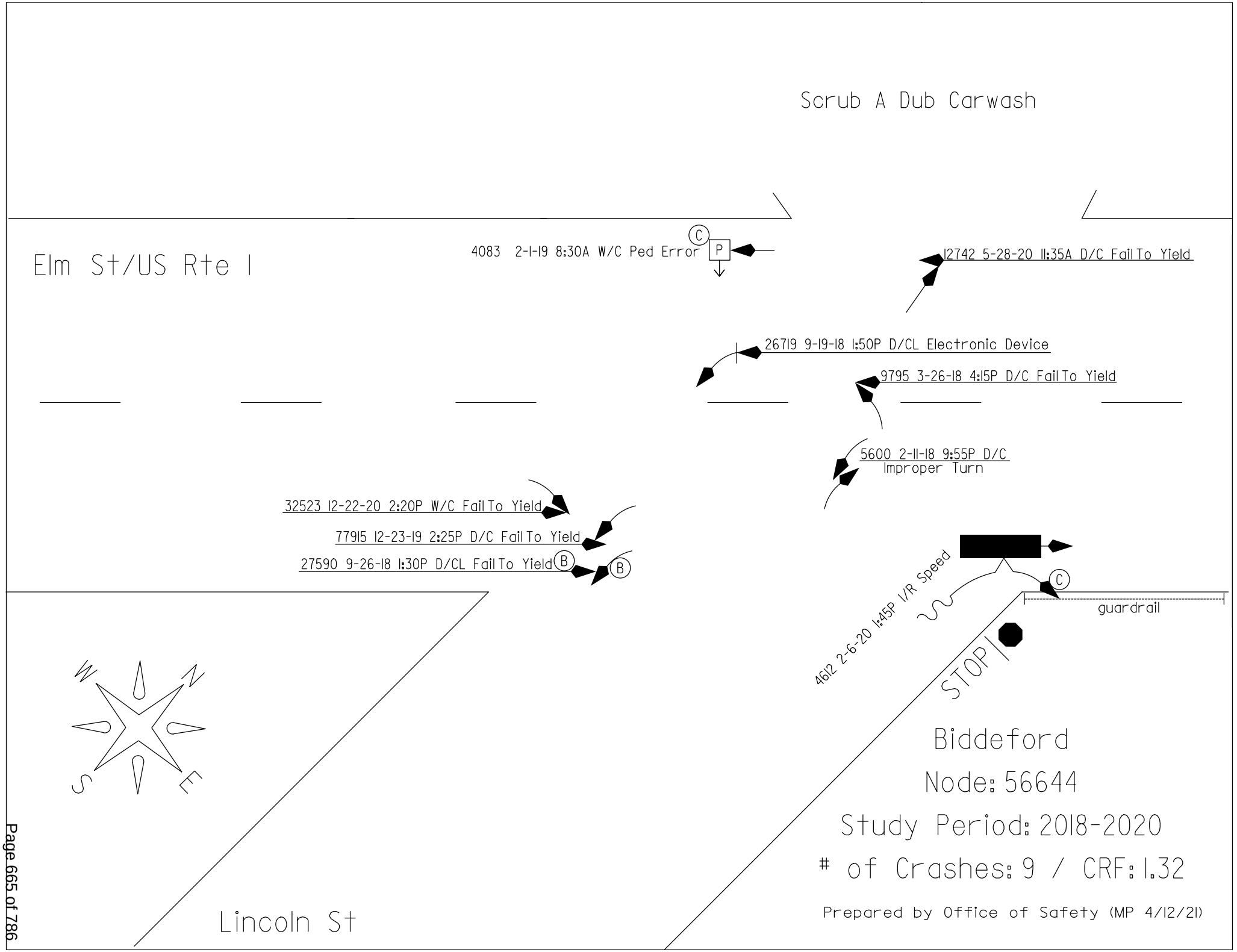
RTE # / RD #: **0001X** DATE DRAWN: **4/12/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **0.49** CRF: **1.32** % INJURY: **33.3** TOTAL CRASHES: **9**

LEGEND




Scrub A Dub Carwash
Elm St/US Rte 1
4083 2-1-19 8:30A W/C Ped Error
C
P
12742 5-28-20 11:35A D/C Fail To Yield
26719 9-19-18 1:50P D/CL Electronic Device
9795 3-26-18 4:15P D/C Fail To Yield
5600 2-11-18 9:55P D/C
Improper Turn
32523 12-22-20 2:20P W/C Fail To Yield
77915 12-23-19 2:25P D/C Fail To Yield
27590 9-26-18 1:30P D/CL Fail To Yield
B
B
C
guardrail
4612 2-6-20 1:45P I/R Speed
STOP
N
E
S
W
Lincoln St
Biddeford
Node: 56644
Study Period: 2018-2020
# of Crashes: 9 / CRF: 1.32
Prepared by Office of Safety (MP 4/12/21)

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **56648** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

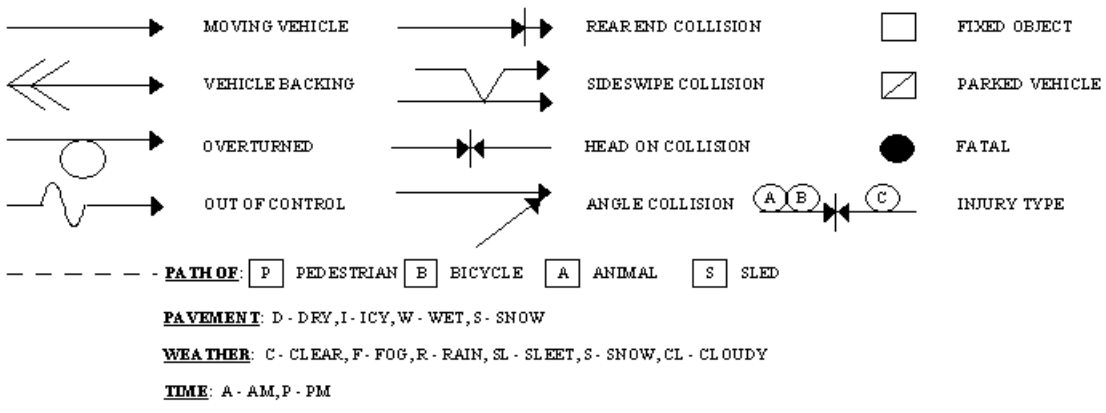
DESCRIPTION: **Jct of Elm St & Pine St**

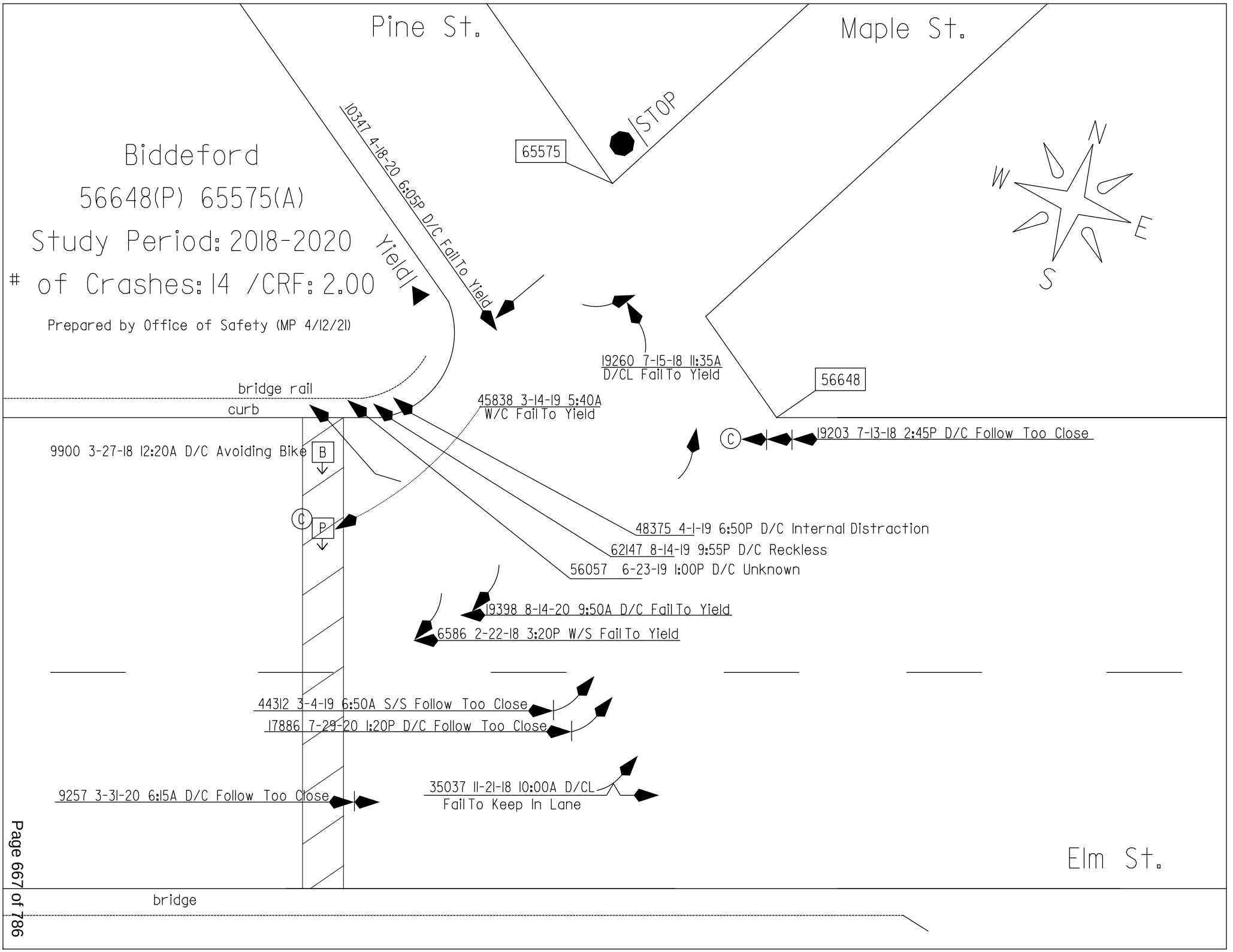
RTE # / RD #: **0001S** DATE DRAWN: **4/12/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **0.74** CRF: **2** % INJURY: **14.3** TOTAL CRASHES: **14**

LEGEND




Pine St.
Maple St.
Biddeford
56648(P) 65575(A)
Study Period: 2018-2020
# of Crashes: 14 /CRF: 2.00
Prepared by Office of Safety (MP 4/12/21)
10347 4-18-20 6:05P D/C Fail To Yield
Yield
65575
STOP
N
W
E
S
19260 7-15-18 11:35A
D/CL Fail To Yield
56648
bridge rail
curb
45838 3-14-19 5:40A
W/C Fail To Yield
19203 7-13-18 2:45P D/C Follow Too Close
9900 3-27-18 12:20A D/C Avoiding Bike
B
C
P
48375 4-1-19 6:50P D/C Internal Distraction
62147 8-14-19 9:55P D/C Reckless
56057 6-23-19 1:00P D/C Unknown
19398 8-14-20 9:50A D/C Fail To Yield
6586 2-22-18 3:20P W/S Fail To Yield
44312 3-4-19 6:50A S/S Follow Too Close
17886 7-29-20 1:20P D/C Follow Too Close
9257 3-31-20 6:15A D/C Follow Too Close
35037 11-21-18 10:00A D/CL
Fail To Keep In Lane
Elm St.
bridge

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **58493** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

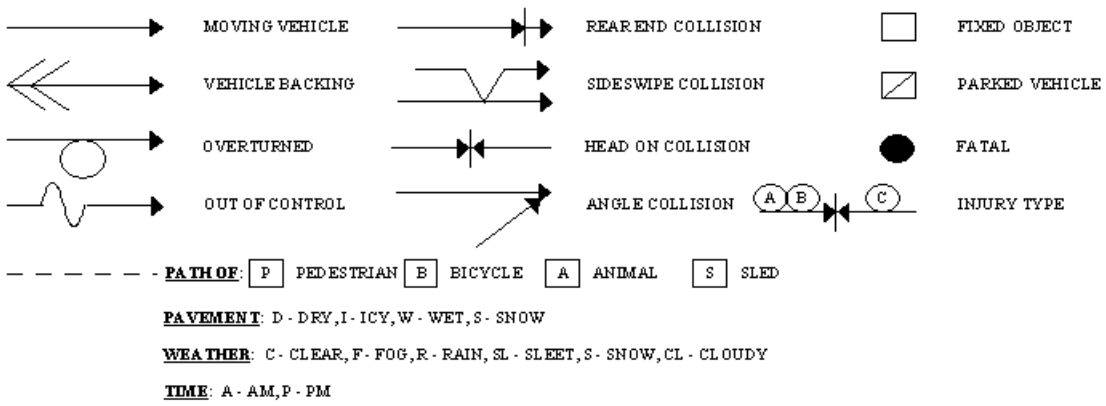
DESCRIPTION: **Jct of Main St & Jefferson St**

RTE # / RD #: **3110086** DATE DRAWN: **4/9/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **1.39** CRF: **2.9** % INJURY: **25** TOTAL CRASHES: **8**

LEGEND



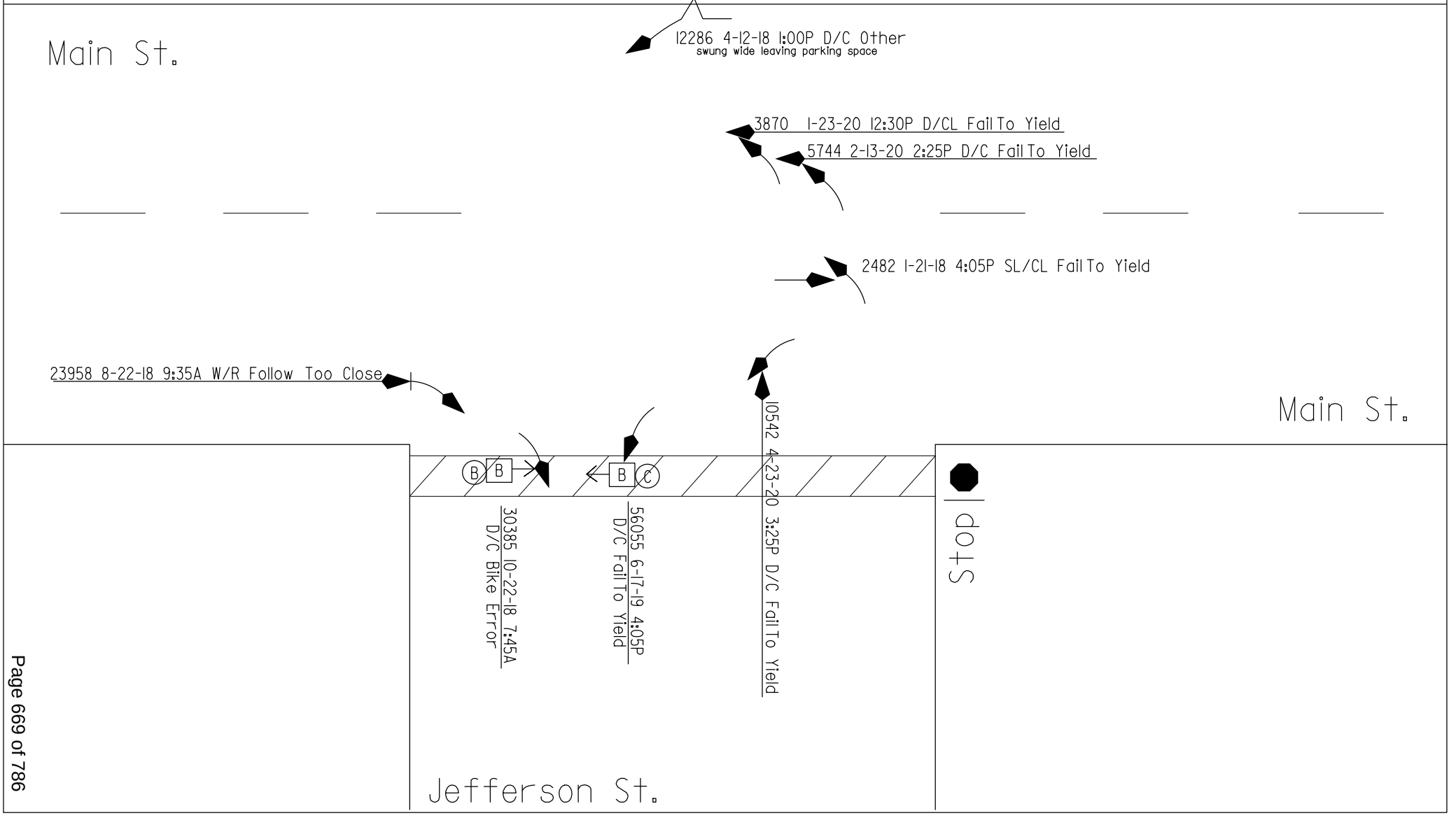
Biddeford

Node: 58493

Study Period: 2018-2020

of Crashes: 8 / CRF: 2.90

Prepared by Office of Safety (MP 4/9/21)



H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **58494** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

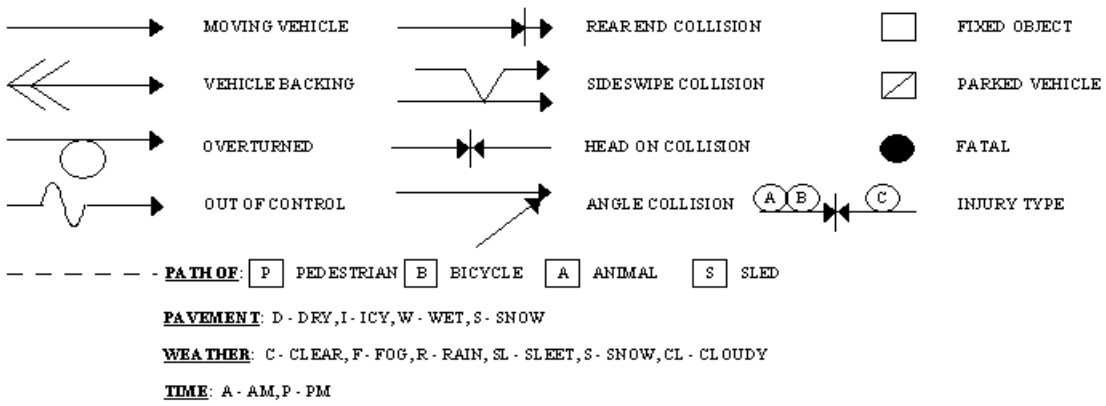
DESCRIPTION: **Jct of Main St & Adams St/Lincoln St**

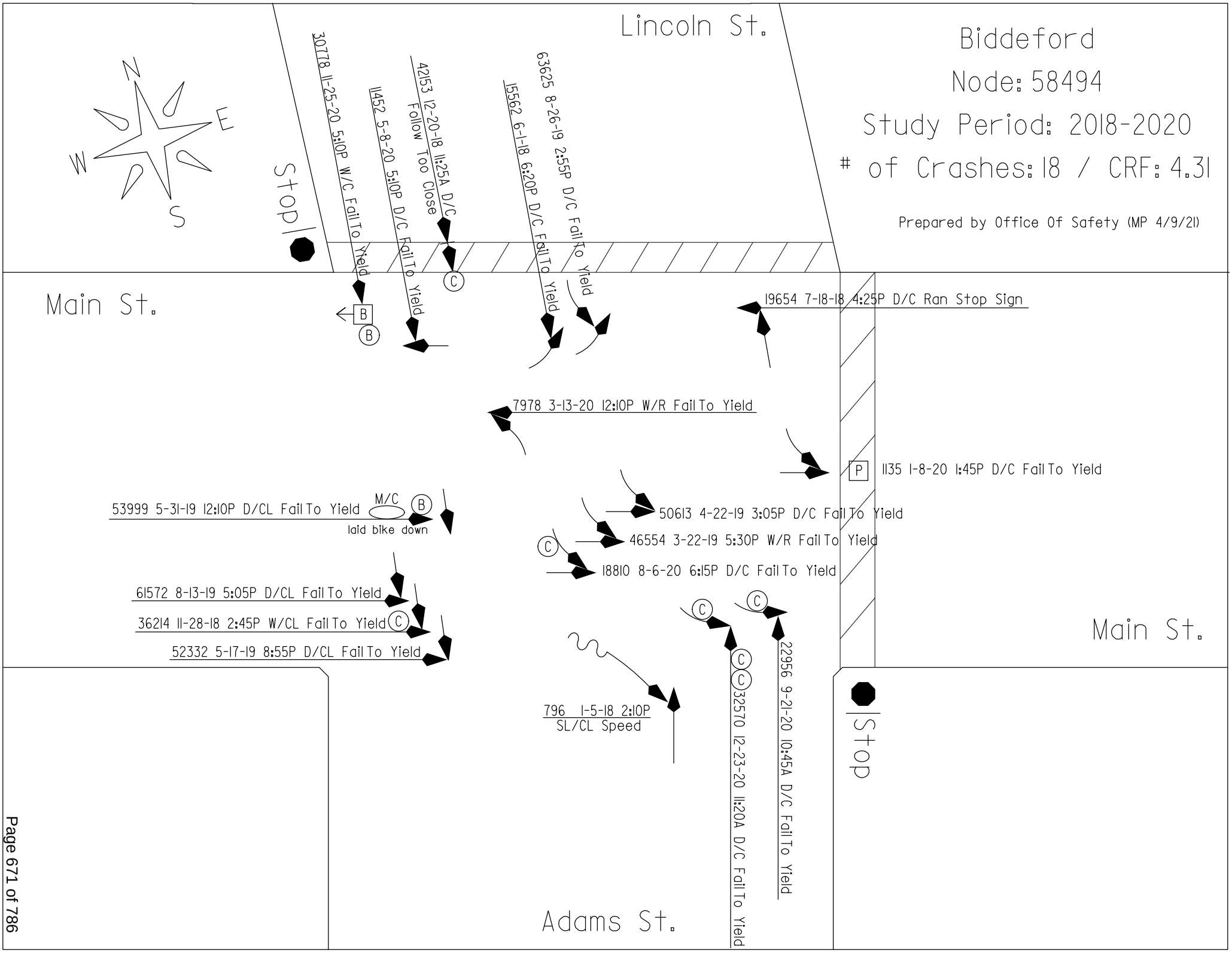
RTE # / RD #: **3110002** DATE DRAWN: **4/9/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018** STUDY TO: **12/31/2020**

CRASH RATE: **1.79** CRF: **4.31** % INJURY: **38.9** TOTAL CRASHES: **18**

LEGEND




Biddeford
Node: 58494
Study Period: 2018-2020
# of Crashes: 18 / CRF: 4.31
Prepared by Office Of Safety (MP 4/9/21)
Lincoln St.
Main St.
Main St.
Adams St.
N
E
S
W
Stop
Stop
30778 11-25-20 5:10P W/C Fail To Yield
11452 5-8-20 5:10P D/C Fail To Yield
42153 12-20-18 11:25A D/C Follow Too Close
15562 6-1-18 6:20P D/C Fail To Yield
63625 8-26-19 2:55P D/C Fail To Yield
19654 7-18-18 4:25P D/C Ran Stop Sign
7978 3-13-20 12:10P W/R Fail To Yield
1135 1-8-20 1:45P D/C Fail To Yield
53999 5-31-19 12:10P D/CL Fail To Yield M/C
laid bike down
50613 4-22-19 3:05P D/C Fail To Yield
46554 3-22-19 5:30P W/R Fail To Yield
18810 8-6-20 6:15P D/C Fail To Yield
61572 8-13-19 5:05P D/CL Fail To Yield
36214 11-28-18 2:45P W/CL Fail To Yield
52332 5-17-19 8:55P D/CL Fail To Yield
796 1-5-18 2:10P
SL/CL Speed
32570 12-23-20 11:20A D/C Fail To Yield
22956 9-21-20 10:45A D/C Fail To Yield

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Biddeford
Elm St./Lincoln St./Main St./Pearl St. Area

REPORT PARAMETERS

Year 2018, Start Month 1 through Year 2020 End Month: 12

Route: 0001X	Start Node: 56640	Start Offset: 0	☐ Exclude First Node
	End Node: 56649	End Offset: 0	☐ Exclude Last Node
Route: 3110126	Start Node: 58512	Start Offset: 0	☑ Exclude First Node
	End Node: 58514	End Offset: 0	☑ Exclude Last Node
Route: 3110102	Start Node: 56644	Start Offset: 0	☑ Exclude First Node
	End Node: 58494	End Offset: 0	☑ Exclude Last Node
Route: 3110104	Start Node: 58494	Start Offset: 0	☐ Exclude First Node
	End Node: 56640	End Offset: 0	☑ Exclude Last Node
Route: 0001S	Start Node: 58711	Start Offset: 0	☑ Exclude First Node
	End Node: 56648	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
56640	0001X - 33.99	Int of ELM ST MAIN ST	9	22	0	0	1	4	17	22.7	6.161	1.19	1.27	0.94
												Statewide Crash Rate:	0.77	
56641	0001X - 34.04	Int of ELM ST ST MARYS ST	2	7	0	0	0	2	5	28.6	5.192	0.45	0.39	1.16
												Statewide Crash Rate:	0.16	
58514	0001X - 34.05	Int of ELM ST PEARL ST	2	3	0	0	1	0	2	33.3	4.797	0.21	0.40	0.00
												Statewide Crash Rate:	0.16	
56642	0001X - 34.09	Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	9	17	0	0	0	6	11	35.3	4.585	1.24	1.34	0.92
												Statewide Crash Rate:	0.77	
58517	0001X - 34.13	Int of ELM ST THORNTON ST	2	0	0	0	0	0	0	0.0	4.588	0.00	0.40	0.00
												Statewide Crash Rate:	0.16	
56644	0001X - 34.16	Int of ELM ST, LINCOLN ST	2	9	0	0	1	2	6	33.3	6.080	0.49	0.37	1.32
												Statewide Crash Rate:	0.16	
56645	0001X - 34.19	Int of ELM ST HOOPER ST	2	1	0	0	0	0	1	0.0	6.086	0.05	0.37	0.00
												Statewide Crash Rate:	0.16	
58519	0001X - 34.25	Int of DIAMOND ST ELM ST	2	6	0	0	2	2	2	66.7	6.084	0.33	0.37	0.00
												Statewide Crash Rate:	0.16	
56647	0001X - 34.29	BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	2	0	0	0	0	0	0	0.0	2.972	0.00	0.45	0.00
												Statewide Crash Rate:	0.16	
P56648	0001X - 34.31	Int of ELM ST PINE ST	2	14	0	0	0	2	12	14.3	6.277	0.74	0.37	2.00
												Statewide Crash Rate:	0.16	
58711	0001X - 34.33	Non Int ELM ST	2	0	0	0	0	0	0	0.0	4.753	0.00	0.40	0.00
												Statewide Crash Rate:	0.16	
56649	0001X - 34.48	TL - Biddeford, Saco	2	0	0	0	0	0	0	0.0	5.132	0.00	0.39	0.00
												Statewide Crash Rate:	0.16	
58513	3110126 - 0.06	Int of PEARL ST STONE ST	2	0	0	0	0	0	0	0.0	0.519	0.00	0.63	0.00
												Statewide Crash Rate:	0.15	
58512	3110102 - 0.07	Int of LINCOLN ST PEARL ST	2	1	0	0	0	0	1	0.0	2.008	0.17	0.47	0.00
												Statewide Crash Rate:	0.15	
58515	3110102 - 0.17	Int of LINCOLN ST STONE ST	2	0	0	0	0	0	0	0.0	2.144	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
58494	3110104 - 0.15	Int of ADAMS ST LINCOLN ST MAIN ST	2	18	0	0	2	5	11	38.9	3.353	1.79	0.41	4.31
												Statewide Crash Rate:	0.15	
58493	3110104 - 0.25	Int of JEFFERSON ST MAIN ST	2	8	0	0	1	1	6	25.0	1.923	1.39	0.48	2.90
												Statewide Crash Rate:	0.15	
Study Years: 3.00		NODE TOTALS:		106	0	0	8	24	74	30.2	72.654	0.49	0.33	1.46

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	56641	3130112	0 - 0.05	0001X - 33.99	0.05	2	3	0	0	0	1	2	33.3	0.00235	425.56	624.97	0.00
Int of ELM ST MAIN ST				US 1											Statewide Crash Rate: 230.30		
56641	58514	3114278	0 - 0.01	0001X - 34.04	0.01	2	0	0	0	0	0	0	0.0	0.00049	0.00	909.62	0.00
Int of ELM ST ST MARYS ST				US 1											Statewide Crash Rate: 230.30		
56642	58514	3130113	0 - 0.04	0001X - 34.05	0.04	2	1	0	0	1	0	0	100.0	0.00177	188.67	672.93	0.00
Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD				US 1											Statewide Crash Rate: 230.30		
56642	58517	3944217	0 - 0.04	0001X - 34.09	0.04	2	0	0	0	0	0	0	0.0	0.00188	0.00	662.61	0.00
Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD				US 1											Statewide Crash Rate: 230.30		
56644	58517	3114282	0 - 0.03	0001X - 34.13	0.03	2	4	0	0	0	1	3	25.0	0.00133	1001.36	723.66	1.38
Int of ELM ST, LINCOLN ST				US 1											Statewide Crash Rate: 230.30		
56644	56645	3114280	0 - 0.03	0001X - 34.16	0.03	2	1	0	0	0	0	1	0.0	0.00179	186.48	670.90	0.00
Int of ELM ST, LINCOLN ST				US 1											Statewide Crash Rate: 230.30		
56645	58519	3937825	0 - 0.06	0001X - 34.19	0.06	2	2	0	0	0	0	2	0.0	0.00372	179.33	555.64	0.00
Int of ELM ST HOOPER ST				US 1											Statewide Crash Rate: 230.30		
56647	58519	3114285	0 - 0.04	0001X - 34.25	0.04	2	2	0	0	0	1	1	50.0	0.00238	280.41	623.08	0.00
BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)				US 1											Statewide Crash Rate: 230.30		
56647	56648	2837611	0 - 0.02	0001X - 34.29	0.02	2	3	0	0	0	2	1	66.7	0.00119	841.23	744.72	1.13
BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)				US 1											Statewide Crash Rate: 230.30		
56648	58711	3139816	0 - 0.02	0001X - 34.31	0.02	2	0	0	0	0	0	0	0.0	0.00045	0.00	922.12	0.00
Int of ELM ST PINE ST				US 1											Statewide Crash Rate: 230.30		
56649	58711	3116620	0 - 0.15	0001X - 34.33	0.15	2	6	0	0	0	0	6	0.0	0.00744	268.98	469.63	0.00
TL - Biddeford, Saco				US 1											Statewide Crash Rate: 230.30		
58512	58513	239919	0 - 0.06	3110126 - 0	0.06	2	1	0	0	0	0	1	0.0	0.00012	2855.67	1776.07	1.61
Int of LINCOLN ST PEARL ST				RD INV 31 10126											Statewide Crash Rate: 411.49		
58513	58514	239921	0 - 0.04	3110126 - 0.06	0.04	2	1	0	0	0	0	1	0.0	0.00011	3064.57	1771.95	1.73
Int of PEARL ST STONE ST				RD INV 31 10126											Statewide Crash Rate: 411.49		
56644	58512	3114281	0 - 0.07	3110102 - 0	0.07	2	1	0	0	0	0	1	0.0	0.00123	270.11	615.24	0.00
Int of ELM ST, LINCOLN ST				RD INV 31 10102											Statewide Crash Rate: 180.89		
58512	58515	3114626	0 - 0.10	3110102 - 0.07	0.10	2	4	0	0	0	1	3	25.0	0.00206	647.69	540.79	1.20
Int of LINCOLN ST PEARL ST				RD INV 31 10102											Statewide Crash Rate: 180.89		
58494	58515	3132475	0 - 0.04	3110102 - 0.17	0.04	2	0	0	0	0	0	0	0.0	0.00066	0.00	706.27	0.00
Int of ADAMS ST LINCOLN ST MAIN ST				RD INV 31 10102											Statewide Crash Rate: 180.89		
58493	58494	4046830	0 - 0.06	3110104 - 0.15	0.06	2	6	0	0	1	1	3	40.0	0.00093	2147.29	657.37	3.27
Int of JEFFERSON ST MAIN ST				RD INV 31 10104											Statewide Crash Rate: 180.89		
58493	58494	4046830	0.06 - 0.10	3110104 - 0.21	0.04	2	0	0	0	0	0	0	0.0	0.00062	0.00	715.21	0.00
Int of JEFFERSON ST MAIN ST				RD INV 31 10104											Statewide Crash Rate: 180.89		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	58493	3114277	0 - 0.09	3110104 - 0.25	0.09	2	5	0	0	0	2	2	50.0	0.00162	1030.79	575.27	1.79
Int of ELM ST	MAIN ST			RD INV 31 10104											Statewide Crash Rate: 180.89		
58711	56648	3129094	0 - 0.02	0001S - 23.94	0.02	2	0	0	0	0	0	0	0.0	0.00045	0.00	922.12	0.00
Non Int ELM ST				US 1 SB											Statewide Crash Rate: 230.30		
Study Years: 3.00				Section Totals:	1.01		40	0	0	2	9	27	27.5	0.03258	409.23	338.05	1.21
				Grand Totals:	1.01		146	0	0	10	33	101	29.5	0.03258	1493.69	479.58	3.11

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
56640	56641	3130112	0 - 0.05	0001X - 33.99	3	0	0	0	1	2	2018-4672	02/07/2018	34.01	PD
											2019-44415	03/03/2019	34.02	C
											2018-25216	09/05/2018	34.02	PD
56641	58514	3114278	0 - 0.01	0001X - 34.04	0	0	0	0	0	0				
56642	58514	3130113	0 - 0.04	0001X - 34.05	1	0	0	1	0	0	2018-32156	10/30/2018	34.07	B
56642	58517	3944217	0 - 0.04	0001X - 34.09	0	0	0	0	0	0				
56644	58517	3114282	0 - 0.03	0001X - 34.13	4	0	0	0	1	3	2019-42440	02/15/2019	34.15	C
											2018-2357	01/21/2018	34.15	PD
											2020-20414	08/25/2020	34.15	PD
											2018-24502	08/24/2018	34.15	PD
56644	56645	3114280	0 - 0.03	0001X - 34.16	1	0	0	0	0	1	2018-3772	01/31/2018	34.18	PD
56645	58519	3937825	0 - 0.06	0001X - 34.19	2	0	0	0	0	2	2018-6440	02/21/2018	34.20	PD
											2019-46111	03/15/2019	34.24	PD
56647	58519	3114285	0 - 0.04	0001X - 34.25	2	0	0	0	1	1	2018-30221	10/23/2018	34.26	PD
											2018-18747	07/06/2018	34.28	C
56647	56648	2837611	0 - 0.02	0001X - 34.29	3	0	0	0	2	1	2020-15927	07/05/2020	34.30	C
											2020-16535	07/11/2020	34.30	C
											2020-25311	10/20/2020	34.30	PD
56648	58711	3139816	0 - 0.02	0001X - 34.31	0	0	0	0	0	0				
56649	58711	3116620	0 - 0.15	0001X - 34.33	6	0	0	0	0	6	2018-26829	09/24/2018	34.34	PD
											2020-14282	06/11/2020	34.34	PD
											2018-22465	08/13/2018	34.39	PD
											2019-4073	01/25/2019	34.42	PD
											2019-75562	12/08/2019	34.43	PD
											2018-10382	04/02/2018	34.44	PD
58512	58513	239919	0 - 0.06	3110126 - 0	1	0	0	0	0	1	2020-6373	02/21/2020	0.01	PD
58513	58514	239921	0 - 0.04	3110126 - 0.06	1	0	0	0	0	1	2018-4617	02/06/2018	0.09	PD
56644	58512	3114281	0 - 0.07	3110102 - 0	1	0	0	0	0	1	2019-43804	02/18/2019	0.02	PD
58512	58515	3114626	0 - 0.10	3110102 - 0.07	4	0	0	0	1	3	2020-26347	10/31/2020	0.08	PD
											2019-48376	04/06/2019	0.09	C
											2019-67427	10/01/2019	0.16	PD
											2020-5056	02/13/2020	0.16	PD
58494	58515	3132475	0 - 0.04	3110102 - 0.17	0	0	0	0	0	0				
58493	58494	4046830	0.06 - 0.10	3110104 - 0.15	0	0	0	0	0	0				

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
58493	58494	4046830	0 - 0.06	3110104 - 0.15	6	0	0	1	1	3	2018-7638	03/05/2018	0.20	PD
											2020-22459	09/18/2020	0.22	B
											2019-62667	08/24/2019	0.22	C
											2018-1561	01/16/2018	0.22	PD
											2018-32265	11/03/2018	0.23	
											2019-75926	10/21/2019	0.24	PD
56640	58493	3114277	0 - 0.09	3110104 - 0.25	5	0	0	0	2	2	2018-9686	03/17/2018	0.27	PD
											2018-26434	09/17/2018	0.28	PD
											2018-17433	06/23/2018	0.31	C
											2018-9357	03/19/2018	0.31	C
											2018-3953	02/02/2018	0.32	
58711	56648	3129094	0 - 0.02	0001S - 23.94	0	0	0	0	0	0				
				Totals:	40	0	0	2	9	27				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM													
	Hour of Day																									
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	1	1	0	0	0	0	0	0	0	0	1	2	1	1	2	1	0	1	1	0	0	1	0	0	0	13
MONDAY	0	0	0	0	0	0	1	1	1	0	3	0	3	1	3	4	3	2	2	0	0	0	0	0	0	24
TUESDAY	1	0	0	0	0	0	1	0	0	1	4	1	1	3	1	1	3	1	0	1	0	1	0	0	0	20
WEDNESDAY	0	1	0	0	0	0	0	1	0	1	2	4	2	4	2	0	4	3	1	0	0	1	0	0	0	26
THURSDAY	0	0	0	0	0	1	0	0	1	0	0	4	1	4	1	3	2	1	1	0	0	1	0	0	0	20
FRIDAY	1	0	0	0	0	1	2	3	2	3	0	0	3	2	3	0	1	4	1	0	1	0	0	1	0	28
SATURDAY	0	0	0	0	0	0	0	1	1	1	0	1	1	0	2	1	1	1	2	2	0	0	1	0	0	15
Totals	3	2	0	0	0	2	4	6	5	6	10	12	12	15	14	10	14	13	8	3	1	4	1	1	0	146

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	137
2-(Sport) Utility Vehicle	67
3-Passenger Van	8
4-Cargo Van (10K lbs or Less)	6
5-Pickup	39
6-Motor Home	0
7-School Bus	1
8-Transit Bus	1
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	1
12-Moped	1
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	1
17-Medium/Heavy Trucks (More than 10,000 lbs)	6
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	5

Unit Type	Total
23-Bicyclist	5
24-Witness	18
25-Other	1
26-Construction	0
27-Farm Vehicle	0
Total	297

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	9	112	3	2	0	0	126
Ran Off Roadway	7	0	0	0	0	0	7
Failed to Yield Right-of-Way	38	0	0	0	0	0	38
Ran Red Light	4	0	0	0	0	0	4
Ran Stop Sign	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	1	0	0	0	0	0	1
Exceeded Posted Speed Limit	1	1	0	0	0	0	2
Drove Too Fast For Conditions	6	0	0	0	0	0	6
Improper Turn	3	0	0	0	0	0	3
Improper Backing	6	0	0	0	0	0	6
Improper Passing	3	0	0	0	0	0	3
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	34	0	1	0	0	0	35
Failed to Keep in Proper Lane	9	0	0	0	0	0	9
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	18	0	0	0	0	0	18
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	2	0	0	0	0	0	2
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	0	0	0	0	0	2
Unknown	1	1	0	0	0	0	2
Total	145	114	4	2	0	0	265

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	134	118	4	2	0	0	258
Physically Impaired or Handicapped	2	0	0	0	0	0	2
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	5	1	0	0	0	0	6
Other	0	0	0	0	0	0	0
Total	144	120	4	2	0	0	270

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	24	0	0	0	0	24
20-24	33	0	0	0	0	33
25-29	26	0	0	0	0	26
30-39	53	0	0	0	0	53
40-49	33	0	0	0	0	33
50-59	31	0	0	0	0	31
60-69	33	0	0	0	0	33
70-79	27	0	0	0	0	27
80-Over	5	0	0	0	0	5
Unknown	4	5	0	5	0	14
Total	269	5	0	5	0	279

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	2
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	1	Total	269
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	5		
10-Pedalcycle	5		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	231		
14-Parked Motor Vehicle	6		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	1		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	2		
22-Cable Barrier	0		
23-Culvert	1		
24-Curb	5		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	1		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	6		
33-Traffic Sign Support	1		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	10	11
C	33	42
PD	101	0
Total	144	53

Road Character

Road Grade	Total
1-Level	98
2-On Grade	39
3-Top of Hill	1
4-Bottom of Hill	8
5-Other	0
Total	146

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	41
2-Traffic Signals (Flashing)	1
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	60
6-Yield Sign	9
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	32
14-Other	3
Total	146

Light

Light Condition	Total
1-Daylight	124
2-Dawn	2
3-Dusk	0
4-Dark - Lighted	19
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	146

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2018	2019	2020	Total
JANUARY	7	3	3	13
FEBRUARY	7	4	4	15
MARCH	6	6	4	16
APRIL	4	3	2	9
MAY	3	3	2	8
JUNE	3	5	2	10
JULY	7	1	7	15
AUGUST	5	8	5	18
SEPTEMBER	7	0	2	9
OCTOBER	6	3	3	12
NOVEMBER	5	3	2	10
DECEMBER	3	4	4	11
Total	63	43	40	146

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Rear End - Sideswipe	13	0	20	29	0	6	1	0	0	0	0	0	0	0	69
Head-on - Sideswipe	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Intersection Movement	0	0	18	22	0	4	0	0	0	0	0	0	0	0	44
Pedestrians	1	0	2	1	0	1	0	0	0	0	0	0	0	0	5
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	5	2	4	2	0	2	0	0	0	0	0	0	0	0	15
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	2	2	0	1	0	0	0	0	0	0	0	0	5
Other	1	0	0	1	0	0	4	0	0	0	0	0	0	0	6
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	2	46	57	0	14	6	0	0	0	0	0	0	0	146

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	13	0	0	0	0	0	0	0	0	0	2	15
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	1	2
Daylight	78	1	0	0	0	0	0	0	0	0	4	83
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	1	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	21	0	0	0	0	0	3	1	0	0	4	29
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

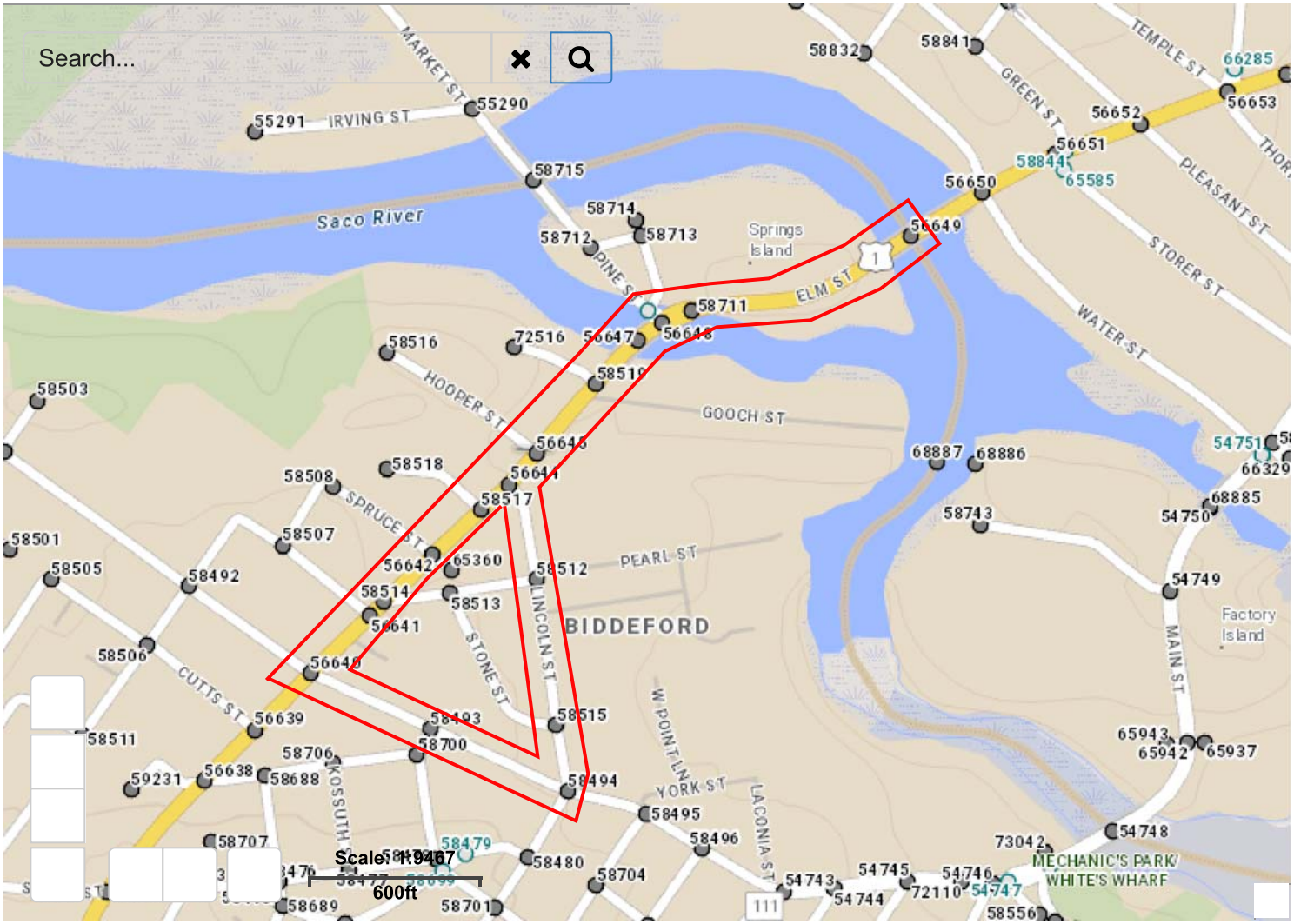
Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	5	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	4	0	0	2	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	116	2	0	0	0	0	3	6	0	0	19	146


Search...
Saco River
Springs Island
BIDDEFORD
Factory Island
MECHANIC'S PARK/ WHITE'S WHARF
IRVING ST
MARKET ST
GREEN ST
TEMPLE ST
PLEASANT ST
STORER ST
WATER ST
ELM ST
PINE ST
HOOPER ST
GOOCH ST
SPRUCE ST
PEARL ST
LINCOLN ST
STONE ST
CUTTS ST
KOSSUTH
W POINT LN
YORK ST
LACONIA ST
MAIN ST
Scale: 1:9467
600ft

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

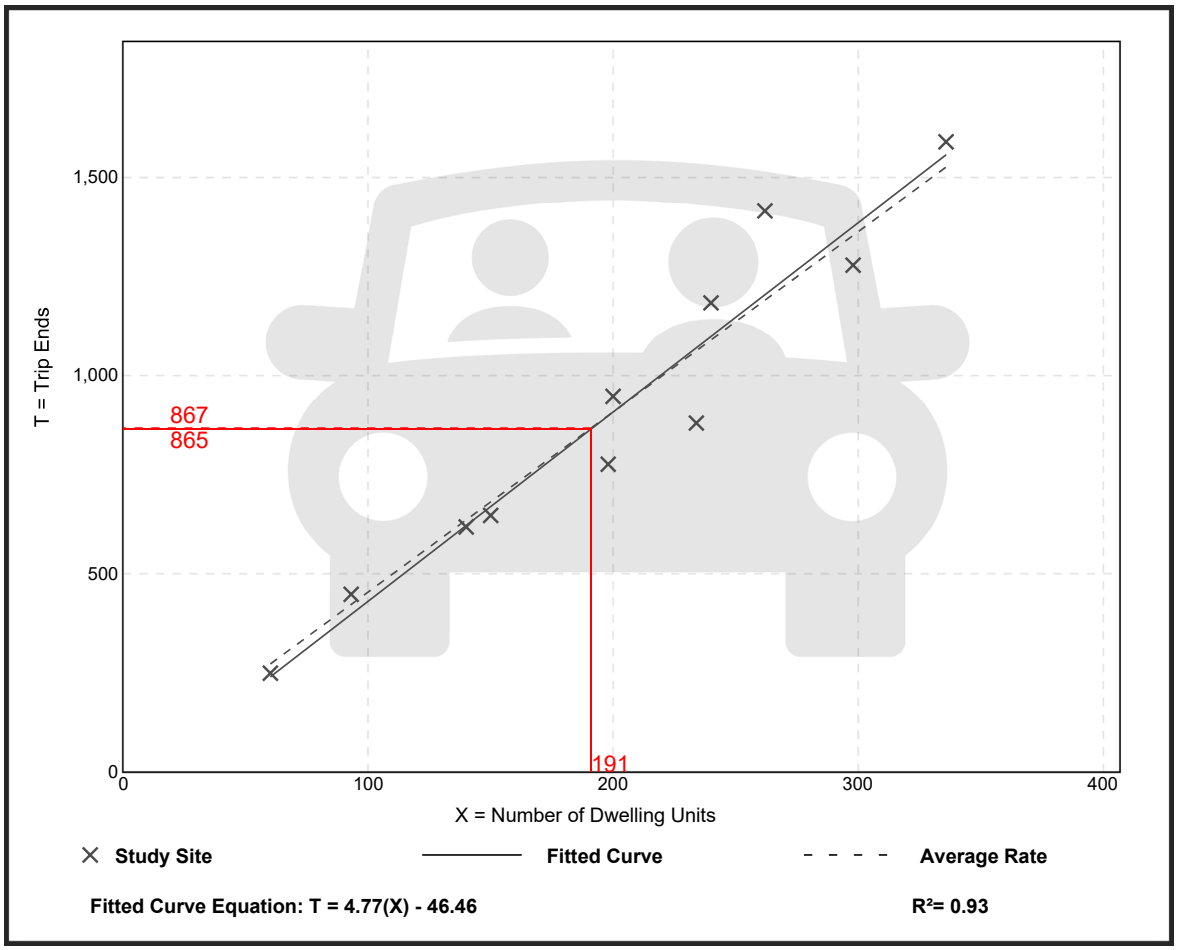
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **Seats**
On a: **Weekday**

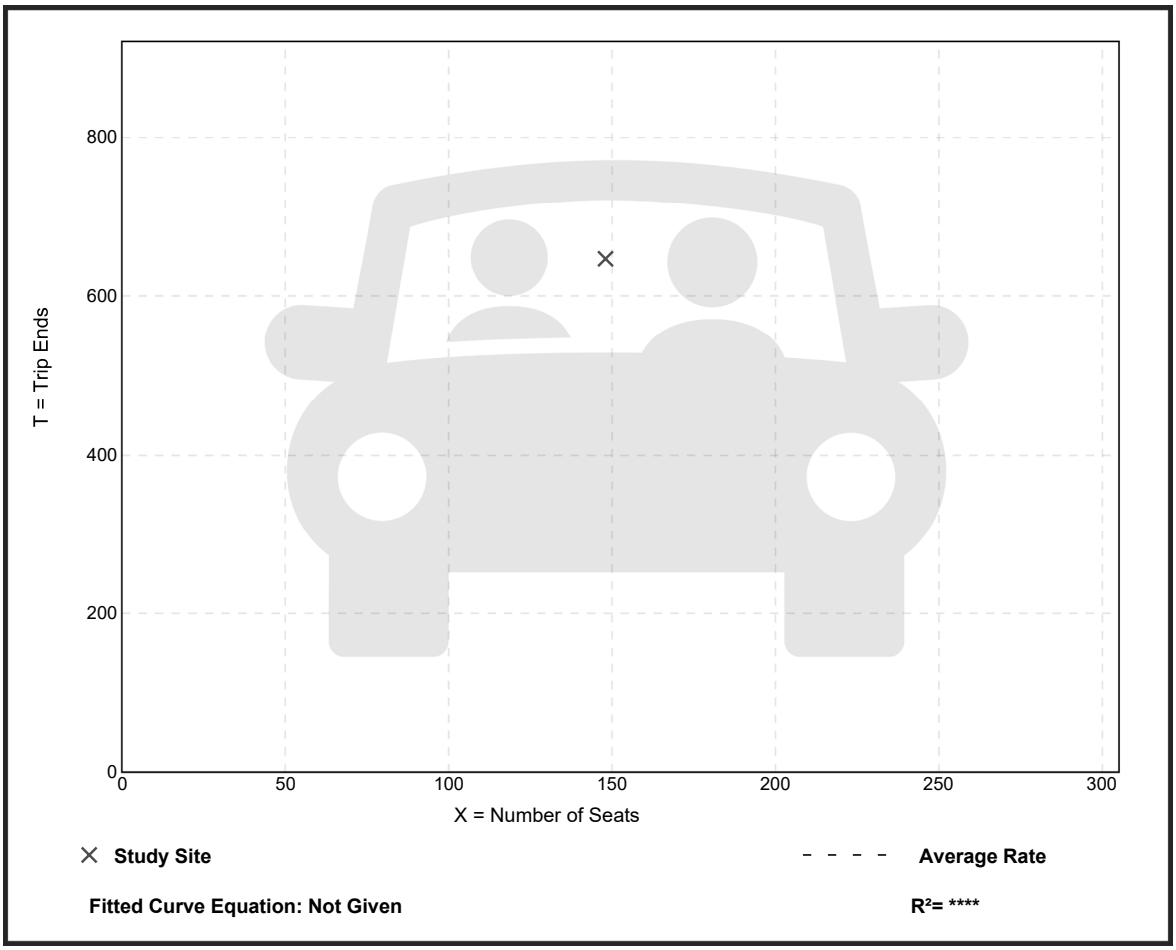
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Seats: 148
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
4.37	4.37 - 4.37	*

Data Plot and Equation

Caution – Small Sample Size



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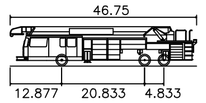
E. Site Plan

GENERAL NOTES:

1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 10/14/2020
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021



BIDDEFORD FIRETRUCK

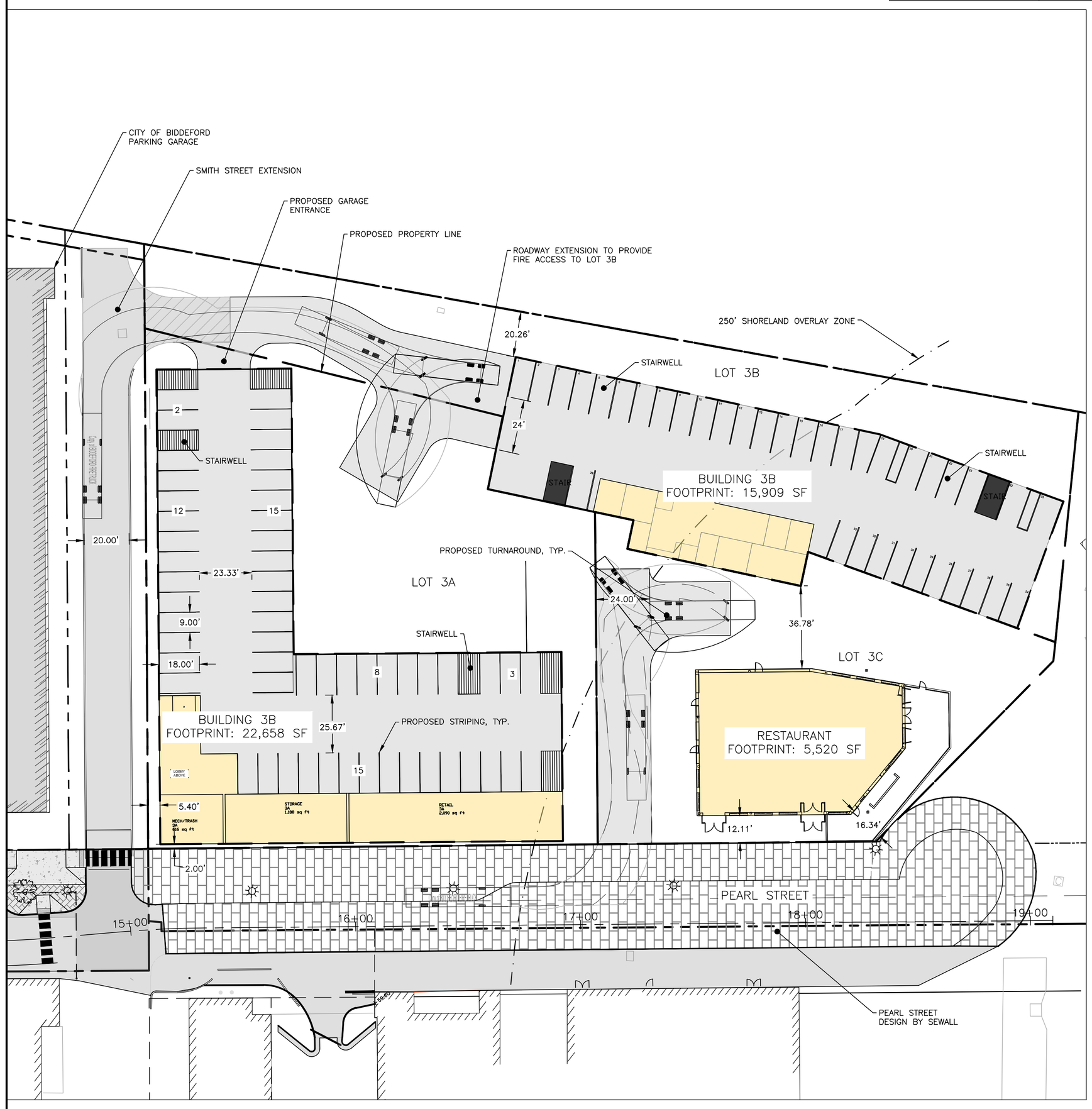
Overall Length	46.750ft
Overall Width	8.500ft
Overall Body Height	9.851ft
Min Body Ground Clearance	0.920ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

PARKING SUMMARY

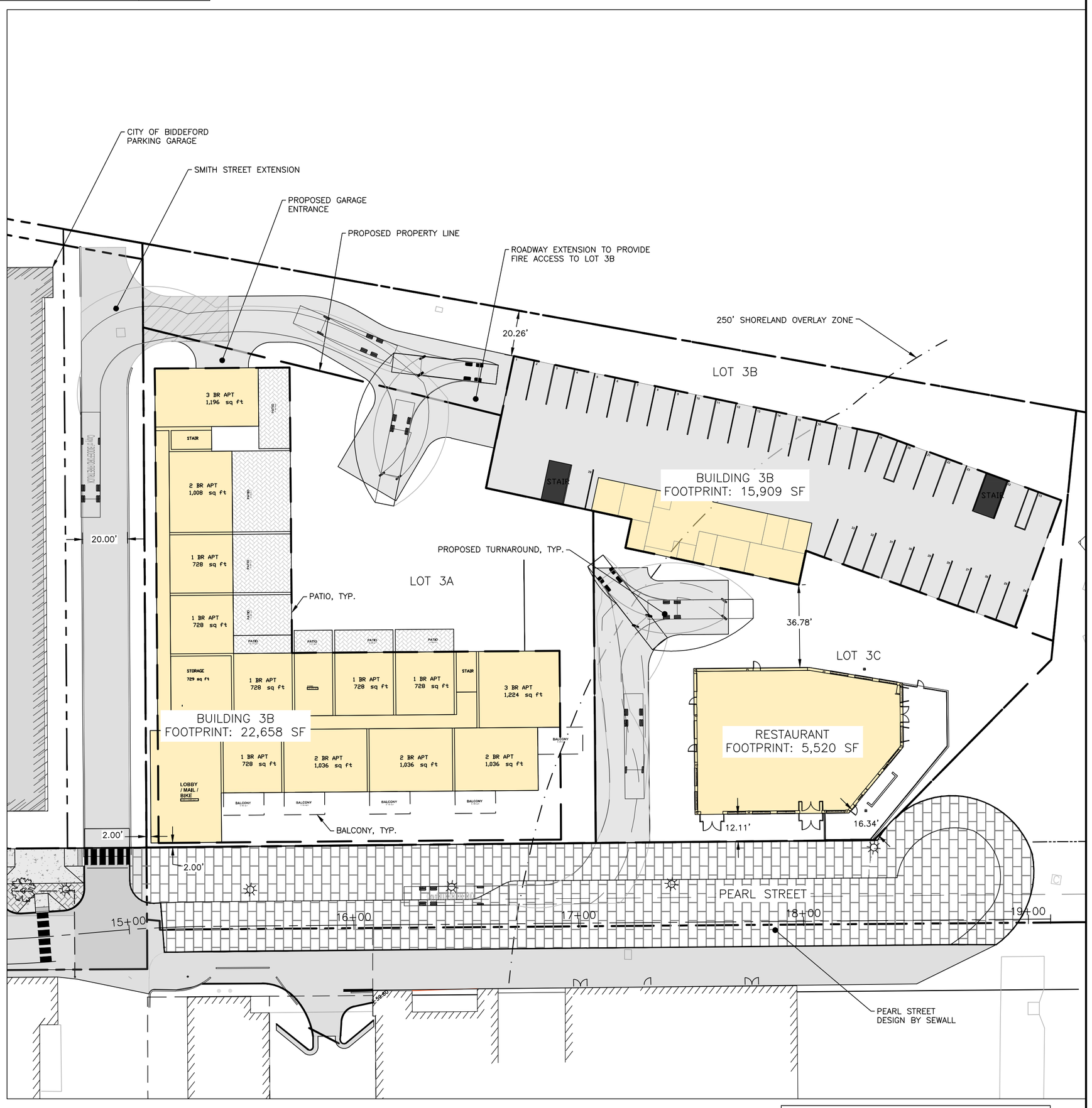
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 3A	64	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 64 SPACES	50
–	–	INCREASE OF 5% (OF 64 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	–
LOT 3B	76	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 76 SPACES	42
–	–	INCREASE OF 5% (OF 76 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	–
LOT 3C	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES	N/A
ADA (8'X18')	–	–	TBD
STANDARD (9'X18')	–	–	TBD
TOTAL SPACES	–	248	92
ADDITIONAL SPACES NEEDED IN PARKING GARAGE	–	–	156

LOT 3A SPACE AND BULK STANDARDS

ZONE:	REQUIRED (MSRD3)	REQUIRED (GD-1)	EXISTING LOT 3	PROPOSED LOT 3A	PROPOSED LOT 3B	PROPOSED LOT 3C
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	–	39,629 SF	30,230 SF	20,580 SF
MINIMUM STREET FRONTAGE	NONE	–	324'	200'	–	124'
MINIMUM FRONT YARD SETBACK	NONE	–	N/A	2.00'	0'	12.11'
MINIMUM REAR YARD SETBACK	NONE	–	N/A	5.18'	20.26'	36.78'
MINIMUM SIDE YARD SETBACK	NONE	–	N/A	2.00'	0'	16.34'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	–	N/A	TBD	TBD	TBD
MINIMUM SHORE FRONTAGE	–	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	–	–	–
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	–	100' FROM NORMAL HIGH-WATER LINE	–	–	–	–
SACO RIVER NO-CUT ZONE (SRCC)	–	75'	–	–	–	–
MAX LOT COVERAGE	100%	70% WITHN SHORELAND ZONE	–	57.2%	52.6%	26.8%



GARAGE FLOOR PLAN
1" = 30'



30 0 30 60
SCALE: 1" = 30'

PRELIMINARY
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
TMP REVIEW	PFH 9/9/21

DRAWING NAME: SITE PLAN

PROJECT NAME: PEARL STREET LOT 3 REDEVELOPMENT

CLIENT: FATHOM COMPANIES
80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
ENGINEERING, INC.
ACORN ENGINEERING, INC.
207 ANNE ELLA WAY
PO BOX 3401
KENNEBUNK, MAINE 04043
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS/PFH

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

December 5, 2022

Mr. Gregory Mitchell
Planning and Development Director
Department of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

RE: PRELIMINARY TRAFFIC IMPACT REVIEW – 3 LINCOLN STREET DEVELOPMENT

Dear Greg,

James W. Sewall Co. (Sewall) has completed preliminary review of "Section 7 Traffic Impact Study, 3 Lincoln Street Project" as part of the peer review you requested. The study was prepared by Thomas Errico, P.E. of TY Lin and is dated "Revised April 26, 2022". My preliminary review comments and requests for additional information are summarized as follows:

1. **Trip Generation Analysis.** The trip generation analysis was performed using the 10th Edition ITE report, although the 11th Edition report was available and being utilized at the time of the study. I concur with the LUCs utilized for the analysis, 221 – Multifamily Housing Mid-Rise and 932 - High-Turnover Sit-Down Restaurant. While the results were obtained using the older 10th edition report there is no significant difference in results with the newer 11th edition. I would like to also see the results for the restaurants on the basis of square footage since there is significantly more data available for LUC 932 on this basis.

2. **Pass-by Rates**. The study utilized the 43 % PM Peak hour pass-by rate for the Saturday analysis period as well given lack of ITE data. Sewall would have utilized a lesser Saturday rate believing more weekend trips to restaurants are primary trips and not pass-by. However, a slightly lesser pass-by percentage would not be expected to affect the results of the study significantly.

3. **Trip Assignments.** I concur with the trip assignment patterns utilized for the study.

4. **Analysis Periods.** Given the proposed mix of uses and trip generation results, I concur with the analysis periods being the weekday PM peak hour and the Saturday peak hour.

5. **Study Year.** The analysis utilized a 2024 study year, which assumes the apartments and restaurant spaces have been constructed and fully occupied by the end of 2024. Given that it is almost 2023, current construction timelines, and the current permitting status for this project, is 2024 still an appropriate study year?

6. **Traffic Growth Rate.** I concur with the use of the 1 % annual traffic growth rate based upon the supporting information provided and my review of historical area traffic growth rates.

7. **Base Traffic Counts.** As with the Gooch Street study, Sewall notes the counts for Pearl Street were performed in July of 2019. The new parking garage was not open at that time nor was the Lincoln Hotel so the Pearl Street movements would not be expected to be representative of current conditions. Sewall believes traffic on Pearl Street has likely increased significantly since 2019. Mr. Errico should justify his use of older data for this intersection and if any adjustments were made to account for greater Pearl Street traffic.

8. **Sight Distance.** Based upon information in the traffic study, sight distance from the site drive meets the minimum of 200', cited as 200'+, but what is the actual sight distance? Sewall prefers the standard of 10' per mph, which is also cited several places in the Biddeford ordinance.

9. **Accident Review.** While the accident data submitted with the study was fairly current at the time of submittal, as well as the collision diagrams, they were for the older 2018 to 2020 period. I would like to see updated accident data and collision diagrams for the current 2019 to 2021 study period for the study area since there are several high crash locations in the study area.

To summarize, I would like the applicant's traffic engineer, Mr. Tom Errico, P.E. to provide trip generation analysis for the restaurants on the basis of square footage, to address my concerns regarding the Pearl Street count dates and to update the accident data to the current to 2019 to 2021 period. I have not reviewed the capacity analysis yet nor the accident data since it could be considered outdated at this time.

As always, please don't hesitate to contact me if you have any questions or concerns regarding my preliminary review findings.



Sincerely,

Diane W. Morabito, P.E. PTOE
Vice President Traffic Engineering

TYLin

December 7, 2022

Mr. Gregory Mitchell
Planning and Development Director
Department of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

Subject: 3 Lincoln Street Development, Biddeford, Maine – Peer Review

Hi Greg:

The following are response to comments provided by Sewall dated December 5, 2022.

Comment: Trip Generation Analysis. The trip generation analysis was performed using the 10th Edition ITE report, although the 11th Edition report was available and being utilized at the time of the study. I concur with the LUCs utilized for the analysis, 221 – Multifamily Housing Mid-Rise and 932 - High-Turnover Sit-Down Restaurant. While the results were obtained using the older 10th edition report there is no significant difference in results with the newer 11th edition. I would like to also see the results for the restaurants on the basis of square footage since there is significantly more data available for LUC 932 on this basis

Response: The trip generation methodology for the project was approved by MaineDOT. In response to the request, I have estimated the trip generation for the restaurant using floor area (11,040 SF) using the 11th Edition of the ITE Trip Generation Manual. The following table summarizes the trip generation estimate using floor area and comparing that estimate with the trip generation used in the study. As noted, the study assumed a higher trip generation estimate and is therefore conservative.

Trip Generation Estimate for Restaurant using Floor Area						
	PM Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Peak Hour of Generator	92	89	181	63	61	124
Peak Hour of Adjacent Street Traffic	61	39	100	N/A	N/A	N/A
Section 7 TMP Study Estimate	113	105	218	84	74	158

Comment: Pass-by Rates. The study utilized the 43% PM Peak hour pass-by rate for the Saturday analysis period as well given lack of ITE data. Sewall would have utilized a lesser Saturday rate believing more weekend trips to restaurants are primary trips and not pass-by. However, a slightly lesser pass-by percentage would not be expected to affect the results of the study significantly.
Response: Acknowledged.

Comment: Trip Assignments. I concur with the trip assignment patterns utilized for the study.
Response: Acknowledged.

Comment: Analysis Periods. Given the proposed mix of uses and trip generation results, I concur with the analysis periods being the weekday PM peak hour and the Saturday peak hour.
Response: Acknowledged.

Comment: Study Year. The analysis utilized a 2024 study year, which assumes the apartments and restaurant spaces have been constructed and fully occupied by the end of 2024. Given that it is almost 2023, current construction timelines, and the current permitting status for this project, is 2024 still an appropriate study year?
Response: In my professional opinion even if occupancy was delayed until 2025, the 1% added growth would not alter the conclusions of the analysis (particularly when considering that the trip generation estimate may be high).

Comment: Traffic Growth Rate. I concur with the use of the 1 % annual traffic growth rate based upon the supporting information provided and my review of historical area traffic growth rates.
Response: Acknowledged.

Comment: Base Traffic Counts. As with the Gooch Street study, Sewall notes the counts for Pearl Street were performed in July of 2019. The new parking garage was not open at that time nor was the Lincoln Hotel so the Pearl Street movements would not be expected to be representative of current conditions. Sewall believes traffic on Pearl Street has likely increased significantly since 2019. Mr. Errico should justify his use of older data for this intersection and if any adjustments were made to account for greater Pearl Street traffic.

Response: At the time of the scoping meeting in December of 2021, the 2019 traffic counts were deemed to be appropriate particularly when considering COVID travel impacts. The traffic study did add significant non-project traffic to Pearl Street into and out of the site that would be representative of post-2019 conditions. This included adding 144 PM peak hour trips and 148 trips during the Saturday peak hour. I did research available traffic volume data from MaineDOT and while traffic counts are not available on Pearl Street, there are traffic counts on Lincoln Street south of Elm Street. During the PM peak hour (4-5PM) 524 vehicles were recorded on May 2, 2019. On May 23, 2022 504 vehicles were recorded during the same time period. My general conclusion is that the volumes used in the analysis are reasonable.

Comment: Sight Distance. Based upon information in the traffic study, sight distance from the site drive meets the minimum of 200', cited as 200'+, but what is the actual sight distance? Sewall prefers the standard of 10' per mph, which is also cited several places in the Biddeford ordinance.
Response: Sight distance was measured according to MaineDOT criteria and looking towards the river, the view is unobstructed until the end of the road (180 feet), and looking towards Lincoln Street, we lose sight distance at 680 feet.

Comment: Accident Review. While the accident data submitted with the study was fairly current at the time of submittal, as well as the collision diagrams, they were for the older 2018 to 2020 period. I would like to see updated accident data and collision diagrams for the current 2019 to 2021 study period for the study area since there are several high crash locations in the study area.
Response: The crash data in the report was based on what was available at the time of production. I have researched 2019-2021 High Crash Locations in the study area and below is a summary of locations.

- **Elm Street/St. Mary's – this location is now an HCL. Eight crashes over the noted three-year period with a CRF of 1.29. Two patterns are of concern. The first is two pedestrian crashes in the Elm Street crosswalk north of St. Mary's Street. The other are movements from St. Mary's, where it can be difficult to enter Elm Street. The Elm Street Concept Improvement Plan is to include upgrades to pedestrian**

facilities and this crosswalk is proposed to have a RRFB warning system.

- **Elm Street/Lincoln Street – this location is no longer an HCL.**
- **Elm Street/Pine Street – this location continues to be a HCL with 15 crashes and a CRF of 2.11 (similar to the older data). Patterns are similar to those discussed in the traffic study and conclusions remain unchanged.**
- **Main Street/Jefferson Street – this location continues to be an HCL with 8 crashes and a CRF or 3.04. There is a distinct pattern of crashes involving vehicles turning from Jefferson Street. There are mailboxes located to the southeast of the intersection that may be obstructing sight. Relocation should be considered.**
- **Main Street/Lincoln Street/Adams Street – this location was recently converted to a multi-way STOP controlled intersection and conditions have likely improved.**

Please contact me if you have any questions.

Best regards,

T.Y. LIN INTERNATIONAL



Thomas A. Errico, PE
Senior Associate / NE Traffic Engineering Director

Attachments

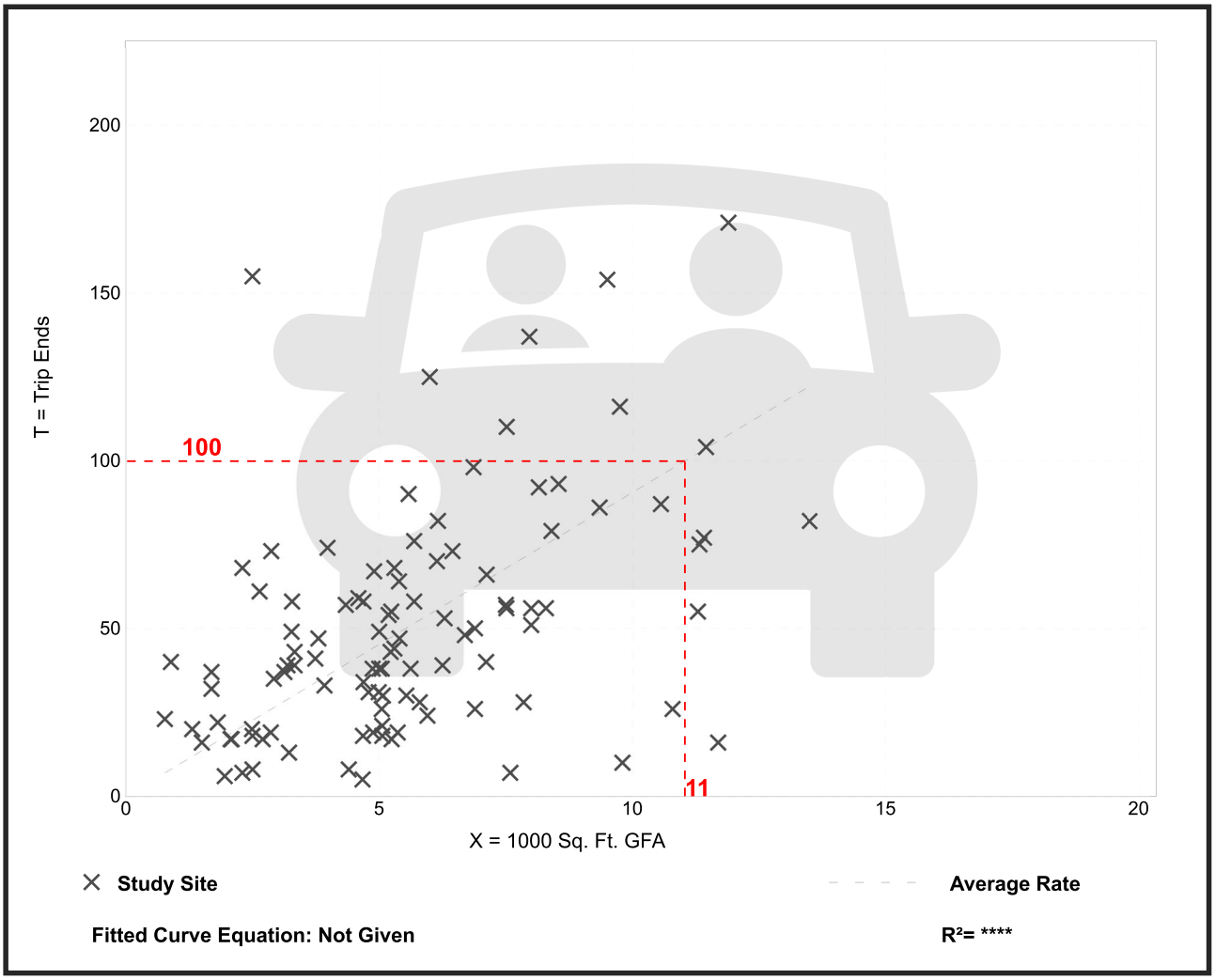
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

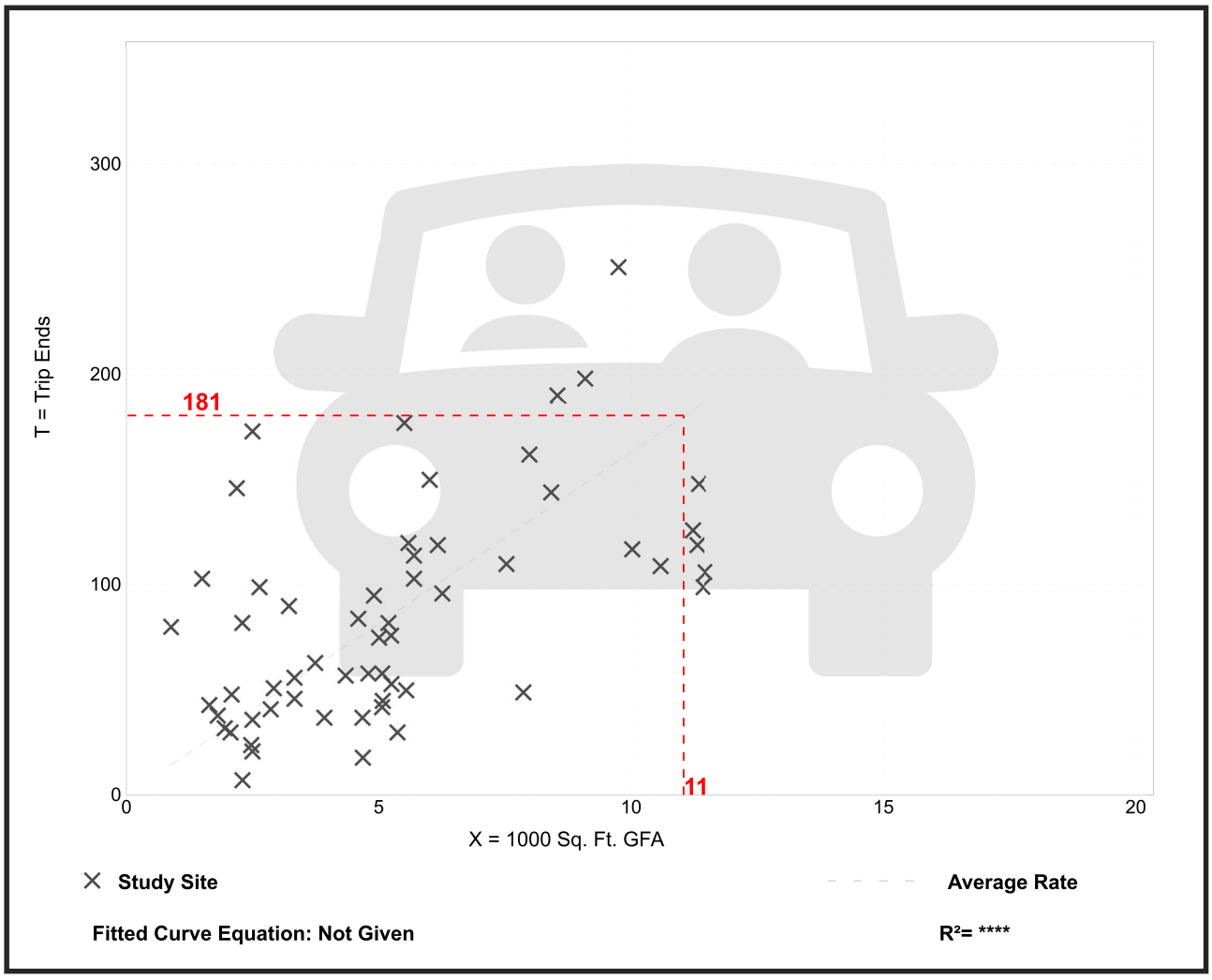
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 58
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
16.35	3.04 - 89.99	10.84

Data Plot and Equation



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High-Turnover (Sit-Down) Restaurant
(932)

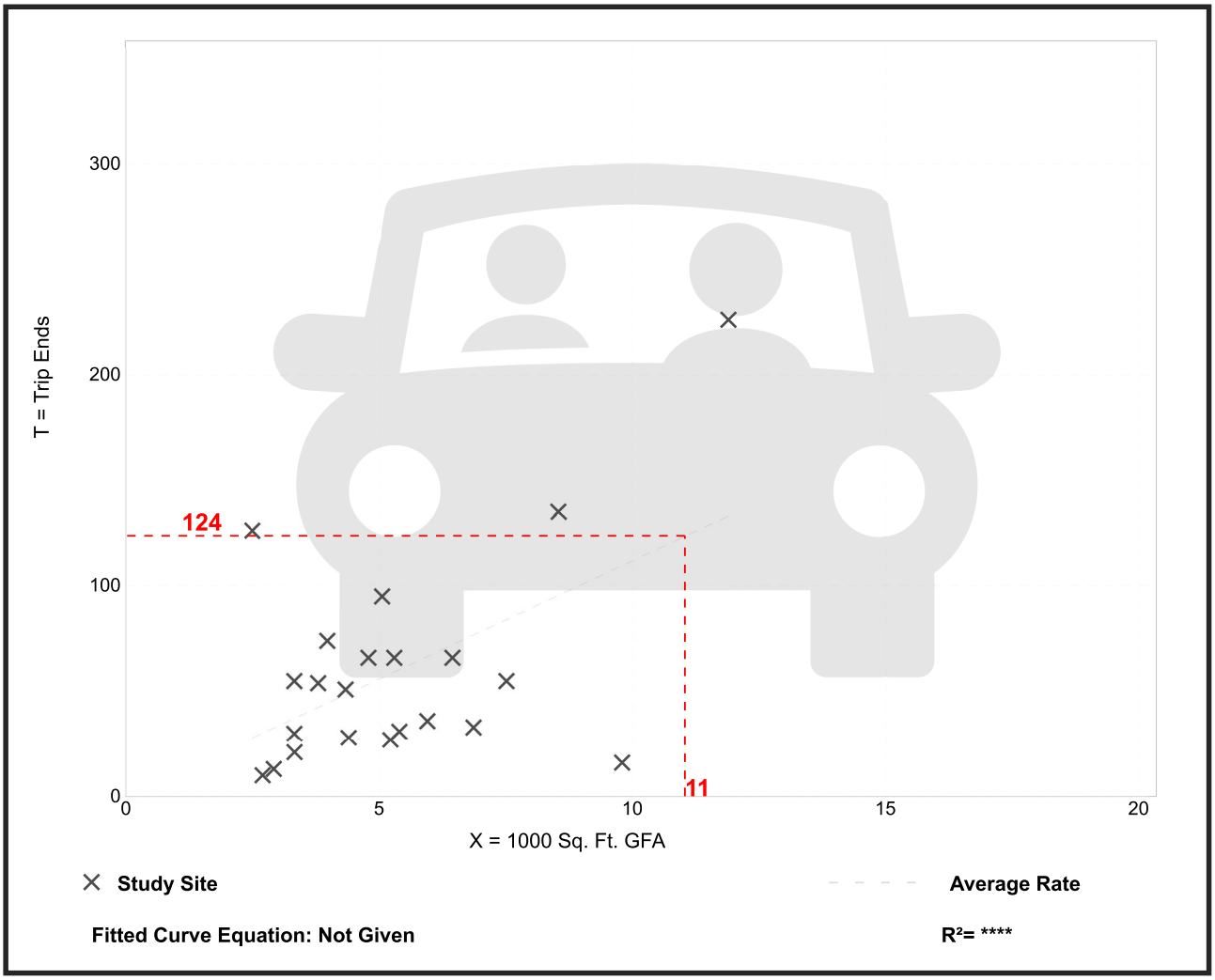
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.19	1.63 - 50.40	8.30

Data Plot and Equation



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H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **56641** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

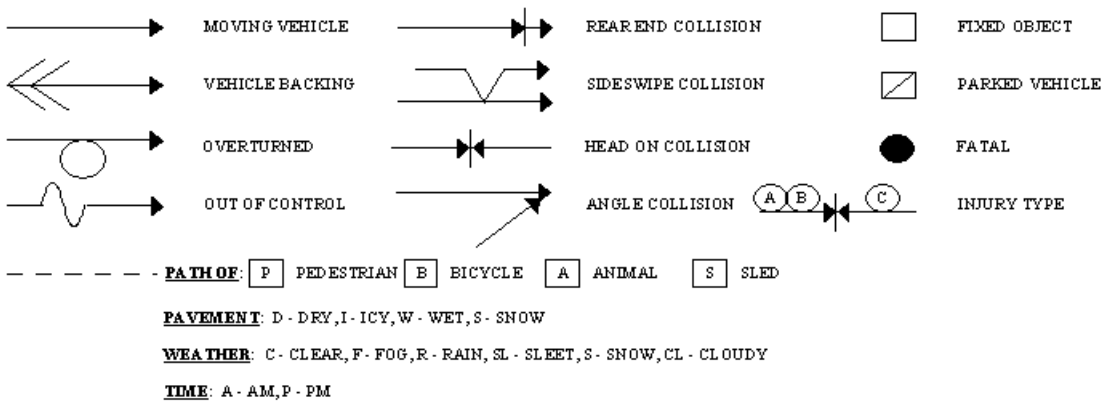
DESCRIPTION: **Jct of Elm St & St Marys St**

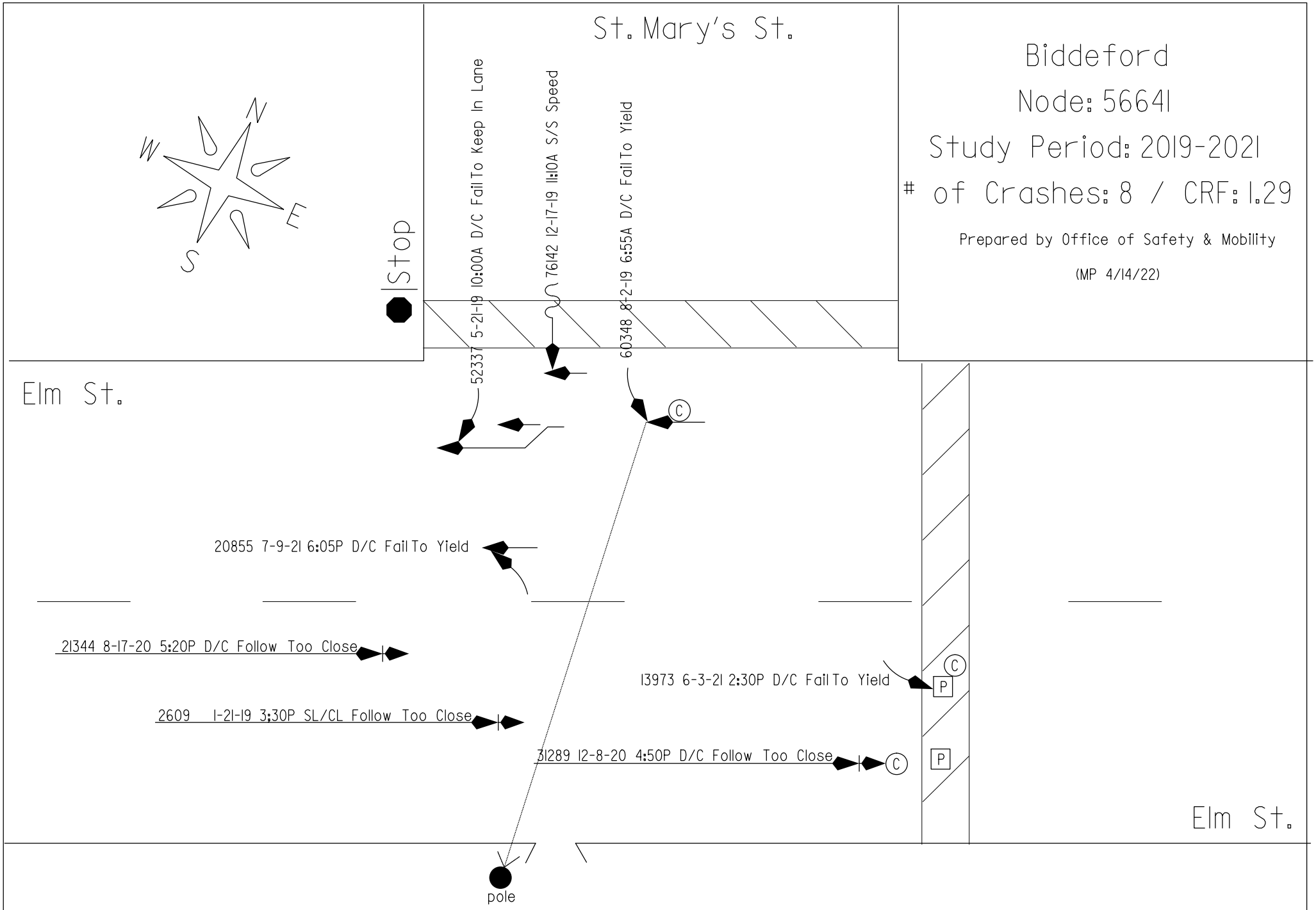
RTE # / RD #: **0001X** DATE DRAWN: **4/14/2022** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2019** STUDY TO: **12/31/2021**

CRASH RATE: **0.43** CRF: **1.29** % INJURY: **37.5** TOTAL CRASHES: **8**

LEGEND




St. Mary's St.
Biddeford
Node: 56641
Study Period: 2019-2021
# of Crashes: 8 / CRF: 1.29
Prepared by Office of Safety & Mobility
(MP 4/14/22)
N
W
E
S
Stop
52337 5-21-19 10:00A D/C Fail To Keep In Lane
76142 12-17-19 11:10A S/S Speed
60348 8-2-19 6:55A D/C Fail To Yield
Elm St.
C
20855 7-9-21 6:05P D/C Fail To Yield
21344 8-17-20 5:20P D/C Follow Too Close
13973 6-3-21 2:30P D/C Fail To Yield
C
P
2609 1-21-19 3:30P SL/CL Follow Too Close
31289 12-8-20 4:50P D/C Follow Too Close
C
P
Elm St.
pole


Search...
ST MARY ST
58513
58514
56641
ELM ST
1
BIDDEFORD
MCARTHUR WAY
MAIN ST
Scale: 1:871
60ft

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I - Single Node	☐ Section Detail	☑ Crash Summary II	☐ 1320 Public	☐ 1320 Private	☐ 1320 Summary

REPORT DESCRIPTION

Biddeford
Jct of Elm St & St Marys St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0001X	Start Node: 56641	Start Offset: 0	☐ Exclude First Node
	End Node: 56641	End Offset: 0	☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
56641	0001X - 34.04	Int of ELM ST ST MARYS ST	2	8	0	0	0	3	5	37.5	6.135	0.43	0.34	1.29
												Statewide Crash Rate:	0.14	
Study Years:	3.00	NODE TOTALS:		8	0	0	0	3	5	37.5	6.135	0.43	0.34	1.29

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM												
	Hour of Day																								
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
TUESDAY	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
FRIDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	8

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	8
2-(Sport) Utility Vehicle	1
3-Passenger Van	1
4-Cargo Van (10K lbs or Less)	1
5-Pickup	4
6-Motor Home	0
7-School Bus	0
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	0
17-Medium/Heavy Trucks (More than 10,000 lbs)	0
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	1

Unit Type	Total
23-Bicyclist	0
24-Witness	2
25-Other	0
26-Construction	0
27-Farm Vehicle	0
Total	18

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	0	6	0	0	0	0	6
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	3	0	0	0	0	0	3
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	1	0	0	0	0	1
Drove Too Fast For Conditions	1	0	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	3	0	0	0	0	0	3
Failed to Keep in Proper Lane	1	0	0	0	0	0	1
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0
Total	8	7	0	0	0	0	15

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	8	8	0	0	0	0	16
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	8	8	0	0	0	0	16

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	2	0	0	0	0	2
25-29	2	0	0	0	0	2
30-39	3	0	0	0	0	3
40-49	2	0	0	0	0	2
50-59	4	0	0	0	0	4
60-69	1	0	0	0	0	1
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	0	0	0	1	0	1
Total	15	0	0	1	0	16

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	15
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	14		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	3	3
PD	5	0
Total	8	3

Road Character

Road Grade	Total
1-Level	8
2-On Grade	0
3-Top of Hill	0
4-Bottom of Hill	0
5-Other	0
Total	8

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	8
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	0
14-Other	0
Total	8

Light

Light Condition	Total
1-Daylight	7
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	8

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	0	0	1
FEBRUARY	0	0	0	0
MARCH	0	0	0	0
APRIL	0	0	0	0
MAY	1	0	0	1
JUNE	0	0	1	1
JULY	0	0	1	1
AUGUST	1	1	0	2
SEPTEMBER	0	0	0	0
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	1	1	0	2
Total	4	2	2	8

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4
Pedestrians	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	7	0	0	1	0	0	0	0	0	0	0	0	8

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	5	0	0	0	0	0	0	0	0	0	0	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	0	0	0	0	0	1	1	0	0	0	8

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

LOW NODE: **56648** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

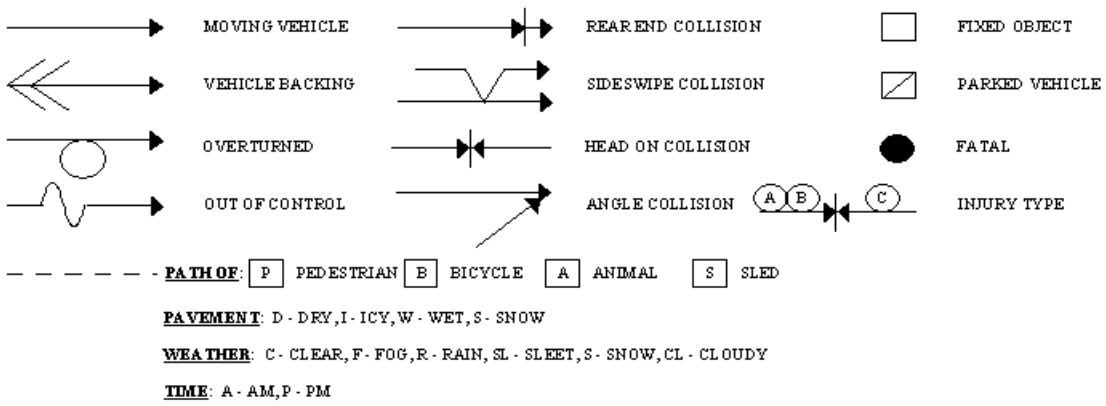
DESCRIPTION: **Jct Elm St & Pine St/Maple St**

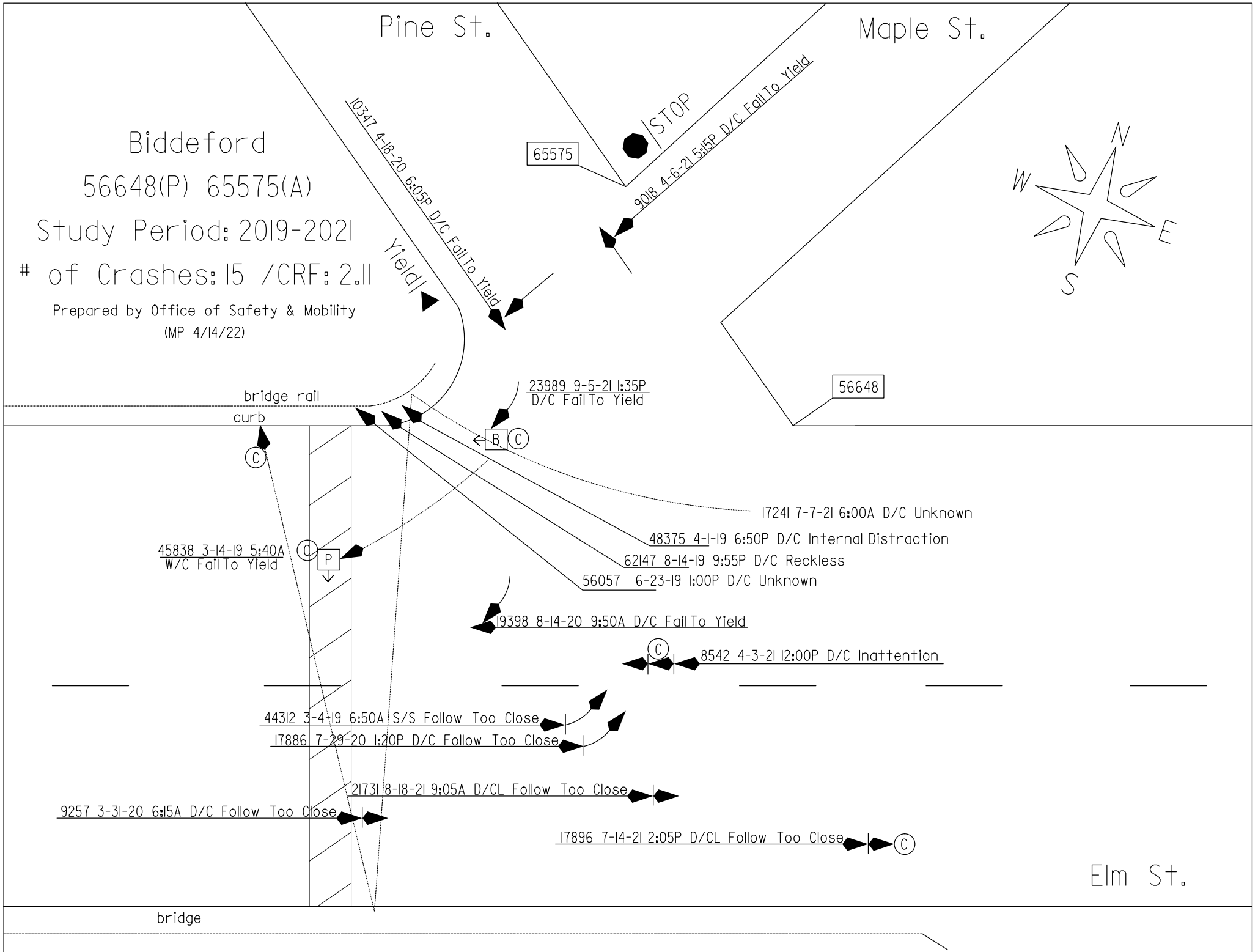
RTE # / RD #: **0001S** DATE DRAWN: **4/14/2022** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2019** STUDY TO: **12/31/2021**

CRASH RATE: **0.68** CRF: **2.11** % INJURY: **33.3** TOTAL CRASHES: **15**

LEGEND




Pine St.
Maple St.
Biddeford
56648(P) 65575(A)
Study Period: 2019-2021
# of Crashes: 15 /CRF: 2.11
Prepared by Office of Safety & Mobility
(MP 4/14/22)
10347 4-18-20 6:05P D/C Fail To Yield
STOP
65575
9018 4-6-21 5:15P D/C Fail To Yield
Yield
N
W
E
S
23989 9-5-21 1:35P
D/C Fail To Yield
56648
bridge rail
curb
B
C
17241 7-7-21 6:00A D/C Unknown
48375 4-1-19 6:50P D/C Internal Distraction
62147 8-14-19 9:55P D/C Reckless
56057 6-23-19 1:00P D/C Unknown
45838 3-14-19 5:40A
W/C Fail To Yield
P
19398 8-14-20 9:50A D/C Fail To Yield
8542 4-3-21 12:00P D/C Inattention
44312 3-4-19 6:50A S/S Follow Too Close
17886 7-29-20 1:20P D/C Follow Too Close
21731 8-18-21 9:05A D/CL Follow Too Close
9257 3-31-20 6:15A D/C Follow Too Close
17896 7-14-21 2:05P D/CL Follow Too Close
Elm St.
bridge


Search...
Springs Island
PINE ST
MAPLE ST
ELM ST
1
65575
58711
56648
56647
BIDDEFORD
Saco River
DIAMOND ST
58519
GOOCH ST
Scale: 1:1323
100ft

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

- [x] Crash Summary I - Single Node
- [ ] Section Detail
- [x] Crash Summary II
- [ ] 1320 Public
- [ ] 1320 Private
- [ ] 1320 Summary

REPORT DESCRIPTION

Biddeford
Jct of Elm St & Pine St with Maple St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0001S	Start Node: 56648	Start Offset: 0	☐ Exclude First Node
	End Node: 56648	End Offset: 0	☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
P56648	0001S - 23.96	Int of ELM ST PINE ST	2	15	0	0	0	5	10	33.3	7.353	0.68	0.32	2.11
												Statewide Crash Rate:	0.14	
Study Years:	3.00	NODE TOTALS:		15	0	0	0	5	10	33.3	7.353	0.68	0.32	2.11

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM												
	Hour of Day																								
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
MONDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
TUESDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
WEDNESDAY	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	5
THURSDAY	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
FRIDAY	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Totals	0	0	0	0	0	1	3	0	0	2	0	0	1	3	1	0	0	1	2	0	0	1	0	0	0	15

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	10
2-(Sport) Utility Vehicle	7
3-Passenger Van	1
4-Cargo Van (10K lbs or Less)	1
5-Pickup	6
6-Motor Home	0
7-School Bus	0
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	0
17-Medium/Heavy Trucks (More than 10,000 lbs)	0
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	1
23-Bicyclist	1
24-Witness	2
25-Other	0
26-Construction	0
27-Farm Vehicle	0
Total	29

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	0	9	1	0	0	0	10
Ran Off Roadway	3	0	0	0	0	0	3
Failed to Yield Right-of-Way	5	0	0	0	0	0	5
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	5	0	0	0	0	0	5
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	2	0	0	0	0	0	2
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0
Total	15	9	1	0	0	0	25

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	15	11	1	0	0	0	27
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	15	11	1	0	0	0	27

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	4	0	0	0	0	4
25-29	3	0	0	0	0	3
30-39	7	0	0	0	0	7
40-49	0	0	0	0	0	0
50-59	2	0	0	0	0	2
60-69	3	0	0	0	0	3
70-79	3	0	0	0	0	3
80-Over	0	0	0	0	0	0
Unknown	0	1	0	1	0	2
Total	25	1	0	1	0	27

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	25
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	19		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	4		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	5	5
PD	10	0
Total	15	5

Road Character

Road Grade	Total
1-Level	7
2-On Grade	6
3-Top of Hill	2
4-Bottom of Hill	0
5-Other	0
Total	15

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	2
6-Yield Sign	11
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	2
14-Other	0
Total	15

Light

Light Condition	Total
1-Daylight	13
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	15

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	0	0	0	0
FEBRUARY	0	0	0	0
MARCH	2	1	0	3
APRIL	1	1	2	4
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	1	2	3
AUGUST	1	1	1	3
SEPTEMBER	0	0	1	1
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
Total	5	4	6	15

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Pedestrians	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	14	0	0	0	1	0	0	0	0	0	0	0	15

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	10	0	0	0	0	0	0	0	0	0	0	10
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	2	0	0	0	0	0	0	0	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	13	0	0	0	0	0	0	1	0	0	1	15

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **BIDDEFORD**

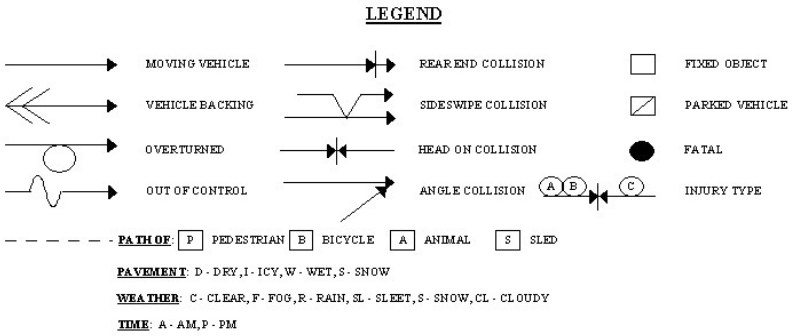
LOW NODE: **58493** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

DESCRIPTION: **Int of Jefferson St and Main St**

RTE # / RD #: **3110086** DATE DRAWN: **7/11/2022** DRAWN BY: **BOB K**

STUDY FROM: **1/1/2019** STUDY TO: **12/31/2021**

CRASH RATE: **1.29** CRF: **3.04** % INJURY: **37.5** TOTAL CRASHES: **8**



Prepared by Office of Safety & Mobility

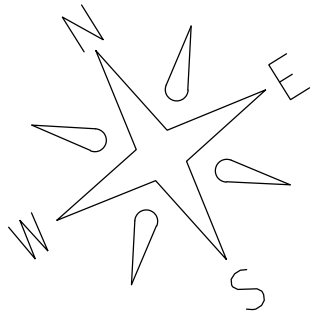
RFK3 7-11-22

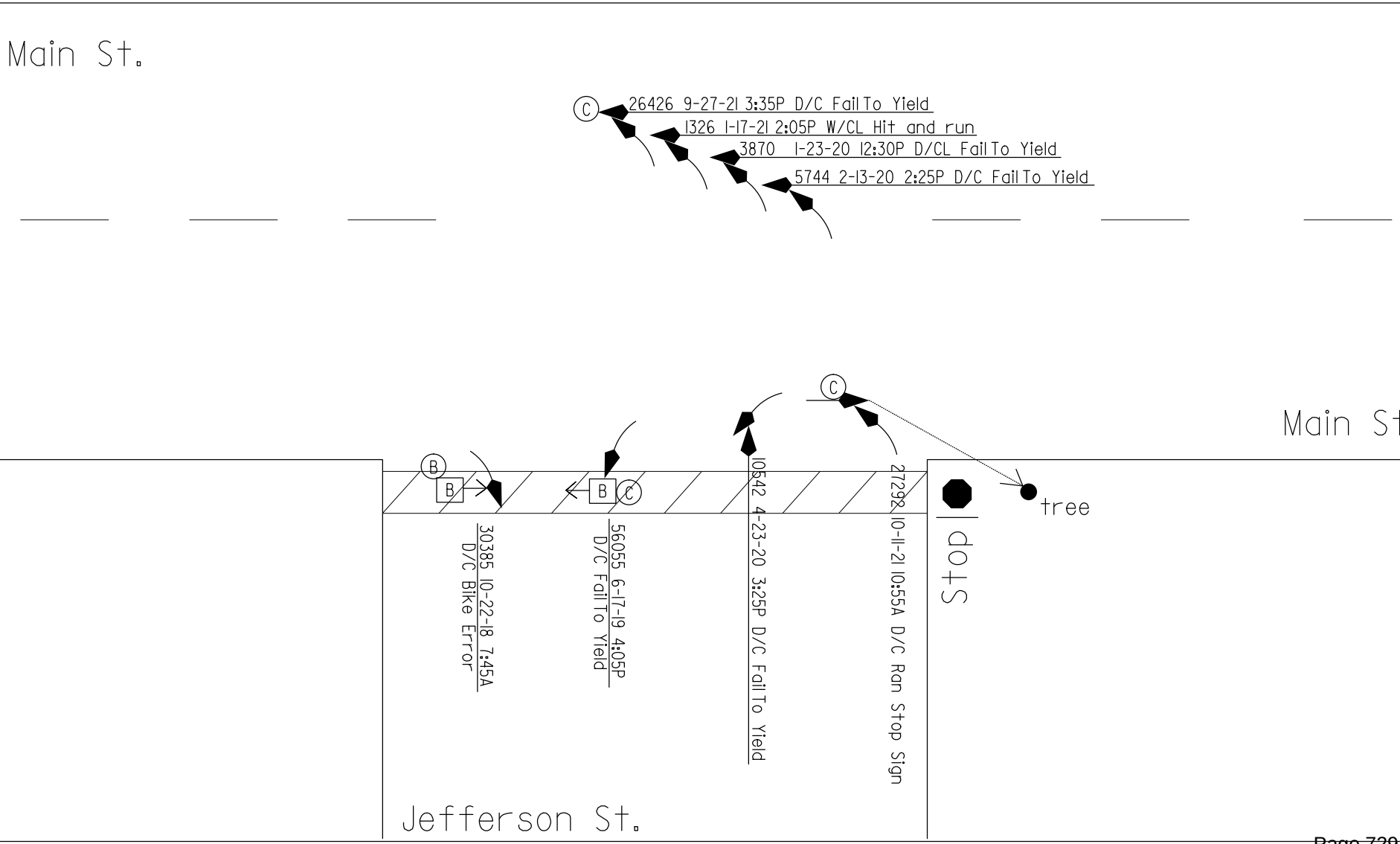
Biddeford

Node: 58493

Study Period: 2019-2021

of Crashes: 8 / CRF: 3.04






Search...
1
MCARTHUR WAY
ELM ST
56640
781839
58493
STONE ST
LINCOLN ST
58515
BIDDEFORD
58700
58706
CENTER ST
MAIN ST
58494
KOSSUTH ST
JEFFERSON ST
ADAMS ST
SOUTH ST
Scale: 1:1709
100ft

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I - Single Node	☐ Section Detail	☑ Crash Summary II	☐ 1320 Public	☐ 1320 Private	☐ 1320 Summary

REPORT DESCRIPTION

Biddeford
Jct of Main St & Jefferson St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 3110086	Start Node: 58493	Start Offset: 0	☐ Exclude First Node
	End Node: 58493	End Offset: 0	☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
58493	3110086 - 0.26	Int of JEFFERSON ST MAIN ST	2	8	0	0	0	3	5	37.5	2.075	1.29	0.42	3.05
												Statewide Crash Rate:	0.13	
Study Years:	3.00	NODE TOTALS:		8	0	0	0	3	5	37.5	2.075	1.29	0.42	3.04

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM												
	Hour of Day																								
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
MONDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	4
TUESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3
FRIDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	2	0	0	0	0	0	0	0	0	8

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	11
2-(Sport) Utility Vehicle	4
3-Passenger Van	0
4-Cargo Van (10K lbs or Less)	0
5-Pickup	0
6-Motor Home	0
7-School Bus	0
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	0
17-Medium/Heavy Trucks (More than 10,000 lbs)	0
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	0

Unit Type	Total
23-Bicyclist	1
24-Witness	2
25-Other	0
26-Construction	0
27-Farm Vehicle	0
Total	18

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	0	7	0	0	0	0	7
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	6	0	0	0	0	0	6
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	0	0	0	0	0	0	0
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0
Total	8	7	0	0	0	0	15

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	8	8	0	0	0	0	16
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	8	8	0	0	0	0	16

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	2	0	0	0	0	2
25-29	4	0	0	0	0	4
30-39	1	0	0	0	0	1
40-49	4	0	0	0	0	4
50-59	0	0	0	0	0	0
60-69	3	0	0	0	0	3
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	0	1	0	0	0	1
Total	15	1	0	0	0	16

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	15
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	14		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	0		

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	8
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	0
14-Other	0
Total	8

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	3	3
PD	5	0
Total	8	3

Road Character

Road Grade	Total
1-Level	8
2-On Grade	0
3-Top of Hill	0
4-Bottom of Hill	0
5-Other	0
Total	8

Light

Light Condition	Total
1-Daylight	8
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	0
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	8

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	1	1	3
FEBRUARY	0	1	0	1
MARCH	0	0	0	0
APRIL	0	1	0	1
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	0	0	0
AUGUST	0	0	0	0
SEPTEMBER	0	0	1	1
OCTOBER	0	0	1	1
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
Total	2	3	3	8

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	8	0	0	0	0	0	0	0	0	0	0	0	8

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	5	0	0	0	0	0	0	0	0	0	0	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	1	0	0	0	1	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	0	0	0	0	0	1	0	0	0	1	8

Hourly Direction Report MAINE_DOT_SDC 233105004104 Wednesday, May 1, 2019 to Thursday, May 2, 2019

Site Name BIDDEFORD 04104
Site ID 233105004104
Description LINCOLN ST SE/O US 1 (ELM ST)

Exclude data: None

Time	Volume	Total
00:00:00	38	38
01:00:00	18	18
02:00:00	6	6
03:00:00	22	22
04:00:00	36	36
05:00:00	68	68
06:00:00	174	174
07:00:00	384	384
08:00:00	364	364
09:00:00	295	295
10:00:00	323	323
11:00:00	368	368
12:00:00	456	456
13:00:00	346	346
14:00:00	400	400
15:00:00	452	452
16:00:00	524	524
17:00:00	479	479
18:00:00	372	372
19:00:00	250	250
20:00:00	173	173
21:00:00	114	114
22:00:00	86	86
23:00:00	51	51
7am-7pm	4763	4763
6am-10pm	5474	5474
6am-12am	5612	5612
12am-12am	5798	5798
am Peak	7:00:00	7:00:00
Peak Volume	384	384
pm Peak	16:00:00	16:00:00
Peak Volume	524	524

Event key: QC Failure QC Outlier QC Atypical Events Special Holiday Offline
Weekends and defined holidays

Holidays & Events:
None

Hourly Direction Report MAINE_DOT_SDC 233105004104 Monday, May 23, 2022 to Tuesday, May 24, 2022

Site Name BIDDEFORD 04104
Site ID 233105004104
Description LINCOLN ST SE/O US 1 (ELM ST)

Exclude data: None

Time	Volume	Total
00:00:00	27	27
01:00:00	12	12
02:00:00	13	13
03:00:00	19	19
04:00:00	32	32
05:00:00	76	76
06:00:00	185	185
07:00:00	367	367
08:00:00	329	329
09:00:00	294	294
10:00:00	289	289
11:00:00	296	296
12:00:00	392	392
13:00:00	336	336
14:00:00	372	372
15:00:00	462	462
16:00:00	504	504
17:00:00	430	430
18:00:00	274	274
19:00:00	216	216
20:00:00	160	160
21:00:00	102	102
22:00:00	67	67
23:00:00	54	54
7am-7pm	4345	4345
6am-10pm	5008	5008
6am-12am	5129	5129
12am-12am	5308	5308
am Peak	7:00:00	7:00:00
Peak Volume	367	367
pm Peak	16:00:00	16:00:00
Peak Volume	504	504

Event key: QC Failure QC Outlier QC Atypical Events Special Holiday Offline
Weekends and defined holidays

Holidays & Events:
None

City of Biddeford, Maine

The Office of
City Manager James A. Bennett
Email: James.Bennett@biddefordmaine.org

December 11, 2024

Randy Illian, P.E.
Southern Region Traffic Engineer
Maine Department of Transportation
Scarborough, ME

Dear Randy,

The City of Biddeford acknowledges receipt of your request regarding the need for an updated Traffic Movement Permit (TMP) study or a waiver for the recent modifications to the development plans in the area related to the Elm Street Project.

After careful consideration of the development changes, the City of Biddeford has elected to exercise its option, as a Designated Growth Area under the Maine Department of Transportation TMP rules, to waive the requirement for a supplemental traffic impact study and accept that the development may cause a lower level of service for vehicles.

This decision reflects the City's commitment to fostering growth and development while balancing our mobility and infrastructure needs. We recognize the changes to the original design and impact fees and are confident that the current plans align with the City's broader planning goals.

Please let us know if further documentation or clarification is required. The City of Biddeford remains committed to collaboration with MaineDOT and other stakeholders to ensure the success of this project and its alignment with state and municipal objectives.
Thank you for your continued partnership.

Sincerely,

James Bennett
City Manager

The City of Biddeford is an equal opportunity provider. To file a complaint, write to Diana Depaolo, Human Resource Director, 205 Main Street Biddeford, ME 04005, or call (207) 286-0593.

AMTRACK



CHARRON REFLEX LIGHTING

#	Date	Comments

Revisions

Drawn By: ERIK MILLES
Checked By:
7-31-2025
Contact: emilles@reflexlighting.com
Scale: NTS

FATHOM PEARL STREET REDEVELOPMENT

BIDDEFORD, ME

PEARL STREET (LOT 3) REDEVELOPMENT

3 LINCOLN, LLC
BIDDEFORD, ME

LEGEND

EXISTING

REFER TO THE EXISTING CONDITIONS PLAN FOR ADDITIONAL INFORMATION

PROPOSED

TURF PAVER
PAVEMENT
CONCRETE
STONE DUST
BRICK PAVER
LANDSCAPED AREA
GRAVEL
STRIPING
EROSION CONTROL MIX BERM — ECB —
EDGE OF PAVEMENT
CURB
FENCE
SIGN
LIGHTING BOLLARD
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
SEWER VALVE
GAS VALVE
FIRE HYDRANT
SEWER MANHOLE
SEWER PUMP STATION
CATCH BASIN
DRAIN MANHOLE
TELECOM/ELECTRICAL MANHOLE
UNDERGROUND ELECTRIC LINE — UGE —
UNDERGROUND TELECOM/CABLE — UGT/C —
UNDERGROUND WATER LINE — UW —
MINOR CONTOURS (1 FT) — 64 —
MAJOR CONTOURS (5 FT) — 65 —
GAS LINE — GAS —
STORM DRAIN LINE
SEWER LINE — FM — S —
EXISTING/PROPOSED BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE — OHE/T/C —
PROPERTY LINE

INDEX

C-01	COVER SHEET & LEGEND
C-02	GENERAL NOTES
EX	EXISTING CONDITIONS SURVEY DATED 2/28/25 BY OWEN HASKELL, INC.
C-03	CONSTRUCTION MANAGEMENT & REMOVALS PLAN
C-10	SITE PLAN
C-20	UTILITY PLAN
C-30	GRADING & DRAINAGE PLAN
C-40	SITE DETAILS – 1
C-41	SITE DETAILS – 2
C-42	UTILITY DETAILS – 1
C-43	UTILITY DETAILS – 2
C-44	UTILITY DETAILS – 3
C-45	PUMP STATION DETAILS
C-46	DRAINAGE DETAILS – 1
C-47	DRAINAGE DETAILS – 2
C-48	EROSION & SEDIMENTATION CONTROL NOTES
C-49	EROSION & SEDIMENTATION CONTROL DETAILS

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER:
CITY OF BIDDEFORD ENGINEERING DEPARTMENT
205 MAIN STREET
BIDDEFORD, MAINE 04005
CONTACT: TOM MILLIGAN, P.E.
(207) 284-9118

WATER:
MAINE WATER COMPANY
93 INDUSTRIAL PARK ROAD
SACO, MAINE 04072
CONTACT: MARCUS KNIPP
(207) 282-1543

ELECTRIC:
CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAY AGRESTE
(207) 207-842-2367

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: JAY CUNHA
(207) 745-9363

CABLE:
SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: DAN MINCHEV
(207) 253-2334

NATURAL GAS:
UNITIL SERVICE CORP.
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
CONTACT: SCOTT CARPENTER
(207) 541-2543

TELECOMUNICATIONS
FIRSTLIGHT FIBER
PORTLAND, MAINE
CONTACT: MIKE ELLINGWOOD
(888)-832-4976

WAIVERS:
1. THE PROJECT PROPOSES TO WAIVE THE COMMERCIAL PARKING REQUIREMENT FROM THE CITY OF BIDDEFORD LAND DEVELOPMENT REGULATIONS PART III – ARTICLE VI – SECTION 49 OFF-STREET PARKING AND LOADING

TOTAL DISTURBED AREA: 99,237 SF
PROJECT AREA: 90,629 SF

PERVIOUS LAND AREA
EXISTING: NEARLY 5,755± SF (MERC FACILITY)
PROPOSED: 22,652 SF

IMPERVIOUS LAND AREA
EXISTING: 84,874± SF (MERC FACILITY)
PROPOSED: 67,977 SF

BUILDING ROOF AREA
EXISTING: 65,000± SF
PROPOSED: 31,056 SF

PROJECT TEAM

DEVELOPER:
3 LINCOLN, LLC
PORTLAND, MAINE
CONTACT: JIM BRADY
(207) 317-2818

ARCHITECT:
KAPLAN THOMPSON ARCHITECTS
PORTLAND, MAINE
CONTACT: JESSE THOMPSON, R.A.
(207) 842-2888

SURVEYOR:
OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: RANDY LOUBIER, PLS
(207) 774-0424

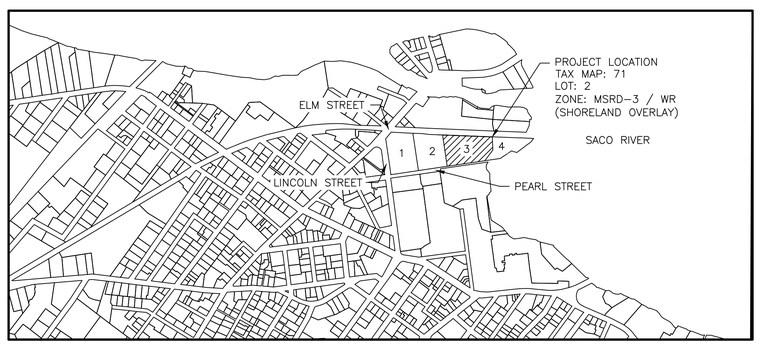
CIVIL ENGINEER:
ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: PETER F HEIL, P.E.
(207) 775-2655

LANDSCAPE ARCHITECT:
SOREN DENIORD DESIGN STUDIO
PORTLAND, MAINE
CONTACT: SOREN DENIORD
(207) 400-2450

GEOTECHNICAL ENGINEER:
SUMMIT GEOENGINEERING SERVICES
FARMINGDALE, MAINE
CONTACT: BILL PETERLEIN, P.E.
(207) 318-7761

STRUCTURAL ENGINEER:
THORNTON TOMASETTI
PORTLAND, MAINE
CONTACT: MATT LEGERE, P.E.
(207) 245-6060

PLANNING BOARD NUMBER	2024.55 (& 2022.02)
EXISTING USE	VACANT LOT (PREVIOUSLY MERC FACILITY)
PROPOSED USE	APARTMENTS/RESTAURANT
DRAINAGE WATERSHED	SACO RIVER
MS4 URBANIZED AREA	YES
NEARBY NATURAL RESOUCES	YES (SACO RIVER)
WITHIN 100-YEAR FLOOD ZONE	NO
PUBLIC ROAD PROPOSED	NO
PRIVATE ROAD PROPOSED	NO
PUBLIC SEWER CONNECTION	YES
PUBLIC STORMDRAIN CONNECTION	YES
ZONING INFORMATION	MSRD3 & WATER RENAISSANCE (WR) SHORELAND OVERLAY DISTRICTS



VICINITY MAP
1" = 200'

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
SKETCH PLAN	PFH	10/23/24
PRELIMINARY	PFH	10/20/22
DEP SW AMENDMENT	PFH	11/7/22
SRCC	PFH	1/4/23
FINAL SITE PLAN	PFH	7/11/23
SITE PLAN AMENDMENT	PFH	6/11/25
COMMENT RESPONSE	PFH	8/6/25
COMMENT RESPONSE II	PFH	8/18/25
COMMENT RESPONSE III	PFH	8/26/25

DRAWING NAME: COVER SHEET & LEGEND
PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE
OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE WITHOUT SUCH PERMISSION SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
ENGINEERING • SURVEYING • LAND PLANNING
PO BOX 3177, PORTLAND, MAINE 04101
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FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-01

GENERAL NOTES:

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.

3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.

4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF BIDDEFORD AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.

5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.

6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.

7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY OWEN HASKELL, DATED 2/28/25.

8. SUBSURFACE DATA TO BE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22, PRIOR TO SUBMITTING A BID.

9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE BIDDEFORD DEPARTMENT OF PUBLIC WORKS AND ENGINEERING DEPARTMENT ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.

10. CONSTRUCTION MANAGEMENT PLAN AND SITE LOGISTICS NARRATIVE SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

11. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.

12. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.

13. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM FOR ADJACENT STRUCTURES AND STRONGLY RECOMMENDED FOR STRUCTURES DIRECTLY ACROSS THE SITE ALONG PEARL STREET. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.

14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.

2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.

3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.

4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.

5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.

6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.

8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.

9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.

10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.

11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.

12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).

15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

SPECIAL INSPECTION NOTES

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.

2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.

3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.

4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.

5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

   5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

   5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

   5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.

   5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY OWNER AND COORDINATED BY THE CONTRACTOR.

LAYOUT NOTES:

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF BIDDEFORD, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.

6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE MAJOR SUBDIVISION AND SITE PLAN PERMIT FROM THE CITY OF BIDDEFORD, PERMIT FROM THE SACO RIVER CORRIDOR COMMISSION, A MAINE DEP STORMWATER PERMIT, AND A TRAFFIC MOVEMENT PERMIT FROM THE MAINE DOT.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF BIDDEFORD. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

GRADING AND DRAINAGE NOTES:

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.

2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.

3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.

4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 1% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.

5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22.

6. NO ADDITIONAL PAYMENT WILL BE MADE FOR UNSUITABLE MATERIALS THAT MAY EXIST ON SITE.

7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N=0.012 OR LESS.

8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.

9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.

10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.

EROSION CONTROL NOTES:

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.

2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.

3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.

4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.

5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.

7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

2. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.

3. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.

4. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.

5. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.

6. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.

7. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE MAINE WATER COMPANY STANDARD CONSTRUCTION SPECIFICATIONS AND PROCEDURES, MOST RECENT REVISION.

8. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF BIDDEFORD, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.

9. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE MAINE WATER COMPANY AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

10. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE MAINE WATER COMPANY SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.

11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

12. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.

13. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.

14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF BIDDEFORD TECHNICAL MANUAL PRIOR TO ANY WORK.

15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

16. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.

17. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.

18. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.

19. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE,

20. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.

21. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.

22. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.

23. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

DEMOLITION NOTES:

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
   - ROCK AND CONCRETE FOUNDATIONS
   - CONCRETE SLABS
   - BITUMINOUS ASPHALT PAVEMENT
   - CONCRETE PADS AND BLOCKS
   - FENCE POST AND FENCING
   - UNDERGROUND UTILITY LINES
   - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
   - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
   - OTHER TRASH & MISCELLANEOUS SOLID WASTES

2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED

3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.

4. THE PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT, PROVIDED BY CREDERE ASSOCIATES, LLC DATED 9/18/2012, IS TO BE REVIEWED BY CONTRACTOR.

5. THE PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT, PROVIDED BY CREDERE ASSOCIATES, LLC DATED 10/25/2012, IS TO BE REVIEWED BY CONTRACTOR.

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY / DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/22/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/17/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: GENERAL NOTES

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

THESE PLANS, NOTES, AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE PREPARED BY ACORN ENGINEERING, INC. AND SHALL NOT BE USED BY ANY PERSON OR ENTITY FOR ANY PROJECT OTHER THAN THE SPECIFIED PROJECT, FOR WHICH THEY WERE PREPARED, WITHOUT THE WRITTEN CONSENT OF ACORN ENGINEERING, INC. ANY UNAUTHORIZED USE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
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FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
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STATE OF MAINE
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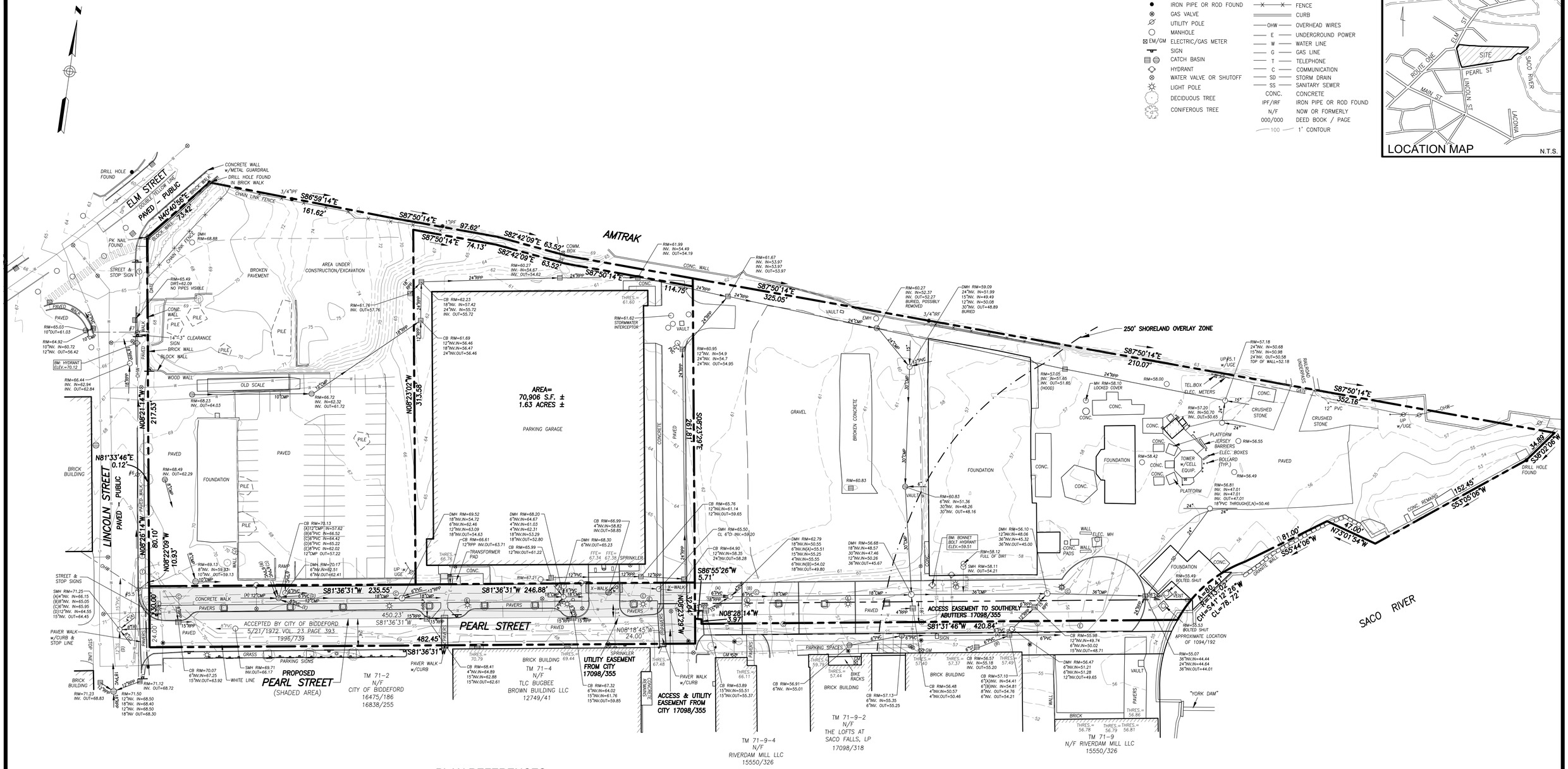
DRAWING NO.
C-02



PLAN REFERENCES

1. PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD MAINE BY DOW & COULOMBE, INC. DATED JANUARY 15, 1985 REVISED THROUGH OCT. 4, 1986.

2. ALTA/ACSM LAND TITLE SURVEY (URBAN) MADE FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD, MAINE BY DOW & COULOMBE, INC. DATED MARCH 15, 1996 REVISED THROUGH MAY 14, 2009.

3. ALTA/NSPS LAND TITLE SURVEY AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED JULY 30, 2015 REVISED THROUGH 12-20-16.

4. EXHIBIT PLAN OF EASEMENT AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED AUGUST 27, 2015 REVISED THROUGH DEC. 20, 2106.

5. EXISTING CONDITIONS SURVEY ON PEARL STREET, BIDDEFORD, MAINE MADE FOR MILONE & MCBROOM BY OWEN HASKELL, INC. DATED APRIL 19, 2018.

6. LAND DIVISION PLAN ON LINCOLN STREET & PEARL STREET BIDDEFORD, MAINE MADE FOR DESMAN DESIGN MANAGEMENT BY OWEN HASKELL, INC. DATED FEB. 4, 2020.

7. EXISTING CONDITIONS SURVEY ON PEARL STREET, BIDDEFORD, MAINE MADE FOR CITY OF BIDDEFORD BY OWEN HASKELL, INC. DATED AUGUST 5, 2021, REVISED THROUGH 9/29/21.

8. CONTRACTOR PROVIDED AS-BUILT PLANS: PEARL STREET RECONSTRUCTION PROJECT, BIDDEFORD, MAINE, FEB. 4, 2022 BY SEWALL, SHEETS C4-A, C-4B, C-5A & C-5B.

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

GENERAL NOTES

1. OWNER OF RECORD: CITY OF BIDDEFORD
TAX MAP 71 LOT 2
Y.C.R.D. BOOK 16838 PAGE 255
Y.C.R.D. BOOK 16475 PAGE 186

2. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.

3. ELEVATIONS ARE BASED ON NAVD 88 DATUM.

4. THE PURPOSE OF THIS PLAN IS TO UPDATE THE EXISTING CONDITIONS OF PEARL STREET AND THE LAND TO THE WEST OF THE EXISTING PARKING GARAGE. THE FEATURES SHOWN EAST OF THE PARKING GARAGE PARCEL AND NORTH OF PEARL STREET ARE TAKEN FROM PLAN REFERENCE #7 AND HAVE NOT BEED RE-SURVEYED IN 2025.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

DATE

Existing Conditions Survey
On
Pearl Street, Biddeford, Maine
Made for
Acorn Engineering, Inc.
P.O. Box 3372 Portland, Maine 04104

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: RRL / JLW	DATE: FEB. 28, 2025	JOB NO. 2024-334 B-Y	
CHECKED BY: RRL	SCALE: 1" = 40'	DRWG. NO. 1	

GENERAL NOTES:

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
7. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF BIDDEFORD REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
11. CONTRACTOR TO PROVIDE ACCESS TO EXISTING BUSINESSES ALONG PEARL STREET THROUGH THE DURATION OF CONSTRUCTION.
12. ALL EXISTING STORM DRAINS SHOWN IN THE PLAN SET ARE TO BE REMOVED. PLEASE REFER TO C-30 FOR PROPOSED STORMWATER INFRASTRUCTURE IMPROVEMENTS. CONTRACTOR TO ENSURE ANY EXISTING UNDERDRAIN OR FOOTING DRAIN CONNECTIONS REMAIN OPERATIONAL. CONTRACTOR TO NOTIFY ENGINEER IF ANY SUBSURFACE STORM DRAINS NOT SHOWN ON PLAN ARE ENCOUNTERED DURING CONSTRUCTION.
13. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22. BEDROCK AND APPROXIMATELY 4'± THICK CONCRETE SLABS ARE ANTICIPATED TO BE ENCOUNTERED IN CERTAIN AREAS. CONTRACTOR TO ACCOUNT FOR APPROPRIATE BLASTING AND/OR REMOVAL OF MATERIALS REQUIRED TO INSTALL SITE IMPROVEMENTS, INCLUDING UTILITIES, AS DEPICTED WITHIN THE PLAN SET. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY BLASTING PERMITS, IF APPLICABLE
14. CONTRACTOR IS REQUIRED TO CONTACT THE CITY'S ENGINEERING DEPARTMENT PRIOR TO MAJOR LAND DISTURBANCE, FOR AN INITIAL E&SC INSPECTION ONCE ALL PERIMETER CONTROL DEVICES HAVE BEEN INSTALLED.
15. CONTRACTOR IS REQUIRED TO PROPERLY MAINTAIN ALL E&SC BMPS THROUGHOUT CONSTRUCTION AND AFTER RAINFALL EVENTS VIA RECORDED INSPECTION LOGS/REPORTING.
16. CONTRACTOR TO IMPLEMENT DUST CONTROL MEASURES AND KEEP SEDIMENT FROM ACCUMULATING IN PEARL STREET AND ALONG THE PEARL STREET SIDEWALK EXTENSION FRONTAGE.

RIM=61.67
INV. IN=53.97
INV. IN=53.97
INV. OUT=53.97
INSTALL INLET PROTECTION WITHIN CATCH BASIN PER DETAIL
EXISTING 24" RPP TO REMAIN
RIM=61.62 STORMWATER INTERCEPTOR
SHIM EXISTING PAVEMENT AND RE-GRADE PER SHEET C-30. CONTRACTOR TO UTILIZE THIS LOCATION AS A CONSTRUCTION ENTRANCE, TYP. PER DETAIL
RIM=60.95
12"INV. IN=54.9
24"INV. IN=54.7
24"INV. OUT=54.95
CONTRACTOR TO UTILIZE PRIVATE DRIVE AS PRIMARY CONSTRUCTION ENTRANCE TO MINIMIZE IMPACT TO PEARL STREET TO THE GREATEST EXTEND POSSIBLE. INSTALL ACCESS GATE WITHIN CONSTRUCTION FENCE AT THIS LOCATION
INSTALL INLET PROTECTION WITHIN CATCH BASIN PER DETAIL
EXISTING WATER LINE TO BE REMOVED PER MAINE WATER COMPANY STANDARDS. CONTRACTOR TO COORDINATE SHUT OFF & REMOVAL OF WATERLINE AND PROVIDE TEMPORARY WATER SERVICE TO ALL BUILDINGS ON PEARL STREET (IF NECESSARY) UNTIL NEW WATER MAIN INSTALLATION HAS BEEN INSTALLED, TESTED & DISINFECTED AND SERVICES RESTORED TO THE SATISFACTION OF MAINE WATER COMPANY
LOCATION OF EXISTING GRAVEL PER SURVEY
POTENTIAL CONSTRUCTION ENTRANCE LOCATION, TYP PER DETAIL. CONTRACTOR TO INSTALL ACCESS GATE WITHIN CONSTRUCTION FENCE AT THIS LOCATION.
CONTRACTOR TO REMOVE EXISTING CURB, CONCRETE SIDEWALK, AND PAVERS AT THIS LOCATION TO WIDEN THE ACCESS DRIVE AISLE TO 22' WIDE. SEE SHEET C-10, C-20, AND C-30 FOR ADDITIONAL INFORMATION. CONTRACTOR TO COORDINATE ALL WORK OUTSIDE OF LOT 3 WITH CITY ENGINEERING AND PUBLIC WORKS DEPARTMENTS
CB RIM=65.76
12"INV.IN=61.14
SMH RIM=65.50
CL 6"CI INV.=59.20
CB RIM=64.90
12"INV.IN=58.35
INSTALL INLET PROTECTION WITHIN EX. CATCH BASIN PER DETAIL
INSTALL INLET PROTECTION WITHIN CATCH BASIN PER DETAIL
CONTRACTOR TO REMOVE PEDESTRIAN PAVER (DARKER PAVER) AND SECTIONS OF FLUSH GRANITE CURB PRIOR TO CONSTRUCTION OF BUILDING 3A AND 3C & STOCKPILE ONSITE. CONTRACTOR TO REINSTALL PAVERS PRIOR TO BUILDING 3A AND 3C CERTIFICATE OF OCCUPANCY. CONTRACTOR TO NOTIFY ENGINEERING AND PUBLIC WORKS PRIOR TO REMOVING PAVERS, PRIOR TO REPLACING PAVERS, AND AT COMPLETION OF WORK.
INSTALL INLET PROTECTION WITHIN CATCH BASIN PER DETAIL
EX 24" CMP PIPE HAS BEEN REMOVED. CONTRACTOR TO CONFIRM IN FIELD
EX. SMH HAS BEEN REMOVED. CONTRACTOR TO CONFIRM IN FIELD
BROKEN CONCRETE TO BE REMOVED
EX 24" CMP PIPE TO BE REMOVED
EX. MANHOLE TO BE REMOVED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE ISSUES UPSTREAM OF MANHOLE
EX 30" CMP PIPE TO BE REMOVED
POTENTIAL STOCKPILE AREA DURING CONSTRUCTION. PERIMETER EROSION CONTROL BERM TO BE INSTALLED. FINAL STOCKPILE AND LAYDOWN AREAS TO BE DETERMINED BY THE CONTRACTOR
EX 6" PIPE TO BE REMOVED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE ISSUES UPSTREAM OF PIPE
EX. MANHOLE TO BE REMOVED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE ISSUES UPSTREAM OF MANHOLE
EX 30" CMP PIPE TO BE REMOVED AND PLUGGED WITHIN THE CATCH BASIN MANHOLE
PROPERTY LINE, TYP.
PROPOSED EROSION CONTROL MIX BERM PER DETAIL
PEARL STREET
RIM=60.27
INV. IN=52.37
INV. OUT=52.27
BURIED, POSSIBLY REMOVED
DMH RIM=59.09
24"INV. IN=51.99
15"INV. IN=49.49
12"INV. IN=50.08
30"INV. OUT=48.89
BURIED
EX 15" PIPE TO BE REMOVED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE CONFLICTS UPSTREAM OF PIPE
EX 12" PVC PIPE TO BE REMOVED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE CONFLICTS UPSTREAM OF PIPE
EXISTING FOUNDATION REMAINS, APPROX. 4' THICK TO BE REMOVED
EX. MANHOLE TO BE REMOVED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE CONFLICTS UPSTREAM OF MANHOLE. PRIOR TO START OF CONSTRUCTION NOTIFY ENGINEER OF RESULTS
EX. CONCRETE TO BE REMOVED
EX. FOUNDATION REMAINS TO BE REMOVED
APPROXIMATE LOCATION OF UNDERGROUND CABLE. CONTRACTOR TO COORDINATE WITH TELECOMMUNICATIONS SERVICES AND REMOVE IF NECESSARY.
EX 8" STEEL PIPE TO BE REMOVED AND CAPPED. CONTRACTOR TO CONFIRM THERE ARE NO DRAINAGE ISSUES UPSTREAM OF PIPE
PEARL STREET DESIGN BY SEWALL
LIMIT OF DISTURBANCE: 99,237 SF
INSTALL INLET PROTECTION WITHIN CATCH BASIN PER DETAIL
EXISTING 24" RPP TO REMAIN
RIM=57.05
INV. IN=51.65
INV. OUT=51.65
(HOOD)
MH RIM=58.10
LOCKED COVER
EX. CONCRETE TO BE REMOVED ON LOT 3
EX. TOWER TO REMAIN UNDISTURBED
EX. ELECTRIC MANHOLE TO REMAIN UNDISTURBED
EXISTING SUBSURFACE STORMWATER SYSTEM TO REMAIN
TEMPORARY DRIVE WAY AS PART OF THE PEARL STREET DESIGN BY SEWALL
RIM=57.18
24"INV. IN=50.68
15"INV. IN=50.98
24"INV. OUT=50.58
TOP OF WALL=52.18
RIM=55.49
BOLTED SHUT
RIM=55.53
BOLTED SHUT
CB RIM=55.98
12"INV.IN=49.74
6"INV.IN=50.02
15"INV.OUT=48.71
DMH RIM=62.79
18"INV.IN=50.55
6"INV.IN(A)=55.51
15"INV.IN=55.25
4"INV.IN=55.55
6"INV.IN(B)=54.02
18"INV.OUT=49.80
DMH RIM=56.65
18"INV.IN=48.57
30"INV.IN=47.46
12"INV.IN=50.26
36"INV.OUT=45.67
DMH RIM=56.10
12"INV.IN=48.06
36"INV.IN=45.32
36"INV.OUT=45.02
RIM=58.12
FULL OF DIRT
DMH RIM=58.11
INV. OUT=54.21
RIM=60.83
6"INV. IN=51.36
30"INV. IN=48.26
30"INV. OUT=48.16
RIM=60.83
RIM=57.20
INV. IN=50.70
INV. OUT=50.65
RIM=57.12
RIM=55.07

20 0 20 40
SCALE: 1" = 20'

PERMITTING NOT ISSUED FOR CONSTRUCTION

ISSUED FOR | BY | DATE

DRAWING NAME: CONSTRUCTION MANAGEMENT & REMOVALS PLAN
PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT, PEARL STREET, BIDDEFORD, MAINE
OWNER OF RECORD: 3 LINCOLN, LLC, 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

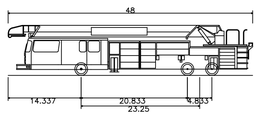
THESE PLANS, NOTES, &, WHERE APPLICABLE, DESIGNS ARE THE PROPERTY OF ACORN ENGINEERING, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF ACORN ENGINEERING, INC. ANY REUSE WITHOUT SUCH PERMISSION SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
317 ALFRED ROAD, ALFRED, MAINE 04101
PO BOX 337, ALFRED, ME 04002
(207) 775-2655

FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-03



Updated BIDDEFORD FIRETRUCK

Overall Length	48.000ft
Overall Width	10.000ft
Overall Body Height	9.851ft
Min Body Ground Clearance	0.692ft
Track Width	7.030ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

LOT 3 SPACE AND BULK STANDARDS

ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	PROPOSED LOT 3
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	2.08 AC
MINIMUM STREET FRONTAGE	NONE	–	322'
MINIMUM FRONT YARD SETBACK	NONE	–	0.57'
MINIMUM REAR YARD SETBACK	NONE	–	27.40'
MINIMUM SIDE YARD SETBACK	NONE	–	1.05'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	–	SEE ELEVATIONS PER ARCHITECT
MINIMUM SHORE FRONTAGE	–	NONE (WITHIN EX. STRUCTURES ONLY)	N/A
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	–	100' FROM NORMAL HIGH-WATER LINE	116.32'
SACO RIVER NO-CUT ZONE (SRCC)	–	75'	N/A
MAX LOT COVERAGE	100%	70% WITHN SHORELAND ZONE	TOTAL: 75.0% SHORELAND: 69.8%
MINIMUM LOT AREA PER USE	–	RESIDENTIAL: 425 SF/UNIT COMMERCIAL: 5,000 SF/STRUCTURE	RESIDENTIAL: 638 SF/UNIT COMMERCIAL: 90,629 SF/STRUCTURE
MINIMUM SHORE FRONTAGE	–	RESIDENTIAL: NONE COMMERCIAL: 100 FT	322 FT

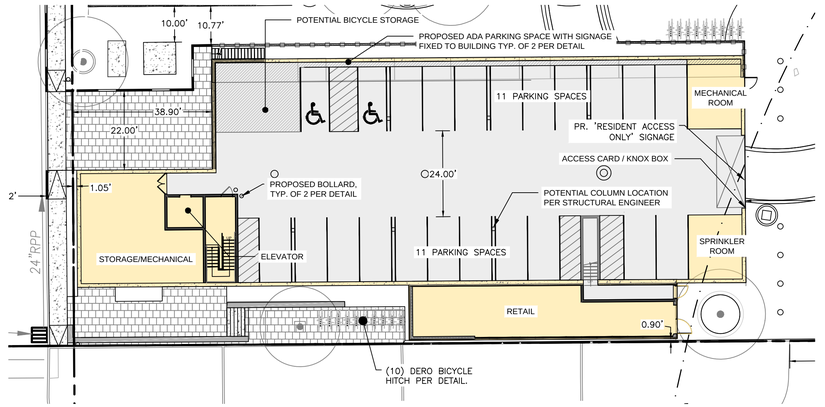
PARKING SUMMARY

USE	UNITS	SPACES REQUIRED	PROPOSED
BUILDING A	52	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 42+20 = 62 SPACES***	22
–	–	INCREASE OF 5% (OF 52 SPACES) TO ALLOW FOR VISITORS = 3 SPACES	–
RETAIL	1,110 SF	1 SPACE / 300 SF OF FLOOR SPACE = 3 SPACES*	0
BUILDING B	85	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 59+52 = 111 SPACES***	18
–	–	INCREASE OF 5% (OF 85 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	–
BUILDING C	154 SEATS	1 SPACE / 3 SEATS = 52 SPACES*	0
TOWNHOMES (BUILDING D)	5	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 5 SPACES	5
ADA (8'X18')	–	–	4
STANDARD (9'X18')	–	–	41
TOTAL SPACES	–	240 – 55* = 185	45
ADDITIONAL SPACES TO BE PROVIDED IN PARKING GARAGE	–	140**	(45+140) =185

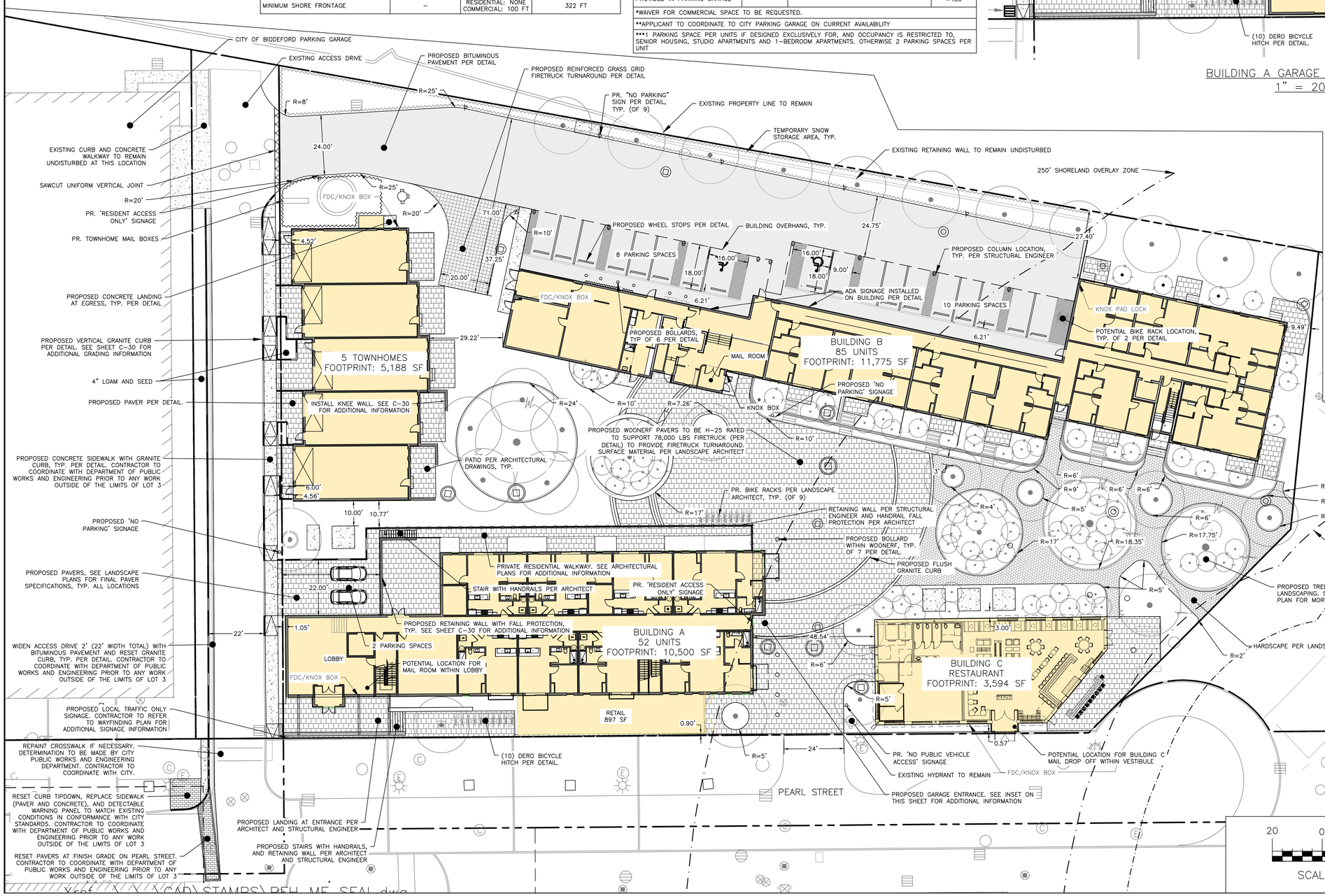
*WAIVER FOR COMMERCIAL SPACE TO BE REQUESTED.

**APPLICANT TO COORDINATE TO CITY PARKING GARAGE ON CURRENT AVAILABILITY

***1 PARKING SPACE PER UNITS IF DESIGNED EXCLUSIVELY FOR, AND OCCUPANCY IS RESTRICTED TO, SENIOR HOUSING, STUDIO APARTMENTS AND 1-BEDROOM APARTMENTS. OTHERWISE 2 PARKING SPACES PER UNIT



BUILDING A GARAGE FLOOR PLAN
1" = 20'



GENERAL NOTES:

1. ALL SIDEWALK AND CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARDS.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD & MUTCD STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL. ALL RUBBISH AND SNOW REMOVAL WILL BE HANDLED BY A PRIVATE PROPERTY MAINTENANCE COMPANY / SOLID WASTE MANAGEMENT COMPANY TO REMOVE TRASH AND SNOW IN LARGER STORM EVENTS.

PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 2/4/2022
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 2/28/25.
4. SEE PHOTOMETRIC PLAN PREPARED BY REFLEX LIGHTING FOR LIGHTING FIXTURE TYPES AND LOCATIONS.

ISSUED FOR | BY | DATE

DRAWING NAME: SITE PLAN

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND SHALL NOT BE USED BY ANYONE OTHER THAN AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
70 JOHN ROAD, SUITE 2, SANFORD, MAINE 04101
PO BOX 337, SACO, ME 04072 (207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

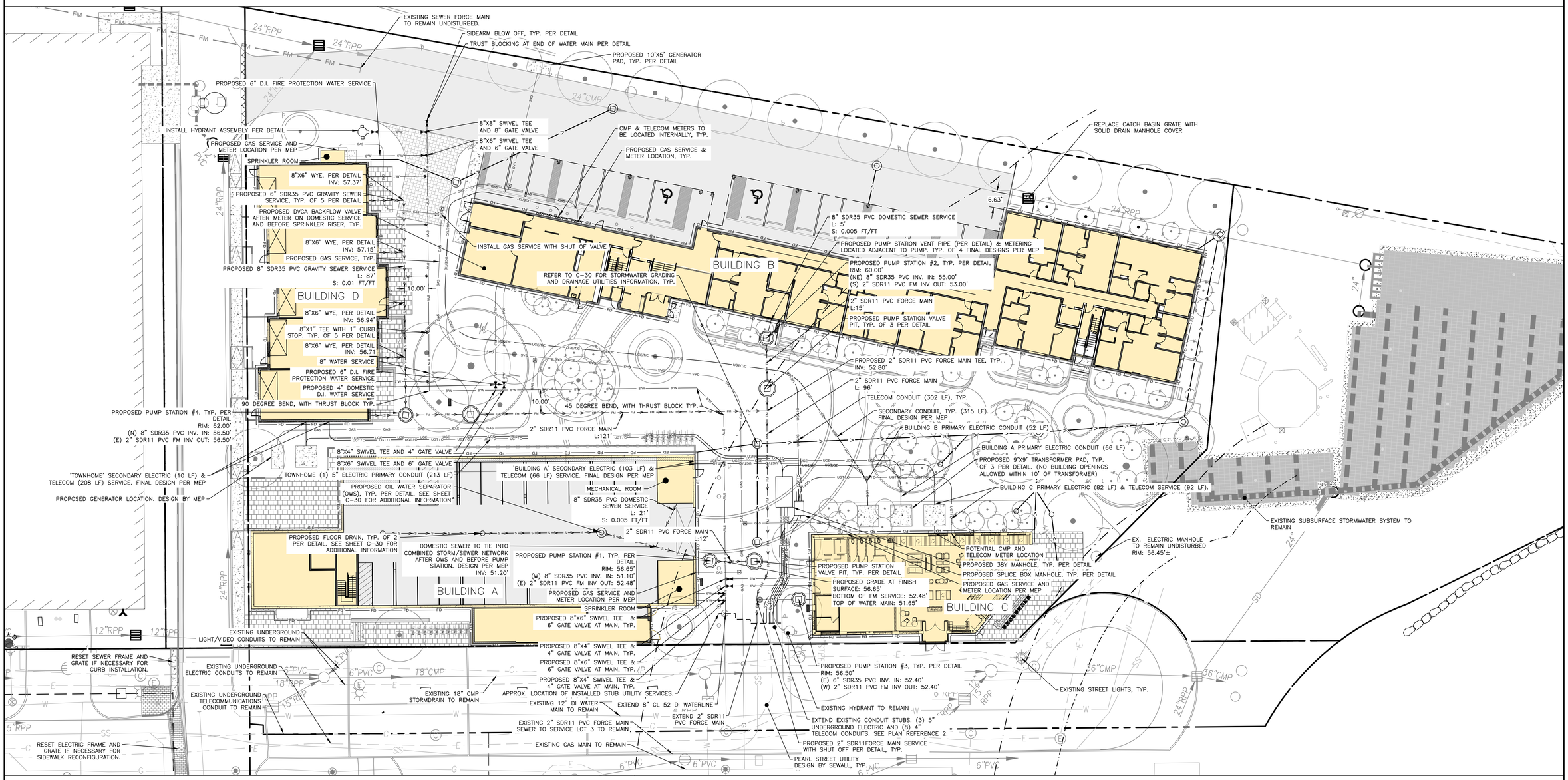
DRAWING NO.
C-10

GENERAL NOTES:

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BIDDEFORD TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE MAINE WATER COMPANY STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE MAINE WATER COMPANY AND CITY OF BIDDEFORD.
   - 6.1. MUST MAINTAIN 5' OF COVER OVER THE NEW WATER LINE WITH NO MORE THAN 5.5'
   - 6.2. MUST MAINTAIN 10' SEPARATION FROM OTHER UTILITIES, UNLESS MUTUALLY AGREED UPON BY ALL PARTIES
   - 6.3. MUST MAINTAIN 3' SEPARATION FROM EXISTING MAINE WATER INFRASTRUCTURE, UNLESS CONNECTING
   - 6.4. MUST MAINTAIN 5' OF SEPARATION FROM THE PROPERTY LINE
   - 6.5. MUST BE RUN WITH TRACER WIRE IF NON-METALLIC
   - 6.6. HDPE SHALL BE PE4710 CC3 (4" AND ABOVE MUST BE DR11 DIPS)
   - 6.7. MUST COMPLY WITH ALL OTHER MAINE WATER SPECIFICATIONS
   - 6.8. DIMENSIONS ARE ESTIMATES BASED ON EXISTING RECORDS AND MAY NOT REFLECT THE ACTUAL REQUIRED LENGTHS
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNITIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY SPECTRUM AND CONSOLIDATED COMMUNICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22. BEDROCK AND 4' THICK CONCRETE SLABS ARE ANTICIPATED TO BE ENCOUNTERED IN CERTAIN AREAS. CONTRACTOR TO ACCOUNT FOR APPROPRIATE BLASTING AND/OR REMOVAL OF MATERIALS REQUIRED TO INSTALL SITE IMPROVEMENTS, INCLUDING UTILITIES, AS DEPICTED WITHIN THE PLAN SET.

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	–	6'	5'	4'	6'
WATER	6'	–	10'*	6'	3'
SEWER	5'	10'*	–	5'	10'
GAS	4'	6'	5'	–	3'
STORMWATER	6'	3'	10'	3'	–

*5' IS PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

Xref \\...\CAD\STAMPS\PFH_ME_SEAL.dwg

ISSUED FOR	BY	DATE

DRAWING NAME: UTILITY PLAN

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.
ACORN ENGINEERING, INC.
PO BOX 2135 KITTERY, MAINE 04101
(207) 775-2655

THESE PLANS, NOTES, MODELS AND/OR DESIGNS ARE AND SHALL REMAIN THE PROPERTY OF ACORN ENGINEERING, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF ACORN ENGINEERING, INC. ANY REUSE WITHOUT SUCH AUTHORIZATION OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

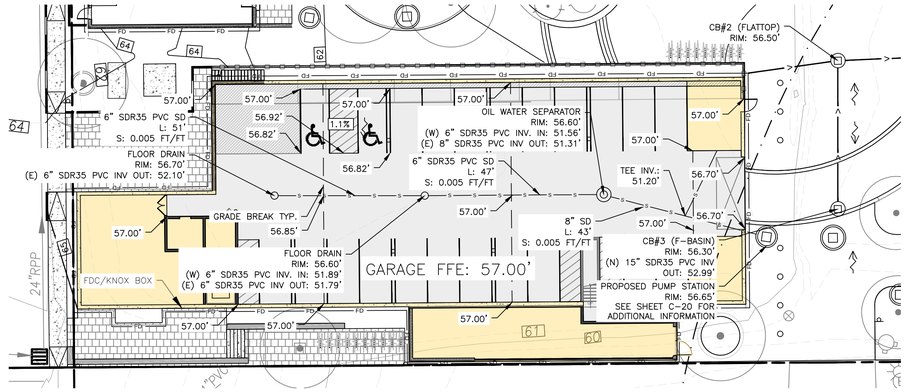
FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

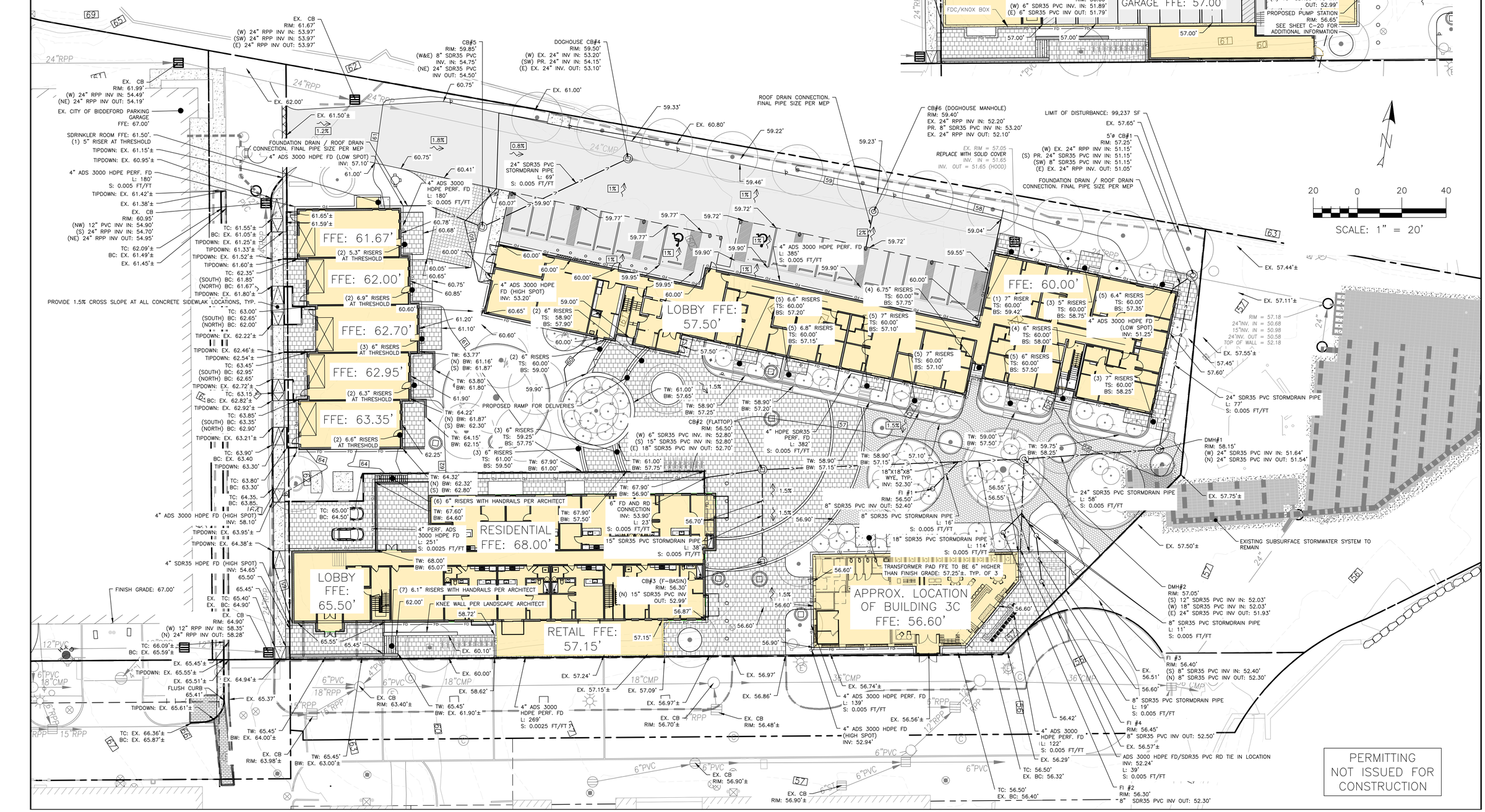
STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-20

GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF BIDDEFORD TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
6. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22. BEDROCK AND APPROX 4± FEET THICK CONCRETE SLABS ARE ANTICIPATED TO BE ENCOUNTERED IN CERTAIN AREAS. CONTRACTOR TO ACCOUNT FOR APPROPRIATE BLASTING AND/OR REMOVAL OF MATERIALS REQUIRED TO INSTALL SITE IMPROVEMENTS, INCLUDING UTILITIES, AS DEPICTED WITHIN THE PLAN SET.
7. INSTALL 2" RIGID INSULATION ON ALL DRAINAGE PIPES WITH LESS THAN 4 FT OF COVER.





20 0 20 40

SCALE: 1" = 20'

PERMITTING NOT ISSUED FOR CONSTRUCTION

ISSUED FOR | BY | DATE

DRAWING NAME: GRADING PLAN

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.
ENGINEERING · SURVEYING · PLANNING
PO BOX 1237 SACO, MAINE 04101
(207) 775-2655

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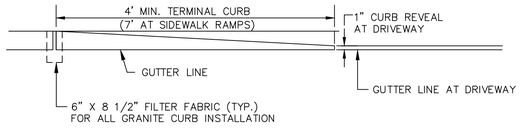
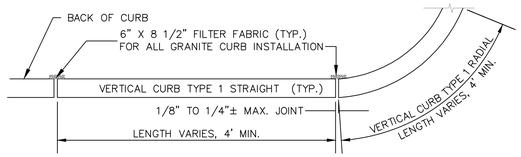
FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

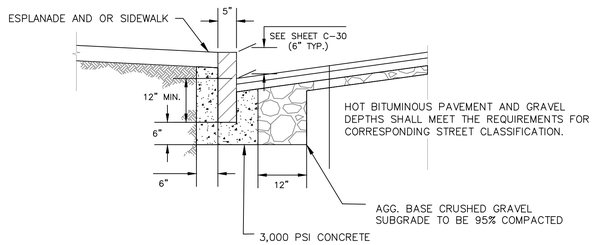
DRAWING NO.
C-30



TERMINAL CURB PROFILE



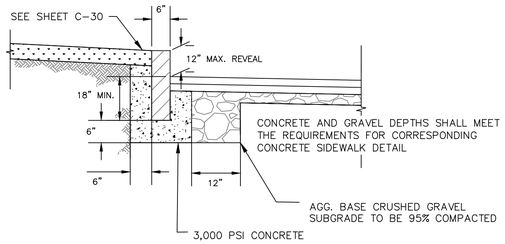
VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

NOTES:
1. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
2. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10-INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
3. CURBING SHALL BE SET IN A 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
4. WOODEN SHIMS MAY BE USED TO SET CURB.

VERTICAL GRANITE CURB
NOT TO SCALE

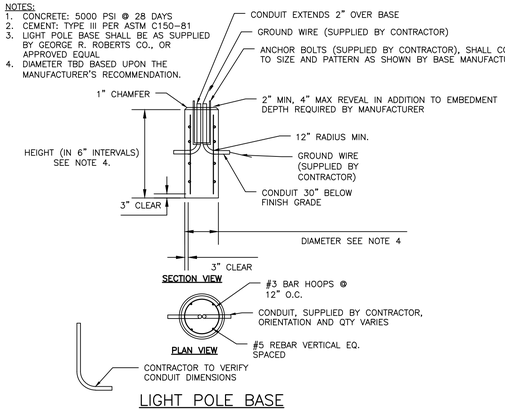


12" VERTICAL GRANITE CURB CROSS SECTION

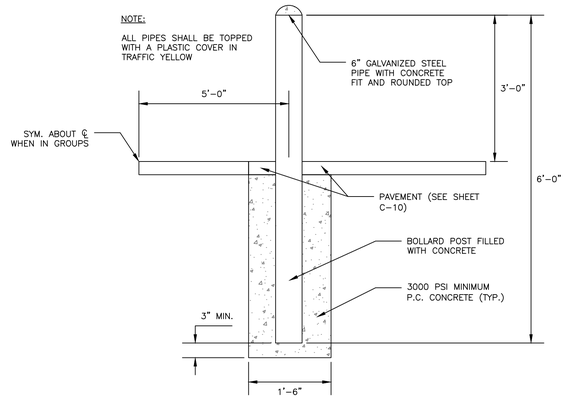
SCHEDULE		
HEIGHT OF POLE	MIN. DIAMETER	MIN. EMBEDMENT
<20'	18"	5'
20'-40'	2'	6'
>40'	3'	8'

REVEALS	
APPLICATIONS	REVEAL
STREET/SIDEWALK	4"
OTHER PED HARDSCAPE	FLUSH
PEDESTRIAN LAWN/MULCH	4"
PARKING AREAS (OPEN TRAFFIC)	24-36"

NOTES:
1. CONCRETE: 5000 PSI @ 28 DAYS
2. CEMENT: TYPE III PER ASTM C150-81
3. LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL.
4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.

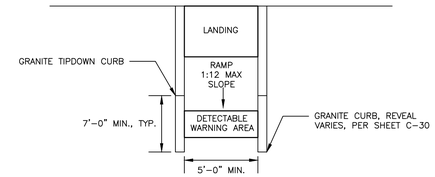


LIGHT POLE BASE
NOT TO SCALE



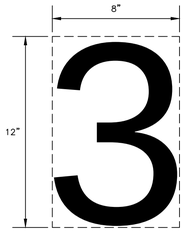
PIPE BOLLARD
NOT TO SCALE

NOTES:
1. ALL RAMPS SHALL COMPLY WITH CITY OF BIDDEFORD AND ADA STANDARDS.
2. SIDEWALK MATERIAL SHALL BE PER CITY SIDEWALK MATERIAL POLICY.
3. FLARED SECTIONS SHOULD MATCH SURFACE MATERIAL USED FOR SIDEWALK CONSTRUCTION.



DESIGN ELEMENT	SLOPE IN DIRECTION OF TRAVEL	CROSS SLOPE
APPROACH	8.33% MAX	2%
LANDING	2%	2%
RAMP	8.33% MAX	MATCH STREET GRADE
SIDEWALK	PER C-30	2%

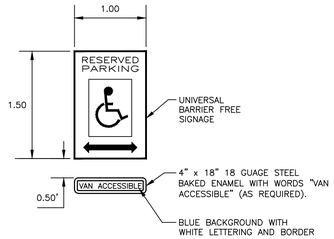
SIDEWALK RAMP LAYOUT
NOT TO SCALE



NOTES:
1. NUMBERS TO BE PAINTED AS THE SAME COLOR AS THE CORRESPONDING PARKING SPACE.
2. BOTTOM OF NUMBER TO BE FLUSH WITH THE FRONT OF THE PARKING SPACE.

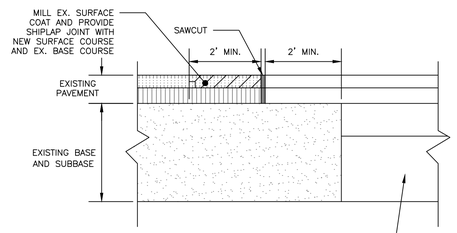
PARKING STALL NUMBER DETAIL
NOT TO SCALE

NOTES:
1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7-8a OR R7-8b.
3. IF NOT MOUNTED, SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.



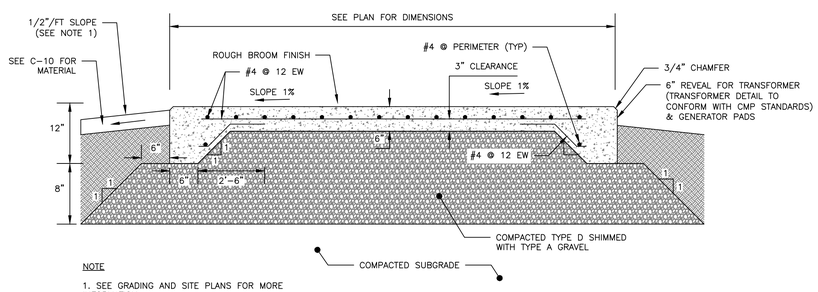
BARRIER FREE PARKING SIGN
NOT TO SCALE

NOTES:
1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. CREATE UNIFORM AND RIGID BUTT JOINT AND APPLY BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT DETAIL
NOT TO SCALE

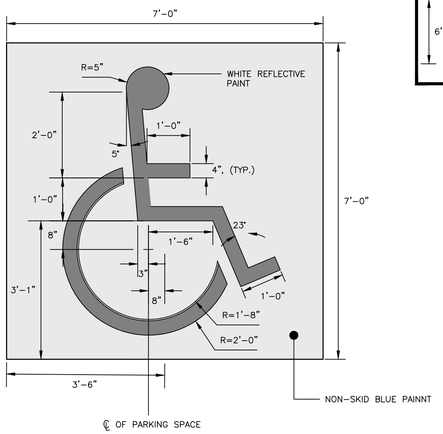
NOTES:
1. PROOFROLL AND COMPACT SUBGRADE
2. COMPACT AGGREGATES TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
3. FINISH WITH A STIFF, COARSE, FIBER BROOM.
4. REFER TO PLANS FOR DIMENSIONS.
5. CONCRETE TO BE 4,500 PSI REINFORCED PORTLAND CEMENT CONCRETE.



NOTE
1. SEE GRADING AND SITE PLANS FOR MORE INFORMATION

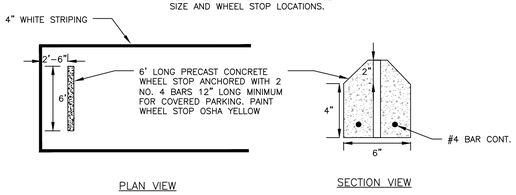
SECTION

CONCRETE PAD DETAIL
NOT TO SCALE



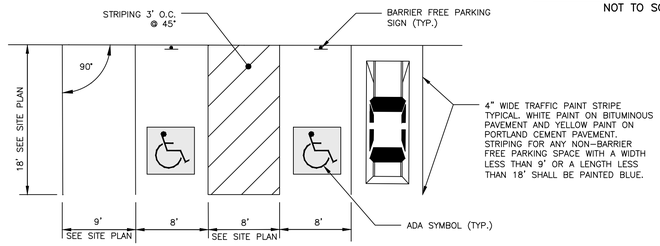
INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE

NOTE:
SEE SITE PLAN FOR PARKING SPACE SIZE AND WHEEL STOP LOCATIONS.



PLAN VIEW SECTION VIEW

CONCRETE WHEEL STOP
NOT TO SCALE



PARKING SPACE DIMENSIONS
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/5/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: SITE DETAILS - 1

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.
ENGINEERING, INC.
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND ANY UNAUTHORIZED MODIFICATIONS OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
P.O. BOX 3257, PORTLAND, MAINE 04101
(207) 775-2655

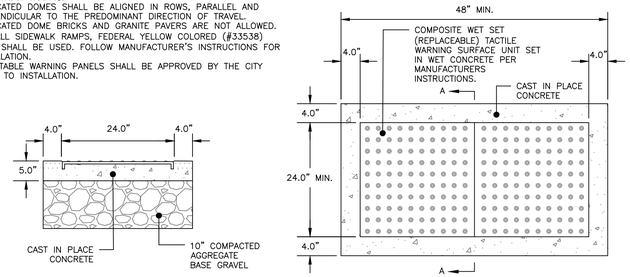
FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-40

NOTES:

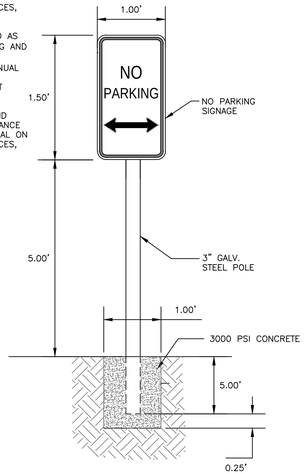
1. COMPOSITE WET SET (REPLACEABLE TACTILE WARNING SURFACE UNITS SHALL BE AS MANUFACTURED BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR APPROVED EQUAL.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE CONCRETE SHALL BE SEALED PRIOR TO SETTING PANELS. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. FOR ALL SIDEWALK RAMPS, FEDERAL YELLOW COLORED (#33538) TILES SHALL BE USED. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
5. DETECTABLE WARNING PANELS SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.



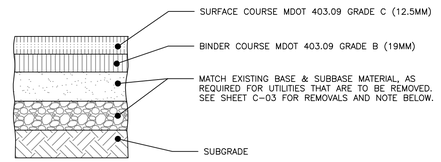
SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE

NOTES:

1. ALL ASPECTS OF NO PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R8-3a SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.



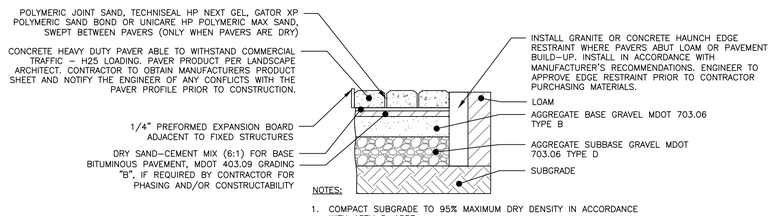
NO PARKING SIGN
NOT TO SCALE



NOTE:
1. COMPACT AGGREGATES TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
2. CONTRACTOR TO VERIFY EXISTING GOOCH STREET BASE AND SUBBASE MATERIALS AND MATCH EXISTING.
3. PROJECT PROPOSES TO MILL EXISTING PAVEMENT AND INSTALL NEW BITUMINOUS PAVEMENT PER DETAIL. REFER TO APPLICABLE UTILITY CROSS SECTIONS FOR NEW UTILITY INSTALLATION.
4. THE MINIMUM SLOPE OF PAVEMENT SHALL MEET OR EXCEED 1% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS. SEE SHEET C-30 FOR ADDITIONAL INFORMATION.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1.25"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
4"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B OR A
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

PAVEMENT PROFILE:
NOT TO SCALE



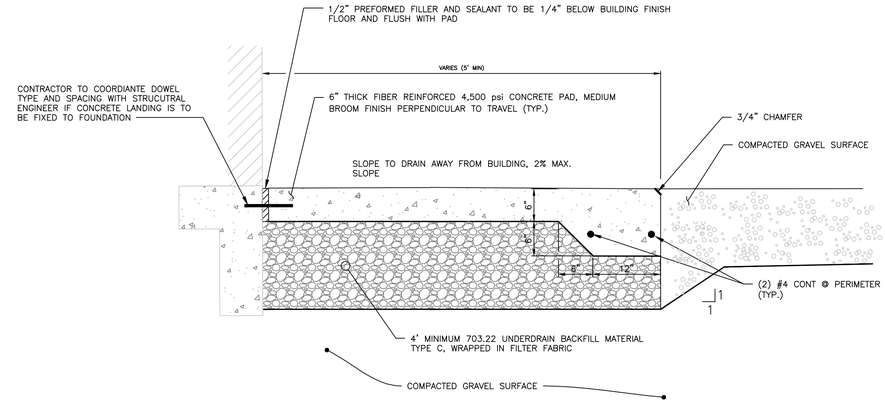
GRADATION REQUIREMENTS FOR JOINT SAND		
SIEVE SIZE	NATURAL SAND PERCENT PASSING	MANUFACTURED SAND PERCENT PASSING
NO. 4 (4.75mm)	100	100
NO. 8 (2.36mm)	95–100	95–100
NO. 16 (1.18mm)	70–100	70–100
NO. 30 (0.60mm)	40–75	40–75
NO. 50 (0.30mm)	10–30	20–40
NO. 100 (0.15mm)	2–15	10–25
NO. 200 (0.075)	0–1	0–10

NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF BIDDEFORD STANDARDS IN ADDITION TO MDOT STANDARDS.
3. JOINT SAND COMPRESSION STRENGTH: PROVEN RESISTANCE TO COMPRESSION OF 550 PSI AFTER DRYING FOR 7 DAYS UNDER CONTROLLED CONDITIONS (73 DEGREE F AT 50% HUMIDITY)

THICKNESS OF LAYERS	
STANDARD	LAYERS
3.149"	CONCRETE PAVER (DEPTH TBD BASED UPON MANUFACTURER)
1"	DRY SAND-CEMENT MIX (6:1)
2"	BITUMINOUS MDOT 403.09 GRADING "B"
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

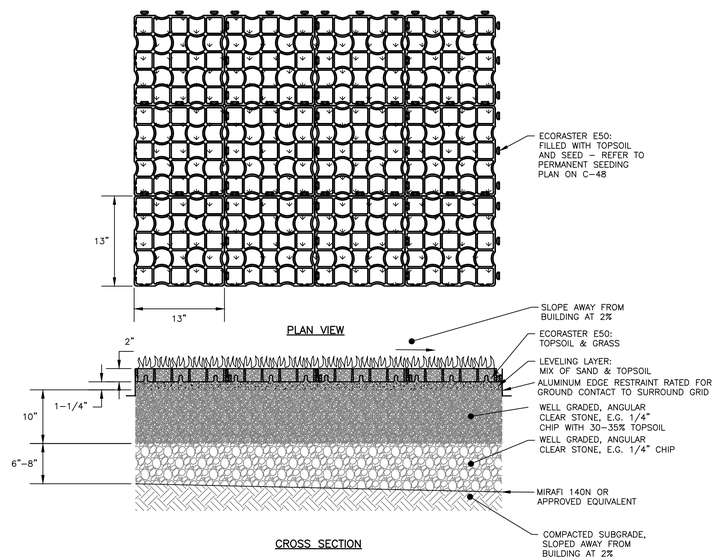
PAVER PROFILE
NOT TO SCALE



CONCRETE LANDING DETAIL
NOT TO SCALE

NOTES:

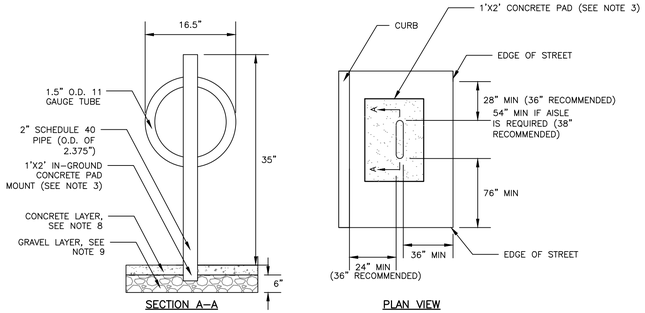
1. ¼" CHIP CLEAR OR OTHER SUITABLE CLEAR STONE CAN BE USED FOR DRAINAGE LAYER.



PERMEABLE GROUND STABILIZATION SYSTEM WITH ECORASTER GRID DETAIL
NOT TO SCALE

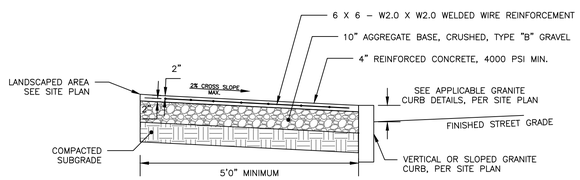
NOTES:

1. BICYCLE RACK SHALL BE "DERO BIKE HITCH", AS MANUFACTURED BY DERO BIKE RACKS.
2. BICYCLE RACK SHALL HAVE CAPACITY FOR TWO BICYCLES.
3. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION.
4. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN-GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
5. MINIMUM OFFSETS SHOWN. MANUFACTURER'S RECOMMENDED OFFSETS SHALL BE ENFORCED WHERE POSSIBLE.
6. MINIMUM DISTANCE BETWEEN BICYCLE RACKS SHALL BE 24". RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 38".
7. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
8. CONCRETE SHALL BE 4000 PSI @28 DAYS. BOTTOM OF CONCRETE SHALL BE AT TOP OF SIDEWALK GRAVEL ELEVATION. DEPTH VARIES APPROX. 4"-7".
9. GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH CONCRETE SIDEWALK DETAIL, AND SHALL BE MAINEDOT 703.06 TYPE B.



DERO BIKE HITCH
NOT TO SCALE

NOTES:
1. AT A MINIMUM, TESTING SHALL CONSIST OF ENTRAINED AIR AND SLUMP TESTS ON SITE PRIOR TO POURING THE SIDEWALKS. ENTRAINED AIR TESTS SHALL BE DONE IN ACCORDANCE WITH AASHTO T152. TEST FIRST TWO LOADS AND EVERY THIRD LOAD THEREAFTER PROVIDED CONSISTENT RESULTS ARE ACHIEVED.
2. WELDED WIRE FABRIC SHALL BE PLACED 2 INCHES ABOVE THE CRUSHED GRAVEL, AND 2 INCHES FROM ALL FINISHED EDGES, EXPANSION JOINTS AND CURBS. ALL FABRIC JOINTS SHALL BE OVERLAPPED A MINIMUM OF 1 FOOT AND BE PROPERLY TIED. IF THE CONTRACTOR ELECTS TO USE REBAR, ONLY 4-GAUGE WILL BE ACCEPTABLE. IF THE CONTRACTOR ELECTS TO USE A PRE-MIXED FIBER MESH, A SPECIFICATION SHEET MUST BE SUBMITTED AND PRE-APPROVED BY THE ENGINEER PRIOR TO ITS APPLICATION.
3. SLABS SHALL BE PLACED ALTERNATELY IN LENGTHS NOT TO EXCEED 30 FEET OR AS DIRECTED AND SHALL BE SEPARATED BY AN EXPANSION JOINT OF PREFORMED EXPANSION FILLER ½ INCH IN THICKNESS.
4. WHEN CONSTRUCTED ADJACENT TO A BUILDING, RETAINING WALL OR OTHER FIXED STRUCTURE, A ½ INCH THICK PREFORMED JOINT FILLER SHALL BE USED BETWEEN THE SLAB AND THE STRUCTURE.
5. THE SIDEWALK SURFACE SHALL BE SCORED INTO BLOCK UNITS NO GREATER THAN 40 SQUARE FEET AS DIRECTED. THE DEPTH OF THE SCORING SHALL BE AT LEAST ONE QUARTER OF THE THICKNESS OF THE SLAB.
6. ANY MATCHING INTO EXISTING SIDEWALKS SHALL BE DONE SO WITH A CLEAN VERTICAL FACE CONNECTION.
7. THE SURFACE SHALL BE FINISHED TO PRODUCE A BROOMLIKE "BRUSHED" PATTERN. NO PLASTERING OF THE SURFACE WITH MORTAR WILL BE PERMITTED. THE FINISH SHALL RESULT IN A SURFACE OF UNIFORM TEXTURE AND COLOR. ALL OUTSIDE EDGES OF THE SLAB AND ALL JOINTS SHALL BE ROUNDED WITH A ½ INCH RADIUS EDGING TOOL.
8. CONCRETE SHALL BE CURED FOR 72 HOURS. CURING SHALL BE BY MEANS OF THOMPSON'S WATER SEAL AS MANUFACTURED BY E.A. THOMPSON CO., INC. OF MEMPHIS, TENNESSEE, BOILED LINSEED OIL, WHITE PIGMENTED CURING COMPOUND, OR BY OTHER APPROVED METHODS. CONCRETE SIDEWALK TO BE SEALED WITH CONSOLIDECK SALTGUARD WB OR APPROVED EQUAL 28 DAYS AFTER PLACEMENT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION.
9. GENERAL CONTRACTOR TO COLLECT DELIVERY SLIPS AND TRANSFER TO THE OWNER.
10. WHERE REINFORCED CONCRETE SIDEWALK IS PROPOSED IN A PUBLIC RIGHT OF WAY, THE DETAIL MUST BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO THE INSTALLATION OF THE WALK.



REINFORCED CONCRETE SIDEWALK
NOT TO SCALE

PERMITTING NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: SITE DETAILS – 2

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

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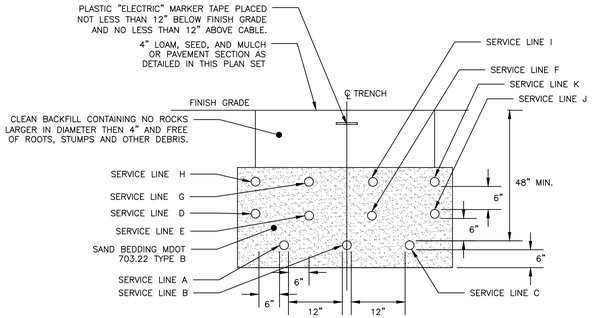
ACORN ENGINEERING, INC.
70 MAIN STREET, SACO, MAINE 04101
PO BOX 349, SACO, ME 04072
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-41



CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
C	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
D	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	–
E	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	–
F	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	–
G	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	–
H	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	–
I	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	–
J	4"	SCHEDULE 40 PVC	SPARE	–
K	4"	SCHEDULE 40 PVC	SPARE	–

NOTES:

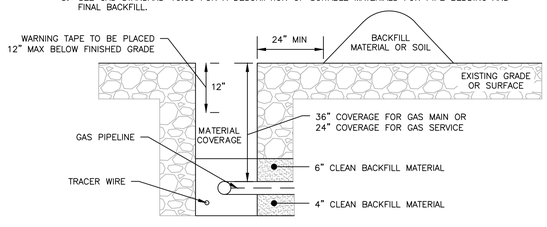
1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10' ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
3. CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
4. FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.

UTILITY TRENCH – PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE

NOT TO SCALE

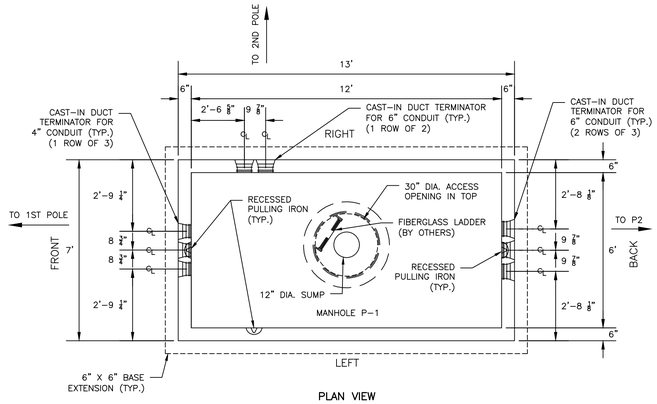
NOTES:

1. INSTALL MAINS WITH A MINIMUM OF 36" OF COVER AND SERVICES WITH A MINIMUM OF 24" OF COVER. EXCEPTIONS MAY BE MADE WITHIN SLATE AND FEDERAL CODES WITH THE PRIOR APPROVAL OF THE OPERATIONS CENTER MANAGER. INSTALL PLASTIC PIPE WITH SLACK SO EXTERNAL LOADING OR THERMAL CONTRACTION WILL NOT PLACE UNNECESSARY STRESS ON THE PIPE OR JOINTS. IN CASES WHERE A STOPPER FITTING OF OTHER NEW MATERIAL IS ADDED TO AN OLDER MAIN SUCH THAT THE MAIN HAS LESS THAN 24" OF COVE, THE CONTRACTOR SHOULD PROVIDE PERMANENT PROTECTION SUCH AS CONCRETE. WHENEVER A MAIN WILL BE INSTALLED WITH LESS THAN 24" OF COVER, NOTIFY THE OPERATIONS CENTER MANAGER OR THE DESIGNEE SO THEY CAN REQUEST APPROVAL FROM THE DEPARTMENT OF PUBLIC UTILITIES.
2. PROCEDURE – SEE FIGURE BELOW
   - 2.1. REMOVE ALL EXCESS WATER FROM THE TRENCH WITH PUMPS OR EQUIVALENT
   - 2.2. PLACE A LAYER OF SAND 4" DEEP IN TRENCH BOTTOM BEFORE LAYING THE PIPE IN THE TRENCH. THE OPERATIONS CENTER MANAGER OR COMPANY FIELD REPRESENTATIVE MAY ALLOW USE OF CLEAN FILL MATERIAL INSTEAD OF SAND PROVIDED IT IS CLEAN AND FREE OF ANY OBJECTS THAT MAY IMPINGE ON THE PIPE.
   - 2.3. FOR PLASTIC PIPE, INSTALL NUMBER 12 AWG SOLID COPPER WIRE (TRACER WIRE) WITH YELLOW INSULATION JACKET ALONG THE LENGTH OF THE SERVICE. THIS WIRE IS USED TO LOCATE THE PIPE. DO NOT PHYSICALLY ATTACH THE WIRE OR ALLOW THE WIRE TO TOUCH THE PLASTIC PIPE. KEEP THE TRACER WIRE AT LEAST 4" AWAY FROM THE PLASTIC PIPE. IF THE INSTALLATION IS TRENCHLESS, THE TRACER WIRE MAY BE LESS THEN 4" AWAY FROM THE PLASTIC PIPE.
   - 2.4. PLACE A MINIMUM OF 6" OF SAND OVER THE PIPE. THE OPERATIONS CENTER MANAGER OR COMPANY FIELD REPRESENTATIVE MAY ALLOW USE OF CLEAN FILL MATERIAL INSTEAD OF SAND PROVIDED IT IS CLEAN AND FREE OF ANY OBJECTS THAT MAY IMPINGE ON THE PIPE.
   - 2.5. PLACE WARNING TAPE IN THE TRENCH NOT MORE THAN 12" BELOW FINISHED GRADE. THE STANDARD WARNING TAPE IS YELLOW, NON-DETECTABLE TAPE, 6" WIDE.
   - 2.6. FILL THE REST OF THE TRENCH WITH CLEAN FILL MATERIAL, USING THE SPOIL WHERE SUITABLE AND ACCEPTABLE. IF THE ORIGINAL SPOIL MATERIAL IS NOT SUITABLE FOR USE AS A SUB-GRADE MATERIAL WHEN RESTORING ROAD SURFACES, USE MATERIAL REQUIRED BY STATE OR LOCAL AGENCIES. REMOVE ALL EXCESS SPOIL IN THE ACCEPTED MANNER.
   - 2.7. PROPERLY COMPACT THE TRENCH TO INSURE THE TRENCH WILL NOT SETTLE.
3. SEE GAS STANDARD 10.03 FOR A DESCRIPTION OF SUITABLE MATERIALS FOR PIPE BEDDING AND FINAL BACKFILL.

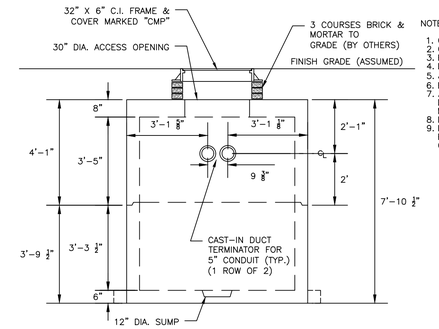


NATURAL GAS MAIN/SERVICE TRENCH DETAIL

NOT TO SCALE



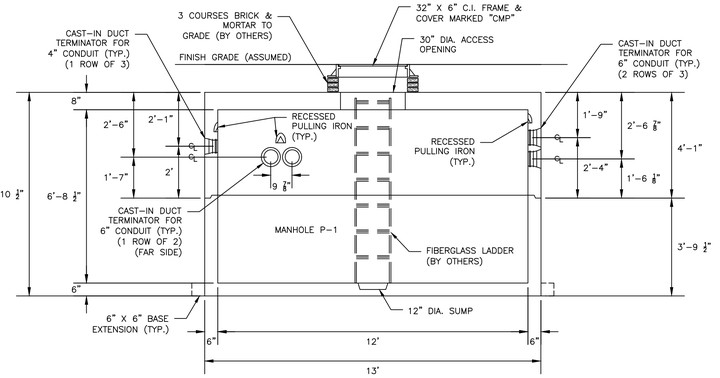
PLAN VIEW



FRONT ELEVATION VIEW

NOTES:

1. CONCRETE: 5,000 PSI @ 28 DAYS.
2. CEMENT: TYPE III PER ASTM C150-81.
3. REINFORCING: GRADE 60 PER ASTM A615.
4. DESIGN LOADING: H-20 PER ASTM C-478.
5. JOINTS TO BE SEALED WATER TIGHT WITH "CON-SEAL".
6. EXTERIOR OF TANK TO BE "AQUA-SAFE" COATED.
7. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OF THE MANUFACTURER MARKED ON THE INSIDE WALL.
8. LADDER PROVIDED AND INSTALLED BY OTHERS.
9. IDENTIFICATION TAGS FOR CABLES IN MANHOLE SHALL BE SET AT THE TIME OF MANHOLE INSTALLATION BY OTHERS.

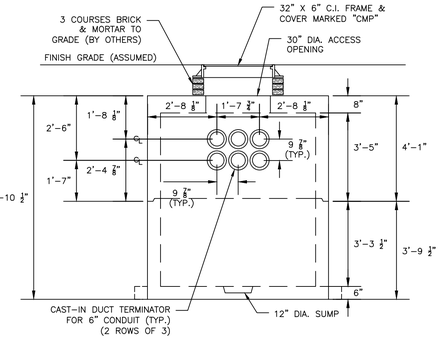


SECTION VIEW

DESCRIPTION	WEIGHT	QUANTITY
3'-9 1/2" BASE	16,202 LBS	1
3'-11" TOP	18,892 LBS	1

PRECAST CONCRETE 38Y MANHOLE DETAIL

NOT TO SCALE



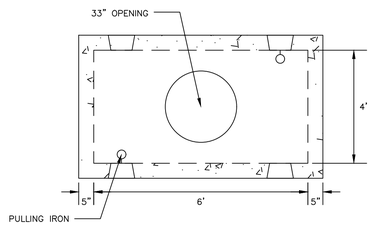
BACK ELEVATION VIEW

NOTES:

1. WHERE DANGER OF PLOW OR TRAFFIC DAMAGE EXISTS, BARRIERS CONSISTING OF CONCRETE FILLED 6 INCH IPS STEEL POSTS SET 4 FEET DEEP SHALL BE PROVIDED FOR PROTECTION (PRESSURE TREATED 6X6 INCH MIN. TIMBER POSTS MAY BE SUBSTITUTED IN RESIDENTIAL AREAS). POSTS SHALL NOT INTERFERE WITH TRANSFORMER ACCESS. GENERALLY THE POSTS SHALL BE LOCATED NEAR THE CORNERS OF THE TRANSFORMERS.
2. THE SETBACKS DEPICT CLEARANCES FROM OBSTRUCTIONS INCLUDING TREES, SHRUBS, AND FENCES.
3. THERE SHALL BE NO OPENINGS IN THE BUILDING WALL IN BACK OF, BESIDE, OR OVER THE TRANSFORMER UNLESS THE TRANSFORMER IS A MIN. OF 10 FEET FROM THE BUILDING.
4. SIDE CLEARANCES FROM DOORS OR WINDOWS SHALL NOT BE LESS THAN 10 FEET.
5. THERE SHALL BE A MIN. OF 10 FEET BETWEEN THE TRANSFORMER AND ANY GAS METER/REGULATOR, GAS RELIEF VALVE, GAS VENT DISCHARGE, GAS FILLING CONNECTION, OR PROPANE TANK. SOME INSURANCE COMPANIES MAY REQUIRE INCREASED CLEARANCES.
6. TRANSFORMER SHALL BE LOCATED FAR ENOUGH AWAY FROM BUILDING OVERHANGS SO THAT THEY WILL NOT BE SUBJECT TO DAMAGE BY FALLING ICE AND SNOW.
7. IF TRANSFORMER IS NOT INSTALLED IMMEDIATELY UPON THE INSTALLATION OF THE CABLE IN THE PAD, THE CONTRACTOR SHALL PROVIDE AND INSTALL A CMP APPROVED CONCRETE, STEEL, OR FIBERGLASS COVER OVER THE PAD OPENING TO ELIMINATE EXPOSURE OF THE CABLE.

NOTES:

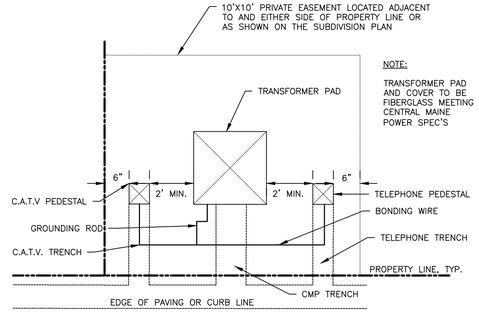
1. SPLICE BOX SHALL BE DESIGNED TO WITHSTAND H20 LOADING WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEERING UPON REQUEST.
2. FOR USE WITH 32" COVER MARKED CMP CO., S/C62-1830 (MIN. ONE COURSE OF BRICK TO GRADE.)
3. SPLICE BOX AND SLAB SHALL BE SET ON A SUITABLE GRAVEL BASE.



PLAN VIEW

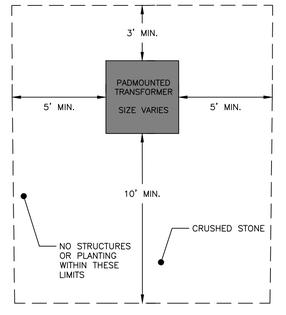
4' X 6' SPLICE BOX

NOT TO SCALE



TYPICAL TRANSFORMER DETAIL

NOT TO SCALE



CMP TRANSFORMER SETBACKS

NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: UTILITY DETAILS – 1

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

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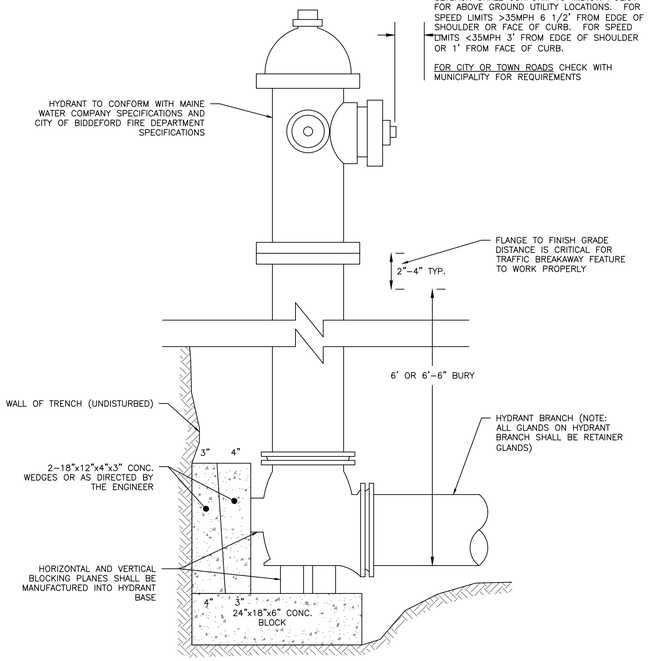
ACORN ENGINEERING, INC.
ELIOT, MAINE 04101
PO BOX 3201
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

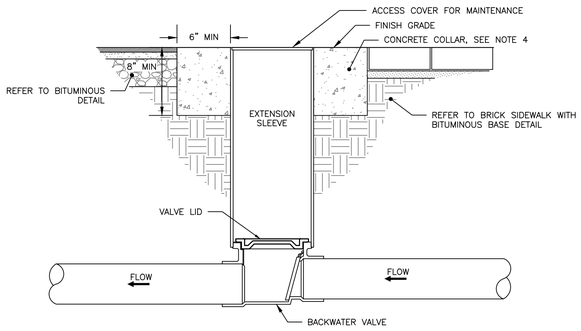
STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-42



TYPICAL HYDRANT INSTALLATION DETAIL

NOT TO SCALE

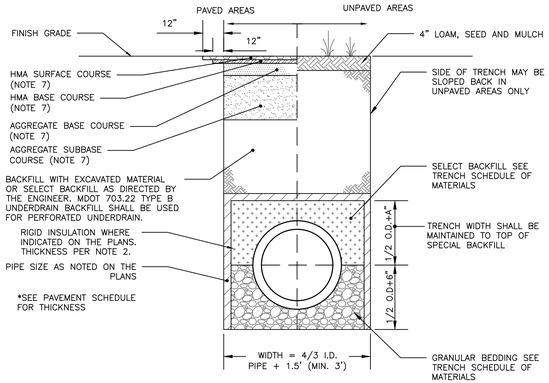


NOTES:

1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF BIDDEFORD TECHNICAL MANUAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE "SEWER" ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

BACKFLOW VALVE ASSEMBLY

NOT TO SCALE



SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP DUCTILE IRON RCP	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC/HDPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

NOTES:

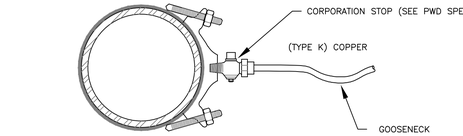
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2' RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
3. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
4. MINIMUM COVER
   4.1. 2'-0" - STORM DRAIN
   4.2. 5'-0" - SEWER
5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE
6. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF BIDDEFORD ROW.
7. THICKNESS AS NOTED BY SURFACE DETAILS
8. ALL PROPOSED TREES PLANTED WITHIN 10' OF A STORM OR SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.

ALLOWABLE PIPE MATERIALS:

- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
- PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
- PVC RING TYPE SEWER PIPE MEETING ASTM F 789
- DUCTILE IRON PIPE (DIP)
- ADS N-12 HP DUAL-WALL MIN PS-46 RATING
- ADS SANITITE HP MIN. PS-46

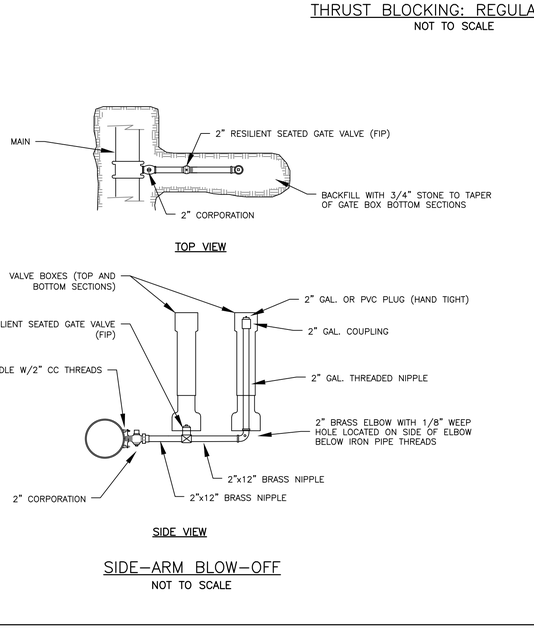
STORM DRAIN AND SEWER TYPICAL TRENCH SECTION

NOT TO SCALE



SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD

NOT TO SCALE



NOTES:

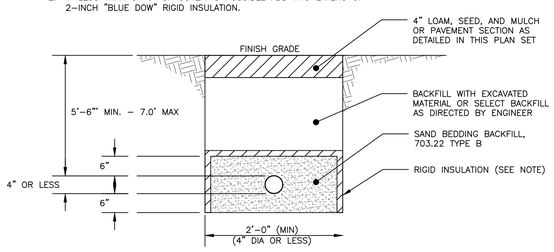
1. IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED OR AS DIRECTED BY THE ENGINEER
2. SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

THRUST BLOCKING: REGULAR BEND

NOT TO SCALE

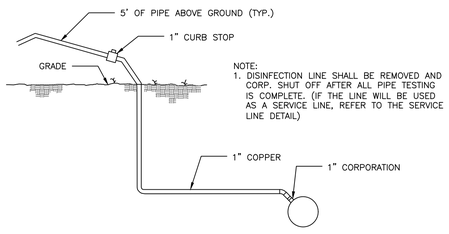
NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MAINE WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD TWO LAYERS OF 2-INCH "BLUE DOW" RIGID INSULATION.



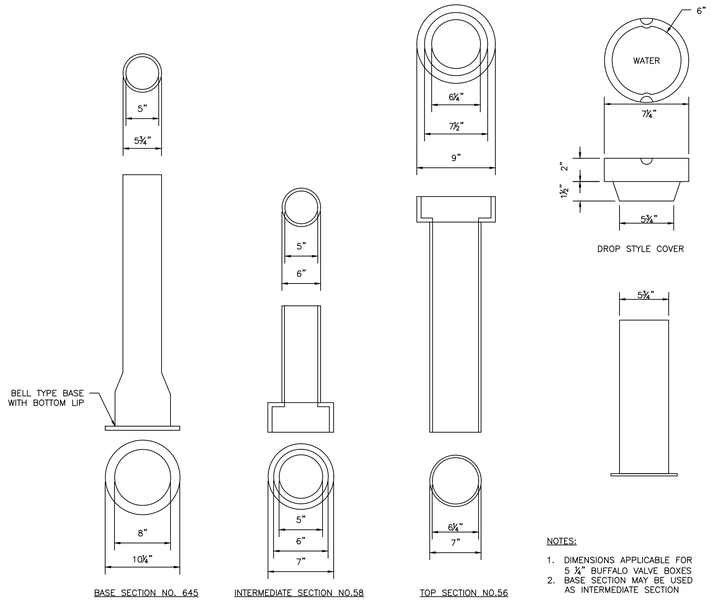
WATER SERVICE TRENCH SECTION DETAIL

NOT TO SCALE



DISINFECTION LINE DETAIL

NOT TO SCALE



NOTES:

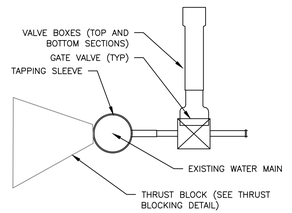
1. DIMENSIONS APPLICABLE FOR 5 ¼" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION

VALVE BOX & COVER

NOT TO SCALE

SIDE-ARM BLOW-OFF

NOT TO SCALE



TAPPING SLEEVE AND VALVE

NOT TO SCALE

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ISSUED FOR	BY	DATE
SKETCH PLAN	PFH	10/23/24
PRELIMINARY	PFH	10/20/22
DEP SW AMENDMENT	PFH	11/7/22
SRCC	PFH	1/4/23
FINAL SITE PLAN	PFH	7/11/23
SITE PLAN AMENDMENT	PFH	6/11/25
COMMENT RESPONSE	PFH	8/5/25
COMMENT RESPONSE II	PFH	8/18/25
COMMENT RESPONSE III	PFH	8/26/25

DRAWING NAME: UTILITY DETAILS - 2

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

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(207) 775-2655

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DESIGNED BY:	PFH
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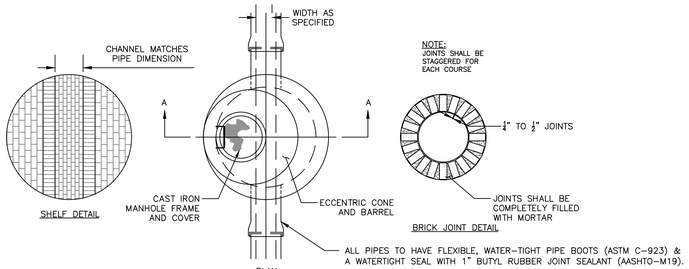
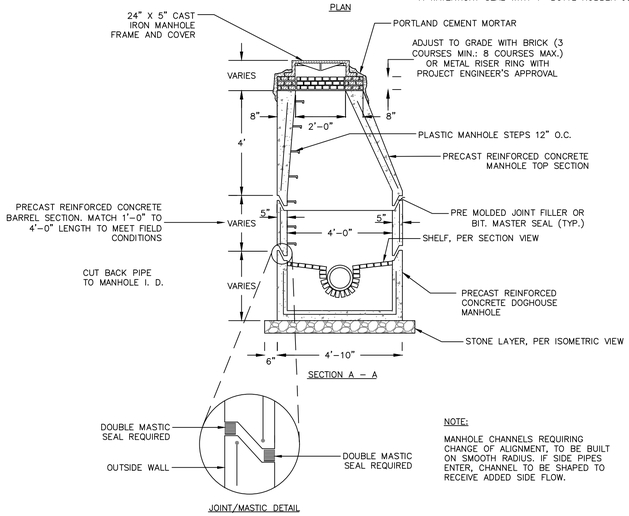
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

C-43



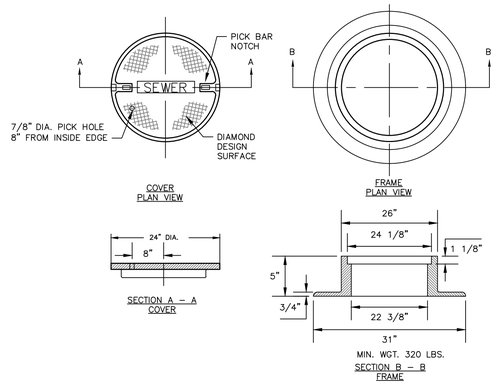


NOTE:

MANHOLE CHANNELS REQUIRING CHANGE OF ALIGNMENT, TO BE BUILT ON SMOOTH RADIUS. IF SIDE PIPES ENTER, CHANNEL TO BE SHAPED TO RECEIVE ADDED SIDE FLOW.

NOTES:
1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
2. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
3. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE EXISTING SANITARY SEWER SYSTEM.
4. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
5. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE. THE MATERIAL SHALL BE MINWAX FIBROUS BRUSH COAT MADE BY THE MINWAX COMPANY, NEW YORK, NEW YORK; TREMCO 121 FOUNDATION COATING, MADE BY THE TREMCO MANUFACTURING COMPANY, CLEVELAND, OHIO; INERTOL NO-7 MADE BY INERTOL COMPANY, NEWARK, NEW JERSEY; CAMGER SUPERSEAL WATER-PROOFING CONCRETE COATING PPS-922-2, MADE BY THE CAMGER COATING SYSTEMS, INC., NORFOLK, MASSACHUSETTS OR APPROVED EQUAL.
8. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.

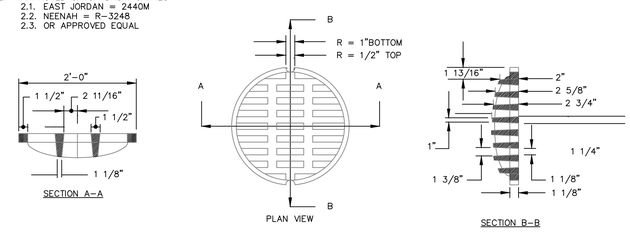
PRECAST CONCRETE MANHOLE
NOT TO SCALE



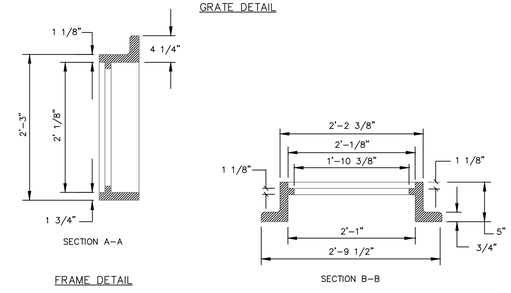
NOTES:
1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER
2. ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
4. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
5. APPROVED MANHOLE FRAMES:
   5.1. EAST JORDAN = 1690Z
   5.2. NEENAH = R-1496
   5.3. OR APPROVED EQUAL
6. APPROVED MANHOLE COVERS
   6.1. EAST JORDAN = 2160A
   6.2. NEENAH = R-1496
   6.3. OR APPROVED EQUAL

CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE

NOTES:
1. APPROVED CATCH BASIN FRAMES:
   1.1. EAST JORDAN = 7375Z
   1.2. NEENAH = R-3248
   1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
   2.1. EAST JORDAN = 2440M
   2.2. NEENAH = R-3248
   2.3. OR APPROVED EQUAL

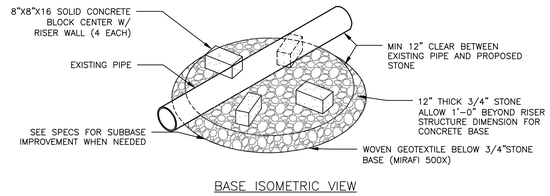


GRATE DETAIL



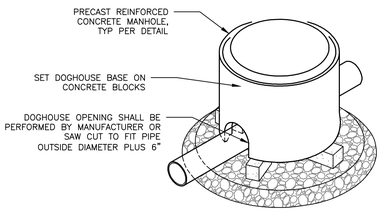
FRAME DETAIL

OIL AND WATER SEPARATOR FRAME & GRATE
NOT TO SCALE

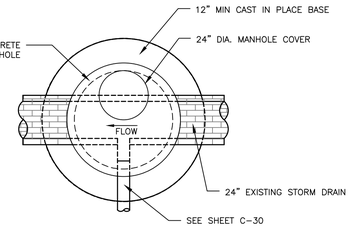


BASE ISOMETRIC VIEW

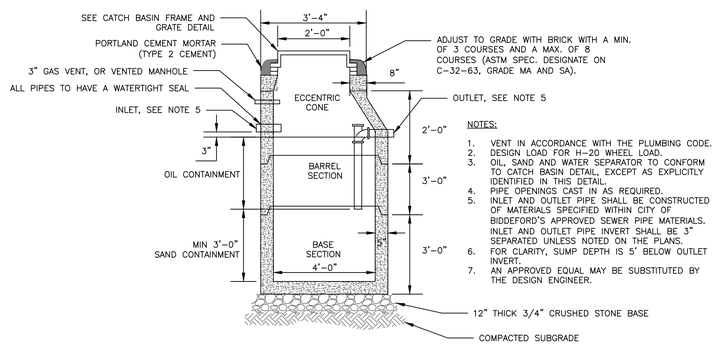
NOTES:
1. EXISTING CONCRETE CRADLE UNDER EXISTING BRICK SANITARY SEWER PIPE TO BE REMOVED. (IF APPLICABLE)
2. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
3. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
4. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE EXISTING STORMWATER SYSTEM. MANHOLE INSTALLATION INFORMATION NOT EXPLICITLY REFERRED TO IN THIS DETAIL SHALL BE PER THE "STANDARD PRECAST MANHOLE" DETAIL



RISER ISOMETRIC VIEW

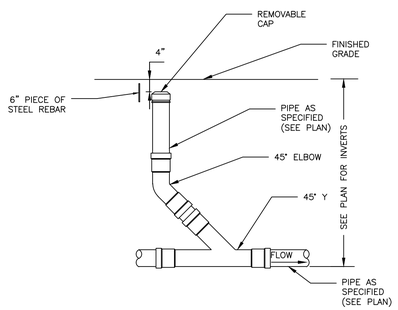


PLAN VIEW

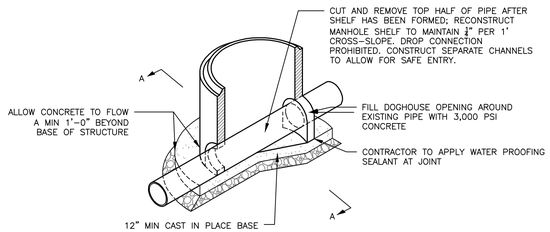


NOTES:
1. VENT IN ACCORDANCE WITH THE PLUMBING CODE.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. OIL, SAND AND WATER SEPARATOR TO CONFORM TO CATCH BASIN DETAIL, EXCEPT AS EXPLICITLY IDENTIFIED IN THIS DETAIL.
4. PIPE OPENINGS CAST IN AS REQUIRED.
5. INLET AND OUTLET PIPE SHALL BE CONSTRUCTED OF MATERIALS SPECIFIED WITHIN CITY OF BIDDEFORD'S APPROVED SEWER PIPE MATERIALS. INLET AND OUTLET PIPE INVERT SHALL BE 3" SEPARATED UNLESS NOTED ON THE PLANS.
6. FOR CLARITY, SUMP DEPTH IS 5' BELOW OUTLET INVERT.
7. AN APPROVED EQUAL MAY BE SUBSTITUTED BY THE DESIGN ENGINEER.

4'-0" DIAMETER PRECAST OIL AND WATER SEPARATOR
NOT TO SCALE



SANITARY CLEANOUT
NOT TO SCALE



FOUNDATION SECTION VIEW

PRECAST DOGHOUSE MANHOLE DETAIL
NOT TO SCALE

PERMITTING
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ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: UTILITY DETAILS - 3

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

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CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-44

SEWER PUMP DESIGN NOTES:

ENV-WQ 705.09 ALARM SYSTEMS:

1. ALARM SYSTEMS SHALL BE PROVIDED FOR ALL SEWAGE PUMPING STATIONS.
2. THE ALARM SIGNAL SHALL BE ACTIVATED IN ONE OF THE FOLLOWING CASES:
   - 2.1. HIGH WATER IN THE WET WELL.
   - 2.2. LOW WATER IN THE WET WELL.
   - 2.3. LOSS OF ONE OR MORE PHASES OF POWER SUPPLY OR SEVERE VOLTAGE DROP.
   - 2.4. LOSS OF ALARM TRANSMISSION LINE.
   - 2.5. STANDBY GENERATOR APPLICATION.
3. THE HIGH WATER ALARM TRIGGER SHALL BE A SEPARATE DEVICE, INDEPENDENT OF THE PUMP WET WELL LEVEL CONTROL SYSTEM.
4. SATISFACTORY OPERATION OF THE ALARM SYSTEM SHALL BE INDICATED ON A PANEL WITH A LIGHT WHICH LIGHTS UP UPON FAILURE OF THE ALARM SYSTEM.
5. THE POWER SOURCE FOR THE ALARM SYSTEM SHALL BE:
   - 5.1. AN INDEPENDENT BATTERY WITH A CONTINUOUS CHARGE OR;
   - 5.2. MAIN LINE POWER WITH A BACK-UP BATTERY SYSTEM, WHICH SHALL BE CONNECTED AUTOMATICALLY SHOULD MAIN POWER FAIL.
6. THE ALARM SIGNAL SHALL BE TRANSMITTED THROUGH A 24 HOUR PER DAY, 7 DAY PER WEEK NOTIFICATION SYSTEM TO THE APPROPRIATE UTILITY OPERATOR.
7. THE ALARM SHALL INCLUDE A LOCAL AUDIBLE ENUNCIATOR AND LIGHT
8. PROVISION SHALL BE MADE TO PERMIT SILENCING OF THE AUDIBLE ENUNCIATOR MANUALLY, AFTER THE ALARM HAS BEEN SOUNDED, BUT THE LIGHT SHALL CONTINUE UNTIL THE ALARM CONDITION HAS BEEN RECTIFIED.
9. ALARM SIGNALS FOR PRIVATELY-OPERATED SEWER PUMPING STATIONS SHALL BE TRANSMITTED TO THE RESPONSIBLE MAINTENANCE PERSON DIRECTLY OR VIA AN ANSWERING SERVICE.

ENV-WQ 705.10 INSTRUCTION AND EQUIPMENT:

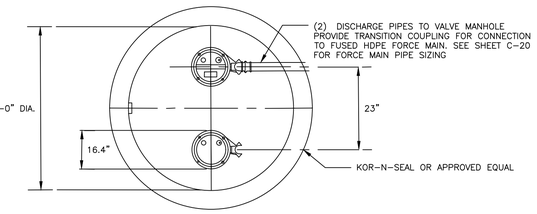
1. THE OWNER SHALL OBTAIN AND PROVIDE A COMPLETE SET OF OPERATIONAL INSTRUCTIONS, INCLUDING RECOMMENDATION FOR SPARES AND MAINTENANCE, AT EACH SEWAGE PUMPING STATION SO AS TO BE AVAILABLE TO ALL OPERATORS.

ENV-WQ 705.11 EMERGENCY OPERATION:

1. PROVIDE A TRANSFER PANEL TO ALLOW HOOK-UP TO A PORTABLE GENERATOR.

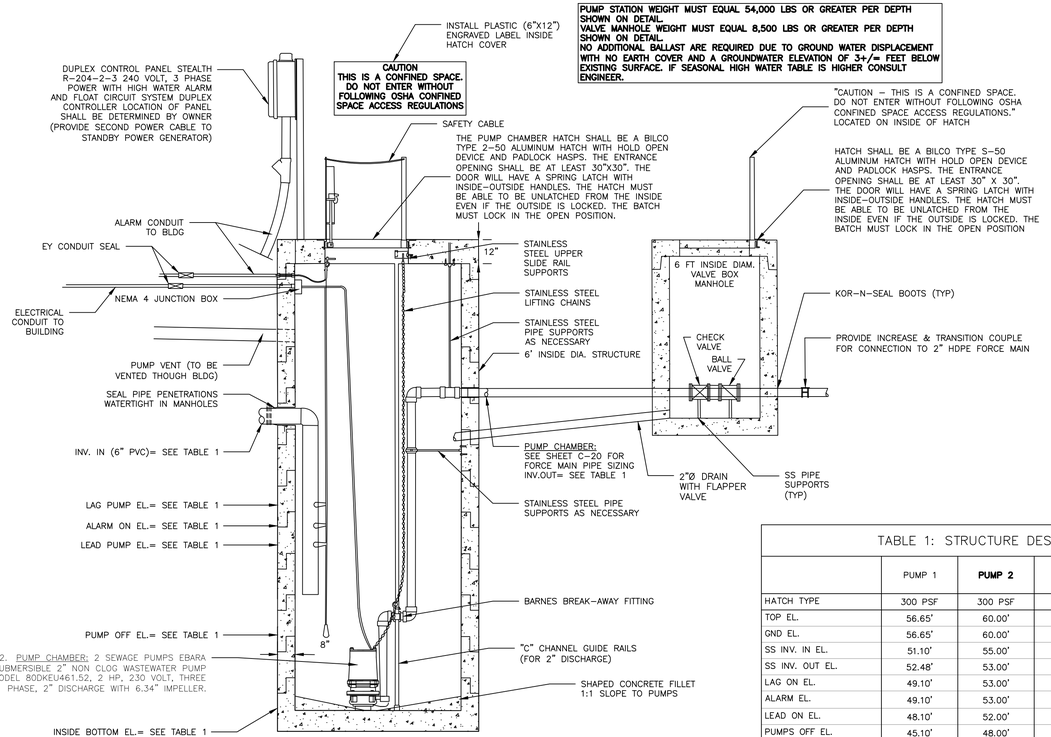
ENV-EQ 704.07 FORCE MAINS:

1. FORCE MAINS SHALL BE PROVIDED WITH AUTOMATIC AIR RELIEF VALVES(S) AT HIGH POINTS TO PREVENT AIR LOCKING.
2. FORCE MAINS SHALL ENTER THE GRAVITY SEWER SYSTEM AT THE FLOW LINE OF THE RECEIVING MANHOLE.
3. FORCE MAINS SHALL BE PROVIDED WITH DRAINAGE BLOW-OFFS, PROPERLY VALVED, AT LOW POINTS. SPACE SHALL BE AVAILABLE AT SUCH LOCATIONS FOR HANDLING THE DISPLACED WASTE WITHOUT DANGER OF POLLUTION OR HEALTH HAZARD.
4. FORCE MAINS SHALL BE DESIGNED IN ACCORDANCE WITH ENV-WQ 704.04, CONSTRUCTED WITH MATERIALS AS SPECIFIED IN ENV-WQ 704.06, AND TESTED AS SPECIFIED IN ENV-WQ 704.08.
5. THRUST BLOCKS MADE FROM INORGANIC, CORROSION-RESISTANT MATERIAL SHALL BE PLACED AT ALL BENDS, ELBOWS, TEES AND JUNCTIONS.
6. FORCE MAINS SHALL BE DESIGNED TO WITHSTAND HYDROSTATIC PRESSURES OF AT LEAST 2.5 TIMES THE DESIGN TOTAL DYNAMIC HEAD.
7. ENV-WQ 704.08 FORCE MAIN AND PRESSURE SEWER CONSTRUCTION MATERIALS.
   - 7.1. FORCE MAINS AND PRESSURE SEWERS SHALL BE CONSTRUCTED OF DUCTILE IRON (DI), HIGH DENSITY POLYETHYLENE (HDPE), OR PVC MATERIAL
   - 7.2. FORCE MAINS AND PRESSURE SEWERS SHALL BE TREATED AS GRAVITY SEWERS FOR PURPOSES OF FOUNDATION BEDDING AND BACKFILL REQUIREMENTS.
   - 7.3. PVC PIPE USED FOR FORCE MAINS AND PRESSURE SEWERS SHALL BE CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM D2241 OR ASTM D1785 STANDARDS IN EFFECT WHEN THE PIPE IS MANUFACTURED.
   - 7.4. HDPE PIPE USED FOR FORCE MAINS AND PRESSURE SEWERS SHALL BE CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM D3035 STANDARD IN EFFECT WHEN THE PIPE IS MANUFACTURED.
   - 7.5. IF DI PIPE IS USED IN AN ENVIRONMENT THAT COULD CAUSE CORROSION OR OTHER DETERIORATION OF OR DAMAGE TO AN IRON PIPE, OR OTHERWISE REDUCE THE TYPICAL LIFE EXPECTANCY OF THE PIPE, SUCH AS MAY OCCUR WITH CERTAIN SOIL TYPES, LOW PH LEVELS, OR WATER CONDITIONS, THE PIPE SHALL BE PROTECTED AGAINST CORROSION, SUCH AS WITH CATHODIC PROTECTION.
8. ENV-WQ 704.09 FORCE MAIN AND PRESSURE SEWER TESTING.
   - 8.1. FORCE MAINS AND PRESSURE SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF THE AWWA C600, "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES" STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED, AVAILABLE AS NOTED IN APPENDIX D, AT A PRESSURE EQUAL TO THE GREATER OF 150 PERCENT OF THE DESIGN OPERATION TOTAL DYNAMIC HEAD OR AT LEAST 100 PSI.



NOTES:

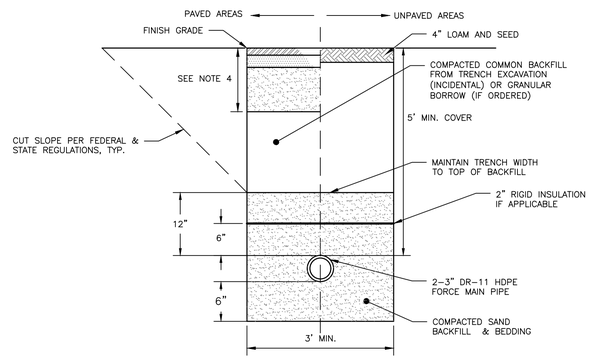
1. **DUPLEX AUTOMATIC CONTROL PANEL AND ALARM PANEL TO BE PLACED IN BUILDING. COORDINATE LOCATION WITH ARCHITECT**
2. PUMP CHAMBER: 2 SEWAGE PUMPS EBARA SUBMERSIBLE 2" NON CLOG WASTEWATER PUMP MODEL 80DKEU461.52, 2 HP, 230 VOLT, THREE PHASE, 2" DISCHARGE WITH 6.34" IMPELLER.
3. **OUTSIDE OF PUMP BASIN SHALL BE SEALED WITH A BITUMINOUS COATING TO ENSURE WATER TIGHTNESS.**
4. **OUTSIDE OF PUMP BASIN SHALL BE SEALED WITH A BITUMINOUS COATING TO ENSURE WATER TIGHTNESS.**
5. **ALL JOINTS SHALL BE SEALED WITH A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.**
6. **CONTROL PANEL TO BE WIRED TO ALTERNATE OPERATION OF PUMPS.**
7. **SEPARATE ELECTRICAL CIRCUITS SHALL BE PROVIDED FOR THE PUMPS AND ALARM SYSTEMS.**
8. **ALL PIPE AND FITTINGS TO BE PRODUCED BY A SINGLE MANUFACTURER AND TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS. BURIED PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM F 1668. PRIMER SHALL CONFORM TO ASTM F656.**
9. **PUMP STATIONS SHALL BE OUTFITTED WITH AUDIBLE ALARM, FLASHING WARNING LIGHT AND DISCONNECT TO BE MOUNTED ADJACENT TO EACH PUMP STATION.**
10. **PUMP STATION SHALL RECORD PUMP RUN TIMES AND HAVE CONTINUOUS FLOW RECORDING.**
11. **PUMP STATIONS SHALL HAVE A PERMANENT EMERGENCY GENERATOR, WITH 500 GAL. LIQUID PROPANE FUEL STORAGE TO ALLOW PUMP OPERATION AT PEAK FLOW FOR 48 HRS, OR AVERAGE FLOW FOR 96 HOURS (WHICHEVER IS GREATER).**
12. AN OPERATION AND MAINTENANCE MANUAL IS REQUIRED AND SHALL BE PROVIDED TO THE OWNER/OPERATOR PURSUANT TO ENV-WQ 705.10(A)



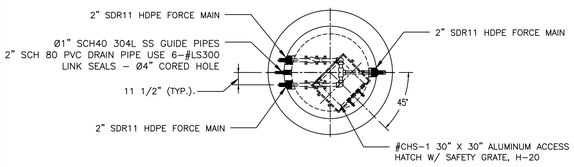
SEWER PUMP STATION DETAIL
NOT TO SCALE

NOTES:

1. PLACE TRENCH BACKFILL MATERIAL IN 12" LIFTS.
2. COMPACT MATERIAL LIFTS TO 92% OF MAX. DRY DENSITY.
3. PAVED AREAS SHALL MATCH TYPICAL ROAD SECTION WHEN LOCATED WITHIN PAVED AREAS.
4. WORK WITHIN UPPER FALLS WAY SHALL BE COORDINATED WITH THE DEPARTMENT OF PUBLIC WORKS DIRECTOR. PAVEMENT CUT IN UPPER FALLS WAY SHALL BE RESTORED TO EXISTING CONDITIONS OR THE MAJOR RESIDENTIAL STREETS PAVEMENT PROFILE, WHICHEVER IS MORE STRINGENT.
5. MIN 2" OF RIGID INSULATION WHERE COVER IS LESS THAN 5'.



FORCE MAIN TRENCH
NOT TO SCALE



VALVE PIT SECTION VIEW
NOT TO SCALE

TABLE 1: STRUCTURE DESIGN				
	PUMP 1	**PUMP 2**	**PUMP 3**	**PUMP 4**
HATCH TYPE	300 PSF	300 PSF	300 PSF	300 PSF
TOP EL.	56.65'	60.00'	56.50'	62.00'
GND EL.	56.65'	60.00'	56.50'	62.00'
SS INV. IN EL.	51.10'	55.00'	52.40'	56.50'
SS INV. OUT EL.	52.48'	53.00'	52.40'	56.50'
LAG ON EL.	49.10'	53.00'	50.40'	54.50'
ALARM EL.	49.10'	53.00'	50.40'	54.50'
LEAD ON EL.	48.10'	52.00'	49.40'	53.50'
PUMPS OFF EL.	45.10'	48.00'	45.40'	49.50'
BOTTOM INVERT EL.	43.65'	45.00'	43.40'	46.50'

TABLE 2: PUMP DESIGN				
	PUMP 1	**PUMP 2**	**PUMP 3**	**PUMP 4**
ELEV. HEAD:	22'	23'	22'	22'
FRICTION HEAD:	37'	37'	40'	36'
TOTAL HEAD:	59'	59'	62'	58'
PUMPING TIME/DOSE (MIN):	66.0	56.2	43.3	102.4
VELOCITY (FPS):	4.80	4.60	4.90	4.49
PUMP FLOW RATE (GPM):	47	45	48	44
VOLUME OF WET WELL (GAL/FT):	94	94	94	94
DOSE/DAY (ALTERNATING):	25	30	14	34
VOLUME/DOSE (GAL):	282	376	94	94

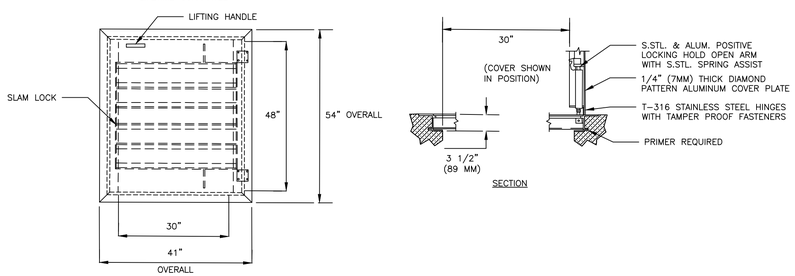
SERIES H1R ACCESS DOOR

STANDARD FEATURES:

- **AUTO-LOCK T-316 STAINLESS STEEL HOLD OPEN ARM WITH RELEASE HANDLE**
- **T-316 STAINLESS STEEL HINGES AND ATTACHING HARDWARE**
- **T-316 STAINLESS STEEL SLAM LOCK WITH REMOVABLE KEY**
- **STAINLESS STEEL COMPRESSION SPRING ASSIST**
- **SINGLE LEAF CONSTRUCTION**
- **H20 LOAD RATING (SEE NOTES)**
- **EXTRUDED ALUMINUM FRAME**
- **RECESSED LIFTING HANDLE**
- **LIFETIME GUARANTEE**

NOTES:

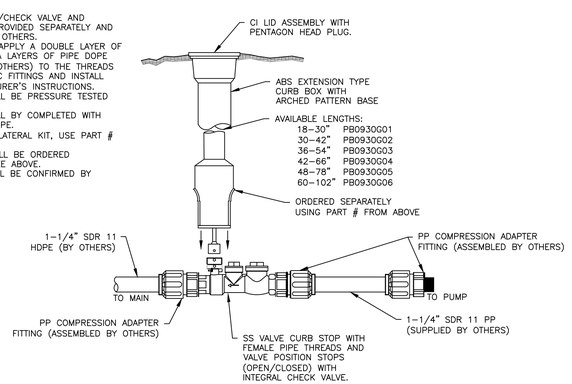
1. **SUITABLE FOR USE IN OFF STREET LOCATION WHERE NOT SUBJECTED TO HIGH DENSITY TRAFFIC.**
2. **PROVIDE A FULL BED OF CLASS "A" CONCRETE UNDER FRAME AND SUPPORT ANGLES.**



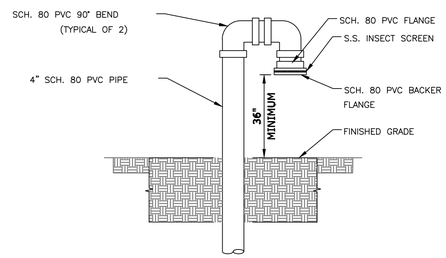
ACCESS DOOR
NOT TO SCALE

NOTES:

1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY AND ASSEMBLED BY OTHERS.
2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, A LAYERS OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. ASSEMBLY SHALL BE PRESSURE TESTED BY OTHERS.
4. ASSEMBLY SHALL BY COMPLETED WITH SDR11 HDPE PIPE.
5. TO ORDER SS LATERAL KIT, USE PART # NC0193G0.
6. CURB BOX SHALL BE ORDERED SEPARATELY, SEE ABOVE.
7. PIPE SIZE SHALL BE CONFIRMED BY OTHERS.



FORCE MAIN SHUT-OFF DETAIL
NOT TO SCALE



VENT PIPE
NOT TO SCALE

All PUMP STATIONS TO BE DESIGNED BY OTHERS. PUMP STATION DETAILS PROVIDED BY ACORN ENGINEERING ARE INTENDED SOLEY FOR VISUAL AND GENERAL INFORMATION PURPOSES AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH PUMP STATION MANUFACTURER TO OBTAIN SPECIFICATIONS AND CONFIRM FINAL DESIGN OF PUMP STATIONS.

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/29/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: PUMP STATION DETAILS
PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT, PEARL STREET, BIDDEFORD, MAINE
OWNER OF RECORD: 3 LINCOLN, LLC, 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC. ENGINEERING
PO BOX 1237, EAST LYME, CT 06333 (207) 775-2655

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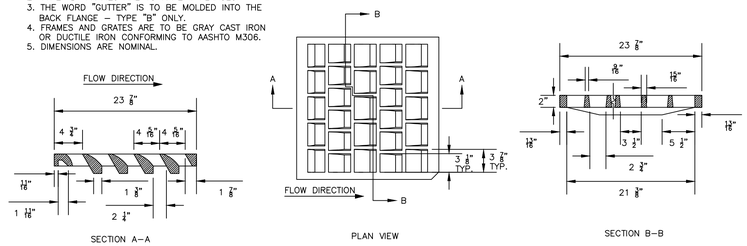
FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

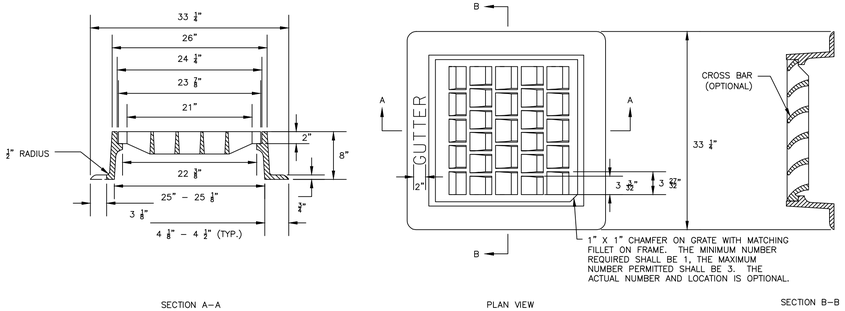
STATE OF MAINE — PETER F. HEIL — 15318 — 8/26/25 — REGISTERED PROFESSIONAL ENGINEER

DRAWING NO.
C-45

NOTES:
1. TYPE "A" FRAMES ARE TO HAVE 3 FLANGES.
2. TYPE "B" FRAMES ARE TO HAVE 4 FLANGES.
3. THE WORD "GUTTER" IS TO BE MOLDED INTO THE BACK FLANGE – TYPE "B" ONLY.
4. FRAMES AND GRATES ARE TO BE GRAY CAST IRON OR DUCTILE IRON CONFORMING TO AASHTO M306.
5. DIMENSIONS ARE NOMINAL.

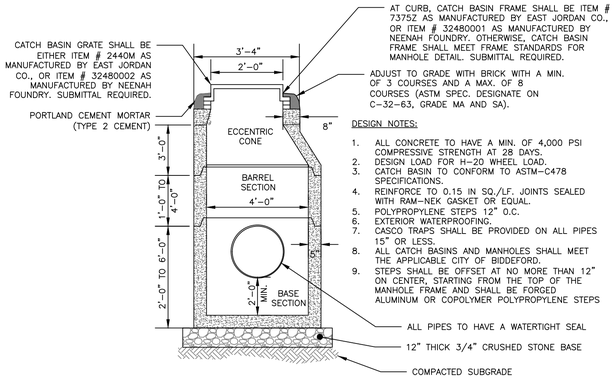


GRATE DETAIL



FRAME DETAIL

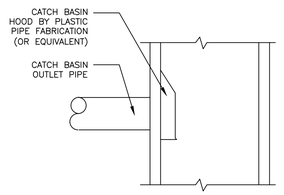
CATCH BASIN FRAME & GRATE – SQUARE
NOT TO SCALE



DESIGN NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H–20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM–C478 SPECIFICATIONS.
4. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM–NEK GASKET OR EQUAL.
5. POLYPROPYLENE STEPS 12" O.C.
6. EXTERIOR WATERPROOFING.
7. CASCO TRAPS SHALL BE PROVIDED ON ALL PIPES 15" OR LESS.
8. ALL CATCH BASINS AND MANHOLES SHALL MEET THE APPLICABLE CITY OF BIDDEFORD.
9. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS

4'–0" & 5'–0" DIAMETER PRECAST CATCH BASIN/MANHOLE
NOT TO SCALE

NOTES:
1. INSTALL CATCH BASIN HOODS IN ALL CATCH BASINS.
2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS

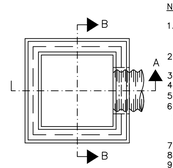


CATCH BASIN/DRAIN MANHOLE HOOD DETAIL
NOT TO SCALE

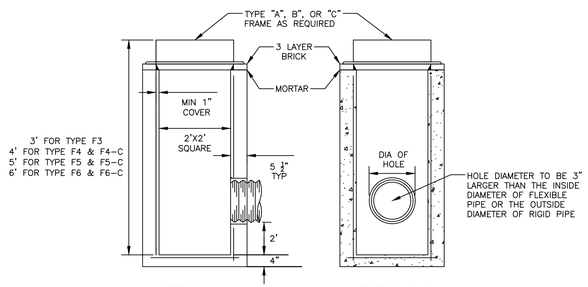
1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C–478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLD AND SHALL HAVE ONE ⅞" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C–32–63, GRADE MA AND SA.
8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48–CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF BIDDEFORD.
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP PER DETAIL.

GENERAL NOTES FOR MANHOLES AND CATCH BASINS

NOTES:
1. ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK FRAME AND GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT, #4 REBAR MINIMUM 8" O.C. OR EQUIVALENT WITH ENGINEER OF RECORD'S APPROVAL.
2. FIBER–REINFORCED CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
3. DESIGN LOAD FOR H–20 WHEEL LOAD.
4. CATCH BASIN TO CONFORM TO ASTM–C478 SPECIFICATIONS.
5. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM–NEK GASKET OR EQUAL.
6. POLYPROPYLENE STEPS 12" O.C.
   6.1. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS.
7. EXTERIOR WATERPROOFING.
8. FLEXIBLE WATERTIGHT PIPE BOOTS TO CONFORM TO ASTM C–923.
9. SHALL MEET THE APPLICABLE TOWN OF BRUNSWICK STANDARDS.
10. CATCH BASIN SHALL BE AS MANUFACTURED BY PRECAST OF MAINE OR APPROVED EQUAL.



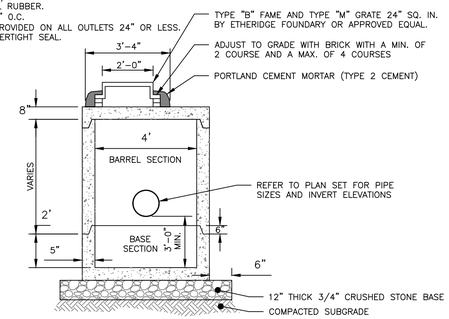
PLAN VIEW



SECTION A–A SECTION B–B

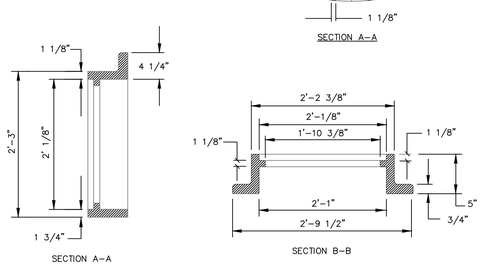
24" SQUARE CATCH BASIN "TYPE F"
NOT TO SCALE

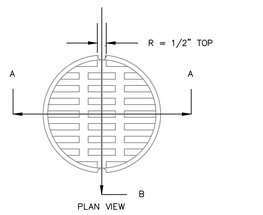
NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H–20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM–C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF.
5. JOINTS SEALED WITH BUTYL RUBBER.
6. POLYPROPYLENE STEPS 12" O.C.
7. CASCO TRAPS SHALL BE PROVIDED ON ALL OUTLETS 24" OR LESS.
8. ALL PIPES TO HAVE A WATERTIGHT SEAL.



4'–0" PRECAST CATCH BASIN WITH FLATTOP
NOT TO SCALE

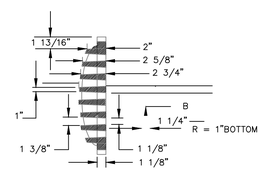
NOTES:
1. APPROVED CATCH BASIN FRAMES:
   1.1. EAST JORDAN = 7375Z
   1.2. NEENAH = R–3248
   1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
   2.1. EAST JORDAN = 2440M
   2.2. NEENAH = R–3248
   2.3. OR APPROVED EQUAL





PLAN VIEW

GRATE DETAIL



CATCH BASIN FRAME & GRATE
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: DRAINAGE DETAILS – 1

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.
ENGINEERING
PO BOX 3294 PORTLAND, MAINE 04101
(207) 775-2855

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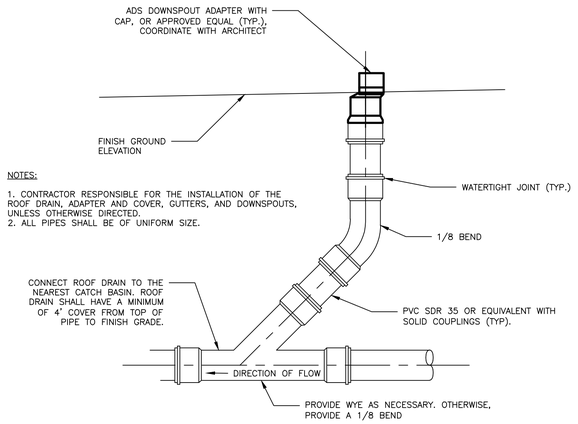
FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

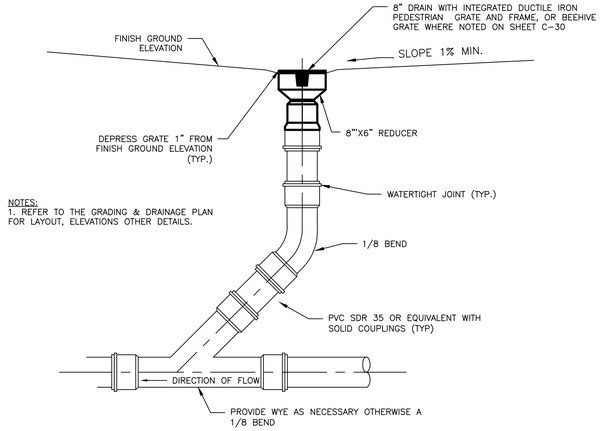
STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-46



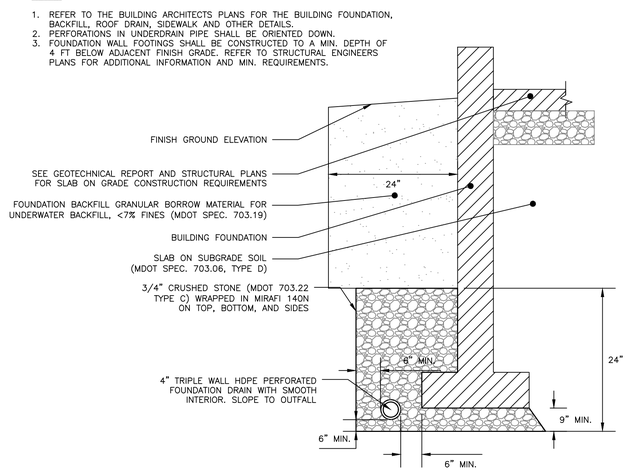
ROOF DRAIN DETAIL

NOT TO SCALE



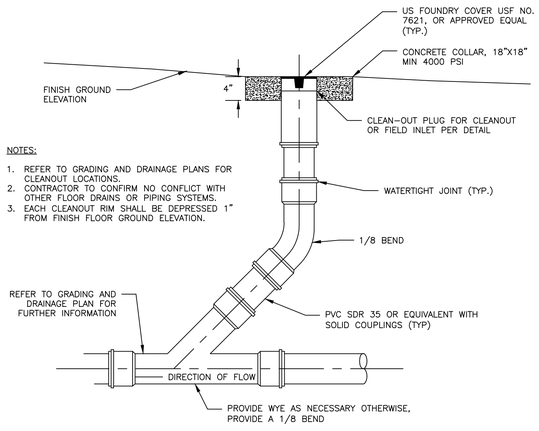
FIELD INLET DRAIN DETAIL WITH GRATE

NOT TO SCALE



FOUNDATION DRAIN DETAIL

NOT TO SCALE



CONCRETE COLLAR FOR FLOOR DRAINS AND CLEANOUTS IN PAVED AREAS

NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: DRAINAGE DETAILS – 2

PROJECT NAME/ADDRESS: PEARL STREET (LOT 3) REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

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ACORN ENGINEERING, INC.
80 EXCHANGE STREET, PORTLAND, MAINE 04101
PO BOX 3477 PORTLAND, ME 04104-3477
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

C-47

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2–3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
- THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
- GEOTEXTILE FABRIC (WOVEN OR NON–WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROAD WAYS.

1.1.2 SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.

1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.

1.1.5 PEARL STREET AND SMITH STREET SHALL BE SWEPT TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.

1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.

1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ½ THE DESIGN HEIGHT.

1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.

1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.

1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.

1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.

1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM AND SHALL BE LIMED, AND MULCHED.
EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.

1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.

1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER–WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75–LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE–INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR–INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE–ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER–WINTER PROTECTION.

- STABILIZE THE SOIL WITH SOD – STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL 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.

- STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. 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.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE–COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. 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 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.

- STABILIZE THE SOIL WITH SOD – THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. 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 SHALL NOT USE LATE–SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

- STABILIZE THE SOIL WITH EROSION CONTROL MIX – EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

- STABILIZE THE SOIL WITH STONE RIPRAP – PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY WEEK, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL – BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD–TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE–INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE, WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: PETER HEIL, PE
TELEPHONE: (207) 775–2655

QUALIFICATIONS:

Ø MAINE PROFESSIONAL ENGINEERING LICENSE #15318
Ø MAINE DEP – CERTIFIED THIRD PARTY INSPECTOR
Ø CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #7071

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN PEARL STREET.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB–BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE–VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10–10–10 (N–P205–K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

TEMPORARY SEED APPLICATION RATES

SEED	LBS / ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	2.57	8/15 TO 10/1
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15
ANNUAL RYGRASS	0.92	4/1 TO 7/1
SUDANGRASS	0.92	5/15 TO 8/15
PERENNIAL	0.92	8/15 TO 9/15
TOTAL	7.17 LBS/ACRE	

PERMANENT SEED APPLICATION RATES

SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREEPING RED FESCUE	20.00
PERENNIAL RYEGRASS	4.80
TOTAL	44.8 LBS/ACRE

7.4 MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS – 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

HOUSEKEEPING

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1–800–482–0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1–800–452–4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/

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. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE–TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

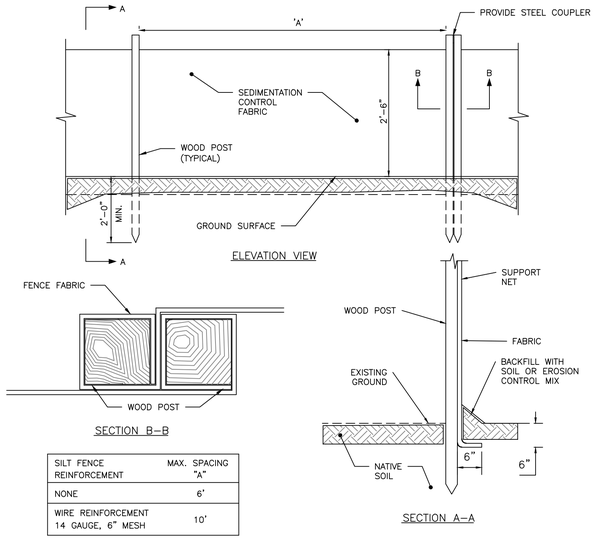
SEE APPENDIX D FOR LICENSE BY RULE STANDARDS FOR INFILTRATION OF STORMWATER.

NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPS) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §465–C(1).

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 MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF–SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE NATURAL RESOURCES PROTECTION ACT.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITAT



SILT FENCE REINFORCEMENT	MAX. SPACING "A"
NONE	6'
WIRE REINFORCEMENT 14 GAUGE, 6" MESH	10'

SILTATION FENCE DETAIL
NOT TO SCALE

NOTES:

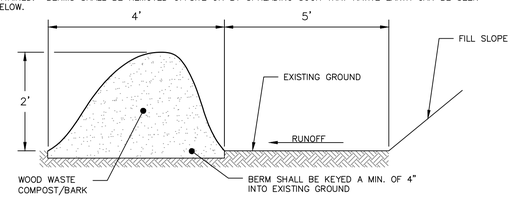
1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DOT CHAPTER 700, SECTION 717.04(D):

   1.1. pH BETWEEN 5.0 – 8.0
   1.2. PARTICLE SIZE (BY WEIGHT):
   1.2.1. 100% PASSING A 150 MM (6 IN) SCREEN
   1.2.2. 75 TO 85% PASSING A 19 MM (0.75 IN) SCREEN
   1.3. SOLUBLE SALTS CONTENT < 4.0 MMHOS/CM
   1.4. ORGANIC MATTER 20 TO 100% , DRY WEIGHT BASIS

2. THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.

3. THE BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.

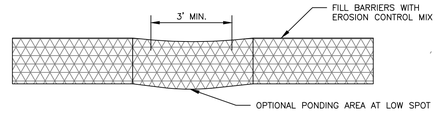
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED OFFSITE OR BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.



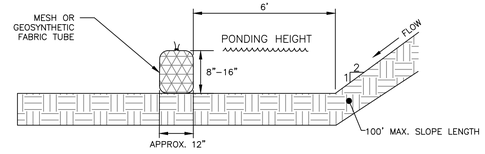
EROSION CONTROL MIX BERM DETAIL
NOT TO SCALE

NOTES:

1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE – THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

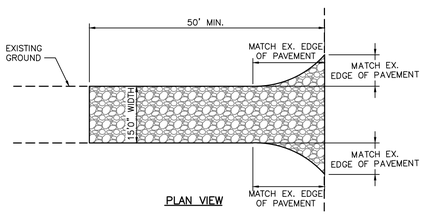


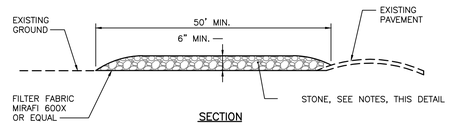
FRONT VIEW



SIDE VIEW

FILTER SOCK DETAIL
NOT TO SCALE

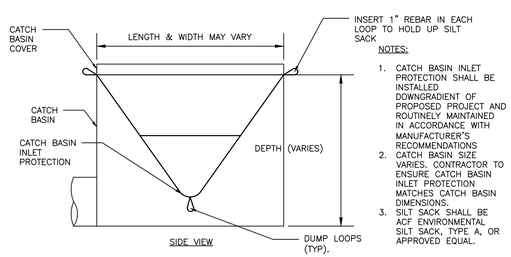




NOTES:

1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"–3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON–SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT–OF–WAY

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTES:

1. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED DOWNGRADIENT OF PROPOSED PROJECT AND ROUTINELY MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
2. CATCH BASIN SIZE VARIES. CONTRACTOR TO ENSURE CATCH BASIN INLET PROTECTION MATCHES CATCH BASIN DIMENSIONS.
3. SILT SACK SHALL BE ACF ENVIRONMENTAL SILT SACK, TYPE A, OR APPROVED EQUAL.

CATCH BASIN INLET PROTECTION
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SKETCH PLAN	PFH 10/23/24
PRELIMINARY	PFH 10/20/22
DEP SW AMENDMENT	PFH 11/7/22
SRCC	PFH 1/4/23
FINAL SITE PLAN	PFH 7/11/23
SITE PLAN AMENDMENT	PFH 6/11/25
COMMENT RESPONSE	PFH 8/6/25
COMMENT RESPONSE II	PFH 8/18/25
COMMENT RESPONSE III	PFH 8/26/25

DRAWING NAME: **EROSION & SEDIMENTATION CONTROL DETAILS**

PROJECT NAME/ADDRESS: **PEARL STREET (LOT 3) REDEVELOPMENT**
PEARL STREET, BIDDEFORD, MAINE

OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND UNAUTHORIZED USE OF THESE PLANS WITHOUT SUCH PERMISSION SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

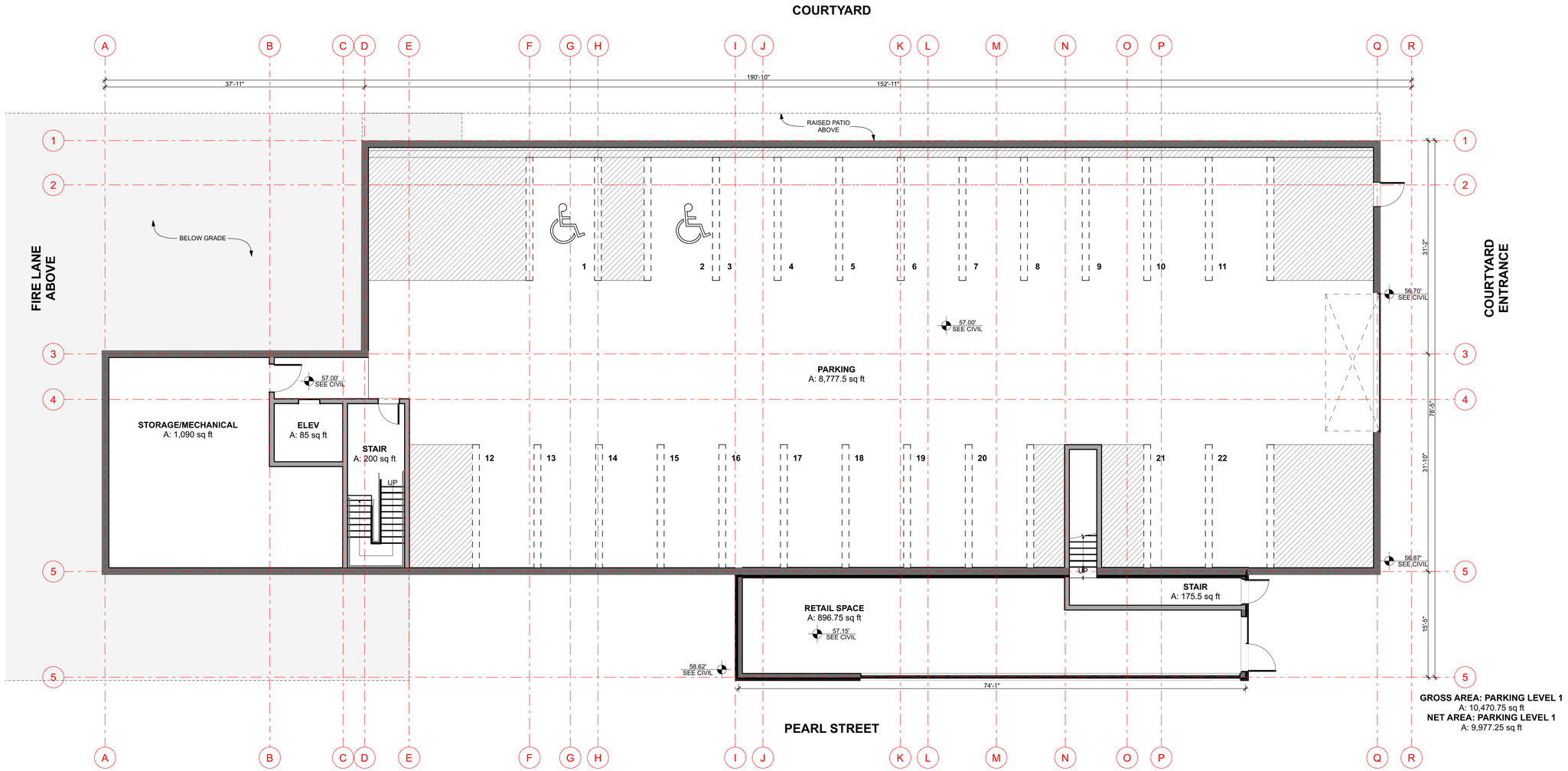
ACORN ENGINEERING, INC.
PO BOX 3477 PORTLAND, MAINE 04101
(207) 775-2655

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
8/26/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

C-49



1 COURTYARD/PARKING LEVEL
SCALE: 1/8" = 1'-0"

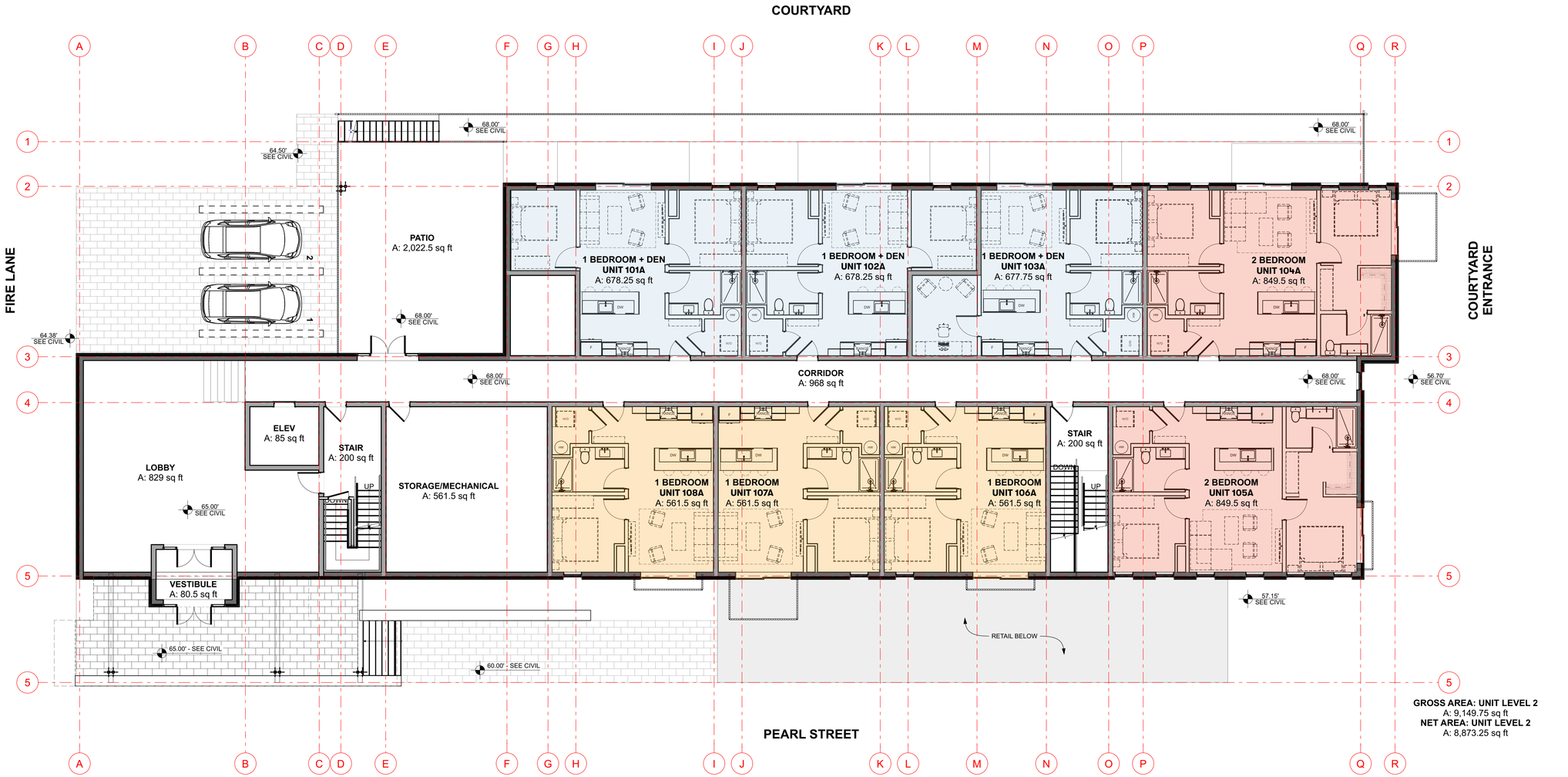
0 4' 8' 16'

Kaplan
Thompson
Architects

102 Exchange Street Portland, ME 04101
(207) 842-2888 kaplanthompson.com

COURTYARD/PARKING LEVEL FLOOR PLAN, BUILDING 3A

Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



1 FIRE LANE/UNIT LEVEL
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

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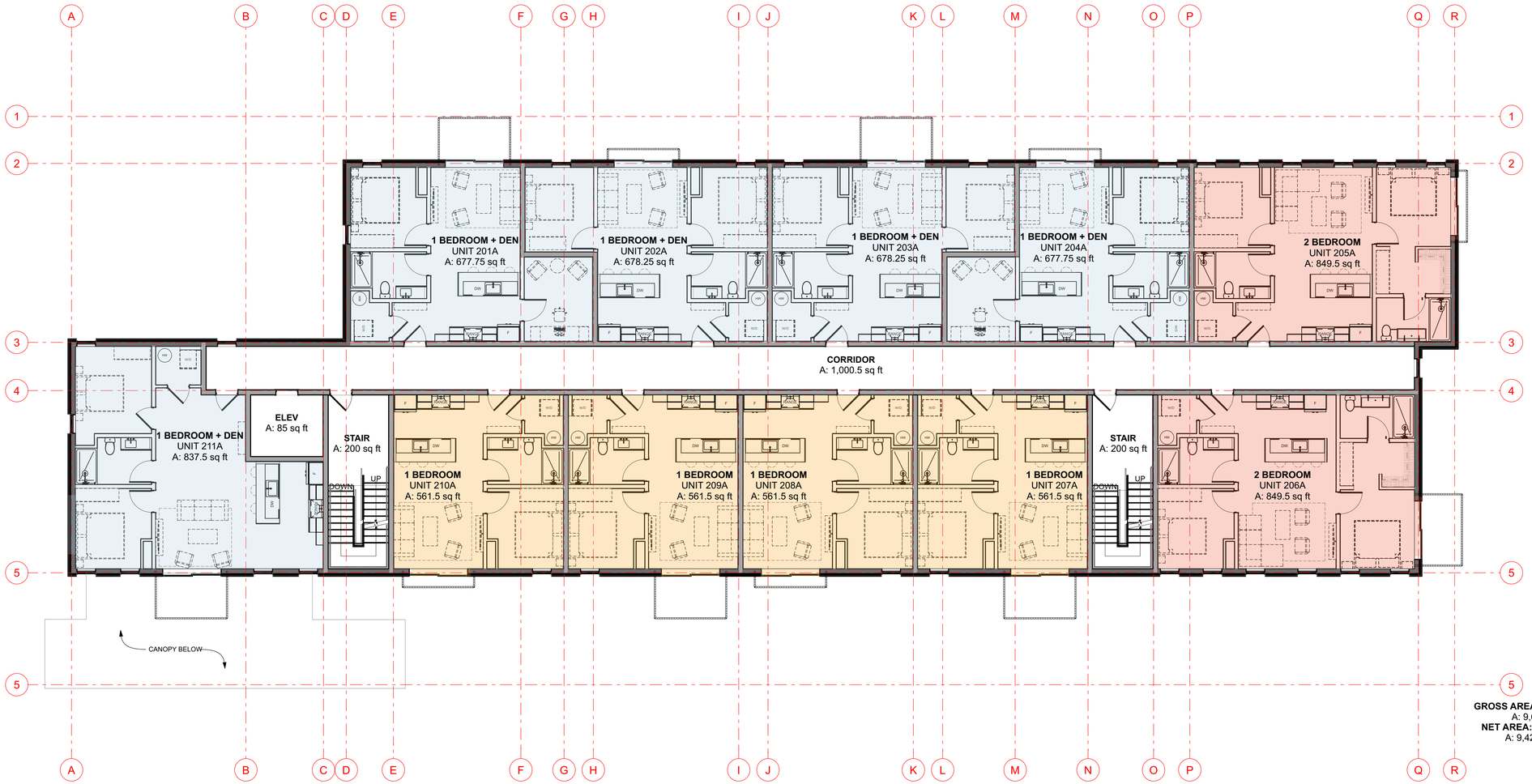
FIRE LANE/UNIT LEVEL FLOOR PLAN, BUILDING 3A

Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



GROSS AREA: UNIT LEVEL 3
A: 9,693 sq ft
NET AREA: UNIT LEVEL 3
A: 9,421.25 sq ft

1 UPPER LEVELS, TYP.
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

TYPICAL FLOOR PLAN, UPPER LEVELS BUILDING 3A

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Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



FIBER CEMENT PANEL 1:
4' X 8' VERTICAL PANEL



FIBER CEMENT PANEL 2:
2' X 4' VERTICAL PANEL



SLATE STONE TILE:
VERMONT STRUCTURAL SLATE, GRAYSON NATURAL CLEFT FINISH



CAST CONCRETE FORM LINER:
AP SYSTEM #331-C, RANDOM STRIATED RIB PRECAST



1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

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SOUTH ELEVATION, BUILDING A

Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



FIBER CEMENT PANEL 1:
4' X 8' VERTICAL PANEL



FIBER CEMENT PANEL 2:
2' X 4' VERTICAL PANEL



SLATE STONE TILE:
VERMONT STRUCTURAL SLATE, GRAYSON NATURAL CLEFT FINISH



CAST CONCRETE FORM LINER:
AP SYSTEM #331-C, RANDOM STRIATED RIB PRECAST



1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

NORTH ELEVATION, BUILDING A

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Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



FIBER CEMENT PANEL 1:
4' X 8' VERTICAL PANEL



FIBER CEMENT PANEL 2:
2' X 4' VERTICAL PANEL



SLATE STONE TILE:
VERMONT STRUCTURAL SLATE, GRAYSON NATURAL CLEFT FINISH

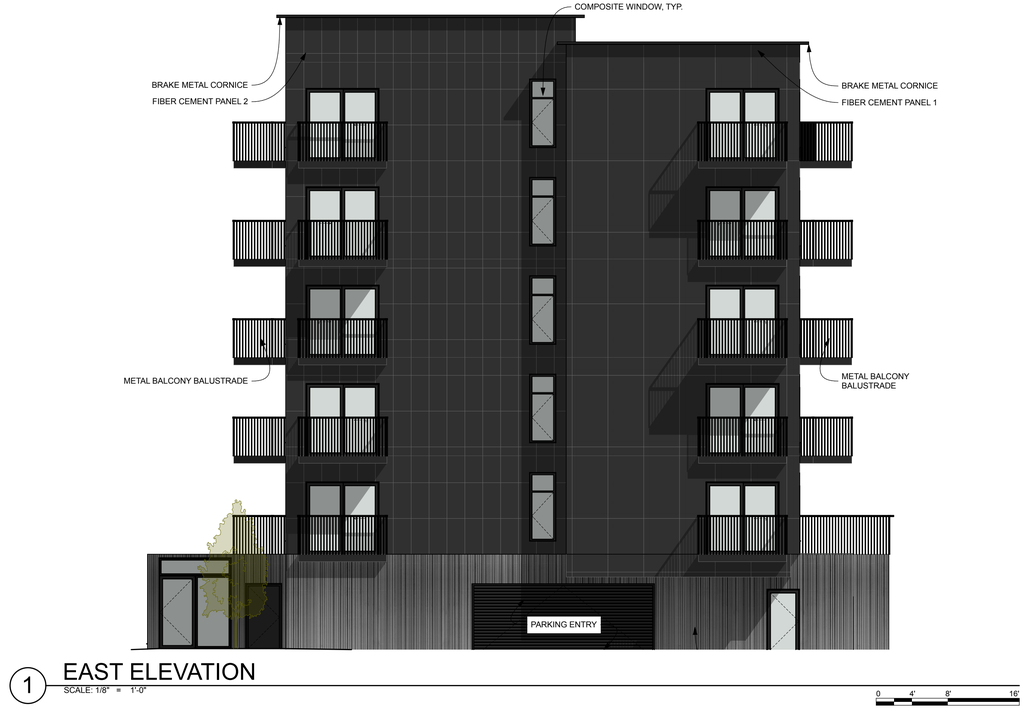


CAST CONCRETE FORM LINER:
AP SYSTEM #331-C, RANDOM STRIATED RIB PRECAST



2 WEST ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'



1 EAST ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

EAST & WEST ELEVATIONS, BUILDING A

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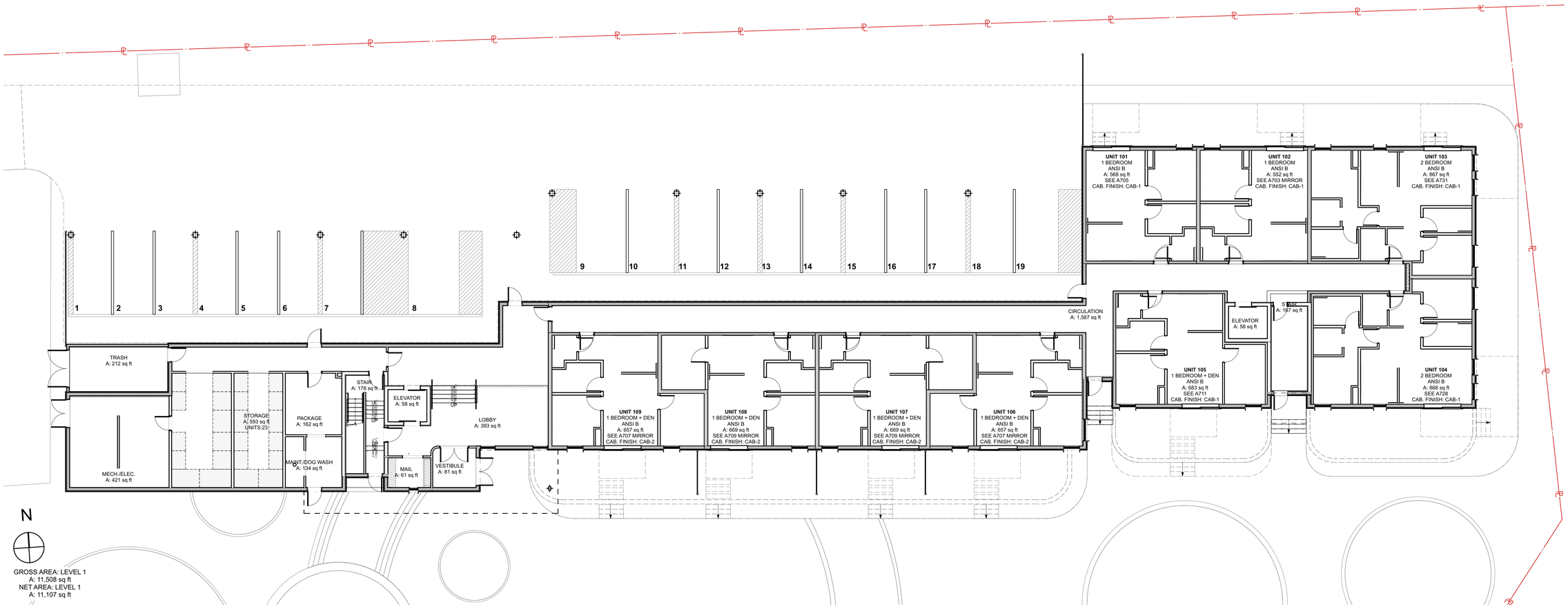
Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



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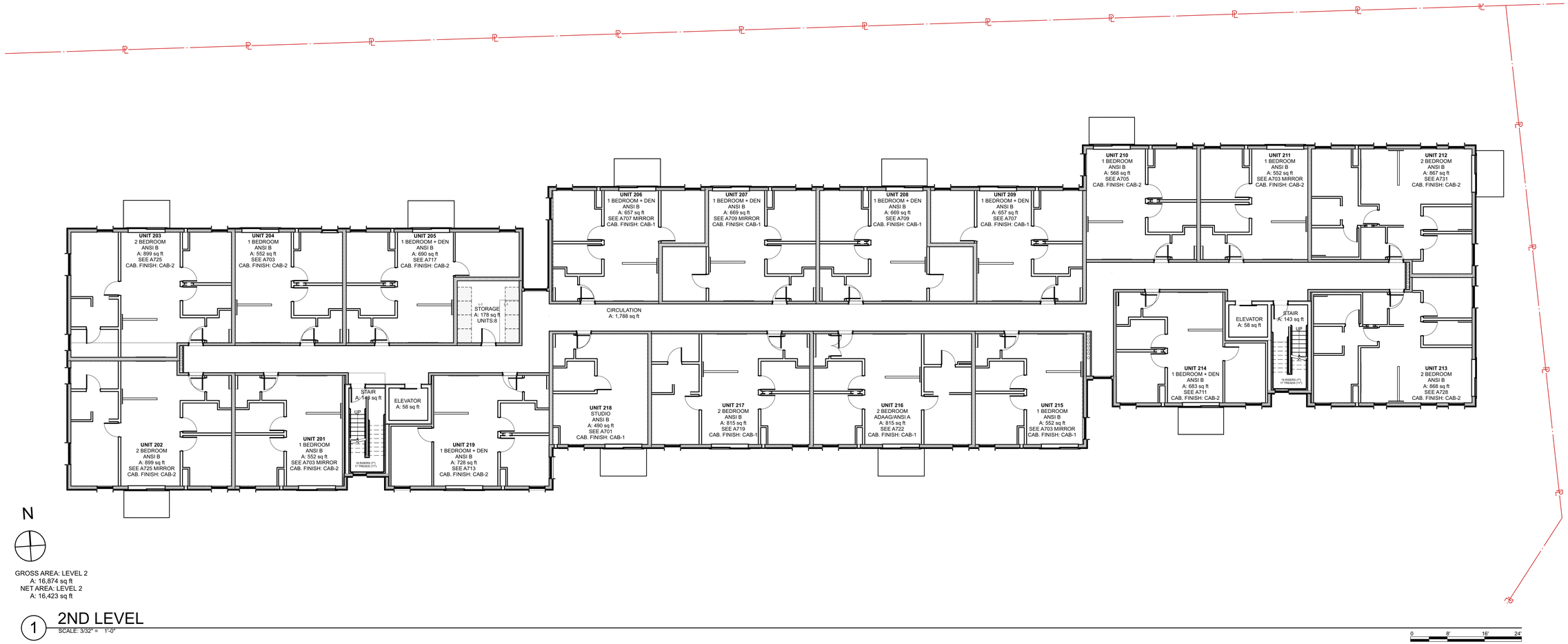
GROUND LEVEL FLOOR PLAN

Pearl Street 3B

Fathom Companies
Pearl Street Biddeford ME 04003



GROSS AREA: LEVEL 2
A: 16,874 sq ft
NET AREA: LEVEL 2
A: 16,423 sq ft

1 2ND LEVEL
SCALE: 3/32" = 1'-0"

0 8' 16' 24'

2ND LEVEL FLOOR PLAN

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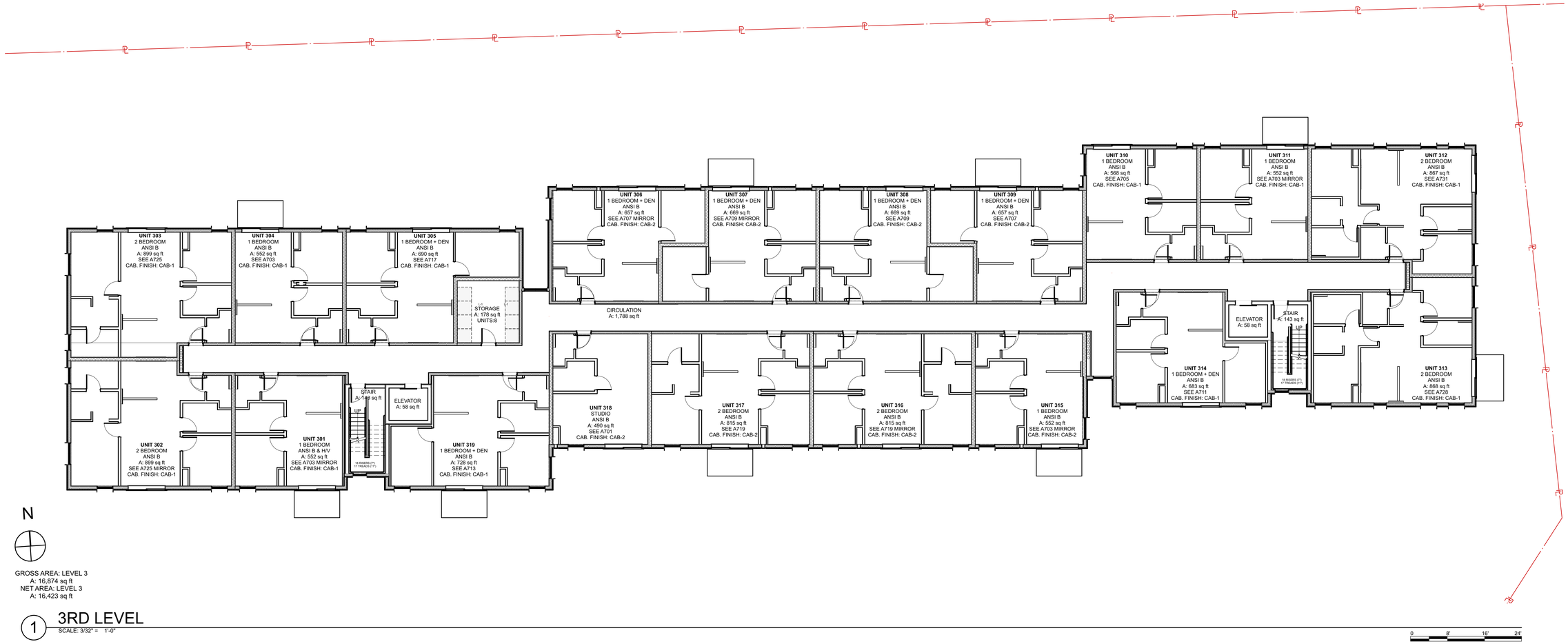
Pearl Street 3B

Fathom Companies
Pearl Street Biddeford ME 04003



GROSS AREA: LEVEL 3
A: 16,874 sq ft
NET AREA: LEVEL 3
A: 16,423 sq ft

1 3RD LEVEL
SCALE: 3/32" = 1'-0"

0 8' 16' 24'

3RD LEVEL FLOOR PLAN

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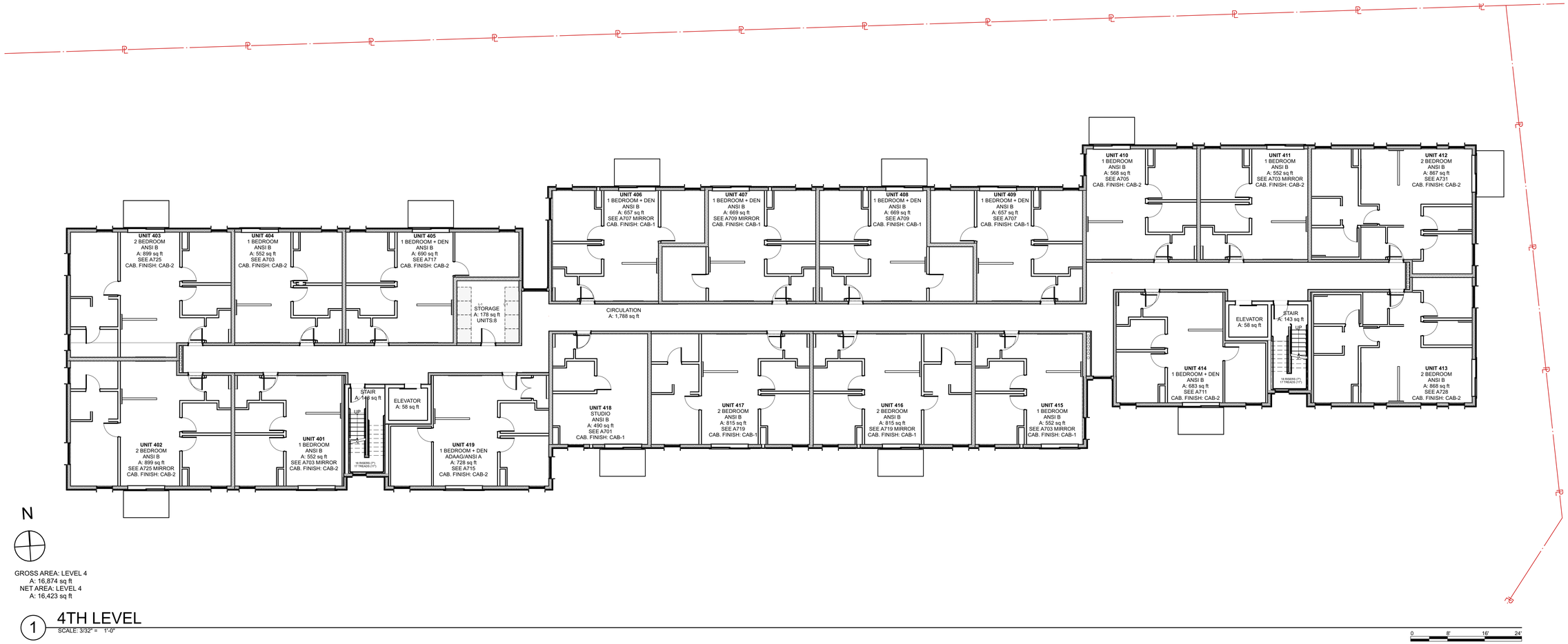
Pearl Street 3B

Fathom Companies
Pearl Street Biddeford ME 04003



GROSS AREA: LEVEL 4
A: 16,874 sq ft
NET AREA: LEVEL 4
A: 16,423 sq ft

1 4TH LEVEL
SCALE: 3/32" = 1'-0"

0 8' 16' 24'

Kaplan Thompson Architects

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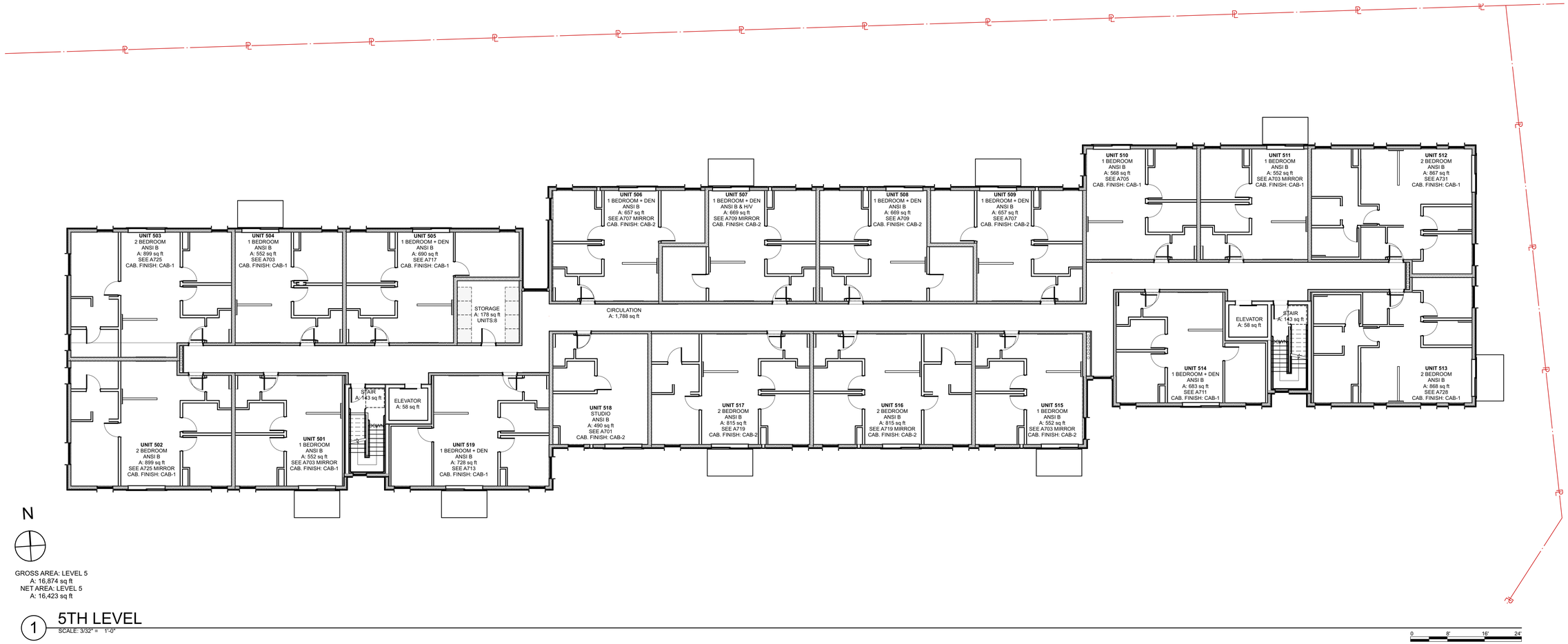
4TH LEVEL FLOOR PLAN

Pearl Street 3B

Fathom Companies
Pearl Street Biddeford ME 04003



GROSS AREA: LEVEL 5
A: 16,874 sq ft
NET AREA: LEVEL 5
A: 16,423 sq ft

1 5TH LEVEL
SCALE: 3/32" = 1'-0"

0 8' 16' 24'

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5TH LEVEL FLOOR PLAN

Pearl Street 3B

Fathom Companies
Pearl Street Biddeford ME 04003



1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

THERMALLY MODIFIED WOOD:
LUNAWOOD PANEL, NORDIC PINE, OR SIM.

CAST CONCRETE FORM LINER:
AP SYSTEM #407-M, BROOM FINISH PRECAST



2 EAST ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

EAST & WEST ELEVATIONS, TOWNHOMES

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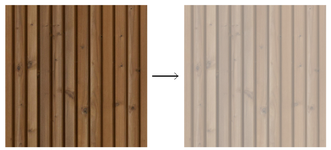
Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'



THERMALLY MODIFIED WOOD:
LUNAWOOD PANEL, NORDIC PINE, OR SIM.



CAST CONCRETE FORM LINER:
AP SYSTEM #407-M, BROOM FINISH PRECAST



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

NORTH & SOUTH ELEVATIONS, TOWNHOMES

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Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005



1 SOUTH ELEVATION

SCALE: 3/32" = 1'-0"

0 8' 16' 24'



2 NORTH ELEVATION

SCALE: 3/32" = 1'-0"

0 8' 16' 24'



WEATHERING STEEL PANEL: ACCENT PANEL, SMOOTH FINISH



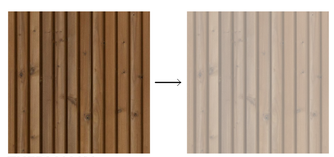
WEATHERING STEEL PANEL: CORRUGATED, 1/4" | 1/2" | 7/8", 24 GAUGE



WEATHERING STEEL PANEL: ACCENT PANEL, WESTERN REVEAL



FIBER CEMENT PANEL: 4' X 8' VERTICAL PANEL



THERMALLY MODIFIED WOOD: LUNAWOOD PANEL, NORDIC PINE, OR SIM.

NORTH & SOUTH ELEVATIONS

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Pearl Street 3B

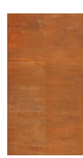
Fathom Companies
Pearl Street Biddeford ME 04003



1 WEST ELEVATION
SCALE: 3/32" = 1'-0"
0 8' 16' 24'



2 EAST ELEVATION
SCALE: 3/32" = 1'-0"
0 8' 16' 24'



WEATHERING STEEL PANEL: ACCENT PANEL, SMOOTH FINISH



WEATHERING STEEL PANEL: CORRUGATED, 1/4" | 1/2" | 7/8", 24 GAUGE



WEATHERING STEEL PANEL: ACCENT PANEL, WESTERN REVEAL



FIBER CEMENT PANEL: 4' X 8' VERTICAL PANEL



THERMALLY MODIFIED WOOD: LUNAWOOD PANEL, NORDIC PINE, OR SIM.

EAST & WEST ELEVATIONS

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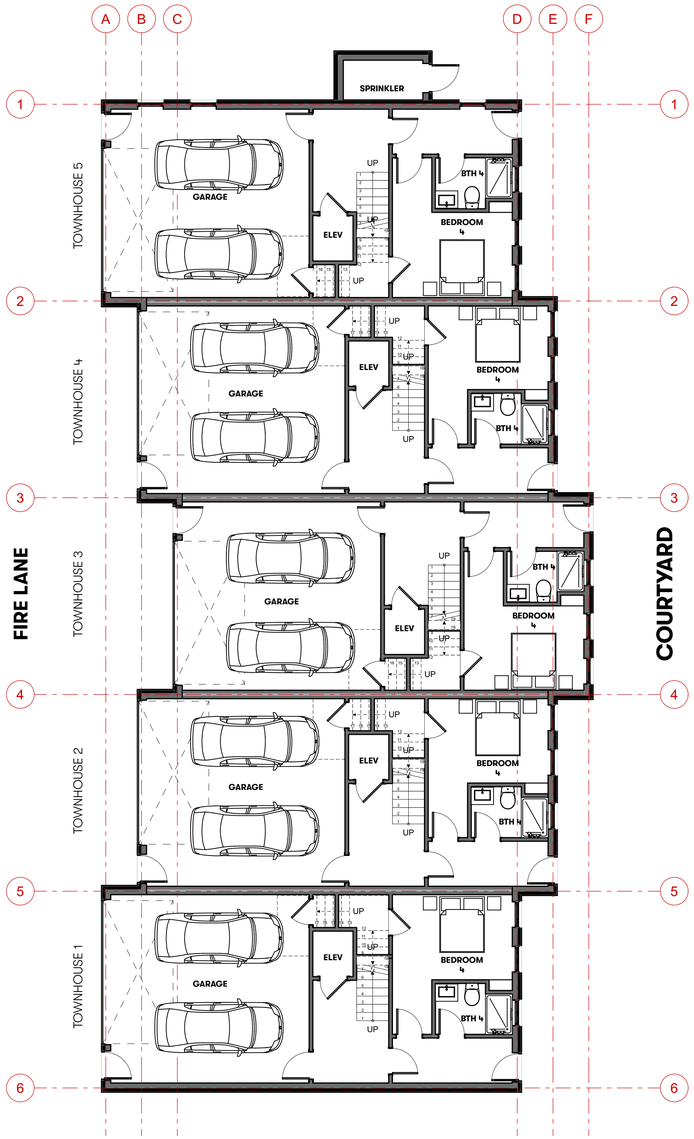
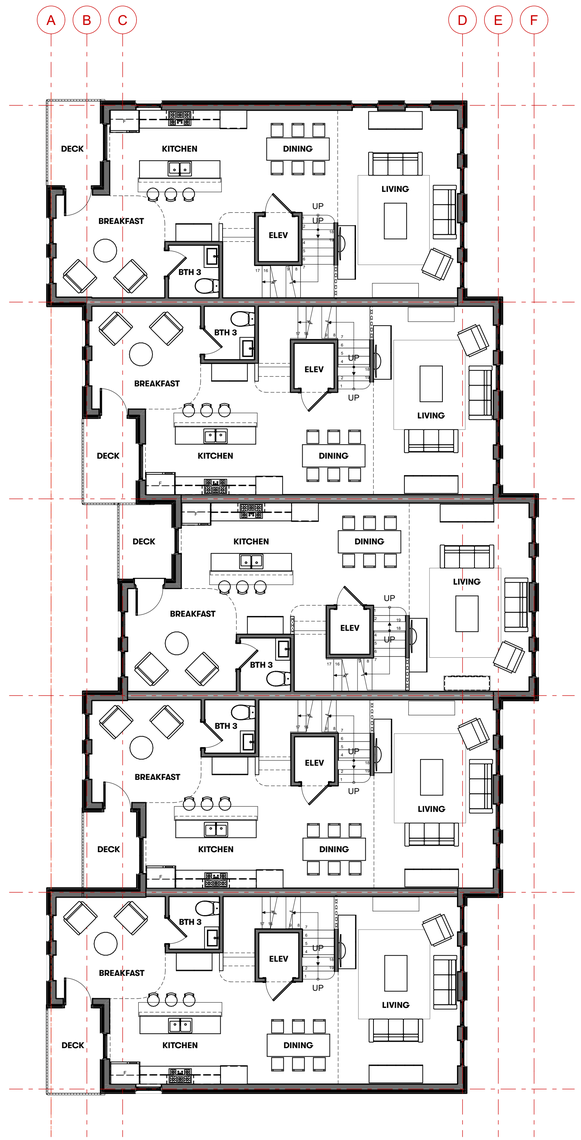
Pearl Street 3B

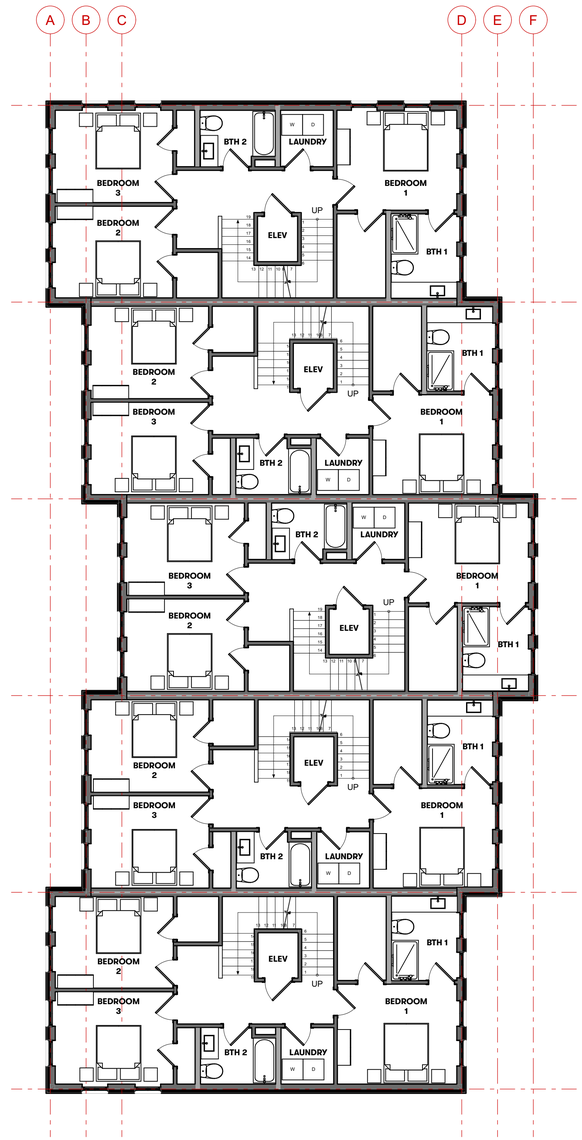
Fathom Companies
Pearl Street Biddeford ME 04003



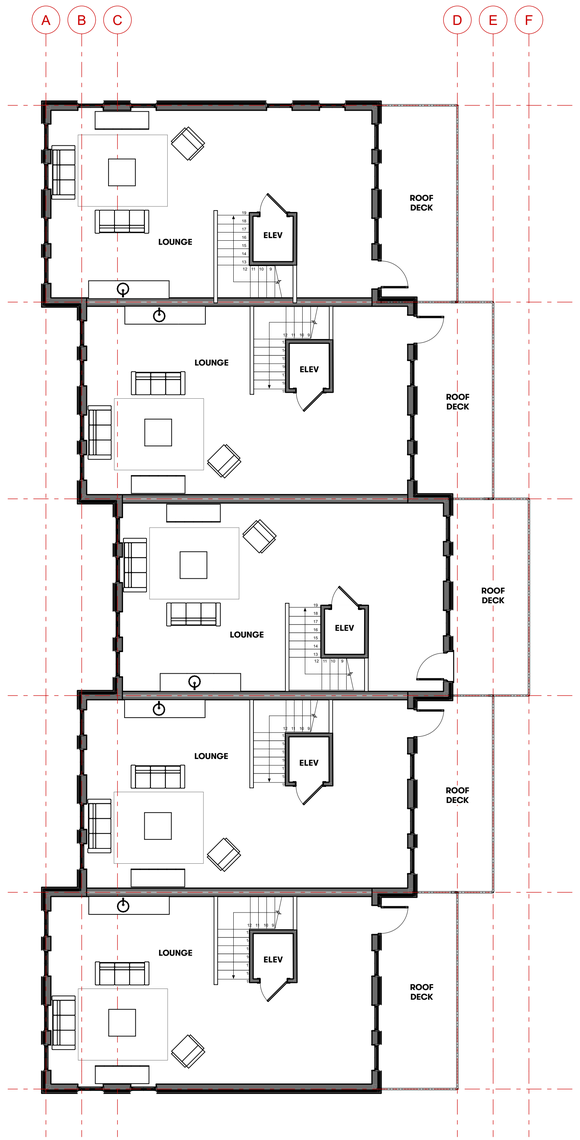
1 GROUND LEVEL
SCALE: 1/8" = 1'-0"



2 SECOND LEVEL
SCALE: 1/8" = 1'-0"



3 THIRD LEVEL
SCALE: 1/8" = 1'-0"



4 FOURTH LEVEL
SCALE: 1/8" = 1'-0"

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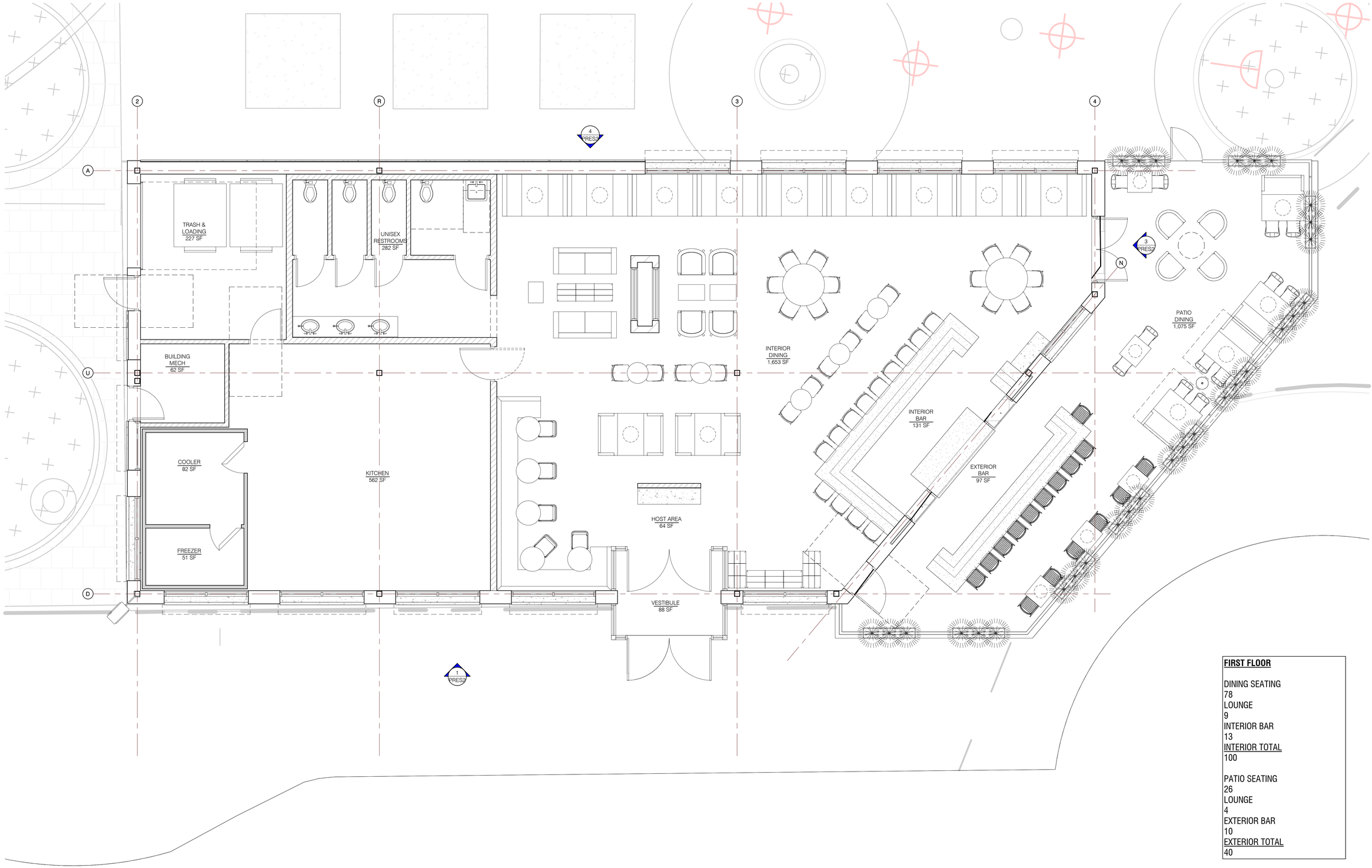
TOWNHOME FLOOR PLANS

Lot 3
Fathom Companies
Pearl Street Biddeford ME 04005

8/18/25



FIRST FLOOR

DINING SEATING
78
LOUNGE
9
INTERIOR BAR
13
INTERIOR TOTAL
100

PATIO SEATING
26
LOUNGE
4
EXTERIOR BAR
10
EXTERIOR TOTAL
40

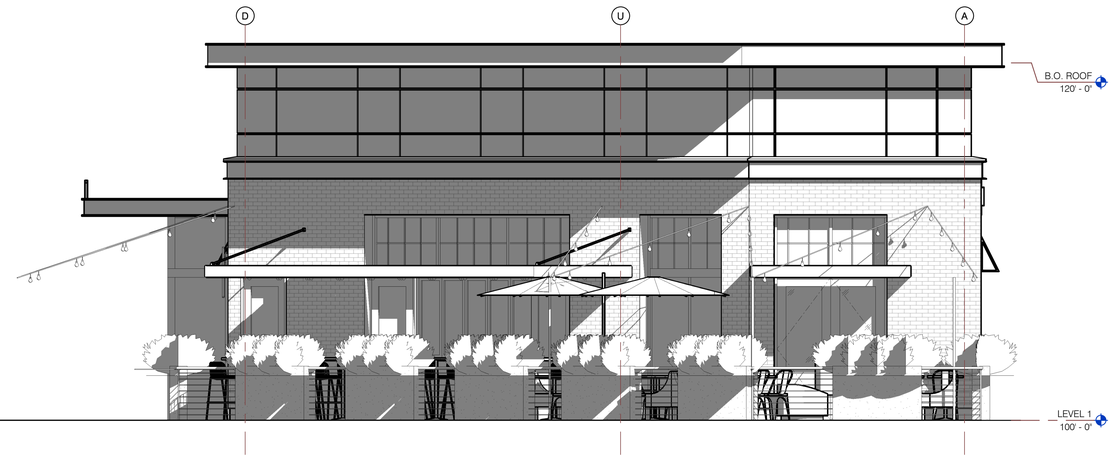
1 PRES1 UPDATED BUILDING PLAN
SCALE: 1/4" = 1'-0"



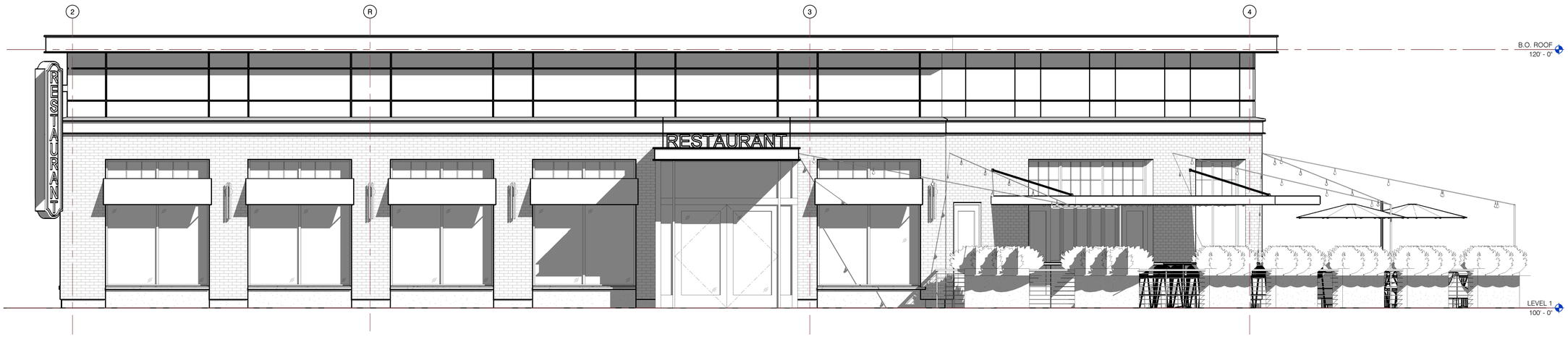
4 PRES2 EXTERIOR ELEVATION - NORTH
SCALE: 1/4" = 1'-0"



2 PRES2 EXTERIOR ELEVATION - WEST
SCALE: 1/4" = 1'-0"



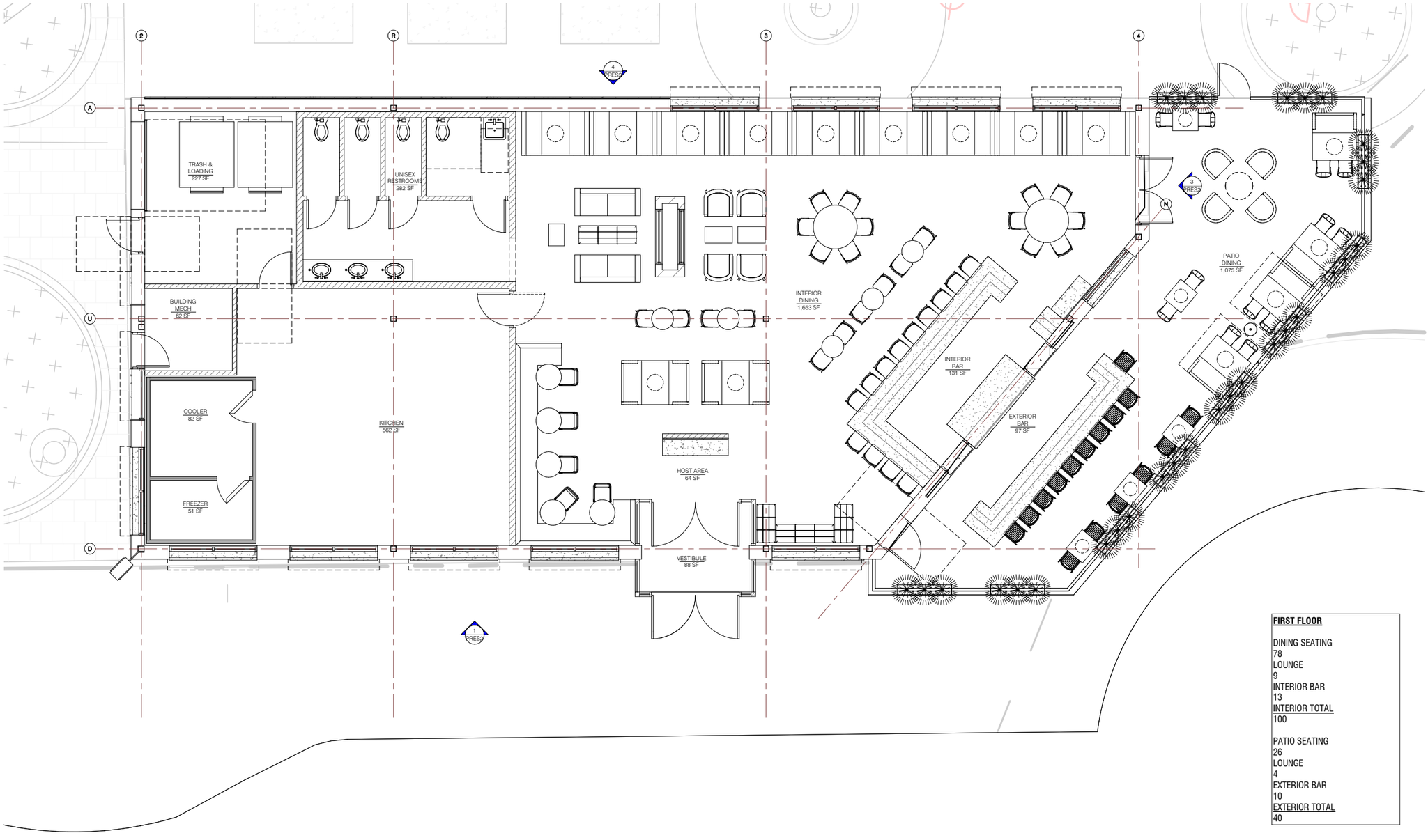
3 PRES2 EXTERIOR ELEVATION - EAST
SCALE: 1/4" = 1'-0"



1 PRES2 EXTERIOR ELEVATION - SOUTH
SCALE: 1/4" = 1'-0"

Floor Plan

OVERALL PLAN



FIRST FLOOR

DINING SEATING
78
LOUNGE
9
INTERIOR BAR
13
INTERIOR TOTAL
100

PATIO SEATING
26
LOUNGE
4
EXTERIOR BAR
10
EXTERIOR TOTAL
40

Renderings | Daytime





SE CORNER ^

< SW CORNER

NE CORNER >



Renderings | Evening





SE CORNER ^

< SW CORNER

NE CORNER >



Building 3A

RENDERINGS



Townhomes 3A

RENDERINGS



Building 3B

RENDERINGS



PLANTING NOTES

1. THE CONTRACTOR SHALL PREPARE PLANTING ZONES TO THE GRADES AND DEPTHS AS INDICATED ON THE DRAWING.
2. IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
3. TOPSOIL SHALL BE FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL; CONTAIN 5% ORGANIC MATTER AND HAVE A pH SUITABLE TO THE LOCAL GROWING CONDITIONS.
4. ALL PLANTS TO BE SELECTED AND SEALED IN THE FIELD BY THE LANDSCAPE DESIGNER. OR SELECTED BY THE LANDSCAPE CONTRACTOR, AND APPROVED BY LANDSCAPE DESIGNER.
5. THE PLANT LIST IS PROVIDED AS A CONVENIENCE TO THE CONTRACTOR. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE SCHEDULE AND THE DRAWING, THE DRAWING SHALL TAKE PRECEDENCE.
6. ALL TRANSPLANTED SHRUBS SHALL BE 'HEELED IN' OR HEAVILY MULCHED IN A SHADED AREA AND WATERED AS NECESSARY UNTIL THEY CAN BE PLANTED.
7. FINAL LOCATION OF ALL PLANTS TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
8. PLANTS SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS THE BORE TO EXISTING GRADE IN THE NURSERY.
9. CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL. CUT AND REMOVE AT LEAST 1/3-1/2 OF WIRE BASKET. NYLON ROPE AND / OR NYLON BALLING MATERIAL IS NOT ACCEPTABLE.
10. PLANT PERENNIALS AND GROUNDCOVER IN 6" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS.
11. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL DISTURBANCES, CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT WITH CONSERVATION MEADOW MIX. (SEE GRADING PLAN L3.0)
12. ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 6" OF CASSSELA'S ORGANICS OR EQUAL (40% COMPOST / 60% LOAM) AND A 3" LAYER OF DOUBLE SHREDDED HARDWOODBARK MULCH.
13. UPON COMPLETION OF THE ONE (1) YEAR PLANT GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING OR REMOVING ALL STAKES. THIS SHALL BE DONE IN CONSULTATION WITH THE LANDSCAPE ARCHITECT.
14. ALL TREE PLANTING AND REMOVAL TO COMPLY WITH LOCAL AND STATE TREE ORDINANCES.
15. IRRIGATION DESIGN BY OTHERS
16. FINAL PLANT LIST SUBJECT TO CHANGE BASED ON BUDGET AND OWNER'S APPROVAL
17. TREES TO BE PRUNED TO MAINTAIN A MAXIMUM HEIGHT OF 15? AT ALL TIMES.

PLANT SCHEDULE

ID	BOTANICAL NAME	COMMON NAME	QNT,	SIZE
DECIDUOUS TREES				
AL	AMELANCHIER 'LUSTRE'	SERVICEBERRY	8	8'-9'
AA	ACER X 'ARMSTRONG'	ARMSTRONG MAPLE	13	2" CAL.
CSP.	CRATAEGUS SP.	HAWTHORN 'WINTERKING'	7	8'-9'
PN	PINUS NIGRA	PITCH PINE	4	10'
SHRUBS / PERENNIALS / GRASSES / GROUND COVER / BULBS				
AV	AZALEA VISCOSUM	SWAMP AZALEA	5	5 GAL.
CS	CORNUS SERICEA	KELSEY DWARF REDTWIG	11	5 GAL.
DP	DENNSTAEDTIA PUNCTILOBULA	HAYSCENTED FERN	1,100	1 GAL.
CA	CLETHRA ALNIFOLIA	SUMMER SWEET	3	5 GAL.
KL	KALMIA LATIFOLIA	MOUNTAIN LAUREL	32	5 GAL.
IV	ILEX VERICILLATA	WINTERBERRY HOLLY	8	5 GAL.
N	NEPETA	WALKERS LOW	125	1 GAL
PA	PEROVSKIA ATRIPLICIFOLIA	LITTLE SPIRE	125	1 GAL
PM	PINUS MUGO	MUGO PINE	13	7 GAL
PS	PINUS STROBUS 'NAN'	WHITE PINE 'NANA'	4	7 GAL
RV	ROSA VIRGINIANA	VIRGINIA ROSE	8	5 GAL.
SA	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	2,212	1 GAL
SS	SALVIA X SYLVESTRIS	MAY NIGHT	105	1 GAL
VA	VACCINIUM ANGUSTIFOLIUM	LOWBUSH BLUEBERRY	50	2 GAL



SYMBOLS LEGEND

HARDSCAPE

- PRECAST CONCRETE STEPS
- 2" BLUESTONE PAVING
- UNIT PAVER MASONRY (GENESTE PORTLAND PLAZA PAVER XXL)
- UNIT PAVER MASONRY (TECHO BLOC HYDRA H25 RATED)
- PAVER
- STABILIZED TURF SEE CIVIL ENG. DETAILS
- BITUMINOUS PAVING SEE CIVIL ENG. DETAILS
- PIP RADIUS BRICK VENEERED CONCRETE BENCH W/ WOOD TOP
- SURFACE MOUNTED BICYCLE RACKS FORMS + SURFACE https://www.forms-surfaces.com/olympia-bike-rack
- BRICK CLAD RETAINING WALL
- RAISED BRICK CURB
- PRIVACY SCREEN | PARTITION (L2.1, DETAIL 8)
- 3' TALL BOLLARDS

PLANTS

- TURF GRASS
- PERENNIAL PLANTING BEDS
- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- PROPOSED EVERGREEN SHRUB
- PROPOSED DECIDUOUS SHRUB

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PLANNING BOARD SUBMISSION
NOT FOR CONSTRUCTION

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PEARL STREET: LOT 3

BIDDEFORD, MAINE

No:	Revision	Date:

issue:
date: AUGUST 26, 2025
scale: As Noted
drawn: XX
checked: XX

L1.0

LANDSCAPE PLAN