



City of Biddeford Planning Board

February 19, 2025 at 6:00 PM
City Hall Council Chambers & Zoom

[Join Zoom Meeting Online](#)

Or call in by phone: +1 312 626 6799

Meeting ID: 947 8643 7651

Passcode: 567755

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 Meeting Minutes from Workshop January 29, 2025 & Regular Meeting February 5, 2025
6. Open Public Hearing
 - 6.a 2024.39 The Planning Board will review Solar Ordinance in order to send it to the City Council with a recommendation.
7. Close Public Hearing
8. Unfinished Business
9. New Business
 - 9.a 2024.63 The Biddeford Planning Board will hold a public meeting to review and discuss a Final Subdivision Request for Westbrook Development Corporation to split the lot and create 2 affordable senior housing buildings to include approximately 90 residential units (45 units in each building) at 15 Pearl Street (Tax Map 71, Lot 2) in the MSRD-3 Zone.
10. Other Business
11. 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 & Conservation Commission Workshop Meeting Minutes

DRAFT

Date: January 29, 2025
Time: 5:00 PM
Location: Council Chambers

1. In attendance:

Planning Board: Susan Deschambault, Larry Patoine, Roch Angers

Conservation Commission: Peter Robbins, Richard Rhames, Patrick Conlan

Staff Present: David Galbraith, Brad Favreau, & Nan Whitten

2. Discussion on the development of Solar Ordinance

- Favreau brought the meeting to order at 5:00 PM
- Favreau discussed how the ordinance is structured
- Anything redlined is an adjustment from the December workshop
- Ground Mounted systems are governed by CUP & Site Plan Review
- Angers, has anyone else been involved; Ad hoc Sustainability Committee which has been disbanded and replaced with a Sustainability Committee by Ordinance. Other towns and Cities' ordinances were reviewed and studied.
- Angers has anyone else reviewed this? This will go to the Planning Board, then to the Policy Committee then to the Council.
- Rhames has the Sustainability Committee looked at the changes? Yes but no changes, little discussion.
- Favreau went to the Policy Committee Monday to update the committee on the ordinance.
- Favreau a lot of the changes were on environmental impact and sighting.
- Galbraith-Page 3, item 3 B, something is missing in the sentence, changes were made
- Galbraith-Page 5, section 5, item B, wants to make sure the consultant is reporting to the City, changes made
- Galbraith-Page 5, Section 5, item C, statement following if no farmland of statewide importance, we need the soil scientist confirming such.
- Rhames-the state has their own soil scientist
- Galbraith Page 7, item J-New instances of invasive species, changes made
- Rhames-shared some of the items he received in the mail as advertisements and Maine won't wait but the state hasn't made a policy. The purpose of encouraging development was changed to allow but he thinks it is still pushing the solar panels. Is the goal of the Planning Board to push development or to weigh and decide? He feels the ordinance tilts the scales in favor of development.

- Galbraith what is the issue?
- Rhames-this is a thumb on the scale, the Planning Board is supposed to be weighing and considering. He feels there are other parts of the city increasing fossil fuel.
- Favreau explained there is some regulations in there and the fact that the City has agreed to reduce fossil fuel by a certain amount
- Rhames feels this ordinance is more of a placebo
- He would like to see the City get a little more serious about it.
- Galbraith asked if he had suggestions for change such as in the purpose statement
- Rhames said that would be a start. He's leery about the thumb on the scale thing.
- Favreau talked about the goals of the ordinance, it's all about reducing carbon emissions.
- Galbraith suggested allow and regulate.....
- Rhames wants to remove the part about promoting it. The Planning Board needs to come at this from a more neutral position.
- Patoine-Page 5, J/K what does the Planning Board do in these sessions? Committee members agreed that something needs to be added. Galbraith will come up with adequate verbiage. "Shall not be allowed"
- Galbraith first step is an environmental assessment review then work around that land
- Rhames the fences they put around these farms will have an impact on wildlife, the larger habitat will not be able to get through
- Favreau allow solar development with all the appropriate regulations
- Rhames-regulate it in the public interest in the most economic way and this is not the most economical way.
- Patoine-can the state put pressure on the city to change this
- Deschambault no not unless there is a lawsuit
- Robbins LD2003 is an example, they can make us change anything they want
- Patoine-is the Conservation Commission comfortable on this document
- Rhames yes the BCC has been pleased that some of their concerns have been addressed.
- Robbins-He thought the ordinance would be more finished. He finds it difficult to read because it documents other parts of the ordinance. He doesn't think we should reference other ordinances we should put those ordinances in this ordinance.
- Galbraith, we site the ordinance link to keep up with the changes
- Favreau they are necessary and typical ordinance writing
- Robbins wants the link to be that when you hover over the link it tells what it is.
- Favreau that can be done.
- Rhames, Page 4, H, proposed decommissioning plan, written statement is weak, he feels there should be a performance bond.
- Favreau bonding for the construction of it. The state usually holds the bond on it.
- Patoine, major concern if one of the entities goes bankrupt, he does not want the citizens of Biddeford to pay.

- Galbraith, on leased property the owner is ultimately responsible.
- Favreau have Attorney Center review bonding language
- Rhames suggests they create a fund available to take care of this property in the end. This comes under private contracts so that the legislature does not have to be involved but it will impact on the citizens of the city.
- Revegetation plan be submitted and approved by the Planning Board.
- Rhames wants to know if there is a fund for remediation in place by the state already
- Patoine apart from the state, Biddeford has to look out for itself.
- Rhames the issue is how to get the industrial waste off the site.
- Galbraith what else are we missing
- Robbins- Page 7, J, during operations and maintenance there is nothing for contamination testing while it is in operation.
- Galbraith we talk about periodic soil testing.
- Patoine, can we put a time instead of periodic
- Robbins what is meant by soil testing
- Rhames explained agricultural soil testing, the question is what are we going to be testing for
- Deschambault previously we had soil and water testing, water is missing. She wondered why it is no longer included.
- Rhames there would be no water on the site
- Patoine-what happens with these tests? They would be sent to Planning for Review
- Rhames Page 8B, setbacks used so that others cannot see the panels other towns have 450' this is much less than 450'
- Favreau, these are industry standards this has buffering and fencing
- Robbins 75' is not much and he has battled fenced and buffered it doesn't really buffer much
- Patoine, Page 7, I, how to handle complaints, who is the judge of "completely conceal"
- Galbraith the buffers can be made larger, we could change them, Planning Board, Policy Committee and/or Council can change it.
- Patoine, is frontline 150' too much? Angers agrees
- Galbraith, Favreau 125/125/150
- Deschambault Page 5 third line from the bottom "shall be encouraged" encouraged by whom? Can we remove that? Who are we encouraging, that's why we have a vote?
- Conlan-we are encouraging these panels to go on previously disturbed land
- Rhames talked about how they put panels on the median of the autobahn. There are 30 acres of flat roof in the City that would be perfect for the panels.
- Galbraith they have talked about putting them on the former landfill
- Conlan priorities, if you encouraged them to go along the highway they don't have to go to the trouble of buffering or recreating the land, priority #3 do we even want that as a priority, maybe there should only be 2 priorities and then the rest is prohibited.

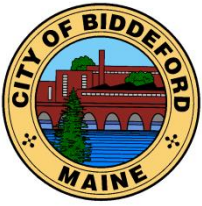
- Robbins-is there something in the ordinance discouraging using wooded areas for the panels.
- Favreau it is in saving the habitat, wildlife is important to us.
- Priority 3 leave prohibited areas
- Angers who will determine the prohibited areas
- Galbraith we have that information on the GIS sites.
- Galbraith, there are a few areas that need to be revised. We make the changes and go to the Planning Board
- The changed ordinance will be sent to both committees once it has been completed. Any comments will be sent to Favreau changes will be changed and sent to the Planning Board.
- Schedule is to get it to the Planning Board on February 19th then onto Policy Committee in March then onto City Council
- "Shall be encouraged" will be removed.
- Rhames can we not call it a solar farm or garden; it is an industrial site.

3. Adjourn 6:45 PM

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 Meeting Meeting Minutes

DRAFT

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

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
Quorum Present: Alexa Plotkin, Chair, Sue Deschambault, Roch Angers, Matt Dubois & Steve Beaudette*
Beaudette will be voting in place of Larry Patoine
Staff Present: David Galbraith & Nan Whitten
3. Adjustments to the Agenda-the Board will be hearing item 9A before 6A
4. Planner's Business-None
5. Consent Agenda
5.A. Review for approval Meeting Minutes for January 15, 2025
MOTIONS: 6:02 PM
Motion- Angers-Motion to approve Consent Agenda
Second- Dubois
Vote- Motion passed unanimously
6. Open-Public Meeting 6:29 PM
6.a. 2025.05 The Planning Board will review a proposed Zoning Amendment modifying an area of R-2 to MSRD-2. The subject area is bordered to the North at Union Street, east of Alfred Street and west of Elm Street, but includes some properties along Marshall Avenue. The proposed rezoning areas are within the downtown and currently adjacent to the MRSD2 zone along the northern boundary. This proposed amendment has been sent to the Planning Board by the City Council.
 - Galbraith introduced the proposed amendment
 - He told the Board about the maps and what needed correcting.
 - He said this area was proposed in order to create more housing.
 - NO PUBLIC COMMENTS
 - Plotkin asked why other areas closer to downtown were not included.
 - Beaudette asked for the reasoning with the border used excluding a few properties on Alfred to Fog Avenue. It was explained that those properties were in a different zone.
 - Plotkin asked for a better understanding of why they were making the changes
 - Beaudette described other areas that have more continuous open space.

- Angers said that the area chosen is already dense asking to put more housing in this area is something he has a problem with and would like to hear from the public.
- Dubois pointed out that the biggest change is setback reduction
- Galbraith said that it is also less of a minimum lot size therefore allowed more units.
- Dubois suggested they pick and choose lots
- Plotkin answered that they have to look at areas and would like time to give it more thought.
- Deschambault said she is not comfortable with it because there is a lot of traffic and tenement housing.
- Galbraith suggested everyone take a closer look at where they can add more units.
- Dubois suggested the Board look at amending Office Residential Zones.
- Plotkin asked how that worked with LD2003.
- Galbraith explained how LD2003 ties into these proposals.

7. Close Public Hearing 6:50

8. Unfinished Business-None

9. New Business

9.a 2025.03 The Planning Board will review a Sketch Plan for Reveler LLC for a proposed redevelopment at 2 York Street (Pepperell Mill Building 30). The parcel is mapped as Map: 71, Block: 6-2 and located in the Main Street Revitalization District - High Density/ Mixed-Use (MSRD-3) zoning district. The existing site is the location of a vacant mill building. The project proposes a new property line adjustment to include the existing parking area adjacent to the building as well as redeveloping the existing building into (11) residential units, with some likely utility infrastructure upgrades and potential grading for accessibility.

- Galbraith introduced the project
- Representing the application: Mike Barton from Reveler & Zach Stevens from Acorn Engineering. Other members of the Reveler Team working on this project are Ryan Senator-Architect & Christine Beard-Historian
- This structure is the former Counting House for the Pepperell Mill
- The lot is 100% paved and they are making plans to remove some of the asphalt and soften the look
- Reveler will be asking for a waiver for Stormwater Review
- They are going for a Historic Tax Credit
- Replacing the windows to replicate the original windows some of which are on the back of the building.
- NO PUBLIC COMMENTS
- Deschambault asked if there would be an elevator, no, the first floor will be ADA compliant.
- Angers asked if the front façade would remain the same. The windows will be replaced in kind and an ADA ramp and vestibule will be added. The concrete walk out from will be cut and replaced for a water main.

- Angers mentioned that there is a lot of history in that building and it needs to be preserved.
- Galbraith reminded the applicant and Board that this project will also need approval from the Historic Preservation Commission
- Deschambault spoke of the history of Pepperell and that this building of Pepperell was the only one the public could see. She urged the applicants to retain the name of the Counting House. Deschambault asked if there was landscaping planned for the rear doors-yes. She also mentioned that the alley way on the side of the building is dark, and they should consider more lighting.
- Galbraith asked the Board if they would like a site walk, only 1 was interested.
- Plotkin asked about obtaining access to all of the parking areas, the applicant is working with the current owner on easements.
- Plotkin confirmed that these units are for rent, and they will be providing a unit as affordable in order to comply with Inclusionary Zoning.

9.c. 2024.63 The Biddeford Planning Board will hold a public meeting to review and discuss a Final Subdivision Request for Westbrook Development Corporation to split the lot and create 2 affordable senior housing buildings to include approximately 90 residential units (45 units in each building) at 15 Pearl Street (Tax Map 71, Lot 2) in the MSRD-3 Zone. ITEM POSTPONED TENTATIVELY TO FEBRUARY 19, 2025

10. Other Business

11. Adjourn 6:50 PM

Planning Board Chair/Vice Chair

Date

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Article VI. Performance Standards

Section 79. Solar Energy Systems

A. Purpose

1. The purpose of this ordinance is to allow and regulate, in the public interest, the development and use of solar energy systems and ~~to protect solar access~~, to increase local renewable energy production, to decrease our reliance on fossil fuels to produce electricity, and to reduce carbon emissions.
2. The allowance of solar photovoltaic installations is to be accomplished pursuant to the standards set forth herein for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, scenic, natural resources, especially the protection of wildlife habitat and significant wildlife corridors, and historic resources, and provide adequate financial assurance for the eventual decommissioning of such installations.

B. Definitions

1. **Agrivoltaics** – Dual use of land for both solar energy production and agriculture.
2. **Building-Integrated Photovoltaic (BIPV) Systems**. A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or the façade and which does not alter the relief of the roof.
3. **Electricity Generation** (production, output). The amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatt-hours (kWh) or megawatt-hours (MWh).
4. **Electrical Equipment**. Any device associated with a solar energy system, such as an outdoor electrical unit/control box, that transfers the energy from the solar energy system to the intended location.
5. **Mounting**. The manner in which a solar PV system is affixed to the roof or ground (i.e., roof mount, ground mount, pole mount).
6. **Pole-Mount System**. A solar energy system that is directly installed on specialized solar racking systems, that are attached to pole, which is anchored and firmly affixed to a foundation in the ground, and wired underground to an attachment point at the building's meter. Pole-mounted systems can be designed to track the sun (with single-axis or dual-axis tracking motors) and maximize solar output throughout the year.
7. **Power**. The rate at which work is performed (the rate of producing, transferring, or using energy). Power is measured in Watts (W), kilowatts (kW), Megawatts (MW), etc.
8. **Solar Array**. Multiple solar panels combined together to create one system.

9. **Solar Collector.** A solar PV cell, panel, or array, or solar thermal collector device, that relies upon solar radiation as an energy source for the generation electricity or transfer of stored heat.
10. **Solar Energy System.** A device or structural design feature, a substantial purpose of which is to provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation, or water heating.
11. **Solar Energy System, Ground-Mounted.** An Active Solar Energy System that is structurally mounted to the ground and is not roof-mounted; may be of any size (small-, medium- or large-scale).
12. **Solar Energy System, Large-Scale.** An Active Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 20,000 square feet.
13. **Solar Energy System, Medium-Scale.** An Active Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 2,001 square feet but less than 20,000 square feet.
14. **Solar Energy System, Roof-Mounted.** An Active Solar Energy System that is mounted on the roof of a building or structure; may be of any size (small-, medium- or large-scale).
15. **Solar Energy System, Small-Scale.** An Active Solar Energy System whose physical size based on total airspace projected over the ground is 2,000 square feet or less.
16. **Solar Glare.** The potential for solar panels to reflect sunlight, with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.
17. **Solar Photovoltaic (Solar PV) System.** Solar systems consisting of photovoltaic cells, made with semiconducting materials, that produce electricity (in the form of direct current (DC)) when they are exposed to sunlight. A typical PV system consist of PV panels (or modules) that combine to form an array; other system components may include mounting racks and hardware, wiring for electrical connections, power conditioning equipment, such as an inverter and/or batteries.
18. **Solar Panel (or module).** A device for the direct conversion of sunlight into useable solar energy (including electricity or heat).
19. **Solar Thermal System (Solar Hot Water or Solar Heating Systems).** A solar energy system that directly heats water or other liquid, or air, using sunlight.
20. **Tilt.** The angle of the solar panels and/or solar collector relative to horizontal. The optimal tilt to maximize solar production is perpendicular, or 90 degrees, to the sun's rays at true solar noon. True solar noon is when the sun is at its highest during its daily east-west path across the sky (this is also known as 0° Azimuth). Solar energy systems can be manually or automatically adjusted throughout the year. Alternatively, fixed-tilt systems remain at a static tilt year-round

C. Applicability

1. Notwithstanding the provisions of [1 M.R.S.A. § 302](#) or any other law to the contrary, the requirements of this Section shall apply to all roof-mounted, small-, medium-, and large-scale ground-mounted solar energy systems modified or installed 30 days after the approval of this ordinance.
2. All solar energy systems shall be designed, erected and installed in accordance with all applicable codes, regulations and standards.
3. Any upgrade, modification or structural change that materially alters the size, placement or output of an existing solar energy system shall comply with the provisions of this Section.

D. Performance Standards

1. Roof-mounted and building-mounted solar energy systems and equipment are permitted by right unless they are determined by a Code Enforcement Officer, with consultation from the City Engineer and/or the City Fire Chief to present one or more unreasonable safety risks including, but not limited to the following:
 - a. Weight load;
 - b. Wind resistance;
 - c. Ingress or egress in the event of fire or other emergency, or;
 - d. Proximity to ground mounted systems relative to buildings.
2. Roof-Mounted Solar Energy Systems must comply with the Dimensional Requirements applicable to structures within the zoning district in which such systems are to be located and the standards in Part III [Article III Official Zoning Map and Article V Establishment of Zones](#) of this Ordinance.
3. Small-Scale Ground Mounted Solar Energy Systems must comply with the Dimensional Requirements applicable to structures within the zoning district in which such systems are to be located and the standards in Part III Land Development Regulations of this Ordinance.

In addition to the standards in Part III of this Ordinance, Small-Scale Solar Energy Systems shall comply with the following standards:

- a. The Solar Energy System shall be less than 25 feet in height.
- b. The Solar Energy System shall be operated and located such that no disruptive electromagnetic or radio frequency interference with signal transmission or reception is caused beyond the property lines of the site.
- c. The Solar Energy System shall be located and designed to avoid, minimize, or mitigate any glare onto abutting properties or roadways.
- d. The Solar Energy System shall be located and designed to consider the visual character of the neighborhood in which it is constructed.
- e. The solar energy System shall not be located within the property setbacks.

4. Medium-Scale Ground-Mounted Solar Energy Systems shall comply with all requirements as stated in Part III Land Development Regulations of the Code of Ordinances. Such developments shall also require a Conditional Use Permit and Site Plan Review approval by the Planning Board. In addition to submission requirements in Article VII, Conditional Uses; Article XI Site Plan Review; and Article XII Floodplain Management, an application for medium-scale solar energy system development must also include:
- a. Written confirmation from the Utility to which the Solar Energy system will be connected confirming the solar operator has conditional or final approval to interconnect the Solar Energy System to the Utility Grid.
 - b. A description of the major components of the Solar Energy System proposed to be used, including manufacturer's specifications and cut sheets, and construction drawings showing all dimensions.
 - c. Erosion and sedimentation control narrative with plans and details.
 - d. Site plan(s) indicating all proposed construction and alteration of the project site, including changes to the landscape of the project area, filling, grading, earthmoving, vegetation clearing and planting, screening, fencing, Solar Energy System components, utilities (above and/or below ground) and all other aspects of the project.
 - e. Site plan(s) indicating water bodies, wetlands, flood hazard areas, and vernal pools.
 - f. A landscaping plan, prepared by a licensed forester, landscape architect or arborist, demonstrating compliance with all applicable landscaping and vegetated buffering requirements. At minimum, the landscaping plan must specify the locations, elevations and height above finished grade of all vegetation, berms, and plantings, and must identify the plant species and other materials that will comprise the elements used to establish any vegetated buffers and substantially screen the Solar Energy System from view from abutting residential properties, public roads, and public vantage points.
 - g. A long-term operations and maintenance plan providing for ongoing monitoring and inspections of all site improvements soils, and surrounding habitat. The plan must provide a method for maintaining sufficient financial resources for performing ongoing maintenance, mitigation, -and repair of the Solar Energy System and the project.
 - h. A proposed decommissioning plan for the removal of the Solar Energy System, disposal of system components, and stabilization of the site, which meets the requirements in Section 79 (109) of this Ordinance, and a written statement of the applicant's intent concerning the following:
 - i. Physical removal of any Solar Energy System components, structures, foundations, supports, fencing, or security barriers from the site.

- ii. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal laws and rules.
 - iii. Stabilization or re-vegetation of the site as necessary to minimize erosion and substantially return the site to its pre-construction state.
- i. A description of any proposed dual-use or co-location of the property, including but not limited to agrivoltaics. If no dual-use is proposed or intended on the property, an explanation as to why such dual-use or co-location is not practicable.
- j. A visual impact assessment that includes a line-of-sight profile analysis that illustrates what is visible and what is obstructed along a straight line running from the Solar Energy System and each Public Vantage Point. The Planning Board may require additional visual impact assessments, including digital view shed maps, if it determines in its sole discretion that such assessments are necessary for the Planning Board to evaluate the Solar Energy System's compliance with the scenic impact standards in Section 79 (D) (6) (h) of this Ordinance.
- j-k. An Environmental Impact Assessment and/or habitat impact assessment shall be created for the installations planned to be sited on or near areas noted within Biddeford's Global Information System (GIS) maps to include deer wintering areas, vernal pools, wetland habitat, and rare or threatened species habitat. Findings of adverse impacts to the habitat of threatened or endangered species shall preclude development of those areas.
5. In addition to the application requirements for Medium-Scale Ground Mounted Solar Energy Systems for Site Plan Review and to obtain a Conditional Use Permit, the application for Large-Scale Ground Mounted Solar Energy Systems shall also include:
- a. Evidence of financial capacity to construct, operate, and decommission the Solar Energy System.
 - b. Impact study prepared by a qualified consultant for the project site, hired, chosen by, and reporting to the City, but paid by the applicant, to determine all impacts on the environment, including, but not limited to wetlands, native vegetation, ~~and~~ wildlife habitat, and water quality, and the presence of any and all species invasive to Maine.
 - c. Site Plan(s) clearly identifying soil type and location of existing "Prime Farmland," and "Farmland of Statewide Importance," as well as locations of local or National Historic Districts or landmarks. These requirements shall be certified by a qualified professional.
6. In addition to Conditional Use application requirements for Medium-Scale Solar Energy Systems, other standards for Medium-Scale Ground-Mounted Solar Energy Systems are:
- a. Siting of Solar Energy Systems on previously disturbed land to the greatest extent possible shall be recommended, with the intent of preventing or reducing the conversion of current and former agricultural land or forests to solar installations. A priority hierarchy for siting solar systems should follow:

i. Priority 1: Former landfills, roof-mounted systems, former industrial or extractive sites, areas along highway corridors, parking lots, and other heavily disturbed parcels.

ii. Priority 2: Parcels with existing cleared land (older than 5 years) that is not agricultural in its history, municipal lots, and others.

The following areas may be considered for solar development if no other feasible alternative is possible:

Undisturbed wooded parcels and agricultural lands not identified below:

a.i. Prohibited Areas: Prime Agricultural Soils, Soils of Statewide Significance, deer wintering areas, vernal pool complexes, and other significant habitat. ~~Siting of Solar Energy Systems on unproductive land and previously disturbed land to the greatest extent possible shall be encouraged.~~

- b. The Solar Energy System shall be operated and located such that no disruptive electromagnetic or radio frequency interference with signal transmission or reception is caused beyond the property lines of the site.
- c. The Solar Energy System shall be located and designed to avoid, minimize, or mitigate any glare onto abutting properties or roadways.
- d. Wildlife Habitat: The Solar Energy System shall have no undue adverse effect on any portion of the property designated by the Maine Department of Inland Fisheries and Wildlife as Rare, Threatened, or Endangered Wildlife, Essential Wildlife Habitat, or Significant Wildlife Habitat. The applicant shall assess the potential impacts of the Solar Energy System on any such designated species or habitat, including any adjacent areas that are important to the maintenance of the affected species or habitat, and shall take measures to avoid, minimize, or mitigate impacts of the Solar Energy System on the habitat and the species that the area supports. The Planning Board ~~may~~ shall require the applicant to consult with the Maine Department of Inland Fisheries and Wildlife or a wildlife biologist preapproved by the Board in conducting such an assessment.
- e. Natural Areas: The Solar Energy System shall have no undue adverse effect on any portion of the property designated as a unique natural area or a Rare or Exemplary Plant and Natural Community in the City's Comprehensive Plan or by the Maine Natural Areas Program. The applicant shall assess the potential impacts of the Solar Energy System on any such designated natural area or community, including any adjacent areas that are important to the maintenance of the affected area or community, and shall take measures to avoid, minimize, or mitigate impacts of the Solar Energy System on the natural area or community. The Planning Board ~~may~~ shall require the applicant to consult with the Maine Natural Areas Program in conducting such an assessment.
- f. Historic or Archaeological Resources: The Solar Energy System shall have no undue adverse effect on any portion of the property that has been identified as containing a significant

historic or archaeological resource in the City's Comprehensive Plan or on the National Register of Historic Places, or is considered by the Maine Historic Preservation Commission or other pertinent authority as likely to contain a significant historic or archaeological resource. The applicant shall assess the potential impacts of the Solar Energy System on any such resource, including any adjacent areas that are important to the preservation of the resource, and shall take measures to protect these resources, including but not limited to, modification of the proposed location and design of the Solar Energy System, timing of construction, limiting the extent of excavation, physical or legal protection, or by archaeological excavation or mitigation. The applicant shall comply with all requirements of Article XV Historic Preservation Ordinance as applicable. The Planning Board ~~may~~shall require the applicant to consult with the Maine Historic Preservation Commission in conducting such an assessment.

- g. Revegetation: Any disturbed ground cover on the site shall be revegetated with pollinator friendly, native, and non-invasive vegetation.
- h. The Solar Energy System must be located and designed for minimal visual impact on the surrounding area, particularly when viewed from abutting residential properties or any Public Vantage Point.
 - i. A vegetated buffer comprising native vegetation that is at least half the width of the minimum setback requirement in Section 79 (D) (8) (b) of this Ordinance, and no less than six (6) feet in height from finished grade, shall be maintained along any property boundary line of a Solar Energy System that abuts a residential dwelling or a public road, except where necessary to accommodate a driveway entrance to the site. All vegetation shall be installed in such a manner so as to completely conceal solar energy system from view.
 - ii. Existing vegetation must be used to the greatest practical extent. If there is insufficient existing vegetation to create a vegetated buffer, the applicant shall plant and maintain native species of conifers and evergreens to adequately screen the Solar Energy System from view.
- i. Security Fencing: All components of the Solar Energy System, excepting overhead utility and communication lines and poles, shall be completely enclosed by a minimum 6-foot-high fence. The fence shall be elevated an minimum of 6 inches above the ground to accommodate crossings by small terrestrial animals. Functional alternatives to chain-link style fencing is encouraged.
- j. Operations and Maintenance: The applicant must provide for the long-term operation of the Solar Energy System and maintenance of the Solar Land Area, including ensuring that vegetation buffers are maintained, inspections are performed as needed, new instances of species that are considered invasive to Maine are removed, biannual soil testing is conducted and reported to the City, and the site is accessible to emergency responders in

the event of an emergency. This work shall be conducted in accordance with Maine State law.

7. In addition to the standards for Medium-Scale Solar Energy Systems as described above, Large-Scale Solar Energy Systems shall also comply with the following standards:

a. No solar development shall be constructed on land designated as “Prime Farmland” or “Farmland of Statewide Importance.”

b. No application for large-Scale Solar Energy System will be considered if the parcel has been deforested within five (5) years prior to application. This measure will ensure the parcel is maintained in its original state that will enable a thorough review of wildlife habitat, natural areas, and other sensitive areas. may be sited on land that has been forested within five (5) years of application.

~~a-c.~~ If a large scale development is planned, it may not be characterized at the time of application as a medium-scale development, with the intention of later expanding the project in phases until the development meets the definition of large-scale solar development.

~~b-d.~~ Agricultural Resources: The Solar Energy System shall have no undue adverse effect on any portion of the property containing prime agricultural soils or soils of statewide importance. The applicant shall assess the potential impacts of the Solar Energy System on any such soils, and shall take measures to avoid or minimize impacts to such soils. The Planning Board ~~may~~ shall require the applicant to consult with the Department of Agriculture, Conservation, and Forestry, Agricultural Resource Development Division, in conducting such an assessment. No topsoil or prime agricultural soil shall be removed from the site for installation of the Solar Energy System. All stockpiled topsoil shall be retained on site and reused in the landscaping plan for the site.

~~e-e.~~ Utility Connections: All on-site utility transmission lines and piping associated with the Solar Energy System shall be placed underground to the greatest extent practicable. The Planning Board may waive this requirement if the applicant can demonstrate that satisfying this requirement is not practicable based on requirements of the utility provider or specific site conditions.

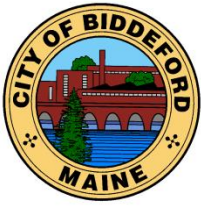
8. Dimensional requirements for medium-scale and large-scale Solar Energy Systems:

a. The Solar Energy System shall be less than 25 feet in Height.

b. Minimum Setbacks: The following minimum setback requirements must be met, regardless of the zoning district in which the Solar Energy System is located, unless the minimum setback requirement in the applicable zoning district is more restrictive, in which case the more restrictive requirement shall apply:

- i. Front Lot Line ~~75~~125 feet
- ii. Side and Rear Lot Line ~~75~~125 feet
- iii. Street Right-of-Way ~~100~~150 feet

- c. The land area of a Solar Energy System shall not exceed 50 acres exclusive of required setbacks.
9. All solar energy systems shall comply with regulations as outlined in [Part III](#) Article XIV Shoreland Zoning Ordinance as required.
10. Post-Approval Requirement for Medium-Scale Solar Energy Systems and Large-Scale Solar Energy Systems: Prior to the start of construction of a Medium-Scale Solar Energy System or Large-Scale Solar Energy System, the permit holder must submit to the Code Enforcement Officer a decommissioning plan and financial assurance approved by the Maine Department of Environmental Protection, in accordance with the requirements of 35-A M.R.S.A. Sections 3491-3496, as may be amended, for all costs associated with decommissioning the Solar Energy System.
11. Post-Construction Requirements for Medium-Scale Solar Energy Systems and Large Scale Solar Energy Systems: After completion of construction and prior to commercial operation of a permitted Medium-Scale Solar Energy System or Large-Scale Solar Energy System, the permit holder must:
- a. Submit to the Code Enforcement Department as-built drawings prepared by a Maine licensed professional land surveyor or engineer. The as-built drawings shall include the actual locations of the Solar Energy System and its components, any structures and their components, above and underground utilities, roads, swales, ditches, detention/retention facilities, areas of filling and grading, vegetated buffers, fencing, land and landscaping alterations, and any other infrastructure and facilities, all as actually constructed on the site. [The as-built drawings should also include any documented locations of invasive species, wetland areas, wildlife corridors, or habitat present on the site.](#) The as-built drawings must be accompanied by a letter signed by the surveyor or engineer certifying that the Solar Energy System had been constructed in accordance with all Planning Board approvals, including any conditions of approval and any accompanying plans and specifications.
 - b. Provide a written manual to the Biddeford Fire Department and Code Enforcement Department, which provides clear response information and instructions, including lock box details and disconnection locations necessary for a fire/emergency response at the site.



CITY OF BIDDEFORD

Planning and Development Department

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PLANNING BOARD STAFF REPORT

TO: Chair Plotkin and Members of the Biddeford Planning Board

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

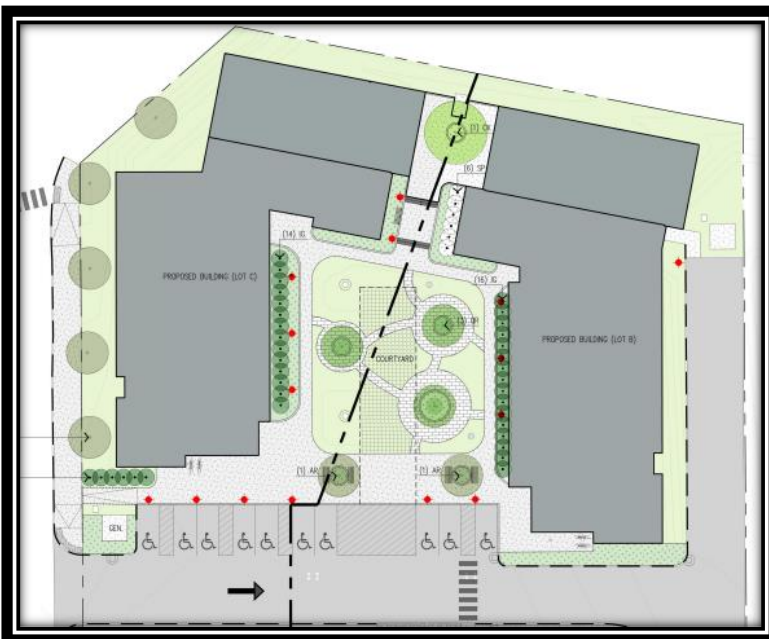
DATE: February 5, 2025

RE: **2024.63 The Planning Board will review a Final Site Plan & Subdivision Amendment application submitted by Acorn Engineering for Westbrook Development Corporation & 3 Lincoln, LLC. The property is 15 Pearl Street, Lots 1, 1B & 1C (Tax Map 71, Lot 2) in the MSRD 3 zone. This lot is a portion of the former MERC site.**

MEETING DATE: February 19, 2025, at 6:00 PM

1. INTRODUCTION

This matter was last discussed at the Board's December 4, 2024, meeting where it received "Preliminary Plan Approval". Westbrook Development Corporation & 3 Lincoln Street, LLC are seeking to redevelop a portion of the former "MERC" site into three lots (lots 1A, 1B & 1C).



As previously presented to the Board, Lot 1 A will remain vacant at this time and Westbrook Development Corporation (WDC) is seeking subdivision approval for Lots 1B and 1C with affordable senior housing with approximately 45 units each building/lot (90-units total), located at 15 Pearl Street (Tax Map 71, Lot 2). It should be noted that Staff is working with the City's E-911 Addressing Officer regarding the addressing of these properties, and the buildings will be named "The Acadia" and "Quebec Commons" for additional building identification. The subject property is located within the City's MSRD-3 zoning district and Lot 1C is 22,591 square feet in area (0.519-acres) and Lot 1B is 27,774 square feet (0.638-acres) with a combined

acreage of 1.157acres in area.

**Proposed Subdivision Lines – Shown on Landscape Plan
Lots 1B and 1C – 90-unit (total) senior housing**

2024.63 Final Site Plan & Subdivision Amendment for Westbrook Development Corp & 3 Lincoln, LLC to redevelop a portion of the former “MERC” site into 3 lots with 2 of the lots having affordable senior housing with approximately 45 units each, located at 15 Pearl Street (Tax Map 71, Lot 2) / Final Plan & Subdivision Amendment.

Planning Board Meeting Date: February 19, 2025

As illustrated above, the application includes the division of “Lot 1” into three (3) parcels. Lot 1A is proposed vacant, at this time, for a future development which will be integrated with the proposed two planned residential buildings. The proposed four-story building on Lot 1B has a building footprint of 8,747 square feet and will contain 45-units +/- . The proposed building on Lot 1C is also a four-story structure, with a footprint of 8,680 square feet and will also contain 45-units+/- . The buildings are being designed as a complex / residential campus and will share a common courtyard. Employee and tenant parking will be provided within the adjacent municipal parking garage, located to the immediate east. Prior to Occupancy Permits being issued for each building, parking spaces, within the municipal parking garage, meeting the City’s required parking standards, shall be provided and the Applicant shall provide the City proof of long-term parking lease agreements.

As illustrated above, “Parcel 1” will be divided into three (3) lots, two of which, lots 1B and 1C, are proposed to be developed by WDC. Although the WDC lots will be situated on their individual lots the site has been designed as a single development sharing access, common space, parking etc. The primary reason for dividing the WDC property into two (2) lots is to more competitively compete in the Maine Housing’s project funding. They note that funding is extremely competitive and there are always more deserving projects than there is funding available. As such, it is not uncommon for projects to need to reapply more than once for Maine Housing funding. Breaking the project into two parts would allow the projects to be approved either independently or together. If one of the projects didn’t get funding, it is likely that it would be eligible for funding the following year.

PROJECT DATA/INFORMATION

1.	Applicant:	Westbrook Development Corporation & 3 Lincoln, LLC
2.	Owner of Property:	City of Biddeford
3.	Agent:	Acorn Engineering PO Box 3372, Portland, ME 04103 390 US Route 1, Unit #10 Falmouth, ME 04105
4.	Engineer:	Acorn Engineering/Owen Haskell
5.	Project Location:	15 Pearl Street
6.	Project Tax Map #/Lot #:	Tax Map 71, Lot 2
7.	Lot Size:	8.4 Acres
8.	Base Zoning:	MSRD-3
9.	Overlay Zoning:	N/A
10.	Existing Use:	Vacant
11.	Proposed Use:	90 units of affordable senior housing
12.	Approvals Required:	Final Plan Approval
13.	Uses in the Vicinity:	Mixed Use
14.	Waivers Needed:	a. None
18.	Waivers Granted:	a. None

2024.63 Final Site Plan & Subdivision Amendment for Westbrook Development Corp & 3 Lincoln, LLC to redevelop a portion of the former “MERC” site into 3 lots with 2 of the lots having affordable senior housing with approximately 45 units each, located at 15 Pearl Street (Tax Map 71, Lot 2) / Final Plan & Subdivision Amendment.

Planning Board Meeting Date: February 19, 2025

22.	Other Non-City Permits Required:	
23.	Fees Paid:	Yes
25.	Planning Board Review History: Sketch 11-6-24, Preliminary 12-4-24, Final 2-19-25	

2. REVIEW PROCESS

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

Per City ordinance, this application is subject to Site Plan (Land Development Regulations, Article XI) and Subdivision Review (Chapter § 66-39) which review approval by the Planning Board. This requires the following:

- A. Site and Subdivision Sketch Plan Review;
- B. Site and Subdivision Preliminary Review;
- C. Site and Subdivision Final Review
- D. Historic Preservation Committee (HPC) – Architectural Review and approval

3. WAIVERS: None requested at this time

4. DEPARTMENTAL REVIEW COMMENTS:

- A. Staff and Peer Reviewer comments compiled by Wright-Pierce are attached

5. STAFF RECOMMENDATION

Staff continues to work with Westbrook Development Corporation resolving outstanding items, and they have been responsive to Staff’s comments. Staff recommend granting Final Site Plan and Subdivision approval.

6. SAMPLE MOTIONS

- A. Motion to Approve: I am motioning to APPROVE Case # 2024.63 a Final Site Plan & Subdivision Amendment application submitted by Acorn Engineering for Westbrook Development Corporation & 3 Lincoln, LLC. The property is 15 Pearl Street, Lots 1B & 1C (Tax Map 71, Lot 2) in the MSRD 3 zone, with the adoption of the provided Findings of Fact (FOF) and Conditions of Approval (COA).
- B. Motion to Deny I motion to DENY Case # 2024.63 a Final Site Plan & Subdivision Amendment application submitted by Acorn Engineering for Westbrook Development Corporation & 3 Lincoln, LLC. The property is 15 Pearl Street, Lots 1B & 1C (Tax Map 71, Lot 2) in the MSRD 3 zone, for the following reasons:

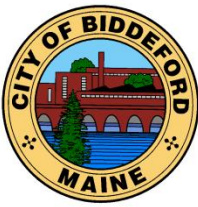
2024.63 Final Site Plan & Subdivision Amendment for Westbrook Development Corp & 3 Lincoln, LLC to redevelop a portion of the former “MERC” site into 3 lots with 2 of the lots having affordable senior housing with approximately 45 units each, located at 15 Pearl Street (Tax Map 71, Lot 2) / Final Plan & Subdivision Amendment.

Planning Board Meeting Date: February 19, 2025

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

C. Motion to Table: I motion to TABLE the Case # 2024.63 a Final Site Plan & Subdivision Amendment application submitted by Acorn Engineering for Westbrook Development Corporation & 3 Lincoln, LLC. The property is 15 Pearl Street, Lots 1B & 1C (Tax Map 71, Lot 2) in the MSRD 3 zone, for the following reasons:

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



CITY OF BIDDEFORD

Planning and Development Department

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FINDINGS OF FACT AND CONCLUSIONS OF LAW
2024.63 Final Plan Review; Site Plan, Subdivision
Westbrook Development Corporation (WDC)
Construction of 2 45-unit affordable housing buildings
15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

RE: 2024.63 Final Plan Review; Site Plan, and Subdivision for Westbrook Development Corporation (WDC) / Proposed Construction of 2 45-unit affordable housing buildings at 15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

Pursuant to the provisions of the City of Biddeford Code of Ordinances Land Development Regulations, Article XI (Site Plan Review), and Article VI (Performance Standards), the Biddeford Planning Board has considered the application of Based on its review, including supportive data, public hearing testimony and related materials contained in the record, the Planning Board makes the following Findings of Fact and Conclusions of Law:

1. PROJECT DATA/INFORMATION

1.	Applicant:	Westbrook Development Corporation 30 Liza Harmon Drive Westbrook, ME 04092
2.	Owner of Property:	City of Biddeford
3.	Agent:	Acorn Engineering PO Box 3372 Portland, ME 04103
4.	Surveyor:	Acorn Engineering & Owen Haskell, Inc.
5.	Project Location:	15 Pearl Street
6.	Project Tax Map #/Lot #:	Tax Map 71, Lot 2
7.	Lot Size:	8.4 Acres
8.	Base Zoning:	MSRD-3
9.	Overlay Zoning:	N/A
10.	Existing Use:	Vacant Lot
11.	Proposed Use:	Affordable Housing
12.	Approvals Required:	Site Plan and Subdivision Review
13.	Uses in the Vicinity:	Mixed use,
14.	Waivers Needed:	None
15.	Waivers Granted:	None

FINDINGS OF FACT AND CONCLUSIONS OF LAW
Westbrook Development Corporation (WDC)
2024.63 Final Plan Review; Site Plan, Subdivision
90-unit affordable housing development
15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

CONCLUSIONS OF LAW:

1. The proposed use meets specific requirements set forth in this ordinance and would be in compliance with applicable state or federal laws;
2. The proposed use would not create fire safety hazards by providing adequate access to the site, or to the buildings on the site, for emergency vehicles and would not create hazards through the storage of chemicals and wastes;
3. The proposed exterior lighting, where allowed, would not create hazards to motorists traveling on adjacent public streets or is adequate for the safety of occupants or users of the site or would not damage the value and diminish the usability of adjacent properties;
4. The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;
5. The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes;
6. The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets would not create hazards to public safety or traffic congestion;
7. The proposed use would generate a volume of traffic that can reasonably be accommodated by the existing road network, or would not create unreasonable traffic hazards or would not exacerbate an existing traffic hazard, or would not create unreasonable traffic congestion;
8. The proposed use would not have a significant, detrimental effect on the value of adjacent properties which could be avoided by reasonable modification of the proposal;
9. The proposed use would not have an adverse impact on the privacy of the residents of the immediate area (within 500 feet) which could be avoided by reasonable modification of the proposal;
10. The proposed use would be in compliance with Biddeford's Comprehensive Plan;
11. The proposed use would not have an adverse impact on the immediate neighborhood or the community relative to architectural design, scale, bulk and building height, identity and

FINDINGS OF FACT AND CONCLUSIONS OF LAW
Westbrook Development Corporation (WDC)
2024.63 Final Plan Review; Site Plan, Subdivision
90-unit affordable housing development
15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;

12. The design of the site would not result in significant flood hazards or flood damage or would be in conformance with applicable flood hazard protection requirements;
13. Adequate provision has been made for disposal of wastewater or solid waste or for the prevention of ground or surface water contamination;
14. Adequate provision has been made to control erosion or sedimentation;
15. Adequate provision has been made to handle stormwater runoff or other drainage problems on the site; and the proposed development will not unduly burden off-site surface water systems;
16. The proposed water supply would meet the demands of the proposed use for fire protection purposes;
17. Adequate provision has been made for the transportation, storage, and disposal of hazardous substances and materials as defined by state law;
18. The proposed use would not have an adverse impact on scenic vistas or on significant wildlife habitat or wetland areas and water bodies which could be avoided by reasonable modification of the proposal;
19. When located in the Shoreland Zone, the proposed use would meet the purposes of Shoreland Zoning as identified in Article XIV, Section 1 (Purposes) of this ordinance.

APPROVAL GRANTED:

Based on the evidence available and the conclusions above, the Biddeford Planning Board approves the proposed project summarized within the attached Staff report and pursuant to the provisions of the City of Biddeford Code of Ordinances Land Development Regulations, Article XI (Site Plan Review), and Article VI (Performance Standards), the Biddeford Planning Board has approved the application # 2024.26 for Final Site Plan Review; and Final Subdivision for Westbrook Development Corporation (WDC) for the proposed construction of 90-unit affordable housing development at 15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone with the recommended Findings of Fact (FOF) with the following Conditions of Approval (COA):

1. The material provided for the proposed project has been reviewed only for general conformance to the City technical requirements. The applicant(s) and/or their technical consultant shall be responsible for the actual design details and completeness of their work. It is incumbent upon the applicant(s) to ensure that the project is in conformance and complies with all City Codes, ordinances and regulations as well as with all state regulations, including, but not limited to, space

FINDINGS OF FACT AND CONCLUSIONS OF LAW
Westbrook Development Corporation (WDC)
2024.63 Final Plan Review; Site Plan, Subdivision
90-unit affordable housing development
15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

and bulk standards, performance standards, use standards and other zoning type requirements.

2. Standard Conditions of Approval apply.
3. All vehicle maneuvering, loading and unloading must occur on-site and shall not utilize Lincoln Street or Pearl Street for loading / unloading or backing into / out of the property.
4. Modifications to Approved Development Plans: The project shall be constructed in accordance with the approved development plans. No deviations to the approved development plans shall be made without prior written authorization by the City Planner. Should the Applicants desire a modification from approved plans, they shall be required to submit a formal letter requesting a “minor modification” to the approved development plans. The narrative shall be submitted outlining the request, the reasoning for the request (justification) and shall include plans illustrating the approved plans and proposed modifications. Changes beyond the authority of the City Planner shall be reviewed and approved by the Planning Board. It should be noted that review fees for any proposed changes may be assessed to the Applicant, for Staff or Peer Review time spent evaluating the request.
5. A Letter of Credit or other surety acceptable to the City of Biddeford shall be submitted prior to the issuance of permits or site work being initiated. The financial guarantee shall be established for 150% of the cost of the following improvements:
 - a. Landscaping
 - b. Paving
 - c. Work within ROW (existing or proposed)
 - d. Stormwater Drainage
 - e. Loam & seed
 - f. Sediment & erosion control
 - g. As-Built Plans
 - h. Property Monuments
4. Prior to any ground disturbance, the applicant shall establish a construction inspection account equal to: \$2,500.00.
5. Prior to any ground disturbance, a pre-construction meeting with the owner/applicant, contractor, and City is required. Contact the Engineering Department to schedule this meeting.
6. Contact the Department of Public Works for driveway location permits, curb cut permits and/or street opening permits prior to the start of construction.
7. An as-built plan must be provided to the City of Biddeford Engineering Office at the end of the project electronically, which can be read by the City of Biddeford's Geographic Information System software. Note: Any modifications to the Planning

FINDINGS OF FACT AND CONCLUSIONS OF LAW
Westbrook Development Corporation (WDC)
2024.63 Final Plan Review; Site Plan, Subdivision
90-unit affordable housing development
15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

Board approved development plans shall be reviewed and approved by the City Planner prior to being made, including any "field changes".

8. The applicant shall incorporate appropriate erosion control measures into this project to reduce erosion effects from the work. All disturbed areas must be re-vegetated and/or otherwise stabilized at the appropriate stage of the work per Maine DEP standards in the Best Management Practice (BMP) manual.
9. That the Article VI Performance Standards requirements regarding Dust, Fumes, Vapors & Gases (sect 25), Explosive Materials (sect 28), Glare (sect 37), Noise (sect 48) be followed.
10. The applicant shall obtain all other pertinent local, state and federal permits, licenses, and insurance such as blasting, building, electrical, plumbing, etc. prior to commencing business.
11. At the completion of the project the owner/applicant shall request a final inspection. This request shall be directed to the Engineering Department. Performance guarantees and remaining escrow accounts shall not be released until the Planning Office certifies that the project has been completed and is in compliance with the approval and all applicable City Ordinances.
12. The applicant shall submit approved plans for signature of the City's Planning Board, which shall be recorded in the York County Registry of Deeds. An electronic copy of the recorded plan shall be sent to the Planning Office.
13. Parking Garage: In addition to the "on-site parking" being provided, the Applicants are proposing to lease 61-parking stalls within the municipal parking garage located on Pearl Street. Copies of the executed perpetual parking lease agreements (61-parking stalls) shall be provided to the City's Planning Department prior to the issuance of an Occupancy Permit.
14. Parking – Annual Reporting: The Applicants shall provide the City's Planning Department copies of the executed parking lease agreements annually, to confirm that approved parking for the development remains conforming. Any desired modifications to the parking requirements or relocation of the required parking shall be reviewed and approved by the Planning Board. The required parking shall be maintained for the life of the project. The City shall be informed immediately of any lapses, modifications, or changes to the agreement.
15. Curb-Opening Permit Fee: Prior to the issuance of a Building Permit the Applicant shall pay the associated driveway / curb-opening fee.
16. Fire Department Requirements:

FINDINGS OF FACT AND CONCLUSIONS OF LAW
Westbrook Development Corporation (WDC)
2024.63 Final Plan Review; Site Plan, Subdivision
90-unit affordable housing development
15 Pearl Street (Tax Map 71, Lot 2), in the MSRD-3 Zone.

- A. The courtyard includes a dedicated fire lane which shall be constructed to support the City's largest emergency vehicle.
 - B. All drive aisles, dedicated fire lanes and sidewalks shall be maintained cleared of snow.
 - C. Pedestrian access behind the buildings shall be maintained, year-round, at the rear of the buildings to allow for Fire Department emergency ladder access behind the building.
 - D. The landscaping within the courtyard shall be trimmed when necessary to provide Fire Department ladder truck access and maneuverability.
 - E. Snow shall be stored in designated "snow storage areas" and/or hauled off site.
17. All construction traffic shall utilize the Lincoln Street curb-cut and is hereby restricted from using Pearl Street.
18. Sewer Connection Fee: Prior to the issuance of Building Permits for the two (2) 45-unit buildings, the Applicant shall provide a breakdown of bedrooms per unit, and any other water usages (public bathrooms/mop sinks/kitchens/dog wash) within the buildings or on the property. The connection fee will be calculated by the City's Engineering Department, at the time of building permit issuance. This fee shall be calculated and paid prior to building permits being issued for each structure.
19. The Applicant shall provide the City with a copy of the approved MaineDEP Stormwater Amendment for the project, upon receipt.
20. This project is contemplated to be constructed in two (2) phases, which may be constructed on separate timelines as the projects require Maine State funding. The proposal includes the construction of two (2) multi-story buildings with a total of 90-units with *100% of the proposed units to be reserved as affordable housing, with funding sources managed by Maine Housing. As such, the approval timeline shall be as follows:*
- A. Phase One (Lot 1B): The first phase (Building 1 / Lot 1B) approval is valid through February 19, 2027. Building permits shall be issued and construction begun within this stipulated time, or the approval becomes invalid.
 - B. Phase Two (Lot 1C): The second phase (Building 2 / Lot 1 C), if funding is not appropriated as part of Phase 1, shall be valid until February 19, 2029. Building permits shall be issued and construction begun within this stipulated time, or the approval becomes invalid.

Alexa Plotkin Planning Board Chair

Date

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 8/5/2021 & REVISED 9/29/21

1. ALL SIDEWALK AND CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDEFORD STANDARDS.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDEFORD & MUTCD STANDARD.
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.
5. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
7. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
8. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
9. FOR FLOOD INFORMATION REFER TO FEMA MAP 23031C04526 EFFECTIVE DATE 7/17/2024.

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.

1. PROPOSED ACCESS, UTILITY, AND MAINTENANCE EASEMENT A FROM CITY OF BIDDEFORD TO LOTS 1, 2, & 3.
2. PROPOSED ACCESS, UTILITY, AND MAINTENANCE EASEMENT B FROM THE CITY OF BIDDEFORD TO THE CITY OF BIDDEFORD.
3. PROPOSED ACCESS EASEMENT C FROM CITY OF BIDDEFORD TO CITY OF BIDDEFORD FOR FIRE TRUCK ACCESS
4. PROPOSED ACCESS, UTILITY, AND MAINTENANCE EASEMENT D FROM CITY OF BIDDEFORD BENEFITING LOT 1, 2, & 3
5. PROPOSED ACCESS AND MAINTENANCE EASEMENT E FROM THE CITY OF BIDDEFORD TO 3 LINCOLN, LLC.

BASED ON THE EVIDENCE AVAILABLE AND THE CONCLUSIONS ABOVE, THE BIDDEFORD PLANNING BOARD APPROVES THE PROPOSED PROJECT SUMMARIZED WITHIN THE ATTACHED STAFF REPORT AND PURSUANT TO THE PROVISIONS OF THE CITY OF BIDDEFORD CODE OF ORDINANCES LAND DEVELOPMENT REGULATIONS, ARTICLE XI (SITE PLAN REVIEW), AND ARTICLE VI (PERFORMANCE STANDARDS), THE BIDDEFORD PLANNING BOARD HAS APPROVED THE APPLICATION OF FINAL MAJOR SUBDIVISION AND SITE PLAN REVIEW FOR A PROPOSED AND THE RECOMMENDED FINDINGS OF FACT (FOF) WITH THE FOLLOWING CONDITIONS OF APPROVAL (COA):

1. STANDARD CONDITIONS OF APPROVAL APPLY.
2. PRIOR TO THE SCHEDULING OF THE REQUIRED PRE-CONSTRUCTION MEETING THE APPLICANT SHALL MAKE ANY REQUIRED CHANGES TO THE PROJECT CIVIL PLANS FOR THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DIRECTOR.
 3. REQUIRED INSPECTIONS
 - 3.1. EROSION & SEDIMENT CONTROL INSPECTIONS
 - 3.1.1. NEEDS TO BE COMPLETED BY A CITY-APPROVED 3RD PARTY INSPECTOR AND PAID BY THE APPLICANT VIA THE INSPECTION FEE ESCROW BEING HELD BY THE CITY.
 - 3.1.2. INITIAL, MONTHLY, AND FINAL INSPECTIONS
 - 3.1.3. INSPECTION REPORTS NEED TO BE SUBMITTED TO THE ENGINEERING DEPARTMENT
 - 3.2. RIGHT-OF-WAY INSPECTIONS
 - 3.2.1. NEEDS TO BE COMPLETED BY CITY ENGINEERING DEPARTMENT
 - 3.2.2. FOR ALL PUBLIC ROAD, STORM, AND SEWER CONNECTIONS
 - 3.3. STORMWATER BMP INSTALLATION INSPECTIONS
 - 3.3.1. NEEDS TO BE COMPLETED BY THE DESIGN ENGINEER
 - 3.3.2. CONFIRMING STORMWATER FACILITIES INSTALLED CORRECTLY PER DESIGN
 - 3.3.3. INSPECTION REPORTS NEED TO BE SUBMITTED TO THE KRISTIE RABASCA & ENGINEERING DEPARTMENT
 - 3.4. POST-CONSTRUCTION BMP MAINTENANCE ANNUAL INSPECTIONS
 - 3.4.1. NEEDS TO BE COMPLETED ANNUALLY BY THE DESIGN ENGINEER OR 3RD PARTY INSPECTOR
 - 3.4.2. NEEDS TO ASSESS THE CURRENT CONDITION OF EACH BMP, WHAT REPAIRS ARE NEEDED, AND CONFIRM ON-GOING MAINTENANCE HAS OCCURRED.
 - 3.4.3. ANNUAL INSPECTION REPORTS NEED TO BE SUBMITTED TO THE KRISTIE RABASCA & ENGINEERING DEPARTMENT
 - 3.5. SITE PUNCHLIST INSPECTIONS
 - 3.5.1. ONCE AS-BUILT DRAWINGS ARE SUBMITTED TO THE PLANNING DEPARTMENT (CLEARLY IDENTIFYING WHAT DEVIATIONS AND VARIANCES WERE INSTALLED BASED ON THE APPROVED PERMIT DRAWINGS), THE CITY ENGINEERING DEPARTMENT WILL CONDUCT AN INSPECTION.
 - 3.5.2. THE APPLICANT MUST GIVE PROPER JUSTIFICATION FOR ANY DEVIATIONS FROM THE APPROVED CITY PLANS. THE CITY PLANNER SHALL BE NOTIFIED IN WRITING, PRIOR TO CONSTRUCTION OF ANY DEVIATION FROM THE APPROVED DEVELOPMENT PLANS TO REQUEST A DE MINIMIS CHANGE/S. CHANGES BEYOND THE AUTHORITY OF THE CITY PLANNER SHALL BE REVIEWED AND APPROVED BY THE PLANNING BOARD.
 - SEWER PERMITS: FINALIZED AND PAID PRIOR TO BUILDING PERMIT ISSUANCE; PAYMENT COORDINATION TO GO THROUGH ENGINEERING DEPARTMENT.
 - AS-BUILT DRAWINGS AND CAD FILES NEED TO BE SUBMITTED TO THE PLANNING & ENGINEERING DEPARTMENTS PRIOR TO A "SITE PUNCHLIST INSPECTION" AND ANY BOND RELEASE.
 - YORK COUNTY RECORDING: RECORDING OF THE PROJECT CIVIL PLANS MUST BE SUBMITTED TO THE YORK COUNTY REGISTRY OF DEED DRAWINGS TO PLANNING & ENGINEERING DEPARTMENT PRIOR TO BUILDING PERMIT ISSUANCE.

SEE BELOW FOR THE PROPOSED WAIVERS

ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	LOT 1	LOT 2	LOT 3	LOT 4
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	EX: 5.32 AC PR: 1.82 AC	EX: 1.63 AC PR: 1.45 AC	EX: 5.32 AC PR: 2.08 AC	EX: 5.32 AC PR: 0.98 AC
MINIMUM STREET FRONTAGE	NONE	—	235'	211'	322'	87'
MINIMUM FRONT YARD SETBACK	NONE	—	N/A	16.5	N/A	N/A
MINIMUM REAR YARD SETBACK	NONE	—	N/A	17.7	N/A	N/A
MINIMUM SIDE YARD SETBACK	NONE	—	N/A	4.8	N/A	N/A
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	N/A	45'	N/A	N/A
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	N/A	N/A	347'
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	N/A	490'	N/A	N/A
SACO RIVER NO-CUT ZONE (SRCC)	—	75'	N/A	N/A	N/A	N/A
MAX LOT COVERAGE	100%	70% WITHIN SHORELAND ZONE	N/A	73±%	N/A	N/A

EASEMENT 'A' TABLE		
LINE	BEARING	DISTANCE
L1	N8°23'29"W	15.24'
L2	N32°37'34"E	32.97'
L3	N85°50'07"W	70.29'
L4	S81°47'23"W	70.50'
L5	S80°21'24"W	129.41'
L6	N8°23'02"W	10.00'
L7	N80°21'24"E	127.02'
L8	N81°43'45"E	71.79'
L16	S86°12'29"E	81.97'
L17	S85°49'14"E	304.84'
L18	S86°52'14"E	85.11'
L19	S2°15'45"E	10.05'
L20	N86°52'19"W	86.10'
L21	N85°50'07"W	302.04'
L22	S32°37'34"W	49.88'

EASEMENT 'B' TABLE		
LINE	BEARING	DISTANCE
L29	S11°07'57"E	38.69'
L30	S78°52'03"W	38.79'
L31	N2°15'45"W	10.60'
L32	N36°45'21"E	42.07'

EASEMENT 'C' TABLE		
LINE	BEARING	DISTANCE
L33	N81°59'37"E	42.41'
L34	N8°00'23"W	51.68'
L35	N87°50'14"W	43.49'
L36	S8°23'29"E	59.36'

EASEMENT "D" TABLE		
LINE	BEARING	DISTANCE
L37	S21°55'45"E	32.46'
L38	S86°52'19"E	48.55'
L39	S3°28'47"E	64.08'
L40	S78°50'33"W	50.30'
L41	S2°15'45"E	2.61'
L42	S36°45'21"W	42.07'
L43	N79°35'28"E	69.98'
L44	S27°54'28"W	66.49'
L45	N81°36'31"E	12.41'
L46	N27°54'28"E	67.05'
L47	N79°35'28"E	39.45'
L48	N47°34'34"E	55.96'
L49	N40°47'30"E	22.49'
L50	N3°28'47"E	25.34'
L51	N09°07'49"E	37.86'
L52	N0°00'02"E	11.61'
L53	N87°50'14"W	182.90'

PROPOSED PROPERTY LINE

EXISTING PROPERTY LINE

PROPOSED EASEMENT LINE

IRON ROD TO BE SET

IN PLAN BOOK _____, PAGE _____

ATTEST: _____
REGISTRE

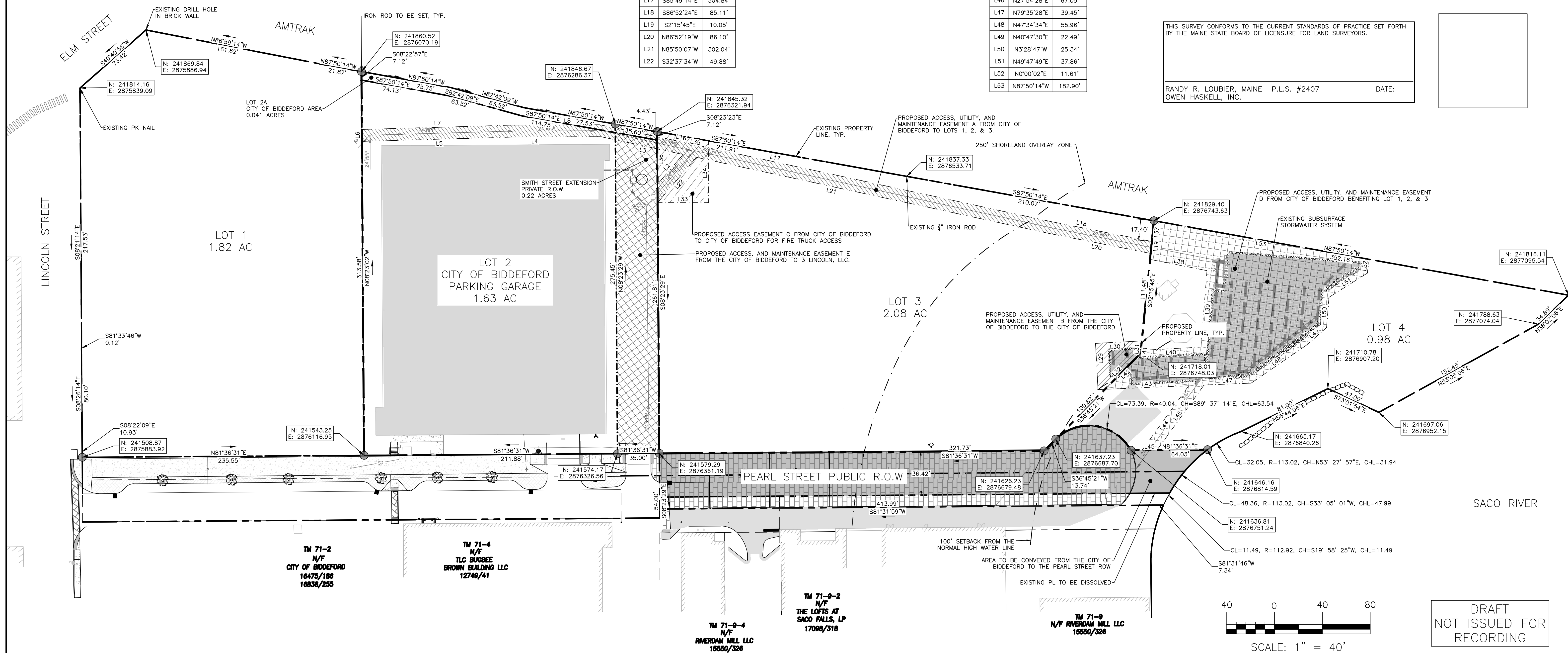
CITY OF BIDDEFORD
205 MAIN STREET
BIDDEFORD MAINE 04005

ACORN ENGINEERING, INC.
16 MIDDLE STREET, 3RD FLOOR
PORTLAND, MAINE 04103
CONTACT: PETER F. HEIL, P.E.

OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
CONTACT: RANDY LOUBIER, P.L.S.

THIS SURVEY CONFORMS TO THE CURRENT STANDARDS OF PRACTICE SET FORTH BY THE MAINE STATE BOARD OF LICENSURE FOR LAND SURVEYORS.

RANDY R. LOUBIER, MAINE P.L.S. #2407
OWEN HASKELL, INC.

[illegible]

OVERALL SITE PLAN

PROJECT: PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

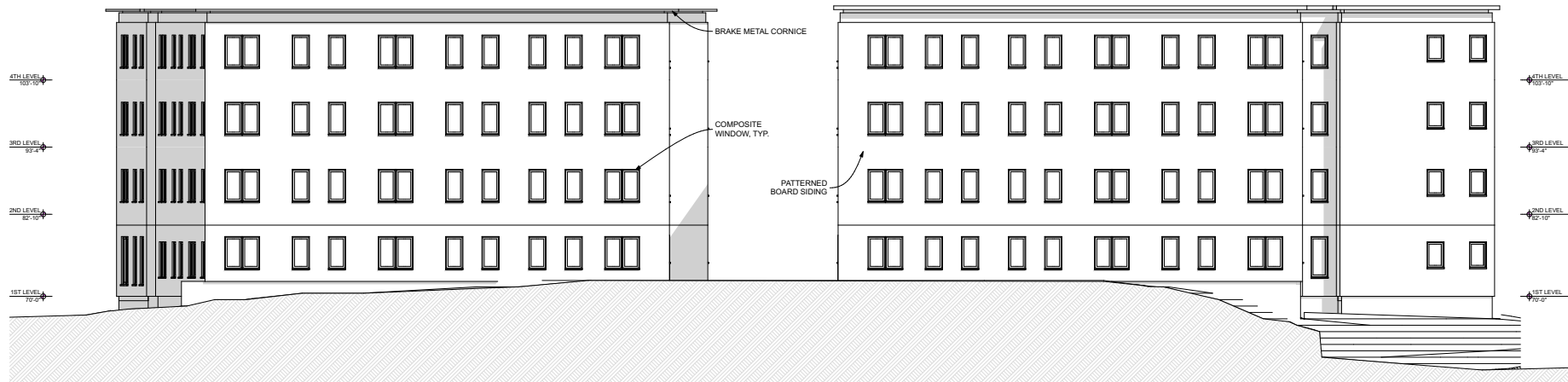
CITY OF BIDDEFORD
205 MAIN STREET, BIDDEFORD, ME 04005

	A C O R N	ENGINEERING, INC.	PROJECT NAME/AN	DRAWING NAME	ACORN ENGINEERING, INC. PO BOX 3572 MAINE 04101 (207) 775-0655
					THIS DRAWING WAS NOT PREPARED UNDER AGENCY EMPLOYMENT OR OTHERWISE SHOWN TO BE AT THE USER'S SOLE RISK AND AUTHORIZED FOR RELEASE TO THE PUBLIC BY THE USER'S AUTHORITY
			OWNER OF RECORD		

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

DRAWING NO.

PLAT



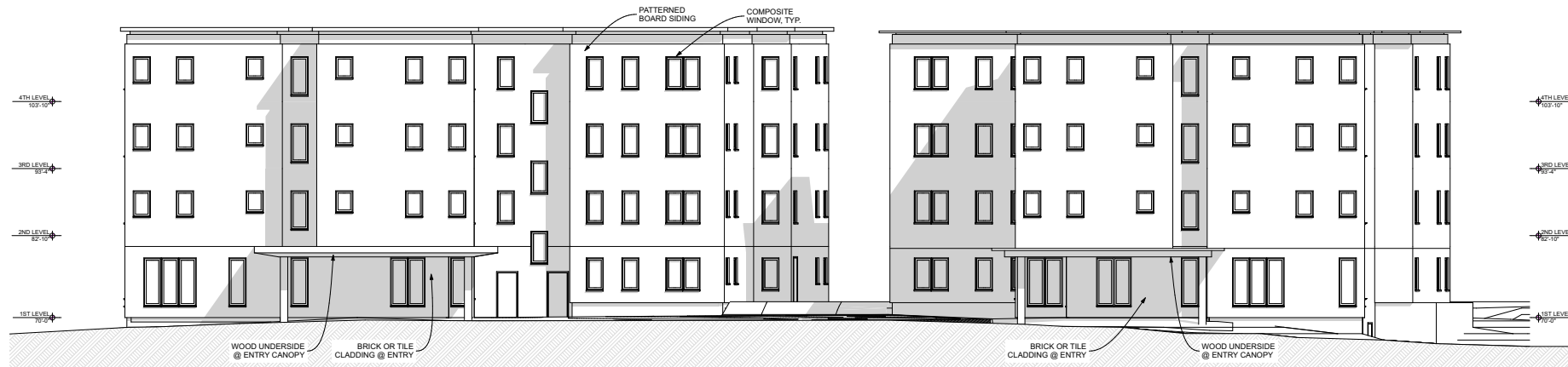
2 NORTH ELEVATION
SCALE 1/8" = 1'-0"



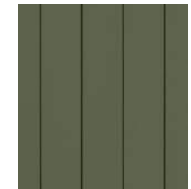
CLAPBOARD SIDING



MASONRY BASE



1 SOUTH ELEVATION
SCALE 1/8" = 1'-0"



CHANNEL SIDING



MASONRY BASE



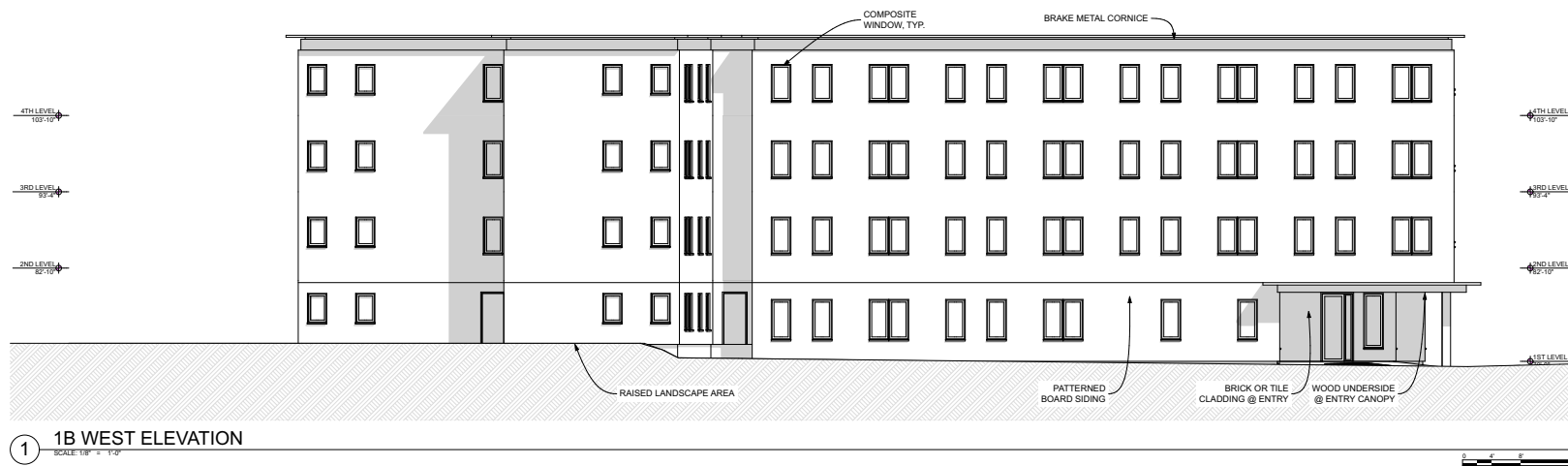
NORTH & SOUTH ELEVATIONS



CLAPBOARD SIDING



MASONRY BASE



CHANNEL SIDING



MASONRY BASE



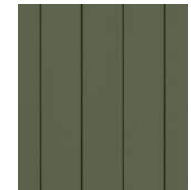
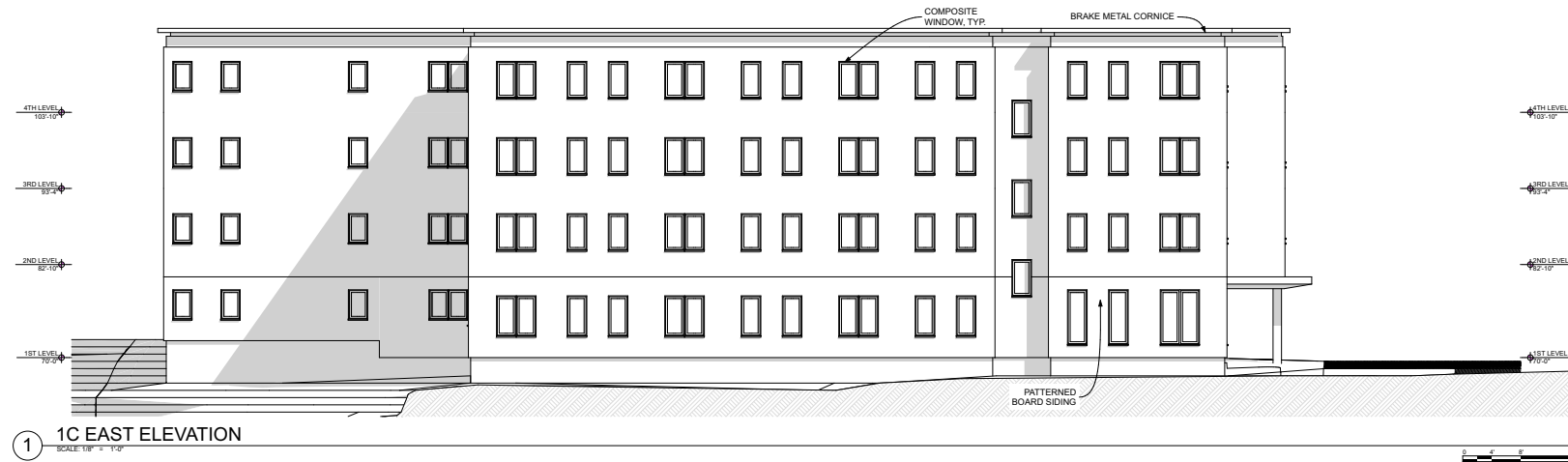
EAST & WEST ELEVATIONS - BUILDING 1B



CLAPBOARD SIDING



MASONRY BASE



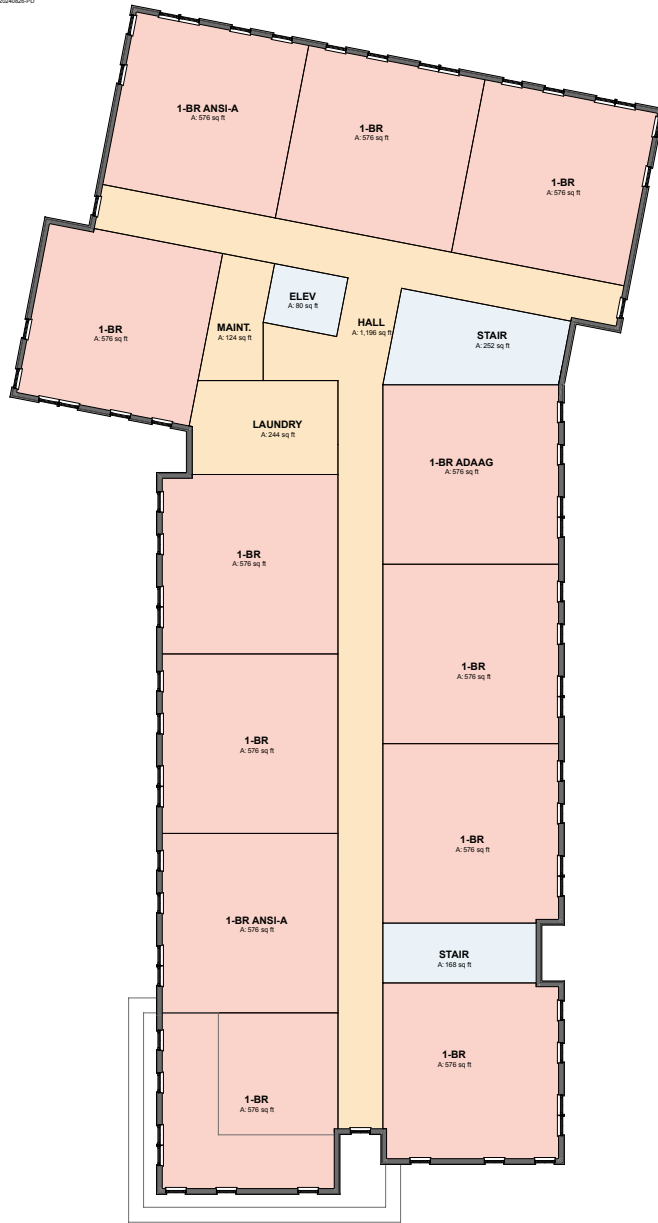
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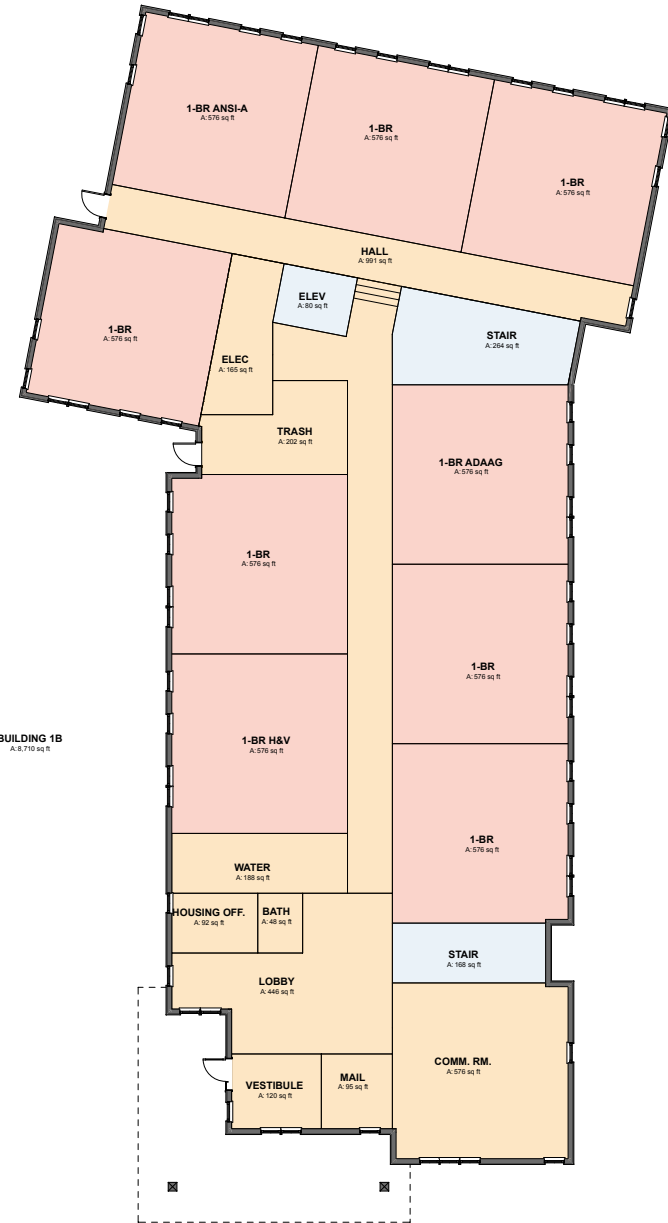
MASONRY BASE



EAST & WEST ELEVATIONS - BUILDING 1C



① UPPER LEVELS - 1B
SCALE: 1/8" = 1'-0"



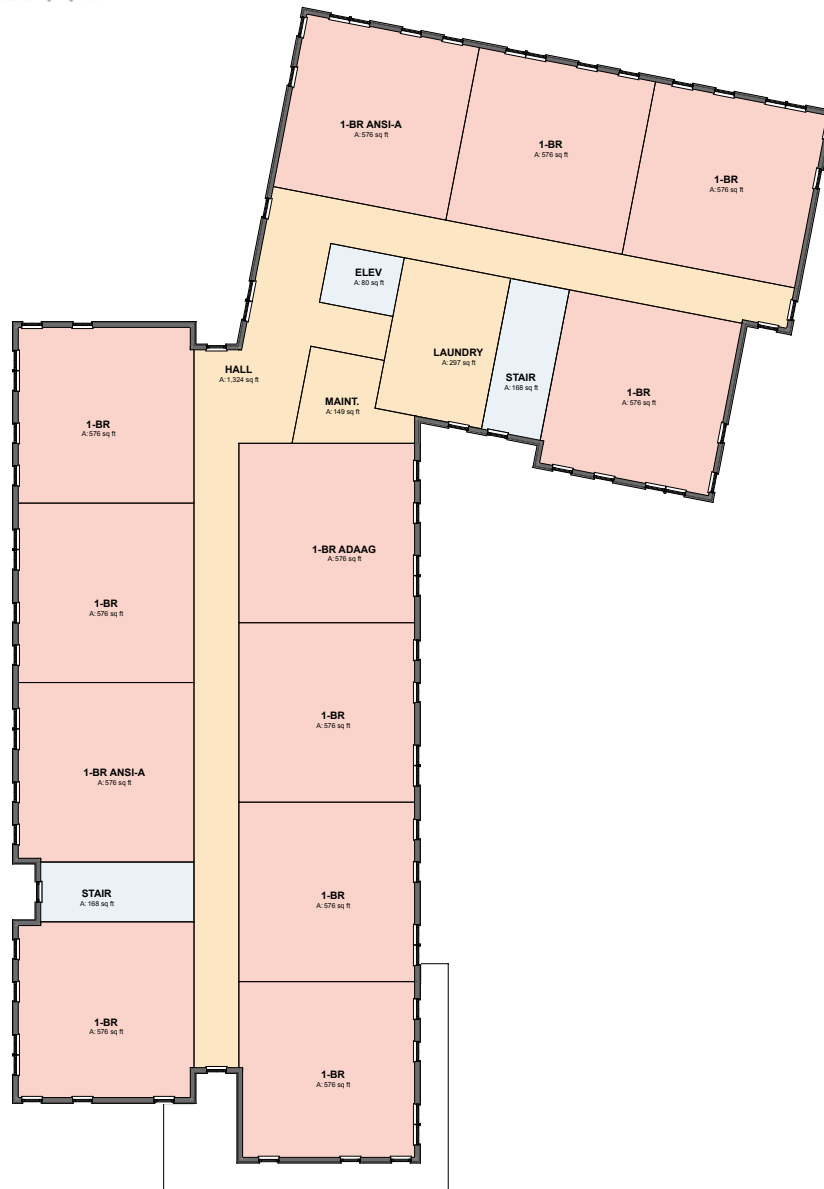
① 1ST LEVEL - 1B
SCALE: 1/8" = 1'-0"



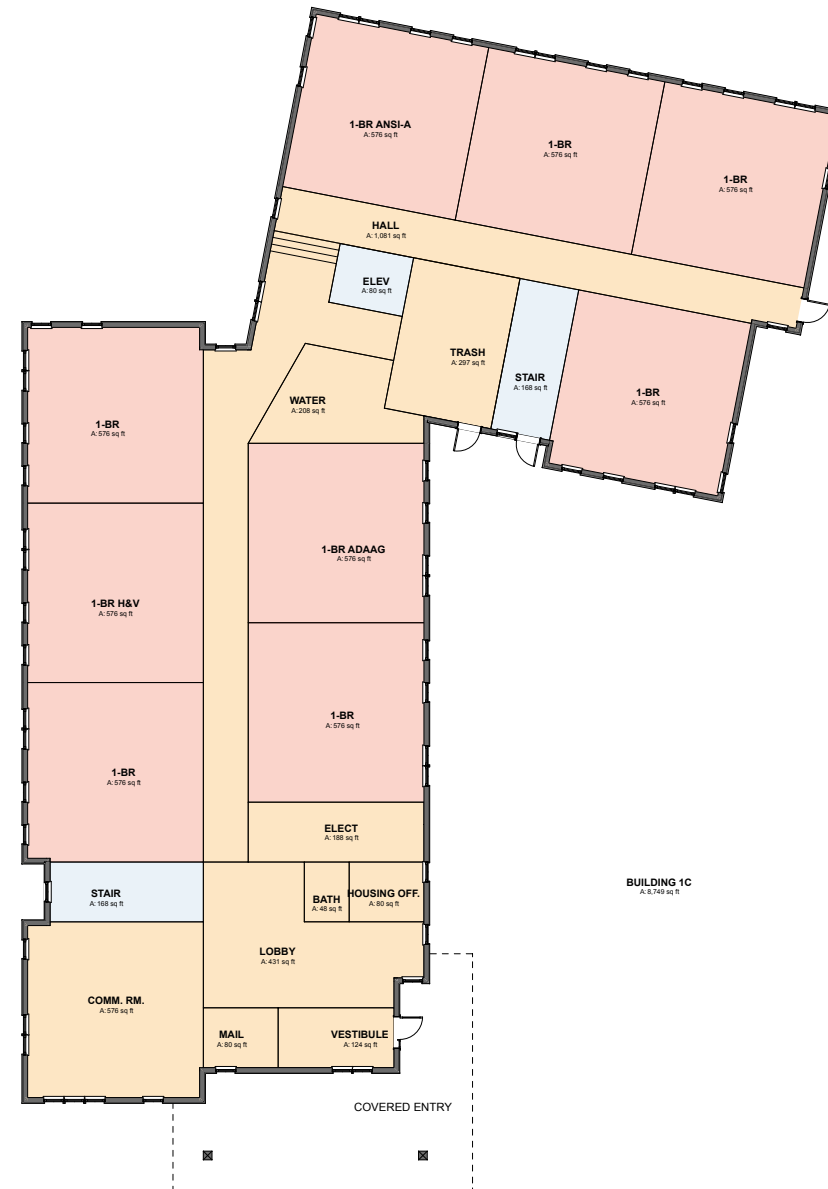
WDC_F



FLOOR PLANS - BUILDING 1B



② UPPER LEVELS - 1C
SCALE: 1/8" = 1'-0"



② 1ST LEVEL - 1C
SCALE: 1/8" = 1'-0"

WDC_F

FLOOR PLANS - BUILDING 1C

15 PEARL STREET (LOT 1B/1C) AFFORDABLE
SENIOR HOUSING REDEVELOPMENT

WESTBROOK DEVELOPMENT CORPORATION
WESTBROOK, MAINE

LEGEND

EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION

TURF PAVERS
GREEN SPACE
UTILITY PAVEMENT CUTS
PAVEMENT
CONCRETE
BRICK PAVERS
GRAVEL
DETECTABLE WARNING PLATE
HANDRAIL
STRIPING
SEDIMENTATION BARRIER
EDGE OF EX. PAVEMENT
CURB
FLUSH CURB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
BACK FLOW VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
PUMP STATION
UNDERGROUND ELECTRIC/TELECOM LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
FOUNDATION DRAIN
GAS LINE
STORM DRAIN LINE
SEWER LINE
FORCE MAIN LINE
EXISTING/PROPOSED BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE

PROPOSED

ECB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
BACK FLOW VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
PUMP STATION
UNDERGROUND ELECTRIC/TELECOM LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
FOUNDATION DRAIN
GAS LINE
STORM DRAIN LINE
SEWER LINE
FORCE MAIN LINE
EXISTING/PROPOSED BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE

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PLAT SUBDIVISION PLAT

EXISTING USE VACANT PARCEL
PROPOSED USE AFFORDABLE SENIOR HOUSING
DRAINAGE WATERSHED SACO RIVER
MS4 URBANIZED AREA YES
NEARBY NATURAL RESOURCES NO
WITHIN 100-YEAR FLOOD ZONE NO
PUBLIC ROAD PROPOSED NO
PRIVATE ROAD PROPOSED NO
PUBLIC SEWER CONNECTION YES
PUBLIC STORMDRAIN CONNECTION YES

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER:

DEPARTMENT OF ENGINEERING
205 MAIN STREET
BIDDEFORD, MAINE 04005
CONTACT: CRAIG CHECKAN, P.E.
(207) 284-9118

WATER:

MAINE WATER COMPANY
93 INDUSTRIAL PARK ROAD
SACO, MAINE 04072
CONTACT: PATRICK GERE, PE
(207) 282-1543

ELECTRIC:

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAY AGRESTE
(207) 207-842-2367

CABLE:

SPECTRUM CABLE
444 PERRY ROAD
BANGOR, MAINE, 04401
CONTACT: STEVEN HOLMES
(207) 631-1618

NATURAL GAS:

UNITIL SERVICE CORP.
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
CONTACT: SCOTT CARPENTER
(207) 541-2543

TELEPHONE:

CONSOLIDATED COMMUNICATIONS
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PATRICK MORRISON
(207) 745-9363

TOTAL DISTURBED AREA: 1.59 ACRES
PROJECT (1B & 1C) AREA: 1.15 ACRES

PERVIOUS LAND AREA
EXISTING: 0.52 ACRES
PROPOSED: 0.25 ACRES

IMPERVIOUS LAND AREA
EXISTING: 0.63 ACRES
PROPOSED: 0.89 ACRES

BUILDING ROOF SQUARE FOOTAGE
EXISTING: 0 SF
PROPOSED: 17,709 SF

PROJECT TEAM

DEVELOPER:

WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE,
WESTBROOK, MAINE
CONTACT: TYLER NOROD
(207) 854-9779

CO-APPLICANT

LOT 1B
QUEBEC COMMONS, LP
30 LIZA HARMON DRIVE,
WESTBROOK, MAINE
CONTACT: TYLER NOROD
(207) 854-9779

LOT 1C
ACADIA COMMONS, LP
30 LIZA HARMON DRIVE,
WESTBROOK, MAINE
CONTACT: TYLER NOROD
(207) 854-9779

CIVIL ENGINEER:

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: PETER F HEIL, P.E.
(207) 775-2655

ARCHITECTS:

KAPLAN THOMPSON ARCHITECTS
SOUTH PORTLAND, MAINE
CONTACT: JESSE THOMPSON R.A.
(207) 536-4672

SURVEYOR:

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: RANDY LOUBIER, PLS
(207) 774-0424

LANDSCAPE ARCHITECT:

SOREN DENIORD DESIGN STUDIO
PORTLAND, MAINE
CONTACT: SOREN DENIORD
(207) 400-2450

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
CAD	COMPUTER AIDED DESIGN
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
TP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

ISSUED FOR
DATE
10/23/24
PPH
PRELIMINARY
DATE
1/15/25
PPH
FINAL
DATE
1/15/25
PPH

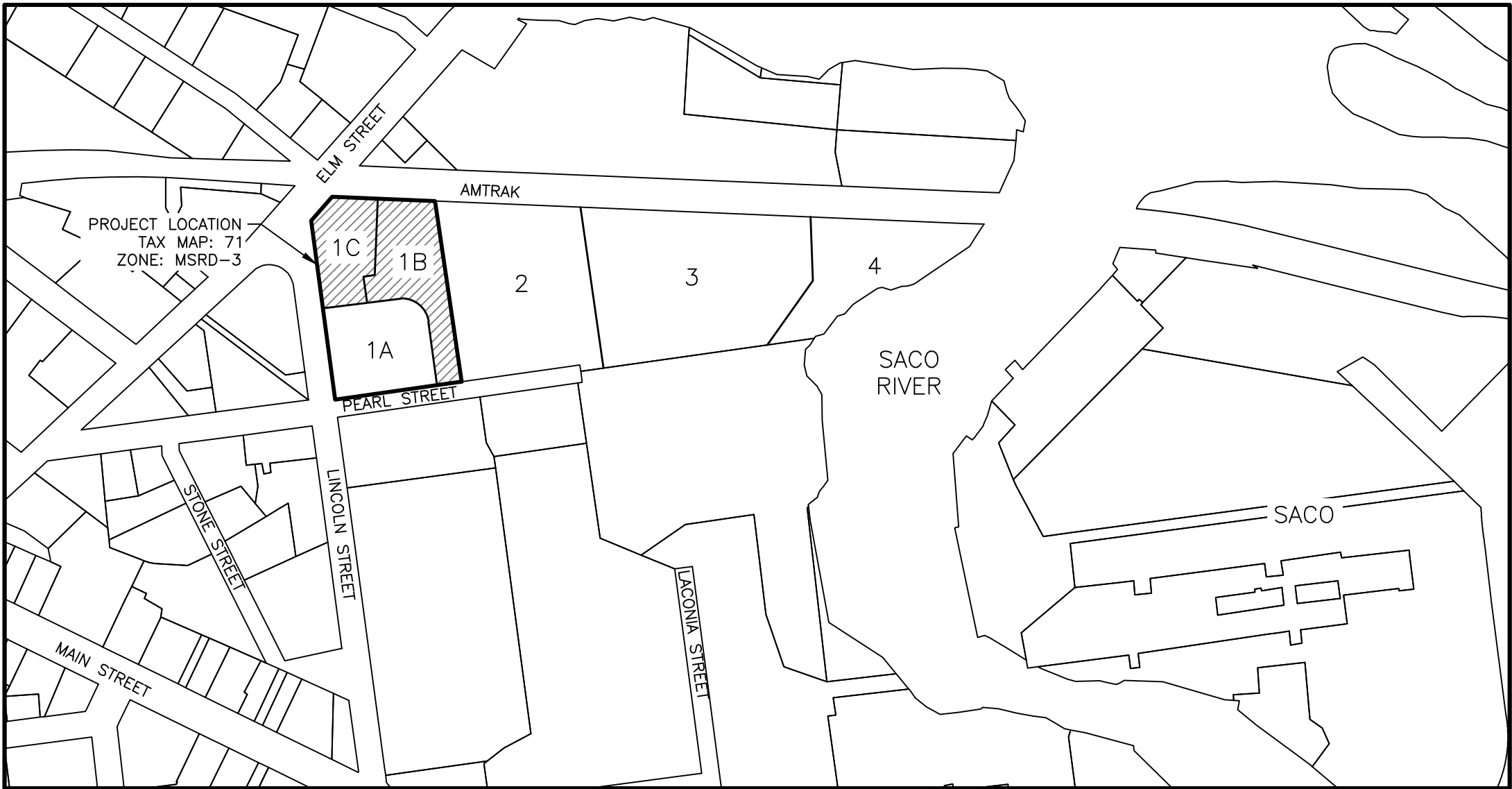
COVER SHEET & LEGEND
PROJECT NAME/ADDRESS
15 PEARL STREET (1B/1C) AFFORDABLE SENIOR
HOUSING REDEVELOPMENT, BIDDEFORD, MAINE
OWNER OF RECORD
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

ACORN ENGINEERING, INC.
15318
1/3/25
LICENSED PROFESSIONAL ENGINEER
PETER F. HEIL

STATE OF MAINE
11419
1/3/25
LICENSED PROFESSIONAL ENGINEER
WILLIAM H. SAVAGE

FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

DRAWING NO.
C-01



VICINITY MAP
SCALE: 1:250

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

3. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ALL 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 SERVING 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, INC. FOR THE CITY OF BIDDEFORD, DATED AUGUST 5, 2021. LAST REVISED AUGUST 29, 2021.
8. 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 THROUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE BIDDEFORD PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. CONSTRUCTION MANAGEMENT PLAN AND SITE LOGISTICS NARRATIVE SHALL BE PREPARED BY THE CONTRACTOR AND SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
11. 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.
12. 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 ADJACENT STRUCTURES. PROVIDE A COPY OF THE SURVEY TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
13. THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO ACORN ENGINEERING, INC. (ACORN).
14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC, 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 PAYER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

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.
3. IF NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT ARE NECESSARY. NOTIFY CITY 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.

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.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF MAJOR SITE PLAN & SUBDIVISION PERMIT FROM THE CITY OF BIDEFORD, SACO RIVER CORRIDOR COMMISSION APPLICATION, AND A MAINEPDE SITE LOCATION OF DEVELOPMENT (SITE LAW) APPLICATION AMENDMENT.
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 BIDEFORD. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

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 THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.
6. CONTRACTOR TO REVIEW EXISTING SOIL CONDITIONS, TEST PITS, AND BORINGS. THERE WILL BE NO ADDITIONAL PAYMENT FOR UNSUITABLE SOILS.
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.

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 SEDIMENTATION 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.

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 BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.
3. 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.
4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED AND SHOWN TO PASS PRIOR TO 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.
5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAINT ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.
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 THE MAINE WATER COMPANY & 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 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.

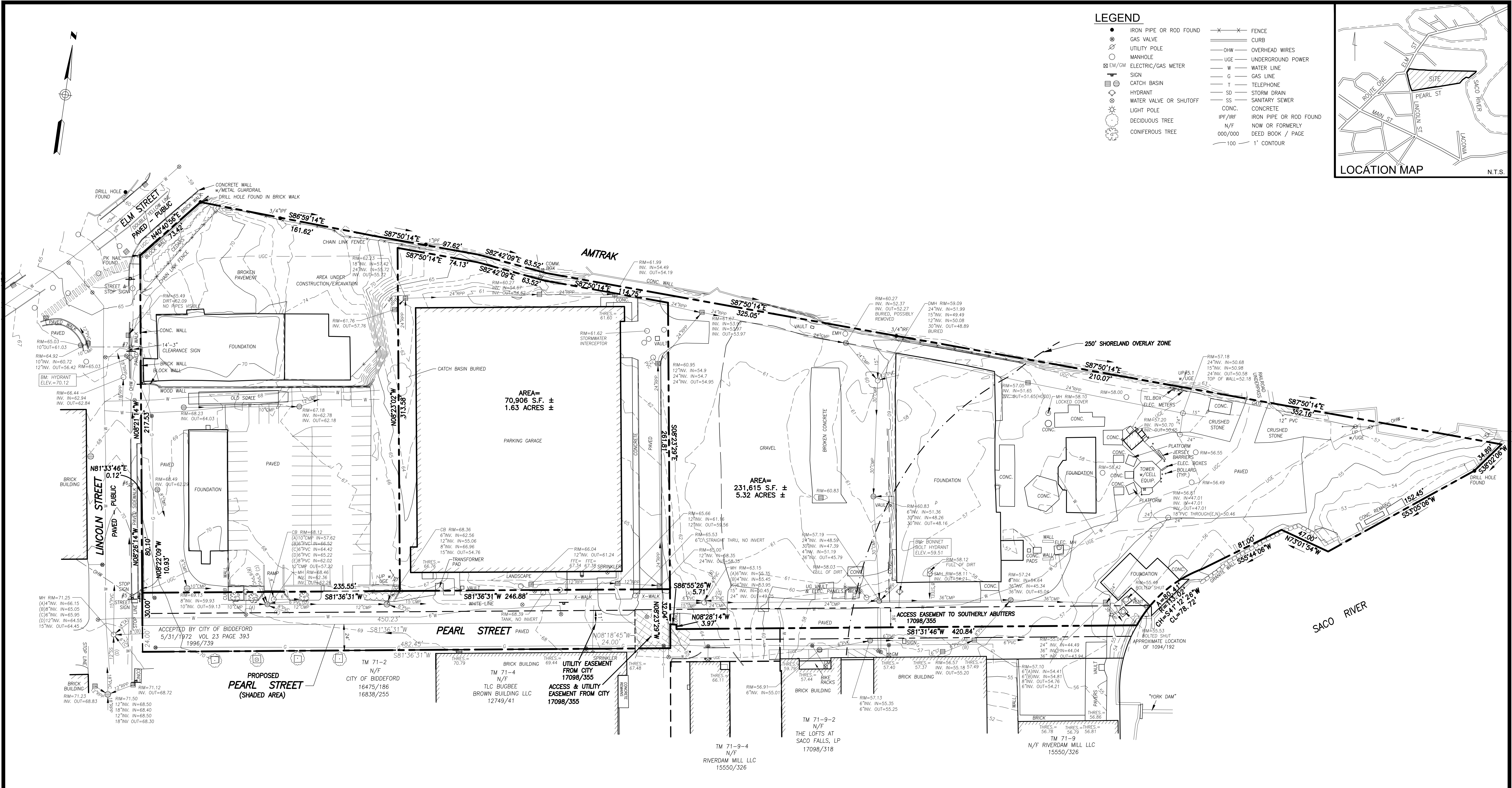
15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.
16. ALL UTILITY PIPES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. THERE SHALL BE NO CRESTS OR SAGS PERMITTED IN THE PIPING. 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.

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:

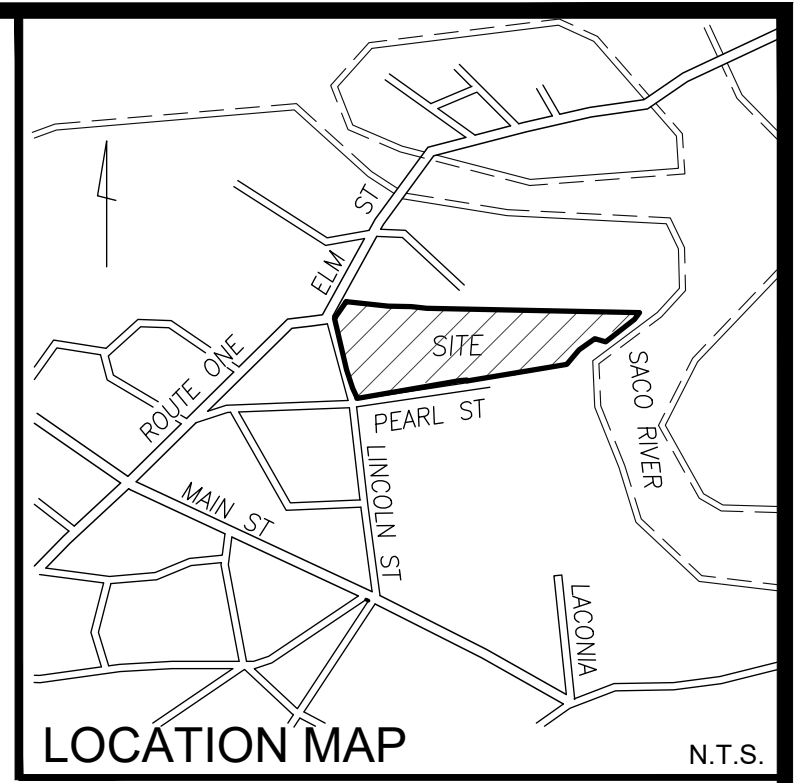
- ROCK AND CONCRETE FOUNDATIONS
- CONCRETE SLABS
- BITUMINOUS ASPHALT PAVEMENT
- CONCRETE PADS AND BLOCKS
- FENCE POST AND FENCING
- UNDERGROUND UTILITY LINES
- ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
- STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
- OTHER TRASH & MISCELLANEOUS SOLID WASTES

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. A PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR 15 PEARL STREET IS CURRENTLY BEING PREPARED BY TRC.
5. SOIL REMOVAL SHALL BE IN CONFORMANCE WITH THE MAINE DEP VRAP DATED JULY 6TH, 2015.

[illegible]



LEGEND	
●	IRON PIPE OR ROD FOUND
⊙	GAS VALVE
⊗	UTILITY POLE
○	MANHOLE
⊠	ELECTRIC/GAS METER
⊕	SIGN
⊞	CATCH BASIN
⊟	HYDRANT
⊠	WATER VALVE OR SHUTOFF
⊡	LIGHT POLE
⊢	DECIDUOUS TREE
⊣	CONIFEROUS TREE
—X—X—	FENCE
—	CURB
—OHW—	OVERHEAD WIRES
—UG—	UNDERGROUND POWER
—W—	WATER LINE
—G—	GAS LINE
—T—	TELEPHONE
—SD—	STORM DRAIN
—SS—	SANITARY SEWER
CONC.	CONCRETE
IPF/IRF	IRON PIPE OR ROD FOUND
N/F	NOW OR FORMERLY
000/000	DEED BOOK / PAGE
—100—	1' CONTOUR



PLAN REFERENCES

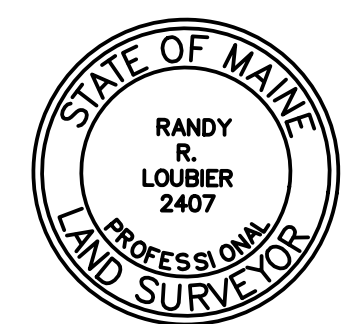
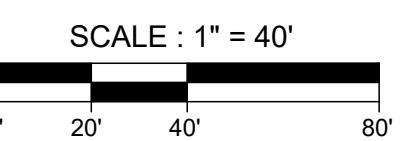
- PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD MAINE BY DOW & COULOMBE, INC. DATED JANUARY 15, 1985 REVISED THROUGH OCT. 4, 1986.
- ALTA/ACSM LAND TITLE SURVEY (URBAN) MADE FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD, MAINE BY DOW & COULOMBE, INC. DATED MARCH 15, 1996 REVISED THROUGH MAY 14, 2009.
- 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.
- 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.
- EXISTING CONDITIONS SURVEY ON PEARL STREET, BIDDEFORD, MAINE MADE FOR MILONE & MCBROOM BY OWEN HASKELL, INC. DATED APRIL 19, 2018.
- 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

- 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
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- ELEVATIONS ARE BASED ON NAVD 88 DATUM.

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.



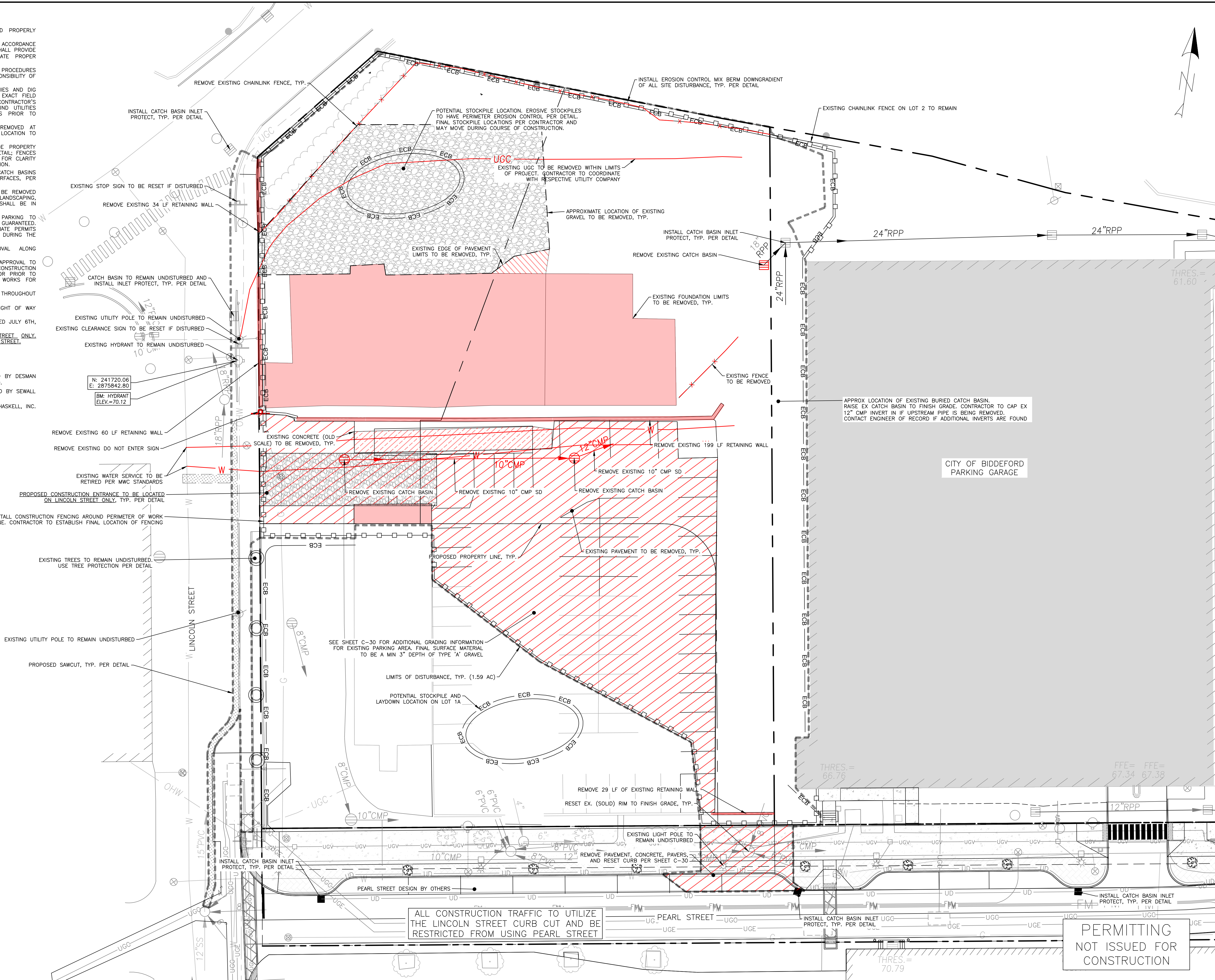
RANDY R. LOUBIER, PLS #2407

REV.1	9/29/21	REVISED PROPERTY LINE DISTANCE AT NW CORNER
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 5, 2021	JOB NO. 2021-168 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 SHALL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
 6. PLACE SEDIMENT BARRIERS 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 SUBMIT A DEWATERING PLAN FOR REVIEW AND APPROVAL TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE PRE-CONSTRUCTION MEETING, DURING THE BUILDING PERMIT APPLICATION PROCESS, OR PRIOR TO ADVANCED SITE WORK. CONTACT THE DEPARTMENT OF PUBLIC WORKS FOR ADDITIONAL INFORMATION AND CURRENT REGULATIONS.
 12. CONTRACTOR TO IMPLEMENT DUST CONTROL MEASURES THROUGHOUT CONSTRUCTION.
 13. CONTRACTOR TO PAVE UTILITY TRENCHES (IF ANY) WITHIN THE RIGHT OF WAY WITHIN 3 DAYS OF EXCAVATION OR PRIOR TO ANY RAIN EVENT.
 14. SOIL REMOVAL TO BE IN CONFORMANCE WITH MAINE DEP VRAP DATED JULY 6TH, 2015.
 15. CONSTRUCTION ENTRANCE TO BE LOCATED ON LINCOLN STREET ONLY. CONSTRUCTION EQUIPMENT MOBILIZATION IS RESTRICTED ON PEARL STREET.

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 8/5/2021 & REVISED 9/29/21



ISSUED FOR		BY
ATS	DATE	10/23/24
PRELIMINARY	DATE	1/15/24
FINAL	DATE	1/15/25

CONSTRUCTION MANAGEMENT PLAN	
PROJECT NAME/ADDRESS	15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE
OWNER OF RECORD	WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092	

ENGINEERING, INC.	
STATE OF MAINE	REGISTERED PROFESSIONAL ENGINEER
PETER F. HEIL	15318
1/3/25	

DRAWING NO.	
C-03	

PERMITTING	
NOT ISSUED FOR CONSTRUCTION	

FILE:	
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SCALE: AS NOTED	DESIGNED BY: PFH
DRAWN BY: ZMS	CHECKED BY: WHS

GENERAL NOTES:

1. ALL FINAL CONDITIONS OF 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.

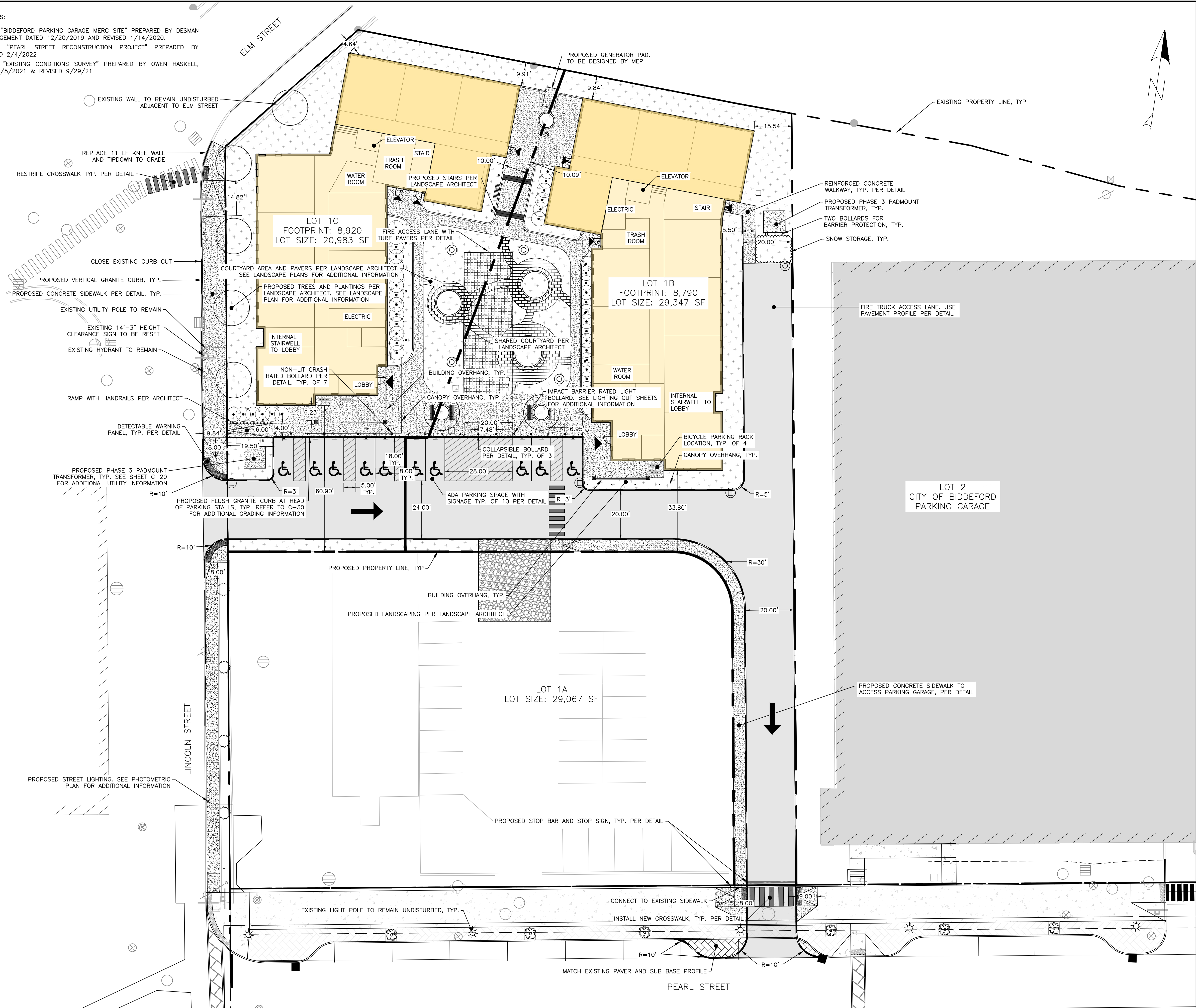
PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
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SPACE AND BULK STANDARDS			
ZONE:	REQUIRED (MSRD3)	PROPOSED LOT 1C	PROPOSED LOT 1B
MINIMUM LOT SIZE	NONE	20,983 SF	29,347 SF
MINIMUM STREET FRONTAGE	NONE	320 FT	35 FT
MINIMUM FRONT YARD SETBACK	NONE	4.64 FT	33.80 FT
MINIMUM REAR YARD SETBACK	NONE	9.91 FT	9.84 FT
MINIMUM SIDE YARD SETBACK	NONE	10 FT	10.09 FT
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	4 STORIES	4 STORIES
MINIMUM SHORE FRONTAGE	-	N/A	N/A
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	-	> 250 FT	> 250 FT
MAX LOT COVERAGE	100%	(14,758 SF) 70.3%	(24,269 SF) 82.7%

PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 1B	45	2 SPACE / 3 DWELLING UNIT FOR AFFORDABLE HOUSING UNITS = 30 SPACES	-
LOT 1C	45	2 SPACE / 3 DWELLING UNIT FOR AFFORDABLE HOUSING UNITS = 30 SPACES	-
-	-	1 SPACE / 2 EMPLOYEES = 1 SPACE	-
ADA (8'X18')	-	-	10
TOTAL SPACES	-	61	71*

* 61 ADDITIONAL SPACES TO BE PROVIDED IN PARKING GARAGE LOCATED ON LOT 2



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FINAL

DATE
10/23/24
11/15/24
1/15/25

BY
PFF
PFF
PFF

SITE PLAN

DRAWING NAME:

PROJECT NAME/ADDRESS:
15 PEARL STREET (1B/1C) AFFORDABLE SENIOR
HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD:
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

ACORN ENGINEERING, INC.

ENGINEERING, INC.

PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

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JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFF
DRAWN BY: ZMS
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
1/3/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

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GENERAL NOTES:

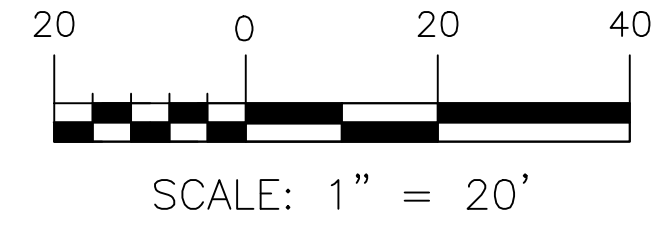
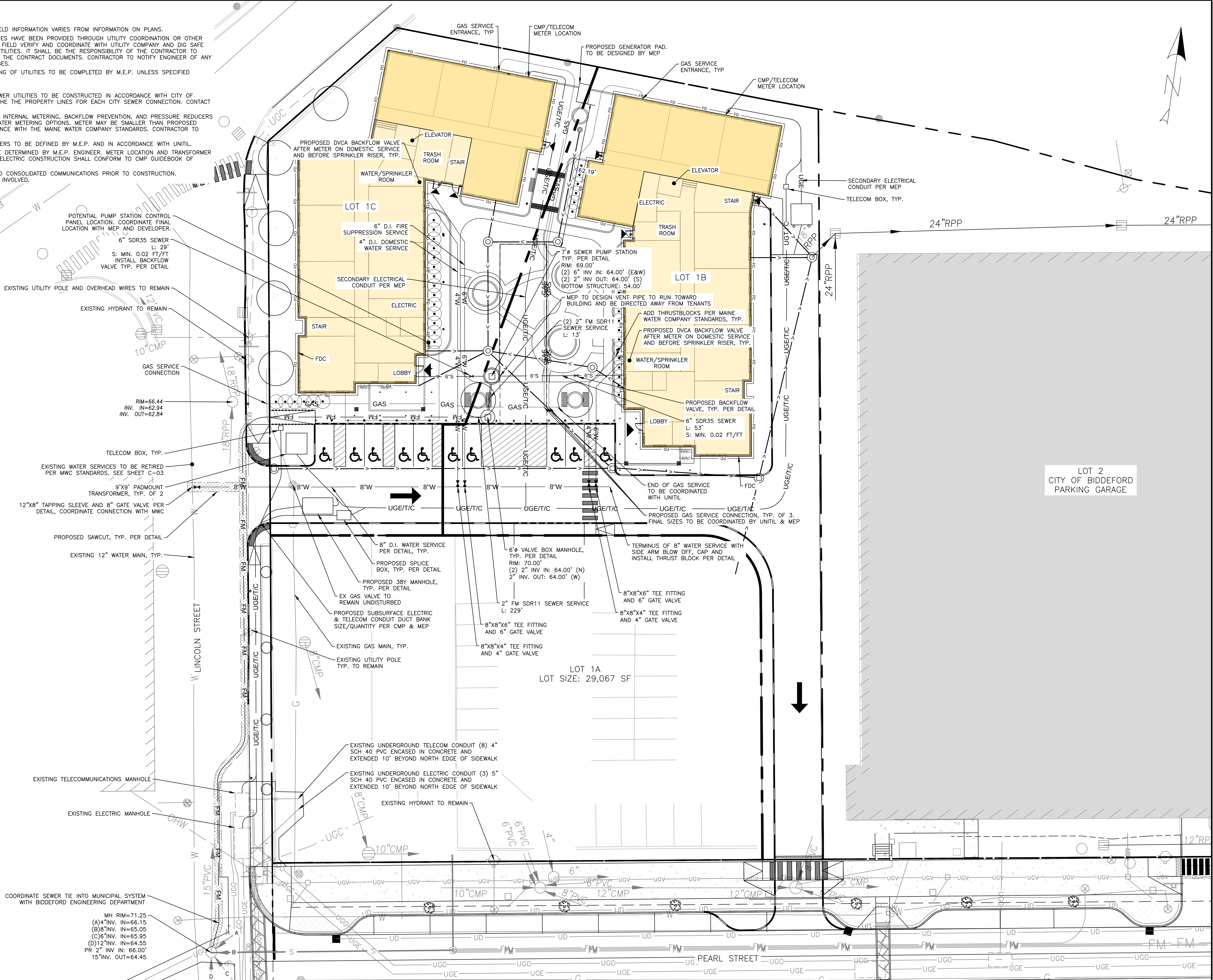
1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. 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 BIDEFORD 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 BIDEFORD.
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 UNTIL.
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.

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	-	6'	5'	4'	6'
WATER	6'	-	5"	6'	3'
SEWER	5'	5"	-	5'	10'
GAS	4'	6'	5'	-	3'
STORMWATER	6'	3'	10'	3'	-

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.

PLAN REFERENCES:

1. PLAN TITLED "BIDEFORD 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
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UTILITY PLAN

DRAWING NAME:

PROJECT NAME/ADDRESS:
15 PEARL STREET (1B/1C) AFFORDABLE SENIOR
HOUSING REDEVELOPMENT, BIDEFORD, MAINE

OWNER OF RECORD:
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

ACORN ENGINEERING, INC.

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

1/3/25

PROFESSIONAL ENGINEER

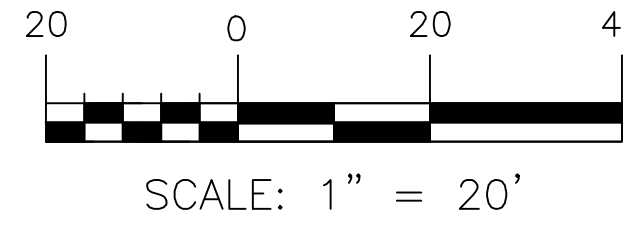
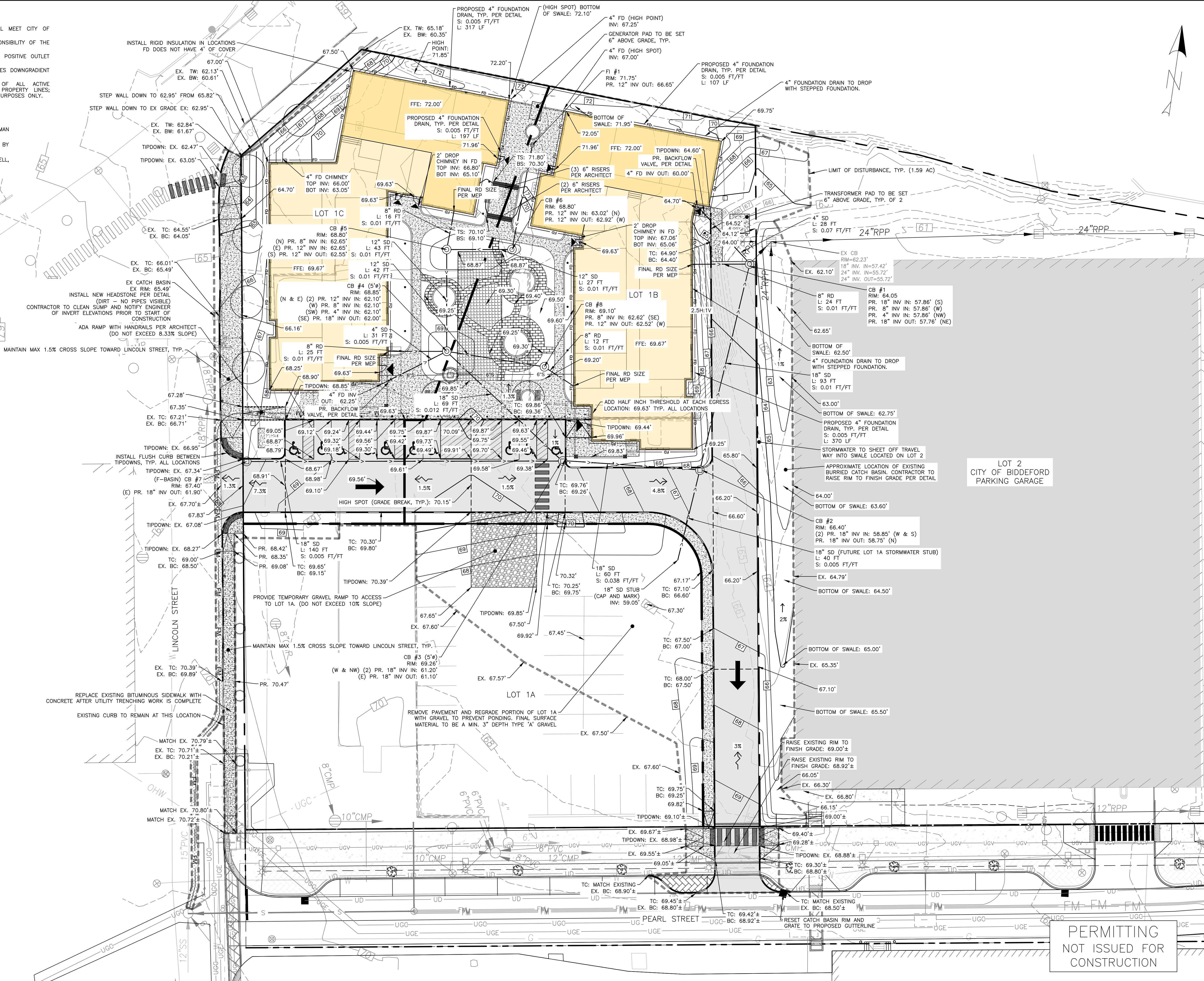
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- GENERAL NOTES:
1. ALL FINAL CONDITIONS WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF BIDDEFORD TECHNICAL MANUAL STANDARDS.
 2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
 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.

PLAN REFERENCES:

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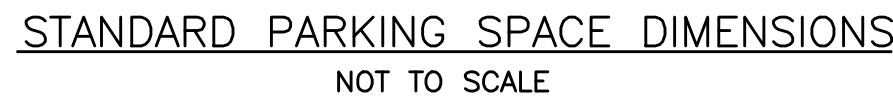
GRADING & DRAINAGE PLAN
PROJECT NAME/ADDRESS
15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE
OWNER OF RECORD
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

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ACORN ENGINEERING, INC.
FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC.
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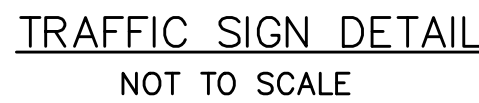
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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
1/3/25
PROFESSIONAL ENGINEER

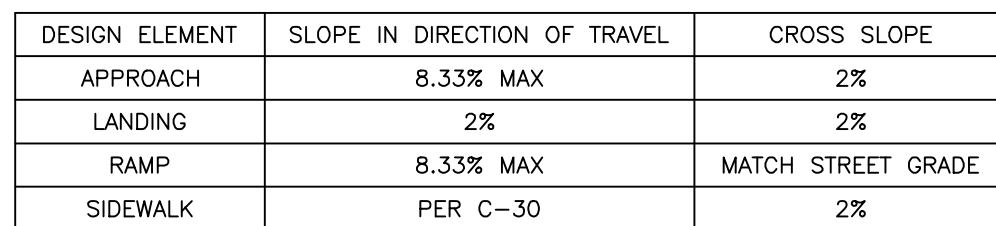
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1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 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. 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.



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.

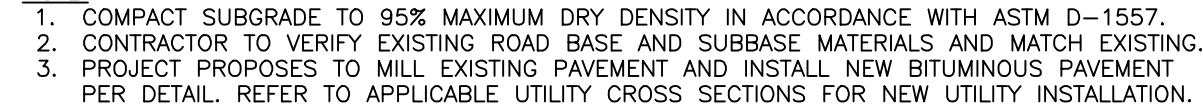


SIDEWALK RAMP LAYOUT
NOT TO SCALE



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

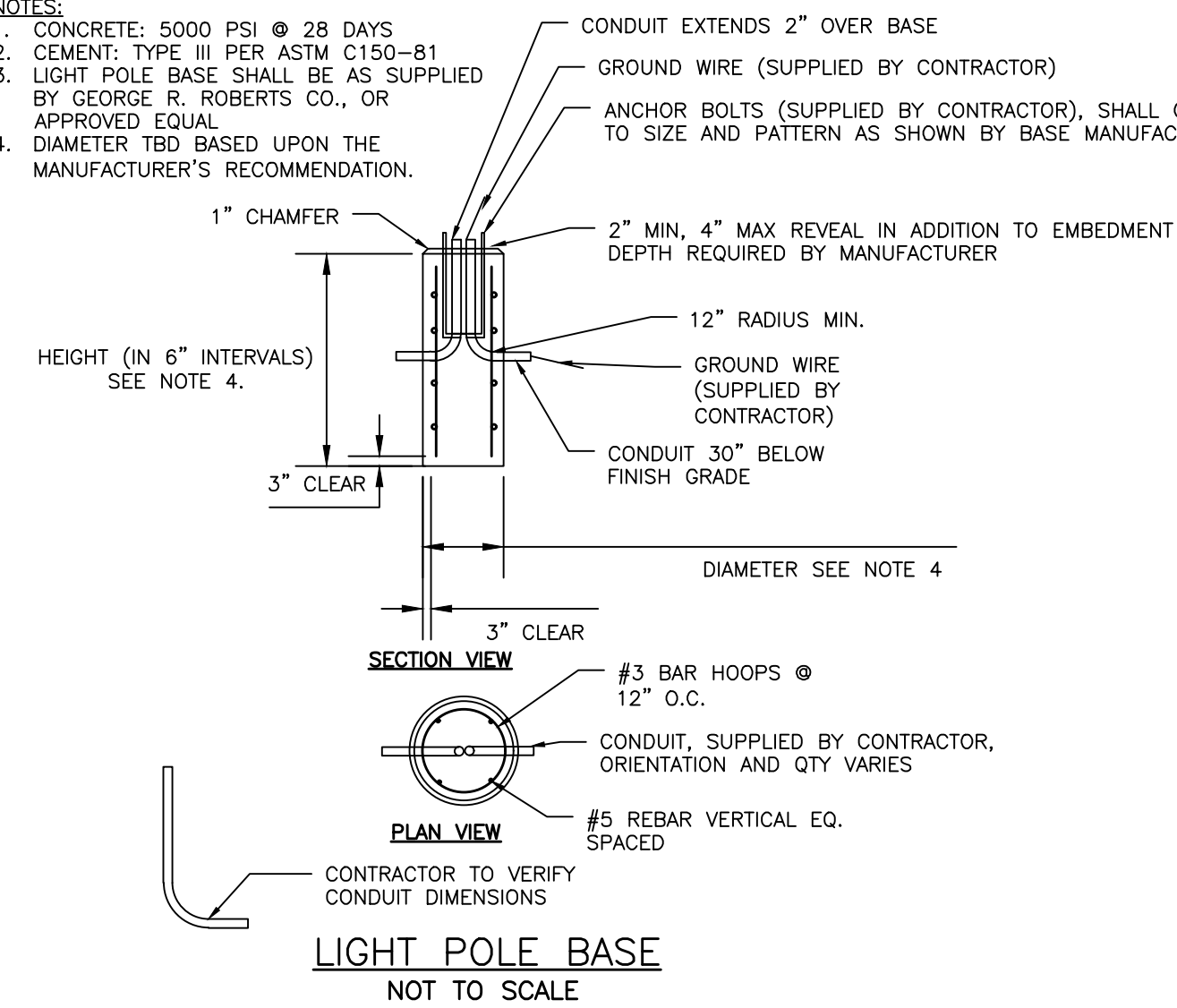


PAVEMENT PROFILE
MINOR RESIDENTIAL (DRIVEWAY)
NOT TO SCALE

REVEALS	
APPLICATIONS	REVEAL
STREET/SIDEWALK	4"
OTHER PED HARDSCAPE	FLUSH
PEDESTRIAN LAWN/MULCH	4"
PARKING AREAS (OPEN TRAFFIC)	24"–36"

1. CONCRETE: 5000 PSI @ 28 DAYS
2. CEMENT: TYPE III PER ASTM C150-81
3. LIGHT POLE SHALL BE AS SUPPLIED BY GEORGE ROBERTS CO., OR APPROVED EQUAL.
4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.

CONDUIT EXTENDS 2" OVER BASE
GROUND WIRE (SUPPLIED BY CONTRACTOR)
ANCHOR BOLTS (SUPPLIED BY CONTRACTOR), SHALL CONFORM TO SIZE AND PATTERN AS SHOWN BY BASE MANUFACTURER.



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 EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



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SITE DETAILS - 1

DRAWING NAME:

PROJECT NAME (ADDRESS):
15 PEARL STREET (1B/1C) AFFORDABLE SENIOR
HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD:
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

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ENGINEERING, INC. 3


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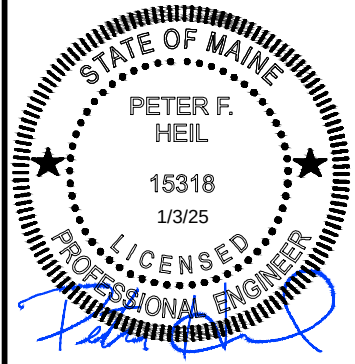
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SCALE: AS NOTED

DESIGNED BY: PFH

DRAWN BY: ZMS

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DRAWING NO.

C-40

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 INSTRUCTIONS, 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. RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN-GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
6. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
7. CONCRETE SHALL BE AGEN PSI #218 DOWNS SHALL BE 24" RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 38".
8. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
9. CONCRETE SHALL BE AGEN PSI #218 DOWNS SHALL BE 24" RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 38".
10. GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH CONCRETE SIDEWALK DETAIL, AND SHALL BE MANEOTD



1. THESE ANCHORAGE SYSTEMS ARE DESIGNED FOR THE NOTED LOADING BASED ON A QUALITY SUBSTRATE MATERIAL AND PROPER INSTALLATION, BY THE CUSTOMER'S CONTRACTOR THE INSTALLATION SHALL CONFORM TO THE DRAWING AND THE MANUFACTURER'S INSTRUCTIONS. THE CUSTOMER IS RESPONSIBLE TO DETERMINE THE ADEQUATE QUALITY OF NEW OR EXISTING CONCRETE AND THE EARTH SUBSTRATE. THE CONCRETE SHALL BE SOLID AND UNCRACKED WITH ADEQUATE THICKNESS FOR THE ANCHORS AND A COMPRESSIVE STRENGTH OF FC(MINIMUM)=4,000 POUNDS PER SQUARE INCH. THE EARTH SHALL HAVE AN UNCONFINED STRENGTH OF QU(MINIMUM)=4,000 POUNDS PER SQUARE FOOT. IF YOU HAVE QUESTIONABLE SUBSTRATES, CONTACT YOUR LOCAL STRUCTURAL ENGINEER FOR APPROPRIATE ANCHORAGE EVALUATION AND/OR ANCHORAGE DESIGN. A TEST INSTALLATION MAY BE REQUIRED TO DETERMINE THE ADEQUACY OF THE ANCHORAGE SYSTEM FOR YOUR SPECIFIC INSTALLATION CALL FOR GUIDANCE, IF NEEDED.

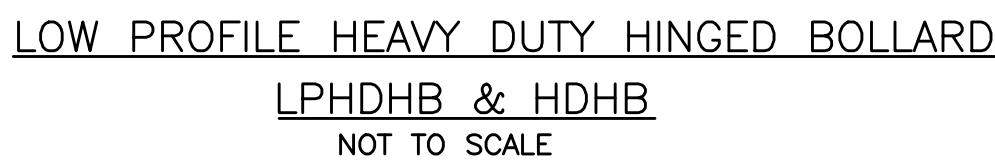
* REFER TO TRAFFIC GUARD INC., DRAWING NUMBER CPAS12 DATED 12/10/10 FOR FURTHER INFORMATION.



CPAS12 COLLAPSIBLE POST ANCHOR SYSTEM ASSEMBLY

- VERIFY THAT ALL LOW PROFILE HEAVY DUTY HINGED BOLLARD PARTS ARE IN THE SHIPMENT PACKAGE AS SHOWN ON THE "BILL OF MATERIAL".
2. PROVIDE LOW PROFILE HEAVY DUTY HINGED BOLLARD ANCHOR SYSTEM (SEE INCLUDED ANCHOR SYSTEM DETAIL DRAWING) OF YOUR CHOICE AT A LOCATION TO SUIT YOUR SPECIFIC NEEDS.
3. INSTALL LPHDHB BASE (ITEM 2) TRUE AND LEVEL ON YOUR SELECTED ANCHOR SYSTEM USING THE FLAT WASHERS AND HEX NUTS INCLUDED IN YOUR ANCHOR SYSTEM KIT. USE S₁₆ SHIMS TO LEVEL IF NEEDED.
4. TORQUE HEX NUTS TO MINIMUM 100 FT-LBS FOR ANCHOR SYSTEMS CPAS AND ESAS. TORQUE HEX NUTS TO YOUR ANCHOR SYSTEMS TO MANUFACTURERS SPECIFICATION.
5. INSTALL HINGED BOLT (ITEM 1) TO LPHDHB BASE (ITEM 2) USING HINGE BOLT (ITEM 3), F11 WASHERS (ITEM 5), AND HEX NUT (ITEM 4) AS SHOWN. TACK WELD HEX NUT TO HINGE BOLT OR CHISEL HINGE BOLT THREADS SUCH THAT HEX NUT CANNOT BE EASILY REMOVED.
6. INSTALL LOCKING PIN THRU UP POSITION BOLLARD POST, AND INSTALL PIN WELD WHERE PIN THRU HEX NUT (ITEM 4) IS INCLUDED IN CASE A PADLOCK IS NOT AVAILABLE.
6. INSTALL THE FOUR LABELS AT THE LOCATIONS SHOWN.
7. CHECK THE FUNCTIONAL OPERATION OF THE LOW PROFILE HEAVY DUTY HINGED BOLLARD.
- * NOTE: S₁₆ SHIMS, TOOLS, GREGGIES, AND PADLOCKS ARE NOT PROVIDED.
- * NOTE: BOLLARD SHALL BE APPROVED BY OWNER.
- * REFER TO TRAFFIC GUARD INC., DRAWING NUMBER LPHDHB2 DATED 9/25/2002 FOR FURTHER INFORMATION.

BILL OF MATERIAL			
ITEM	PART #	DESCRIPTION	QTY.
1	LPHDHB#1	LPHDHB POST	1
2	LPHDHB#2	LPHDHB BASE	1
3	0010	Ø3/4" x 8" HEX HEAD HINGE BOLT - 18-8 SS	1
4	0008	Ø3/4" HEX NUT - 18-8 SS	1
5	0009	Ø3/4" FLAT WASHER - TYPE A NARROW - 18-8 SS	1
6	2007	Ø3/4" x 8" HEX HEAD LOCKING PIN - 18-8 SS	1
7	0102	SAFETY LABEL 4" x 4"	2
8	0102	EQUR INCH C/F RANCE LARKI	2



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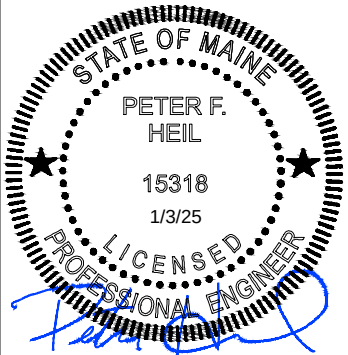
DRAWING NAME: SITE DETAILS - 2

PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDEFORD, MAINE

OWNER OF RECORD: WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

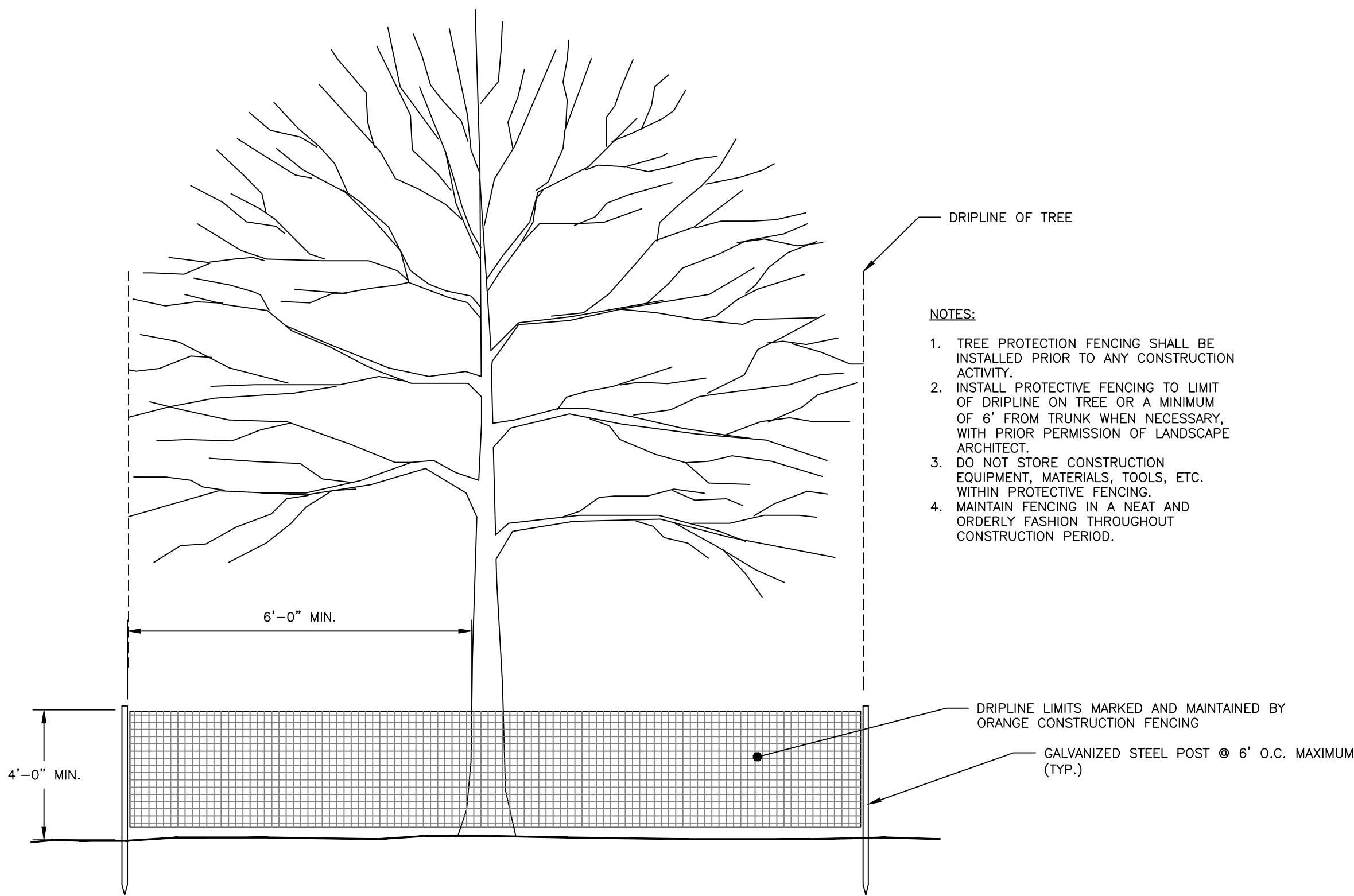

A C O R N
ENGINEERING, INC.
 FROM AGRICULTURE, WE'VE MOVED INTO WATERWORTH
 ENGINEERING. WE'VE TAKEN THE BEST OF THE FARM
 AND APPLIED IT TO THE WORLD OF WATER. WE'VE
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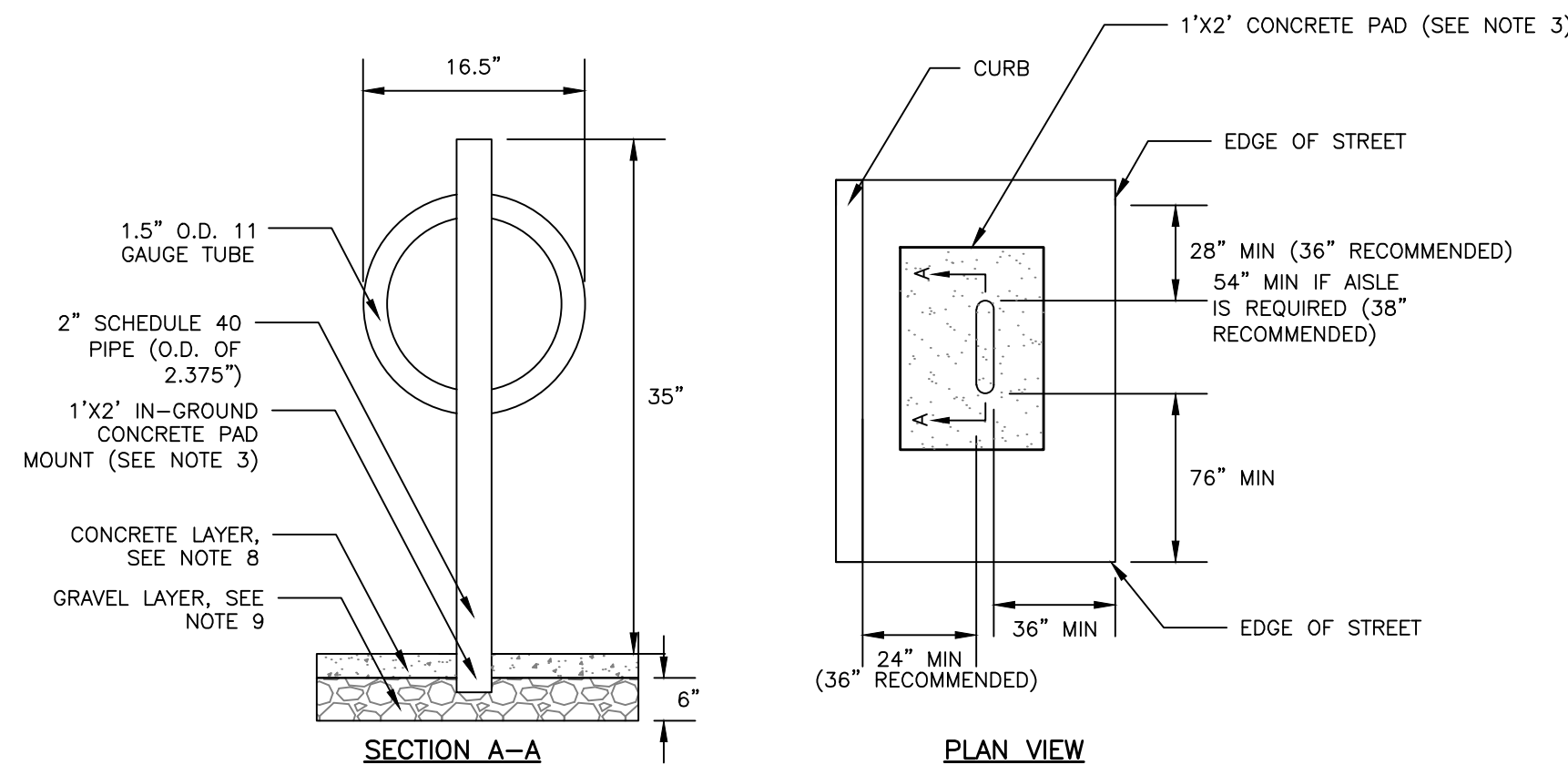
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TREE PROTECTION DETAIL
NOT TO SCALE

NOTES:

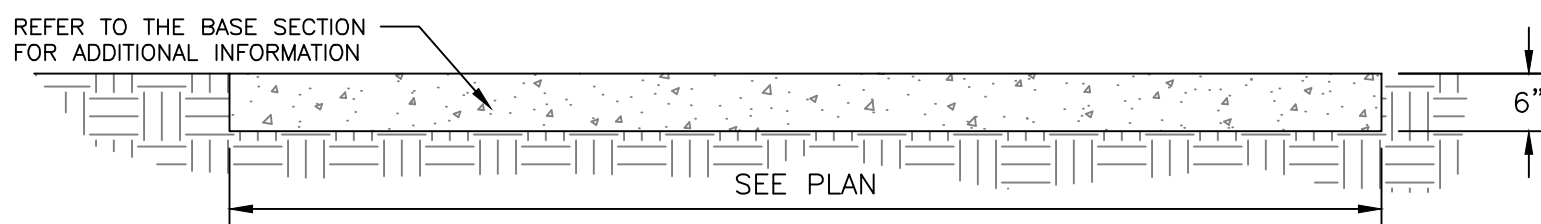
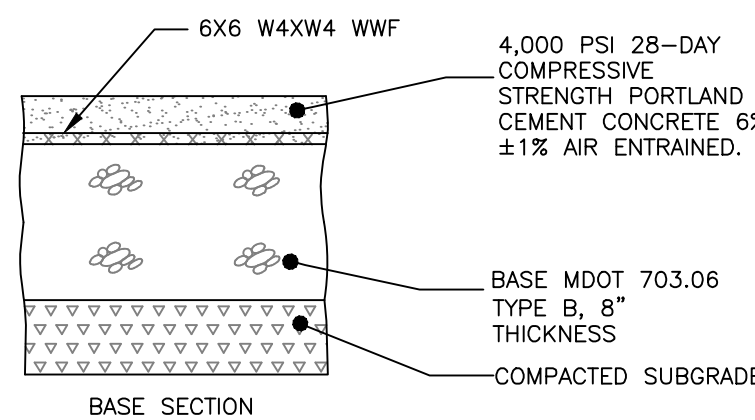
1. BICYCLE RACK SHALL BE "DERO BIKE HITCH", AS MANUFACTURED BY DERO BIKE RACKS.
2. BICYCLE RACK SHALL HAVE CAPACITY FOR TWO BICYCLES.
3. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION.
4. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S 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 36".
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 MAINTENED 703.06 TYPE B.



DERO BIKE HITCH
NOT TO SCALE

NOTES:

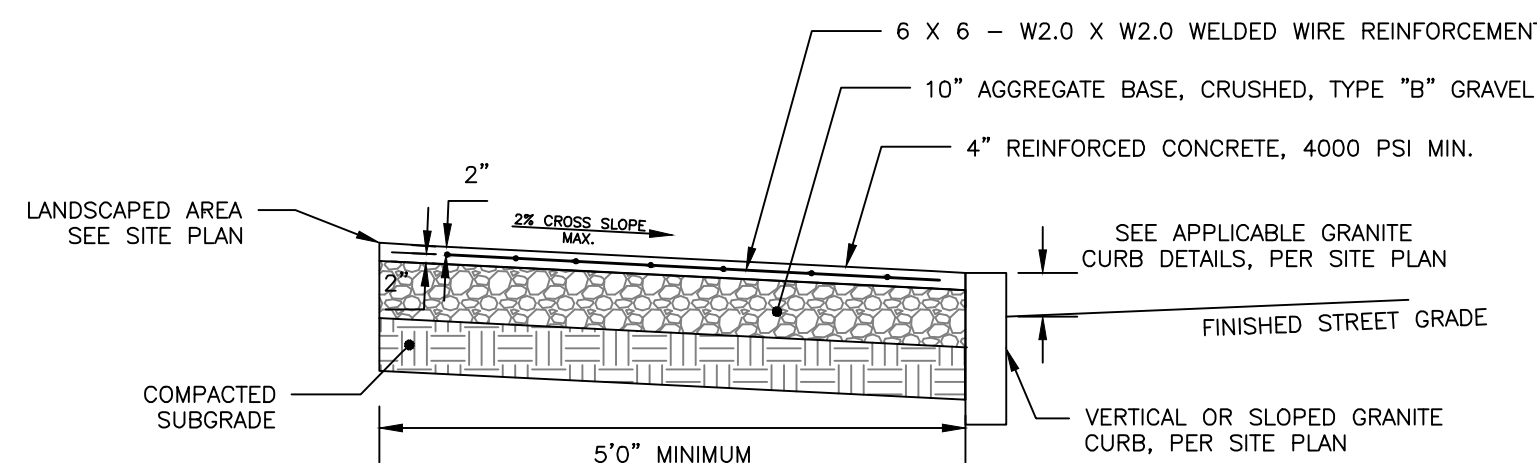
1. PROOFROLL AND COMPACT SUBGRADE.
2. COMPACT AGGREGATES TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
3. FINISH WITH A STIFF, COARSE, FIBER BROOM.
4. REFER TO PLANS FOR DIMENSIONS.



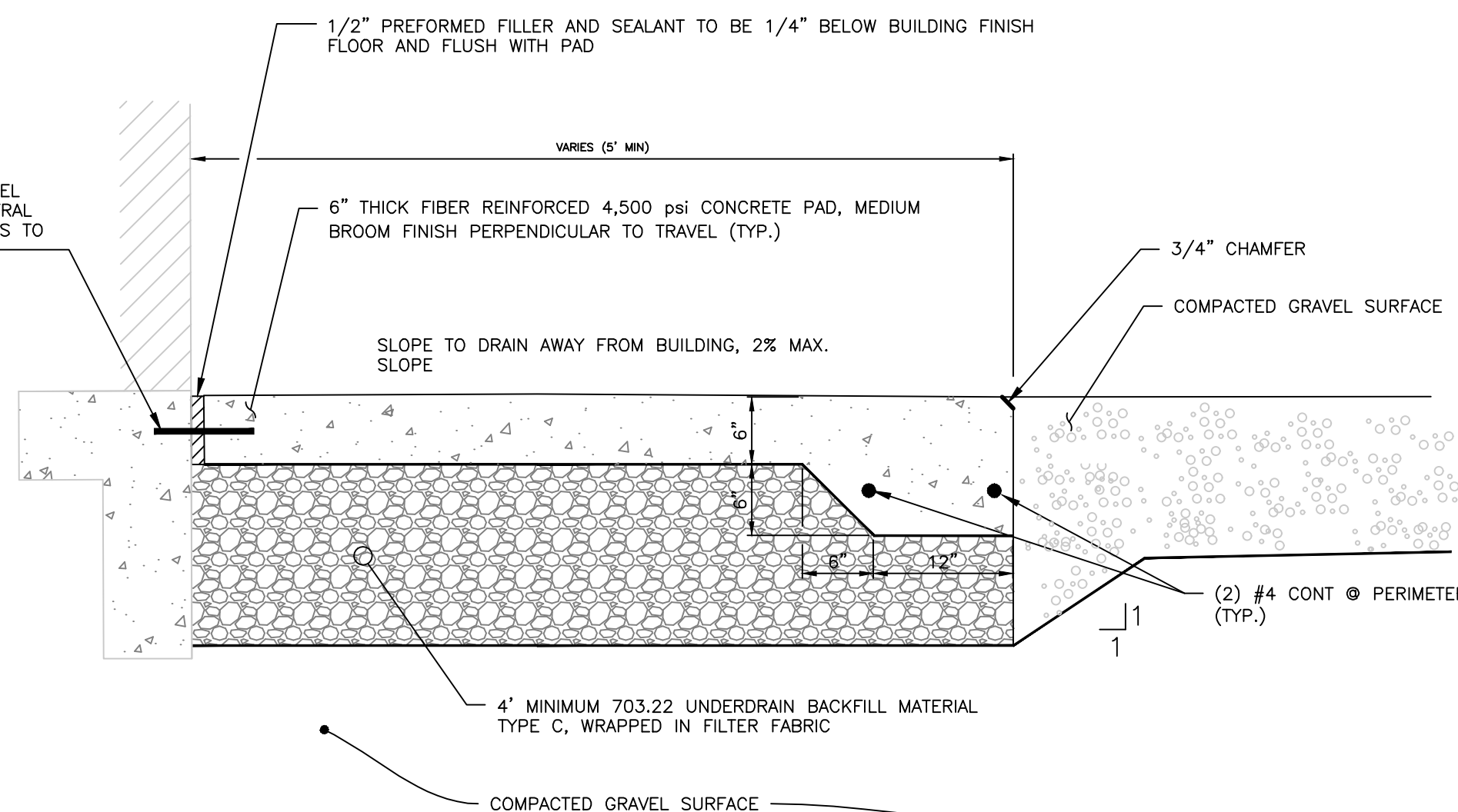
CONCRETE PAD DETAIL
NOT TO SCALE

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 1/2 INCH IN THICKNESS.
4. WHEN CONSTRUCTED ADJACENT TO A BUILDING, RETAINING WALL OR OTHER FIXED STRUCTURE, A 1/2 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 1/4 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 LINED 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.



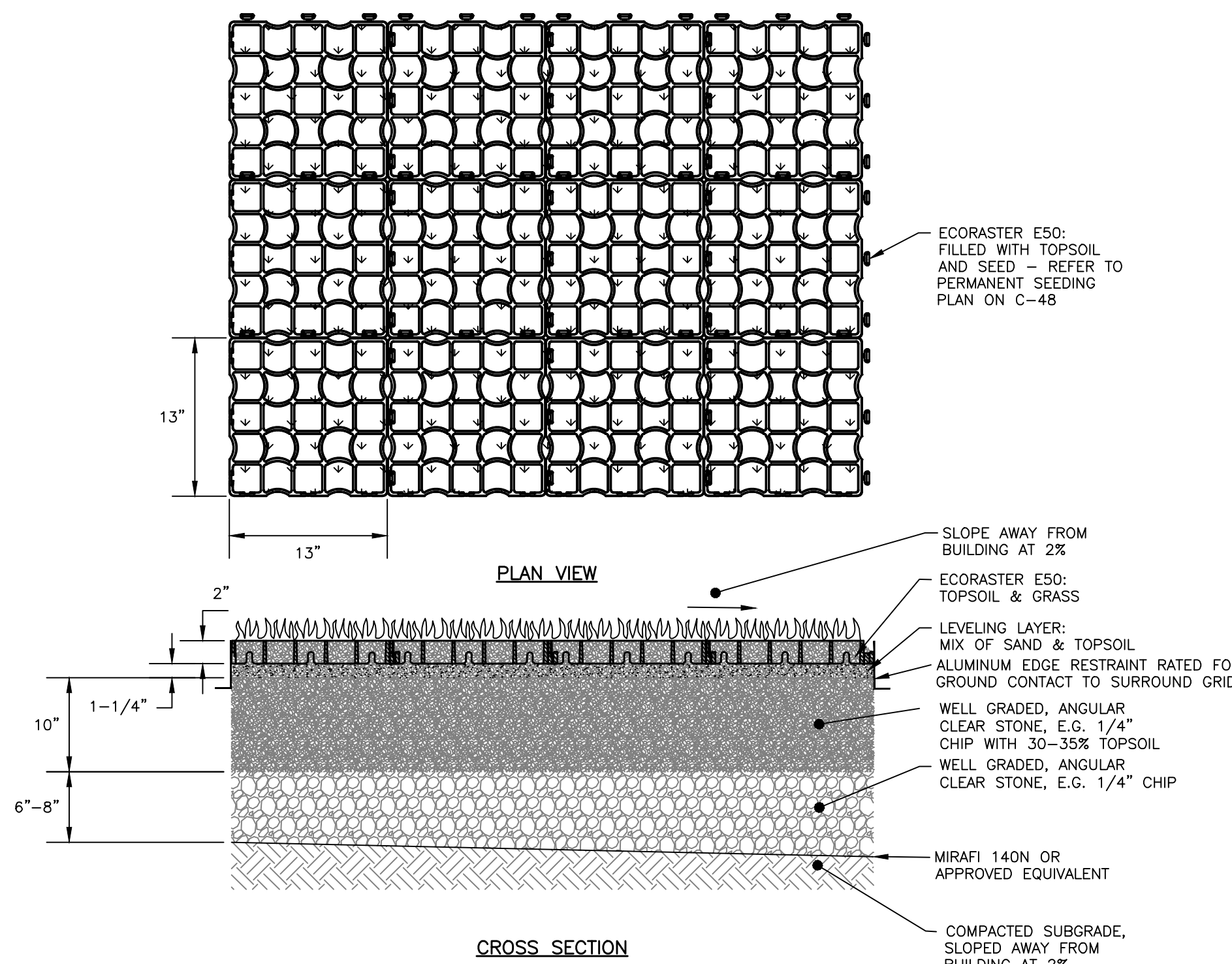
REINFORCED CONCRETE SIDEWALK
NOT TO SCALE



CONCRETE LANDING DETAIL
NOT TO SCALE

NOTES:

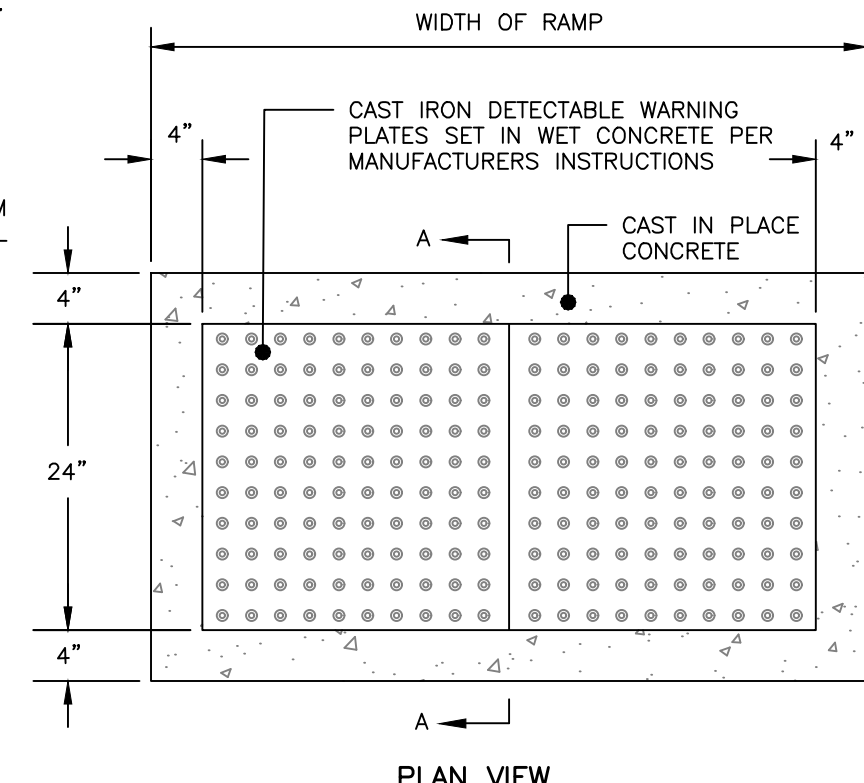
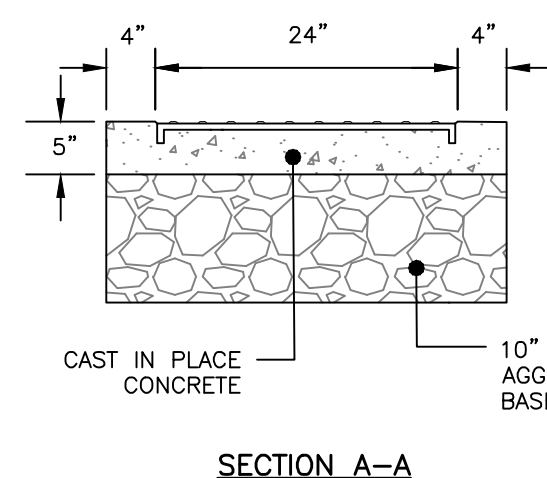
1. 1/2" CHIP CLEAR OR OTHER SUITABLE CLEAR STONE CAN BE USED FOR DRAINAGE LAYER.



PERMEABLE GROUND STABILIZATION SYSTEM
WITH ECORASTER GRID DETAIL
NOT TO SCALE

NOTES:

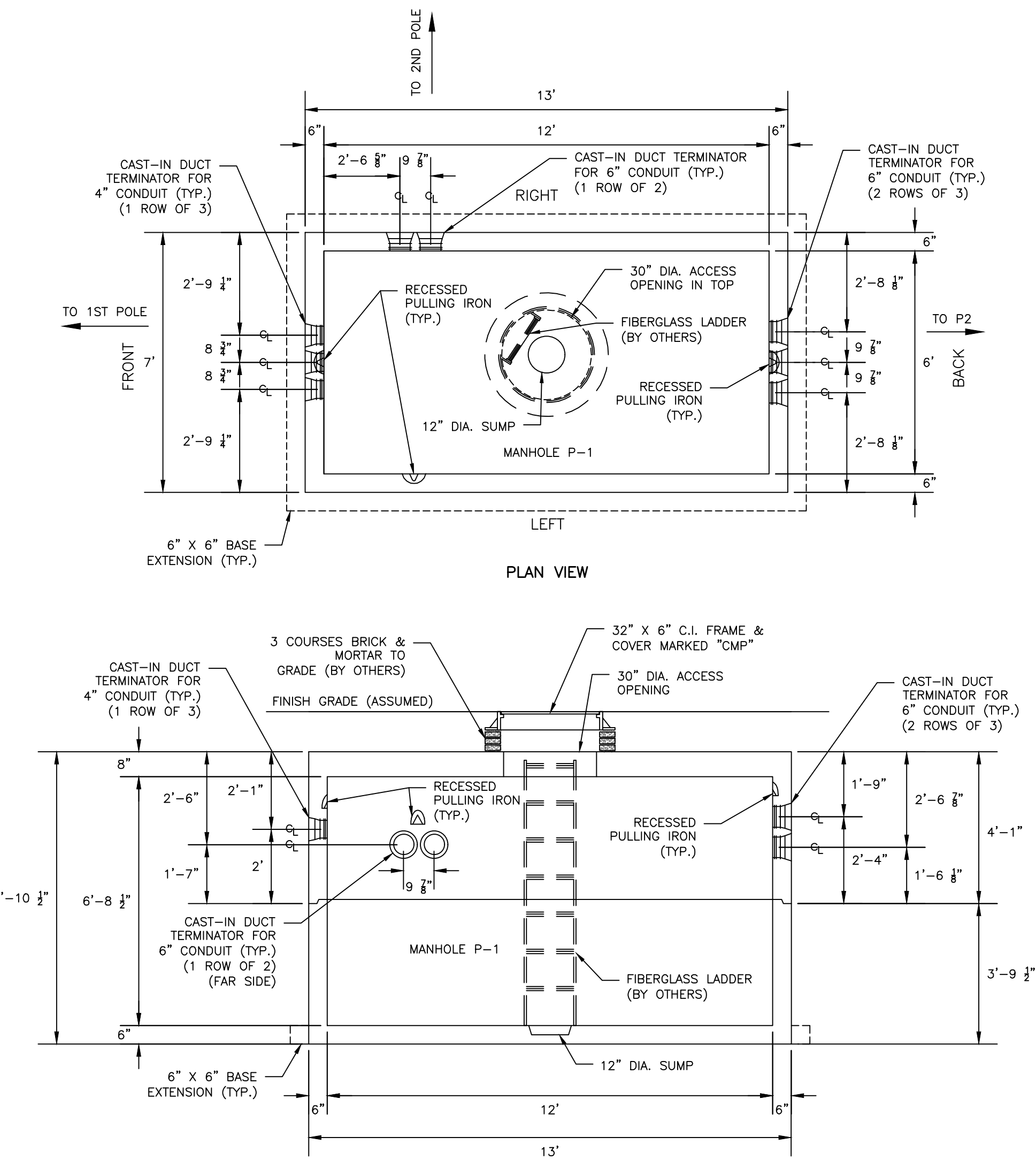
1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM 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. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

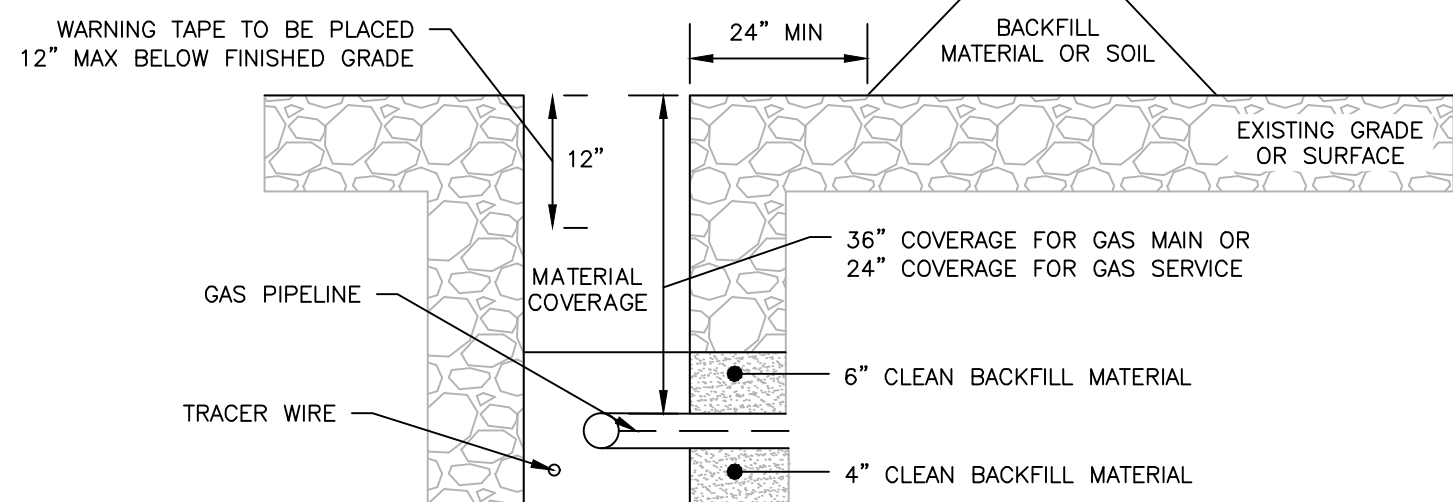
ISSUED FOR	BY
ATS	DATE
PRELIMINARY	10/23/24
FINAL	1/15/25
SITE DETAILS - 3	
PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE	
OWNER OF RECORD: WESTBROOK DEVELOPMENT CORPORATION	
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092	
DRAWING NAME: ENGINEERING, 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 1/3/25 LICENSED PROFESSIONAL ENGINEER	
DRAWING NO. C-42	



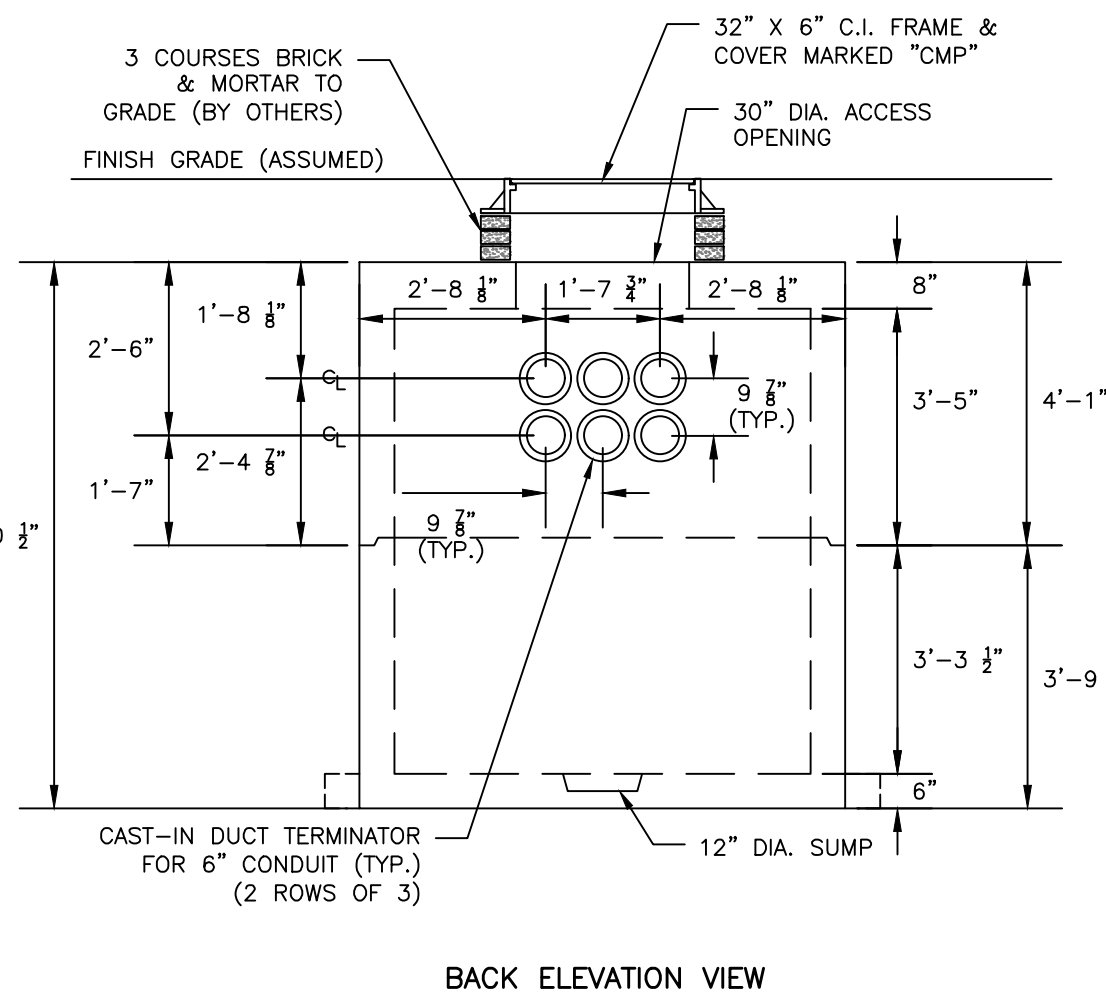
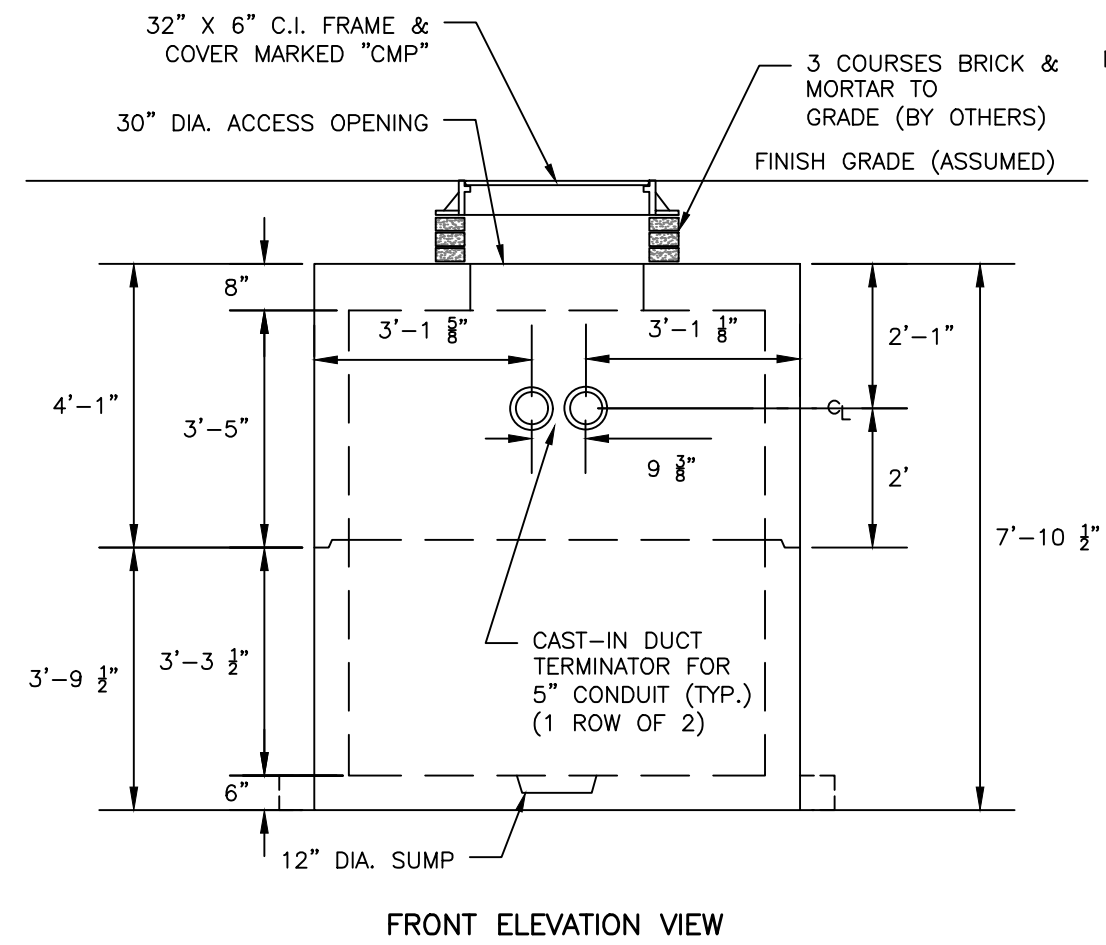
DESCRIPTION	WEIGHT	QUANTITY
3'-9 1/2" BASE	16,202 LBS	1
3'-11" TOP	18,892 LBS	1

NOTES:

- INSTALL MAINS WITH A MINIMUM OF 36" OF COVER AND SERVICES WITH A MINIMUM OF 24" OF COVER. EXCEPTIONS MAY BE MADE WITHIN STATE 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.
- PROCEDURE - SEE FIGURE BELOW
 - REMOVE ALL EXCESS WATER FROM THE TRENCH WITH PUMPS OR EQUIVALENT
 - 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.
 - 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.
 - 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.
 - PLACE WARNING TAPE IN THE TRENCH NOT MORE THAN 12" BELOW FINISHED GRADE. THE STANDARD WARNING TAPE IS YELLOW, NON-DETECTABLE TAPE, 6" WIDE.
 - 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.
 - PROPERLY COMPACT THE TRENCH TO INSURE THE TRENCH WILL NOT SETTLE.
- 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



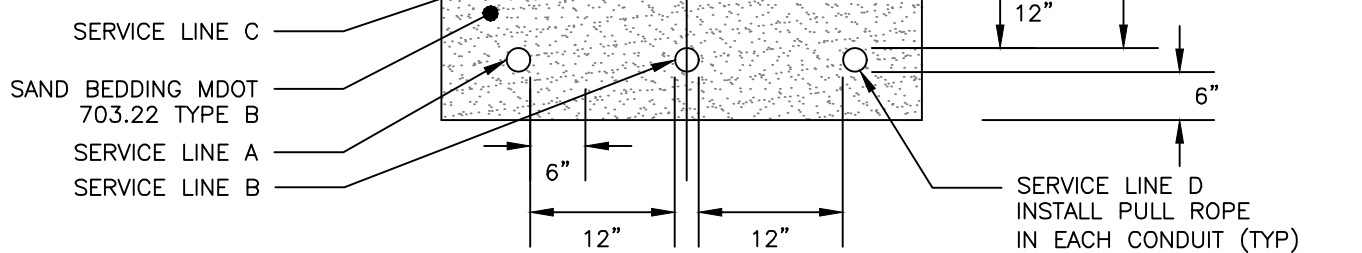
BACK ELEVATION VIEW

NOTES:

- CONCRETE: 5,000 PSI @ 28 DAYS.
- CEMENT: TYPE III PER ASTM C150-81.
- REINFORCING: GRADE 60 PER ASTM A615.
- DESIGN LOADING: H-20 PER ASTM C-478.
- JOINTS TO BE SEALED WATER TIGHT WITH "CON-SEAL".
- EXTERIOR OF TANK TO BE "AQUA-SAFE" COATED.
- ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OF THE MANUFACTURER MARKED ON THE INSIDE WALL.
- LADDER PROVIDED AND INSTALLED BY OTHERS.
- IDENTIFICATION TAGS FOR CABLES IN MANHOLE SHALL BE SET AT THE TIME OF MANHOLE INSTALLATION BY OTHERS.

CLEAN BACKFILL CONTAINING NO ROCKS LARGER IN DIAMETER THEN 4" AND FREE OF ROOTS, STUMPS AND OTHER DEBRIS.

PLASTIC "ELECTRIC" MARKER TAPE PLACED NOT LESS THAN 12" BELOW FINISH GRADE AND NO LESS THAN 12" ABOVE CABLE.



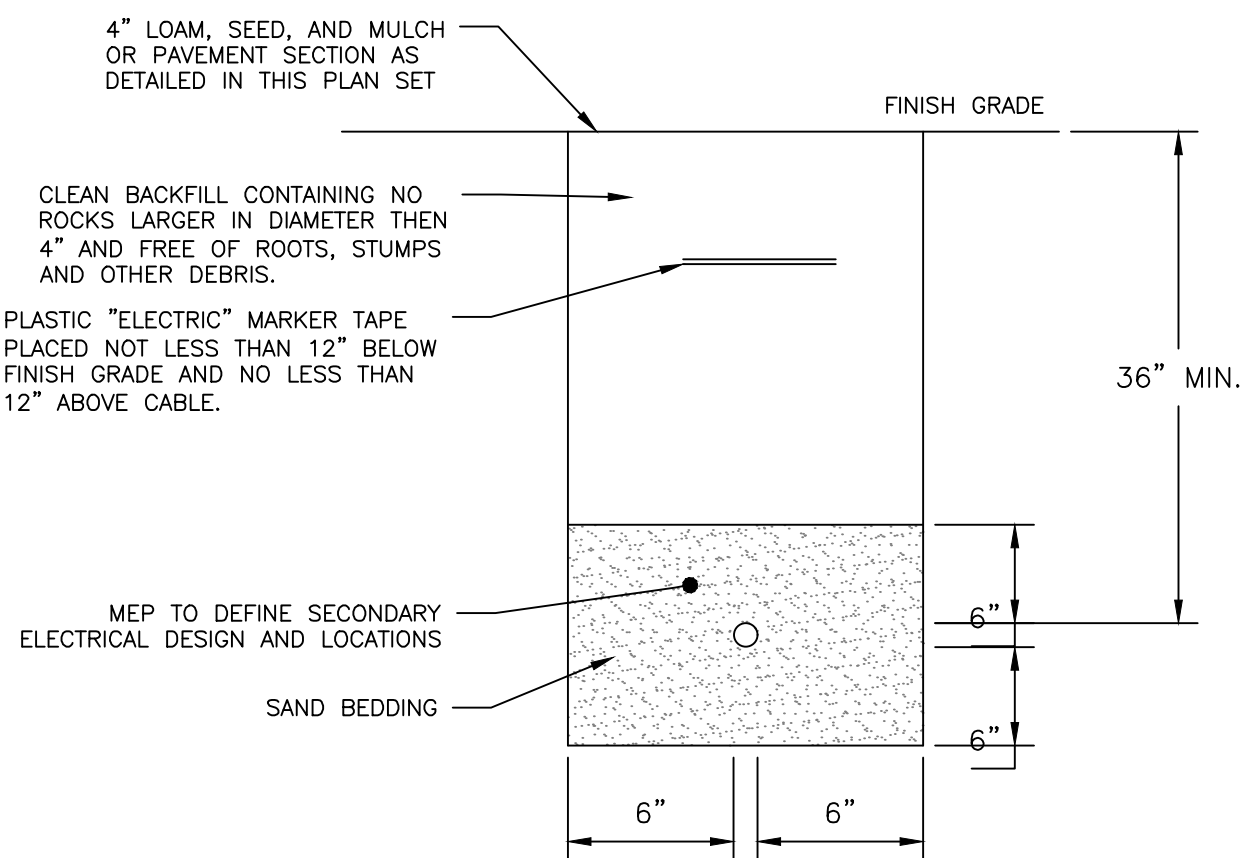
CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
C	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
D	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	SEE NOTE 1
E	2-4"	SCHEDULE 40 PVC	CABLE	-

NOTES:

- 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.
- MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
- CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
- FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.

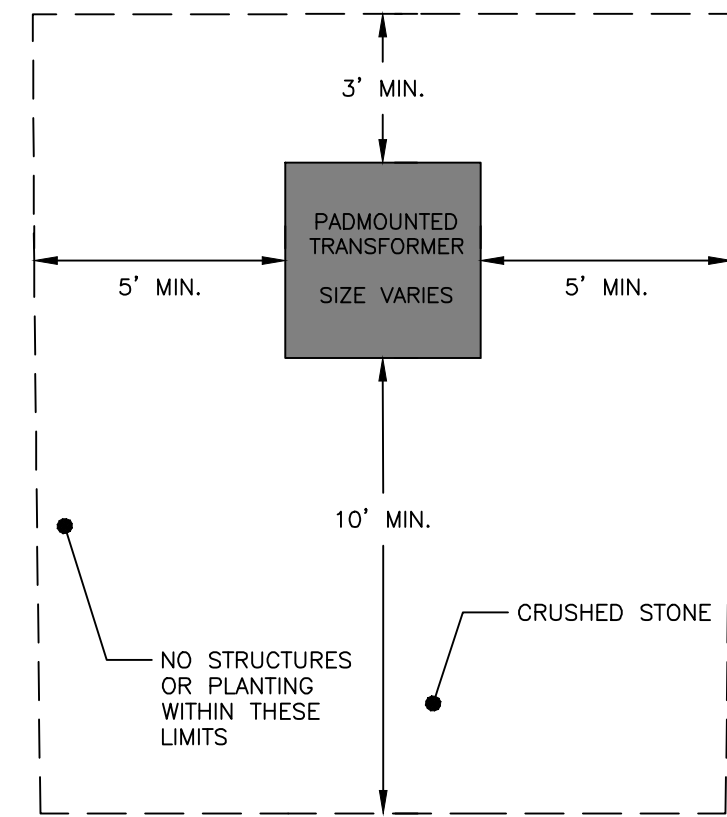
UTILITY TRENCH - PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE

NOT TO SCALE



SECONDARY ELECTRICAL TRENCH

NOT TO SCALE

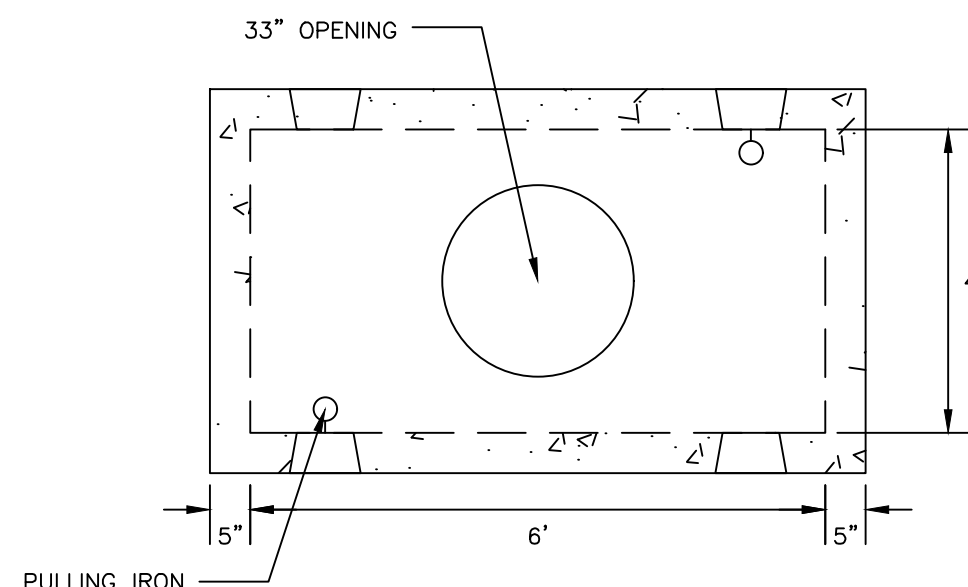


NOTES:

- WHERE DANGER OF FLOW 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.
- THE SETBACKS DEPICT CLEARANCES FROM OBSTRUCTIONS INCLUDING TREES, SHRUBS, AND FENCES.
- 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.
- SIDE CLEARANCES FROM DOORS OR WINDOWS SHALL NOT BE LESS THAN 10 FEET.
- 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.
- TRANSFORMER SHALL BE LOCATED FAR ENOUGH AWAY FROM BUILDING OVERHANGS SO THAT THEY WILL NOT BE SUBJECT TO DAMAGE BY FALLING ICE AND SNOW.
- 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.

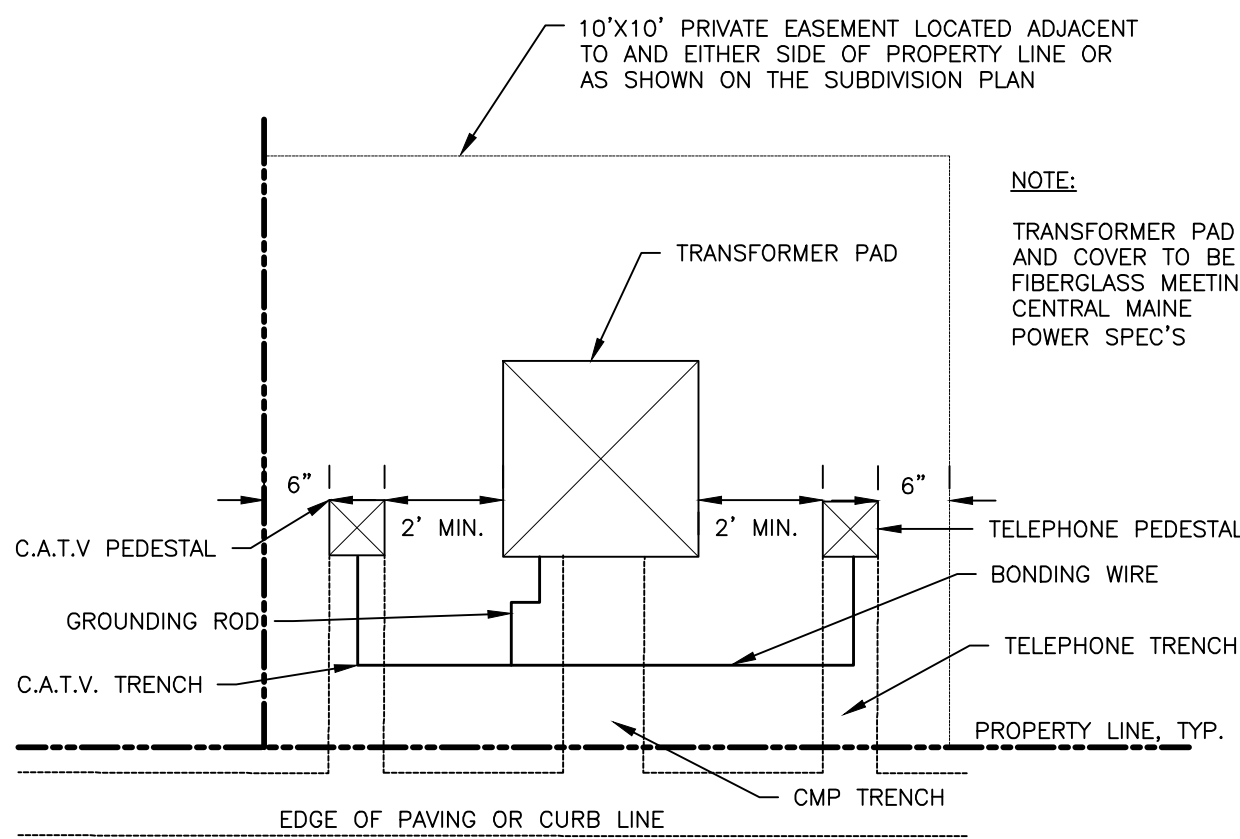
CMP TRANSFORMER SETBACKS

NOT TO SCALE



PLAN VIEW

4' X 6' SPLICE BOX
NOT TO SCALE



TYPICAL TRANSFORMER DETAIL

NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
ATS	PFH
PRELIMINARY	PFH
FINAL	PFH

UTILITY DETAILS - 1

PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD: WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

DRAWING NAME:

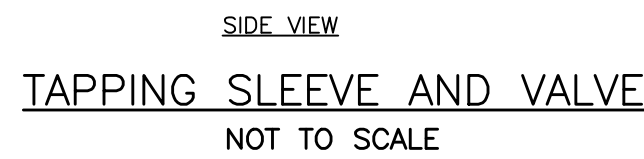
ENGINEERING, INC.
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
1/3/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

C-43



SIDE-ARM BLOW-OFF
NOT TO SCALE



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

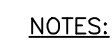


- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
- PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
- PVC RING TYPE SEWER PIPE MEETING ASTM F 789
- DUCTILE IRON PIPE (DIP)
- ADS N-12 HP DUAL-WALL MIN PS-46 RATING
- ADS SANITITE HP MIN. PS-46

STORM DRAIN AND GRAVITY SANITARY
SEWER TYPICAL TRENCH SECTION
NOT TO SCALE

NOTES:

1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF BIDEFORD TECHNICAL STANDARDS.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
5. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION, COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" OF RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
6. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
7. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL BE GREATER THAN DEPTHS OF EXISTING GRAVEL AND HOT MIX OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. MINIMUM COVER:
 - 7.1. 2'-0" - STORM DRAIN
 - 7.2. 5'-0" - SEWER
8. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE.
9. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF BIDEFORD ROW.
10. THICKNESS AS NOTED BY SURFACE DETAILS
11. 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 WITH GREAT R. ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.



1. CONTRACTOR RESPONSIBLE FOR THE INSTALLATION OF THE ROOF DRAIN, ADAPTER AND COVER, GUTTERS, AND DOWNSPOUTS, UNLESS OTHERWISE DIRECTED.
2. ALL PIPES SHALL BE OF UNIFORM SIZE.

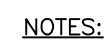
ROOF DRAIN DETAIL
NOT TO SCALE



THRUST BLOCKING: REGULAR BEND
NOT TO SCALE



1. DIMENSIONS APPLICABLE FOR 5 1/4" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MAINE WATER COMPANY'S 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

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

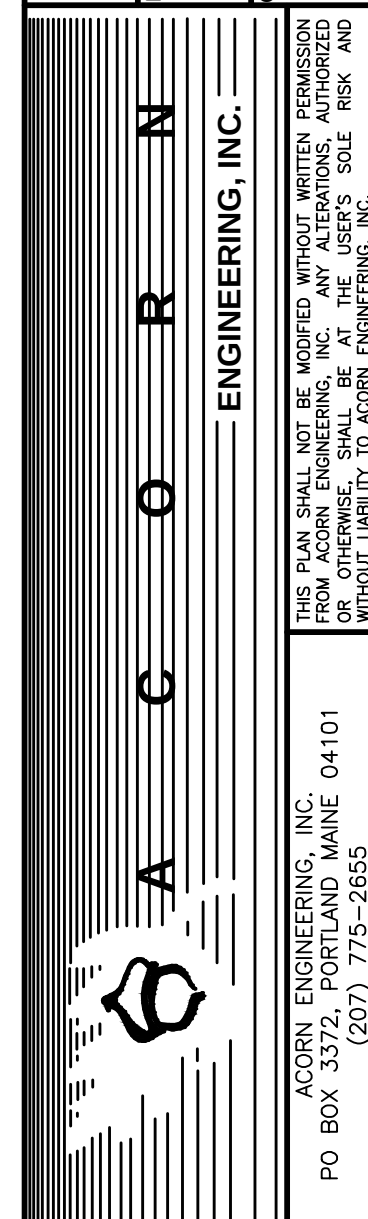
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UTILITY DETAILS - 2

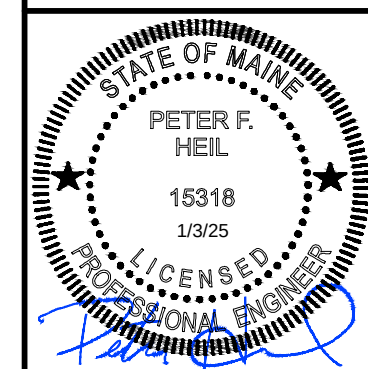
DRAWING NAME:

PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD:
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

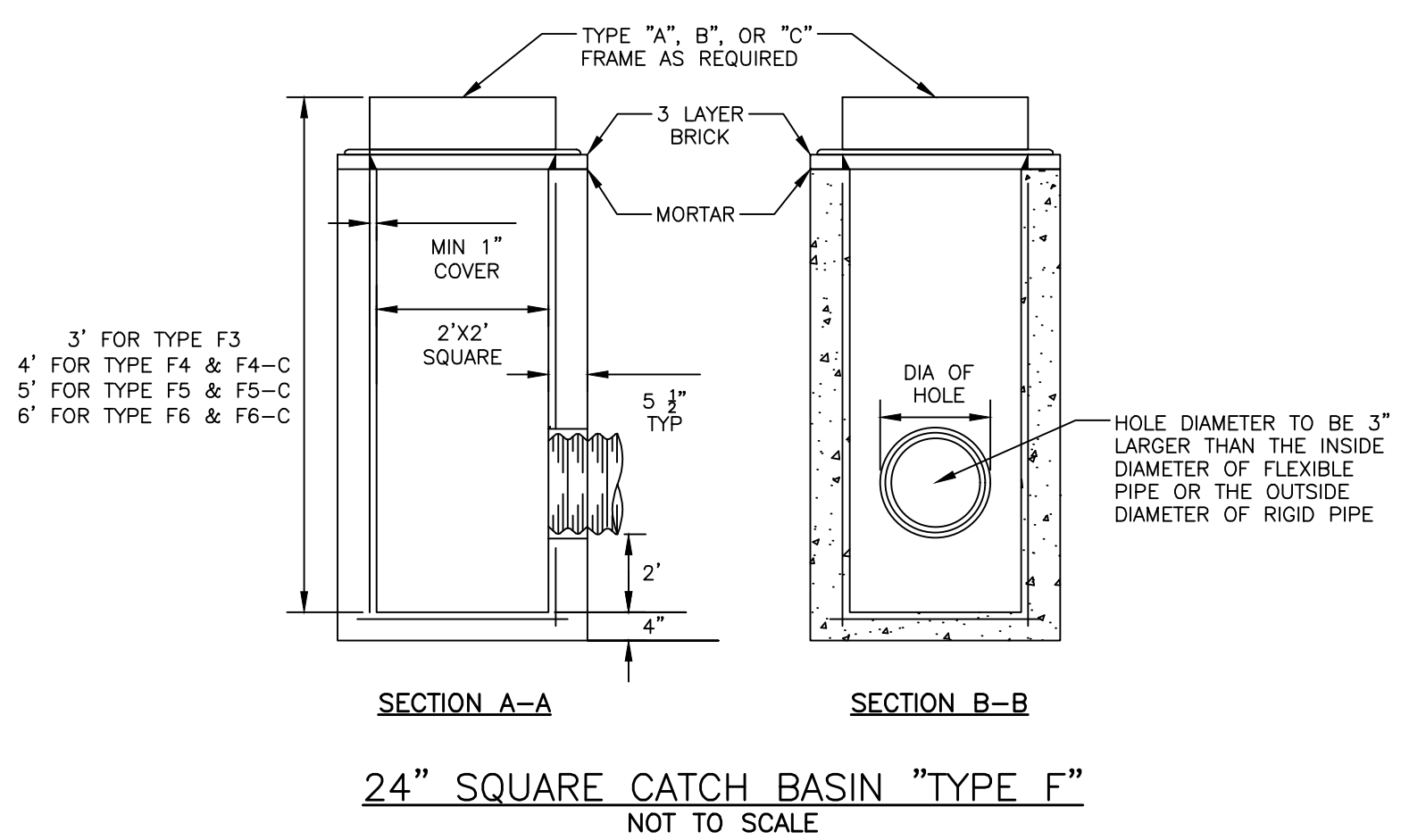
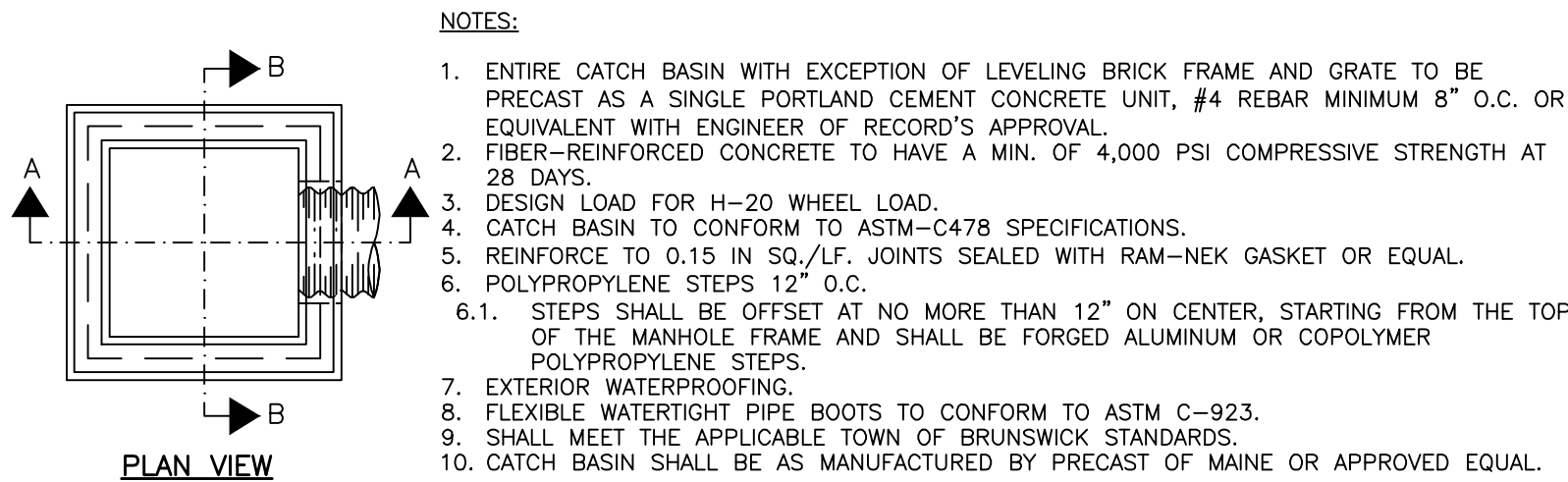


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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



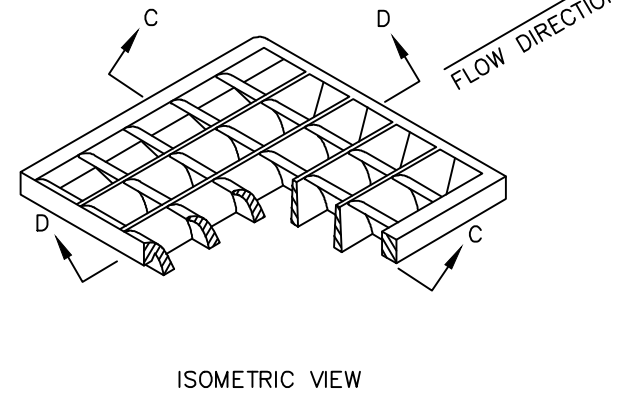
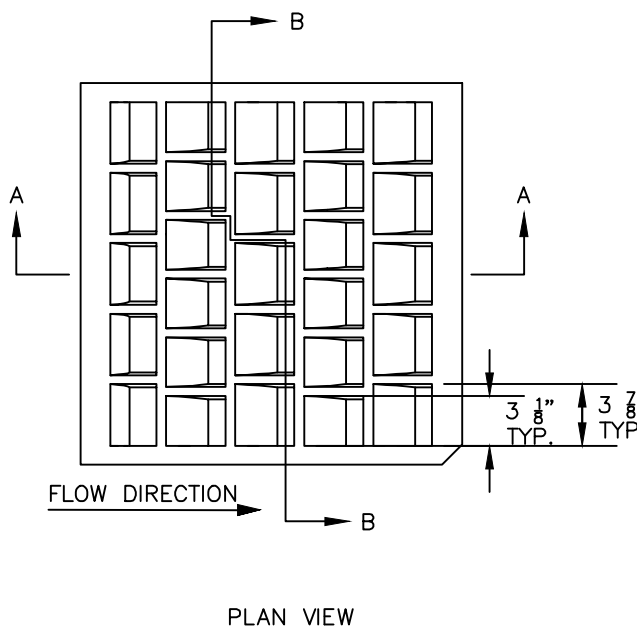
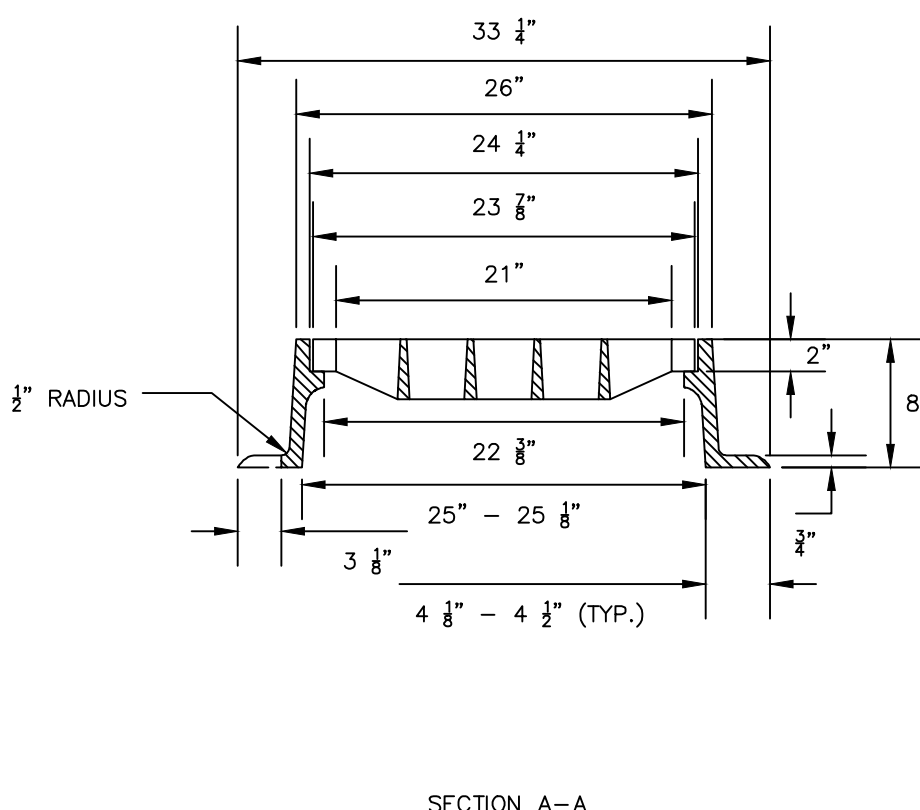
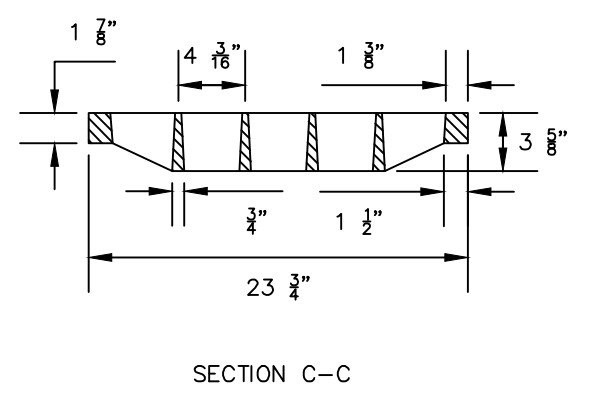
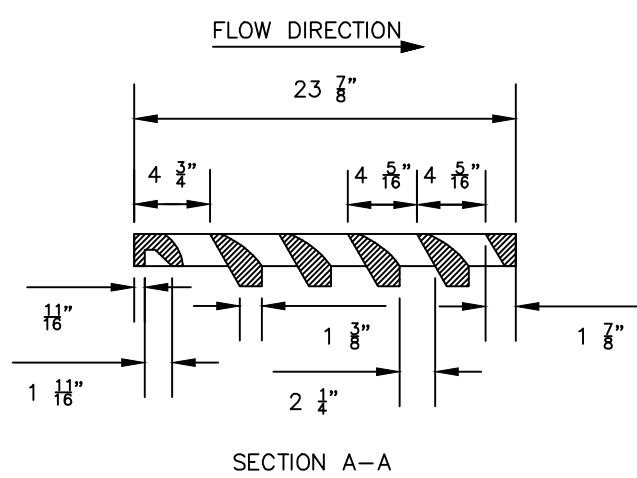
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C-44

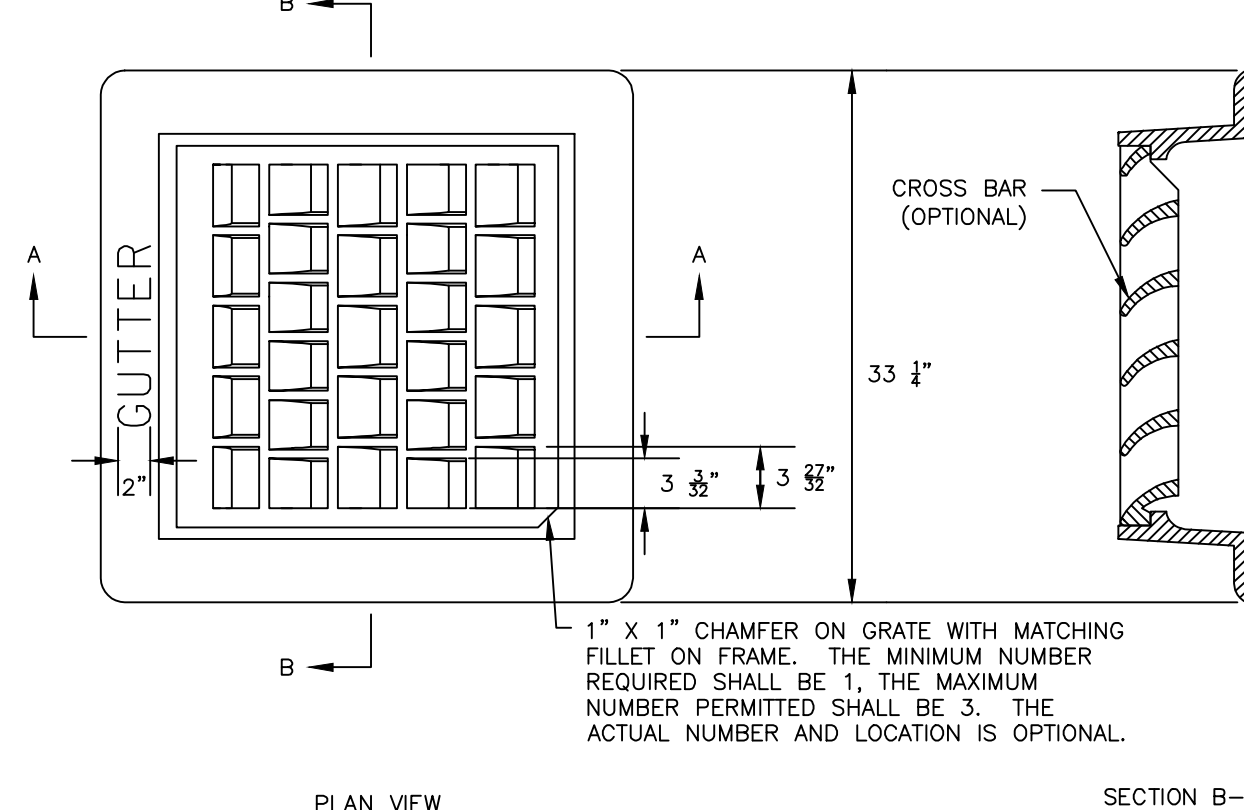


NOTES:

- TYPE "A" FRAMES ARE TO HAVE 3 FLANGES.
- TYPE "B" FRAMES ARE TO HAVE 4 FLANGES.
- THE WORD "GUTTER" IS TO BE MOLDED INTO THE BACK FLANGE - TYPE "B" ONLY.
- FRAMES AND GRATES ARE TO BE GRAY CAST IRON OR DUCTILE IRON CONFORMING TO AASHTO M306.
- DIMENSIONS ARE NOMINAL.



GRATE DETAIL

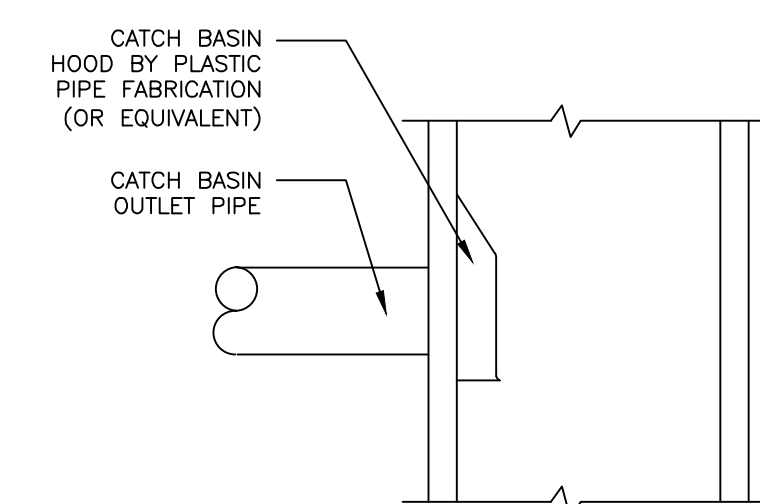


CATCH BASIN FRAME & GRATE - SQUARE

NOT TO SCALE

NOTES:

- INSTALL CATCH BASIN HOODS IN ALL CATCH BASINS & DRAIN MANHOLES.
- PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
- REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS

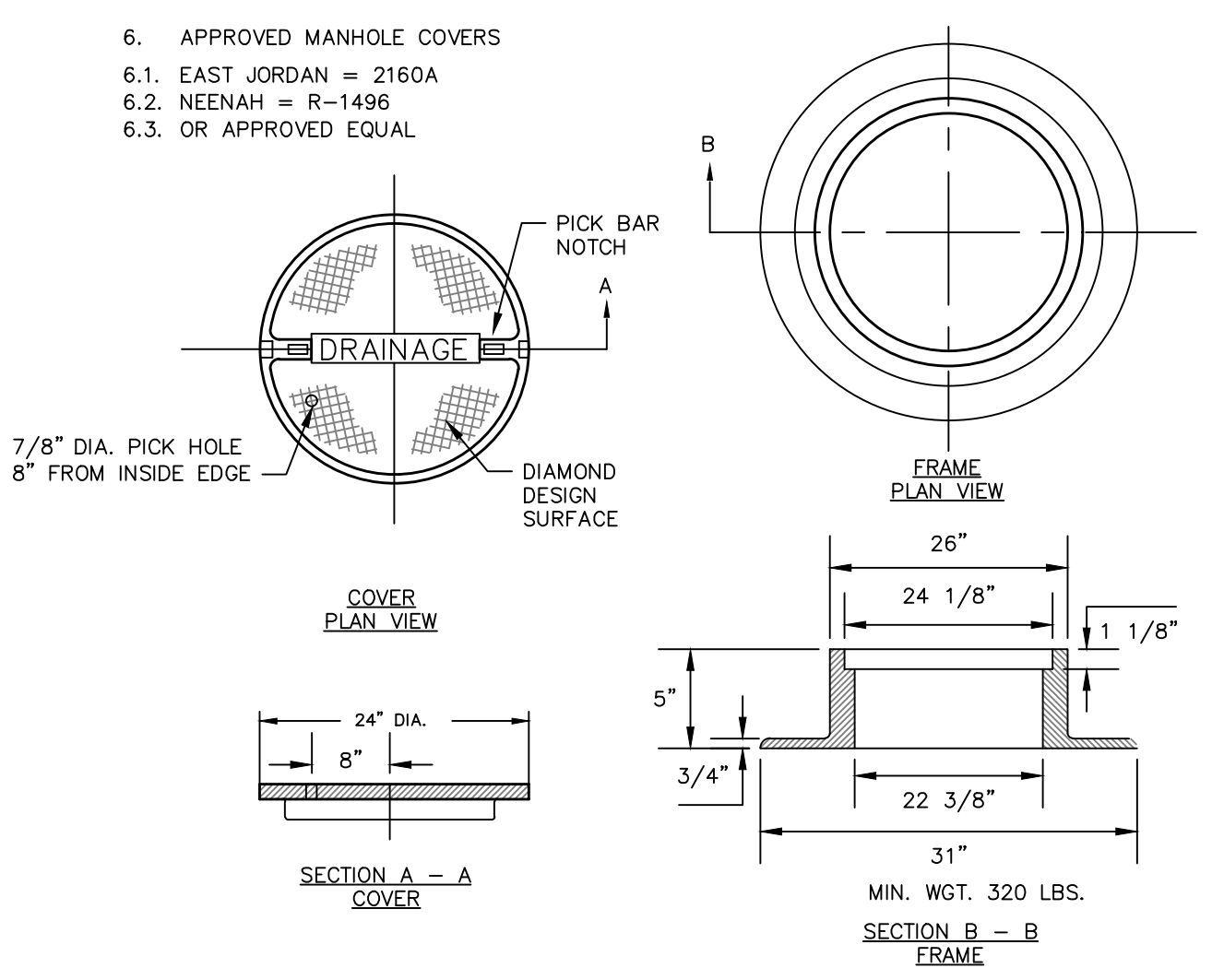


CATCH BASIN/DRAIN MANHOLE HOOD DETAIL

NOT TO SCALE

NOTES:

- ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER.
- ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
- ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
- ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
- APPROVED MANHOLE FRAMES:
5.1. EAST JORDAN = 1690Z
5.2. NEENAH = R-1496
5.3. OR APPROVED EQUAL
- APPROVED MANHOLE COVERS
6.1. EAST JORDAN = 2160A
6.2. NEENAH = R-1496
6.3. OR APPROVED EQUAL

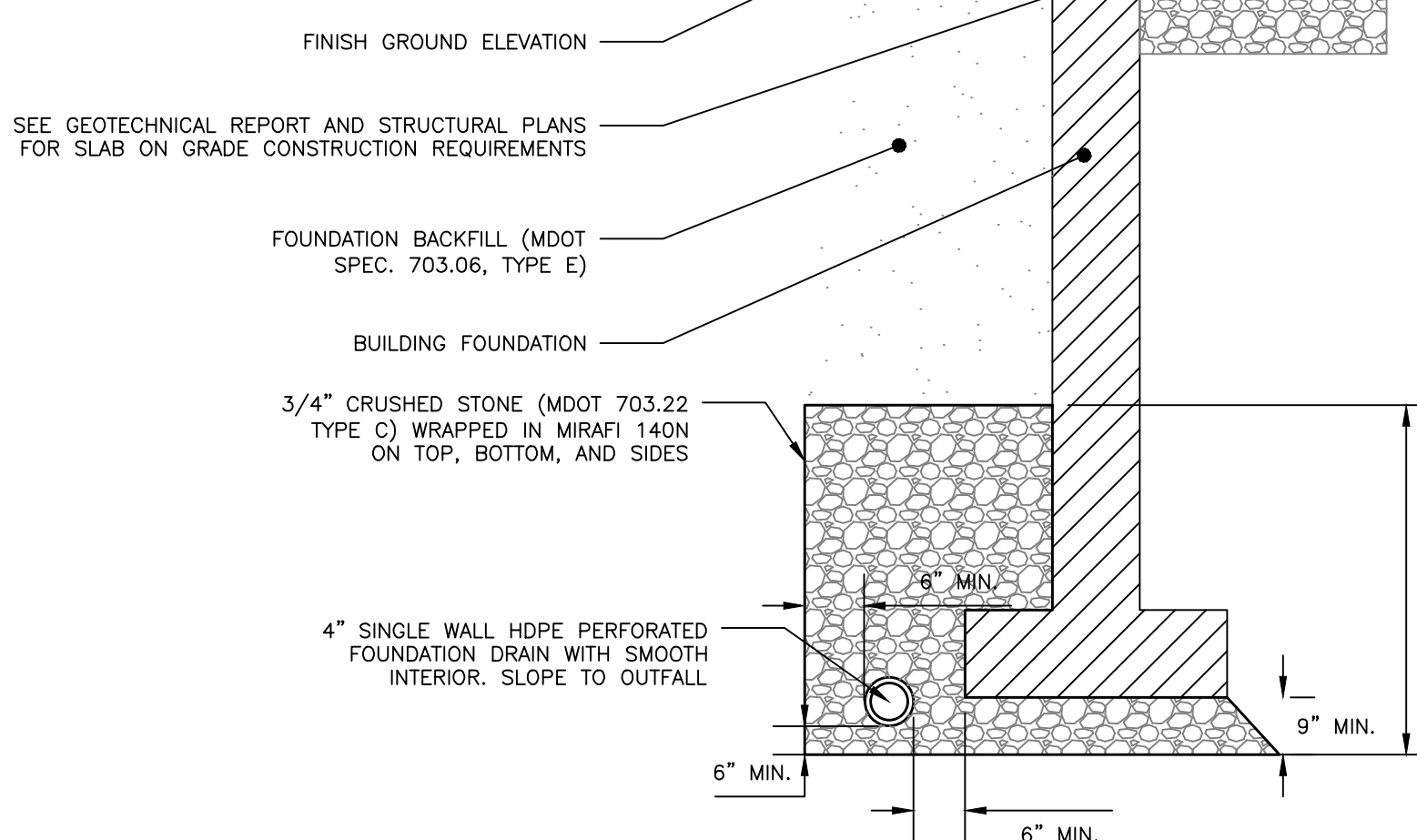


CAST IRON MANHOLE COVER AND FRAME

NOT TO SCALE

NOTES:

- REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
- PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
- FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.

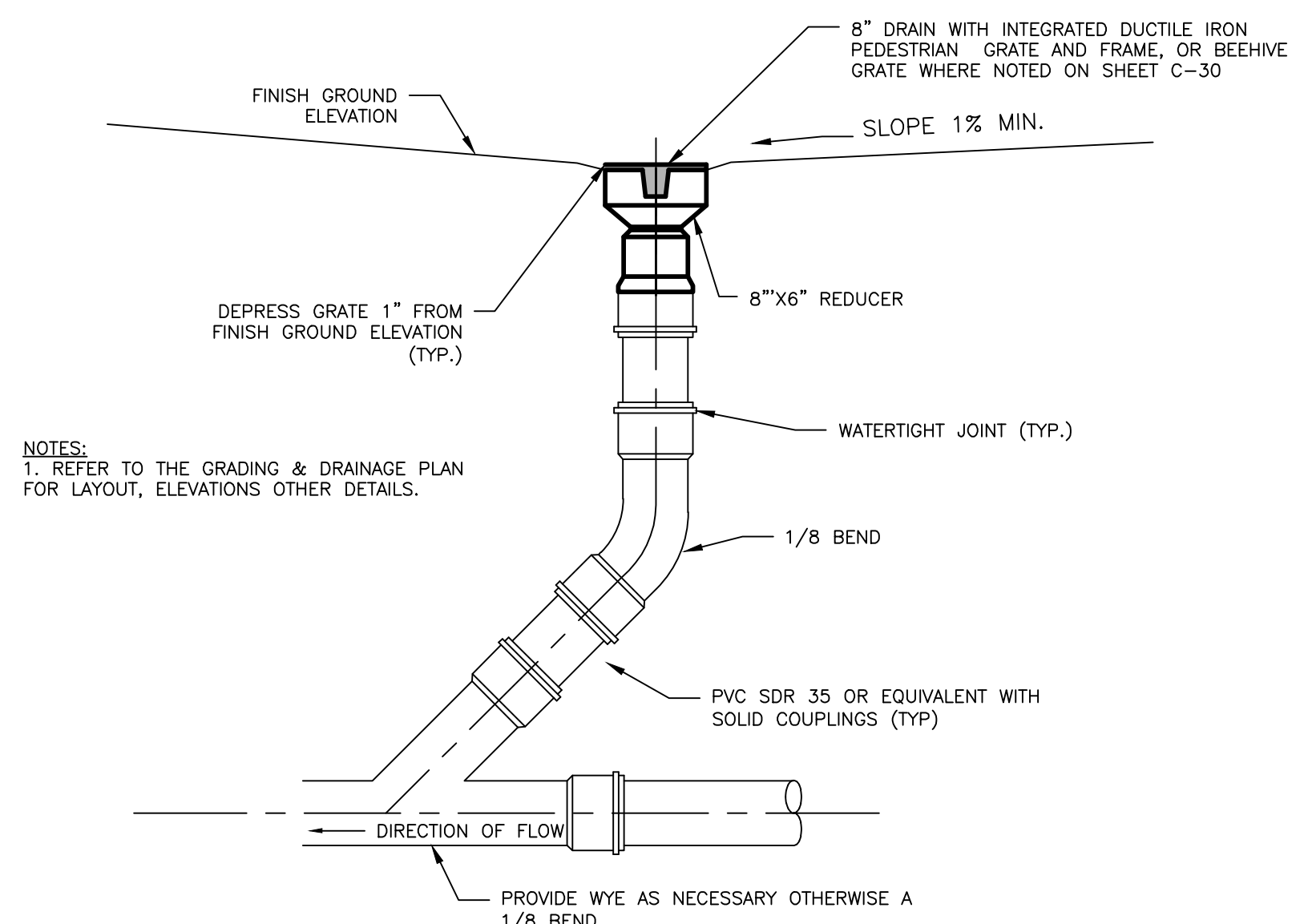


FOUNDATION DRAIN DETAIL

NOT TO SCALE

- ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
- MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
- PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
- ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
- ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
- ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
- SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
- ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
- CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
- CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
- EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF BIDDEFORD.
- ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP PER DETAIL.

GENERAL NOTES FOR MANHOLES AND CATCH BASINS

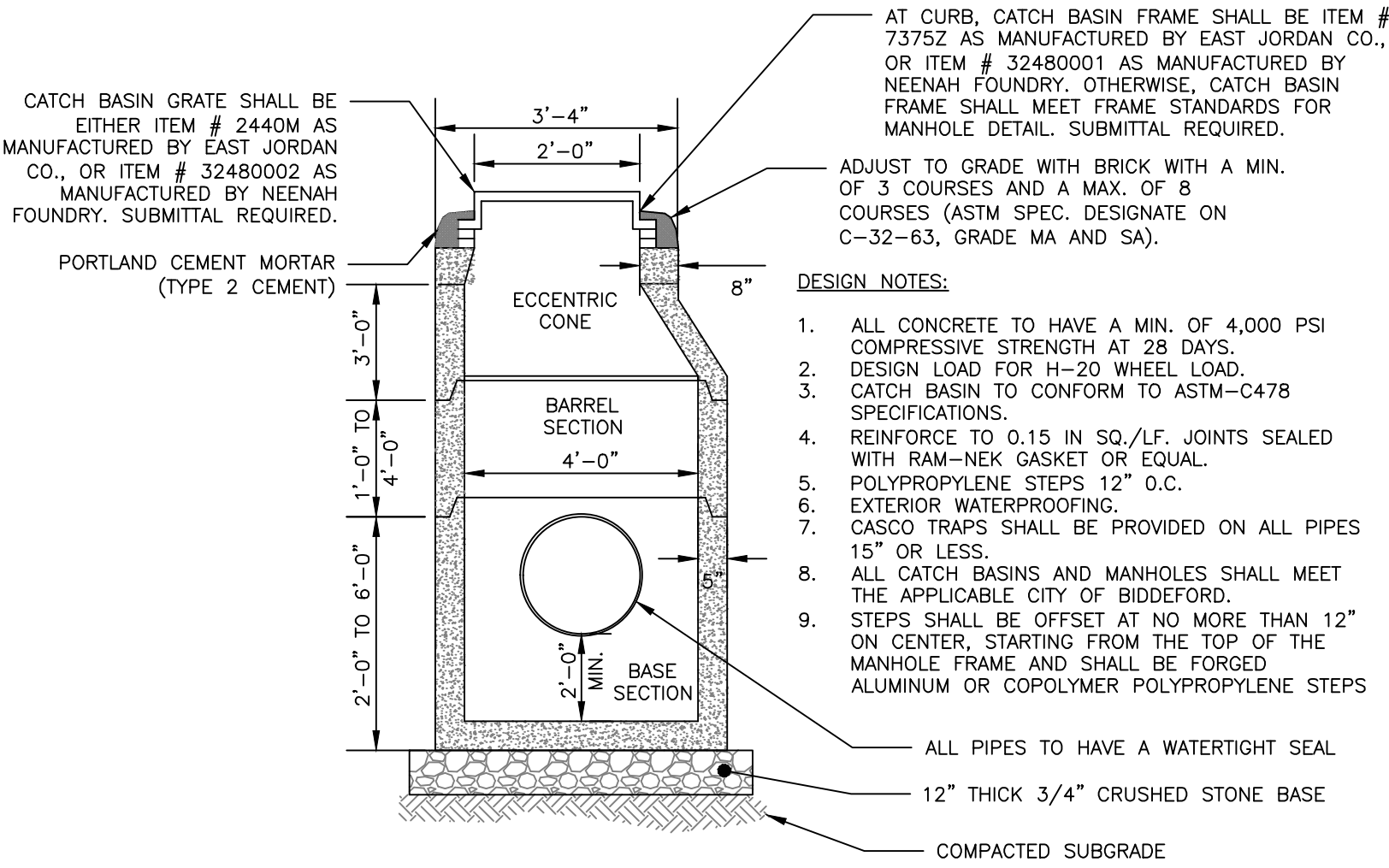


NOTES:

- REFER TO THE GRADING & DRAINAGE PLAN FOR LAYOUT, ELEVATIONS OTHER DETAILS.

FIELD INLET DRAIN DETAIL WITH GRATE

NOT TO SCALE

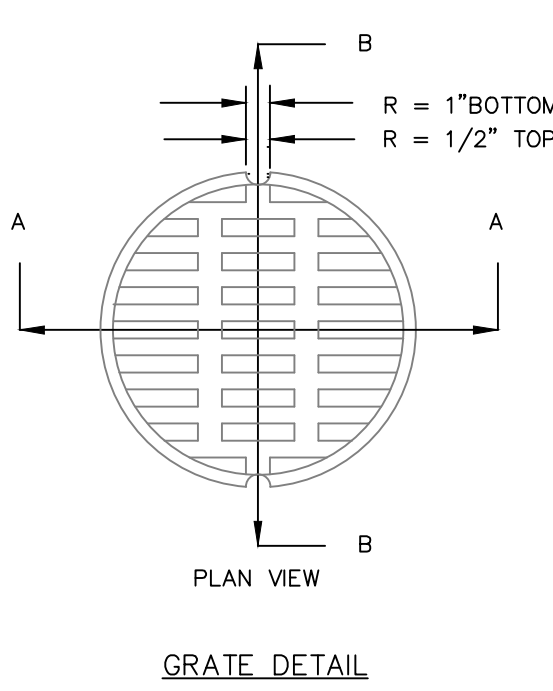
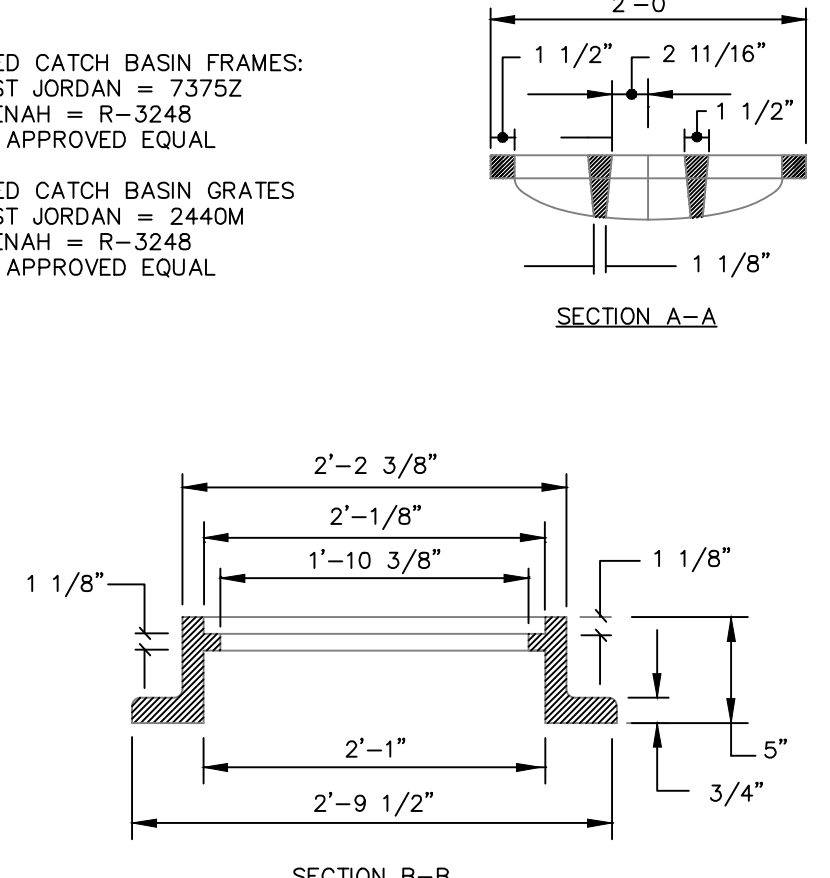


4'-0" / 5'-0" DIAMETER PRECAST CATCH BASIN/DRAINAGE MANHOLE

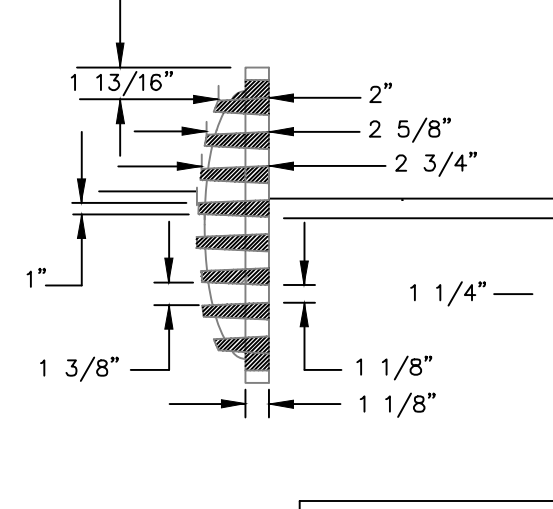
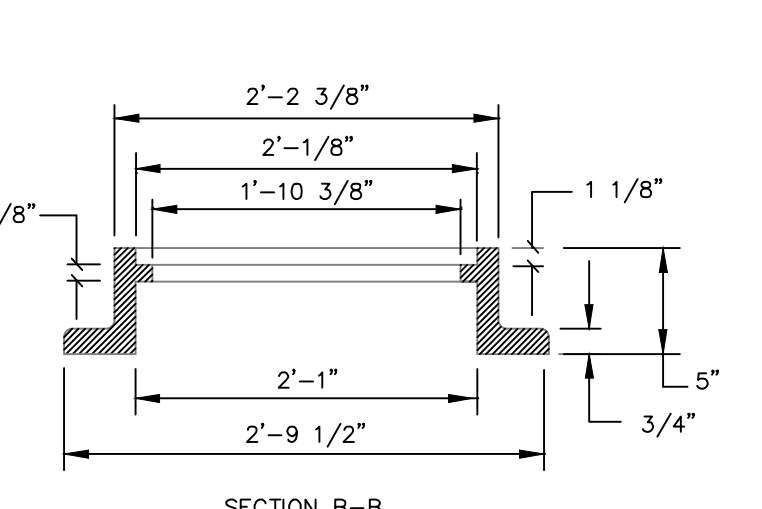
NOT TO SCALE

NOTES:

- APPROVED CATCH BASIN FRAMES:
1.1. EAST JORDAN = 73752
1.2. NEENAH = R-3248
1.3. OR APPROVED EQUAL
- APPROVED CATCH BASIN GRATES
2.1. EAST JORDAN = 2440M
2.2. NEENAH = R-3248
2.3. OR APPROVED EQUAL



GRATE DETAIL



CATCH BASIN FRAME & GRATE

NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
ATS	PPH
PRELIMINARY	PPH
FINAL	PPH

DATE
10/23/24
1/15/24
1/15/25

DRAINAGE DETAILS

PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD: WESTBROOK DEVELOPMENT CORPORATION

30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

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

PETER F. HEIL 15318 1/3/25 LICENSED PROFESSIONAL ENGINEER

DRAWING NO. C-46

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 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.
- 1.1.2 SILTATION 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 BEHIND 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 PLAN.
- 1.1.5 PEARL STREET AND LINCOLN STREET SHALL BE SWEEPED 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 "TODD" 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 1/2 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.
- 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

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 SEED OR MULCH. SEEDING SHALL BE TEMPORARILY DEFERRED 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 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 EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT." A "STORM EVENT" SHALL CONSIST OF 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 IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT
- 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 AND LINCOLN 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-P2O5-K2O) 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

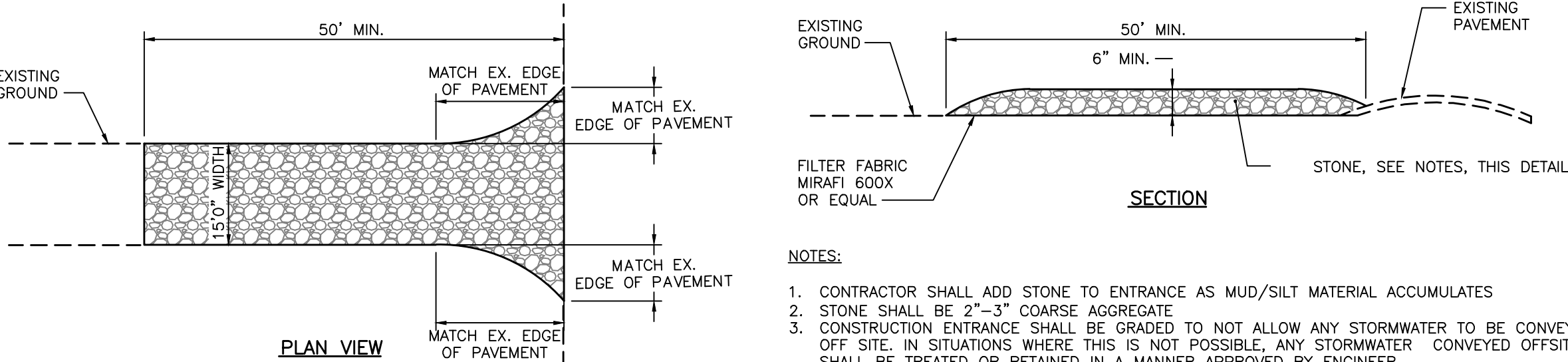
SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREeping RED FESCUE	20.00
PERENNIAL RYGRASS	4.80
TOTAL	44.8 LBS/ACRE

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.



NOTES:

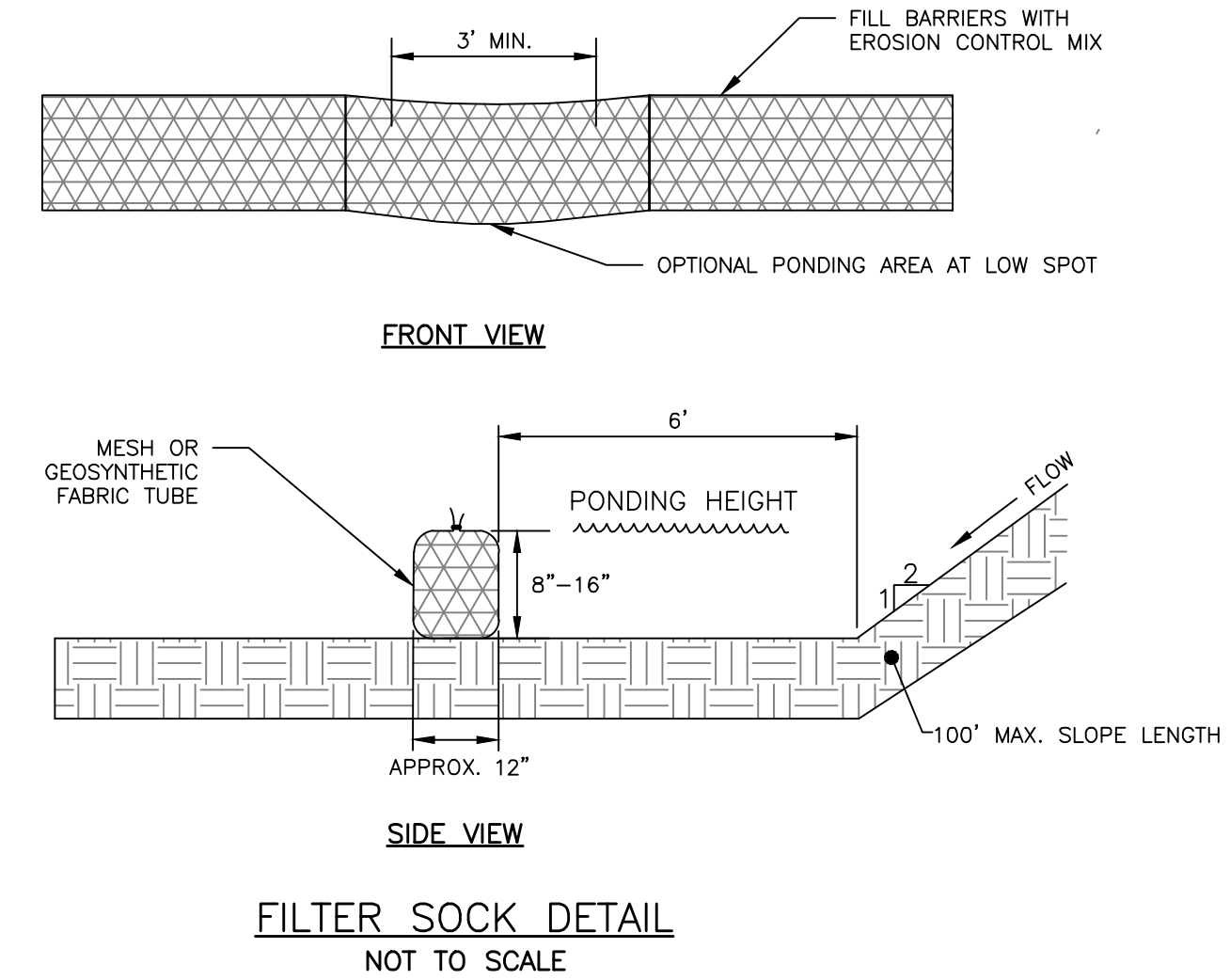
1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"-3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED 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. 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.



NOTES:

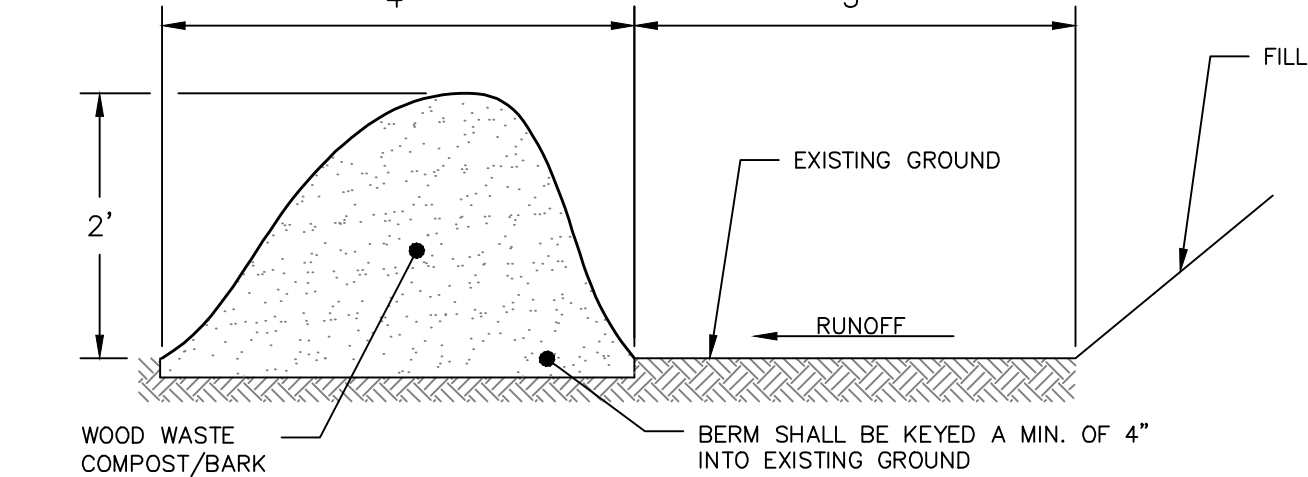
1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DOT CHAPTER 700, SECTION 717.04(D):

- 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 < 0.9 MMHOS/CM
- 1.4. ORGANIC MATTER 20 TO 100%, DRY WEIGHT BASIS

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.

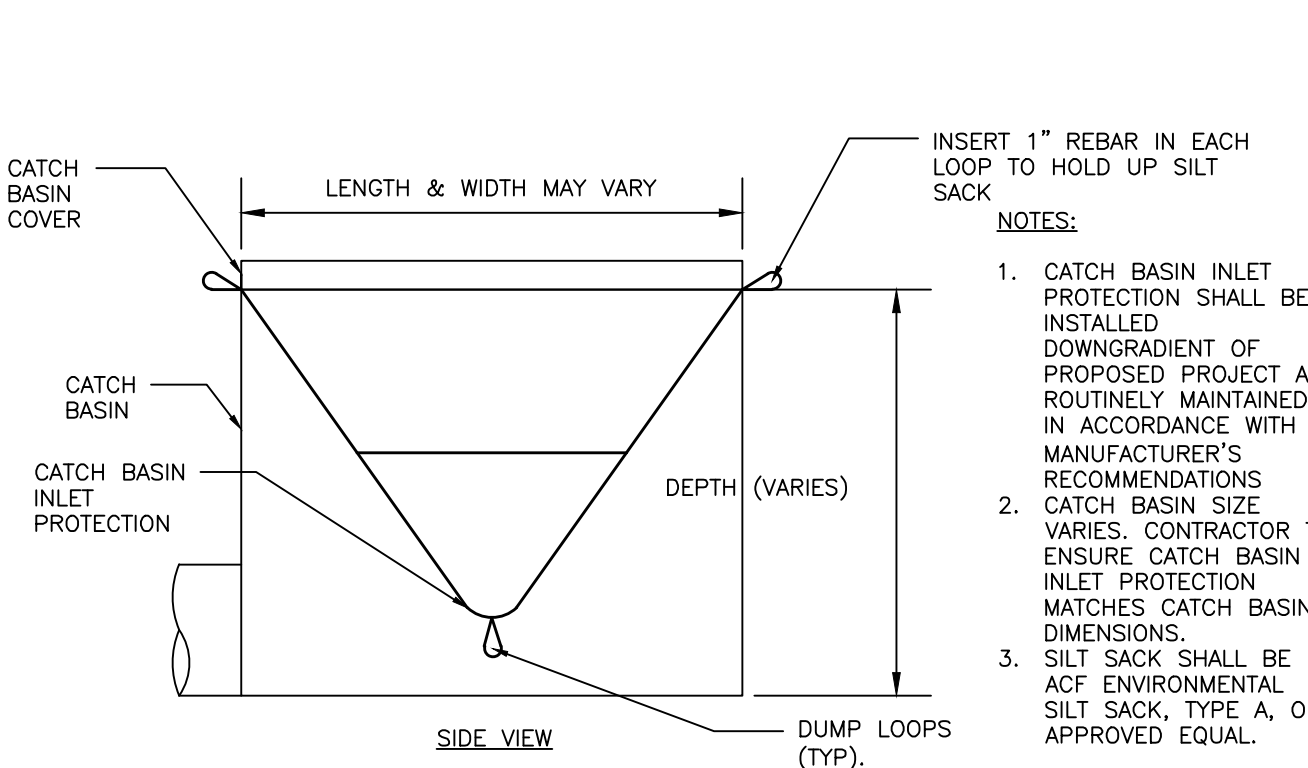
THE BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.

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



CATCH BASIN INLET PROTECTION

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 VARYING 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.

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
ATS	DATE
PRELIMINARY	10/23/24
FINAL	1/15/25

DRAWING NAME: EROSION & SEDIMENTATION CONTROL NOTES AND DETAILS

PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD: WESTBROOK DEVELOPMENT CORPORATION

30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

ACORN ENGINEERING, INC. ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN AUTHORIZATION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AMENDMENTS, OR REVISIONS SHALL BE MADE IN THE PLAN SET AND SHALL BE SUBJECT TO THE 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

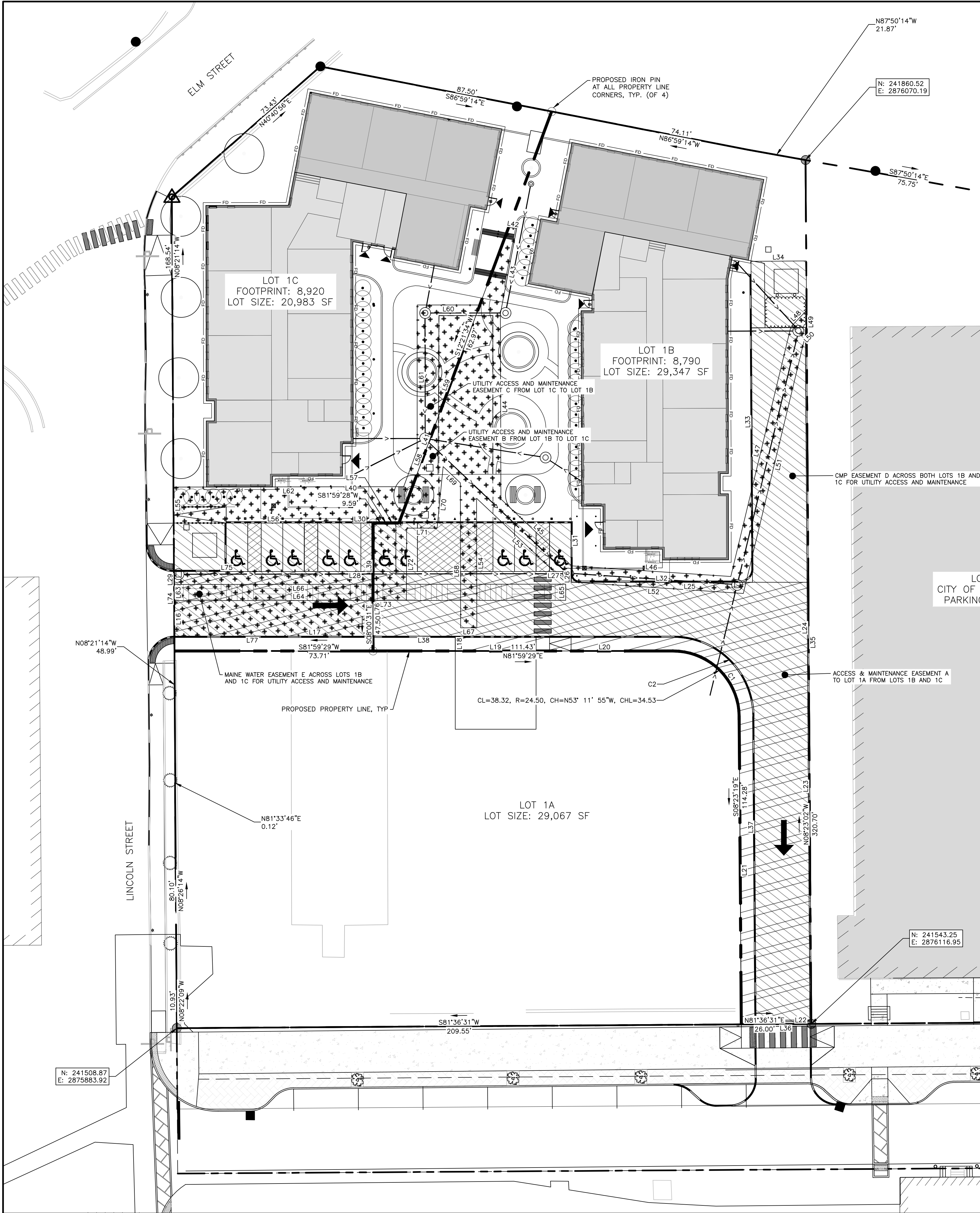
15318

1/3/25

REGISTERED PROFESSIONAL ENGINEER

DRAWING NO.

C-47



APPROVED: BIDDEFORD PLANNING BOARD

CHAIRPERSON: _____ DATE: _____

APPLICANTS

WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE
WESTBROOK, MAINE 04092
CONTACT: TYLER NOROD

QUEBEC COMMONS, LP
30 LIZA HARMON DRIVE
WESTBROOK, MAINE 04092
CONTACT: TYLER NOROD

ACADIA COMMONS, LP
30 LIZA HARMON DRIVE
WESTBROOK, MAINE 04092
CONTACT: TYLER NOROD

CIVIL/SITE ENGINEER:

ACORN ENGINEERING, INC.
P.O. BOX 3372,
PORTLAND, MAINE 04104
CONTACT: PETER F. HEIL, P.E.

SURVEYOR

OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
CONTACT: RANDY LOUBIER, P.L.S.

PLAN REFERENCES:

- PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
- PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL, DATED 2/4/2022
- PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021 & REVISED 9/29/21

GENERAL NOTES:

- ALL FINAL CONDITIONALS OF SIDEWALK AND CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARDS.
- ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD & MUTCD STANDARDS.
- ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE. 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.
- ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
- ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
- FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

SURVEY NOTES:

- OWNER OF RECORD: CITY OF BIDDEFORD
TAX MAP 71 LOT 2
Y.C.R.D. BOOK 16475 PAGE 186
Y.C.R.D. BOOK 16838 PAGE 255
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- ELEVATIONS ARE BASED ON NAVD 88 DATUM.

EASEMENTS:

EXISTING:
1. REFER TO PLAN REFERENCE 3 FOR EXISTING EASEMENTS

PROPOSED:

- PROPOSED EASEMENTS ACROSS THE PROPERTY ARE BEING FINALIZED AS DESIGNS PROGRESS AND WILL BE SHOWN ON THE SUBDIVISION PLAT AS PART OF THE FINAL SUBDIVISION SUBMISSION. ANTICIPATED EASEMENTS WILL INCLUDE:
- ACCESS & MAINTENANCE EASEMENT A TO LOT 1A FROM LOTS 1B AND 1C
 - UTILITY ACCESS AND MAINTENANCE EASEMENT B FROM LOT 1B TO LOT 1C
 - UTILITY ACCESS AND MAINTENANCE EASEMENT C FROM LOT 1C TO LOT 1B
 - CMP EASEMENT D ACROSS BOTH LOTS 1B AND 1C FOR UTILITY ACCESS AND MAINTENANCE.
 - MAINE WATER EASEMENT E ACROSS BOTH LOTS 1B AND 1C FOR UTILITY ACCESS AND MAINTENANCE.

SPACE AND BULK STANDARDS

ZONE:	REQUIRED (MSRD3)	PROPOSED LOT 1C	PROPOSED LOT 1B
MINIMUM LOT SIZE	NONE	20,983 SF	29,347 SF
MINIMUM STREET FRONTAGE	NONE	320 FT	35 FT
MINIMUM FRONT YARD SETBACK	NONE	4.64 FT	33.80 FT
MINIMUM REAR YARD SETBACK	NONE	9.91 FT	9.84 FT
MINIMUM SIDE YARD SETBACK	NONE	10 FT	10.09 FT
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	4 STORIES	4 STORIES
MINIMUM SHORE FRONTAGE	-	N/A	N/A
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	-	> 250 FT	> 250 FT
MAX LOT COVERAGE	100%	(14,758 SF) 70.3%	(24,269 SF) 82.7%

PARKING SUMMARY

USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 1B	45	2 SPACE / 3 DWELLING UNIT FOR AFFORDABLE HOUSING UNITS = 30 SPACES	-
LOT 1C	45	2 SPACE / 3 DWELLING UNIT FOR AFFORDABLE HOUSING UNITS = 30 SPACES	-
-	-	1 SPACE / 2 EMPLOYEES - 1 SPACE	-
ADA (8'x18')	-	-	10
TOTAL SPACES	-	61	71*

* 61 ADDITIONAL SPACES TO BE PROVIDED IN PARKING GARAGE LOCATED ON LOT 2

LEGEND

PROPOSED PROPERTY LINE ————

EXISTING PROPERTY LINE ————

PROPOSED EASEMENT LINE - - - - -

CURB ————

EXISTING ROD ● ●

PROPOSED PROPERTY PIN ○

STATE OF MAINE, YORK, ss
REGISTRY OF DEEDS

RECEIVED _____

AT _____ hr. _____ min. _____ m. AND RECORDED

IN PLAN BOOK _____, PAGE _____

ATTEST: _____ REGISTER

THIS SURVEY CONFORMS TO THE CURRENT STANDARDS OF PRACTICE SET FORTH BY THE MAINE STATE BOARD OF LICENSURE FOR LAND SURVEYORS.

RANDY R. LOUBIER, MAINE P.L.S. #2407 DATE: _____
OWEN HASKELL, INC.

EASEMENT 'A' TABLE

LINE	BEARING	DISTANCE
L16	S8°21'14"E	23.98'
L17	N81°59'44"E	104.24'
L18	S8°00'25"E	5.51'
L19	N81°59'29"E	30.00'
L20	N81°59'29"E	50.93'
L21	S8°23'19"E	114.28'
L22	N81°36'31"E	26.00'
L23	N8°23'02"W	143.95'
L24	N8°23'02"W	20.02'
L25	S81°58'51"W	88.10'
L26	N8°12'38"W	4.02'
L27	S81°54'03"W	13.00'
L28	S81°59'22"W	134.39'

EASEMENT 'B' TABLE

LINE	BEARING	DISTANCE
L39	N8°00'31"W	28.70'
L40	N81°59'28"E	9.59'
L41	N12°21'34"E	117.07'
L42	N89°53'40"E	3.00'
L43	S2°46'52"W	32.22'
L44	S8°11'08"E	68.77'
L45	S54°35'51"E	36.08'
L46	N85°48'59"E	59.26'
L47	N5°30'16"E	95.33'
L48	N35°44'31"E	8.44'
L49	S8°23'02"E	8.62'
L50	S35°44'31"W	0.64'
L51	S5°30'16"W	98.78'
L52	S85°48'59"W	66.48'
L53	N54°35'51"W	45.04'
L54	S8°07'19"E	48.10'
L67	S81°52'41"W	6.00'
L68	N8°07'19"W	53.80'
L69	N54°35'51"W	8.82'
L70	S2°22'06"E	23.00'
L71	S81°59'36"W	11.27'
L72	S7°48'42"E	26.83'
L73	S82°11'18"W	12.39'

EASEMENT 'C' TABLE

LINE	BEARING	DISTANCE
L55	S8°21'14"E	13.34'
L56	N81°59'28"E	73.99'
L57	N81°59'28"E	9.59'
L58	S12°03'49"W	14.44'
L59	N12°21'34"E	86.37'
L60	S82°00'08"W	23.28'
L61	S75°59'52"E	53.93'
L62	S81°53'49"W	85.48'

EASEMENT 'C' TABLE

LINE	BEARING	DISTANCE
L74	N8°21'08"W	23.98'
L75	N81°58'13"E	73.88'
L76	S8°01'05"E	24.01'
L77	S81°59'44"W	73.74'

EASEMENT 'D' TABLE

LINE	BEARING	DISTANCE
L29	N8°21'14"W	41.99'
L30	N81°59'28"E	147.49'
L31	S8°02'44"E	22.00'
L32	N81°58'51"E	67.34'
L33	N8°15'33"W	119.15'
L34	N81°36'58"E	20.50'
L35	S8°23'02"E	283.25'
L36	S81°36'31"W	20.50'
L37	N8°23'19"W	114.28'
L38	S81°59'44"W	185.17'

EASEMENT 'E' TABLE

LINE	BEARING	DISTANCE
L63	S8°21'14"E	6.00'
L64	N81°57'22"E	145.32'
L65	N8°02'38"W	6.00'
L66	S81°57'22"W	145.35'

ED SHALL BE REBUILT TO
OF BIDDEFORD & MUTCD
LY DISPOSED OF OFFSITE
E WITH DETAIL. BROKEN CURB
TO THE CONTRACTOR'S EXPENSE.
T EXCEED 1 INCH PER FOOT.
CTOR TO COORDINATE AND

BE RESPONSIBLE FOR THE
TRASH REMOVAL AND SNOW

EASEMENT 'D' CURVE TABLE

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C2	46.92	30.00	89.62	N53°11'55"W	42.29

EASEMENT 'A' CURVE TABLE

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	38.32	24.50	89.62	SS5°11'55"E	34.53

W, WEST ZONE, NAD 83.

CONDITIONS OF APPROVAL:

BASED ON THE EVIDENCE AVAILABLE AND THE CONCLUSIONS ABOVE, THE BIDDEFORD PLANNING BOARD APPROVES THE PROPOSED PROJECT SUMMARIZED WITHIN THE ATTACHED STAFF REPORT AND PURSUANT TO THE PROVISIONS OF THE CITY OF BIDDEFORD CODE OF ORDINANCES LAND DEVELOPMENT REGULATIONS, ARTICLE XI (SITE PLAN REVIEW), AND ARTICLE VI (PERFORMANCE STANDARDS), THE BIDDEFORD PLANNING BOARD HAS APPROVED THE APPLICATION OF FINAL MAJOR SUBDIVISION AND SITE PLAN REVIEW FOR A PROPOSED AND THE RECOMMENDED FINDINGS OF FACT (FOF) WITH THE FOLLOWING CONDITIONS OF APPROVAL (COA):

- STANDARD CONDITIONS OF APPROVAL APPLY.
- REQUIRED INSPECTIONS
 - EROSION & SEDIMENT CONTROL INSPECTIONS
 - NEEDS TO BE COMPLETED BY A CITY-APPROVED 3RD PARTY INSPECTOR AND PAID BY THE APPLICANT VIA THE INSPECTION FEE ESCROW BEING HELD BY THE CITY.
 - INITIAL, MONTHLY, AND FINAL INSPECTIONS
 - INSPECTION REPORTS NEED TO BE SUBMITTED TO THE ENGINEERING DEPARTMENT
 - RIGHT-OF-WAY INSPECTIONS
 - NEEDS TO BE COMPLETED BY CITY ENGINEERING DEPARTMENT
 - FOR ALL PUBLIC ROAD, STORM, AND SEWER CONNECTIONS
 - STORMWATER BMP INSTALLATION INSPECTIONS
 - NEEDS TO BE COMPLETED BY THE DESIGN ENGINEER
 - CONFIRMING STORMWATER FACILITIES INSTALLED CORRECTLY PER DESIGN
 - INSPECTION REPORTS NEED TO BE SUBMITTED TO THE KRISTIE RABASCA & ENGINEERING DEPARTMENT
 - POST-CONSTRUCTION BMP MAINTENANCE ANNUAL INSPECTIONS
 - NEEDS TO BE COMPLETED ANNUALLY BY THE DESIGN ENGINEER OR 3RD PARTY INSPECTOR
 - NEEDS TO ASSESS THE CURRENT CONDITION OF EACH BMP, WHAT REPAIRS ARE NEEDED, AND CONFIRM ON-GOING MAINTENANCE HAS OCCURRED.
 - ANNUAL INSPECTION REPORTS NEED TO BE SUBMITTED TO THE KRISTIE RABASCA & ENGINEERING DEPARTMENT
- SITE PUNCHLIST INSPECTIONS
 - ONCE AS-BUILT DRAWINGS ARE SUBMITTED TO THE PLANNING DEPARTMENT (CLEARLY IDENTIFYING WHAT DEVIATIONS AND VARIANCES WERE INSTALLED BASED ON THE APPROVED PERMIT DRAWINGS), THE CITY ENGINEERING DEPARTMENT WILL CONDUCT AN INSPECTION.
 - THE APPLICANT MUST GIVE PROPER JUSTIFICATION FOR ANY DEVIATIONS FROM THE APPROVED PLANS; THE CITY PLANNER SHOULD BE CONTACTED, IN WRITING, PRIOR TO CONSTRUCTION OF ANY DEVIATION FROM THE APPROVED DEVELOPMENT PLANS TO REQUEST A DE MINIMIS CHANGE/S. CHANGES BEYOND THE AUTHORITY OF THE CITY PLANNER SHALL BE REVIEWED AND APPROVED BY THE PLANNING BOARD.

- SEWER PERMITS: FINALIZED AND PAID PRIOR TO BUILDING PERMIT ISSUANCE; PAYMENT COORDINATION TO GO THROUGH ENGINEERING DEPARTMENT.
- AS-BUILT DRAWINGS AND CAD FILES NEED TO BE SUBMITTED TO THE PLANNING & ENGINEERING DEPARTMENTS PRIOR TO A 'SITE PUNCHLIST INSPECTION' AND ANY BOND RELEASE.
- YORK COUNTY RECORDED DRAWINGS: APPLICANT MUST SUBMIT COPIES OF YORK COUNTY REGISTRY OF DEED DRAWINGS TO PLANNING & ENGINEERING DEPARTMENT PRIOR TO BUILDING PERMIT ISSUANCE.



SCALE: 1" = 20'

DRAFT
NOT ISSUED FOR
RECORDING

ISSUED FOR	BY
ATS	DATE
PRELIMINARY	10/23/24
FINAL	17/15/25

SUBDIVISION PLAT

PROJECT NAME/ADDRESS: 15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD: WESTBROOK DEVELOPMENT CORPORATION

30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

DRAWING NAME: ACORN ENGINEERING, INC.

THE PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, 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

DRAWING NO.

PLAT

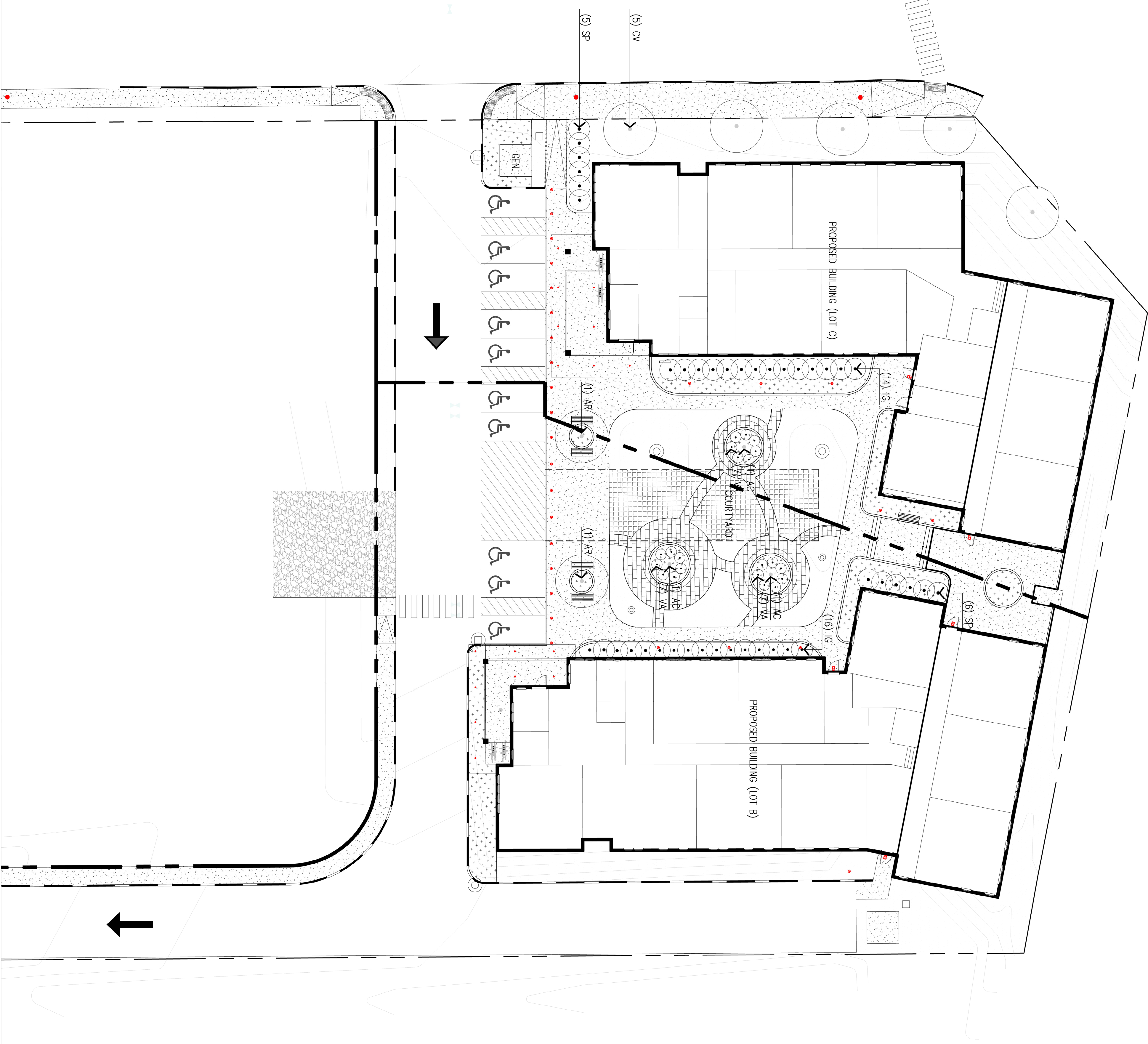
PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
DECIDUOUS TREES				
AR	ACER RUBRUM SP.	ARMSTRONG MAPLE	2	2.5" CAL.
AC	AMELANCHIER CANADENSIS	SERVICEBERRY	3	10"
CV	CRATAEGUS VIRIDIS SP.	HAWTHORN WINTER K.	5	2.5" CAL.
SHRUBS / PERENNIALS / GRASSES / GROUND COVER / BULBS				
AG	ALLIUM GLOBE MASTER	FLOWER ONION	200	BULB
IG	ILEX GLABRA	INK BERRY HOLLY	7	7 GAL.
SP	STRINGA PUBESCENS	MISS KIM LILAC	11	7 GAL.
NR	NEPETA RACEMOSA	CATMINT 'WALKERS'	TBD	1 GAL.
VA	VACCINIUM ANGUSTIFOLIUM	LOWBUSH BLUEBERRY	21	5 GAL.

PLANTING NOTES

- THE CONTRACTOR SHALL PREPARE PLANTING ZONES TO THE GRADES AND DEPTHS AS INDICATED ON THE DRAWING.
- IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DETERIORUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
- TOPSOIL SHALL BE FREE FROM SUBSOIL, STONES, LARGER THAN 1", OR ANY UNSERVICEABLE MATERIAL, CONTAIN 5% ORGANIC MATTER AND HAVE A PH SUITABLE TO THE LOCAL GROWING CONDITIONS.
- 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.
- THE PLANT LIST IS PROVIDED AS A CONVENIENCE TO THE CONTRACTOR. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT LIST AND THE DRAWING, THE DRAWING SHALL TAKE PRECEDENCE.
- ALL TRANSLANTED SHRUBS SHALL BE "NEEDED IN" OR HEAVILY MULCHED IN A SHADDED AREA AND WATERED AS NECESSARY UNTIL THEY CAN BE PLANTED.
- FINAL LOCATION OF ALL PLANTS TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
- PLANTS SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS THE BORE TO EXISTING GRADE IN THE INSET/ART.
- CUT AND REMOVE BULBS FROM TOP 1/3 OF BALL. CUT AND REMOVE AT LEAST 1/3-1/2 OF WIRE BASKET. WIRE ROPE AND / OR NYLON BAILING MATERIAL IS NOT ACCEPTABLE.
- PLANT PERENNIALS AND GROUNDCOVER IN 6" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS.
- 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 L3.10)
- ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 6" OF CASSELLA'S ORGANICS OR EQUIV. (40% COMPOST / 60% LOAM) AND A 3" LAYER OF DOUBLE SHREDED HARDWOOD/BARK MULCH. 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.
- ALL TREE PLANTING AND REMOVAL TO COMPLY WITH LOCAL AND STATE TREE ORDINANCES.
- IRRIGATION DESIGN BY OTHERS.
- COURTYARD TREE HEIGHT TO BE MAINTAINED BETWEEN 10 AND 12' (MAX).

SYMBOLS LEGEND

	HARDSCAPE
	MASONRY STEPS / LANDINGS
	MASONRY PAVING
	PP CONCRETE W / FLUSH MASONRY EDGE
	SITE FURNISHING / BENCH
	BICYCLE PARKING
PLANTS	
	PERENNIAL PLANTING BEDS
	GRASS
	REINFORCED TURF GRASS
	PROPOSED DECIDUOUS TREE
	PROPOSED SHRUB
	(SEE LIGHTING PLAN FOR LIGHT FIXTURES | LUMENS | BOLLARD DETAIL.)



15 PEARL STREET (LOT 1B | 1C)

SENIOR HOUSING REDEVELOPMENT
BIDDEFORD, MAINE

No: Revision Date:

revisions:
date: JANUARY 15, 2025
scale: As Noted
drawn: SD
checked: XX

L1.0

LANDSCAPE PLAN

Soren delNord Design Studio
43 Wallwood Road
Portland, ME
04103
T: 207-400-2450
E: soren@sorendelNord.com

15 PEARL STREET (LOT 1B | 1C)

SENIOR HOUSING REDEVELOPMENT
BIDDEFORD, MAINE

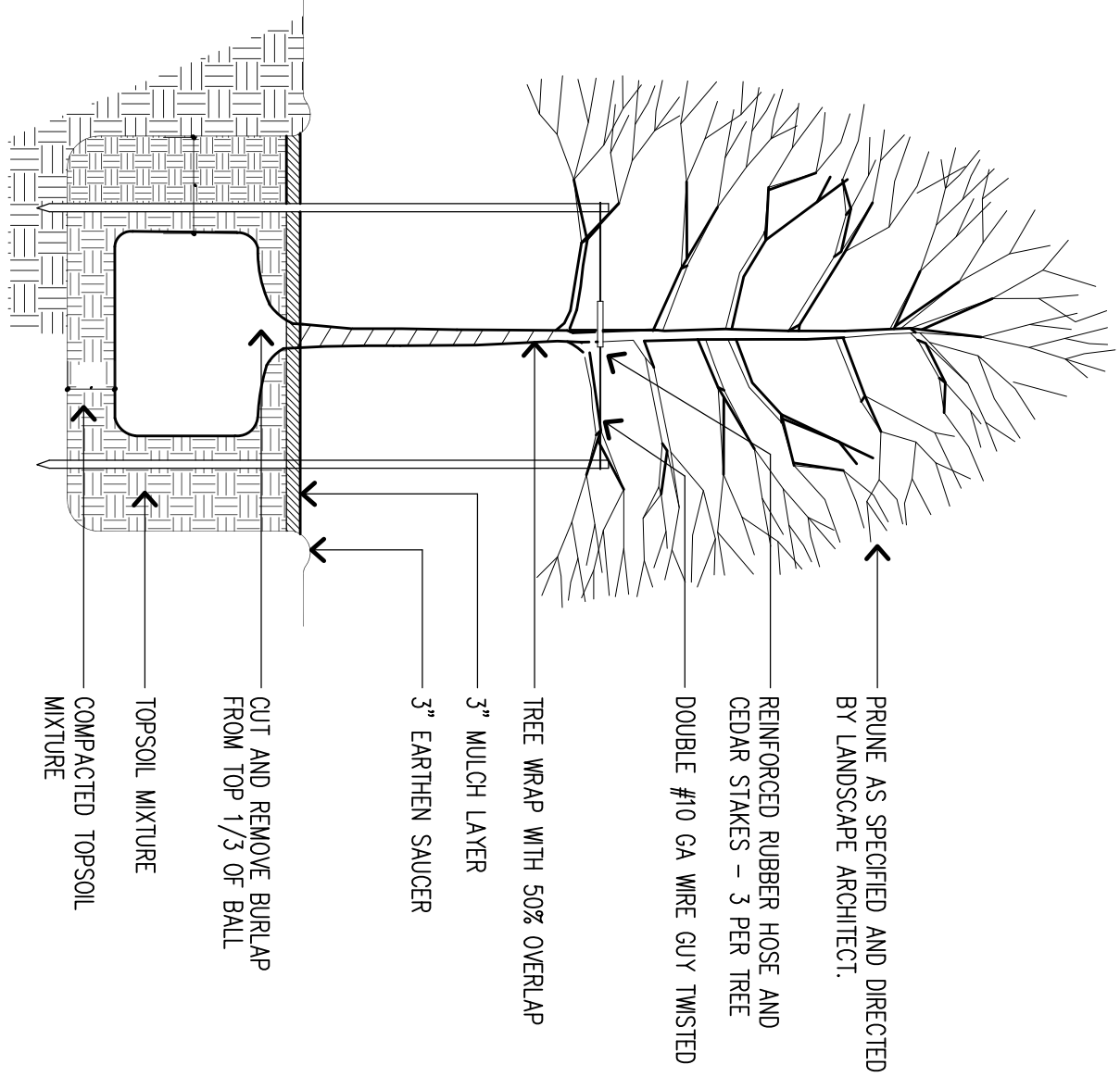
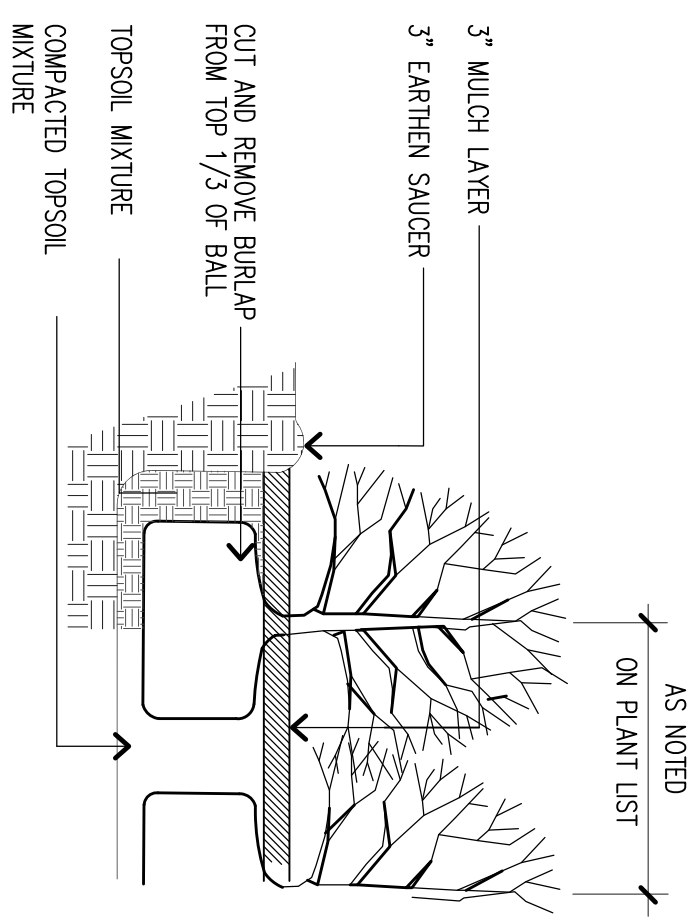
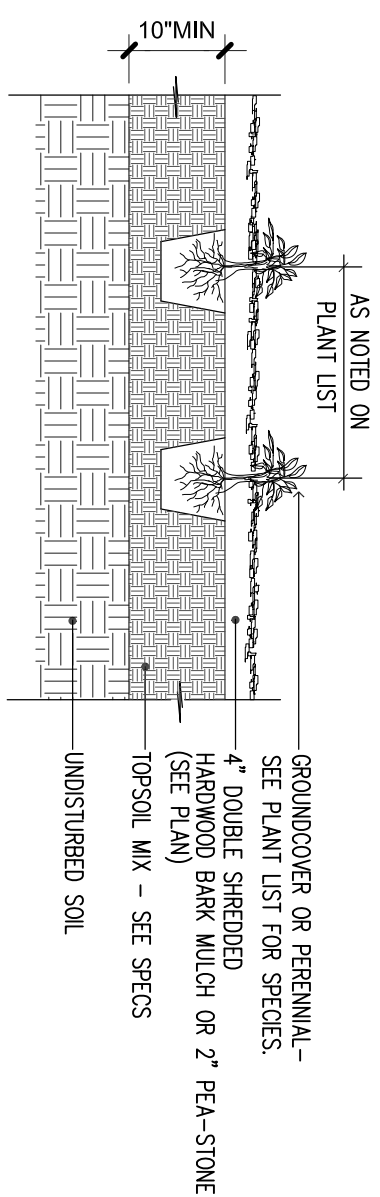
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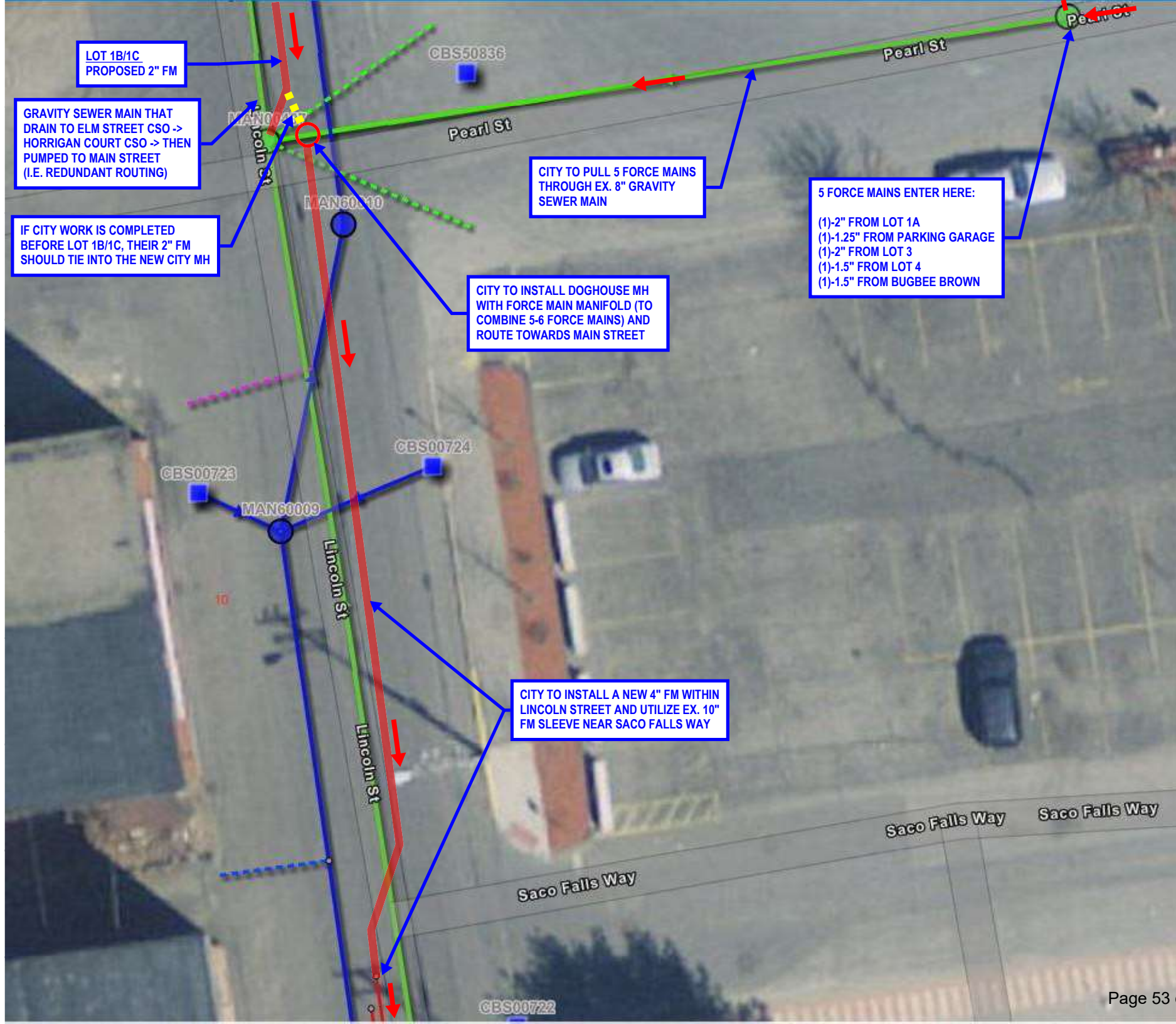


revisions:
date: JANUARY 15, 2025
scale: As Noted
drawn: XX
checked: XX

L2.0

PLANTING DETAILS

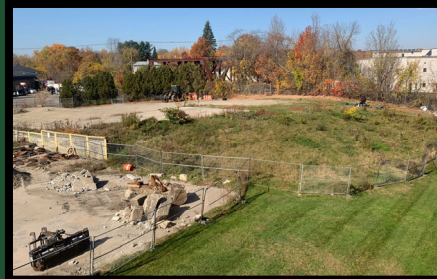






FINAL SITE PLAN & SUBDIVISION / SITE LOCATION OF DEVELOPMENT APPLICATION

15 PEARL STREET, (LOT 1B & 1C) REDEVELOPMENT
CITY OF BIDDEFORD, ME



Prepared By:

ACORN ENGINEERING, INC.

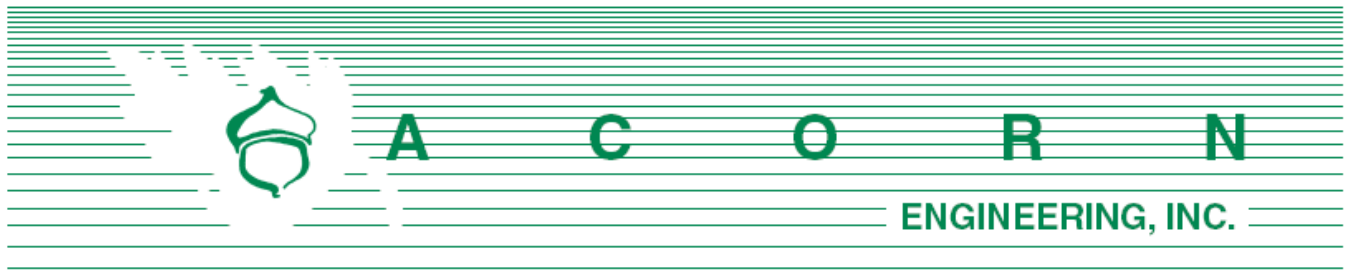
For:

WESTBROOK DEVELOPMENT CORPORATION.

JANUARY, 2025



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



David C.M. Galbraith – City Planner
Department of Planning & Urban Development
205 Main Street, P.O. Box 586
Biddeford, Maine 04005

January 15, 2024

Subject: 15 Pearl Street, Biddeford, ME
Lot 1B & 1C Final Submission

On behalf of Westbrook Development Corporation & 3 Lincoln, LLC., we are pleased to respond to the comments that we received at the Planning Board Workshop Meeting held on December 4th, 2024, and accompanying Staff Report, related to the proposed affordable senior housing development project located at 15 Pearl Street, Biddeford, Maine.

Additionally, due to the anticipated construction timelines, and anticipated MaineHousing phasing that would stagger the two building construction start dates approximately a year apart, we are formally requesting an extended approval timeline from the Planning Board, through December 31, 2028.

Comments From the Fire Department

Comment: Fire department Connections (FDC) shall be shown on revised plans.

Response: The fire department connections are provided on each building. Please refer to C-20 Utility Plan for additional information.

Comment: Sprinkler rooms shall be clearly identified on revised site and floor plans.

Response: The sprinkler rooms are shown in each building footprint. Please refer to C-20 Utility Plan for additional information.

Comment: All egress doors shall be clearly identified on revised drawings.

Response: All egress locations are clearly identified on the drawings, with black triangular symbols showing the egress points. Please refer to both the Civil Plan and Architectural Plan Sets for additional information.

Comment: The Fire Department will need unimpeded vehicle access in the center of the proposed courtyard. This fire access lane shall be designed to accommodate the weight of the City's heaviest emergency equipment. This matter was discussed with the Fire Department prior to plan submittal and was not addressed.

Response: The internal courtyard is designed to allow a firetruck turning maneuver, including a

central grass paver emergency access lane. Please refer to Section 18 for the turning templates.

Comment: *The courtyard shall be designed with landscaping, including shade trees, to be situated as to not interfere with emergency access (note ladder truck swing movements).*

Response: Please refer to Sheet C-10 and L1.0 for planting schedule and locations. The shade trees and plantings are designed to not interfere with emergency access vehicles.

Comment: *Emergency vehicle templates shall be shown on revised plans, including the courtyard.*

Response: Please refer to Section 18 for vehicle turning templates including the firetruck turnaround within the courtyard.

Comment: *The Fire Department is requesting a snow removal plan (not on-site snow storage) be submitted with the preliminary application submittal.*

Response: Please refer to Section 27 for language regarding snow removal onsite.

Comment: *The Fire Department expressed concerns about apartment access from the rear side (against the railroad tracks) of the two buildings. As this side of the two buildings does not provide vehicle access, emergency responders will need to utilize ladder access. Therefore, this area should be flat and emergency access coordinated with the Fire Department.*

Response: The area north of the building adjacent to the railroad tracks is relatively flat with slopes on the west side of Building 1C and east side of 1B to tie back into existing, which allows for pedestrian access and a hand ladder to be erected along these facades. This location has been coordinated with the Fire Department.

Comment: *Fire hydrant locations shall be shown on revised plans.*

Response: The plan set has been updated to show fire hydrant locations. Please refer to C-20 Utility Plan for additional information.

Comments From the Engineering Department

1. Planning Application

Comment: *It looks like the application was reformatted and there are typos/text overlap (see project location section).*

Response: Thank you. The text overlap is fixed for final submission. Please refer to the application for additional information.

Comment: *Areas need to be listed on the application, not directed to the plan set.*

Response: Understood. Please refer to the updated application for the areas listed in the application form, as well as within the plan set.

Comment: *The application states two lots are proposed as an amendment to the 'previous MERC*

subdivision'. The parking garage development was a lot division, not a subdivision.

Response: Understood. The previously approved Lot 3 application did officially approve a subdivision of the MERC lot to be divided into (4) four lots. This project continues to further subdivide Lot 1. Based on a meeting with Planning and Engineering Staff, we understand the City is currently performing a final review of the Subdivision Plat to allow for filing the document within the Registry of Deeds to formally create the 4-lot subdivision.

Comment: *It appears the applicant is still waiting on an ability-to-serve letter from the Fire Department.*

Response: The project team recently had a call with the Fire Chief in early 2025 to discuss the landscaping plan including maximum tree growth heights. We have updated our landscape plan to be in conformance with the fire department's requests. The project team has received an email dated 1/13/25 from the Assistant Chief (Ed Dexter) stating the fire department's interest in signing off on the project. Please refer to Section 29 for additional information.

2. Drawing Checklist

Comment: *Items highlighted red were deemed missing. The drawing checklist should be submitted in it's native excel file format (vs. PDF). A copy of the checklist has been included as supplemental material.*

Response: The updated drawing checklist is attached in excel format with the electronic submission. Acorn had a meeting with the engineering department on 12/18/24 to do a page turn and discuss supplemental material to address all outstanding items and understand Engineering is generally in agreement with the plans, including addressing all outstanding items.

3. Existing Conditions Survey

Comment: *This survey is very outdated and needs to reflect Pearl Street's recently upgraded conditions (as-built utilities, curbs/sidewalks/trees).*

Response: Understood, however the surveyor is not able to update the survey until the end of January 2025. Acorn discussed this comment with Craig Chekan on 12/18/24 and understand Engineering is ok with making this a condition of approval.

4. C-03 Construction Management Plan

Comment: *This drawing is very busy and tough to follow; no legend provided. Recommend freezing non-necessary layers (contours, etc.) and making 'to be demolished' items red for clarity.*

Response: The Construction Management Plan has been updated to remove non-necessary layers and simplify to make it easier to read. See Sheet C-01 for a legend.

Comment: *Underground utilities do not match survey and have varying scales/text heights; some Pearl Street utilities look missing (downstream gravity sewer). Existing utilities need to be uniform and consistent on all sheets. It's unclear that there is storm drainage infrastructure within the Pearl*



Street sidewalk.

Response: Currently the project is showing the survey provided by Owen Haskell and the latest CAD file provided by Sewall / City of Biddeford to represent the recent Pearl Street improvements. Acorn has updated linetypes to be more consistent and will update further once the new survey is performed (see above comment).

Comment: *A large callout needs to be added stating 'all construction traffic to utilize the Lincoln Street curb cut and be restricted from using Pearl Street'.*

Response: A callout has been added to the plan. Please refer to the Construction Management Plan C-03 for additional information.

Comment: *Limits of disturbance acreage missing.*

Response: Limits of disturbance acreage is now shown on the Construction Management Plan. Please refer to Sheet C-03 for additional information.

Comment: *Stockpile location seems unrealistic; Lot 1A wont be used for stockpiling during construction?*

Response: Actual stockpiling subject to site contractors means and methods. While the Applicant does not control Lot 1A, current development plans for Lot 1A are still unknown and anticipates to potentially use this area as a stockpile location. Please refer to C-03 for updated information.

Comment: *There is existing vegetation-cloud linework along the Parking Garage in the vicinity of the buried CB, yet no callouts; clarify/confirm.*

Response: The plan has been revised to remove the clouded linework to avoid confusion. See the Construction Management Plan for additional information.

5. C-10 – Site Plan

Comment: *Survey linework shows previously demolished Lot 1 retaining walls extending within the Pearl Street sidewalk; see comment 3A above.*

Response: Understood, the section of retaining wall extending into the Pearl Street sidewalk has been removed to reflect the existing condition. We are in coordination with our surveyor regarding capturing the as built conditions of Pearl Street and we should have an updated survey in early February 2025, which we understand Engineering is ok with as a condition of approval.

Comment: *No legend (TYP.); Unclear what is curb, depressed curb, tipdowns, etc.*

Response: Acorn discussed this comment with Craig Chekan on 12/18/24 and understand Engineering is ok with a single legend on the cover sheet. The legend has been updated, with additional information and revisions to further match the applicable plan sheets. Please refer to Sheet C-01 additional information.



Comment: *No sidewalk, ADA ramp, or parking dimensions.*

Response: The sidewalk, ADA ramp and parking dimensions have been added to Sheet C-10.

Comment: *ADA accessible path is unclear; where is depressed curb proposed a bollard is proposed in front of the 5' chevron striping, etc.*

Response: The head of parking stalls are proposed to be a flush condition between the edge of parking pavement and the pedestrian sidewalk/travel way, with flush curbing and bollards proposed to separate the vehicular and pedestrian areas. The flush condition at the end of the ADA parking stall with a mix of lighting bollards and regular (non-lit) bollards. See Sheet C-30 for curb tip down locations. Bollard spacing has been revised to provide 5' wide clearance at the ADA chevron striping locations. A dimension has been added to the Site Plan (C-10) at the most restrictive location.

Comment: *It appears canopies, building columns, and bike racks are proposed within the sidewalk adjacent to the ADA parking, yet there are no callouts/clear-sidewalk-width dimensions.*

Response: Clear width dimensions have been added to the plan set adjacent to the building canopies, columns, bollards, and bike racks to show adequate clearance for tenants. Please refer to Sheet C-10 for additional information.

Comment: *No sidewalk is proposed along the northeast drive-aisle, yet there is a proposed building staircase location.*

Response: Acorn discussed this comment with Craig Chekan on 12/18/24 and clarified there is no egress to the outside in this staircase location and only interior staircase access, with egress through the lobby. No sidewalk to this location is required, as there is no exterior doorway.

Comment: *No sidewalk is proposed to Lot 1C's staircase along Lincoln Street*

Response: Acorn discussed this comment with Craig Chekan on 12/18/24 and clarified there is no egress to the outside in this staircase location and only interior staircase access, with egress through the lobby. No sidewalk to this location is required, as there is no exterior doorway.

Comment: *Above-ground utilities should be shown and called out (i.e. proposed transformer pad, existing Pearl Street light poles) Clarify where private garbage trucks will park and access interior dumpsters.*

Response: Additional labeling has been added to the Site Plan (C-10) for above ground utilities. Additionally, refer to Section 18 for trash truck turning movements. Trash collection was discussed with Craig Chekan on the 12/18/24 call, and understood he is agreeable to the proposed collection within the drive aisle.

Comment: *During move-ins, where will tenants park and which elevators will they use? Confirm no loading docks are needed.*

Response: It is confirmed that no loading docks will be needed. Tenants will have access to a

single centrally located elevator in each building. Once both phases are built, tenants will park in available public parking on street or in garage as per standard for urban downtown developments.

The five on-site parking spaces for Lot 1C will be constructed simultaneous with Phase I and will be available for residents during initial move ins for Lot 1B. The second phase on Lot 1C will be more compact, and future residents will likely require 1-2 public street or garage spaces to move people in. We will be working with our property management team to help coordinate move in and move out operations. There is on street parking tenants can utilize for move in and move out typical to many other residential locations in downtown urban environments.

Once both buildings are fully occupied, we do not anticipate significant unit turnover since this is affordable housing for seniors. Our residents typically stay until they can no longer live independently, making move in-move out scenarios less frequent than non-age restricted market rate housing.

Comment: Last row of Parking Summary table unclear.

Response: The city standard requires 61 total parking spaces, 10 of which are provided on site, and an additional 61 are provided in the Pearl Street Parking Garage located at 15 Pearl Street. Please refer to the letter provided by the City regarding parking. Additionally, the parking summary table has been revised to provide clarity.

Comment: Clarify proposed impervious & pervious cover areas in square footage & percentage (confirming they are below the R-Tank SWM system thresholds)

Response: 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 very conservative impervious coverage / redevelopment pollutant ranking threshold for the individual lots to remain under once actual designs progress. This project's stormwater report shows that this project is under the design threshold and based on current designs, Lot 1A could be 100% impervious with the highest pollutant ranking and still fall below the previously allocated weighted impact number as part of the initial designs. Please refer to the Stormwater Report, for additional information regarding the pollutant ranking weighted impact calculations.

6. C-20 – Utility Plan

Comment: No legend (TYP) (i.e. storm)

Response: Acorn discussed this comment with Craig Chekan on 12/18/24 and understand Engineering is ok with a single legend on the cover sheet. The legend has been updated, with additional information and revisions to further match the applicable plan sheets. Please refer to Sheet C-01 additional information.

Comment: Proposed sewer connections are not allowed and directly conflict with the City's ability-

to- serve letter given to the design engineer; all of Lot 1 is to utilize the existing 2" FM stub provided into Pearl Street

Response: The sewer design has been updated to include a shared pump station and a 2" force main. The 2" force main will be installed along the curblineline of Lincoln Street from the site to the Lincoln/Pearl Intersection where it can tie into the municipal system as discussed with the City Engineer on 12/18/24.

7. C-30 – Grading & Drainage Plan

Comment: *Steep slopes proposed along northwest corner; I do not think this will work for pedestrian Fire Access and retaining walls may be needed; Fire Department should confirm*

Response: The fire department has confirmed that they would not access the building from Elm Street (Northwest corner)

Comment: *Existing spot elevations should be provided along the North property line; EL 73 implies storm runoff will be directed along your building (FFE 72)*

Response: The grading plan has been modified to clarify a swale north of the buildings. The swale will direct water away from the buildings.

Comment: *40% (2.5:1) slopes proposed in front of Lot 1B's eastern staircase; see comment 5f & 5g.*

Response: Acorn discussed this comment with Craig Chekan on 12/18/24 and clarified there is no egress to the outside in this staircase location and only interior staircase access, with egress through the lobby. No sidewalk to this location is required, as there is no exterior doorway.

Comment: *Detailed grading and drainage needs to be shown along the Parking Garage confirming storm runoff wont be directed towards the building (i.e. at the Pearl Street curb cut, swale capacity along the side)*

Response: Additional spot grades have been added to the swale adjacent to the parking garage and revised contours to show water will directed away from the building and flow within a swale, leading to the CB at the rear of the site

Comment: *Confirm if emergency vehicles/trucks will bottom out at Lincoln Street curb-cut (1% transition to 7.2%)*

Response: The slope transition at the curb cut has been designed to allow emergency vehicles to enter the site without bottoming out. See Section 18 for a fire truck turning movement entering the site and not bottoming out.

8. Plat – Subdivision Plan

Comment: *Monuments should be proposed at boundary geometric points*



Response: Boundary markers will be provided (i.e. pins, nails, etc.) at all boundary points. Monuments (granite plinths) are typically only provided at public ROW intersections.

Comment: 10.93' dimension at SE corner of Lot 1A unclear; confirm if there should be a 54' boundary line shown for the Pearl Street ROW (Parallel with Lincoln ST)?

Response: The surveyor confirmed there is a 54' boundary line shown for Pearl Street and will be updated as part of their new survey in February 2025.

Comment: Proposed easements not shown (report section 2)

Response: Please refer to the revised Subdivision Plat for proposed easement locations.

9. Stormwater Management

Comment: Since this project now proposes a subdivision on the previous MERC site, does the SWM need to be reviewed by DEP (i.e. permit modification)? If so, has this been submitted to DEP?

Response: Yes, there is a Stormwater Law Application Amendment required, and it was submitted to the MaineDEP on December 5th, 2024 and awaiting any review comments and final issuance. As the project is significantly below the previously approved thresholds, we do not anticipate any major comments from DEP at this time.

Comment: Understanding the previously approved SWM design included weighted land uses, is there a way to show simplified impervious cover calcs?

Response: The way the DEP reviewed/approved the initial Stormwater Law Permit (L-10282-NJ-A-N) is based on pollutant rankings, which don't have a direct correlation to impervious coverage. As part of the stormwater system design, each lot (1,2,3,4) was allocated a conservative redevelopment pollutant ranking threshold for the individual lots to remain under once actual designs progress, which allows for future development of the remaining lots. The proposed plans have been designed in conformance with the original approval and permit conditions of the R-tank system.

Comment: Does the pervious vs. impervious areas of the previous permit/R-tank design and of the proposed Lot;

1. Include the pervious cover the previous permit/R-tank accounted for (i.e. 10%)
2. Include what pervious vs. impervious cover Lot 1A will need to add to (want to make sure Lot 1A won't be screwed in the future)

Response: The available Lot 1A remaining weighted impact pollutant rankings is 3.6 which means the entire lot could be entirely (100%) developed as the highest pollutant ranking (roads or high use parking lots, which is not practical), and still fall under the allowable limits. Please refer to the Stormwater Report for additional information.

Comment: Pre- vs. post-development SWM drainage areas maps should still be provided; it looks like a portion of the site will drain to Lincoln Street/Elm Street

Response: A small portion of the lot does drain toward Lincoln Street to tie into existing grade.



Please refer to the attached that a pre-development map, which is in conformance with the previously approved Stormwater Law Permit (L-10282-NJ-A-N).

Comment: *Hydraulic calculations should include the conveyance piping up to the downstream R-Tank system and clearly identify the starting tailwater condition*

- 1 . *Hydraflow results don't indicate what design storm was modeled; recommend exporting the 'DOT Summary' report which shows the HGL and RIM elevations on one sheet.*
- 2 . *Add tailwater at crown of pipe.*

Response: The hydraulic model has been updated for the site to clearly identify the starting tailwater condition. The starting tailwater elevation as at the crown of the outfall pipe. Additionally, the DOT summary report which shows the HGL and Rim elevations have been plotted to facilitate review.

Planning Department Comments:

Comment: *Lincoln Street Improvements: Improvements along Lincoln Street shall include pedestrian sidewalks, street streets and street lighting like the treatments along Pearl Street*

Response: Please refer to the Civil Plan set for proposed improvements along Lincoln Street including new sidewalks, street trees, and street lighting.

Comment: *Street trees and foundation plantings shall be provided along Lincoln Street. Formal Landscape Plans shall be submitted with the preliminary submittal application.*

Response: Please refer to the Landscape plans for plantings provided along Lincoln Street. Landscape Plans have been provided by Soren DeNiord Design Studio (Landscape Architect).

Comment: *Grading plans shall be provided and shall illustrate any proposed retaining walls.*

Response: Please see the grading plan for additional information. No retaining walls are proposed as part of the project

Comment: *Cross access agreements shall be provided between lots 1A, 1B & 1C.*

Response: See the Subdivision Plat for additional information regarding easements.

Comment: *The application shall be reviewed and approved by the Saco River Corridor Commission (SRCC).*

Response: An application for this project has been submitted to the SRCC and is scheduled to be heard on the January 22, 2025 Commission Meeting.

Comment: *Traffic generation numbers for the proposed 90-unit residential development shall be submitted with the preliminary application. These traffic numbers should also include traffic count numbers for the approved development of Lot 3 as outlined in the December 7, 2022, memorandum from Thomas Errico, PE, Senior Associate at T.Y. Lin International, to the City. The approval of this project remains valid through February 16, 2025.*



Response: Please refer to Section 27 for the Traffic Overview. The report includes the traffic count for Lot 3 provided by T.Y Lin International. We understand the final Traffic Movement Permit, which includes trips associated with both Lots 1 & 3 is being finalized and expected to be issued shortly.

Comment: *The preliminary application shall include notification to Maine Tribes / Nations of the proposed development and responses received.*

Response: Notifications have been sent to the Maine Tribes/ Nations ahead of the preliminary application submittal. Responses will be provided to the city upon receipt.

Subdivision Comments:

Comment: *Overall sub-plat:* The submitted "Plat" dated September 4, 2024, does not accurately reflect the parking garage property as it reflects the lot as being 1.45-acres in area where the lot should be 1.83-acres +/- . The acreage difference is due to the drive aisle located to the east of the parking garage being identified as "Smith Street Extension public R.O.W. 0.22 acres" which it is not. This private drive aisle is part of the garage property and should be shown as such. The garage property is controlled by Premium Parking / Amber Infrastructure Group and any utilization of their drive aisle would require an access / driveway maintenance agreement.

Comment: *In addition to the above, Lots 1 and 3 are currently a single lot attached by a small strip of land, approximately 10' in width. This land has now been shown as part of the garage property, which is also incorrect. Premium Parking / Amber Infrastructure Group have indicated that they do not want to own the additional 10' wide strip so the easiest resolution of this matter is for the land in question to be a portion of lot 1B OR Lot-3. Please refer to the "existing conditions survey" by Owen Haskell, Inc. dated August 25, 2021. The proposed subdivision plans should not modify the parking garage lot (Lot-2).*

Comment: *Subdivision Plans:* Like the above comment, the submitted subdivision plans should include Lot-3 (currently 5.32-acres) as it continues to be a portion of the lots you are trying to subdivide.

Comment: *1B and 1C; 2) Lot 2 – parking garage (if lot created within the past 5 years); 3) Lot 3 and; 4) the remaining City owned property.*

Response: Acorn met with Planning and Engineering Staff on 12/17/24 to review the above comments, and overall Subdivision Plat and understand the City is currently performing a final review of the Subdivision Plat to allow for filing within the Registry of Deeds to formally create the separate lots. We understand that the Subdivision process is separate from the Lots 1B/1C review, but that the outstanding overall Subdivision Plat needs to be finalized prior to filing the additional further subdivision of Lot 1.

Please let us know if you have any additional questions or comments.

Sincerely,





Pete F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.



Table of Contents

Site Location of Development Application Materials

- Section 1: Development Description
- Section 2: Right, Title or Interest
- Section 3: Financial
- Section 4: Technical Capacity
- Section 5: Noise
- Section 6: Visual Quality and Scenic Character
- Section 7: Wildlife and Fisheries
- Section 8: Historic Sites
- Section 9: Unusual Natural Areas
- Section 10: Buffers
- Section 11: Soils
- Section 12: Stormwater Management
- Section 13: Urban Impaired Stream Submissions
- Section 14: Basic Standards Submissions
- Section 15: Groundwater
- Section 16: Water Supply
- Section 17: Wastewater Disposal
- Section 18: Solid Waste
- Section 19: Flooding
- Section 20: Blasting
- Section 21: Air Emissions
- Section 22: Odors
- Section 23: Water Vapor
- Section 24: Sunlight
- Section 25: Notices

Supplemental Requirements for Wind Energy Developments are not applicable for the Redevelopment of 15 Pearl Street (Lot 1B & 1C) in Biddeford, Maine.

Additional Final Site Plan Application Materials

Section 26: Maine Tribe/Nations Correspondence

Section 27: Traffic Overview

Section 28: Utility Summary

Section 29: Safety Letter of Approval Requests

Section 30: Lighting

Section 31: Photographs

Section 32: Waivers

Section 33: Declaration of Easements, Covenants, And Restrictions

Section 34: Performance Guarantee

Section 35: Salt Management Plan

Plans

Attachment A: Civil Site Plan Set – By Acorn Engineering

Attachment B: Architectural Plans for Building 1B & 1C.

Attachment C: Landscape Plans by Soren DeNiord Design Studio



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)
- x 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**

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
 - 4. Other developments
 - a. Type, source and location of noise
 - b. Uses, zoning and plans
 - c. Protected locations
 - d. Minor nature of impact

	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
x	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
x	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
x	5. Stormwater quantity subwatershed boundaries
x	6. Stormwater quality subwatershed boundaries
x	7. Watershed analysis points
x	8. Hydrologic flow lines (w/flow types and flow lengths labeled)
x	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
x	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 |
| _____ | b. Ditches, culverts, and catch-basin systems |
| _____ | 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
- D. Municipal facility or utility company letter
- 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

- A. Site Plan or map
- 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
- x 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)

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.S.A. §§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:	Westbrook Development Corporation		6. Name of Agent (if applicable):	Acorn Engineering, Inc Peter F. Heil, PE
2. Applicant's Mailing Address:	30 Liza Harmon Drive, Westbrook, ME 04092		7. Agent's Mailing Address:	PO Box 3372, Portland, Maine 04104
3. Applicant's Daytime Phone #:	207-854-9779		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):	Tnorod@westbrookdevelopment.org		10. Agent's e-mail address (REQUIRED - license will be sent via e-mail):	Pheil@acorn-engineering.com
PROJECT INFORMATION				
11. Name of Development:	15 Pearl Street, Lot 1B & 1C, Biddeford, ME			
12. Map and Lot #'s:	Map #: 70	Lot #: 2	13. Deed Reference #'s:	Book #: Page #:
14. Location of Project City/Town:	Biddeford	15. County:	York	16. UTM Northing: 43.49635 17. UTM Easting: -70.45606
18. Brief Description of Project including total parcel size:	The project proposes to subdivide Lot 1B into two (2) smaller lots (Lot 1B and Lot 1C), and construct two affordable senior housing buildings anticipated to include approximately 90 residential units (45 units in each building).			
19. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☒ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☐ Coastal wetland ☐ Wellhead or public water			
20. Name of Waterbody Project Site drains to:	Saco River			
21. Amount of Developed Area:	Total 1.16 acres:	Existing Developed area:	1.16 acres New Developed area: 1.16 acres	
22. Amount of Impervious Area:	Total 0.90 acres:	Existing Impervious areas:	0.61 acres New Impervious area: 0.90 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 ☐ Tier 2	☐ Full Permit
28. Existing DEP Permit number (if applicable):	L-10282-NJ-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				

FORM A 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: [Signature] Title Authorized Agent Date: 1/9/2025

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: [Signature] Date: 1/9/2025

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: [Signature]

Name (print): Peter F. Heil, PE

Date: 1/3/25

Re/Cert/Lic No.: _____

Engineer 15318

Geologist _____

Soil Scientist _____

Land Surveyor _____

Site Evaluator _____

Active Member of the Maine Bar _____

Professional Landscape Architect _____

Other _____



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: See Attached
Mailing Address: See Attached
Telephone: See Attached
Email: See Attached

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.
Mailing Address: PO Box 3372, Portland, Maine 04103
Telephone: (207) 775-2655
Email: Pheil@acorn-engineering.com

Engineer/Surveyor's Information:

Name: Acorn Engineering Inc. / 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 / rlobier@owenhaskell.com

Project Location and Lot Information:

Street Address: 3 Lincoln Street Drainage Watershed: Saco River
Tax Map: 71 Lot: 2
Current Zoning: MSRD-3 Shoreland Zoning: N/A
Size of Lot: 1.82 (Lot 1) ☒ acres () s.f. Lot Frontage: 26' (Pearl) & 242' (Lincoln)

Existing Use of Property: Lot 1 is currently undeveloped (previously portions of the old MERC facility)

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 subdivide Lot 1B into two (2) smaller lots (Lot 1B and Lot 1C), and construct two affordable senior housing buildings anticipated to include approximately 90 residential units (45 units in each building).

Property to be Serviced by:

☒ City Road ☒ Public Sewer ☒ Public Water ☐ Public Trash
☐ Private Road ☐ Septic System ☐ Private Well ☒ Private Hauler

Limits of Disturbance: 1.59 Acres () acres () s.f.

Net change in impervious cover: 0.9 Acres () 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) Project proposes to connect to existing Subsurface treatment/detention system location on Lot 4

Will a Traffic Movement Permit (TMP) be required?: ☒ (Yes) ☐ (No) TMP previously submitted and under review by MaineDOT, which accounted for anticipated trips on Lot 1.

☐ **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:** 2 Lots (90 Units) Amendment to previous subdivision of old MERC lot

☐ **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: 18,330 sf

Total new square feet paving/parking: 12,882 sf

Waiver Requests (attach details):

1. None
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? ☒ (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

1/9/2025

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

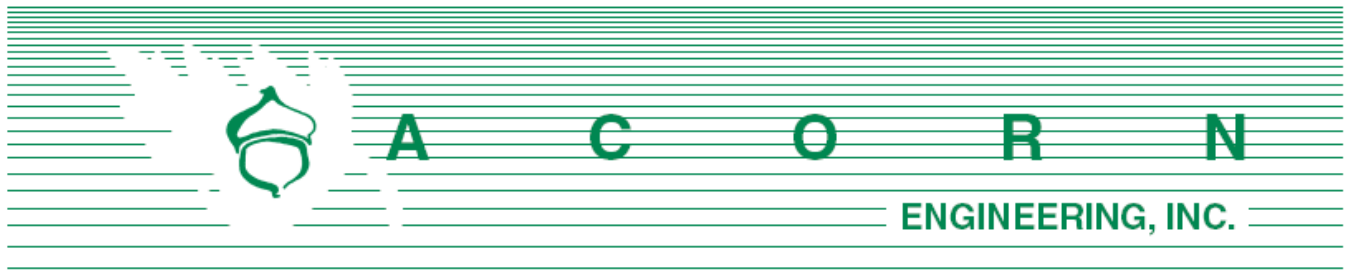
DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

- A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)
 - Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL 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 INDIVIDUAL 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



Applicant List

Applicant/Developer:

Westbrook Development Corporation
30 Liza Harmon Drive, Westbrook, ME 04092
Tnorod@westbrookdevelopmentcorp.org

Lot 1B (co-applicant)

Quebec Commons, LP
c/o Westbrook Development Corporation
30 Liza Harmon Drive, Westbrook, ME 04092
Tnorod@westbrookdevelopmentcorp.org

Lot 1C (co-applicant)

Acadia Commons, LP
c/o Westbrook Development Corporation
30 Liza Harmon Drive, Westbrook, ME 04092
Tnorod@westbrookdevelopmentcorp.org

Lot 1 (current JDA holder with City of Biddeford)

3 Lincoln Street LLC
80 Exchange Street, Suite 400, Portland, ME, 04101
207-317-2818
Mthroman@fathomcompanies.com

CITY OF BIDDEFORD - SITE PLAN APPLICATION DRAWING CHECKLIST

LAST REVISED: 05/17/23

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant for any Site Plan submittal to the Planning Department.
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 submittal information with non-acceptable reasoning will be rejected.
4. Items in **BLACK** are required for 'Preliminary Site Plan' approval & 'Final Site Plan' approval.
5. Items in **BLUE** are only required for 'Final Site Plan' approval.

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT	
Project Name:	15 Pearl Street, Lot 1B/1C Affordable Senior Housing
Planning Board # (if available):	2024.63
Applicant Name/Info:	Westbrook Development Corporation / Quebec Commons, LP / Acadia Commons, LP
Submittal #/Type (Prelim/Final):	Final
Submittal Date:	1/15/2024

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE		CITY REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	COMMENT
1	GENERAL PLAN REQUIREMENTS				
	A Drawing specific legends (linetypes, hatches, etc.)	Yes	See Sheet C-01 for the drawing legend		
	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, 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			
	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			
	B Project Team Contact Information (Owner, Engineer, Contractor, etc.)	Yes			
	C Site Location Map	Yes			
	D Sheet Set List of Drawings	Yes			
	E Tax Map and Lot ID	Yes			
	F Zoning & Shoreland Zone Information	Yes	See Sheet C-10 for zoning information		
	G Existing Use Description	Yes			
	H Proposed Use Description	Yes			
	I Required Waiver/Variances (Yes/No); if yes, plan must clearly list waivers/variances requesting	Yes			
	J Name of Drainage Watershed	Yes			
	K Within the MS4 Urbanized Area (Yes/No)	Yes			
	L Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	No	None on site		
	M Within the 100-year Flood Zone (Yes/No)	No			
	N Public Road Proposed (Yes/No)	No			
	O Private Road Proposed (Yes/No)	No	Parking lot / fire access drive aisle proposed		
	P Public Sewer Connection (Yes/No); if yes, need to include a proposed sewer flow calculation per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	Yes	See separate sewer ability to serve letter request		
	Q Public Storm Drain Connection (Yes/No)	Yes	Proposes to connect to existing subsurface treatment system located on Lot 4		
	R Limits of Disturbance in acres	Yes			
	S Pervious Land Cover square footage, existing and proposed	Yes			
	T Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	Yes			
	U Building Roof square footage, existing and proposed	Yes			
	V Assigned Planning Board Number	Yes	2024.63		
	W Estimated cut/fill earthwork volumes; if disturbing within Flood Zone, separate set of earthwork volumes required (site vs. within flood zone)	Yes	Approx. 4,898 CY of Cut		
3	EXISTING CONDITIONS PLAN				
	A Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	Yes			
	B Survey Benchmark Locations (with XYZ Coordinates annotated)	Yes			
	C Property & Right-of-Way Lines	Yes			
	D Boundary line information (bearings, distances, etc.)	Yes			
	E Property pin and monumentation locations	Yes			
	F Existing easements with proper ownership identified	Yes			
	G Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	Yes			
	H Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A			
	I 100-year Flood Zone Limits & Elevation	N/A			
	J USDA-NRCS Soil Boundaries and Labels	Yes			
	K Existing contours with adequate contour labelling; minimum 1' contour interval	Yes			
	L Existing building FFEs annotated	N/A			
	M Spot elevations for existing building corners, door entrances, accessible parking/walkways, road centerlines, and bottom/top of curbs	N/A			
	N Existing buildings & structures	Yes			
	O Existing pavement areas & number of parking spaces	Yes			
	P Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	Yes			
	Q Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters, fencing)	Yes			
	R Existing signage and striping	Yes			
	S Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	Yes			
	T Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	Yes			
	U 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			
	V Existing tree lines, street trees, free-standing trees (12" or larger diameter at breast height), and vegetation	Yes			
	W Location of any borings, drinking wells, and monitoring wells	N/A	Borings are anticipated in the coming months for brownfield funding		
4	SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN				
	A Limits-of-disturbance outlined and acreage annotated	Yes			
	B Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	No	N/A		
	C 100-year Flood Zone Limits	No	N/A		
	D Callout existing site features to be demolished/removed/replaced	Yes			
	E Callout existing utilities to be demolished/removed/abandoned-in-place	Yes			
	F Hatch existing buildings and pavement to be removed	Yes			
	G Construction Entrance location(s)	Yes			
	H Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	Yes			
	I Stockpile and staging area(s) identified (with proper perimeter control)	Yes			
	J Inlet protection location(s)	Yes			
	K Note requiring contractor to implement dust control measures throughout construction	Yes			
	L Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	Yes			

	M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping routing	N/A			
	N	If large development is proposed with an extensive underground stormwater conveyance network, show sediment trap/basin location(s) needed for constructability/phasing; provide sizing calculations	N/A			
5		SITE PLAN/SUBDIVISION PLAN				
	A	Partial Site Plans needed for any viewport scale greater than 1"=20'	N/A	1"=20' scale shows entire lot		
	B	Existing property and right-of-way lines	Yes			
	C	Proposed subdivision lot lines and labels	Yes			
	D	Required Zoning Setbacks shown with dimensions and annotation	Yes			
	E	Bulk requirement summary table (zoning/parking calculations)	Yes			
	F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A			
	G	100-year Flood Zone Limits	N/A			
	H	Proposed building outlines, door entrances and loading docks	Yes	No loading docks		
	I	Proposed building labels	Yes			
	J	Proposed road extents; provide clear annotation if roads will be public or private	Yes	Internal driveway access to parking spaces and fire lane, not private or public roads		
	K	Proposed parking and accessible parking locations; annotate parking space counts	Yes			
	L	Proposed signage, parking striping, and traffic striping	Yes			
	M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	Yes			
	N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	Yes			
	O	Separate hatching for buildings, sidewalks, pavement, landscaping	Yes			
	P	Proposed landscaping; detailed landscaping design should be on separate plans	Yes			
	Q	Designated snow storage areas	Yes			
	R	Proposed dumpster locations and trash removal access	Yes	No dumpsters, internal trash rooms with rollout bins to curb		
	S	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	Yes			
	T	Radial dimensions for all curbs, landscaped islands, sidewalks	Yes			
	U	Road centerline stationing shown, labelled every 0+50' with curve data	N/A			
	V	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			
	W	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			
	X	Planning Board signature block for final recording	Yes			
6		GRADING PLAN				
	A	Partial Grading Plans needed for any viewport greater than 1"=20'	N/A	Plan set up at 1"=20' showing entire lot		
	B	Limits-of-disturbance outlined and acreage annotated	Yes			
	C	Proposed Building Labels with Individual Finished Floor Elevations (FFE's)	Yes			
	D	Existing contours with adequate contour labelling, screened; minimum 1' contour interval	Yes			
	E	Proposed contours with adequate contour labelling; minimum 1' contour interval	Yes			
	F	Detailed grading for all ditches, swales, outfalls, and riprap	Yes			
	G	All proposed contours tie-into existing contours at limits-of-disturbance outline	Yes			
	H	Existing spot elevations for all asphalt and curb tie-in locations	Yes			
	I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A			
	J	100-year Flood Zone Limits	N/A			
	K	Proposed spot elevations for all important roadway geometric points and/or on a 50' maximum interval: low/high points, PC/PT, road centerline, edge-of-asphalt	N/A			
	L	Proposed spot elevations for all curblines (bottom/top-of-curb) and sidewalks	Yes			
	M	Proposed spot elevations for all parking and drive aisle geometry points	Yes			
	N	Proposed spot elevations for all building corners and door-entry locations	Yes			
	O	Proposed retaining wall/loading dock elevations (bottom/top of wall)	N/A			
	P	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	Yes			
	Q	Proposed % slope arrows for all ADA parking spaces and sidewalks	Yes			
	R	Proposed longitudinal % slope arrows for drainage ditch centerlines	N/A			
	S	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	Yes			
	T	Estimated cut/fill earthwork volumes; if disturbing within Flood Zone, separate set of earthwork volumes required (site vs. within flood zone)	Yes	Approx. 4,898 CY of Cut		
7		ROAD PROFILES (if public/private road proposed)		No public/private roadway proposed. Internal parking area drive aisle and fire access lane		
	A	Existing surface; dashed and screened	N/A			
	B	Proposed surface; continuous and bold	N/A			
	C	Corresponding centerline stationing and curve data annotation	N/A			
	D	Road cross-section including proposed surface cross slopes; include multiple sections for various road cross slope conditions proposed (crowned, superelevated)	N/A			
	E	Horizontal and vertical scale bars	N/A			
	F	Clear annotation if proposed road will be public or private	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	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	N/A			
8		UTILITY PLAN				
	A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	Yes			
	B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	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			
	D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	Yes			
	E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	Yes			
	F	Proposed storm culverts, outfalls, and riprap locations and sizes	N/A			
	G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	Yes			
	H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	Yes			
	I	Flow directional arrows for storm & sewer pipes	Yes			
	J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	Yes			
	K	All storm drains must be sized to convey the 25-year storm	Yes			
	L	Sewer force main sizes and invert elevations	Yes			
	M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W)	Yes			
	N	Grease trap & oil-water separator locations, sizes, elevations	N/A			
	O	Water, gas, electric, and telecom sizes labelled	Yes			

9	UTILITY PROFILES				
A	Utility profiles for all gravity storm drains and sewer pipes, including all laterals, catch basins, culverts, and outfalls; profiles preferred to be aligned on the pipe centerline (not superimposed on the road centerline)	N/A			
B	Existing surface; dashed and screened	N/A			
C	Proposed surface; continuous and bold	N/A			
D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	Yes			
E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	Yes			
F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance annotated	N/A			
G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	N/A			
H	Known ledge or groundwater elevations	N/A			
I	For all storm drains, 25-year HGL must be shown on profiles with starting tailwater condition identified	Yes			
J	For storm outfalls, include riprap sizing and grading extents	N/A			
K	Horizontal and vertical scale bars	N/A			
10	DETAILS				
A	Road section detail, including pavement & gravel depths	Yes			
B	Sidewalk, paver, crosswalk, and any other pavement section details	Yes			
C	Pavement sawcut detail	Yes			
D	Utility trench/backfill detail	Yes			
E	All site feature details; curbing, retaining walls, fencing, guiderails, dumpsters, etc.	Yes			
F	Signage, striping, and ADA details	Yes			
G	E&S notes and details; only show applicable/proposed measures	Yes			
H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	Yes			
I	Storm outfall & riprap details	N/A			
J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	N/A			
K	Pump station, grease trap, and oil-water separator details	Yes			
L	Conduit section details	Yes			
M	Miscellaneous details (as needed)	Yes			
11	LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS				
A	As required by ordinance; at a minimum: locations, counts, and species/models must be identified	Yes			
B	Landscaping & lighting details	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			
B	Predevelopment & Post-development Drainage Area Maps, including: i. Subdrainage areas delineated and labeled ii. Points of Interest/Analysis shown and labeled iii. Hatching for different land cover areas (impervious, pervious, gravel) iv. Time of concentration (Tc) paths & durations v. Four City-standardized stormwater summary tables	Yes	See Stormwater Report		
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			
D	A Performance Guarantee Cost Estimate utilizing Planning’s template	Yes			
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			
F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches) via the rational method; starting tailwater conditions/documentation must be clearly identified	Yes			
G	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	N/A	System located on Lot 4 previous sized to accommodate Lot 1 development. See Storm report, including pollutant ranking worksheets for additional information.		
H	Sizing calculations for any SWM water quality BMP or detention facility	N/A	System located on Lot 4 previous sized to accommodate Lot 1 development. See Storm report, including pollutant ranking worksheets for additional information.		
I	A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: i. Annual maintenance requirements ii. 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 iii. 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	I&M provided as part of Stormwater Report for infrastructure on Lot 1. Treatment BMP located on Lot 4 owned and maintained by City.		
J	Salt Management Plan	Yes			
K	Sewer pump station sizing calculations	Yes			
L	Sewer pump station maintenance plan	Yes			
M	Grease trap sizing calculations	N/A			
N	Homeowner Association (HOA) agreement for any private road serving two (2) lots or more	N/A			
O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	Yes	SRCC and DEP Stormwater Management Law Amendment Approvals are forthcoming		

CITY OF BIDDEFORD - SITE PLAN APPLICATION DRAWING CHECKLIST

LAST REVISED: 05/

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant for any Site Plan submittal to the Planning Department.
2. Applicant to confirm all of the items listed are included within the submittal. Any missing items must have adequate reasoning
3. City to review applicant's submittal and checklist responses. Projects missing submittal information with non-acceptable reason
4. Items in **BLACK** are required for 'Preliminary Site Plan' approval & 'Final Site Plan' approval.
5. Items in **BLUE** are only required for 'Final Site Plan' approval.

SUBMITTAL REQUIREMENT		
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)
1	GENERAL PLAN REQUIREMENTS	
A	Drawing specific legends (linetypes, hatches, etc.)	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
C	North arrows, standard engineering scale viewports, 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
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
B	Project Team Contact Information (Owner, Engineer, Contractor, etc.)	Yes
C	Site Location Map	Yes
D	Sheet Set List of Drawings	Yes
E	Tax Map and Lot ID	Yes
F	Zoning & Shoreland Zone Information	Yes
G	Existing Use Description	Yes
H	Proposed Use Description	Yes
I	Required Waiver/Variances (Yes/No); if yes, plan must clearly list waivers/variances requesting	Yes
J	Name of Drainage Watershed	Yes
K	Within the MS4 Urbanized Area (Yes/No)	Yes
L	Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	No
M	Within the 100-year Flood Zone (Yes/No)	No
N	Public Road Proposed (Yes/No)	No
O	Private Road Proposed (Yes/No)	No

P	Public Sewer Connection (Yes/No); if yes, need to include a proposed sewer flow calculation per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	Yes
Q	Public Storm Drain Connection (Yes/No)	Yes
R	Limits of Disturbance in acres	Yes
S	Pervious Land Cover square footage, existing and proposed	Yes
T	Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	Yes
U	Building Roof square footage, existing and proposed	Yes
V	Assigned Planning Board Number	Yes
W	Estimated cut/fill earthwork volumes; if disturbing within Flood Zone, separate set of earthwork volumes required (site vs. within flood zone)	Yes
3	EXISTING CONDITIONS PLAN	
A	Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	Yes
B	Survey Benchmark Locations (with XYZ Coordinates annotated)	Yes
C	Property & Right-of-Way Lines	Yes
D	Boundary line information (bearings, distances, etc.)	Yes
E	Property pin and monumentation locations	Yes
F	Existing easements with proper ownership identified	Yes
G	Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	Yes
H	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A
I	100-year Flood Zone Limits & Elevation	N/A
J	USDA-NRCS Soil Boundaries and Labels	Yes
K	Existing contours with adequate contour labelling; minimum 1' contour interval	Yes
L	Existing building FFEs annotated	N/A
M	Spot elevations for existing building corners, door entrances, accessible parking/walkways, road centerlines, and bottom/top of curbs	N/A
N	Existing buildings & structures	Yes
O	Existing pavement areas & number of parking spaces	Yes
P	Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	Yes
Q	Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters, fencing)	Yes
R	Existing signage and striping	Yes
S	Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	Yes
T	Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	Yes
U	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
V	Existing tree lines, street trees, free-standing trees (12" or larger diameter at breast height), and vegetation	Yes

W	Location of any borings, drinking wells, and monitoring wells	N/A
4	SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN	
A	Limits-of-disturbance outlined and acreage annotated	Yes
B	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	No
C	100-year Flood Zone Limits	No
D	Callout existing site features to be demolished/removed/replaced	Yes
E	Callout existing utilities to be demolished/removed/abandoned-in-place	Yes
F	Hatch existing buildings and pavement to be removed	Yes
G	Construction Entrance location(s)	Yes
H	Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	Yes
I	Stockpile and staging area(s) identified (with proper perimeter control)	Yes
J	Inlet protection location(s)	Yes
K	Note requiring contractor to implement dust control measures throughout construction	Yes
L	Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	Yes
M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping routing	N/A
N	If large development is proposed with an extensive underground stormwater conveyance network, show sediment trap/basin location(s) needed for constructability/phasing; provide sizing calculations	N/A
5	SITE PLAN/SUBDIVISION PLAN	
A	Partial Site Plans needed for any viewport scale greater than 1"=20'	N/A
B	Existing property and right-of-way lines	Yes
C	Proposed subdivision lot lines and labels	Yes
D	Required Zoning Setbacks shown with dimensions and annotation	Yes
E	Bulk requirement summary table (zoning/parking calculations)	Yes
F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A
G	100-year Flood Zone Limits	N/A
H	Proposed building outlines, door entrances and loading docks	Yes
I	Proposed building labels	Yes
J	Proposed road extents; provide clear annotation if roads will be public or private	Yes
K	Proposed parking and accessible parking locations; annotate parking space counts	Yes
L	Proposed signage, parking striping, and traffic striping	Yes
M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	Yes
N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	Yes
O	Separate hatching for buildings, sidewalks, pavement, landscaping	Yes
P	Proposed landscaping; detailed landscaping design should be on separate plans	Yes

Q	Designated snow storage areas	Yes
R	Proposed dumpster locations and trash removal access	Yes
S	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	Yes
T	Radial dimensions for all curbs, landscaped islands, sidewalks	Yes
U	Road centerline stationing shown, labelled every 0+50' with curve data	N/A
V	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
W	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
X	Planning Board signature block for final recording	Yes
6	GRADING PLAN	
A	Partial Grading Plans needed for any viewport greater than 1"=20'	N/A
B	Limits-of-disturbance outlined and acreage annotated	Yes
C	Proposed Building Labels with Individual Finished Floor Elevations (FFE's)	Yes
D	Existing contours with adequate contour labelling, screened; minimum 1' contour interval	Yes
E	Proposed contours with adequate contour labelling; minimum 1' contour interval	Yes
F	Detailed grading for all ditches, swales, outfalls, and riprap	Yes
G	All proposed contours tie-into existing contours at limits-of-disturbance outline	Yes
H	Existing spot elevations for all asphalt and curb tie-in locations	Yes
I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A
J	100-year Flood Zone Limits	N/A
K	Proposed spot elevations for all important roadway geometric points and/or on a 50' maximum interval: low/high points, PC/PT, road centerline, edge-of-asphalt	N/A
L	Proposed spot elevations for all curblines (bottom/top-of-curb) and sidewalks	Yes
M	Proposed spot elevations for all parking and drive aisle geometry points	Yes
N	Proposed spot elevations for all building corners and door-entry locations	Yes
O	Proposed retaining wall/loading dock elevations (bottom/top of wall)	N/A
P	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	Yes
Q	Proposed % slope arrows for all ADA parking spaces and sidewalks	Yes
R	Proposed longitudinal % slope arrows for drainage ditch centerlines	N/A
S	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	Yes
T	Estimated cut/fill earthwork volumes; if disturbing within Flood Zone, separate set of earthwork volumes required (site vs. within flood zone)	Yes
7	ROAD PROFILES (if public/private road proposed)	
A	Existing surface; dashed and screened	N/A
B	Proposed surface; continuous and bold	N/A
C	Corresponding centerline stationing and curve data annotation	N/A

D	Road cross-section including proposed surface cross slopes; include multiple sections for various road cross slope conditions proposed (crowned, superelevated)	N/A
E	Horizontal and vertical scale bars	N/A
F	Clear annotation if proposed road will be public or private	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	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	N/A
8	UTILITY PLAN	
A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	Yes
B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	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
D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	Yes
E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	Yes
F	Proposed storm culverts, outfalls, and riprap locations and sizes	N/A
G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	Yes
H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	Yes
I	Flow directional arrows for storm & sewer pipes	Yes
J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	Yes
K	All storm drains must be sized to convey the 25-year storm	Yes
L	Sewer force main sizes and invert elevations	Yes
M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W)	Yes
N	Grease trap & oil-water separator locations, sizes, elevations	N/A
O	Water, gas, electric, and telecom sizes labelled	Yes
9	UTILITY PROFILES	
A	Utility profiles for all gravity storm drains and sewer pipes, including all laterals, catch basins, culverts, and outfalls; profiles preferred to be aligned on the pipe centerline (not superimposed on the road centerline)	N/A
B	Existing surface; dashed and screened	N/A
C	Proposed surface; continuous and bold	N/A

D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	Yes
E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	Yes
F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance annotated	N/A
G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	N/A
H	Known ledge or groundwater elevations	N/A
I	For all storm drains, 25-year HGL must be shown on profiles with starting tailwater condition identified	Yes
J	For storm outfalls, include riprap sizing and grading extents	N/A
K	Horizontal and vertical scale bars	N/A
10	DETAILS	
A	Road section detail, including pavement & gravel depths	Yes
B	Sidewalk, paver, crosswalk, and any other pavement section details	Yes
C	Pavement sawcut detail	Yes
D	Utility trench/backfill detail	Yes
E	All site feature details; curbing, retaining walls, fencing, guiderails, dumpsters, etc.	Yes
F	Signage, striping, and ADA details	Yes
G	E&S notes and details; only show applicable/proposed measures	Yes
H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	Yes
I	Storm outfall & riprap details	N/A
J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	N/A
K	Pump station, grease trap, and oil-water separator details	Yes
L	Conduit section details	Yes
M	Miscellaneous details (as needed)	Yes
11	LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS	
A	As required by ordinance; at a minimum: locations, counts, and species/models must be identified	Yes
B	Landscaping & lighting details	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
B	Predevelopment & Post-development Drainage Area Maps, including: i. Subdrainage areas delineated and labeled ii. Points of Interest/Analysis shown and labeled iii. Hatching for different land cover areas (impervious, pervious, gravel) iv. Time of concentration (Tc) paths & durations v. Four City-standardized stormwater summary tables	Yes
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
D	A Performance Guarantee Cost Estimate utilizing Planning's template	Yes
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
F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches) via the rational method; starting tailwater conditions/documentation must be clearly identified	Yes
G	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	N/A
H	Sizing calculations for any SWM water quality BMP or detention facility	N/A

I	A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: i. Annual maintenance requirements ii. 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 iii. 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
J	Salt Management Plan	Yes
K	Sewer pump station sizing calculations	Yes
L	Sewer pump station maintenance plan	Yes
M	Grease trap sizing calculations	N/A
N	Homeowner Association (HOA) agreement for any private road serving two (2) lots or more	N/A
O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	Yes

17/23

to justify their absence.
ning will be rejected.

Project Name:
Planning Board # (if available):
Applicant Name/Info:
Submittal #/Type (Prelim/Final):
Submittal Date:

APPLICANT RESPONSE	
REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)
See Sheet C-01 for the drawing legend	
See Sheet C-10 for zoning information	
None on site	
Parking lot / fire access drive aisle proposed	

See Stormwater Report	
System located on Lot 4 previous sized to accommodate Lot 1 development. See Storm report, including pollutant ranking worksheets for additional information.	
System located on Lot 4 previous sized to accommodate Lot 1 development. See Storm report, including pollutant ranking worksheets for additional information.	

I&M provided as part of Stormwater Report for infrastructure on Lot 1. Treatment BMP located on Lot 4 owned and maintained by City.	
SRCC and DEP Stormwater Management Law Amendment Approvals are forthcoming	

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT

15 Pearl Street, Lot 1B/1C Affordable Senior Housing

2024.63

Westbrook Development Corporation / Quebec Commons, LP / Acadia Commons, LP

Final

1/15/2024

CITY REVIEW RESPONSE

COMMENT

Section 1

Development Description

Section 1. Development Description

Site Information

- Parcel Size (Lot 1B): 29,347 SF
- Parcel Size (Lot 1C): 20,983 SF
- Impervious Area
 - 15 Pearl Street – Lot 1
 - Existing: The former MERC facility nearly covered 100% of the lot with Impervious surface.
 - Proposed 1B: 24,269 SF (82.7%) impervious coverage
 - Proposed 1C: 14,758 SF (70.3%) impervious coverage

The City of Biddeford has municipal capacity to review the Site Location of Development application but does not have stormwater capacity, therefore the project has submitted the Stormwater Management Law amendment application to MaineDEP for review and approval.

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 Westbrook Development Corporation (WDC), Quebec Commons, LP, Acadia Commons, LP, & 3 Lincoln, LLC, we are pleased to submit the accompanying package of Final Subdivision and Site Plan submission materials related to the proposed redevelopment 15 Pearl Street, Lot 1B & 1C 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) zoning district. The project proposes to divide Lot 1B into two (2) smaller lots each constructing a 45-unit affordable senior housing building with associated infrastructure improvements. Additionally, under the City's Municipal Capacity Authority to review Site Location of Development permit applications, the applicant proposes to amend the previously issued Site Law permit that was approved as part of the City's municipal garage project on Lot 2.

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.

Phase 1

Anticipated Construction Start date: Summer 2026

Anticipated Construction End date: Fall 2027 (Lot 1B)

Phase 2

Anticipated Construction Start date: Summer 2027

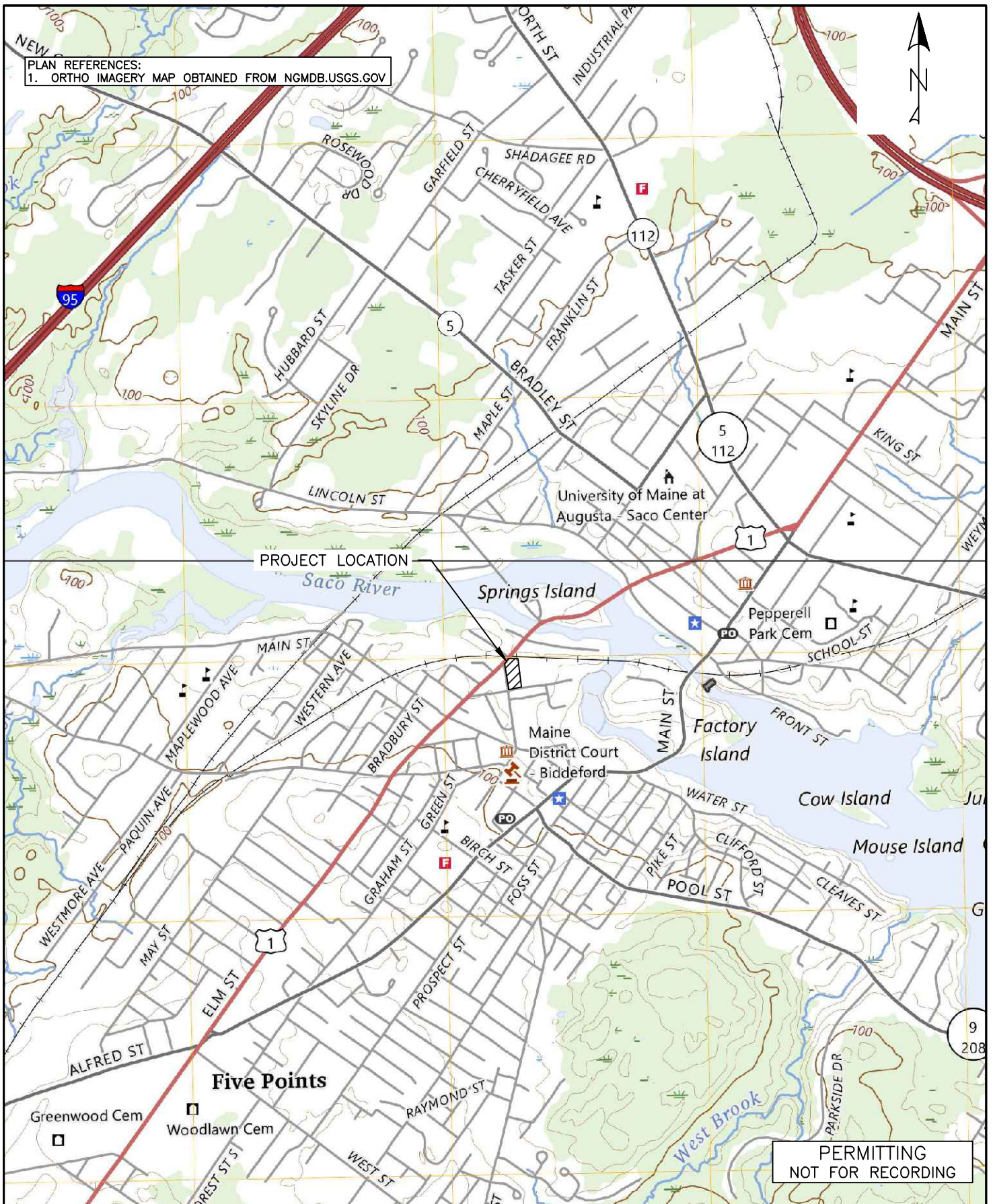
Anticipated Construction End date: Fall 2028 (Lot 1C)

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 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	SITE DETAILS – 3
C-43	UTILITY DETAILS – 1
C-44	UTILITY DETAILS – 2
C-45	PUMP STATION DETAIL
C-46	DRAINAGE DETAILS
C-47	EROSION & SEDIMENTATION CONTROL NOTES AND DETAILS
PLAT	SUBDIVISION PLAT





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.	FILE: 1124_CIVIL DATE: 9/4/24 JUN: 1124 SCALE: 1" = 500' DESIGN BY: PFH DRAWN BY: ZMS CHECKED BY: WHS	 ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2655	DRAWING NAME: VICINITY MAP	ISSUED FOR SITE LAW	BY DATE PFH 12/26/24
	DRAWING NO. VICINITY		PROJECT NAME: LOT 1B REDEVELOPMENT		
			CLIENT: WESTBROOK DEVELOPMENT CORP. WESTBROOK, MAINE		

Section 2

Title, Right, or Interest

Title, Right or Interest

Please see attached the Purchase and Sale Agreement from 3 Lincoln, LLC to Westbrook Development Corporation.



PURCHASE AND SALE AGREEMENT

This PURCHASE AND SALE AGREEMENT (the “**Agreement**”) is entered into by and between **3 LINCOLN, LLC**, whose mailing address is 80 Exchange Street, Suite 400, Portland, Maine 04101 (“**Seller**”), and **WESTBROOK DEVELOPMENT CORPORATION**, a Maine nonprofit corporation with a mailing address at 30 Liza Harmon Drive, Westbrook, Maine 04092 (“**Buyer**” and collectively with the Seller the “**Parties**”) effective the 16th day of September, 2024 (the “**Effective Date**”).

1. **PROPERTY**. Seller agrees to sell and Buyer, agrees to buy, upon the terms and conditions hereinafter set forth, the following:

(a) **Real Property**. a certain lot or parcel of land approximately 1.86 acres in size and located at or near the intersection of Lincoln Street and Pearl Street in the City of Biddeford, Maine, together with any building and improvements thereon (as approximately shown on **Exhibit A** hereto, the “**Premises**”), being a portion of the property designated by the City of Biddeford (the “**City**”) tax assessor as Map 71, Lot 2, which is currently owned by the City pursuant to the following two deeds from the Maine Energy Recovery Company, LP, (i) deed dated November 12, 2012 and recorded in the York County Registry of Deeds (the “**Registry**”) in Book 16475, Page 186, and (ii) deed dated June 3, 2014 and recorded in the Registry in Book 16838, Page 255 (the “**City Parcel**”). The Seller is under contract to acquire the City Parcel, pursuant to a certain Master Plan Development Agreement with the City dated November 17, 2020 and Amendment to Master Plan Development Agreement dated December 21, 2023 (the “**City Option Agreement**”); and with respect to the Premises, but not the other portions of the City Parcel:

(b) Seller’s interest in and rights under all agreements, leases, contracts, covenants, easements and restrictions related to or benefiting the Premises to which Seller is a party, including development rights, air rights, water and well rights, density (lot coverage) rights, and drainage rights, to the extent assignable;

(c) Seller’s interest in and rights under all approvals, permits, and applications with or from governmental authorities related to or benefiting the Premises, to the extent assignable; and

(d) all documents and work product of all professionals in connection with the Property (as defined below), if any, including all environmental studies and water samplings, all soil or engineering tests, and all construction, engineering, architectural, landscaping, and other plans, drawings, specifications, surveys, maps, site plans, plats, and other graphics related to development of the Premises, to the extent assignable.

The Premises, together with all of the items described in paragraph 1(b), (c), and (d), above are referred to collectively in this Agreement as the “**Property**”.

The Parties acknowledge and agree that the Exhibit A attached hereto is a preliminary depiction and that they will work in good faith to agree upon the final boundary and size of the Premises and the location of any easements and rights of way benefiting or burdening the Premises

as part of the subdivision review and prior to the expiration of the City Approval Due Diligence Period as more specifically addressed in Section 5(a)(ii) and Exhibit B, Section 2 hereof.

2. PURCHASE PRICE. The purchase price for the Property is [REDACTED] (the "**Purchase Price**"), payable as follows:

(a) Initial Deposit. Contemporaneously with the execution of this Agreement, the Buyer shall deliver an initial deposit of [REDACTED] to the Escrow Agent (defined in Section 21 below) (the "**Initial Deposit**") which is to be credited against the purchase price at Closing.

(b) Financing Deposit. **Within five (5) days** of the expiration of the General Due Diligence Period (as defined below in Section 6(b) below), the Buyer will deliver to the Escrow Agent an additional deposit of [REDACTED] which is to be credited against the purchase price at Closing (the "**Financing Deposit**" and together with the Initial Deposit, the "**Deposits**").

(c) The remainder of the Purchase Price, subject to the credits and prorations set forth herein, shall be paid to the Seller by immediately available funds at the Closing.

The Deposits shall be non-refundable except in the event of termination of this Agreement by Buyer (i) pursuant to Section 5 or 6 hereof or (ii) due to a breach of this Agreement by Seller, and shall be paid to Seller upon the earlier of (a) at Closing and credited against the purchase price or (b) a failure of Buyer to perform any of its obligations hereunder as more specifically provided in Section 14 hereof.

3. DEED.

(a) Seller Conveyance. The Premises are to be conveyed by a good and sufficient Quitclaim Deed with Covenant, and the remainder of the Property is to be conveyed by an Assignment and Bill of Sale, free from all liens and encumbrances, except (i) except any Defects of Title (as defined below) accepted or waived by Buyer pursuant to Section 6(d) and (ii) customary easements, covenants and restrictions of record that do not impair the use of the Property by the Buyer for its intended use as residential rental housing. The Premises shall be conveyed utilizing a metes and bounds description based upon a current survey of the Premises and a final subdivision plan, approved by the City of Biddeford and recorded in the York County Registry of Deeds developed through the process more specifically described in Sections 1, 5(a)(ii) and Exhibit B, Section 2 hereof.

(b) City Conveyance. Seller may cause a direct transfer of the title to the Premises to the Buyer from the City, in which case the Seller, City and Buyer may negotiate such amendments to this Agreement and the City Option Agreement as may be necessary to carry out a direct transfer of the Premises to the Buyer (and a transfer of the remaining Property described herein from the Seller to the Buyer), which shall be upon the terms and conditions specified herein with only such changes

as are necessary to accommodate a direct transfer of title to the Premises at Closing from the City to the Buyer. If the parties agree to a direct transfer from the City, the Seller agrees to acknowledge and release any right to the earnest money deposit held by the Escrow Agent which will be credited against the purchase price agreed to with the City.

4. CLOSING. Closing shall occur on the later of (i) thirty (30) days after the expiration of the City Approval Due Diligence Period (as defined in Section 6(c) below), (ii) thirty (30) days after the expiration of the General Due Diligence Period (as defined in Section 6(b) below), (iii) simultaneous with the Seller's acquisition of the City Parcel, (iv) thirty (30) days after completion of the Environmental Assessment (as defined in Section 6(f)), but not later than the Outside Closing Date (in each case the "Closing Date"). The "**Outside Closing Date**" shall be [REDACTED] as such date may be extended pursuant to Section 5 of this Agreement. In the event that the Closing has not occurred on or before the Outside Closing Date, the parties shall have the rights and remedies set forth in Section 14 hereof.

5. SELLER'S CITY APPROVALS; BUYERS PROJECT APPROVALS.

(a) Seller City Approval. Seller, at its sole cost and expense, shall use good faith, commercially reasonable efforts to obtain all necessary final approval from the City of Biddeford for the subdivision of the City Parcel and the creation of the lot or lots, easements and rights of way that make up the Premises (the "**Subdivision**") and provide legal frontage for and access thereto (the "**Subdivision Approval**") within sixty (60) days from the Effective Date.

i. Buyer Right to Terminate. If the Seller does not receive the Subdivision Approval by the expiration of said sixty (60) day period, the Buyer shall have the right to terminate this Agreement by written notice to the Seller provided within ten (10) days following the expiration of such period, at which time all Deposits shall be returned to the Buyer, and neither party shall have any further obligation to the other hereunder, except for such obligations as by their terms survive termination of this Agreement; provided, however, that the Seller shall have the right to extend the foregoing 60-day deadline for the duration of any appeal of a subdivision approval by the City (including without limitation appeals to a municipal board of appeals or Maine State Superior Court) on the condition that the Seller continues to pursue final Subdivision Approval in good faith. In the event that the Buyer does not exercise its right to terminate as provided for in the previous sentence, the Outside Closing Date shall be extended by one (1) for each day the Subdivision Approval Date (defined in 5(a)(iii) below) is past said sixty (60) day period.

ii. Application Review. Seller agrees to provide the Buyer with reasonable opportunity to review and provide comment on the submission materials prepared by the Seller for its Subdivision approvals prior to the submission of the same to the City of Biddeford Planning Board for review and approval. Unless the Buyer requests a different lot configuration as part of its review of the subdivision application (and the Seller agrees to include said configuration in its subdivision plan application), the Seller shall deliver the Premises as one distinct subdivision parcel, and the Seller

shall bear all costs and fees associated with that approval, including without limitation any and all municipal impact fees, costs associated with any public improvements required as a condition of the Subdivision, and any all survey and engineering costs associated therewith.

- iii. Subdivision Approval Date. The date immediately following (i) receipt of final Subdivision Approval following any appeal or (ii) the expiration of all appeal periods of the Subdivision Approval (including without limitation appeals to a municipal board of appeals or Maine State Superior Court) without appeal being initiated shall be defined herein as the “**Subdivision Approval Date**”.

(b) Buyer's Project Approvals. Seller agrees to cooperate with the Buyer (at no cost to Seller other than costs related to the Subdivision) to allow Buyer to apply for all permits and approvals (or amendments to existing permits and approvals) necessary for the Buyer's intended use and development of the Property as two multi-family affordable apartment buildings containing approximately 90 units of housing and the possible further subdivision of Premises into two separate lots (the “**Buyer's Project**”).

(c) Additional Agreements. The Seller and Buyer agree to negotiate in good faith any and all easements or agreements required by the Buyer's Project Approvals or the Subdivision approval for the Buyer's access to and from the Premises, including without limitation those agreements described in Exhibit B hereto and agreements for shared access for pedestrians and vehicular use, life safety, sanitation, and utility easements serving the Premises and abutting lots of the Seller.

6. BUYER'S CONTINGENCIES. In addition to any other conditions to closing as may be set forth herein, the obligations of Buyer under this Agreement are subject to the following contingencies, any of which, if not met within the time periods specified, shall entitle Buyer to terminate this Agreement by giving Seller written notice of Buyer's intention to do so within the time period specified. Upon such termination, all Deposits shall be promptly returned to Buyer and the parties shall be relieved of all further obligations under this Agreement except for such obligations as by their terms survive termination of this Agreement.

(a) Property Information. Within **ten (10) business days** after the Effective Date, Seller shall provide Buyer with copies of all surveys, title policies, reports, or other documentation relating to the Premises or comprising part of the Property to be conveyed at Closing in the Seller or the Seller's agents possession, including without limitation: (i) any existing engineering and environmental studies, (ii) any existing surveys, site plans, easements and any other building plans, (iii) any existing leases, licenses or other occupancy agreements, (iv) any title, policies, information or documentation relating to the Premises, and (v) any and all final agreements (including amendments) entered into between the Seller (or its affiliates) and the City, or any submission materials or approvals (both planning board and City Council) regarding the development of the City Parcel.

(b) Buyer's Due Diligence. Buyer's obligation to close is further conditioned upon the results of Buyer's due diligence on the Property being satisfactory to Buyer in its sole discretion,

which may include, without limitation, general building and systems assessment and inspection, financing, surveys, geotechnical and environmental assessments, an investigation of any zoning or other conditions affecting the Property, and any other investigations Buyer may elect to perform all within **ninety (90) days** following the Effective Date (the “**General Due Diligence Period**”).

(c) City Approval Due Diligence Period. In addition to the General Due Diligence Period, the Buyer shall have a period of **thirty (30) days** commencing on the Subdivision Approval Date to review the Subdivision Approval in order to determine that the approved subdivision lot that comprises the Premises (and associated easements, rights of way, and other related subdivision improvements either benefiting or burdening the Premises) is suitable for the development of Buyer’s Project and to confirm that the exact acreage, boundaries and overall legal description of the Premises based on said Subdivision Approval is satisfactory to the Buyer in its sole discretion (the “**City Approval Due Diligence Period**”).

(d) Title. Buyer shall notify Seller on or before the expiration of the General Due Diligence Period (defined below) of any defects or nonconformity in title that would make Seller unable to give title to the Premises as stipulated herein (referred to herein as “**Defects of Title**”). Notwithstanding the foregoing, Buyer shall have until the Closing Date to object to any Defects of Title first arising after the Effective Date. If Buyer gives Seller timely notice of any Defect of Title, Seller shall have thirty (30) days after receipt of notice of such defect within which to remedy or cure any such Defect of Title. In the event Seller is unable or unwilling to remedy or cure such Defect of Title after good faith efforts to do so (excluding any expenditure of funds, the decision regarding which shall be in Seller’s sole discretion) within such time period, then Buyer may elect either to (i) accept title to the Premises subject to the uncured Defect of Title, or (ii) Buyer may elect to terminate this Agreement, and upon such termination the Deposit shall be returned to Buyer and all obligations of the parties hereunder shall cease and neither party shall have any claim against the other by reason of this Agreement except for such obligations as by their terms survive termination of this Agreement.

(e) Appraisal. The Buyer’s obligation to close is contingent on receipt of a third-party appraisal of the Premises that supports a value at or above the Purchase Price prior to the expiration of the General Due Diligence Period.

(f) Environmental Approval. The Buyer’s obligation to Close is contingent upon receipt of an updated Phase I Environmental Site Assessment, and if required, a Phase II Environmental Site Assessment naming the Purchaser, and a Maine Department of Environmental Protection Voluntary Response Action Program approval (or modification of existing approvals to accommodate the Buyer’s use as residential housing) and no action assurance letter prior to Closing, satisfactory to the Buyer in its sole discretion (the “**Environmental Assessment**”).

(g) Board Approval. The Buyer’s obligation to close is further conditioned upon the approval of its Board of Directors of the acquisition of the Property in accordance with the terms of this Agreement. Buyer shall seek Board of Director Approval at the first regularly scheduled meeting following the Effective Date, which shall be not later than sixty (60) days from the Effective Date,

and promptly notify the Seller whether or not the Board of Directors approved the acquisition contemplated herein.

(h) City Option Agreement Approval. The Seller's obligation to close is conditioned upon receipt of the approval of the City pursuant to the City Option Agreement of the sale of the Property in accordance with the terms of this Agreement. Buyer shall seek the City's approval on the same timeframe and contemporaneously with the Subdivision Approval, and promptly notify the Seller whether or not the City approved the acquisition contemplated herein. In the event the City does not approve the sale of the Property to the Buyer, this Agreement shall terminate automatically, all Deposits will be returned to the Buyer, and neither party shall have any further obligation to the other.

If Buyer does not notify Seller that any such contingency set forth in subsections (b) – (g) above has not been satisfied within the applicable time period set forth above, such contingency shall be deemed to have been waived by Buyer.

Buyer and its agents shall have the right to enter, inspect and survey the Premises for the foregoing purposes and otherwise to make, or cause to be made, such surveys, tests, inspections, and investigations, including taking soil borings and other environmental analyses and studies of the Premises, and the Buyer further agrees to restore the Premises to substantially the same condition prior to such surveys, tests, inspections and investigations in the event that Buyer should not proceed with the acquisition of the Premises.

Buyer and its employees and agents shall enter the Premises at their own risk and shall remain liable for all damage or injury to any person or property resulting from, relating to, or arising out of Buyer's activities on the Premises, whether due to the acts of Buyer or any person acting by or on behalf of Buyer. Buyer shall further keep the Premises free and clear of any liens arising from work performed on behalf of Buyer in connection with its activities on the Premises. Buyer agrees to indemnify, defend and hold harmless Seller and Seller's agents from and against any and all claims, costs, damages, liabilities or liens of any kind arising out of or due to Buyer's activities on the Premises, including reasonable attorney's fees and costs, except if caused by Seller's negligence. These indemnification obligations shall survive the Closing or earlier termination of this Agreement.

7. CLOSING DOCUMENTS. At the Closing, and in addition to any other documents referred to in this Agreement to be delivered to Buyer at the Closing, Seller shall execute, acknowledge as necessary and deliver the following documents and such other documents as Buyer's attorneys may reasonably require to complete the transaction contemplated herein, including without limitation (a) the deed, (b) transfer tax declaration, (c) title affidavits, (d) non-foreign person affidavit pursuant to § 1445 of the Internal Revenue Code, (e) Form 1099-S, (f) a certificate of Maine residency or a certificate of reduction/waiver of withholding, in compliance with 36 M.R.S. § 5250-A, (g) oil storage tank certification, in accordance with 38 MRS § 563, (h) a closing settlement statement and (i) such other disclosures and documents as may be required under Maine law, the Seller or the Buyer in each of their reasonable discretion.

8. CONDITION OF PREMISES; POSSESSION. Full possession of the Premises is to be delivered at the Closing, free of all tenants and occupants and otherwise in the same condition as it is at the expiration of the General Due Diligence Period. Seller agrees to provide prompt written notice to Buyer of any changes in the condition of the Premises. Buyer and Buyer's agents may inspect the Premises up to forty-eight (48) hours prior to the Closing in order to determine whether there have been any changes in the condition of the Premises since such date that are inconsistent with the development of the Buyer's Project. In the event of any such changes, Buyer shall provide Seller with notice of such changes and Seller shall have a reasonable period of time to take any necessary corrective action to cure such changes as described in Section 9 below. Notwithstanding the foregoing, the Parties acknowledge that the City has been stockpiling soil and material associated with the work of its public works department on the Premises, in addition to being free from all tenants and occupants, the Seller shall deliver the Premises free from this material unless otherwise agreed to by the Buyer in writing in its sole discretion.

9. EXTENSION TO PERFECT TITLE OR MAKE PREMISES CONFORM. If Seller shall be unable to give title or to make conveyance, or to deliver possession of the Premises, all as herein stipulated, or, if at the time of the Closing the Premises do not conform with the terms and conditions hereof, then Seller shall use reasonable efforts to remove any defects in title, or to deliver possession as provided herein, or to make the Premises conform to the terms and conditions hereof, as the case may be, in which event the time for performance hereof may be extended for a period of thirty (30) days or such longer period as may be necessary given the nature of the defect, during which time Seller shall continue such efforts to remove any defects in title, or to deliver possession as provided herein, or to make the Premises conform to the terms and conditions hereof. If at the expiration of such extended time Seller shall have failed to remove any defects in title, deliver possession, or make the Premises conform, as the case may be, all as herein agreed, then, at Buyer's option, the Deposits and any payments made under this Agreement shall be promptly refunded to Buyer and all other obligations of the parties hereto shall cease and this Agreement shall be void without recourse of the parties hereto, except for such obligations as by their terms survive termination of this Agreement.

In addition to such other remedies available to Buyer under this Agreement, Buyer shall have the election, at either the original or such extended time for performance, to accept such title or condition to the Premises in its then condition as Seller can deliver and to pay therefor the Purchase Price without deduction, in which case, Seller shall convey such title or deliver the Premises in such condition. In the event that the Buyer decides to proceed with the Closing under this paragraph and the Premises has been damaged by fire or casualty that is insured, then the Seller shall, pay over or assign pay over or assign to Buyer, on delivery of the deed, all amounts recovered or recoverable on account of such insurance, less any amounts reasonably expended by Seller for any restoration.

10. USE OF PURCHASE MONEY TO CLEAR TITLE. To enable Seller to make conveyance as herein provided, Seller may, at the time of delivery of the deed and other transfer documents, use the purchase money or any portion thereof to clear the title of any or all encumbrances or interests, provided that all instruments so procured are recorded simultaneously with the delivery of said deed and other transfer documents.

11. RISK OF LOSS. Until delivery of possession of the Premises from Seller to Buyer, risk or loss or damage to the Premises by fire or otherwise shall be on Seller.

12. ADJUSTMENTS. Taxes for the then current fiscal year assessed against the Premises, and other assessments and liability charges, if any, on the Premises shall be adjusted as of the Closing Date, and the net amount thereof shall be added to or deducted from, as the case may be, the Purchase Price. If the amount of taxes to be adjusted is not known on the Closing Date, the taxes will be adjusted on the basis of the taxes most recently assessed for the preceding fiscal year, with a reapportionment as soon as the new tax rate and valuation can be ascertained. Transfer Tax shall be shared equally by the parties in accordance with Maine Law.

13. BROKERAGE. Buyer and Seller each represent to the other that no broker or finder has been communicated with in connection with the transaction contemplated by this Agreement. Seller and Buyer each agree to indemnify and hold harmless the other from and against any claim by any other broker or person for a commission or finder's or other fee with respect the transaction contemplated hereby, including, but not limited to attorney's fees and costs incurred.

14. DEFAULT/DAMAGES. Should Seller fail to fulfill Seller's obligations hereunder, Buyer may elect to terminate this Agreement and receive a refund of the Deposits or to pursue all available remedies, including specific performance and collection of its reasonable attorney's fees and costs. Should Buyer fail to fulfill Buyer's obligations hereunder, Seller shall retain the Deposits as liquidated damages as Seller's sole and exclusive remedy at law or in equity for Buyer's default without further recourse to Buyer and Buyer shall be relieved of all obligations hereunder except for such obligations as by their terms survive termination of this Agreement.

15. WARRANTIES AND REPRESENTATIONS.

(a) Seller warrants and represents as of the date of Seller's execution of this Agreement and as of each date through and including the Closing that:

- i. Seller has been duly organized and is validly existing in good standing in the jurisdiction of its formation, and is qualified to do business in the state of Maine.
- ii. Except for the approvals otherwise referenced in this Agreement, Seller has the full right and authority and obtained all consent required to enter into this Agreement and to consummate the transaction contemplated herein. This Agreement has been, and all of the documents to be delivered by the Seller at the Closing will be authorized and properly executed by a person with authority to act and sign on behalf of the Seller, and will be a valid and binding obligation of the Seller.
- iii. The Seller is not a foreign person or foreign corporation for purposes of the withholding required under the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA), and accordingly, no such withholding will be required;

- iv. Except for the approvals otherwise referenced in this Agreement, No consent, approval, order or authorization of any court or other governmental entity is required to be obtained by Seller in connection with the execution and delivery of this Agreement or the performance hereof by Seller.
- v. To the best of Seller's knowledge, there are no litigation, liens, judgments, violations, or proceedings pending or threatened against or relating to the Property nor does Seller know or have reasonable grounds to know of any basis for any such action, or of any governmental investigation relating to the Property.
- vi. To the best of Seller's knowledge, there is no pending or, threatened action or proceeding (including, but not limited to, any condemnation or eminent domain action or proceeding) before any court, governmental agency or arbitrator relating to or arising out of the ownership of the Property or any portion thereof, or which may adversely affect Seller's ability to perform this Agreement, or which may affect the Property or any portion thereof.
- vii. Except for those matters disclosed the Property information provided to the Buyer by Seller pursuant to Section 6(a), Seller represents and warrants that (i) the Seller has not received any notice from any governmental authority that (A) the Premises is in violation of any environmental laws, (B) the Premises contains any hazardous materials, or any person or entity has caused or permitted any hazardous material to be manufactured, generated, processed, produced, disposed on, at, through, or under the Premises or any hazardous materials to be placed stored, held, transferred, or transported from or to the Premises, (C) there has been a release of hazardous materials on, in, at, under, or from the Premises, or (D) Seller is subject to any environmental action in connection with the Premises; (ii) during Seller's ownership of the Premises, no underground tanks have been located on, in, or under the Premises; and (iii) Seller has not received any notice of any contemplated, proposed, or pending environmental action with respect to the Premises.
- viii. To the best of Seller's knowledge, there are no existing violations of zoning ordinances or other laws, ordinances or restrictions applicable to the Premises, and no boundary line discrepancies with abutters.

Seller shall immediately disclose any changes in any of the Seller's warranties and representations set forth in this Agreement, and in the event of any material adverse change, Buyer may, at its election, terminate this Agreement in which case the Deposit shall be promptly returned to Buyer and the parties shall be relieved of all further obligations under this Agreement except for such obligations as by their terms are to survive termination of the Agreement. Buyer's performance under this Agreement is conditioned upon the truth and accuracy of Seller's warranties and

representations expressed herein as of the date of Seller's execution of this Agreement and as of the Closing.

(b) Buyer warrants and represents as of the date of Buyer's execution of this Agreement and as of each date through and including the Closing that:

- i. Buyer has been duly organized and is validly existing in good standing in the jurisdiction of its formation, and is qualified to do business in the state of Maine.
- ii. Except for the approvals otherwise referenced in this Agreement, Buyer has the full right and authority and obtained all consent required to enter into this Agreement and to consummate the transaction contemplated herein. This Agreement has been, and all of the documents to be delivered by the Buyer at the Closing will be authorized and properly executed by a person with authority to act and sign on behalf of the Buyer, and will be a valid and binding obligation of the Buyer.
- iii. Except for the approvals otherwise referenced in this Agreement, no consent, approval, order or authorization of any court or other governmental entity is required to be obtained by Buyer in connection with the execution and delivery of this Agreement or the performance hereof by Buyer.
- iv. Buyer currently has all necessary financial resources required to satisfy its obligations hereunder including without limitation the payment of the Purchase Price at Closing.

All warranties and representations expressed herein for Buyer and Seller shall survive the Closing and any termination of this Agreement for a period of twelve (12) months from Closing. Seller agrees to indemnify, defend and hold harmless Buyer from and against any liability, cost, damage, loss, claim, expense or cause of action (including, but not limited to, attorneys' fees and costs) incurred by or threatened against Buyer as a result of any breach by Seller of any of Seller's warranties or representations contained in this Agreement, up to a maximum amount of equal to sum of the Purchase Price and the amount of Predevelopment Cost (as defined in Exhibit B) actually paid by the Purchaser to the Seller. The foregoing indemnification obligations shall survive the Closing for a period of twelve (12) months from Closing.

16. AGREEMENT NOT TO MARKET; ADDITIONAL TAX CREDIT TRANSACTIONS.

(a) The Seller hereby agrees that it will refrain from marketing, negotiate or accept any offers to acquire the Property from the date of this Agreement through the earlier of (i) Closing or (ii) the termination of this Agreement as provided for herein.

(b) Seller hereby agrees to refrain from negotiating or entering into an agreement to sell another lot or parcel of land that is part of the City Parcel with a potential purchaser Seller knows to have the intent to finance the development of residential rental housing on said lot or parcel of land utilizing the Federal Low Income Tax Credit Program (the “**LIHTC Program**”) until the earlier of (i) such time as the Buyer has received a LIHTC Program award of funds or notice to proceed from Maine State Housing Authority to develop both buildings comprising the Buyer’s Project (regardless of whether the Buyer’s Project is funded across one or more phases and across one or more funding rounds) (ii) the Termination of this Agreement or (iii) five (5) annual 9% LIHTC funding cycles following the Closing. This agreement not to market or sell other parcels or lots to developers intending to utilize the LIHTC Program shall survive Closing.

17. POST-CLOSING OBLIGATIONS AND AGREEMENTS. In addition to the matters described in this Agreement regarding the acquisition of the Premises, the Parties hereby also agree to the obligations and agreements described in Exhibit B attached hereto which are incorporated into this Agreement by reference as though fully set forth herein.

18. ASSIGNMENT. The rights and obligations of Buyer under this Agreement may be assigned by Buyer to such other entities that may be formed by Buyer for the purpose of acquiring title to the Property without the consent of Seller provided that such assignee assumes all obligations of Buyer hereunder and Buyer shall remain fully liable for such obligations.

19. PROFESSIONAL ADVICE. Each party hereby acknowledges that they have read and understand this Agreement and have had an opportunity to obtain professional advice regarding the same.

20. AUTHORITY. Each party hereto represents and warrants that it has full authority to execute this Agreement and perform all obligations contained herein. All such actions have been properly authorized by any required votes and the party signing on behalf of each party hereto is duly appointed to so act in said capacity to make this Agreement binding upon such party.

21. ESCROW AGENT. Drummond Woodsum shall serve as Escrow Agent for the transaction contemplated herein (the “**Escrow Agent**”). The Escrow Agent serves as legal counsel to the Buyer and that the Escrow Agent’s acceptance of the escrowed funds in no way affects the Escrow Agent’s continued representation of the Buyer in all matters related to this Agreement and the transactions contemplated hereunder. The Escrow Agent may at any time resign as such by delivering the escrowed funds to a court of the State of Maine having appropriate jurisdiction whereupon the Escrow Agent shall be discharged of and from any and all further obligations arising in connection with this Agreement. In the event of a dispute over the disposition of such funds, the Escrow Agent may further commence an interpleader action to determine the proper disposition of said funds. Seller and Buyer agree to reimburse Escrow Agent for all reasonable expenses incurred by Escrow Agent in the interpleader action, including, without limitation, attorney’s fees and costs. Seller and Buyer agree that Escrow Agent shall not be liable for actions taken in good faith in accordance with the advice of counsel with respect to any matter relating to this Agreement. Buyer and Seller shall jointly and severally indemnify and hold harmless the Escrow Agent from and against any and all losses, liabilities, claims, actions, damages and expenses, including reasonable attorney’s fees and

costs, arising out of and in connection with this Agreement, except those arising from the Escrow Agent's own negligence or willful misconduct.

22. NOTICES. Except where expressly stated otherwise, any notice relating in any way to this Agreement shall be in writing and shall be delivered to the other party by (a) registered or certified mail, return receipt requested, (b) overnight by a nationally recognized courier, (c) hand delivery obtaining a receipt therefor, or (d) email, addressed to the parties as follows:

To Seller:	3 LINCOLN, LLC 80 Exchange Street, Suite 400 Portland, Maine 04101 Contact Name: James H. Brady Email: jbrady@fathomcompanies.com
With copy to:	Christopher Howard, Esquire Pierce Atwood LLP 254 Commercial Street Portland, Maine 04101 Email: choward@pierceanwood.com
To Buyer:	Westbrook Development Corporation Attn: Tyler Norod, Development Director 30 Liza Harmon Drive Westbrook, Maine 04092 Email: tnorod@westbrookdevelopmentcorp.org
With a copy to:	Robert M. Liscord Drummond Woodsum 84 Marginal Way, Suite 600 Portland, Maine 04101-2480 Email: rliscord@dwmlaw.com

Notices shall be deemed delivered upon such hand delivery, or upon the earlier of either (i) the date delivered or (ii) the date of delivery, refusal or non-delivery as reported through a qualified courier's tracking service or indicated on the return receipt, in the case of notice by registered or certified mail or overnight courier as provided above.

Notice by email shall be deemed delivered upon sending, except if the sender receives an "out of office" or "undeliverable" or similar message indicating that the email was not immediately received by the other party, such notice shall be deemed ineffective and must be provided by one of the other methods permitted herein.

Either party may, by such manner of notice, substitute persons or addresses for notice other than those listed above.

23. COUNTERPARTS. This Agreement may be executed by DocuSign and/or in counterparts, and each of which when so executed and delivered shall be an original, but which together shall constitute one and the same instrument. Signatures delivered by fax, email or DocuSign shall be as effective as an original.

24. DAYS. Except as otherwise expressly set forth herein, the term “days” used herein shall mean calendar days, provided however, that if the date for performance of any action under this Agreement shall fall on a weekend or a holiday on which banks in the state of Maine are closed, such deadline shall be the next business day thereafter.

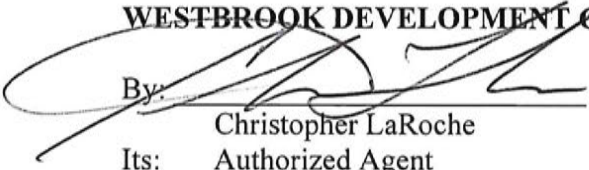
25. MISCELLANEOUS. This Agreement shall be binding upon and inure to the benefit of the heirs, successors and assigns of the parties. Headings are for convenience of reference only and have no independent legal significance. This Agreement may not be modified, waived or amended except in a writing signed by the parties hereto. No waiver of any breach or term hereof shall be effective unless made in writing signed by the party having the right to enforce such a breach, and no such waiver shall be construed as a waiver of any subsequent breach. No course of dealing or delay or omission on the part of any party in exercising any right or remedy shall operate as a waiver thereof or otherwise be prejudicial thereto. Any and all prior and contemporaneous discussions, undertakings, agreements and understandings of the parties are merged in this Agreement, and the exhibits referenced herein, which alone fully and completely express their entire agreement. It is expressly understood and agreed that time is of the essence with respect to this Agreement. If any term or provision of this Agreement, or the application thereof to any person or circumstance shall be held to be invalid, illegal or unenforceable by a court, such term or provision shall be deemed stricken and the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which this Agreement is held to be invalid or unenforceable, shall continue to be valid and binding upon the parties hereto, who agree that this Agreement shall be reformed to replace the stricken part with a valid and enforceable provision that comes as close as possible to expressing the intent of the stricken provision. This Agreement shall be governed by and construed and enforced in accordance with the laws in effect in the State of Maine.

[remainder of page intentionally blank – signature page to follow]

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the Effective Date.

BUYER:

WESTBROOK DEVELOPMENT CORPORATION

By:  _____

Christopher LaRoche

Its: Authorized Agent

9/24/2024

SELLER:

3 LINCOLN, LLC

By:  _____

Printed Name: James Brady

Its: Manager

ESCROW AGENT:

Drummond Woodsum & MacMahon, by its execution of this Agreement, acknowledges that it will hold and disburse the Deposits in accordance with the terms and conditions hereof.

Drummond Woodsum & MacMahon

By: _____

September __, 2024

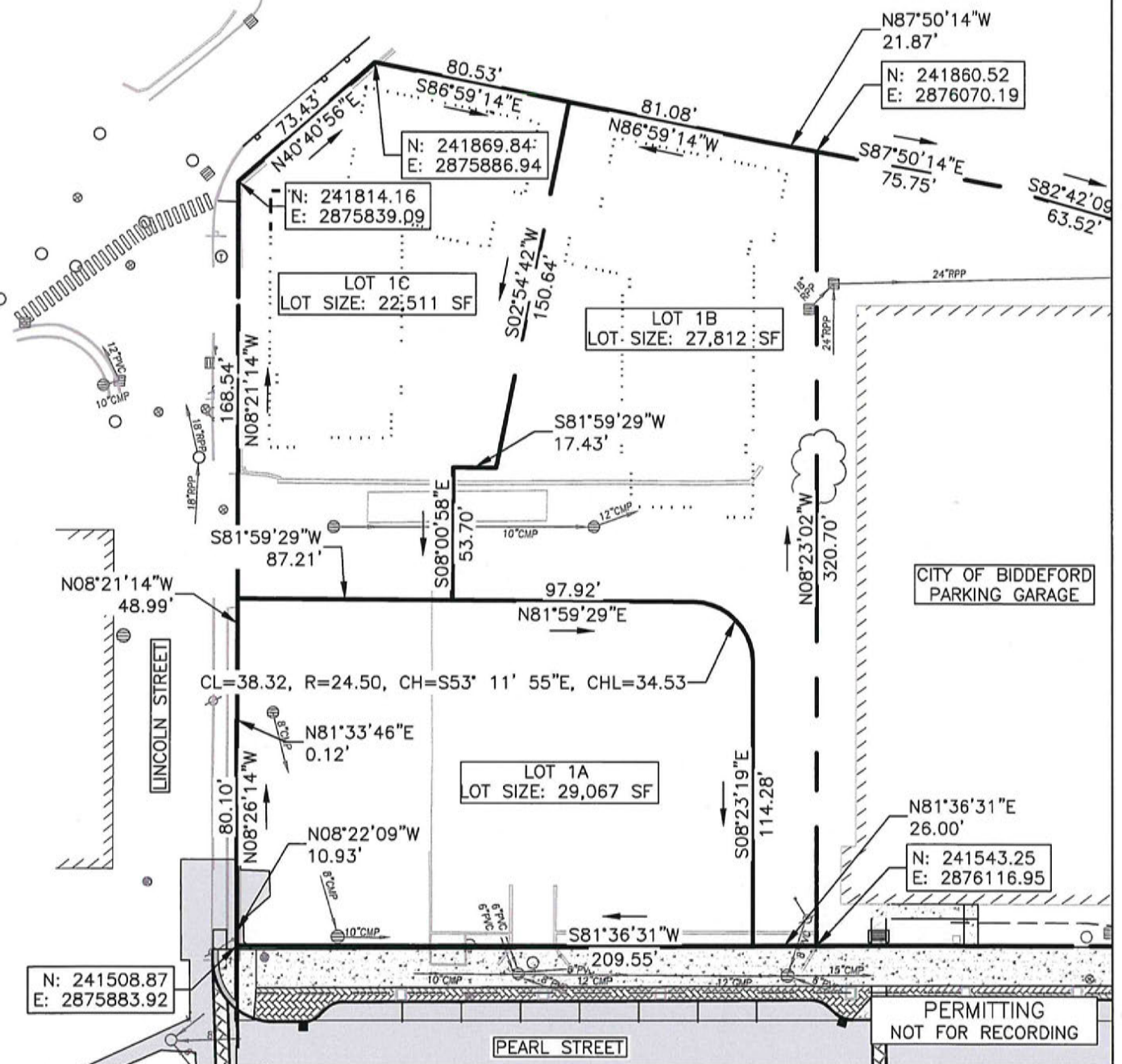
Robert M. Liscord

Its: Attorney

**EXHIBIT A
PREMISES**

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 8/5/2021 & REVISED 9/29/21



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

FILE: 1124_CIVIL
DATE: 9/4/24
JN: 1124
SCALE: 1" = 60'
DESIGN BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS



DRAWING NAME:

LOT 1 EXHIBIT

PROJECT NAME:

LOT 1B REDEVELOPMENT

CLIENT:

WESTBROOK DEVELOPMENT CORP.
WESTBROOK, MAINE

ISSUED FOR

SKETCH

BY

DATE

9/4/24

EXHIBIT B
ADDITIONAL OBLIGATIONS AND AGREEMENTS

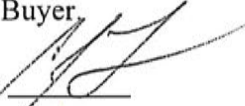
In addition to those matters described above relating to the acquisition of the Premises, the Buyer and Seller hereby agree as follows:

1. Predevelopment Costs. In addition and separate from the Purchase Price for the acquisition of the Property, the Buyer also agrees to reimburse the Seller for up to [REDACTED] in actual predevelopment site planning, design and engineering costs ("**Predevelopment Costs**") for on and offsite improvements which can be properly allocated to and directly benefit the Buyer's Project in accordance with applicable law and regulations governing the LIHTC Program, but which are neither classified as part of land acquisition costs, nor classified as part of Buyer's developer fee (as defined in the applicable Maine State Housing Authority Qualified Allocation Plan for administering the LIHTC Program in Maine) as determined by mutual agreement ("**Eligible Predevelopment Costs**").
 - a. Buyer shall be obligated to reimburse the Seller for Eligible Predevelopment Costs upon the earlier of (i) construction loan closing on the Buyer's Project, or (ii) December 31, 2026.
 - b. The Parties shall agree to the Eligible Predevelopment Costs prior to the expiration of the General Due Diligence Period.
 - c. The Seller acknowledges that the Buyer's Project may require the use of funds which are subject to environmental review and clearance and the choice limiting action limitations of Maine State Housing Authority and HUD related thereto, and therefore agrees to allow for reasonable extensions to the date upon which Eligible Predevelopment Costs will be due from the Buyer to the Seller but only as expressly required under the such choice limiting action limitations.
2. Shared Access. The Parties hereby agree that as part of the subdivision review and prior to the expiration of the City Approval Due Diligence Period, the parties will agree to the location of an access drive and any easements necessary for the development of the Premises for the Buyer's Project (the "**Shared Access**"), and to the form of agreement governing the design, construction and maintenance of the same (the "**Access Agreement**"). If the Buyer's Project proceeds to construction loan closing prior to the any development on the abutting lot, the Buyer acknowledges that it shall be responsible for the initial construction costs to construct the roadway required to access the Premises for the Buyer's Project (the "**Access Roadway**"), unless the construction of the Access Roadway is a condition of the Seller's Subdivision Approval. The Access Agreement will include any easement rights for the Seller to construct the future development on Lot 1A.
3. Cost Sharing Formula. For both Shared Access and Eligible Predevelopment Costs, the parties hereby agree to negotiate a reasonable proration formula for properly allocating a share of the costs associated with Shared Access (including design, construction, and maintenances costs) to the Buyer's Project which shall be determined and agreed to prior to the expiration of the General Due Diligence Period.

4. Post-Closing Construction Agreement. Provided that the Seller (or a successor) has not begun construction the property adjacent to the Premises, the Seller agrees to enter into an agreement with the Buyer whereby the Buyer at no cost may have sole use of the adjacent property for construction lay down and staging associated with Buyer's Project so long as doing so does not interfere with the construction of a future development on Lot 1A, upon such terms and conditions as the parties shall mutually agree. To the extent deemed convenient or necessary for the development of the Buyer's Project and other sites within the Pearl Street Riverfront District, the parties agree to negotiate in good faith such agreements as may be appropriate for the orderly and efficient development of the Buyer's Project and other areas within said district governing matter such as the construction, development and remediation of the properties, such agreements shall be upon such terms and conditions as the parties shall mutually agree.

The agreements between Buyer and Seller to be established pursuant to this Exhibit B shall be negotiated in good faith, and the parties agree to enter into such agreements to address the matters set forth above, which shall be a condition to Closing. In the event such agreements are not agreed upon on or before the deadlines set forth herein, then either Buyer or Seller may, by written notice to the other, terminate this Agreement. Upon such termination, all Deposits shall be promptly returned to Buyer and the parties shall be relieved of all further obligations under this Agreement, except for such obligations as by their terms survive termination of this Agreement.

The provisions of this Exhibit "B" shall survive the Closing and shall apply whether Seller or the City of Biddeford conveys the Premises to Buyer.

Initials of Buyer's Duly Authorized Agent: 

Initials of Seller's Duly Authorized Agent: 

Section 3: Financial Capacity

Financial Capacity

Please refer to the attached letter from the Applicant's bank confirming financial capacity for the project.





October 29, 2024

Town of Biddeford
Attn: Planning Board
205 Main Street
Biddeford, ME 04005

RE: Planning Board Application

To Whom It May Concern:

We have been working with Westbrook Development Corporation on their application to develop 90-affordable 1-bedroom apartments for seniors, to be located at 3 Lincoln Street, Lots 1B & 1C in Biddeford. Westbrook Development Corporation is an established and valued customer of Gorham Savings Bank. They are well capitalized and experienced developers and have a long history of banking and lending with Gorham Savings Bank. Please be advised they have the resources, financial capacity, and track record to successfully complete this project.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in cursive script that reads "Matthew W. Early".

Matthew W. Early
Senior Vice President

MWE/DJL



MAINE

Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Thu Oct 24 2024 14:27:05. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
WESTBROOK DEVELOPMENT CORPORATION	19870463ND	NON-PROFIT CORPORATION (UNDER TITLE 13-B)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
04/22/1987	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Principal Home Office Address

Physical

30 LIZA HARMON DRIVE
WESTBROOK, ME 04092

Mailing

30 LIZA HARMON DRIVE
WESTBROOK, ME 04092

Clerk/Registered Agent

Physical

GARY D. VOGEL
84 MARGINAL WAY, SUITE 600
PORTLAND, ME 04101-2480

Mailing

GARY D. VOGEL
84 MARGINAL WAY, SUITE 600
PORTLAND, ME 04101-2480

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Section 4: Technical Capacity

Technical Capacity

Westbrook Development Corporation has been a leading affordable housing developer in Maine for over 30 years. Our diverse development portfolio reflects our versatility, featuring a 100-unit, multistory apartment building, a charming single-family townhouse community, luxurious market-rate condominiums converted from a historic schoolhouse, and contemporary industrial-style lofts repurposed from a riverside mill. We take pride in providing a wide range of housing solutions, from affordable rental communities for seniors and individuals with disabilities to innovative homeownership opportunities for first-time buyers. Our experience includes 20 successful projects, delivering approximately 800 housing units across Southern Maine.

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 years, including 1, 10, 20, 26, & 30 Upper Falls Way on behalf of Reveler, Pearl Street – Lot 3 development on behalf of 3 Lincoln, LLC, and redevelopment of the Riverdam Mill on behalf of Reveler and currently designing / permitting the redevelopment of the Pepperell Mill Buildings 19 & 20 on behalf of CORE Firms.

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 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 residential. 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.

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 not adjacent to any protected locations.

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 existing Pearl Street Parking Garage to the east, Pearl Street with existing commercial and residential uses to the south, existing commercial and residential uses to the west, and the Amtrak railroad to the north. The western property line of the development is directly adjacent to Lincoln Street. The noise generated by the vehicle circulation within the site is anticipated to be negligible. The residential uses are not anticipated to generate high noise levels.

There is a mixed-use hotel development located directly across Pearl Street from the project site.

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: Comerical Industrial

MSRD3: High Density / Mixed Use

IN: Institutional

M: Medical

W1: Mixed Waterfront

W2: Commercial Waterfront

W3: Pool Village Waterfront

+

-

0

150

300ft

Esri Community Maps Contributors, City of Biddeford, © OpenStreetMap, M

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) on 12/3/2024 as part of the proposed project. The project proposes to redevelop the previous MERC facility site and improve the character of the neighborhood by redeveloping the lot into residential use from the previous MERC facility use.



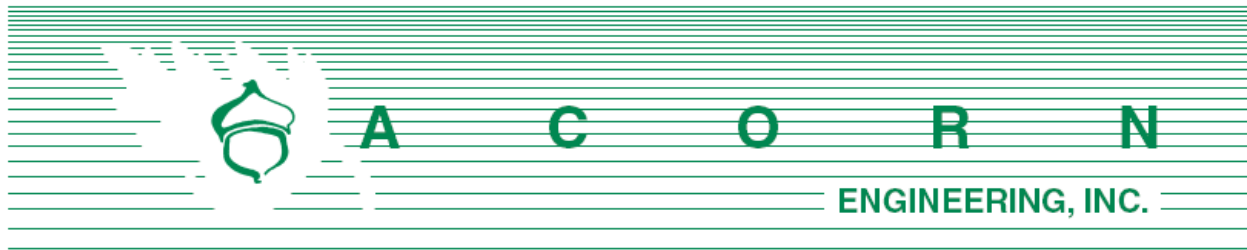
Section 7

Wildlife & Fisheries

Section 7. Wildlife and Fisheries

See attached letter to Maine Wildlife and Fisheries.





Mr. James Pellerin
Maine Department of Inland Fisheries & Wildlife
41 State House Station
Augusta, Maine 04333

January 2nd, 2025

Subject: Wildlife and Fisheries
15 Pearl Street (Lot 1B & 1C) Redevelopment
Biddeford, Maine

Dear Mr. Pellerin:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 1.16-acres and is located at 15 Pearl Street (Lot 1B & 1C) within the Main Street Revitalization District (MSRD-3) 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, PE
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

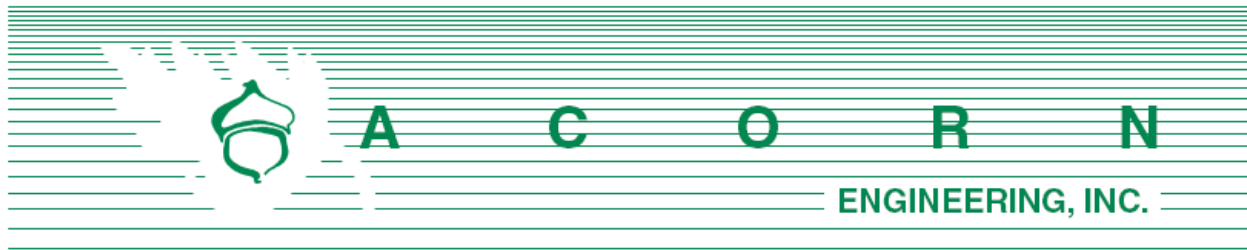
Section 8

Historic Sites

Section 8. Historic Sites

See attached letter to Maine Historic Preservation Commission and their corresponding response.





Mr. Kirk F. Mohnney
Maine Historic Preservation Commission
22 State House Station
Augusta, Maine 04333

January 2nd, 2025

Subject: Presence of Historic Areas
15 Pearl Street (Lot 1B & 1C) Redevelopment
Biddeford, Maine

Dear Mr. Mohnney:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 1.16-acres and is located at 15 Pearl Street (Lot 1B & 1C) within the Main Street Revitalization District (MSRD-3) 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, PE
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

Section 9

Unusual Natural Areas

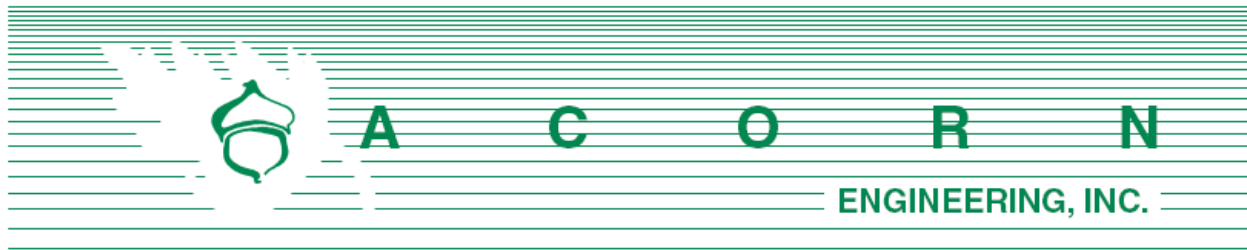
Section 9. Unusual Natural Areas

See attached letter to Maine Natural Areas Program and their corresponding response.



ATTACHMENT 8-1: MNAP RESPONSE





Ms. Lisa St. Hilaire
Maine Natural Areas Program
117 State House Station
Augusta, Maine 04333

January 2nd, 2025

Subject: Maine Natural Areas
15 Pearl Street (Lot 1B & 1C) Redevelopment
Biddeford, Maine

Dear Ms. Lisa St. Hilaire,

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 1.16-acres and is located at 15 Pearl Street within the Main Street Revitalization District (MSRD-3) 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, PE
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

January 6, 2025

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, Site Redevelopment, 15 Pearl Street, Biddeford, Maine

Dear Zachary Stevens:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received January 2, 2025 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 project parcel (Lot 1B) consists of approximately 1.15 acres. According to a Web Soil Survey the soil contain onsite are primarily urban fill. A geotechnical report prepared by Summit Geoengineering Services is forthcoming.

Attachments:

- 1.) Medium Intensity Web Soil Survey for 15 Pearl Street (Lot 1B & 1C) in Biddeford.





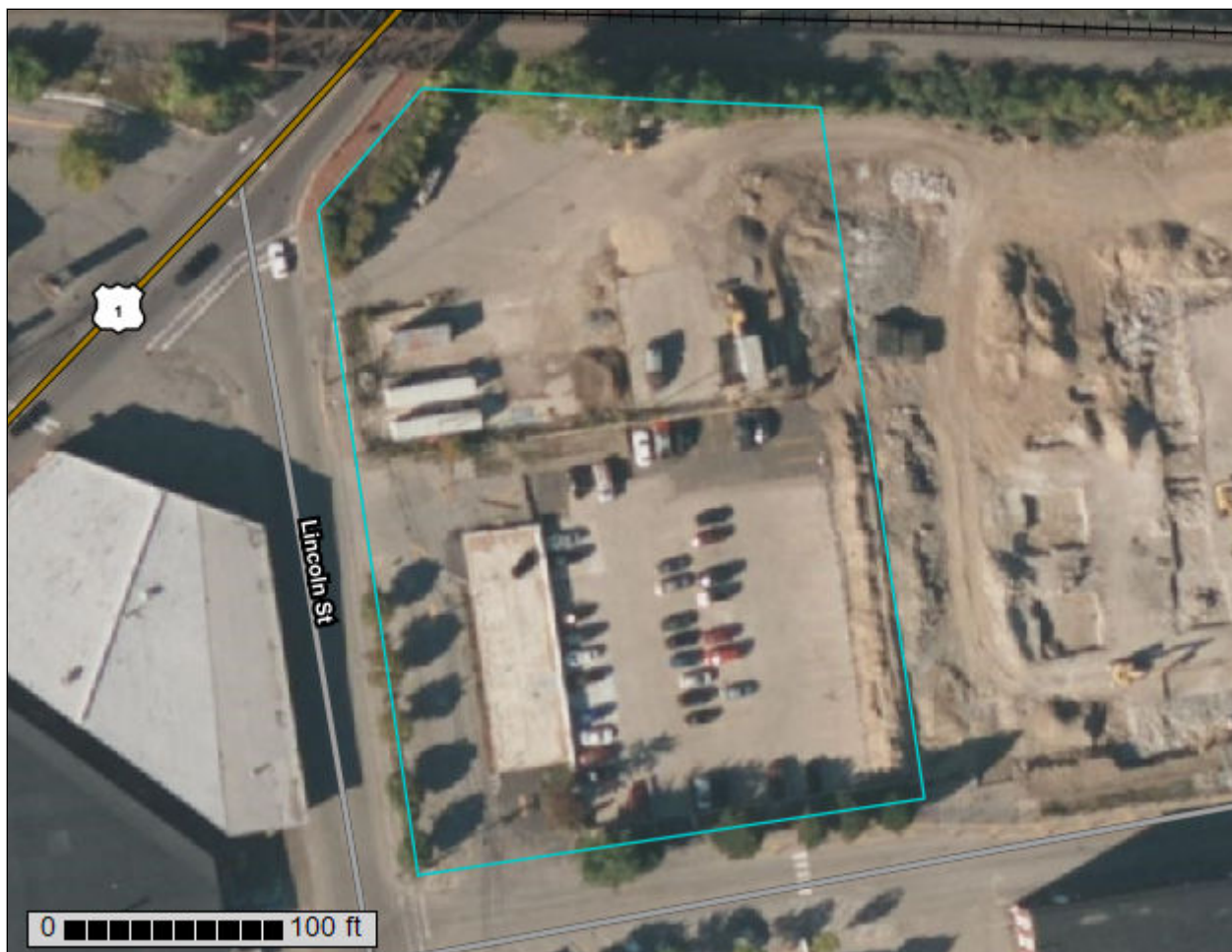
United States
Department of
Agriculture

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



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

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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

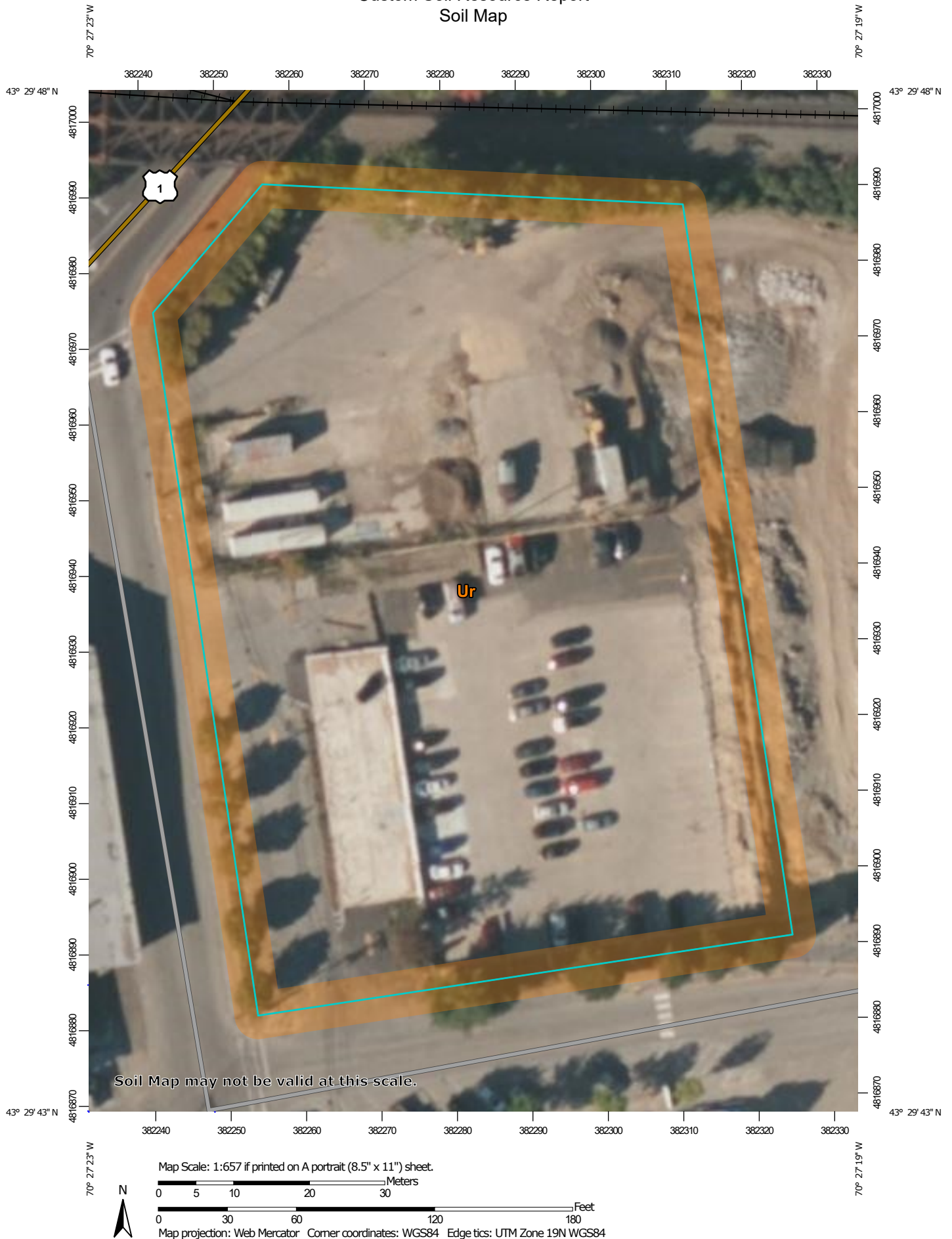
Custom Soil Resource Report

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.

Custom Soil Resource Report Soil Map



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: Jun 19, 2020—Sep 20, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	1.8	100.0%
Totals for Area of Interest		1.8	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

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

Sulfihemists

Percent of map unit: 2 percent
Landform: Salt marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear

Custom Soil Resource Report

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

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



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF BIDDEFORD	)	COMMISSIONER'S CERTIFICATION
ATTN: BRIAN PHINNEY	)	OF COMPLETION OF REMEDIAL
2205 MAIN STREET	)	ACTIONS UNDER A VOLUNTARY
BIDDEFORD, MAINE 04005	)	RESPONSE ACTION PLAN
	)	
MAINE ENERGY RECOVERY COMPANY, LP	)	
ATTN: KENNETH ROBBINS	)	
2 LINCOLN STREET	)	
BIDDEFORD, MAINE 04005	)	

JURISDICTION

This certification of completion of a Voluntary Response Action Plan ("VRAP") is made pursuant to the authority vested in the Commissioner of the Maine Department of Environmental Protection ("Department") or the Commissioner's delegee under 38 M.R.S.A. §343-E.

FINDINGS OF FACT

1. The covered property ("Property" or "Site") is the location of the former Maine Energy Recovery Company, LP ("MERC"), a waste-to-energy power plant located at 3 Lincoln Street in Biddeford, identified on Biddeford Tax Map 71, as Lot 2, and further described at Book 3736, Page 62 of the York County Registry of Deeds. The Site is 8.4 acres and has had a long industrial history in Biddeford's mill district. The City of Biddeford has acquired the property. A map of the Site is included as Attachment A.
2. The property use in the area is mixed industrial, commercial, and residential. The Site and surrounding area is served by public water and sewer.
3. DEP staff has reviewed the following reports and supporting documents for the Site ("Reports"):
 - A. *Phase I Environmental Site Assessment, Maine Energy Recovery Company Property, 3-11 Lincoln Street, Biddeford, Maine, September 18, 2012, Credere Associates, LLC.*
 - B. *Phase II Environmental Site Assessment, Maine Energy Recovery Company, 3-11 Lincoln Street, Biddeford, Maine, October 25, 2012, Credere Associates, LLC.*

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) RESPONSE ACTION PLAN
)

- C. *Supplemental Phase II Environmental Site Assessment, Maine Energy Recovery Company Property, 3-11 Lincoln Street, Biddeford, Maine, November 15, 2012, Credere Associates, LLC.*
- D. *Voluntary Response Action Work Plan, Maine Energy Recovery Company Property, 3 Lincoln Street, Biddeford, Maine, November 9, 2012, Credere Associates, LLC.*
- E. *Dioxin Remediation Plan, Maine Energy Recovery Company, Biddeford, Maine, October 16, 2013, Summit Environmental Consultants*
- F. *Characterization Investigation, Maine Energy Recovery Company, Biddeford, Maine, January 2013, Summit Environmental Consultants*
- G. *Supplemental Characterization Investigation, Maine Energy Recovery Company, Biddeford, Maine, February 2013, Summit Environmental Consultants*
- H. *Dioxin Remediation at the Maine Energy Recovery Company Facility, Biddeford, Maine, May 7, 2014, Summit Environmental Consultants*
- I. *PCB Remediation Plan, Maine Energy Recovery Company, Biddeford, Maine, April 16, 2014, Summit Environmental Consultants*
- J. *PCB Remediation Closeout Report, Maine Energy Recovery Company, Biddeford, Maine, February 13, 2015, Summit Environmental Consultants*
- 4. The Reports completed by Credere Associates, LLC ("Credere") and Summit Environmental Consultants ("Summit"), identified dioxin contamination from the operation of the waste-to-energy plant and polychlorinated biphenyl ("PCB") contamination in soils located in a portion of the property that historically had a boiler house and an electrical systems maintenance building (both razed before MERC owned or operated the property).
- 5. On November 14, 2012, the City of Biddeford and Maine Energy Recovery Company, LP, as co-applicants, filed an application to VRAP.

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6. On November 29, 2012 the Department's VRAP issued a No Action Assurance ("NAA") letter to the City of Biddeford and Maine Energy Recovery Company, LP, which approved of further assessment and remedial actions to address the identified issues.
7. Immediately following completion of the demolition of the waste-to-energy facility in November 2013, the removal of dioxin impacted soils and the cleaning of solid surfaces (i.e. concrete, pavement) associated with former floors/foundations and vehicular travel/parking areas commenced. Post clean-up sampling of these areas confirmed that the Department's Residential Remedial Action Guideline had been achieved. Soils, surface ash/debris, and the filter bags were shipped to Juniper Ridge Landfill in Old Town for proper disposal. Wash-water collected from the pressure washing/vacuuming of the solid surfaces was transported to the Hyland Landfill in Angelica, New York, for proper disposal.
8. Additional investigation of PCB contaminated soils determined that the United States Environmental Protection Agency's ("EPA") Toxic Substances Control Act ("TSCA") Program requirements for the delineation and clean-up of the PCB contamination would be necessary. EPA provided approval of the initial PCB remediation plan in June 2014. Cleanup of PCB contaminated soils commenced in July 2014. In response to site conditions encountered during the PCB removal, a modification to the cleanup plan was submitted to EPA in September 2014. EPA approved of the modification in November 2014 and in February 2015. The remedial work was substantially completed (final vegetated soil cover could not be established) in December 2014.
9. Summit directed the removal of PCB impacted materials at the site, beginning in July 2014 and concluding in December 2014. A total of 1838.26 tons of PCB impacted soil and demolition debris was excavated from the historical boiler house and electrical systems maintenance building area in the eastern portion of the Site and appropriately disposed at CWM Chemical Services, LLC facility in Model City, New York. PCBs above the EPA established cleanup objective remain at the site, but were unable to be safely removed due to the presence of an active railroad retaining wall and a seawall bounding the excavation area. A structural engineer determined that further excavation near these structures could compromise the integrity of the structures, resulting in failure. The modification of the remedial work plan approved by EPA in November 2014 and in February 2015 allowed these soils to remain in place as long as a protective cover was constructed over these soils ("Capped Area") to prevent contact. The TSCA-compliant cap, from the residual PCB contaminated soil located at depth to the new ground surface, is four feet thick, and consists of (from bottom to ground surface): 12 inches of clean

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low-permeability barrier soil; a 40-mil HDPE geomembrane; a bi-planar drainage composite layer to drain surface water infiltration away from the geomembrane and remaining contaminated soils; 12 inches of clean drainage sand; 18 inches of clean granular borrow, and; six inches of loam to establish a top vegetative layer. A 25 foot Buffer area extends around the perimeter of the Capped Area as an added precaution to prevent inadvertent contact with the underlying PCB-impacted soils. As per approval of EPA's TSCA Program, these PCB-impacted soils will be left in place with deed restrictions on excavation in the area. The deed restrictions in EPA's approval allow for a park or river walk and associated improvements over the cap if they do not impact the cap's function, but do not allow for children's playgrounds or sandboxes.

10. Dioxin remedial actions are summarized in a report by Summit, titled *Dioxin Remediation at the Maine Energy Recovery Company Facility, Biddeford, Maine*, and dated May 7, 2014. PCB remedial actions are summarized in a report by Summit, titled *PCB Remediation Closeout Report, Maine Energy Recovery Company, Biddeford, Maine*, and dated February 13, 2015.
11. The Department considers no further assessment or remedial actions as necessary to address the dioxin or PCB contamination at the property.
12. No other Recognized Environmental Conditions that would create a risk under unlimited site use were identified in the Reports.

CONCLUSIONS

1. The City of Biddeford and MERC, as co-applicants, have submitted a VRAP application to the Commissioner pursuant to 38 M.R.S.A. § 343-E for the Site located at 3 Lincoln Street, Biddeford, identified on Biddeford Tax Map 71, as Lot 2, and further described at Book 3736, Page 62 of the York County Registry of Deeds
2. Remedial actions at the Site addressing the contamination described in the Reports have been completed to the Commissioner's satisfaction.
3. Provided the City of Biddeford and MERC, as co-applicants, and their successors and/or assigns comply with the conditions of this certification, the response actions that have been completed and the activities associated with the reuse or development of the Site

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will not cause, contribute, or exacerbate releases, or threatened releases, if they exist at the Site and are not required to be removed under the VRAP.

THEREFORE, pursuant to 38 M.R.S.A. § 343-E(5), Melanie Loyzim, Director, Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection certifies, subject to the conditions set forth below, that remedial actions have been completed at the former Maine Energy Recovery Company, LP ("MERC"), a waste-to-energy power plant located at 3 Lincoln Street in Biddeford, identified on Biddeford Tax Map 71, as Lot 2, and further described at Book 3736, Page 62 of the York County Registry of Deeds. Upon issuance of this CERTIFICATE, the City of Biddeford and MERC, as co-applicants, and the persons qualified for protection under 38 M.R.S.A. § 343-E(6) are entitled to the protection from liability to the extent provided by 38 M.R.S.A. §343-E. This protection from liability is limited to the matters identified and addressed by the Reports and is subject to the qualifications and conditions in this certificate and in 38 M.R.S.A. § 343-E(1). VRAP liability protections under 38 M.R.S.A. § 343-E do not limit the Department's enforcement authorities for non-compliance with other laws administered by the Department, including, but not limited to, lead abatement and asbestos regulations.

CONDITIONS

1. No potable drinking water wells shall be installed on the Property.
2. Future use of the Property shall be consistent with the mixed use of the adjacent area (i.e., industrial, commercial, residential, city park and RiverWalk Trail), provided that no gardening for human consumption shall occur on the Property.
3. Future activities at the Property shall be conducted in accordance with the Soil and Groundwater Management Plan.
4. The Capped Area contains a TSCA-compliant cap located between the ground surface and 4 feet below ground surface. A 25 foot Buffer area surrounds the Capped Area. This cap shall be maintained by the City or its successors and assigns in perpetuity and shall not be disturbed without prior written permission of EPA and DEP.
5. The Capped Area and 25 foot Buffer may be used for a park or river walk, but for no other use without the written consent of the EPA and DEP. There shall be no buildings or excavations allowed on or in the Capped Area and Buffer. Walkways, paths, benches,

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grass, turf, shallow-rooted trees, shrubs, and other plantings consistent with a park or river walk use shall be allowed, provided that none of these items disturbs or alters the TSCA-compliant cap.

6. Use of the Capped Area and Buffer for a park shall not include children's playgrounds or sandboxes.
7. A copy of this certificate shall be recorded at the York County Registry of Deeds for the Site located at 3 Lincoln Street in Biddeford, identified on Biddeford Tax Map 71, as Lot 2, and further described at Book 3736, Page 62 of the York County Registry of Deeds. A copy of the recorded document must be supplied to the Department's VRAP.
8. A Declaration of Environmental Covenants, consistent the Maine Uniform Environmental Covenants Act as defined in 38 M.R.S.A. § 3001 et seq., consistent with this Certificate, and acceptable to the Department must be executed for the Site and must be recorded at the York County Registry of Deeds. A copy of the recorded Declaration of Environmental Covenants must be supplied to the Department's VRAP within thirty (30) days of being recorded.

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DONE AND DATED AT AUGUSTA, MAINE, THIS 6th DAY OF July 2015.
DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: Melanie Loyzim
Melanie Loyzim, Director
Bureau of Remediation & Waste Management

STATE OF MAINE
KENNEBEC, ss.,

July 6th, 2015

Then personally appeared the above-named Melanie Loyzim in her position as Director of the Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection and duly authorized delegatee for the Commissioner, and acknowledged the foregoing instrument to be her free act and deed, and the free act and deed of the Department of Environmental Protection.

Before me,

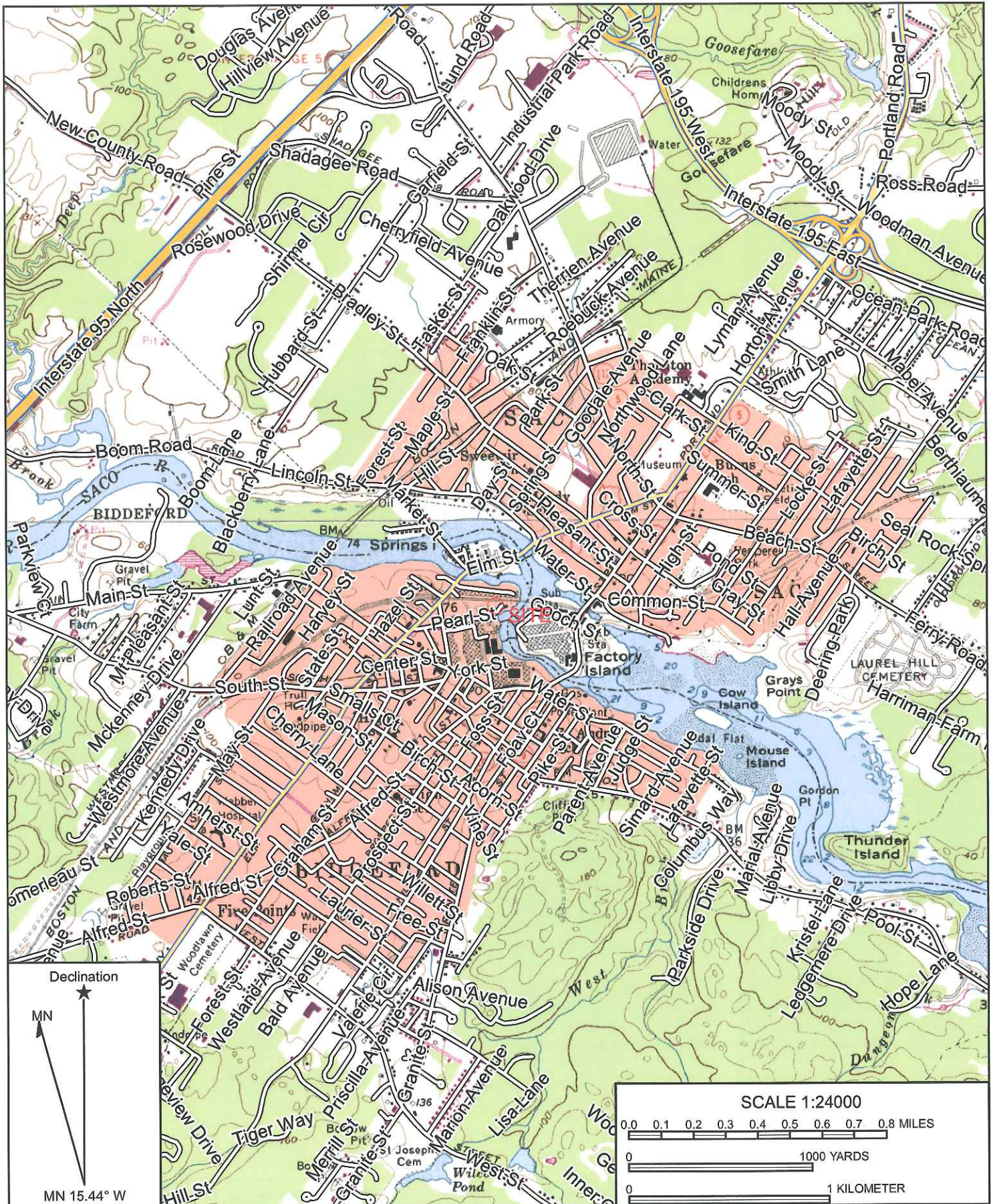
Laura L. Gay
Notary Public

LAURA L. GAY
(Print Name)

9/24/2015
My commission expires

This order was prepared by Nicholas J. Hodgkins, OHMS III, Bureau of Remediation & Waste Management.

Attachment A



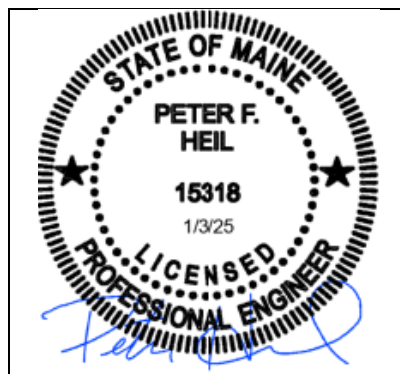
Section 12: Stormwater Management Report

Prepared For:

**Westbrook Development Corporation
Portland, ME 04101 &
Westbrook, ME 04092**

Prepared By:

**Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04103**



January 2025

INTRODUCTION

Acorn Engineering, Inc. has been retained by Westbrook Development Corporation (WDC) to provide civil engineering services for the proposed redevelopment of 15 Pearl Street (Lot 1) Biddeford, Maine. The project proposes to subdivide Lot 1B into two (2) smaller lots (Lot 1B and Lot 1C), each supporting a proposed affordable senior housing building. The project proposes to construct two (2) affordable senior housing buildings, anticipated to include approximately (90) total residential units, with associated site and utility infrastructure improvements.

EXISTING CONDITIONS

The existing site address is 15 Pearl Street, with frontage on Lincoln Street, Elm Street, and Pearl Street. An Existing Conditions Survey has been prepared by Owen Haskell Inc. dated August 5, 2021.

Lot 1 is vacant and currently utilized as a parking lot and contains old remnants of the MERC facility foundation. Additionally, contaminated soil remains on site, which the applicant anticipates applying for brownfield funding to remove in early 2025. The existing grades on site are relatively flat ranging from 0 to 5 percent (with some locations having steeper embankments) west to east toward the adjacent municipal garage.

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 limit of work for the proposed project will be primarily contained within Lot 1B & 1C and includes some minor grading on Lot 1A, Lot 2 and within the Lincoln Street and Pearl Street Right of Way for a total disturbance of 1.59 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 amendment 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, two total buildings will be constructed with associated infrastructure on Lot 1B & 1C. Catch basins, storm drain network, foundation drains, and roof drains are proposed on site and will be directed to the existing storm drain network behind the Lot 2 municipal garage that ultimately ties into the existing stormwater treatment system located on Lot 4. Stormwater and Erosion Control Best Management Practices will be implemented during construction.

Impervious area: 0.90 acres

Disturbed area: 1.59 acres

- (Includes area on Lot 1A, Lot 2, and the Pearl Street and Lincoln Street Right of Way)

Developed area: 1.16 acres

It should be noted that the Stormdrain Network has been sized for a 25-year storm interval using the Hydraflow Storm Sewer Application and NOAA Atlas 14-point precipitation frequency estimates for Pearl Street in Biddeford Maine.

BASIC STANDARDS – EROSION & SEDIMENT CONTROL

The project proposes measures to meet the basic standards requirements as outlined in Chapter 500. Please refer to Section 4: Sediment & Erosion Control.

GENERAL STANDARDS - WATER QUALITY

The existing subsurface stormwater system previously installed as part of the overall DEP Stormwater Permit 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 post development land use rankings are as follows:

Table 1 – Land Use and Pollutant Summary Table: Previously Approved Conditions			
Land use	Pollutant Ranking	Existing Area	Weighted Impact
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	1.58 ac.	6.33
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	0.23 ac.	0.47
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.05 ac.	0.05
TOTAL		1.86 ac.	6.85



The corresponding previously approved stormwater permit, and previously approved pollutant rankings can be viewed in Attachments 1 & 2 of this report.

The proposed post development land use rankings are as follows:

Table 2 – Land Use and Pollutant Summary Table: Proposed Conditions			
Land use	Pollutant Ranking	Existing Area	Weighted Impact
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	0.245 ac.	0.98
Other parking lots and driveways; flat roof asphalt rooftops	3	0.450 ac.	1.35
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.460 ac.	0.92
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.00 ac.	0.00
TOTAL		1.155 ac.	3.25

The corresponding post-redevelopment map can be viewed in Attachment 3 of this report.

From Tables 1 & 2 above, the resulting pollutant ranking for the proposed redevelopment is considerably lower than the previously approved pollutant ranking and leaves additional development potential for the remaining Lot 1A future development. Therefore, the proposed development is in compliance with the requirements set forth in the previously approved stormwater permit.

It should be noted that the previously approved weighted impact includes the entirety of Lot 1, and the proposed conditions only consider Lot 1B and 1C at this time. There is approximately 0.67 acres of land for the future Lot 1A project and approximately 3.60 weighted impact permitted for that lot, which means the future Lot 1A could be fully developed with the highest pollutant ranking (though likely impractical) and still fall under the allowable thresholds designated as part of the original approval.

Lastly, the approved permit (L-10282-NJ-A-N - Section 2.B General Standards) states that the project is required to treat 50% of the developed area and the previously approved project proposes to treat 70.8% of the developed area. It should be noted that this project treats 91.7% of the site's developed area therefore is in conformance with the previously approved permit.



SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County

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 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 to the Saco River.

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 is exempt from the Flooding Standard as the project stormwater runoff discharges directly to a major river segment (Saco River). 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 1 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)

Attachment 2: Previously Approved Pollutant Rankings

Attachment 3: Post Redevelopment Map

Attachment 4: Pre-Development Watershed Map

Attachment 5: Post Development Watershed Map

Attachment 5: Hydraflow Report

Attachment 6: Stormwater Inspection & Maintenance Plan

Sincerely,



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.



Peter Heil, P.E.
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

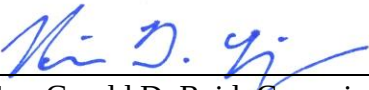
restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.

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.

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)

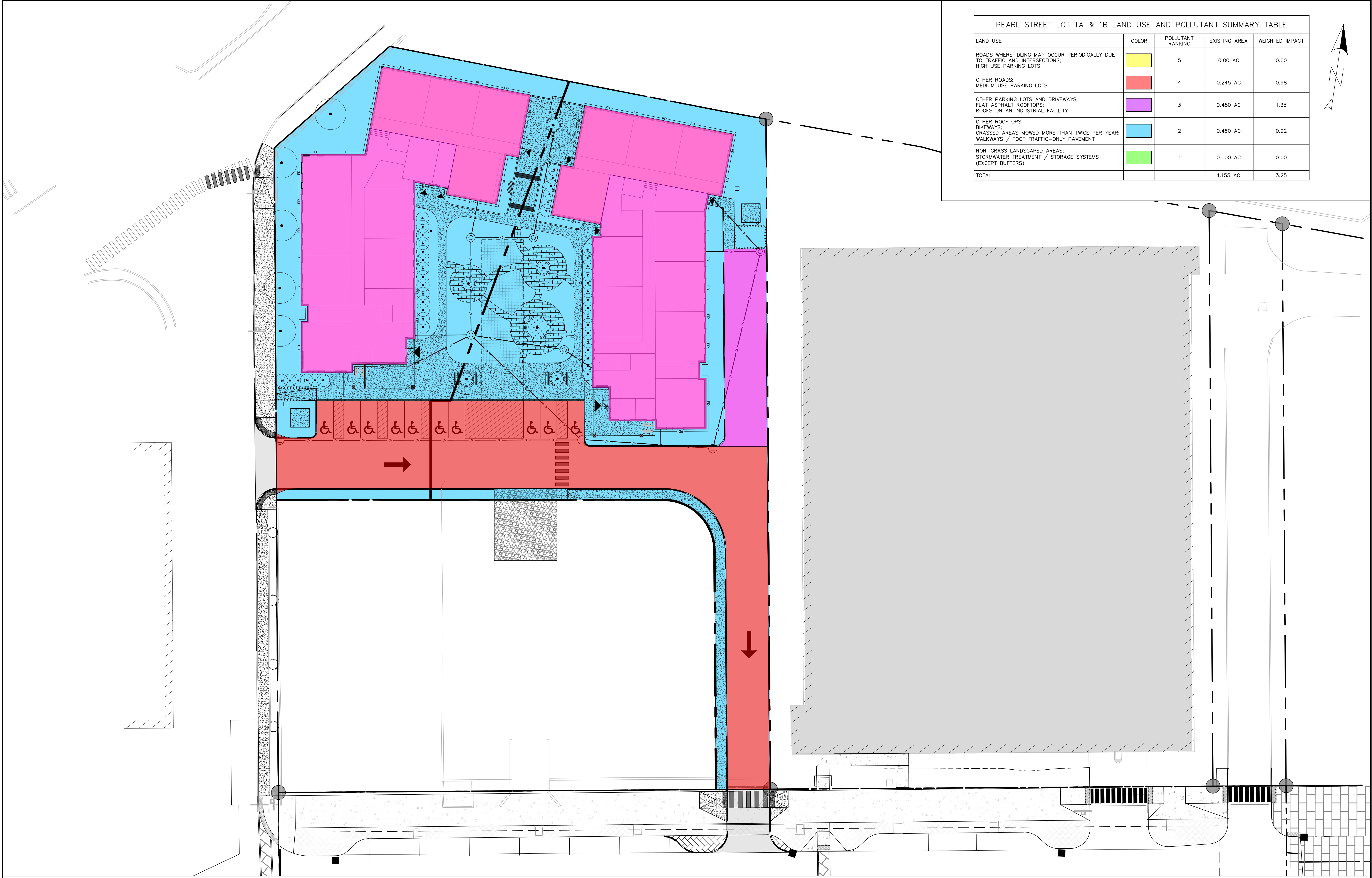
Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	45,380	1.04	5	5.21	parking garage top level and entry drive
Medium Use Parking Lots	0	0.00	4	0.00	
Other Use Parking Lots/Driveways	5,830	0.13	3	0.40	fire lane to east of garage
Rooftops	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	1.62		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 1A & 1B LAND USE AND POLLUTANT SUMMARY TABLE				
LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED IMPACT
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	0.245 AC	0.98
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY		3	0.450 AC	1.35
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT		2	0.460 AC	0.92
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)		1	0.000 AC	0.00
TOTAL			1.155 AC	3.25



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
ATS
PRELIMINARY

BY
DATE
PFT
10/23/24
PFT
11/13/24

POST REDEVELOPMENT MAP

DRAWING NAME:

PROJECT NAME/ADDRESS:
15 PEARL STREET (1B/1C) AFFORDABLE SENIOR
HOUSING REDEVELOPMENT, BIDDEFORD, MAINE

OWNER OF RECORD:
WESTBROOK DEVELOPMENT CORPORATION
30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

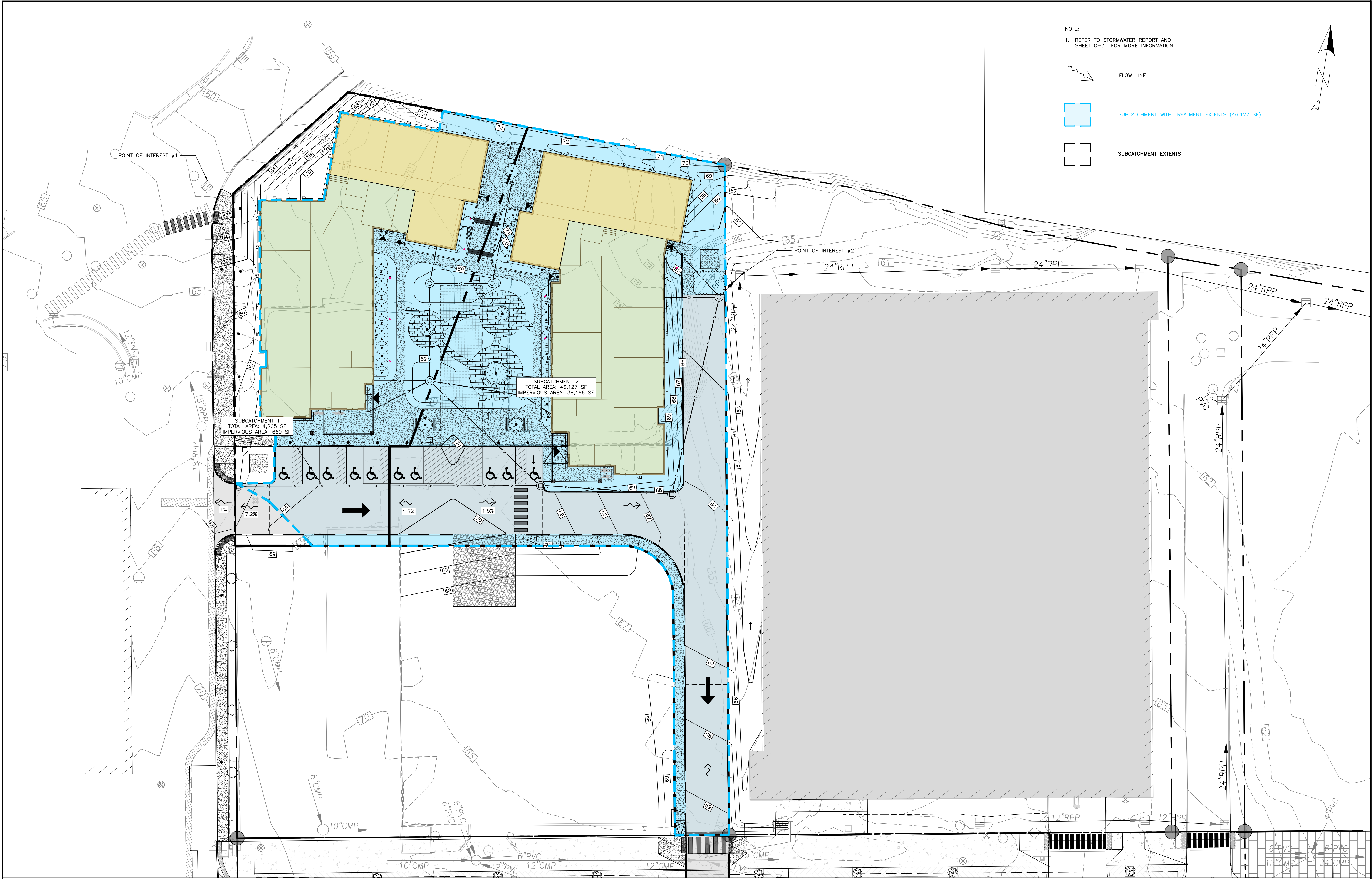
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

ENGINEERING, INC.
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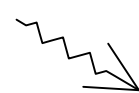
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED BY THE CLIENT, SHALL BE INDICATED BY A REVISION TABLE. THE CLIENT ASSUMES ALL RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFT
DRAWN BY: ZMS
CHECKED BY: WHS

DRAWING NO.
EX-1



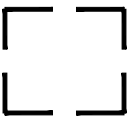
NOTE:
1. REFER TO STORMWATER REPORT AND SHEET C-30 FOR MORE INFORMATION.



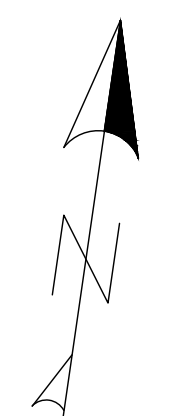
FLOW LINE



SUBCATCHMENT WITH TREATMENT EXTENTS (46,127 SF)



SUBCATCHMENT EXTENTS



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
ATS	DATE
PRELIMINARY	10/23/24
FINAL	17/15/24
	17/15/25

DRAWING NAME:	
POST-DEVELOPMENT WATERSHED MAP	
PROJECT NAME/ADDRESS:	15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE
OWNER OF RECORD:	WESTBROOK DEVELOPMENT CORPORATION 30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

	ACOORN ENGINEERING, INC.
	ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACOORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED WITHOUT LIABILITY TO ACOORN ENGINEERING, INC.

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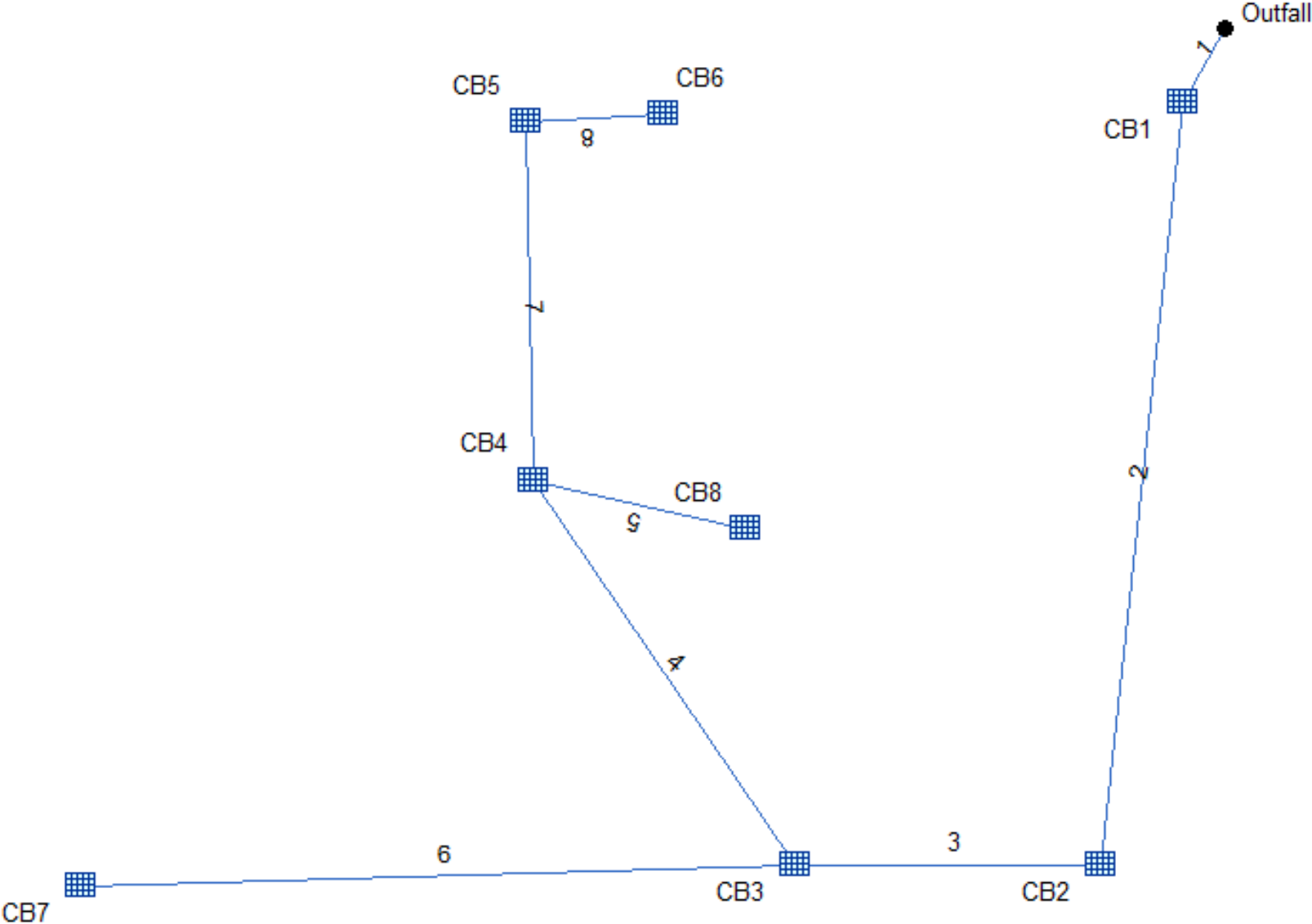
FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE	
PETER F. HEIL	
15318	
1/3/25	
LICENSED PROFESSIONAL ENGINEER	

DRAWING NO.

EX-3

Hydraflow Storm Sewers Plan



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	12	133	DrGrt	0.00	0.14	0.90	6.0	57.42	2.83	57.76	18	Cir	0.012	0.90	64.05	
2	1	93	-33	DrGrt	0.00	0.05	0.79	6.0	57.86	0.96	58.75	18	Cir	0.012	1.48	66.40	
3	2	60	80	DrGrt	0.00	0.06	0.90	6.0	58.85	3.75	61.10	18	Cir	0.012	1.07	69.26	
4	3	69	42	DrGrt	0.00	0.23	0.81	6.0	61.20	1.16	62.00	18	Cir	0.012	1.71	68.85	
5	4	42	146	DrGrt	0.00	0.03	0.73	6.0	62.10	1.00	62.52	12	Cir	0.012	1.00	69.10	
6	3	140	-1	DrGrt	0.00	0.12	0.90	6.0	61.20	0.50	61.90	18	Cir	0.012	1.00	67.40	
7	4	43	46	DrGrt	0.00	0.06	0.83	6.0	62.10	1.05	62.55	12	Cir	0.012	1.50	68.80	
8	7	27	90	DrGrt	0.00	0.11	0.81	6.0	62.65	1.00	62.92	12	Cir	0.012	1.00	68.80	
Project File: HydraFlow.stm												Number of lines: 8			Date: 01-09-2025		

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev. (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB1	DropGrate	64.05	Cir	4.00	4.00	18	Cir	57.76	18	Cir	57.86
2	CB2	DropGrate	66.40	Cir	4.00	4.00	18	Cir	58.75	18	Cir	58.85
3	CB3	DropGrate	69.26	Cir	4.00	4.00	18	Cir	61.10	18 18	Cir Cir	61.20 61.20
4	CB4	DropGrate	68.85	Cir	4.00	4.00	18	Cir	62.00	12 12	Cir Cir	62.10 62.10
5	CB8	DropGrate	69.10	Cir	4.00	4.00	12	Cir	62.52			
6	CB7	DropGrate	67.40	Cir	4.00	4.00	18	Cir	61.90			
7	CB5	DropGrate	68.80	Cir	4.00	4.00	12	Cir	62.55	12	Cir	62.65
8	CB6	DropGrate	68.80	Cir	4.00	4.00	12	Cir	62.92			
Project File: HydraFlow.stm							Number of Structures: 8			Run Date: 01-09-2025		

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		4.97	18	Cir	12	57.42	57.76	2.833	58.92	58.88	0.17	59.05	End	DropGrate
2		4.04	18	Cir	93	57.86	58.75	0.957	59.16	59.52	n/a	59.93 i	1	DropGrate
3		3.75	18	Cir	60	58.85	61.10	3.750	59.93	61.84	n/a	62.23 i	2	DropGrate
4		2.56	18	Cir	69	61.20	62.00	1.159	62.23	62.61	n/a	62.89 i	3	DropGrate
5		0.16	12	Cir	42	62.10	62.52	1.000	62.89	62.88	0.01	62.89	4	DropGrate
6		0.80	18	Cir	140	61.20	61.90	0.500	62.23	62.31	0.07	62.37	3	DropGrate
7		1.02	12	Cir	43	62.10	62.55	1.047	62.89	62.98	n/a	63.17 i	4	DropGrate
8		0.66	12	Cir	27	62.65	62.92	1.000	63.17	63.26	n/a	63.40 i	7	DropGrate
Project File: HydraFlow.stm									Number of lines: 8			Run Date: 01-09-2025		
NOTES: Return period = 25 Yrs. ; i - Inlet control.														

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (l)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	12	0.14	0.80	0.90	0.13	0.67	6.0	6.0	7.4	4.97	19.15	3.17	18	2.83	57.42	57.76	58.92	58.88	62.23	64.05	
2	1	93	0.05	0.66	0.79	0.04	0.55	6.0	6.0	7.4	4.04	11.13	3.46	18	0.96	57.86	58.75	59.16	59.52	64.05	66.40	
3	2	60	0.06	0.61	0.90	0.05	0.51	6.0	6.0	7.4	3.75	22.03	3.54	18	3.75	58.85	61.10	59.93	61.84	66.40	69.26	
4	3	69	0.23	0.43	0.81	0.19	0.35	6.0	6.0	7.4	2.56	12.25	2.89	18	1.16	61.20	62.00	62.23	62.61	69.26	68.85	
5	4	42	0.03	0.03	0.73	0.02	0.02	6.0	6.0	7.4	0.16	3.86	0.43	12	1.00	62.10	62.52	62.89	62.88	68.85	69.10	
6	3	140	0.12	0.12	0.90	0.11	0.11	6.0	6.0	7.4	0.80	8.04	1.34	18	0.50	61.20	61.90	62.23	62.31	69.26	67.40	
7	4	43	0.06	0.17	0.83	0.05	0.14	6.0	6.0	7.4	1.02	3.95	2.36	12	1.05	62.10	62.55	62.89	62.98	68.85	68.80	
8	7	27	0.11	0.11	0.81	0.09	0.09	6.0	6.0	7.4	0.66	3.86	2.16	12	1.00	62.65	62.92	63.17	63.26	68.80	68.80	
Project File: HydraFlow.stm																Number of lines: 8				Run Date: 01-09-2025		
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																						

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 SI, Sw (ft/ft)	Cross SI, 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	1.77	1.41	0.026	0.20	0.50	0.90	19.15	0.85	0.020	0.020	....	133	1.50	1.12	Outfall	0.14	453.87	59.04	59.07	59.24	0.026	
2	1.63	0.91	0.675	0.20	0.50	0.90	11.13	0.77	0.020	0.020	....	-33	1.30	0.77**	1	0.05	437.72	59.26	59.82 i	59.93	0.675	
3	1.37	0.87	2.176	0.20	0.50	0.90	22.03	0.74	0.020	0.020	....	80	1.08	0.74**	2	0.06	377.72	60.05	62.13 i	62.23	2.176	
4	1.29	0.68	0.598	0.20	0.50	0.90	12.25	0.61	0.020	0.020	....	42	1.03	0.61**	3	0.23	326.45	62.29	62.83 i	62.89	0.598	
5	0.66	0.26	0.005	0.20	0.50	0.90	3.86	0.17	0.020	0.020	....	146	0.79	0.36	4	0.03	368.04	62.89	62.89	62.90	0.005	
6	1.29	0.39	0.140	0.20	0.50	0.90	8.04	0.34	0.020	0.020	....	-1	1.03	0.41	3	0.12	237.74	62.23	62.37	62.44	0.140	
7	0.66	0.32	0.251	0.20	0.50	0.90	3.95	0.43	0.020	0.020	....	46	0.79	0.43**	4	0.06	324.94	62.92	63.14 i	63.17	0.251	
8	0.42	0.24	0.185	0.20	0.50	0.90	3.86	0.34	0.020	0.020	....	90	0.52	0.34**	7	0.11	351.93	63.21	63.38 i	63.40	0.185	

Project File: HydraFlow.stm

Number of lines: 8

Date: 01-09-2025

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

Flow Rate	Sf Ave	Sf Dn	Grate Area	Grate Len	Grate Width	Gnd/Rim El Dn	Gnd/Rim El Up	Gutter Depth	Gutter Slope	Gutter Spread	Gutter Width	HGL Dn	HGL Up	HGL Jnct	HGL Jmp Dn	Hw	HGL Jmp Up	Incr CxA	Incr Q	Inlet Depth	Inlet Eff	
(cfs)	(%)	(%)	(sqft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		(cfs)	(ft)	(%)	
4.97	0.213	0.191	2.00	2.00	2.00	62.23	64.05	0.11	Sag	13.43	2.00	58.92	58.88	59.05	....	1.29	....	0.13	0.93	0.11	100	
4.04	n/a	n/a	2.00	2.00	2.00	64.05	66.40	0.05	Sag	7.27	2.00	59.16	59.52 j	59.93 i	59.14	1.18	58.81	0.04	0.29	0.05	100	
3.75	n/a	n/a	2.00	2.00	2.00	66.40	69.26	0.06	Sag	8.50	2.00	59.93	61.84 j	62.23 i	59.82	1.13	59.76	0.05	0.40	0.06	100	
2.56	n/a	n/a	2.00	2.00	2.00	69.26	68.85	0.15	Sag	16.84	2.00	62.23	62.61 j	62.89 i	62.21	0.89	61.88	0.19	1.37	0.15	100	
0.16	0.012	0.002	2.00	2.00	2.00	68.85	69.10	0.04	Sag	5.56	2.00	62.89	62.88	62.89	....	0.37	....	0.02	0.16	0.04	100	
0.80	0.100	0.007	2.00	2.00	2.00	69.26	67.40	0.10	Sag	12.31	2.00	62.23	62.31	62.37	....	0.47	....	0.11	0.80	0.10	100	
1.02	n/a	n/a	2.00	2.00	2.00	68.85	68.80	0.06	Sag	8.15	2.00	62.89	62.98 j	63.17 i	62.86	0.62	62.70	0.05	0.37	0.06	100	
0.66	n/a	n/a	2.00	2.00	2.00	68.80	68.80	0.09	Sag	11.07	2.00	63.17	63.26 j	63.40 i	63.16	0.48	63.03	0.09	0.66	0.09	100	
Project File: HydraFlow.stm												Number of lines: 8					Date: 01-09-2025					

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

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	13.43	6.0	7.37	7.37	57.42	57.76	....	....	0.00	0.00	0.90	Dp-Grate	0.00	623	560	529	
CB2	Sag	7.27	6.0	7.37	7.37	57.86	58.75	27.90	5.08	0.16	0.51	1.48	Dp-Grate	0.00	4,315	3,884	3,668	
CB3	Sag	8.50	6.0	7.37	7.37	58.85	61.10	6.00	3.72	0.29	0.66	1.07	Dp-Grate	0.00	2,920	2,628	2,482	
CB4	Sag	16.84	6.0	7.37	7.37	61.20	62.00	13.80	4.23	0.10	0.46	1.71	Dp-Grate	0.00	3,250	2,925	2,763	
CB8	Sag	5.56	6.0	7.37	7.37	62.10	62.52	....	....	0.00	0.00	1.00	Dp-Grate	0.00	1,600	1,440	1,360	
CB7	Sag	12.31	6.0	7.37	7.37	61.20	61.90	....	....	0.00	0.00	1.00	Dp-Grate	0.00	6,298	5,668	5,353	
CB5	Sag	8.15	6.0	7.37	7.37	62.10	62.55	21.50	2.67	0.09	0.27	1.50	Dp-Grate	0.00	1,635	1,472	1,390	
CB6	Sag	11.07	6.0	7.37	7.37	62.65	62.92	8.10	2.13	0.07	0.20	1.00	Dp-Grate	0.00	1,005	905	854	

Project File: HydraFlow.stm

Number of lines: 8

Date: 01-09-2025

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.

Line ID	Line Length	Line Size	Line Slope	Line Type	Local Depr	n-val Gutter	n-val Pipe	Minor Loss	Northing Y	Pipe Travel	Q Byp	Q Capt	Q Carry	Line Rise	Runoff Coeff	Line Span	Area A1	Area A2	Area A3	Tc
	(ft)	(in)	(%)		(in)			(ft)	(ft)	(min)	(cfs)	(cfs)	(cfs)	(in)	(C)	(in)	(ac)	(ac)	(ac)	(min)
	12	18	2.83	Cir	....	....	0.012	0.17	157.90	0.00	0.00	0.93	0.00	18	0.90	18	0.00	0.00	0.14	6.0
	93	18	0.96	Cir	....	....	0.012	n/a	66.31	0.00	0.00	0.29	0.00	18	0.79	18	0.00	0.01	0.03	6.0
	60	18	3.75	Cir	....	....	0.012	n/a	66.31	0.00	0.00	0.40	0.00	18	0.90	18	0.00	0.00	0.06	6.0
	69	18	1.16	Cir	....	....	0.012	n/a	112.48	0.00	0.00	1.37	0.00	18	0.81	18	0.00	0.05	0.18	6.0
	42	12	1.00	Cir	....	....	0.012	0.01	106.64	0.00	0.00	0.16	0.00	12	0.73	12	0.00	0.01	0.02	6.0
	140	18	0.50	Cir	....	....	0.012	0.07	63.87	0.00	0.00	0.80	0.00	18	0.90	18	0.00	0.00	0.12	6.0
	43	12	1.05	Cir	....	....	0.012	n/a	155.46	0.00	0.00	0.37	0.00	12	0.83	12	0.00	0.01	0.05	6.0
	27	12	1.00	Cir	....	....	0.012	n/a	156.40	0.00	0.00	0.66	0.00	12	0.81	12	0.00	0.03	0.09	6.0

Project File: HydraFlow.stm

Number of lines: 8

Date: 01-09-2025

NOTES: i Inlet control; ** Critical depth ; System flows limited to inlet captured flows.

Hydraflow Storm Sewers 2008
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Storm Sewer Inlet Time Tabulation

Line No.	Line ID	Tc Method	Sheet Flow					Shallow Concentrated Flow					Channel Flow								Total Travel Time (min)
			n-Value	Flow Length (ft)	2-yr 24h P (in)	Land Slope (%)	Travel Time (min)	Flow Length (ft)	Water Slope (%)	Surf Descr	Ave Vel (ft/s)	Travel Time (min)	X-sec Area (sqft)	Wetted Perim (ft)	Chan Slope (%)	n-Value	Vel	Flow Length (ft)	Travel Time (min)		
1		User																		6.00	
2		User																		6.00	
3		User																		6.00	
4		User																		6.00	
5		User																		6.00	
6		User																		6.00	
7		User																		6.00	
8		User																		6.00	
Project File: HydraFlow.stm					Min. Tc used for intensity calculations = 6 min					Number of lines: 8					Date: 01-09-2025						

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)		Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (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	18	4.97	57.42	58.92	1.50	1.77	2.82	0.12	59.04	0.191	12	57.76	58.88	1.12	1.41	3.53	0.19	59.07	0.234	0.213	0.026	0.90	0.17
2	18	4.04	57.86	59.16	1.30	1.63	2.48	0.10	59.26	n/a	93	58.75	59.52 j	0.77**	0.91	4.44	0.31	59.82i	n/a	n/a	n/a	1.48	n/a
3	18	3.75	58.85	59.93	1.08	1.37	2.75	0.12	60.05	n/a	60	61.10	61.84 j	0.74**	0.87	4.33	0.29	62.13i	n/a	n/a	n/a	1.07	n/a
4	18	2.56	61.20	62.23	1.03	1.29	1.99	0.06	62.29	n/a	69	62.00	62.61 j	0.61**	0.68	3.79	0.22	62.83i	n/a	n/a	n/a	1.71	n/a
5	12	0.16	62.10	62.89	0.79	0.66	0.24	0.00	62.89	0.002	42	62.52	62.88	0.36	0.26	0.62	0.01	62.89	0.022	0.012	0.005	1.00	0.01
6	18	0.80	61.20	62.23	1.03	1.29	0.62	0.01	62.23	0.007	140	61.90	62.31	0.41	0.39	2.07	0.07	62.37	0.192	0.100	0.140	1.00	0.07
7	12	1.02	62.10	62.89	0.79	0.66	1.55	0.04	62.92	n/a	43	62.55	62.98 j	0.43**	0.32	3.18	0.16	63.14i	n/a	n/a	n/a	1.50	n/a
8	12	0.66	62.65	63.17	0.52	0.42	1.58	0.04	63.21	n/a	27	62.92	63.26 j	0.34**	0.24	2.75	0.12	63.38i	n/a	n/a	n/a	1.00	n/a
Project File: HydraFlow.stm															Number of lines: 8					Run Date: 01-09-2025			
Notes: ; ** Critical depth.; j-Line contains hyd. jump. ; c = cir e = ellip b = box																							

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) .

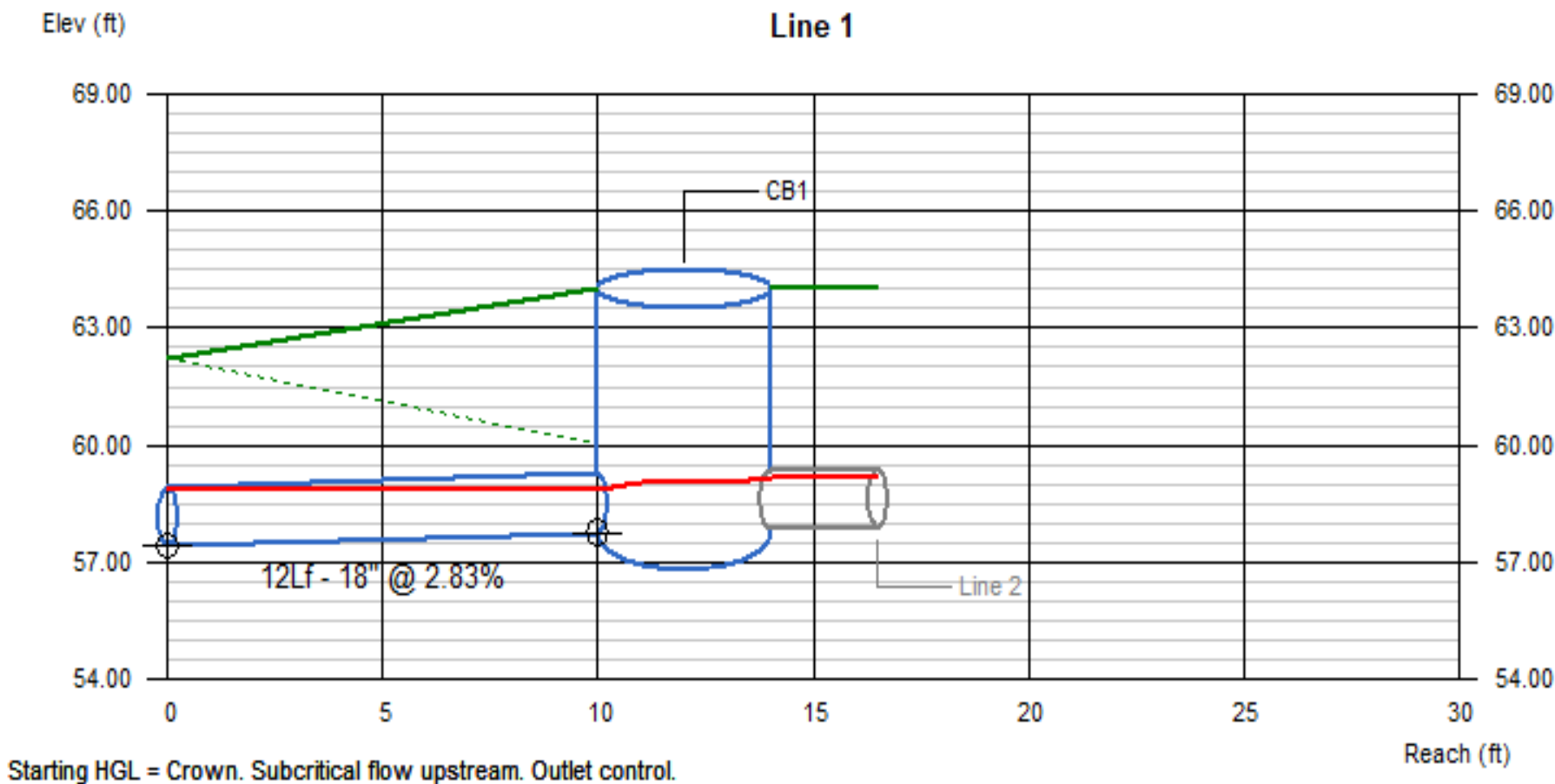
Col. 20 The friction slope at the upstream end (the S or Slope term in Manning's equation).

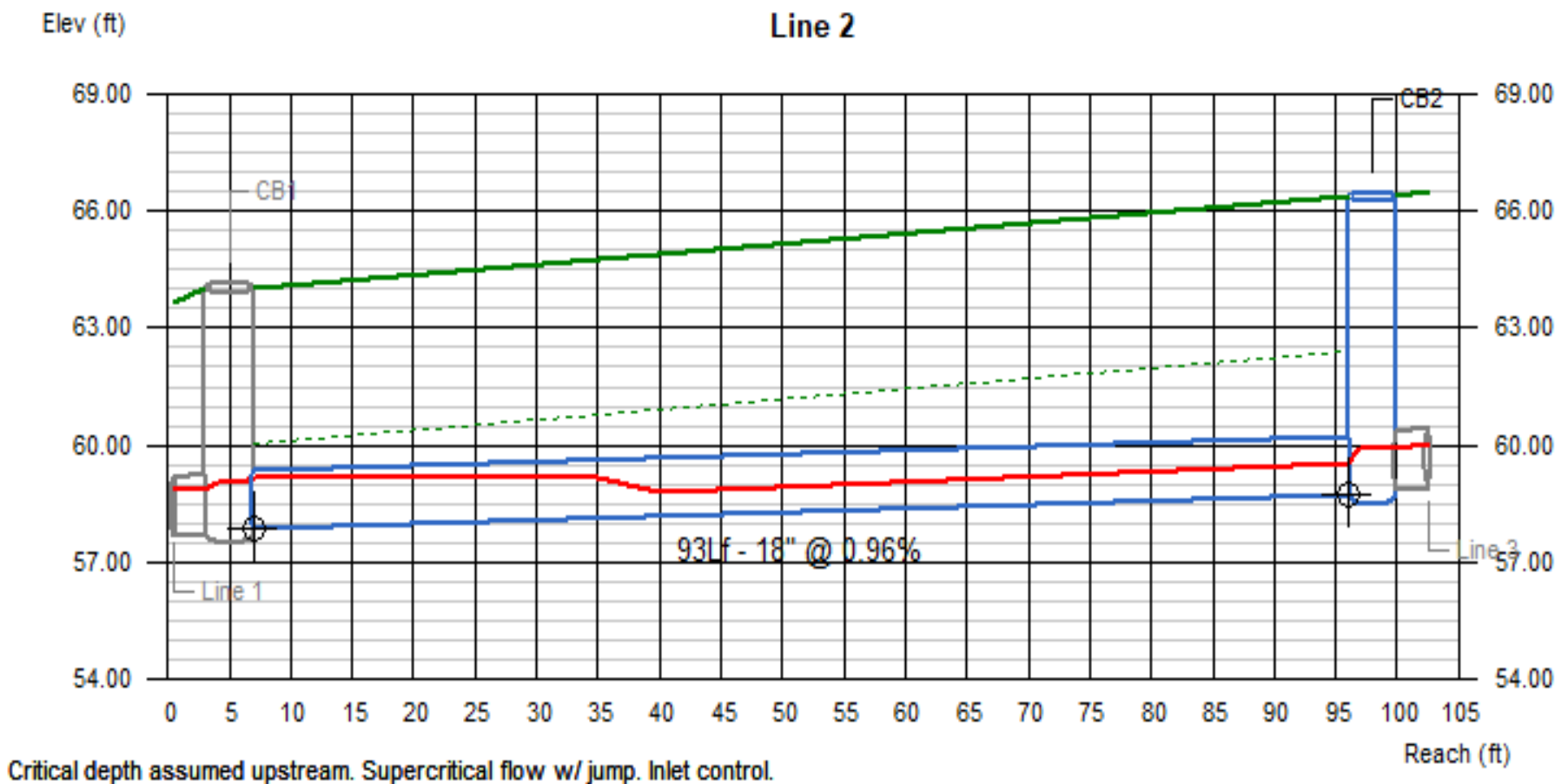
Col. 21 The average of the downstream and upstream friction slopes.

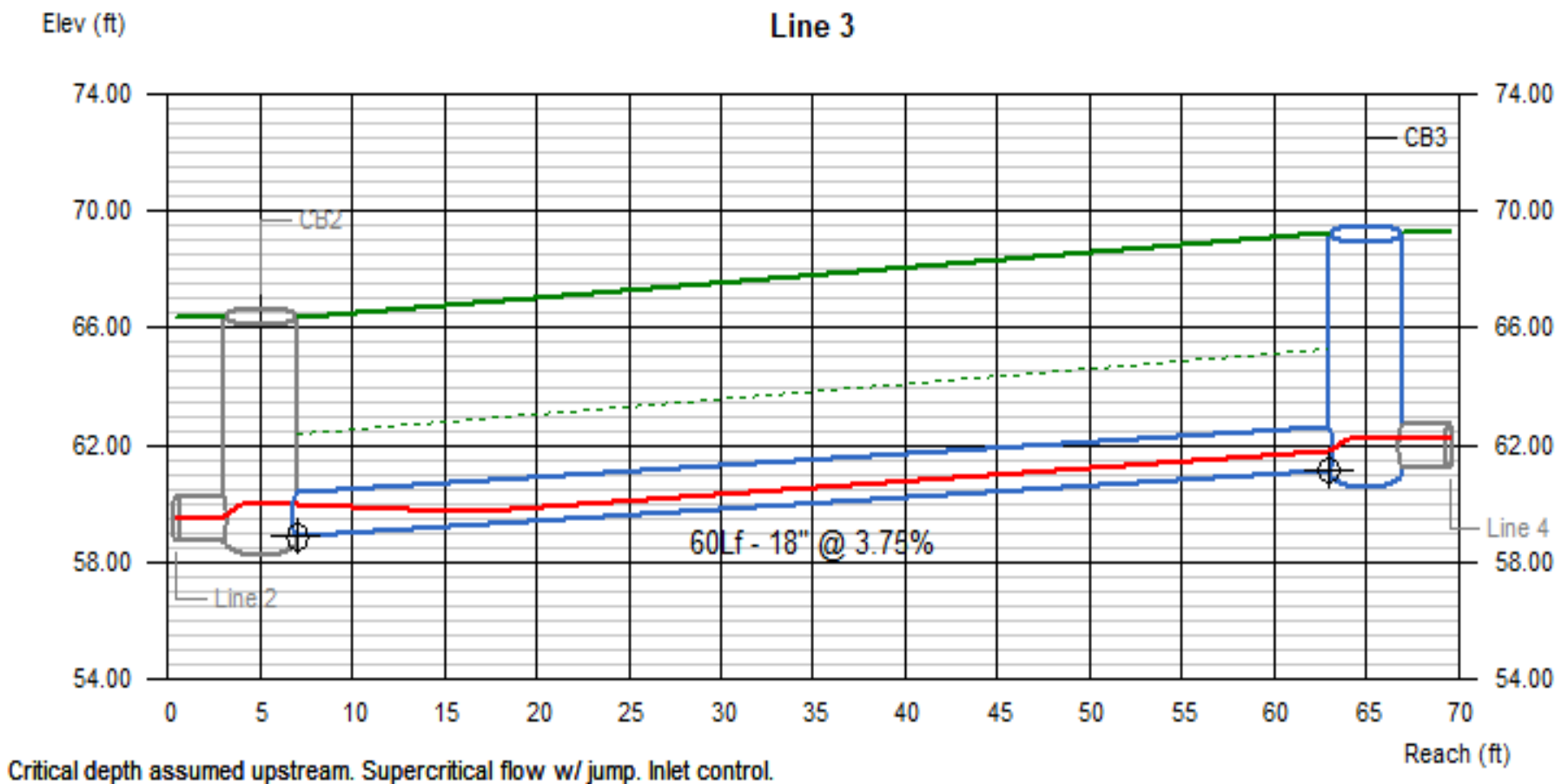
Col. 22 Energy loss. Average Sf/100 x Line Length (Col. 21/100 x Col. 12). Equals (EGL upstream - EGL downstream) +/- tolerance.

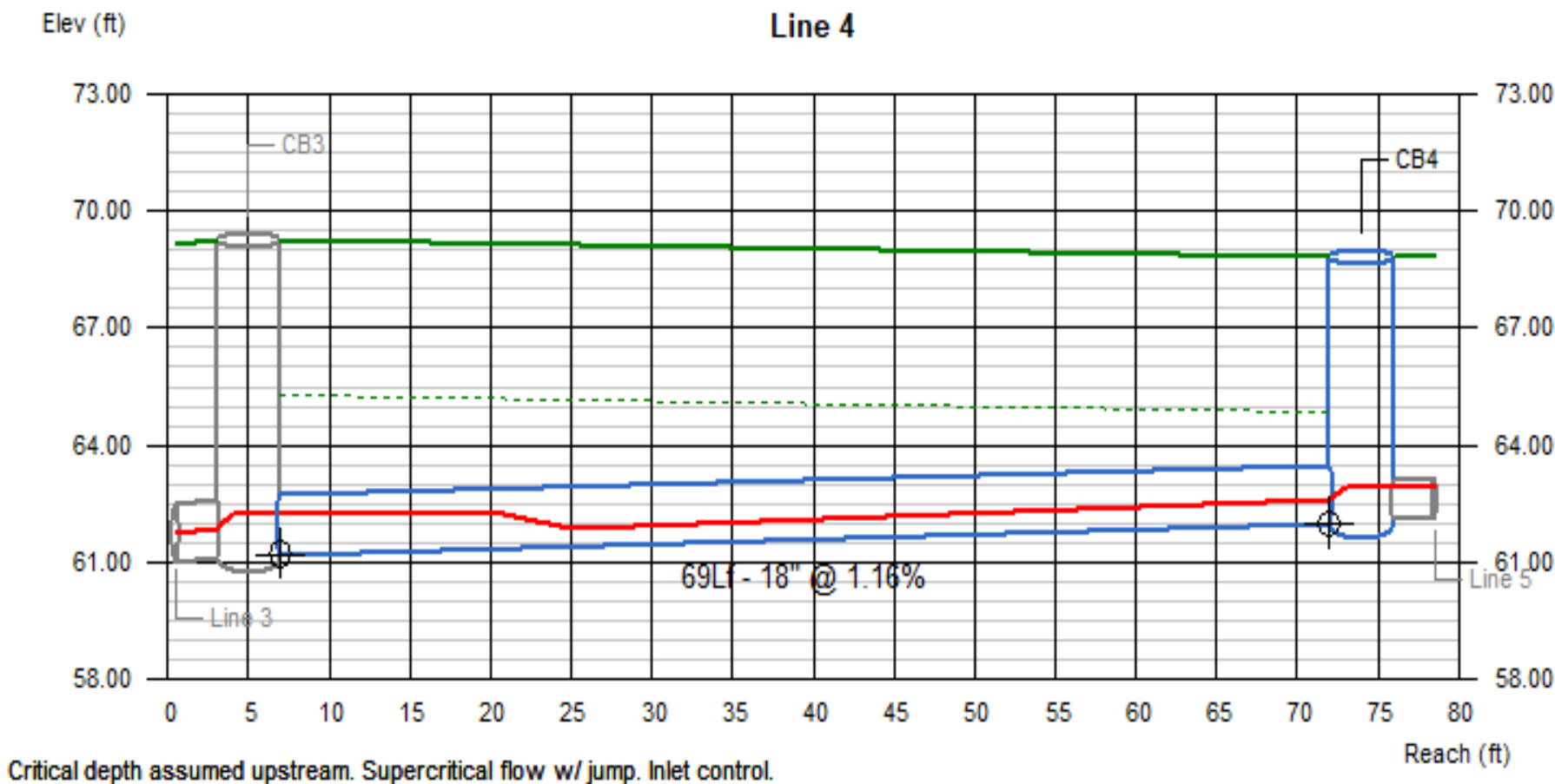
Col. 23 The junction loss coefficient (K).

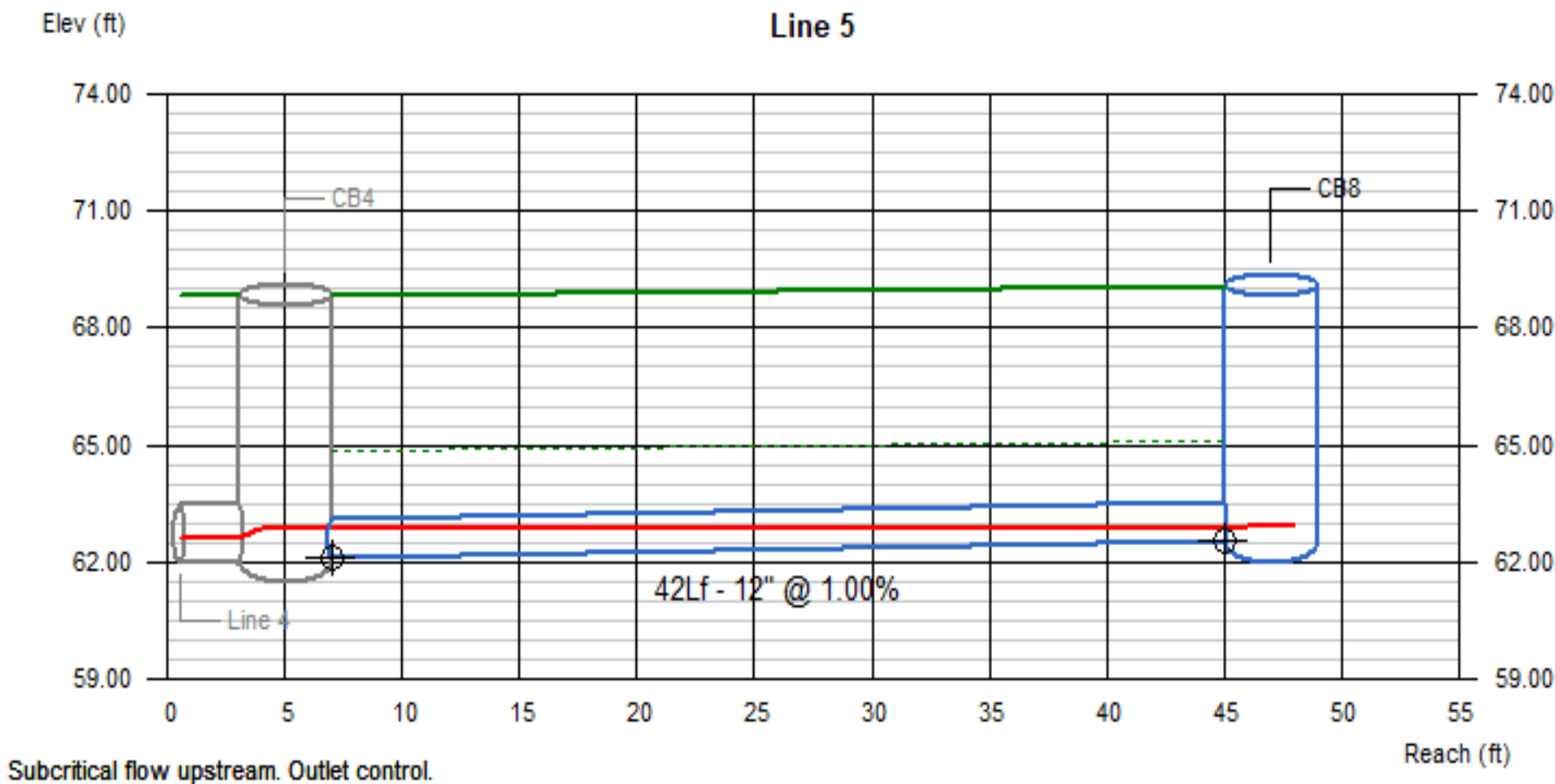
Col. 24 Minor loss. (Col. 23 x Col. 18). Is added to upstream HGL and used as the starting HGL for the next upstream line(s).

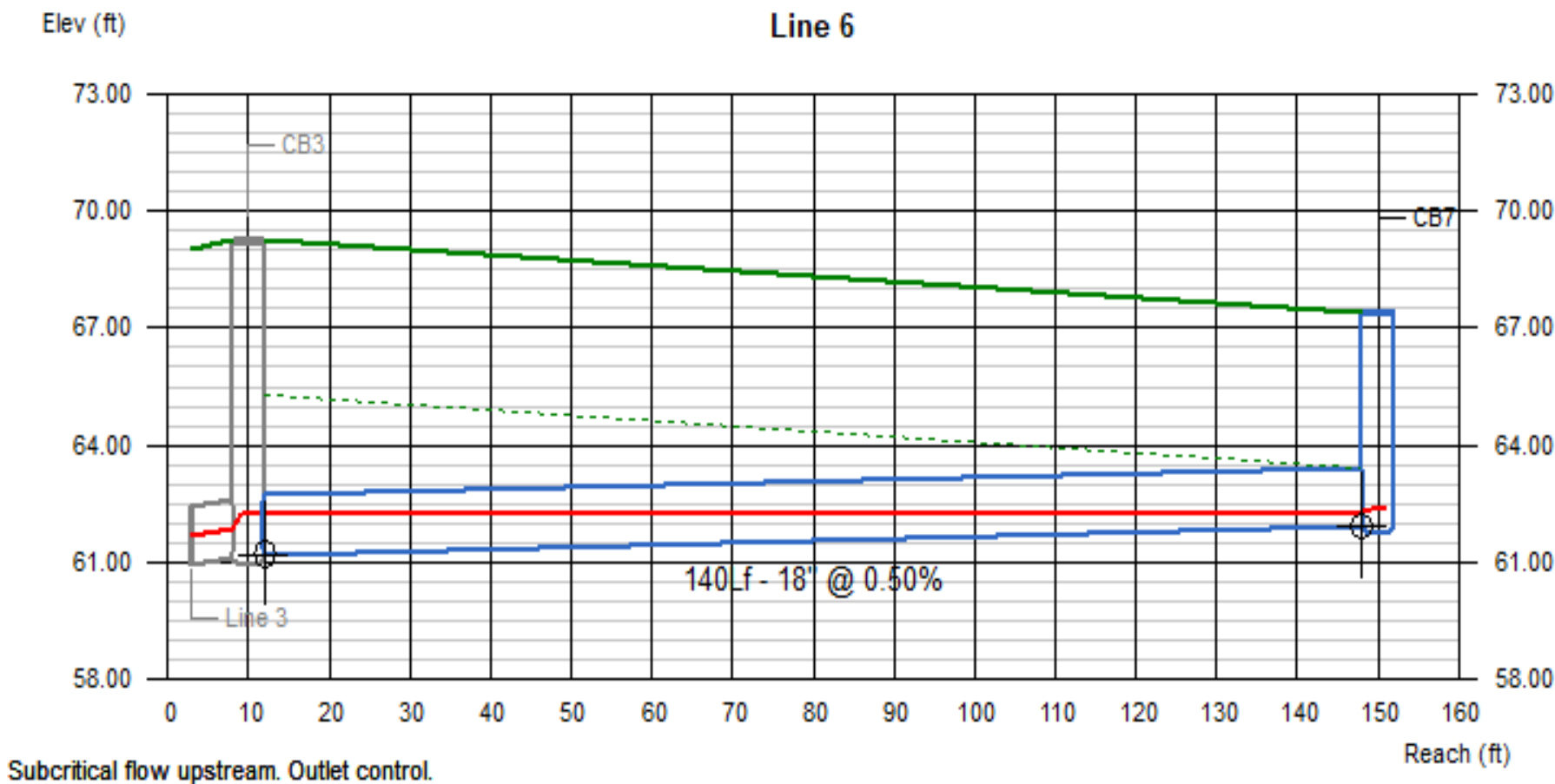


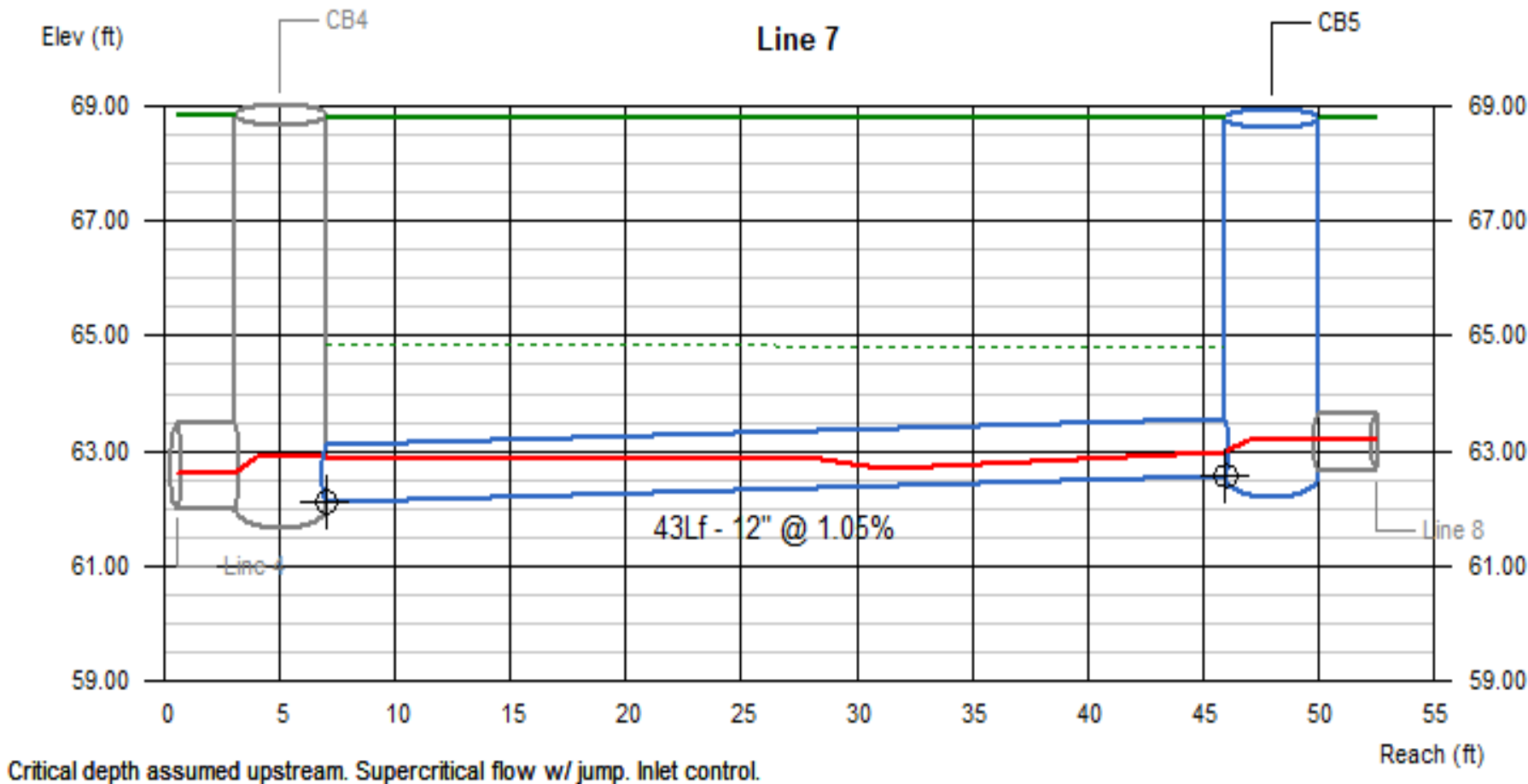


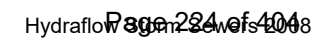














NOAA Atlas 14, Volume 10, Version 3
Location name: Biddeford, Maine, USA*
Latitude: 43.4958°, Longitude: -70.4552°
Elevation: 65 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	3.68 (2.86-4.74)	4.42 (3.42-5.70)	5.62 (4.33-7.27)	6.62 (5.09-8.63)	8.00 (5.95-10.8)	9.05 (6.59-12.5)	10.1 (7.19-14.5)	11.4 (7.64-16.5)	13.1 (8.51-19.7)	14.6 (9.23-22.3)
10-min	2.60 (2.02-3.36)	3.13 (2.42-4.04)	3.99 (3.08-5.17)	4.70 (3.60-6.10)	5.67 (4.22-7.68)	6.41 (4.67-8.85)	7.18 (5.09-10.3)	8.05 (5.42-11.7)	9.30 (6.02-14.0)	10.3 (6.53-15.8)
15-min	2.04 (1.58-2.64)	2.46 (1.90-3.17)	3.13 (2.42-4.05)	3.68 (2.82-4.79)	4.45 (3.31-6.02)	5.02 (3.66-6.94)	5.63 (3.99-8.04)	6.32 (4.24-9.19)	7.29 (4.72-10.9)	8.10 (5.12-12.4)
30-min	1.33 (1.03-1.71)	1.61 (1.24-2.07)	2.06 (1.59-2.67)	2.44 (1.88-3.18)	2.96 (2.20-4.01)	3.36 (2.45-4.63)	3.77 (2.67-5.37)	4.22 (2.84-6.15)	4.88 (3.16-7.33)	5.42 (3.43-8.28)
60-min	0.817 (0.634-1.05)	0.994 (0.769-1.28)	1.28 (0.990-1.66)	1.52 (1.17-1.98)	1.85 (1.38-2.51)	2.10 (1.53-2.90)	2.36 (1.67-3.36)	2.65 (1.78-3.85)	3.06 (1.98-4.59)	3.39 (2.15-5.19)
2-hr	0.556 (0.433-0.713)	0.677 (0.527-0.869)	0.876 (0.679-1.13)	1.04 (0.802-1.35)	1.27 (0.948-1.71)	1.44 (1.05-1.98)	1.62 (1.16-2.31)	1.82 (1.23-2.64)	2.13 (1.38-3.18)	2.39 (1.52-3.63)
3-hr	0.440 (0.343-0.563)	0.537 (0.418-0.687)	0.694 (0.540-0.891)	0.825 (0.638-1.06)	1.00 (0.755-1.35)	1.14 (0.839-1.57)	1.28 (0.921-1.83)	1.45 (0.982-2.10)	1.70 (1.11-2.54)	1.92 (1.22-2.90)
6-hr	0.291 (0.228-0.370)	0.355 (0.278-0.452)	0.459 (0.359-0.587)	0.546 (0.424-0.700)	0.665 (0.502-0.891)	0.754 (0.558-1.03)	0.849 (0.613-1.20)	0.963 (0.652-1.38)	1.13 (0.739-1.68)	1.28 (0.815-1.92)
12-hr	0.183 (0.144-0.232)	0.224 (0.176-0.284)	0.291 (0.228-0.369)	0.346 (0.270-0.442)	0.422 (0.320-0.563)	0.479 (0.356-0.651)	0.539 (0.391-0.762)	0.612 (0.416-0.872)	0.722 (0.472-1.06)	0.815 (0.521-1.22)
24-hr	0.109 (0.086-0.137)	0.134 (0.106-0.169)	0.177 (0.140-0.224)	0.212 (0.166-0.269)	0.261 (0.199-0.346)	0.296 (0.222-0.402)	0.335 (0.245-0.473)	0.383 (0.261-0.542)	0.457 (0.300-0.666)	0.520 (0.334-0.771)
2-day	0.060 (0.048-0.076)	0.076 (0.061-0.096)	0.102 (0.081-0.129)	0.124 (0.098-0.157)	0.154 (0.118-0.204)	0.176 (0.132-0.238)	0.200 (0.148-0.283)	0.231 (0.158-0.325)	0.280 (0.184-0.406)	0.323 (0.208-0.477)
3-day	0.044 (0.035-0.054)	0.055 (0.044-0.069)	0.074 (0.059-0.093)	0.089 (0.071-0.113)	0.111 (0.085-0.147)	0.127 (0.096-0.171)	0.144 (0.107-0.204)	0.167 (0.114-0.234)	0.203 (0.134-0.293)	0.235 (0.152-0.345)
4-day	0.035 (0.028-0.044)	0.044 (0.035-0.055)	0.059 (0.047-0.073)	0.071 (0.056-0.089)	0.087 (0.067-0.115)	0.100 (0.075-0.135)	0.113 (0.084-0.160)	0.131 (0.090-0.183)	0.159 (0.105-0.230)	0.185 (0.119-0.271)
7-day	0.024 (0.019-0.030)	0.029 (0.023-0.037)	0.038 (0.030-0.047)	0.045 (0.036-0.057)	0.055 (0.043-0.072)	0.062 (0.047-0.084)	0.071 (0.052-0.099)	0.081 (0.056-0.113)	0.098 (0.065-0.141)	0.113 (0.073-0.165)
10-day	0.019 (0.016-0.024)	0.023 (0.019-0.029)	0.030 (0.024-0.037)	0.035 (0.028-0.043)	0.042 (0.032-0.055)	0.047 (0.036-0.063)	0.053 (0.039-0.074)	0.060 (0.042-0.084)	0.072 (0.048-0.103)	0.082 (0.053-0.120)
20-day	0.014 (0.011-0.017)	0.016 (0.013-0.019)	0.019 (0.015-0.024)	0.022 (0.018-0.027)	0.026 (0.020-0.033)	0.029 (0.022-0.038)	0.032 (0.023-0.043)	0.036 (0.025-0.049)	0.041 (0.027-0.058)	0.045 (0.029-0.065)
30-day	0.011 (0.009-0.014)	0.013 (0.010-0.016)	0.015 (0.012-0.019)	0.017 (0.014-0.021)	0.020 (0.015-0.026)	0.022 (0.017-0.029)	0.024 (0.018-0.033)	0.027 (0.018-0.037)	0.030 (0.020-0.042)	0.032 (0.021-0.047)
45-day	0.009 (0.007-0.011)	0.010 (0.008-0.013)	0.012 (0.010-0.015)	0.014 (0.011-0.017)	0.016 (0.012-0.020)	0.017 (0.013-0.022)	0.019 (0.014-0.025)	0.020 (0.014-0.028)	0.022 (0.015-0.031)	0.024 (0.015-0.034)
60-day	0.008 (0.006-0.010)	0.009 (0.007-0.011)	0.010 (0.008-0.013)	0.012 (0.009-0.014)	0.013 (0.010-0.017)	0.014 (0.011-0.019)	0.016 (0.011-0.021)	0.017 (0.012-0.023)	0.018 (0.012-0.026)	0.019 (0.012-0.028)

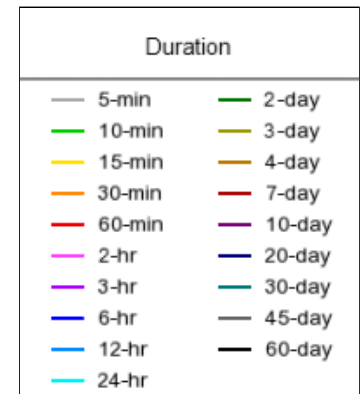
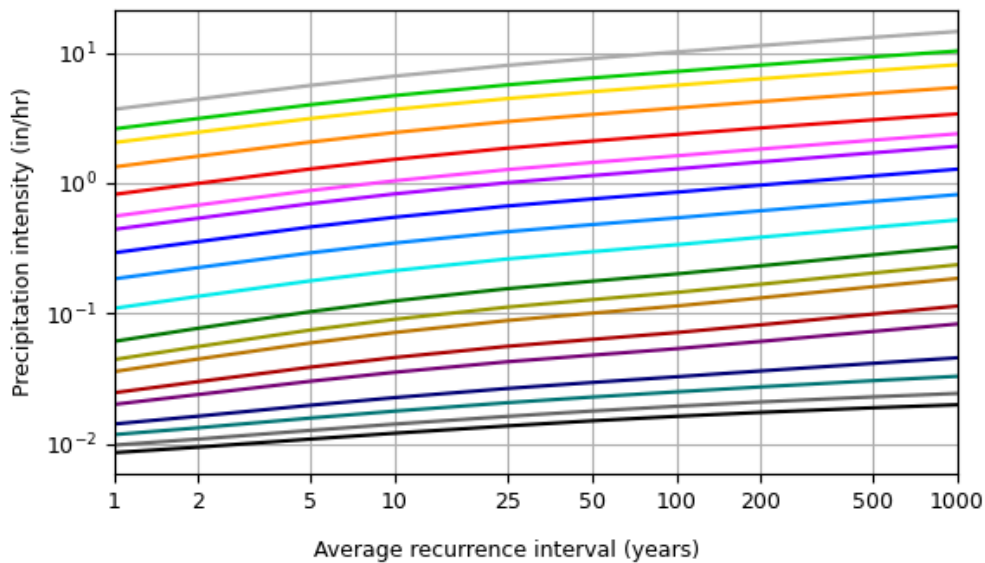
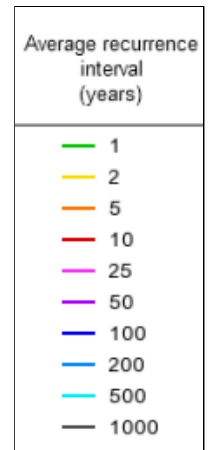
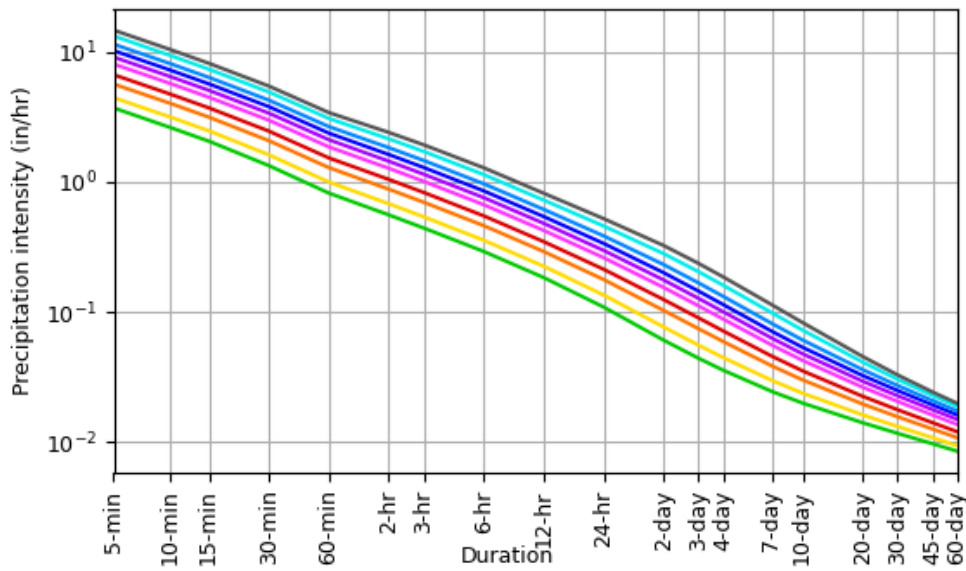
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based intensity-duration-frequency (IDF) curves

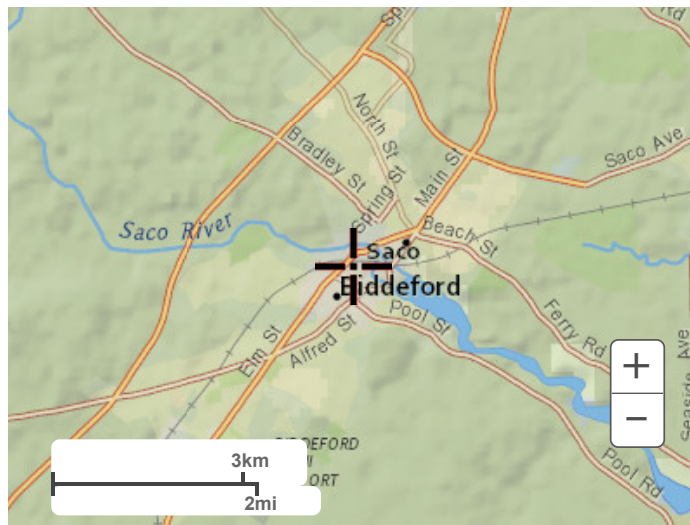
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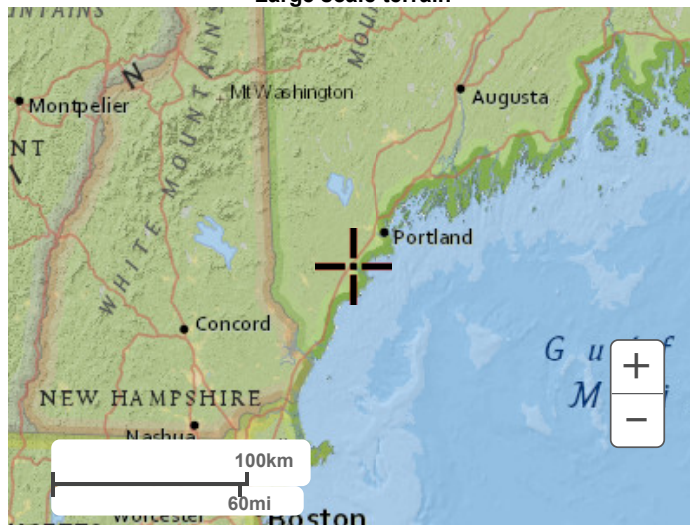
NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Fri Nov 8 15:20:16 2024

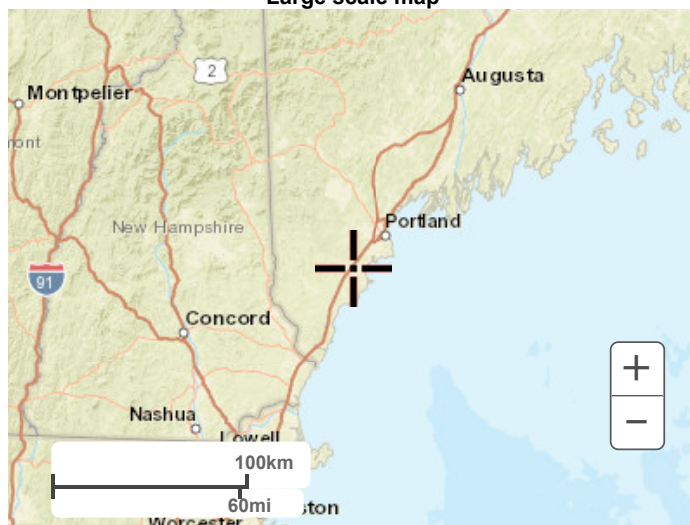
[Back to Top](#)**Maps & arials****Small scale terrain**



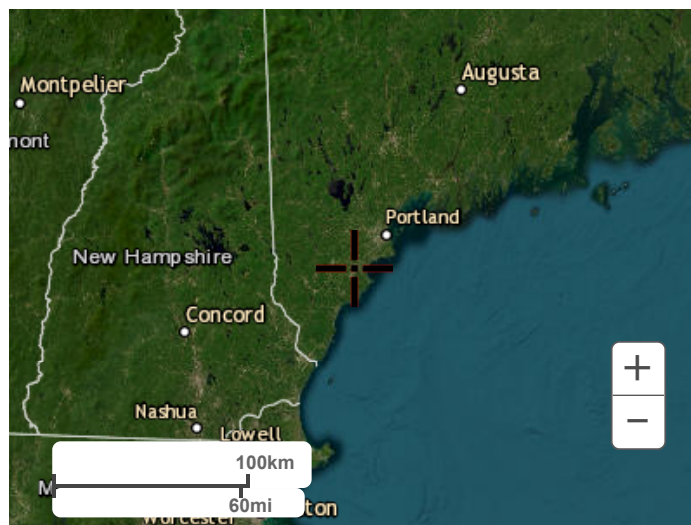
Large scale terrain



Large scale map

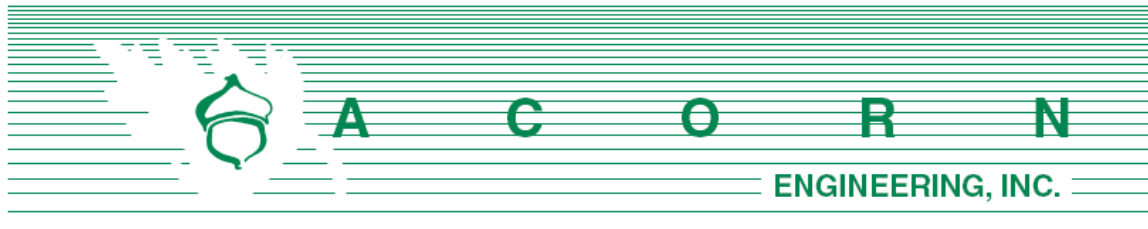


Large scale aerial

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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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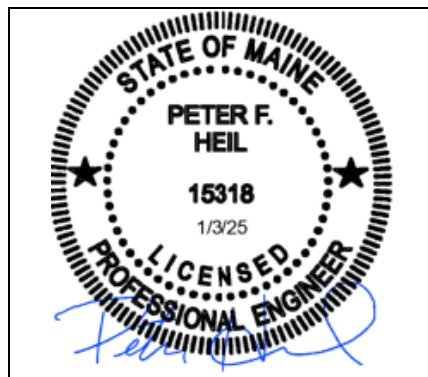
SECTION 11: STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

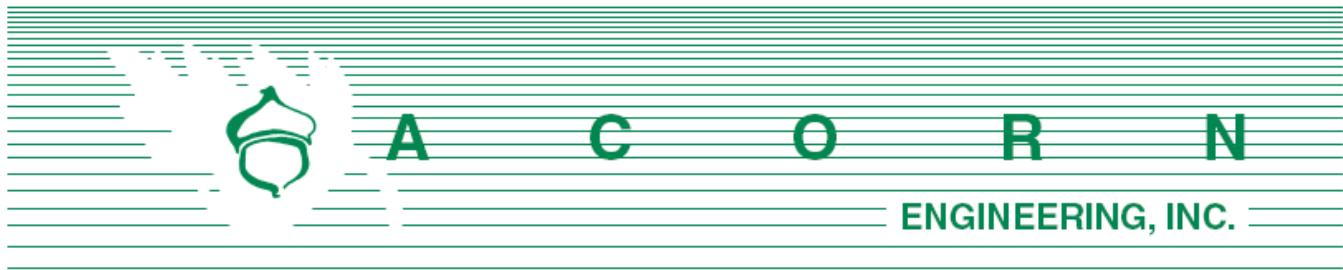
**Westbrook Development Corporation
Portland, ME 04101 &
Westbrook, ME 04092**

Prepared By:

**Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04103**



January 2025



RESPONSIBLE PARTY

The owner, Westbrook Development Corporation (WDC) 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 annually submit the Stormwater Log to the Department of Public Services prior to the municipal deadline.

The following is an example of a qualified stormwater professional that the owner may contract through.

Organization: Acorn Engineering, Inc.
Attn: 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 are based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

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.

A storm event that triggers a wet weather inspection shall be defined as a rain event greater than 1" precipitation within a 24-hour period. 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

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:

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.
- 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			X	X
Landscaped/Vegetated Areas		X		



Stormwater Control BMP Inspection Log

CATCH BASINS							
Location: There are eight catch basins located within various locations through out the site.					Latitude: 43.49635		
					Longitude: -70.45606		
Description of Located Point:					Inspector:		
					Date of Inspection:		
					Weather Conditions:		
DOT Region:					Design Drawings:		
MATS Asset Number:		WIN:					
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 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: 43.49635			
				Longitude: -70.45606			
Description of Located Point:				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
DOT Region:				Design Drawings:			
MATS Asset Number:	WIN:						
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:							

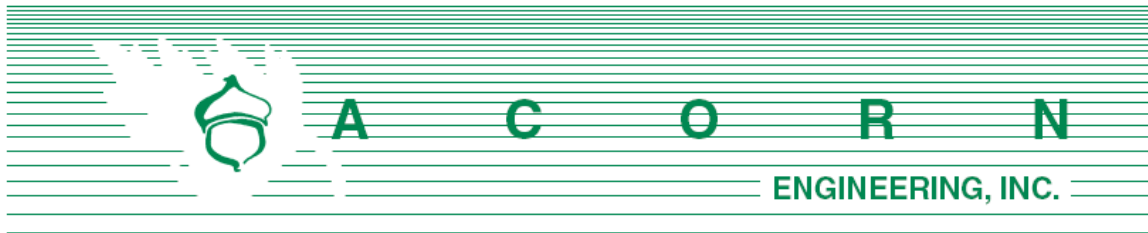
Section 13

Urban Impaired Stream Submissions

Section 13. Urban impaired stream submissions

The proposed project is not located within an urban impaired stream watershed.





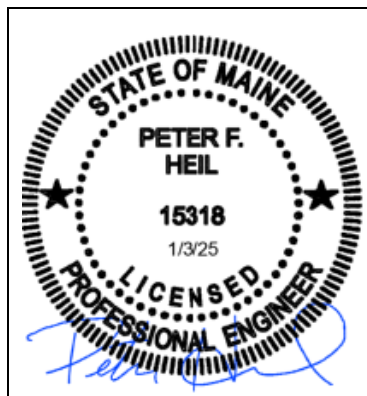
Section 14: Basic Standards **Submission**

Prepared For:

**Westbrook Development Corporation
Portland, ME 04101 &
Westbrook, ME 04092**

Prepared By:

**Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04103**



January 2025

INTRODUCTION

Acorn Engineering, Inc. has been retained by Westbrook Development Corporation (WDC) to provide civil engineering services for the proposed redevelopment of 15 Pearl Street (Lot 1) in Biddeford, Maine. The project proposes to subdivide Lot 1B into two (2) smaller lots (Lot 1B and Lot 1C), each supporting a proposed affordable senior housing building. The project proposes to construct two (2) affordable senior housing buildings, anticipated to include approximately (90) total residential units, with associated site and utility infrastructure improvements.

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 parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3). An Existing Conditions Survey has been prepared by Owen Haskell, Inc. on August 5, 2021.

Abutting Uses:

- | | |
|---------------|-------------------------------|
| ➤ North MSRD3 | Railroad |
| ➤ East MSRD3 | Commercial (Municipal Garage) |
| ➤ South MSRD3 | Commercial (Hotel) |
| ➤ West MSRD1 | Commercial |

Lot 1 is vacant and currently utilized as a parking lot and contains old remnants of the MERC facility foundation. Additionally, contaminated soil remains on site, which the applicant anticipates applying for brownfield funding to remove in early 2025. The existing grades on site are relatively flat ranging from 0 to 5 percent (with some locations having steeper embankments) west to east toward the adjacent garage.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County

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 York 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.

1.4 Protected Natural Resource

The site is not located adjacent to any Protected Natural Resources. 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)

Acorn is unaware of any construction activity in the last 5 years.

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 and Lincoln 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 $\frac{1}{2}$ 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 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 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 Heil, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert
- Maine DEP – Certified 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

The project is located at 15 Pearl Street, Biddeford (Lots 1B & 1C), adjacent to the recently constructed municipal parking garage.

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 a proposed 8" D.I. water main within the lot from the existing 12" water main within Lincoln Street and provide 6" D.I. fire protection water services with 6" gate valves and 4" domestic D.I. water services with 4" gate valves for each structure located on Lot 1B and Lot 1C respectively. Please see the attached Utility Plan for more information.

B. Subsurface Wastewater Disposal

Not applicable. The development will be serviced by a new 2" force main sewer within Lincoln Street, connecting into the municipal sewer system.

C. Total Usage

This project anticipates an estimated water supply of 10,800 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				
<i>Lot 1B</i>				
Residential Units	1-Bedroom	45	120	5,400
Total Gallons per Day (Proposed)				5,400
<i>Lot 1C</i>				
Residential Units	1-Bedroom	45	120	5,400
Total Gallons per Day (Proposed)				5,400
Total Gallons per Day (Proposed)				10,800
Net Change				10,800

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 Lincoln 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 can be found in Section 28. The proposed project includes multiple pump stations to be installed to convey sewage to the existing force main within Lincoln Street. See attached pump station design by Pump Systems Inc.

D. Storage or Treatment Lagoons

Not applicable.



Biddeford Bldgs 1B and 1C

Wastewater Pump Station

&

Force Main

Design Calculations

Project Name: Buildings 1B and 1C
Location: Biddeford ME
Designed By: John Benham
Checked By:
Date: 12/4/24
Project no.:

Biddeford Bldgs 1B and 1C

Wastewater Pump Station

&

Force Main

Project Summary

Project Name:	Bldgs 1B and 1 C
Average Daily Flow (gpm):	12.5 USGPM
Pump Operational Point No. 1 (gpm@tdh):	75 USGPM @ 46 Feet
Pump Manufacturer:	Ebara Fluid Handling
Model Number:	50DGFMU62.2
Impeller Diameter:	5.24"
Horse Power:	3
Voltage:	
Force Main Diameter (in):	2
Force Main Length (ft):	320

Tributary Wastewater Flow Calculations

Establishment	Unit Value (Gal/Day/Unit)	Unit Type	# of Units	Discharge, GPD
Residential	200	Residence	90	18,000
Average Daily Flow (gallons per day)				18,000

Design Pumping Flow Rate

Peaking Factor Calculation	
Service Area Population =	180
$\text{Peak Factor} = \frac{18 + \sqrt{P}}{4 + \sqrt{P}}$	
Calculated Peak Factor =	4.2
Design Peak Factor =	4.2

Determine Minimum Pump Rate		
Average Daily Flow =	18,000	GPD
Peak Flow =	74,959	GPD
Minimum Pumping Rate Required =	52	GPM
Design Pumping Rate =	75	GPM

Cycle Time & Wet Well Geometry

Target Cycles Per Hour		
ADF	=	13 gpm
Pumping Rate	=	75 gpm
Time	=	30.0 min.
Cycles Per Hour =		2.0
Check Cycles Per Hour:		OK
Check Cycles Per Hour:		OK

Determine Wet well Diameter		
Required Volume =	313	Gallons
Pick Wet Well Diameter =	6.0	Ft
Pick Wet Well Cycle =	1.25	Vert. Ft
Volume in Cycle =	264	Gallons

Vertical Datum Used: By Engineer

Determine Wet Well Invert & Float Elevations

Wet well Dia. =		6.0	Ft
Top Elev=	66.00		
Gnd Elev=	66.00		
SS Invert In=	62.00		
Bottom Invert Elev* =	54.00		
		Alarm =	60.00
		Lag On =	60.00
		Lead On =	58.00
		Pumps Off	56.75

*As required for complete submergence

OK

Force Main & Piping Design

Off-Site Force Main Data	
Design Pump Rate (gpm) =	75
Select Force Main Size (in) =	2
Velocity (fps) =	7.66
<i>Meets Minimum Velocity Requirement?</i>	OK
<i>Meets Maximum Velocity Requirement?</i>	OK
<i>Required Pump?</i>	Use Grinder Pump
Line Length (ft) =	320
Account for Minor Losses =	5%
Equiv Length (ft) =	336

Connection Point:	TBD by Engineer
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Pump Station Piping Data			
Design Pump Rate (gpm) =		75	
Pick Wet Well & Valve Vault Piping Size (in) =		2	
Velocity (fps) =		7.66	
<i>Meets Minimum Velocity Requirement?</i>		OK > 2 FPS	
<i>Meets Maximum Velocity Requirement?</i>		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	0	9	0.00
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) =		45	
Wet Well & Valve Vault Piping Length (ft) =		15	
Total Equivalent Pump Station Pipe Length (ft) =		60	
Equivalent Off-Site Diameter Length (ft) =		60	
Total Equivalent Force Main Length (ft) =		396	

Pump Selection

Force Main Diameter (in) = 2
 Equivalent Force Main Length (ft) = 396
 Hazen-Williams C Factor = 150
 Minimum Required Pump Rate (GPM) = 52
 Design Pumping Rate (GPM) = 75

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)	Proposed Pump Station On" TDH (feet)	Velocity (fps)	Pump Head (feet)
55	0	0	7	29	29	5.6	72
60	0	0	7	33	33	6.1	66
65	0	0	7	37	37	6.6	60
70	0	0	7	42	42	7.1	53
75	0	0	7	46	46	7.7	46

Pump Manufacturer: **Ebara**

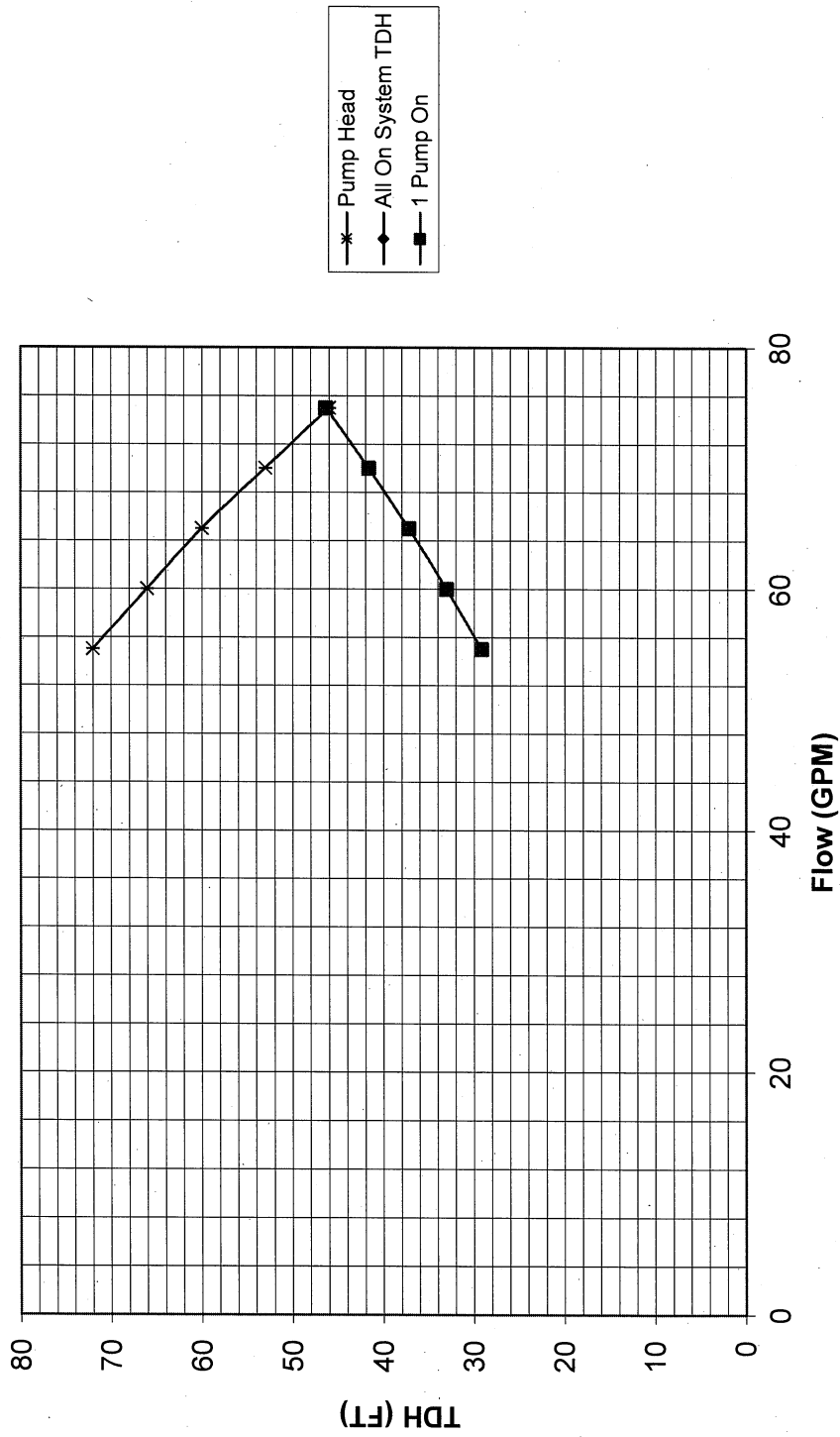
Model Number: **50DGFMU62.2**

Impeller Diameter: **5.24"**

Horsepower: **3**

Voltage: **230 volt, 3 phase**

Pump and Force Main System Curve



Station Operation Check

Proposed Operational Point No.1

75 GPM @ **46** TDH

Check Wet well Cycle Times

Wet well Diameter (feet)	Wet well Area (gal / VF)	Wet well Cycle (ft)	Wet well Volume (gal)
6.0	211	1.3	264

$$\text{Fill} = \frac{\text{Wet well Volume}}{\text{ADF}} = 21.1 \text{ minutes}$$

$$\text{Run} = \frac{\text{Wet well Volume}}{\text{Pump Rate} - \text{ADF}} = 4.2 \text{ minutes}$$

$$\text{Total} = 25.4 \text{ minutes}$$

$$\text{Cycle Time} = 2.4 \text{ Cycles / Hour}$$

Meets Minimum Cycle Time? OK

Meets Maximum Cycle Time? OK

Buoyancy Calculations

Wet well Outside Dimensions	7.00	Feet
Wet well Inside Dimensions	6.00	Feet
Wet well Top Slab Elevation	66.00	Feet
Wet well Invert Elevation	54.00	Feet
Extended Base Slab Diameter	8.00	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=	462	cf
Volume of Wet well Extended Base=	50	cf
Total Volume of Wet well Structure=	512	cf

Calculate Total Volume of Water Displaced

H2O Displaced = (Volume of Wet well Structure) * (62.4 lbs/cf)

H2O Displaced=	31938	lbs
----------------	-------	-----

Calculate Weight of Wet well Components

Section	Total Ht	Weight
Top Slab Thickness (ft.)	1.00	5773
Riser - Total Vertical Ft.	12.00	18378
Base Slab Thickness (ft.)	1.00	7540
Totals=	14	31691

Total Weight of Concrete in Wet well=	31691	lbs.
---------------------------------------	-------	------

Calculate Submerged Weight of Soil Above Extended Base/Footing

Total Area of Extended Base	50	sf
Total Area of Wet well Riser	38	sf
Area of Extended Base less Wet well	12	sf
Height of Soil Above Extended Base	12	ft
Volume of Soil Above Extended Base	141	cf
Weight of Soil Above Extended Base (estimated)	50	lbs/cf
Total Weight of Soil Above Extended Base	7069	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base:	38759	lbs
Weight of Water Displaced By Wet Well:	31938	lbs
Flotation Protection Required?	NO	

SERVICE AGREEMENT

Pump Systems Inc., hereinafter referred to as PSI, proposes to furnish its inspection and emergency service on equipment for (CUSTOMER), hereinafter referred to as Customer, at (LOCATION), from **May 1, 2023**, and thereafter, until this agreement is terminated by thirty (30) days notice to that effect given in writing by either of the parties hereto.

This agreement is subject to the following terms and conditions:

- 1) **SERVICES.** PSI will perform **Two (2)** inspections annually of all pump station related equipment. Inspections to be made at the convenience of Pump Systems Inc., at **Six (6)** month intervals, unless otherwise agreed. Measurements and calculations will be made to determine and evaluate performance, and necessary **minor** adjustments will be made at the time of this inspection. This agreement **does not** include materials for major repairs or replacement of systems. Charges for these items will be billed at the current price at the time of delivery. In addition, trained personnel will be available for emergency service for service contract customers. Customer will have an emergency cell phone number to call.
- 2) **TERMS.** The price for the inspection service provided for by this service agreement shall be \$\$\$\$ per annum, or \$\$\$\$\$ per inspection payable on presentation of invoice. Such price contemplates that all inspections shall be conducted during regular hours of regular working days.

Upon each anniversary date of this agreement, agreement rates then in effect may be increased by up to 5%, with prior written notification to Customer. Customer reserves the right to terminate at that time or by terms of paragraph 4 (below). Service rates may be adjusted as needed without notice.

This price does not include labor costs for services required of third parties. In order to provide coordinated service in response to a single call, however, PSI will arrange and coordinate such subcontracted services at a 10% surcharge on the cost of the subcontract.

- 3) **LIABILITY OF PSI.** PSI shall not, under any circumstances, be liable under, or by any reason of, this agreement directly, or indirectly, for any accident, injury, breakage, or detention or delay in furnishing materials or failure to perform this inspection as hereunder provided when caused by fire, flood, strike, acts of civil or military authorities or by insurrection or riot, or by any other cause which is unavoidable or beyond its control or, in any event, for consequential damage of any kind.
- 4) **DISCONTINUANCE.** PSI reserves the right to discontinue this inspection service at any time, without notice, until payments under this agreement shall have been made as agreed.

Pump Systems and the customer further agree that either party may terminate this agreement by providing **thirty (30) day written notice** to the other party of its intent to terminate this agreement.

Service Contract for: (CUSTOMER)

Pump Systems, Inc.

Effective date: May 1, 2023

Page 2 of 2

5) **ASSIGNMENT.** This agreement shall not be assigned by PSI without the prior written notification of the customer.

6) **WARRANTIES OR GUARANTEES.** PSI makes no warranties or guarantees of any equipment or materials installed by it beyond those warranties or guarantees established by the manufacturer or distributor of said equipment or materials.

PSI's liability shall be limited solely to replacement of defective materials or equipment, and in no way shall PSI be liable for injuries or illnesses caused by misuse of the equipment, or any failure of the equipment, except as such may be caused by its own negligence.

7) **COMPLIANCE WITH LAWS.** PSI shall act as an independent contractor insofar as the performance of service hereunder is concerned. To that end, the contractor shall employ and direct such personnel as it requires, performing said services, shall exercise full and complete authority over its personnel, and shall comply with all workmen's compensation, employer's liability and other federal, state, and municipal laws and ordinances required of an employer performing services as herein contemplated.

In witness whereof, the parties have signed this contract on the

_____ day of _____, 20_____.

By: _____

Tobiah C. Shoemaker
For ***Pump Systems Inc.***

Customer: _____

For **CUSTOMER**

SUBMERSIBLE PS INSPECTIONS

FIELD 001

New

Jan-25

Revised

The purpose of this process is to document field conditions of a submersible pump station and provide data for immediate use and historical record .

The periodic service report must contain the following, as a minimum

1. Clear identifier of the station being inspected, keeping in mind that many addresses or other locations may have multiple pump stations.
2. Voltage incoming from utility
3. Amperage per pump while in operation
4. Ohms resistance for each motor winding
5. Drawdown calculations to determine approximate flow rate. If a true flow meter exists, then record both flow rate and totals, with each pump running, and with both running
6. Visual inspection of controller components for discoloration of wiring or wire terminals
7. Visual examination of wet well to provide commentary on buildup of grease on pumps, rails and float switches
8. Manually remove each float switch and remove any accumulated grease using a scraper and/or wipes.
9. If a transducer is used, remove it and wipe it down taking great care not to deflect the sensor face, which may damage the instrument
10. Visually confirm that pump and float wiring is secured at the wet well top and not in danger of being drawn into the pump suction.
11. Remove any entangled debris from pump and float wiring.
12. Record any readings from elapsed time meters and/or cycle counters
13. Sign off as an individual including date of service

INSPECTION REPORT

FOR: _____

DATE: _____

ITEM/AREA

CONDITION

- 1) Check alarm light and/or horn for proper high water alarm function.
- 2) Check float controls for correct operation and for grease build-up or other obstruction that might cause control problems.
- 3) Check pump station for sludge build-up.
- 4) Check rail package for condition and clearance.
- 5) Check Pumps:
 - Amperage
 - Ohms Resistance/Line to Line
 - Ohms to Ground
 - ETM's
 - Flow Rate Check
 - Excessive Wear or Vibration
- 6) Check Control Panel:
 - Contact Points
 - Alternator Condition
 - Indicator Lights
 - Moisture Damage
 - Blown Fuses
 - Condition of Relays
 - Condition of Capacitors
- 7) Inspect check valves for proper closure.
- 8) Check incoming voltage (from power company).

Pump 1

Pump 2

ADDITIONAL COMMENTS/RECOMMENDATIONS:

Section 18

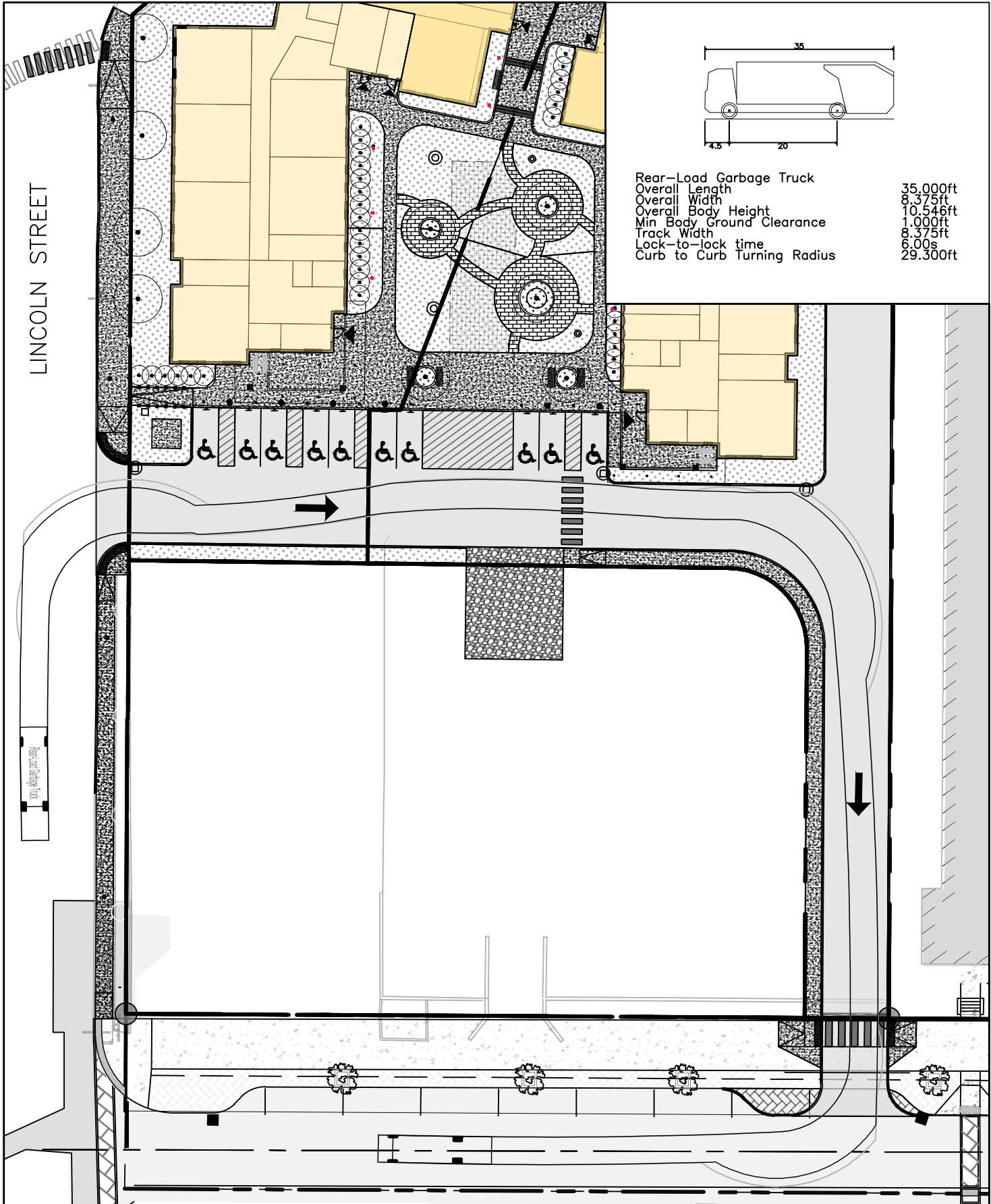
Solid Waste

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 residential buildings is anticipated to be relatively low when compared to typical residential use given the urban environment that provides amenities and services in proximity to the living space.





Rear-Load Garbage Truck
 Overall Length 35.000ft
 Overall Width 8.375ft
 Overall Body Height 10.546ft
 Min Body Ground Clearance 1.000ft
 Track Width 8.375ft
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 29.300ft

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

FILE: 1124_CIVIL
 DATE: 11/13/24
 JN: 1124
 SCALE: AS NOTED
 DESIGN BY: PFH
 DRAWN BY: ZMS
 CHECKED BY: WHS

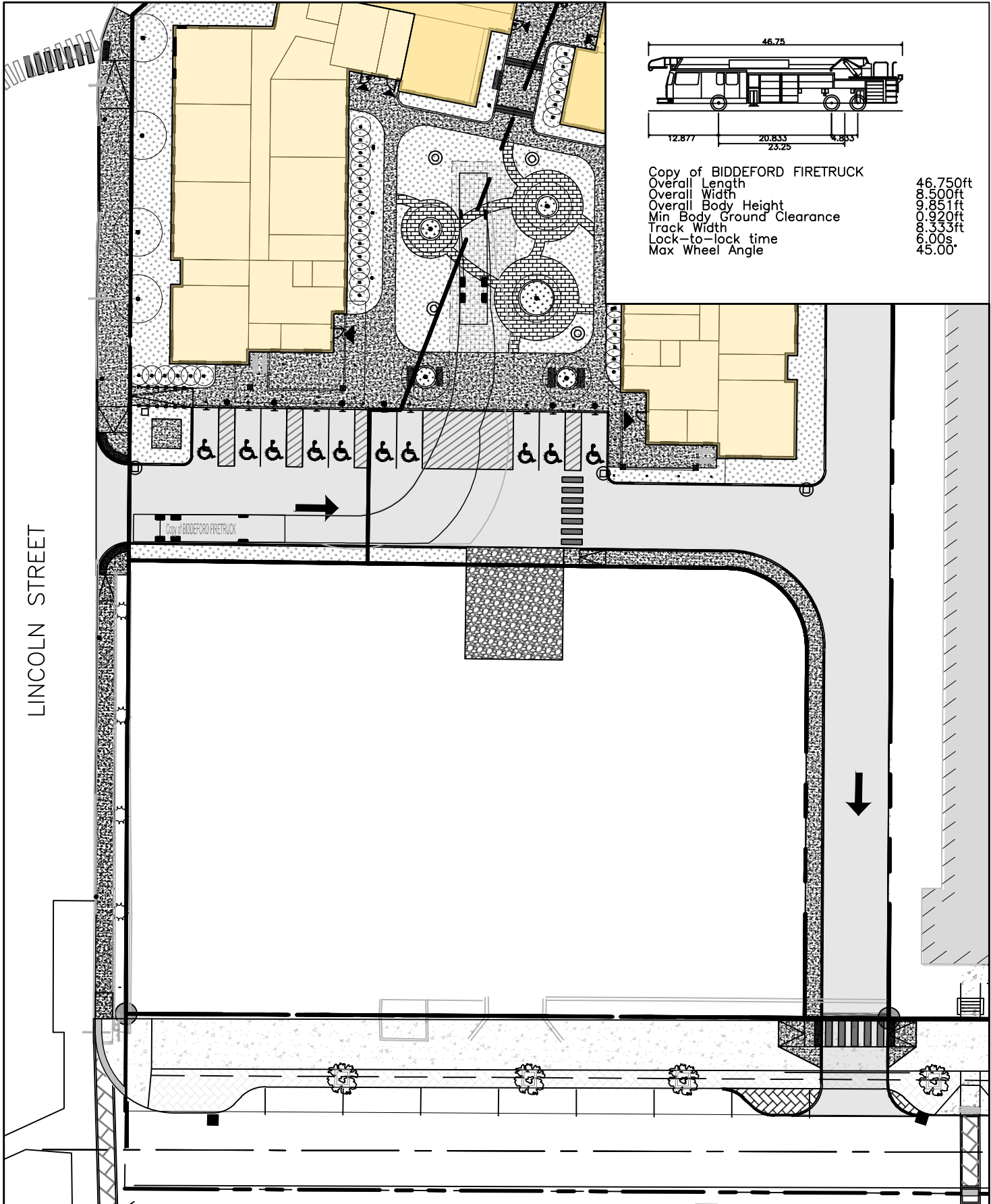
ACORN
 ENGINEERING, INC
 ACORN ENGINEERING, INC. P.O. BOX 3372
 PORTLAND, MAINE 04104 (207) 775-2655

DRAWING NAME:
 TURNING TEMPLATE EXHIBIT

PROJECT NAME:
 15 PEARL STREET REDEVELOPMENT

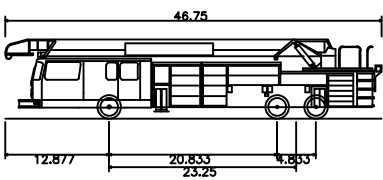
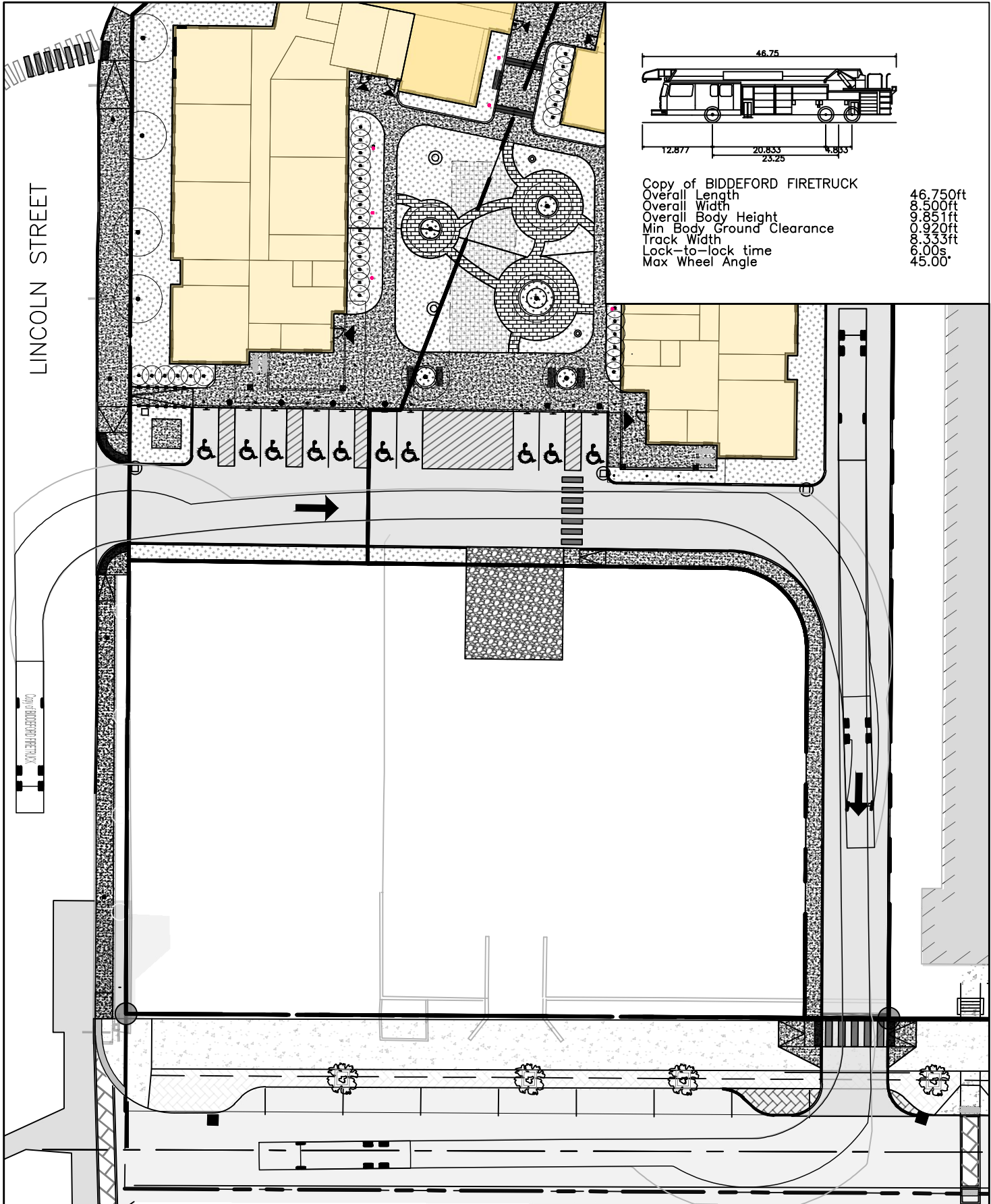
CLIENT:
 WESTBROOK DEVELOPMENT
 CORPORATION
 WESTBROOK, MAINE

ISSUED FOR	BY
PRELIMINARY	DATE PFH 11/13/24
	REV
	DATE



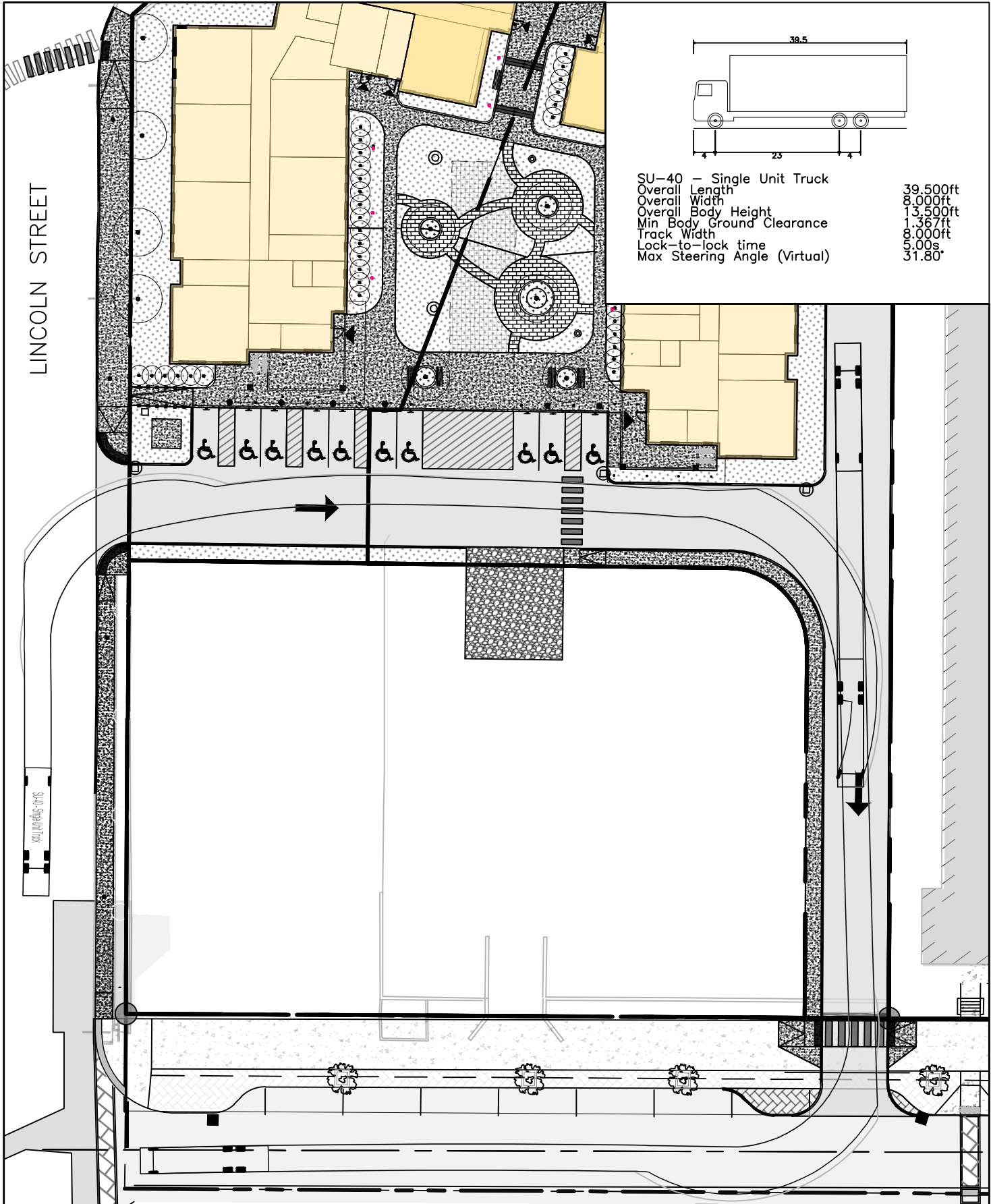
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.	FILE: 1124_CIVIL DATE: 11/13/24 JN: 1124 SCALE: AS NOTED DESIGN BY: PFH DRAWN BY: ZMS CHECKED BY: WHS	ACORN ENGINEERING, INC ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2655	DRAWING NAME: TURNING TEMPLATE EXHIBIT	ISSUED FOR PRELIMINARY	BY DATE PFH 11/13/24
			PROJECT NAME: 15 PEARL STREET REDEVELOPMENT		
			CLIENT: WESTBROOK DEVELOPMENT CORPORATION WESTBROOK, MAINE		

DRAWING NO.
EX



Copy of 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°

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.	FILE: 1124_CIVIL DATE: 11/13/24 JN: 1124 SCALE: AS NOTED	ACORN ENGINEERING, INC ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2655	DRAWING NAME: TURNING TEMPLATE EXHIBIT	ISSUED FOR PRELIMINARY	BY DATE PFH 11/13/24
	DESIGN BY: PFH DRAWN BY: ZMS CHECKED BY: WHS		PROJECT NAME: 15 PEARL STREET REDEVELOPMENT		
	DRAWING NO. EX		CLIENT: WESTBROOK DEVELOPMENT CORPORATION WESTBROOK, MAINE		



SU-40 - Single Unit Truck
Overall Length 39.500ft
Overall Width 8.000ft
Overall Body Height 13.500ft
Min Body Ground Clearance 1.367ft
Track Width 8.000ft
Lock-to-lock time 5.00s
Max Steering Angle (Virtual) 31.80°

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

FILE: 1124_CIVIL
DATE: 11/13/24
JN: 1124
SCALE: AS NOTED
DESIGN BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS



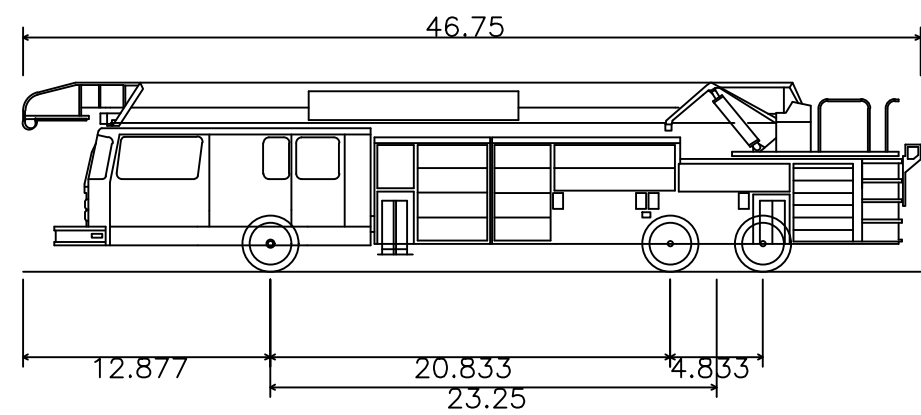
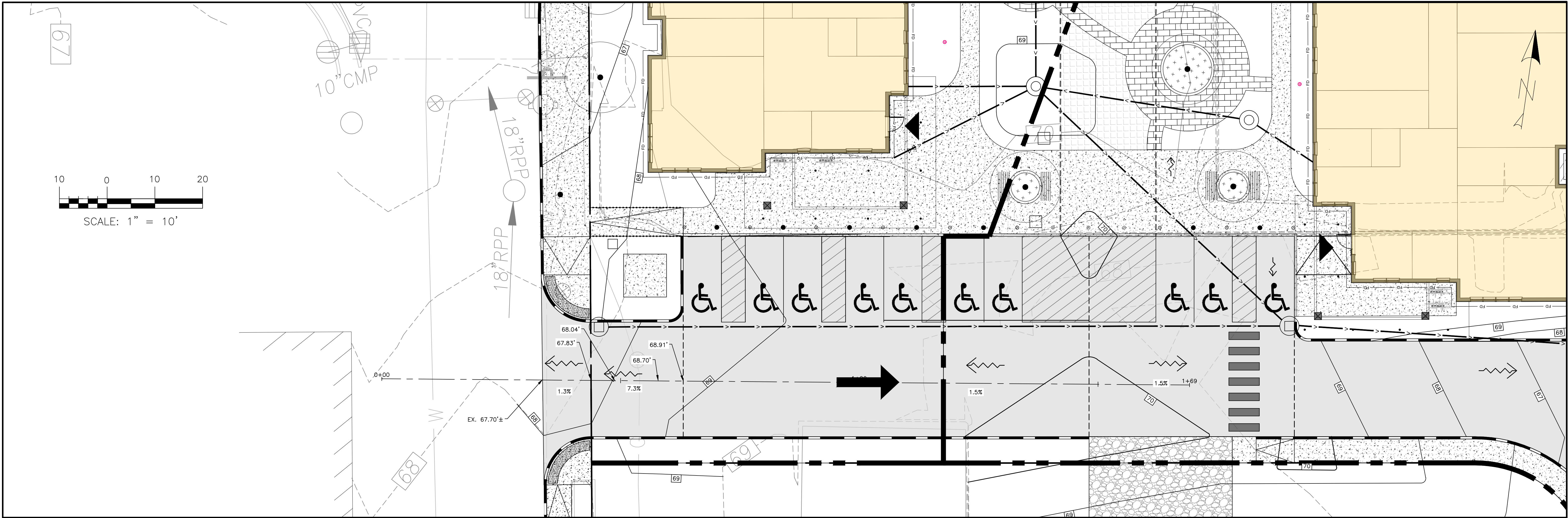
ACORN
ENGINEERING, INC
ACORN ENGINEERING, INC. P.O. BOX 3372
PORTLAND, MAINE 04104 (207) 775-2655

DRAWING NAME:
TURNING TEMPLATE EXHIBIT

PROJECT NAME:
15 PEARL STREET REDEVELOPMENT

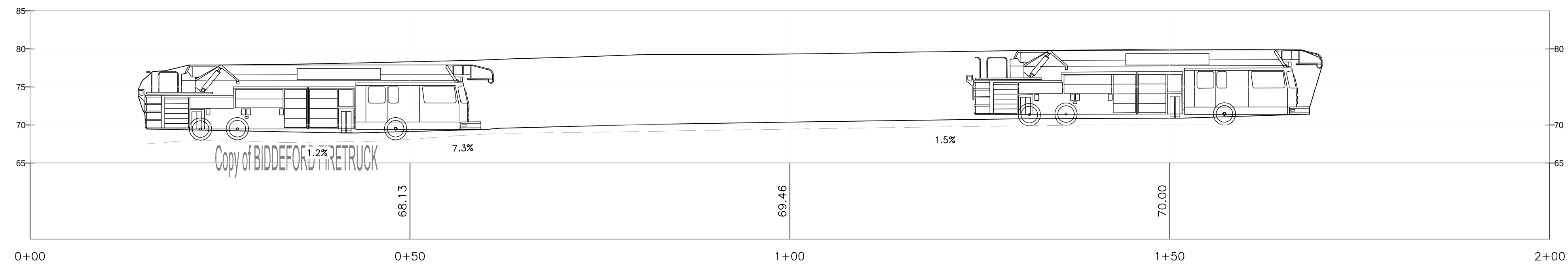
CLIENT:
WESTBROOK DEVELOPMENT CORPORATION
WESTBROOK, MAINE

ISSUED FOR	BY
PRELIMINARY	DATE PFH 11/13/24
	REV
	DATE



Copy of BIDDEFORD FIRETRUCK
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Max Wheel Angle

46.750ft
8.500ft
9.851ft
0.920ft
8.333ft
6.00s
45.00°



VERTICAL CLEARANCE PROFILE: FIRE TRUCK

HORIZONTAL SCALE 1" = 10'
VERTICAL SCALE 1" = 10'

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
ATS	DATE
PRELIMINARY	10/23/24
FINAL	17/15/25

PROJECT NAME/ADDRESS	15 PEARL STREET (1B/1C) AFFORDABLE SENIOR HOUSING REDEVELOPMENT, BIDDEFORD, MAINE
OWNER OF RECORD	WESTBROOK DEVELOPMENT CORPORATION 30 LIZA HARMON DRIVE, WESTBROOK, ME, 04092

DRAWING NAME	VERTICAL CLEARANCE EXHIBIT
--------------	----------------------------

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
1/3/25
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
EX

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. Additionally, as the project stormwater discharges into the Saco River, it is exempt from Stormwater Flooding Standards.

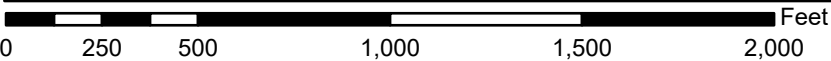
Attached is the FEMA flood map 23031C0452G dated 7/17/2024 which shows the site.



National Flood Hazard Layer FIRMMette



70°27'40"W 43°30'N



1:6,000

70°27'3"W 43°29'34"N

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
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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 **10/21/2024 at 3:24 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.

Section 20

Blasting

Section 20. Blasting

The project may potentially require some blasting during construction. Further subsurface geotechnical investigations are on-going. 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 producing 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 as part of the Stormwater Management Law Application submitted to the DEP. Newspaper notices were also published for these notifications.

Form B & Form C are attached, along with a list of the names and addresses of the owners of abutting properties.



Public Notice: Notice of Intent to File

Please take notice that

Westbrook Development Corporation, 30 Liza Harmon Drive, Westbrook, ME 04092

(Name, Address and Phone # of Applicant)

is intending to file a Stormwater Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. § 420-D on or about

1/14/2025

(anticipated filing date)

This application is for

The project proposes to subdivide Lot 1B into two (2) smaller lots (Lot 1B & Lot 1C), and construct two affordable senior housing buildings anticipated to include approximately 90 residential units (45 units in each building). The project is anticipated to start july 2026.

(description of the project)

at the following location 15 Pearl Street, Biddeford Maine

(project location)

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, Augusta or Bangor*) (circle one) during normal working hours. A copy of the application may also be seen at the municipal offices in Biddeford, Maine.
(town)

Written public comments may be sent to the regional office in Portland, Augusta, or Bangor where the application is filed for public inspection.

MDEP, Central Maine Regional Office, 17 State House Station, Augusta, Maine 04333

MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103

MDEP, Eastern Maine Regional Office, 106 Hogan Road, Bangor, Maine 04401

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)

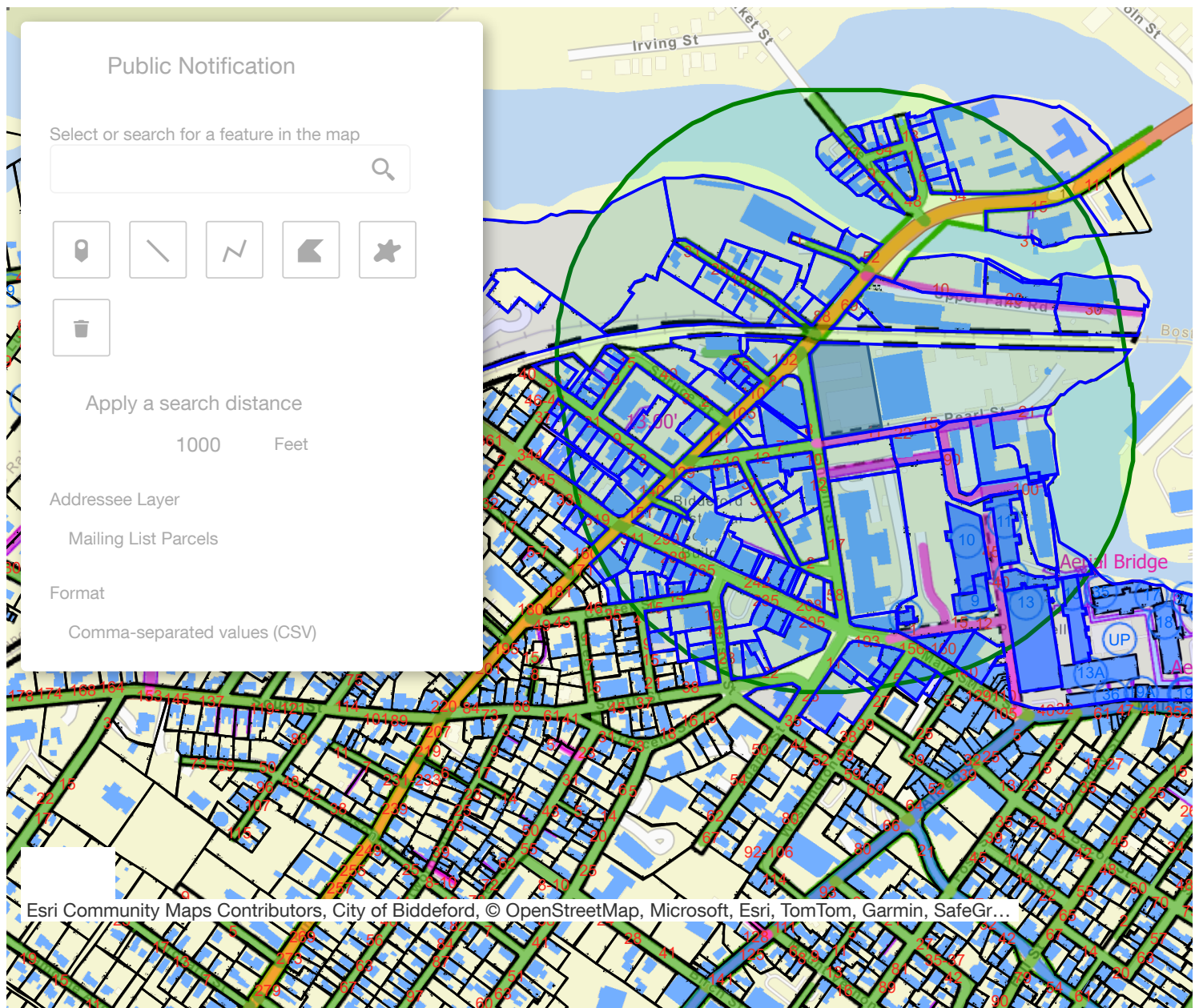
Approximately _____ members of the public attended the Public Informational Meeting.



Signature of Applicant or Authorized Agent

12/3/24

Date



2023 Mailing Lists and Abutters

Map - Lot	Owner	Address	
38-130	BANGOR SAVINGS BANK,	PO BOX 930,	BANGOR, ME, 04402-0930
38-139	4A PROPERTY LLC,	541 OCEAN HOUSE RD UNIT D,	CAPE ELIZABETH, ME, 04107
38-152-2	XL PROPERTY MAMANGEMENT LLC,	PO BOX 1830,	BIDDEFORD, ME, 04005
38-129	NEW MORNING BIDDEFORD, LLC,	230 MAIN ST,	BIDDEFORD, ME, 04005
38-129-1	FOURTH GEN, LLC,	30 ORCHARD ST,	BIDDEFORD, ME, 04005
38-140	PRAETORIUM LLC,	PO BOX 47,	BIDDEFORD, ME, 04005
38-128	4A PROPERTY, LLC,	541 OCEAN HOUSE RD UNIT D,	CAPE ELIZABETH, ME, 04107
38-141	LEIGHTON PROPERTY MANAGEMENT LLC, 285 MAIN LLC & 275 MAIN LLC	PO BOX 2683,	SOUTH PORTLAND, ME, 04116
38-127	244 MAIN ST PROPERTIES INC,	MAINE COMMUNITY BANK ATTN: ACCOUNTS PAYABLE, PO BOX 558	WESTBROOK, ME, 04098-0558
38-126	BIDDEFORD SAVINGS BANK,	MAINE COMMUNITY BANK ATTN: ACCOUNTS PAYABLE, PO BOX 558	WESTBROOK, ME, 04098-0558
38-145	BRICKFORD REALTY, LLC,	PO BOX 1557,	WELLS, ME, 04090

38-142	NICOLETOS BLOCK CORPORATION, C/O JOAN N HARKINS	PO BOX 1746,	SACO, ME, 04072
38-143	OOB 10, LLC,	3 MASEFIELD TERR,	CAPE ELIZABETH, ME, 04107
38-122-1	288 MAIN ST 1, LLC & 288 MAIN ST 2, LLC,	288 MAIN ST,	BIDDEFORD, ME, 04005
38-122	290 MAIN ST, LLC,	79 PARK SLOPE TERRACE,	HAWTHORNE, NJ, 07506
38-46	ENW APARTMENTS LLC,	174 NARRAGANSETT TRAIL,	BUXTON, ME, 04093-6145
38-120	POWER TEST REALTY CO LIMITED, C/O GETTY REALTY CORP	292 MADISON AVE 9TH FLOOR,	NEW YORK, NY, 10017-6318
38-119	LU, QIU SHUN,	2 HEMLOCK DR,	SACO, ME, 04072
38-43	DAILY DOUBLE ENTERPRISES, LLC,	24 MILLBROOK RD SUITE 103,	SACO, ME, 04072
38-117	TRAN, CAM & SANG ,	110 WESTERN AVE,	BIDDEFORD, ME, 04005
38-110	OFFICE RENTALS, LLC,	41 RIVER RIDGE,	DAYTON, ME, 04005
38-42	BENEVESTA LLC,	PO BOX 253,	KENNEBUNKPORT, ME, 04046
38-31	QUINN, ROBERT J & MARGARET A,	60 ROSS RD,	OLD ORCHARD BEACH, ME, 04064

38-41	BROCKMAN, JOSHUA W,	245 BRADLEY ST, UNIT 2,	SACO, ME, 04072
38-32	ENW APARTMENTS LLC,	174 NARRAGANSETT TRAIL,	BUXTON, ME, 04093-6145
38-40	KMMS LLC,	12 SUMMERFIELD LN,	SCARBOROUGH, ME, 04074-9068
38-33	KE-BIDD,LLC,	PO BOX 432,	BIDDEFORD, ME, 04005
38-34	LEBEL PROPERTIES, LLC,	10 MCKENNEY DR,	BIDDEFORD, ME, 04005
38-44	SHAI PROPERTY MANAGEMENT, LLC,	316 MAIN ST STE 202,	BIDDEFORD, ME, 04005
38-195	MAINE BANK & TRUST CO, C/O PEOPLE'S UNITED BANK, N.A.	1 M & T PLAZA 18TH FLOOR, ATTN: CORPORATE REAL ESTATE	BUFFALO, NY, 14203
38-192	OLCOTT & OWEN LLC,	34 CHESTNUT ST,	OLD ORCHARD BEACH, ME, 04064
38-132	CITY OF BIDDEFORD, CITY PARK	PO BOX 586,	BIDDEFORD, ME, 04005-0586
38-45	BLUEBERRY HILL PROPERTY LLC,	319 MAIN ST,	BIDDEFORD, ME, 04005
38-155	SHALOM HOUSE, INC,	PO BOX 560,	PORTLAND, ME, 04112
38-152	XLNT PROPERTIES LLC,	PO BOX 1830,	BIDDEFORD, ME, 04005

38-131	BANGOR SAVINGS BANK,	PO BOX 930,	BANGOR, ME, 04402-0930
38-154	FOR THE FUTURE, LLC,	9 LUDWIG ST,	THOMASTON, ME, 04861
38-153	SAAR RENTALS, LLC,	41 RIVER RIDGE RD,	DAYTON, ME, 04005
38-152-1	MCINNIS, MARTIN,	236 HOLMES RD,	SCARBOROUGH, ME, 04074
38-35	FORCIER PROPERTIES, LLC,	10 MCKENNEY DR,	BIDDEFORD, ME, 04005
38-36	DEOLIVEIRA, WEBERTH,	1858 BALLINA DR,	SAN DIEGO, CA, 92114-1317
38-37	GARDNER, ERIC T., GARDNER, SUSAN E.	1709 CARRIAGE LN,	FORT COLLINS, CO, 80525
38-38	AJLEGERE, LLC,	68 SUMMITT PARK AVE,	PORTLAND, ME, 04103
38-25	CHARLIE HAZEL, LLC, KASSEL, GRANT	142 PLEASANT ST,	PORTLAND, ME, 04101
38-23	GEARY, JESSICA L,	30 ST MARYS ST,	BIDDEFORD, ME, 04005
38-26	SM&A PROPERTIES, LLC,	PO BOX 6752,	PORTLAND, ME, 04101
38-22	CITY OF BIDDEFORD,	PO BOX 586,	BIDDEFORD, ME, 04005-0586

38-27	PENSCO TRUST CO FBO, SARAH D THOMPSON IRA	6 WHIPPORWILL CIR,	KENNEBUNK, ME, 04043
38-27-1	CURLEW, JOHN E,	15 HAZEL ST,	BIDDEFORD, ME, 04005-2001
38-114	HA, BINH, NGUYEN, THUYDUONG	149 WOODMAN AVE,	SACO, ME, 04072
38-115	ELIZABETH W GARNER REVOCABLE TRUST U/T/A 05/02/2023 TRUSTEE, ELIZABETH W GARNER, MATTHEW R GARNER REVOCABLE TRUST U/T/A	667 LIMERICK RD,	ARUNDEL, ME, 04046
38-116	BROWN, VANESSA,	6 PEARL ST APT 202,	BIDDEFORD, ME, 04005
71-5-1	4A PROPERTY LLC,	541 OCEAN HOUSE RD UNIT D,	CAPE ELIZABETH, ME, 04107
71-5	LHL HOLDINGS, LLC,	3 PENSTOCK WAY ,	NEWMARKET , NH, 03857
40-55-3	GOOCH STREET LLC,	82 HANOVER ST SUITE 5,	PORTLAND, ME, 04101
71-2	CITY OF BIDDEFORD,	PO BOX 586,	BIDDEFORD, ME, 04005
38-112	YORK COUNTY COMMUNITY ACTION, CORP	PO BOX 72,	SANFORD, ME, 04073-0072
38-111	COMMUNITY HOUSING OF MAINE, INC,	1 CITY CENTER 4TH FL,	PORTLAND, ME, 04101
40-73	DROWN, WILLIAM C ,	30 STONE ST,	BIDDEFORD, ME, 04005-2005

40-71	23 LINCOLN, LLC,	PO BOX 2456,	OGUNQUIT, ME, 03907-2456
40-72	MCWILL-MCWAY, LLC,	20 TATE ST,	PORTLAND, ME, 04102
40-71-1	SHAI PROPERTY MANAGEMENT LLC,	316 MAIN ST STE 202,	BIDDEFORD, ME, 04005
40-69	BIDDODOM LLC,	10 ASPEN LN,	KENNEBUNK, ME, 04043
40-1	JASON'S AUTO SERVICE 124 EM STREET LLC,	PO BOX 250,	HOLLIS , ME, 04042
40-68	POOLER'S PROPERTIES, LLC,	21 ADIRONDACK DR,	HOLLIS CENTER, ME, 04042
40-67-1	PELONE, LLC,	399 PRESUMPSCOT ST,	PORTLAND, ME, 04103
40-6-1	110 ELM ST LLC,	329 STARLIT WAY,	MYRTLE BEACH, SC, 29579
40-67	BRAVO REAL ESTATE LLC,	399 PRESUMPSCOT ST,	PORTLAND, ME, 04103
40-6	VANCE, WARREN, VANCE, MICHELLE POIRIER	PO BOX 661,	SACO, ME, 04072
40-7	DEVLIN, MARTIN,	416 MAIN ST #2,	SACO, ME, 04072-1523
38-28	BIDDEFORD (ZHONGZHOU) CHRISTIAN MINISTRI,	120 MAIN ST APT 322,	SACO, ME, 04072
40-8	CSPN LLC,	PO BOX 532,	BIDDEFORD, ME, 04005

40-10-1	B & D MEREALTY, LLC,	172 WORCESTER RD,	NATICK, MA, 01760
40-58	BOSTON & MAINE RAILROAD, C/O CSX TRANSPORTATION	500 WATER ST J-910,	JACKSONVILLE, FL, 32202
40-11	TRACY, SUSAN A, HALE, SHERA	3 HOOPER ST,	BIDDEFORD, ME, 04005
40-57	PLAN EAST, LLC,	74 SINNOCKS NECK RD,	SCARBOROUGH, ME, 04074
40-12	TREADWELL, ASHLEY,	11 HOOPER ST,	BIDDEFORD, ME, 04005
40-22	GAMBOA, DEANNA, DYER, JESSICA J	6 HOOPER ST ,	BIDDEFORD, ME, 04005
40-13	WEBB, DOREEN A, WALKER, SERENA	15 HOOPER ST,	BIDDEFORD, ME, 04005
40-5-1	BOSTON & MAINE RAILROAD, C/O CSX TRANSPORTATION	500 WATER ST J-910,	JACKSONVILLE, FL, 32202
40-55	GOOCH STREET LLC,	82 HANOVER ST SUITE 5,	PORTLAND, ME, 04101
40-14	BLONDIN, REX, KELLY, JOAN M	26 SPEAR AVE,	SOUTH PORTLAND, ME, 04106
40-55-2	BIF II US RENEWABLE LLC,	BARCLAY DAMON LLP (AMO), 125 EAST JEFFERSON STREET	SYRACUSE, NY, 13202
40-20	WILMOT, KELLY T & DANIEL J,	20 HOOPER ST,	BIDDEFORD, ME, 04005
40-24	ONE DIAMOND DEVELOPMENT, LLC,	2 LIVEWELL DR STE 201,	KENNEBUNK, ME, 04043

40-20-1	ARGETES, DEBRA M,	22 HOOPER ST,	BIDDEFORD, ME, 04005
40-16	O'KEEFE, SEAN & REBECCA,	31 HOOPER ST,	BIDDEFORD, ME, 04005
40-18	TIBBETTS, MARK P,	24 HOOPER ST,	BIDDEFORD, ME, 04005
40-56	SACO LOWELL LLC,	82 HANOVER ST STE 5,	PORTLAND , ME, 04101
40-25	ONE DIAMOND DEVELOPMENT LLC,	21 LIVEWELL DR SUITE 201,	KENNEBUNK, ME, 04043
40-52	KITCHEN, STEPHEN C,	560 ELM ST,	MERCER, ME, 04957
40-26	ANASTASOFF, ALEXANDER P,	PO BOX 2895,	SOUTH PORTLAND, ME, 04106
40-26-1	ANASTASOFF APARTMENTS, LLC,	PO BOX 2895,	SOUTH PORTLAND, ME, 04116
40-43	FIVE GAS, LLC,	778 PORTLAND RD,	SACO, ME, 04072
40-27	9 PINE STREET LLC,	PO BOX 12,	OLD ORCHARD BEACH, ME, 04064
40-35	48 ELM LLC,	48 ELM ST ,	BIDDEFORD, ME, 04005
40-41	SPRING ISLAND APARTMENTS LLC,	291 ALFRED ST SUITE 2,	BIDDEFORD, ME, 04005
40-28	GRIFFIN, JACKSON T,	169 ELM ST #4,	NORTH BERWICK, ME, 03906

40-33	MCFARLAND, RICHARD A,	976 BRIGHTON AVE,	PORTLAND, ME, 04102-1008
40-36	JAMEN, L.L.C,	14 GULLIVER DR,	SANFORD, ME, 04073
40-29	YD PROPERTIES LLC,	PO BOX 532,	BIDDEFORD, ME, 04005
40-40	SPRING ISLAND APARTMENTS, LLC,	291 ALFRED ST SUITE 2,	BIDDEFORD, ME, 04005
40-25-1	ONE DIAMOND DEVELOPMENT LLC,	2 LIVEWELL DR SUITE 201,	KENNEBUNK, ME, 04043
40-30	HOME STATE PROPERTIES, LLC,	150 GLENWOOD AVE,	PORTLAND, ME, 04103
40-39	READY, FRANCES,	18 MAPLE ST,	BIDDEFORD, ME, 04005-2021
40-31	PORCELLA, BREWSTER,	6720 SPRINGHILL DR,	FREDERICK, MD, 21702
40-32	CLARK, WILLIAM E JR & KATHERINE E,	38 MAPLE ST,	BIDDEFORD, ME, 04005-2021
40-37	MOSHER, OLIVIA ANN,	34 MAPLE ST,	BIDDEFORD, ME, 04005
40-38	SPRING ISLAND APARTMENTS, LLC,	291 ALFRED ST SUITE 2,	BIDDEFORD, ME, 04005
40-50	STORE SPE USLBM 2017-6, LLC,	PO BOX 4900,	SCOTTSDALE, AZ, 85261-4900
38-28-1	SM & A PROPERTIES, LLC,	PO BOX 6752,	PORTLAND, ME, 04101

38-29	DE DONUTS HOLDINGS LLC, C/O ARISTIDIS SPARANGIS	PO BOX 1653,	BIDDEFORD, ME, 04005-1653
40-10	B & D MEREALTY, LLC,	172 WORCESTER RD,	NATICK, MA, 01760
40-23	88 ELM STREET, LLC,	172 WORCESTER RD,	NATICK, MA, 01760-2229
38-24	KEISTER, TIMOTHY J,	6 STONE ST,	SACO, ME, 04072
38-349	KOSTAG LLC,	20 RIVERS EDGE LN,	SACO, ME, 04072
38-348-1	THACHER HOTEL LLC,	193 MAIN ST,	BIDDEFORD, ME, 04005
38-372	CITY OF BIDDEFORD, SHEVENELL MINI PARK	PO BOX 586,	BIDDEFORD, ME, 04005-0586
38-352	JJ & L CORP,	256 READ ST,	PORTLAND, ME, 04103-3446
38-341	STATE OF MAINE,	C/O ADMINISTRATIVE OFFICE OF THE COURTS, PO BOX 4820	PORTLAND, ME, 04112-4820
38-350	TRUNORTH DEVELOPMENT LLC,	PO BOX 343 ,	BIDDEFORD POOL, NE, 04006-0343
38-351	208 MAIN BIDDEFORD, LLC,	1504 STANFORD DR NE,	ALBUQUERQUE, NM, 87106

38-339	COURT SQUARE PROPERTIES, LLC, C/O JOSEPH & LISA STEVENS	124 FORTUNES ROCKS RD,	BIDDEFORD, ME, 04005
38-191	JEFFERSON-SOUTH, LLC,	P.O. BOX 432,	BIDDEFORD, ME, 04005
38-338-1	SACO RIVER REALTY LLC,	193 MAIN ST SUITE 106,	BIDDEFORD, ME, 04005
38-193	BIDDEFORD HOUSING AUTHORITY,	PO BOX 2287,	BIDDEFORD, ME, 04005
38-338	THACHER HOTEL LLC,	193 MAIN ST,	BIDDEFORD, ME, 04005
38-137-1	LEGION LLC,	PO BOX 47,	BIDDEFORD, ME, 04005
38-194	BIDDEFORD HOUSING AUTHORITY,	PO BOX 2287,	BIDDEFORD, ME, 04005
38-378	EHDG DEVELOPMENT PROPERTIES INC,	26 PLYMOUTH DR,	SACO, ME, 04072-1734
38-190-2	4A PROPERTY LLC,	541 OCEAN HOUSE RD UNIT D,	CAPE ELIZABETH, ME, 04107
38-376	1-3A BEACON LLC,	, PO BOX 368	SCARBOROUGH, ME, 04070-0368
38-377	PRAETORIUM LLC,	PO BOX 47,	BIDDEFORD, ME, 04005
38-157	KOSSUTH STREET LLC,	24 LAMOTHE AVE,	BIDDEFORD, ME, 04005
38-137	4A PROPERTY LLC,	541 OCEAN HOUSE RD UNIT D,	CAPE ELIZABETH, ME, 04107

38-133	CITY OF BIDDEFORD MUNICIPAL BUILDING,	PO BOX 586,	BIDDEFORD, ME, 04005-0586
38-134	1-3A BEACON LLC,	PO BOX 368,	SCARBOROUGH, ME, 04070-0368
38-156	NORTHERN N E TELEPHONE OPERATIONS, LLC,	770 ELM ST,	MANCHESTER, NH, 03101
38-134-1	THE 227 GROUP,	PO BOX 1259,	BIDDEFORD, ME, 04005
38-135	THE 227 GROUP,	PO BOX 1259,	BIDDEFORD, ME, 04005
40-10-2	B & D MEREALTY, LLC,	172 WORCESTER RD,	NATICK, MA, 01760
40-5	J E PROPERTIES LLC, C/O DUPUIS HARDWARE & LOCKSMITH	2 SPRUCE ST,	BIDDEFORD, ME, 04005
40-5-2	J E PROPERTIES, LLC,	2 SPRUCE ST,	BIDDEFORD, ME, 04005
40-8-1	FORZLEY, CHARLES N,	329 STARLIT WAY,	MYRTLE BEACH, SC, 29579
40-25-2	CITY OF BIDDEFORD, OLD DIAMOND INTERNATIONAL PROP	PO BOX 586,	BIDDEFORD, ME, 04005-0586
37-35	ONE DIAMOND DEVELOPMENT LLC,	2 LIVEWELL DR SUITE 201,	KENNEBUNK, ME, 04043
38-21	FASULO, SARAH JOAN,	67 GARY MAIETTA PARKWAY 38,	SOUTH PORTLAND, ME, 04106

38-124	P&C HOLDINGS, LLC,	260 MAIN ST #1,	BIDDEFORD, ME, 04005
38-123	MCARTHUR LIBRARY ASSOCIATION,	270 MAIN ST,	BIDDEFORD, ME, 04005-2413
71-8	CITY OF BIDDEFORD,	PO BOX 586,	BIDDEFORD, ME, 04005-0586
71-4	TLC BUGBEE BROWN BUILDING LLC, C/O TARBOX LAND CORP	1 BLACKBERRY LN,	SACO, ME, 04072
71-10	PEPPERELL MILL PROGRESSION LLC,	3100 MCKINNON ST SUITE 250,	DALLAS, TX, 75201
71-9-1	THE MILL AT SACO FALLS LP, C/O SACO FALLS MANAGEMENT	10 FREE ST, 3RD FLOOR,	PORTLAND, ME, 04101
71-9-3	DRAFT ROOM LLC,	C/O PROPERTY MANAGEMENT, 82 HANOVER ST SUITE 5	PORTLAND, ME, 04101
71-9-4	COUNTING HOUSE LLC, C/O SETH HARKNESS	25 SUMMER ST ,	PORTLAND, ME, 04102
71-9-2	THE LOFTS AT SACO FALLS, LP,	10 FREE ST, 3RD FLOOR,	PORTLAND, ME, 04101
71-9	DRAFT ROOM LLC,	C/O PROPERTY MANAGEMENT, 82 HANOVER ST SUITE 5	PORTLAND, ME, 04101
40-56-1	RIVER LOT LLC,	82 HANOVER STREET,	PORTLAND , ME, 04103
71-10-6	THE ELEVEN AT PEPPERELL MILL, LLC,	3 PENSTOCK WAY,	NEW MARKET, NH, 03857
71-11	PEPPERELL MILL PROGRESSION LLC,	3100 MCKINNON ST STE 250,	DALLAS, TX, 75201
3.7E+10	BUILDING 108 ASSOCIATES LP	PO BOX 759	SACO, ME 04072

Section 26

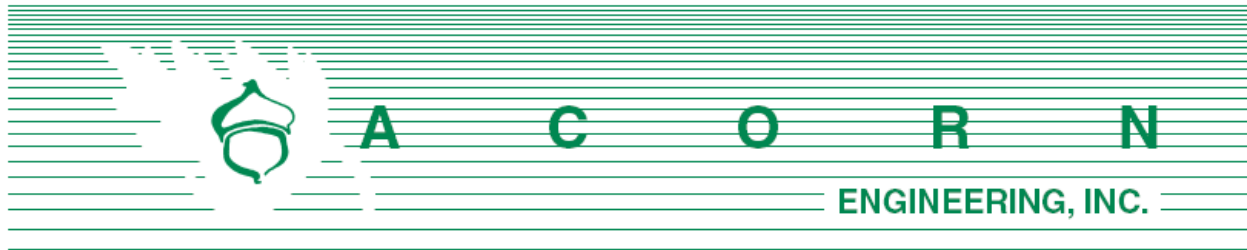
Maine Tribe & Nations Correspondence



Section 26. Maine Tribes/Nations Correspondence

See attached letters to associated Maine Tribes and their corresponding responses received thus far.





Mr. Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Pleasant Point & Indian Township Reservation
PO Box 159
Princeton, Maine 04668

November 7th, 2024

Subject: Presence of Tribes
Redevelopment of 15 Pearl Street, Lot 1B & 1C
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 1.55-acres and is located at 15 Pearl Street, Lot 1B & 1C within the Main Street Revitalization District (MSRD-3) in Biddeford Maine.

As part of the project permitting process, Acorn requests information from the Tribe of Passamaquoddy Tribe of Indians regarding potential nearby 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, PE
Project Engineer
Acorn Engineering, Inc.

Tribal Historic Preservation Office
Passamaquoddy Tribe
PO Box 159 Princeton, Me. 04668
207-214-4051

January 6, 2025

David Horne, EI
Design Engineer

Acorn Engineering, Inc

- Re: 15 Pearl Street, Lot 1B & 1C in Biddeford Maine

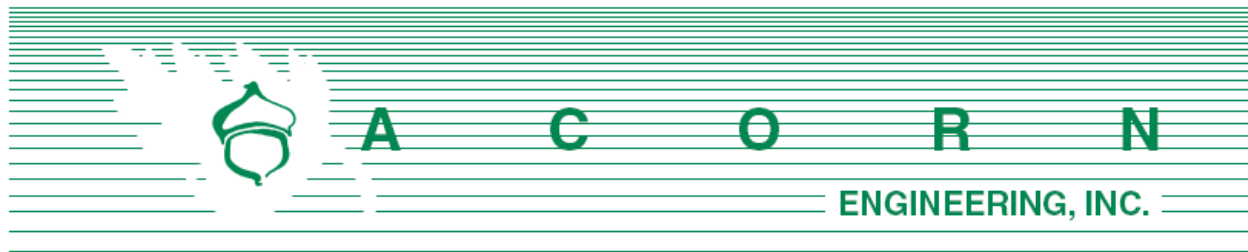
Dear *David* ;

The Passamaquoddy THPO has reviewed the following application 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 Governments, and Executive Order 12898 Environmental Justice.

The Project listed above will not have an impact on cultural concerns. If any artifacts or human remains are uncovered please stop and notify this office and the State Historic Preservation Office.

Sincerely;

Donald Soctomah
THPO
Soctomah@gmail.com



Jenny Gaenzle
Mi'Kmaq Nation
7 Northern Road
Presque Isle, ME 04769

November 7th, 2024

Subject: Redevelopment of 15 Pearl Street, Lot 1B & 1C
 Biddeford, Maine

Dear Jenny,

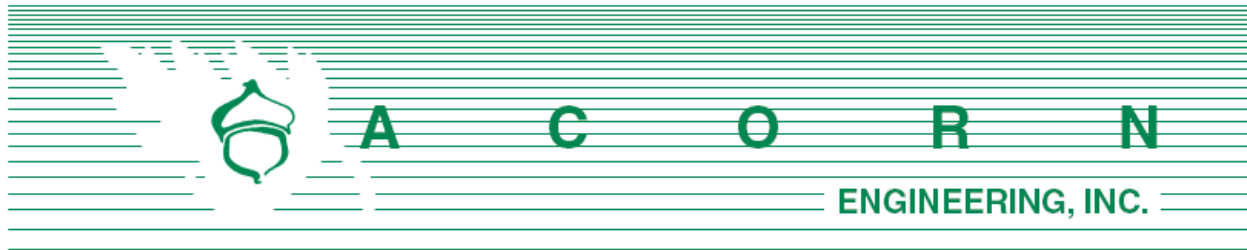
Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 1.55-acres and is located at 15 Pearl Street, Lot 1B & 1C within the Main Street Revitalization District (MSRD-3) in Biddeford Maine.

As part of the project permitting process, Acorn requests information from Mi'Kmaq Nation regarding potential nearby 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, PE
Project Engineer
Acorn Engineering, Inc.



Isaac St. John
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730

November 7th, 2024

Subject: Presence of Tribes
Redevelopment of 15 Pearl Street, Lot 1B & 1C
Biddeford, Maine

Dear Isaac,

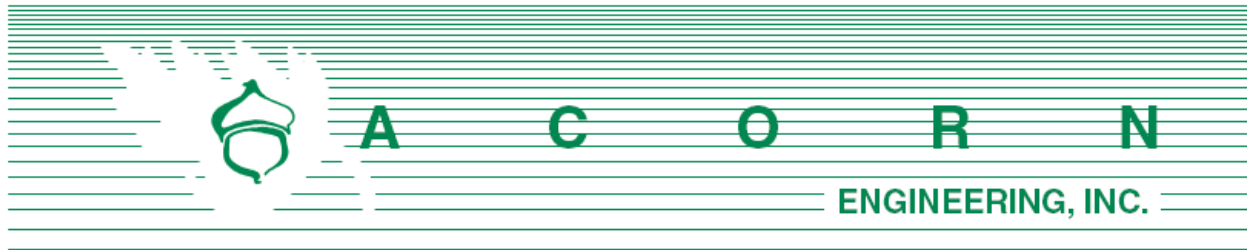
Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 1.55-acres and is located at 15 Pearl Street, Lot 1B & 1C within the Main Street Revitalization District (MSRD-3) in Biddeford Maine.

As part of the permitting process, Acorn requests information from the Houlton Band of Maliseet Indians regarding potential nearby 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, PE
Project Engineer
Acorn Engineering, Inc.



Mr. Christopher Sockalexis, THPO
Cultural & Historic Preservation Department
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468

November 7th, 2024

Subject: Redevelopment of 15 Pearl Street, Lot 1B & 1C
 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 1.55-acres and is located at 15 Pearl Street, Lot 1B & 1C within the Main Street Revitalization District (MSRD-3) in Biddeford Maine.

As part of the permitting process, Acorn requests information from Penobscot Nation regarding potential nearby 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, PE
Project Engineer
Acorn Engineering, Inc.

Section 27

Traffic & Parking Overview

Section 27: Traffic & Parking Overview

The project proposes to subdivide the recently approved Lot 1B into two (2) smaller lots (Lot 1B and Lot 1C), each supporting a proposed affordable senior housing building. The project proposes to construct two (2) affordable housing buildings, anticipated to include (90) total residential units with associated utility infrastructure improvements.

Parking:

Based on the City's required parking ratio, 2 spaces for every 3 units are required with an additional 1 space per every 2 employees on the maximum working shift. The project proposes 90 units, and at any given time would have a maximum of 2 employees on site, therefore requiring a total of 61 parking spaces to meet the City's parking requirements. The project proposes to construct (10) ADA parking spaces on site (5 ADA spaces per lot), with an additional 61 parking spaces to be provided by the adjacent municipal parking garage, for a total of 71 parking spaces for the project. Please refer to the attached letter from the City showing capacity to serve the proposed developments.

Snow removal in the parking areas, fire access lane and egress paths to be snow plowed by property maintenance after storm events, during larger storm events, property management will be responsible for hauling off site

Traffic:

Peak Hour Trip rates from the 90 Affordable Senior Adult Housing units can be found attached. Additionally, the overall traffic count numbers for the approved development of Lot 3, and potential Lot 1A development, as outline in the December 7, 2022, memorandum from Thomas Errico, have also been updated and include the below.

As part of the previously approved Subdivision of the larger parcel associated with the redevelopment of the previous MERC facility, a Maine DOT traffic movement permit (TMP) was submitted for the anticipated redevelopment of both Lots 1 & 3, for a combined peak hour trip generation rate of 296 combined vehicular trips. The proposed senior affordable housing projects will remain below the previously submitted trip generation rates. It's our understanding that the DOT is finalizing the TMP, pending final coordination with the City.

Deliveries:

It is our understanding that delivery trucks will utilize the paved fire truck access lane for deliveries to avoid blocking the main (east to west) drive aisle. The 20-foot-wide one-way driveway will be utilized to wheel deliveries to the respective buildings. It should be noted that the slopes from the fire access lane to the courtyard do not exceed 5% running slope or 2% cross slope. Please refer to the attached turning templates for additional information.



Senior Adult Housing - Multifamily (252)

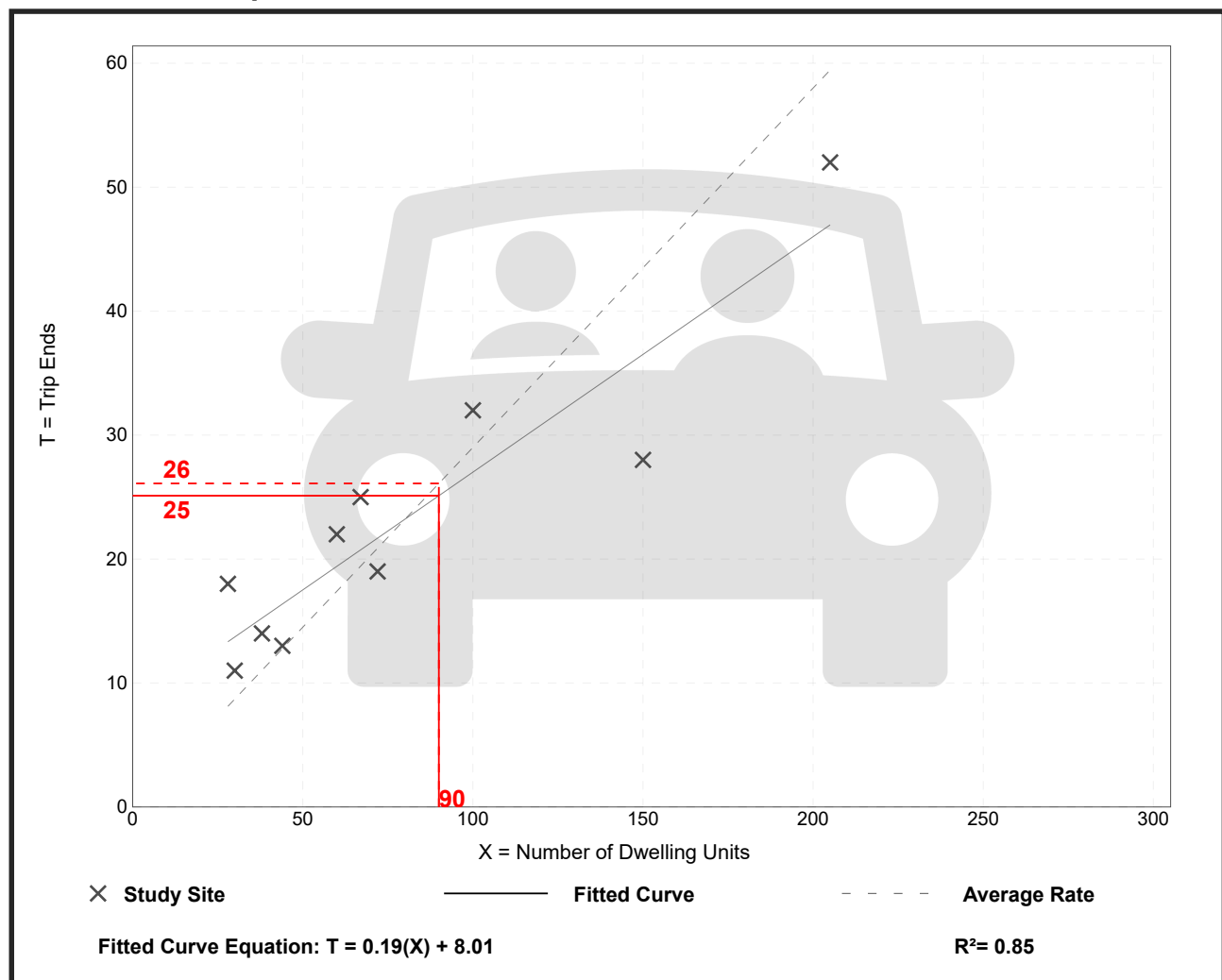
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. Num. of Dwelling Units: 79
Directional Distribution: 45% entering, 55% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.29	0.19 - 0.64	0.10

Data Plot and Equation



Senior Adult Housing - Multifamily (252)

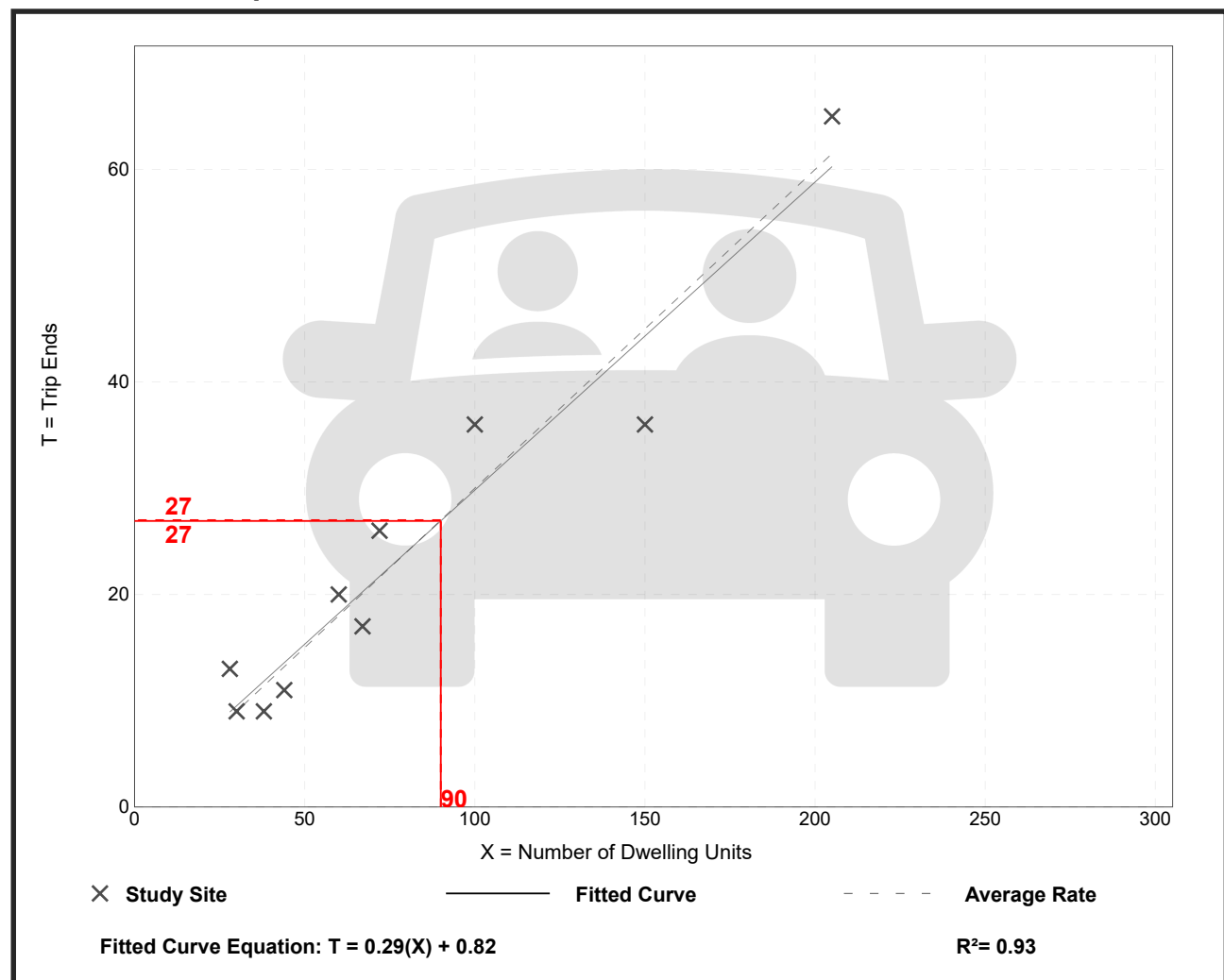
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. Num. of Dwelling Units: 79
Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.30	0.24 - 0.46	0.06

Data Plot and Equation



Senior Adult Housing - Multifamily (252)

Vehicle Trip Ends vs: Dwelling Units

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

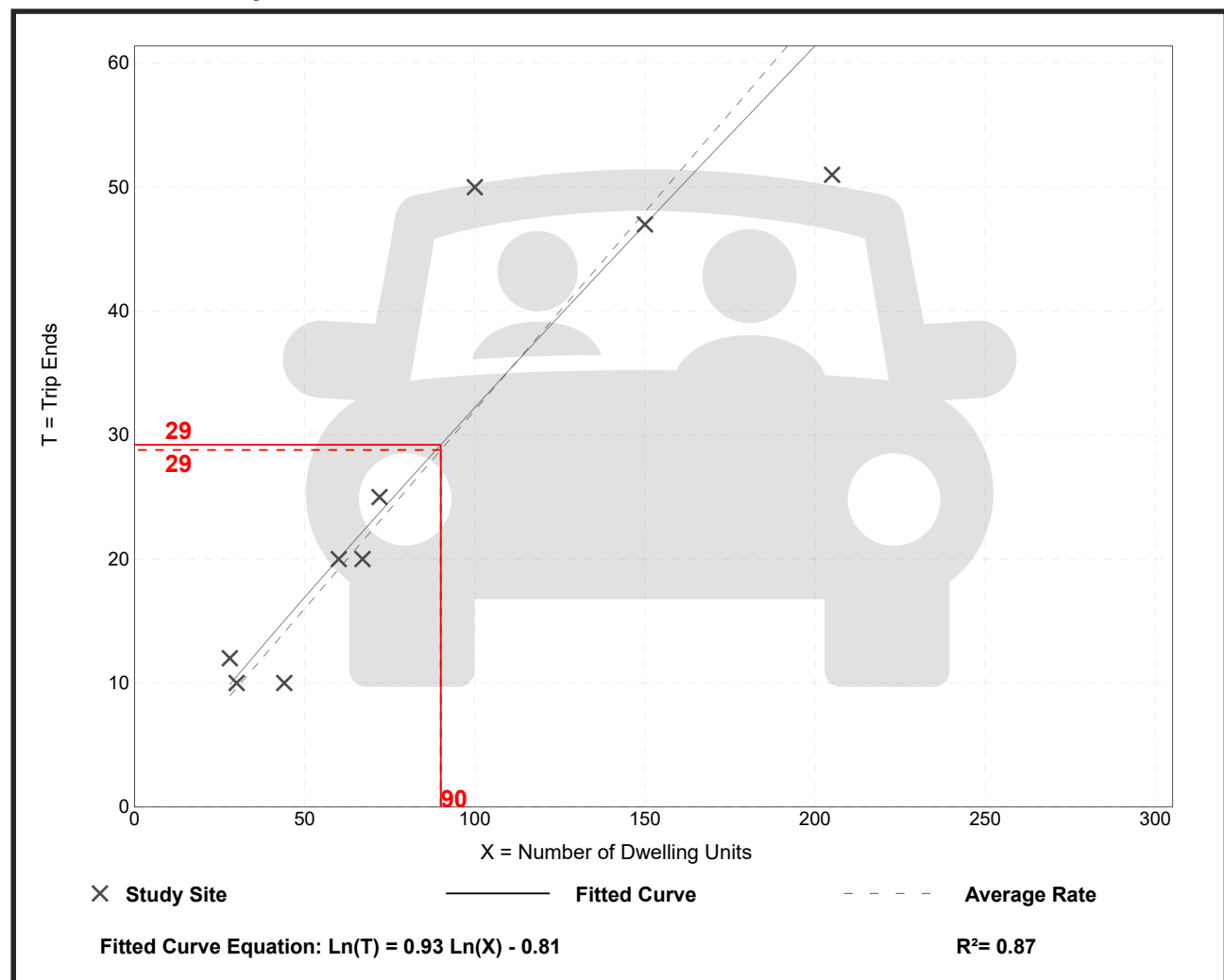
Avg. Num. of Dwelling Units: 84

Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.23 - 0.50	0.09

Data Plot and Equation



Senior Adult Housing - Multifamily (252)

Vehicle Trip Ends vs: Dwelling Units

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 8

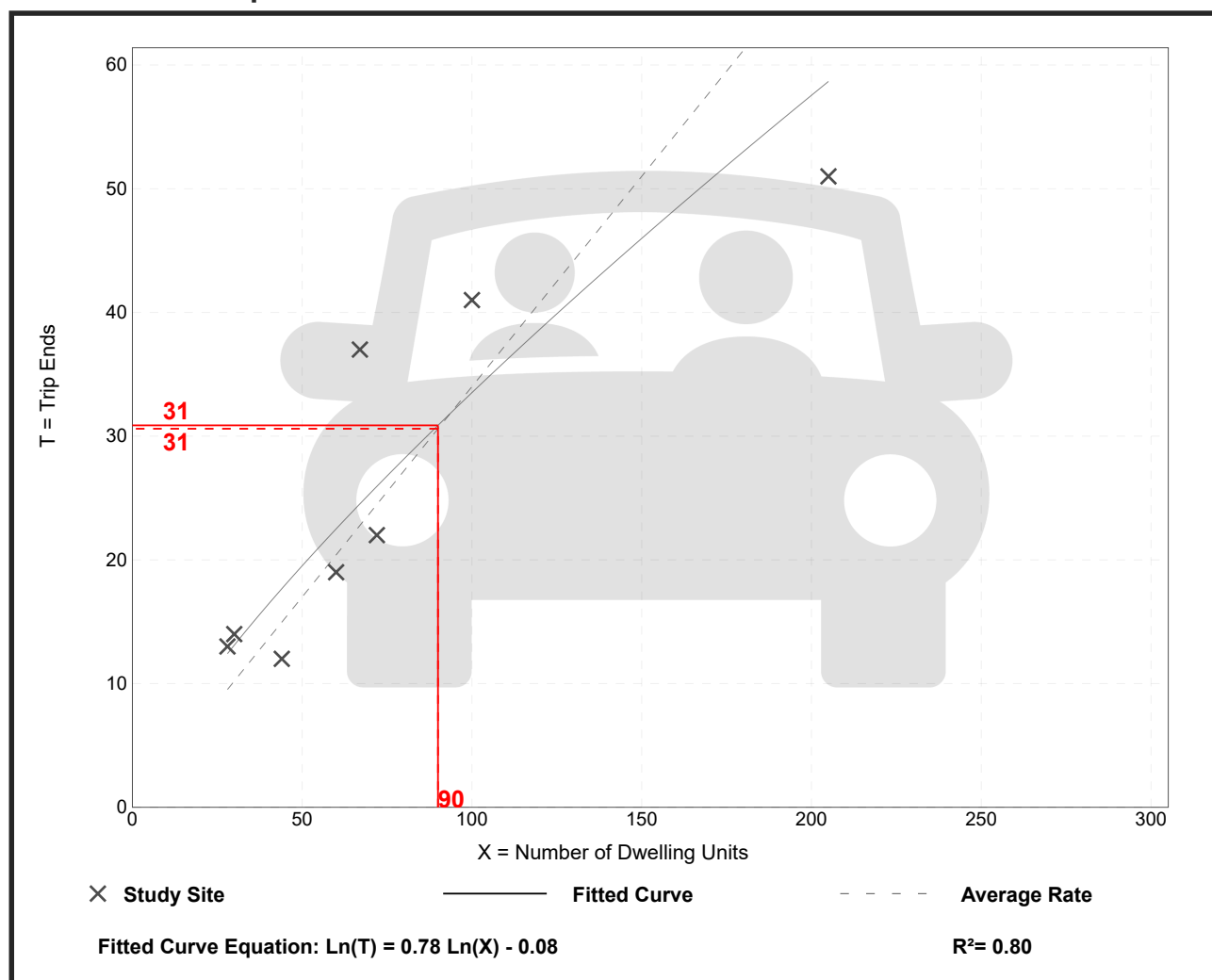
Avg. Num. of Dwelling Units: 76

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.34	0.25 - 0.55	0.11

Data Plot and Equation



Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

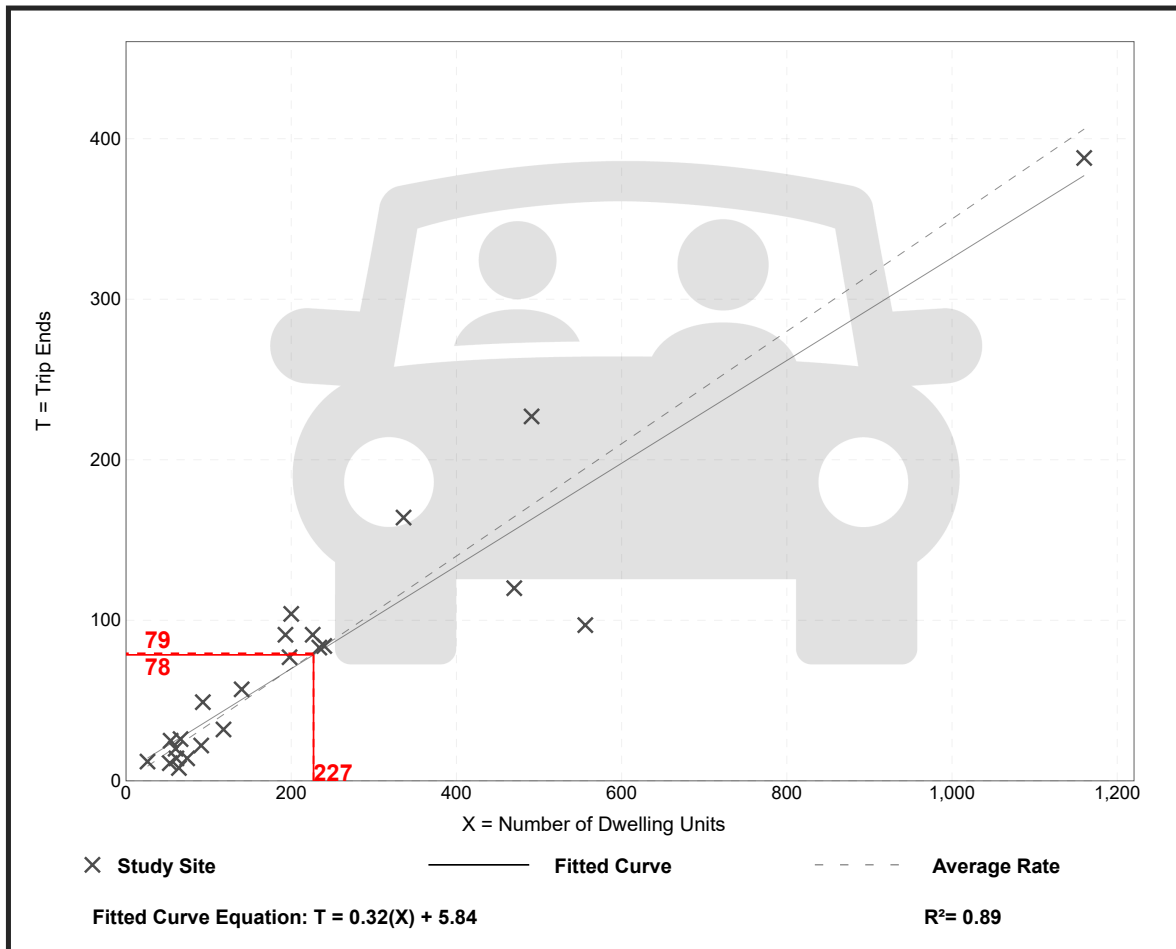
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 23
Avg. Num. of Dwelling Units: 226
Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.35	0.13 - 0.53	0.11

Data Plot and Equation



Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

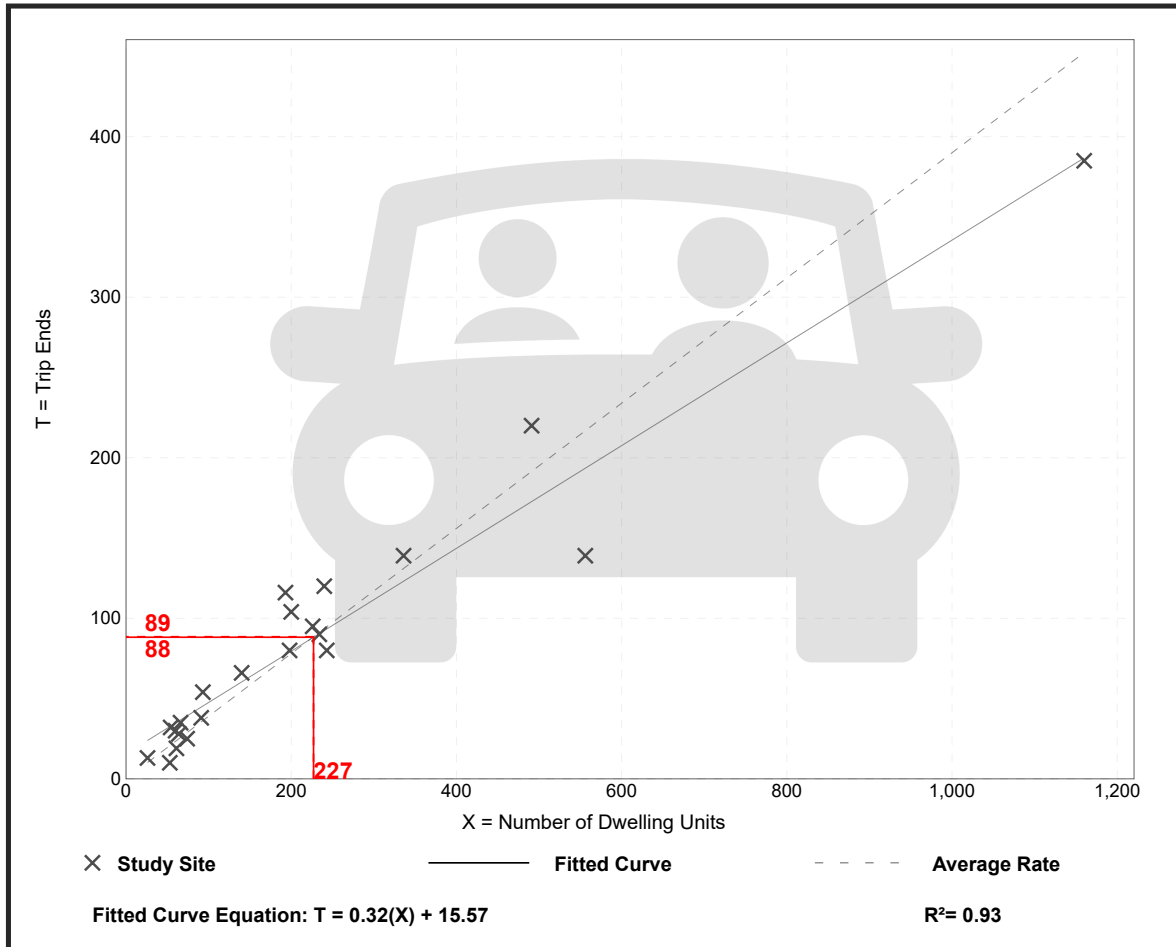
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 221
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.60	0.10

Data Plot and Equation



Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

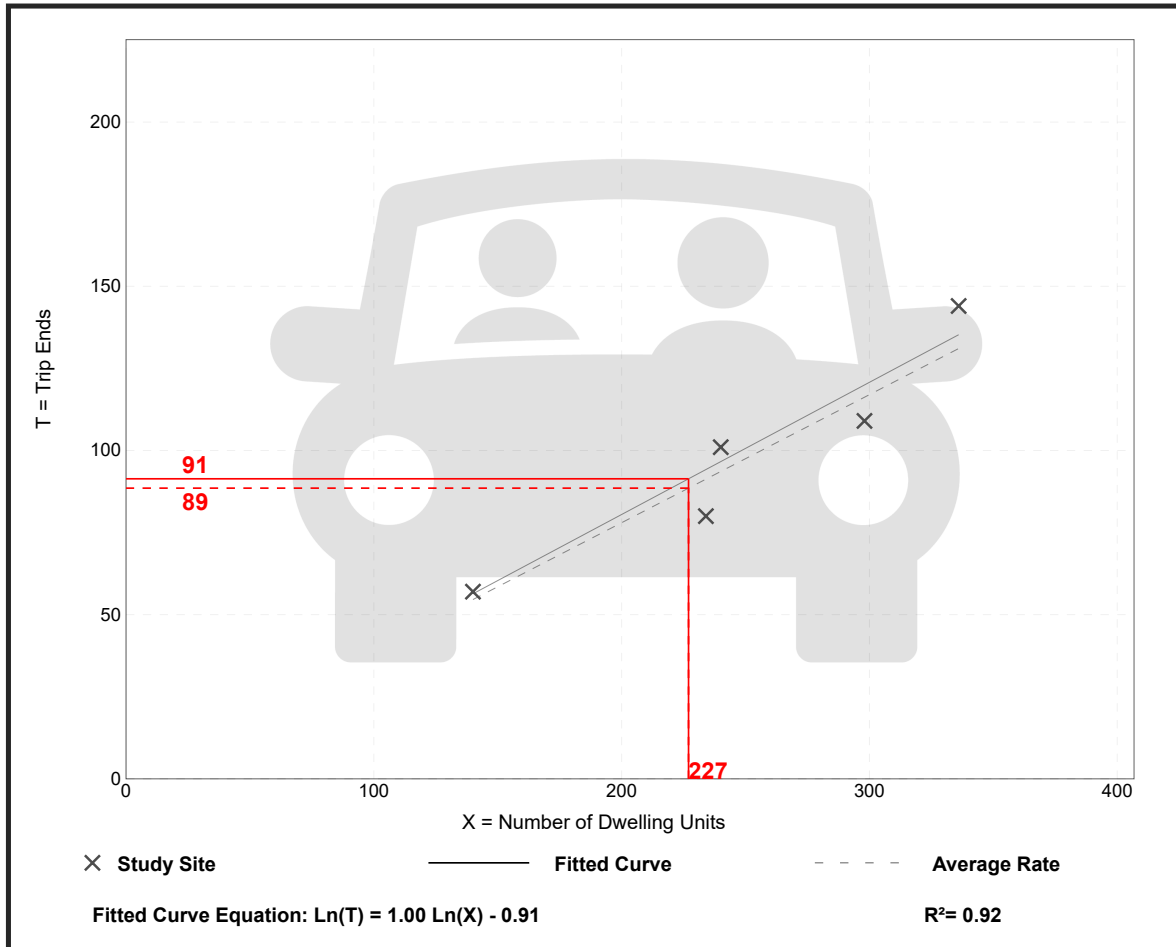
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Dwelling Units: 250
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.34 - 0.43	0.04

Data Plot and Equation

Caution – Small Sample Size



Fine Dining Restaurant (931)

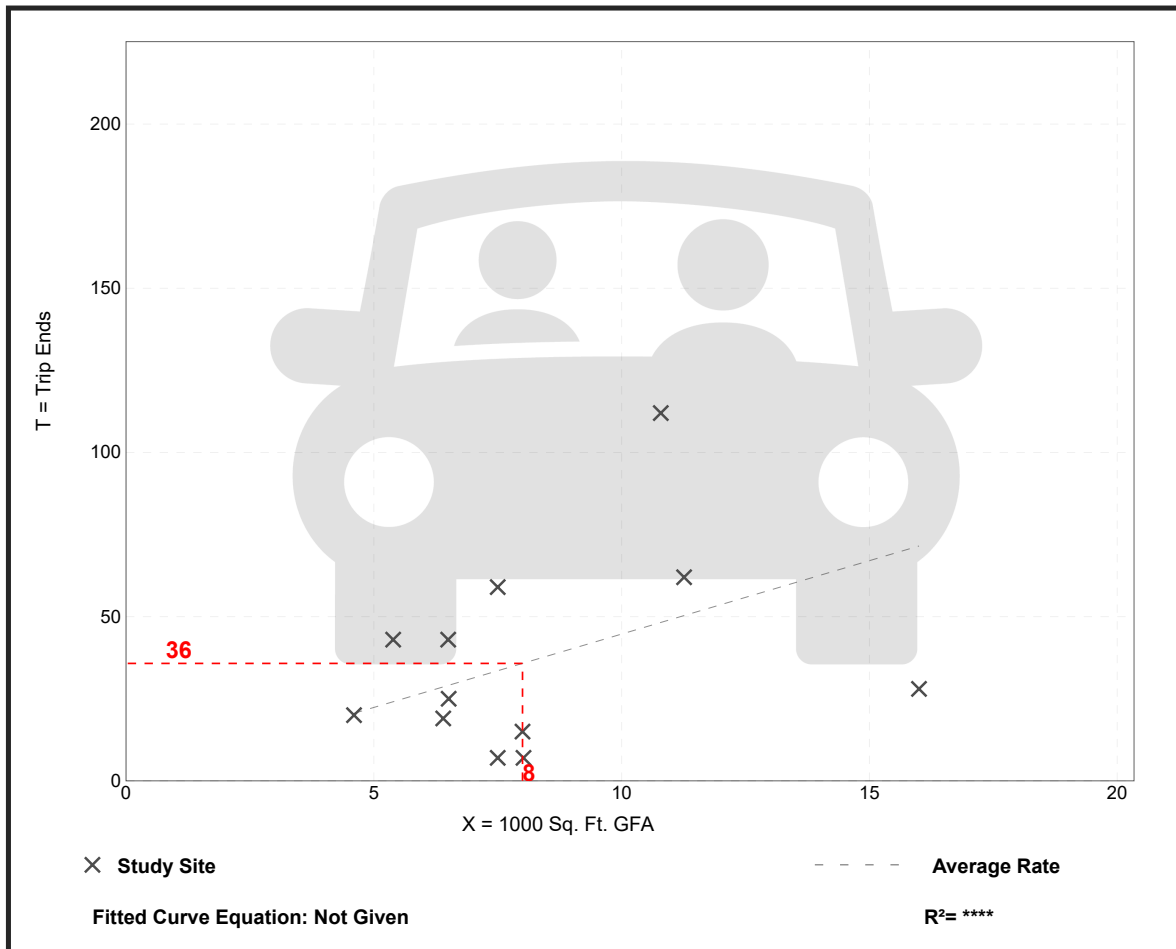
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. 1000 Sq. Ft. GFA: 8
Directional Distribution: 80% entering, 20% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.47	0.87 - 10.38	3.26

Data Plot and Equation



Fine Dining Restaurant (931)

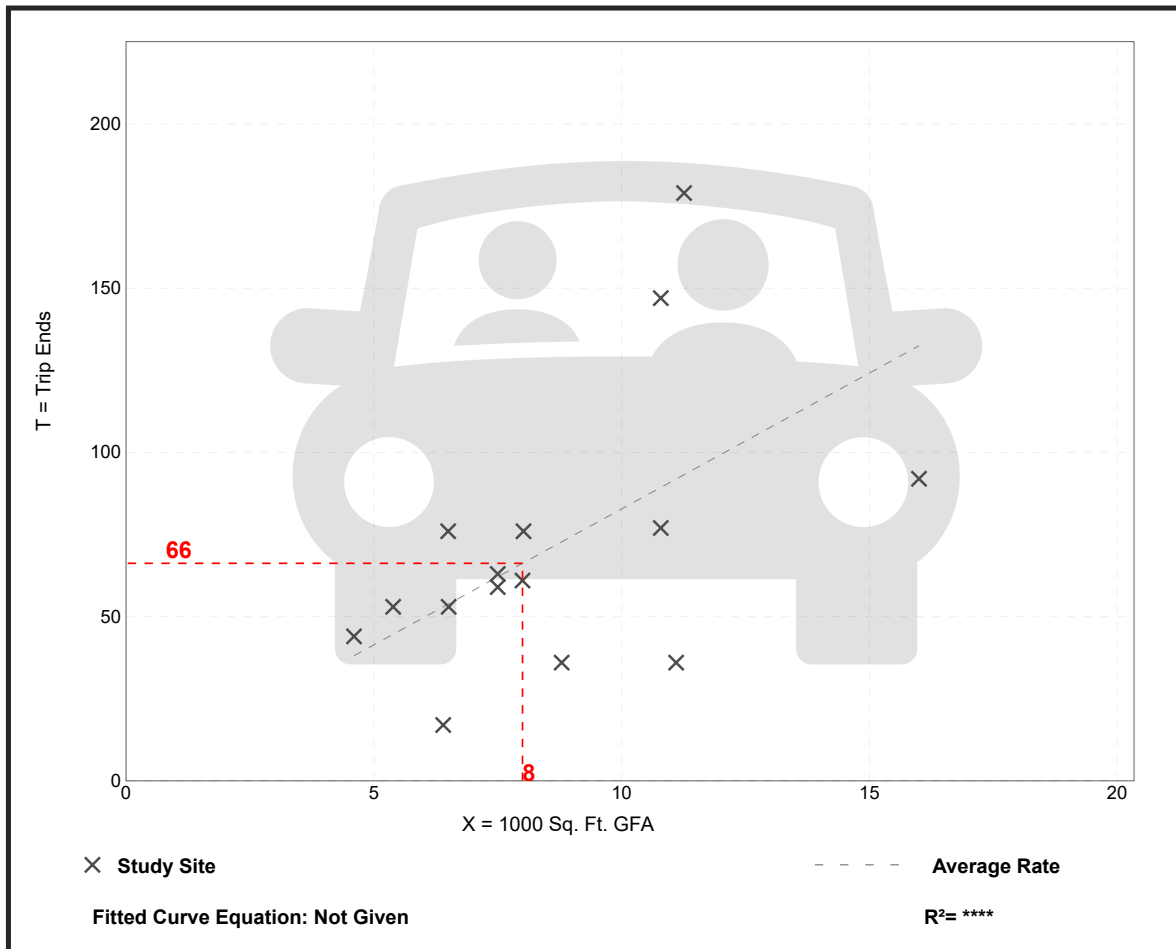
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
8.28	2.66 - 15.90	3.89

Data Plot and Equation



Fine Dining Restaurant (931)

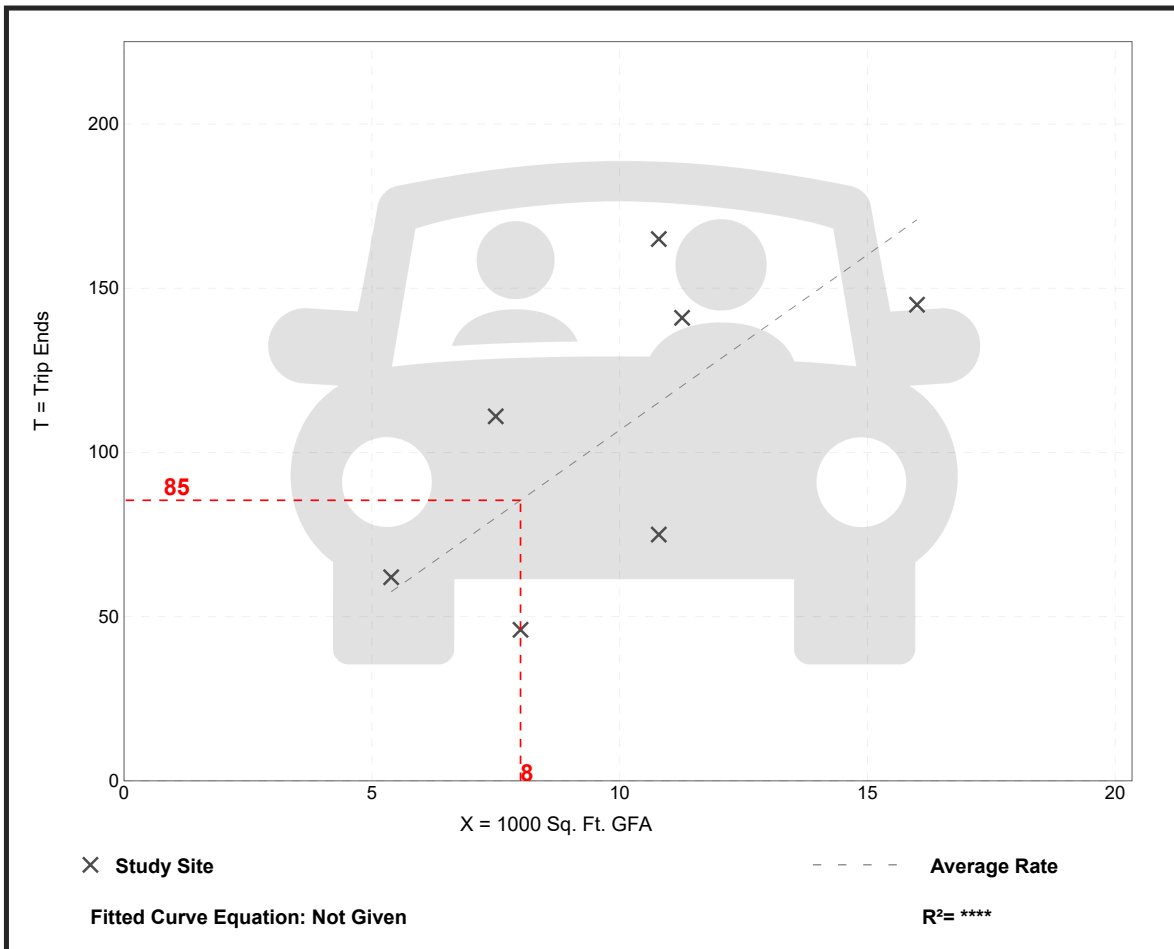
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

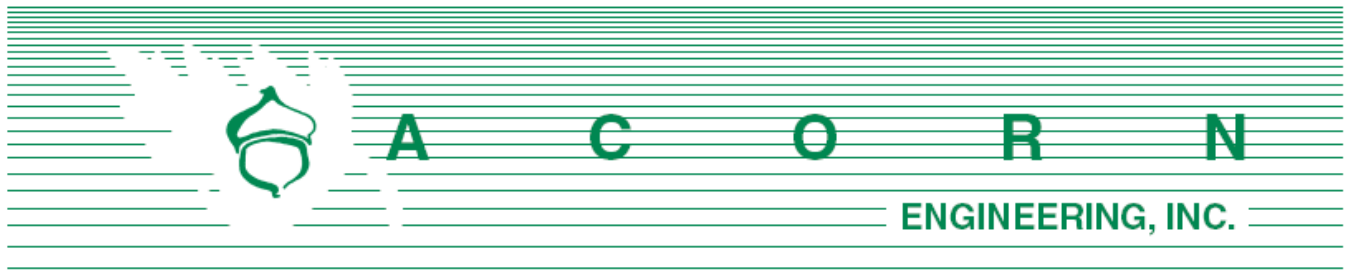
Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.68	5.75 - 15.29	3.62

Data Plot and Equation





Fathom Companies
 Attn: Marieke Thormann, PE, VP of Development
 80 Exchange Street, Suite 400
 Portland, ME 04101

May 23, 2024
Rev. 11/7/24

Subject: Draft Revised Trip Generation Calculations
 3 Lincoln Street (Pearl Street Lots 1 & 3), Biddeford Maine

Marieke,

Due to ongoing discussions with the Maine DOT regarding the Traffic Movement Permit, including separate discussions regarding Elm Street Corridor study, and updated programming information, shown in Table 1 below, for the proposed build out of the Lots 1 & 3 Pearl Street parcels, Acorn as ran some preliminary trip generation calculations, utilizing the ITE Trip Generation Manual, 11th Edition as summarized in Table 2 below. *The tables below have been revised to reflect the addition of 90 Affordable Senior Housing Units on Lot 1B & 1C.*

The below trip generation rates do not factor in any pass-by data that may be appropriate based on the various uses that potentially could further reduce the trip counts. We would defer to the project's Traffic Engineer to confirm trip generation totals as part of the preparation of a new DOT TMP application.

TABLE 1		
3 Lincoln Street Proposed Programming		
Lot 1		
Building	Use	Quantity
1A	Residential	85 Units
1B	Residential	45 Units
1C	Residential	45 Units
Lot 3		
Building	Use	Quantity
3A	Residential	52 Units
3A – Townhomes	Residential	5 Units
3B	Residential	85 Units
3C	Restaurant	8,000 sf

TABLE 2
3 Lincoln Street (Pearl Street – Lots 1 & 3)
Trip Generation (Peak Hour of Generator)
Based on the 11th Edition of the ITE Trip Generation Manual

Land Use Code	Quantity	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
LUC 221 – Multi-Family, Mid-rise (Lot 3)	227 Units	21	58	79	53	36	89	46	45	91
LUC 252 – Multi-Family, Senior Adult Housing (Lot 1)	90 Units	11	14	25	15	12	27	16	15	31
LUC 931 – Fine Dining (Lot 3)	8K sf	29	7	36	40	26	66	50	35	85
Total		61	79	140	108	74	182	112	95	207

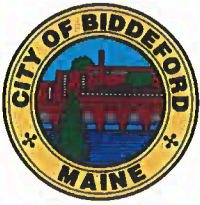
We understand the above programming and trip generation rates may be utilized to prepare a new DOT TMP application. If you have any questions regarding these materials or need additional information, please let us know.

Sincerely,



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





CITY OF BIDDEFORD

Planning and Development Department

George Gervais
Director of Planning
& Economic Development
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207)-284-9115
george.gervais@biddefordmaine.org

November 12, 2024

Mr. Tyler Norod
Executive Director
Westbrook Development Corporation
30 Liza Harmon Dr
Westbrook, ME 04092

RE: Parking Capacity Confirmation - Former MERC Site Development Project (Lots 1B & 1C)

Dear Mr. Norod,

This letter serves to confirm that the City of Biddeford has reviewed and confirms the ability to accommodate the parking requirements for your proposed 90-unit affordable housing development project to be located on Lots 1B and 1C of the former MERC site in downtown Biddeford.

Based on our review of the proposed development plans and our current parking infrastructure, we confirm the following:

1. Project Specifications:
 - a. Development Location: Former MERC site, Lots 1B and 1C
 - b. Total Residential Units: 90
 - c. Required Parking Ratio: 2 spaces per every 3 units per city ordinance
 - d. 1 parking stall for every 2 employees on the maximum working shift
 - e. Total Required Parking Spaces: 60 spaces + employee parking
2. Parking Accommodation:
 - a. The site and surrounding municipal infrastructure can adequately accommodate the required parking through:
 - i. On-site designated parking spaces (in this case, on-site is considered to include the adjacent parking garage).
 - ii. Available spaces in adjacent municipal parking facilities
3. Infrastructure Capacity:
 - a. The existing roadway network can support the anticipated traffic flow
 - b. Current parking facilities have sufficient capacity to handle the additional demand
 - c. Access points to parking areas meet all city requirements for safety and accessibility
4. Compliance:

- a. The proposed parking plan meets or exceeds all current City of Biddeford zoning requirements
- b. The parking arrangement complies with all applicable ADA requirements
- c. The plan aligns with the City's comprehensive plan and downtown development goals

The City of Biddeford fully supports this development project and confirms that all necessary parking requirements can be met through existing and planned infrastructure. This confirmation is based on current city ordinances and regulations and remains valid for the duration of the project's development process.

If you require any additional information or clarification, please don't hesitate to contact our office. We look forward to working with Westbrook Development Corporation on this important addition to our community.

Sincerely,



George Gervais
Director, Planning & Development
City of Biddeford

cc:

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

Section 28: Utilities Summary

The project proposes to utilize existing infrastructure in the area and provides utility upgrades for various utility lines. Summaries of each utility are as follows:

Water:

It is our understanding there is an existing 12" water main within Lincoln Street. This project proposes to tap a new 8" D.I fire protection main from the 12" water main within Lincoln Street. The 8" D.I. fire protection main will extend into the lot and provide a 6" D.I. fire protection water service with a 6" gate valve and a 4" domestic D.I. water service with 4" gate valve for each structure located on Lot 1B & 1C.

Sanitary Sewer:

It has come to our attention during the ability to serve correspondence that the Biddeford Engineering Department will require that the proposed sewer services are directed to the force main within Lincoln Street. It is our understanding that an existing force main is installed in Lincoln Street from the Pearl Street Intersection to Main Street. To avoid disturbance to Pearl Street, it is proposed to install a new 2" force main within Lincoln Street from the site to the Pearl Street and Lincoln Street Intersection. The project will include two new pump stations with wet wells designed by Pump Systems Inc.

Stormwater:

The project will install new stormwater network with catch basins, stormwater sewer pipes, roof drains, and foundation drains to direct stormwater to the existing 18" storm drain at the rear of Lot 2. The existing storm drain system directs the stormwater toward Lot 4 where there is an existing subsurface treatment and storage system that was previously sized to handle the sites runoff. See the Stormwater Section for additional information.

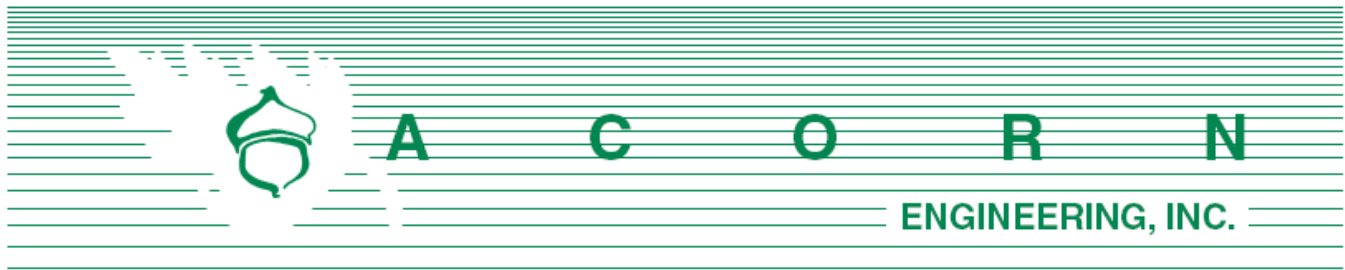
Electric/ Cable/Telephone:

It is our understanding that two subsurface utility vaults were installed on Lincoln Street as part of the Pearl Street improvements with (3) 5" electric conduit stubs & (8) 4" telecom conduit stubs within Lot 1. This project proposes underground electric/telecom services that will tie into the stubs and run to Building 1B & 1C. The project also includes two 9'x9' pad mounted transformers.

Gas:

It is our understanding there is an existing gas main within Lincoln Street. As part of this project a new gas services is proposed to tie into the existing main to service buildings 1B, 1C, & a pad mount generator.

In addition to the summaries above, Ability to serve letters have been sent out to the respective utility companies on September 23. Responses not received thus far will be provided upon receipt and submitted to the Planning Department within the subsequent application.



Maine Water Company
Attn: Mr. Marcus Knipp
205 Main Street
93 Industrial Park Road
Saco, Maine 04072

October 22, 2024

Subject: Redevelopment of Pearl Street Lot 1B & 1C, Biddeford
Re: Water – Ability to Serve

Mr. Knipp:

On behalf of Westbrook Development Corporation, we are pleased to submit the following request for Maine Water’s ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

It is our understanding there is an existing 12” water main within Lincoln Street. This project proposes to tap a new 8” D.I fire protection main and a 6” domestic service main from the 12” water main within Lincoln Street. The 8” D.I. fire protection main and the 6” domestic main will extend into the lot and provide a 6” D.I. fire protection water service with a 6” gate valve and a 4” domestic D.I. water service with gate valves for each structure located on Lot 1B & 1C. Please refer to the attached utility plan for more information. Based upon Section 4 of the *Maine Subsurface Wastewater Disposal Rules*, the table below outlines the proposed flow.

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				
<i>Lot 1B</i>				
Residential Units	1-Bedroom	45	120	5,400
Total Gallons per Day (Proposed)				5,400

<i>Lot 1C</i>				
Residential Units	1-Bedroom	45	120	5,400
Total Gallons per Day (Proposed)				5,400
Total Gallons per Day (Proposed)				10,800
Net Change				10,800

Based on the assumptions in the above table, the proposed project is anticipated to increase the net water and wastewater demand by approximately **10,800** gallons per day (GPD). It should be noted that the majority of these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Lincoln Street and existing service connections.
2. Any proposed infrastructure improvements within the project vicinity.
3. Flow date for the hydrants in the vicinity.
4. Maine Water's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 5th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



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





October 25, 2024

Zachary Stevens, PE
Acorn Engineering, Inc.
500 Washington Ave, Suite 202
Portland, ME 04103

Re: Ability to Serve Determination – 3 Lincoln Street, Biddeford

Greetings,

The Maine Water Company (MWC) has received your request on the behalf of your client, Westbrook Development Corporation, for an Ability to Serve Determination for a proposed residential development to be located at 3 Lincoln Street, Biddeford, ME.

The request specifies a plan to create a three-lot subdivision with two 45-unit apartment buildings and construct utility infrastructure improvements. The expected peak domestic service demand is 13.8 gallons per minute per building. The expected fire service demand for the project is not available. Based on the criteria provided by the developer's engineer, the expected increase in water usage is within the water system's available capacity. The static pressure in the area is approximately **50 psi**. The Biddeford Saco Division of MWC does have sufficient capacity from the existing 12-inch cast iron water main in the Lincoln Street Right-of-Way to serve this project. Additional infrastructure improvements may be required at the expense of the developer to meet the overall needs of this project.

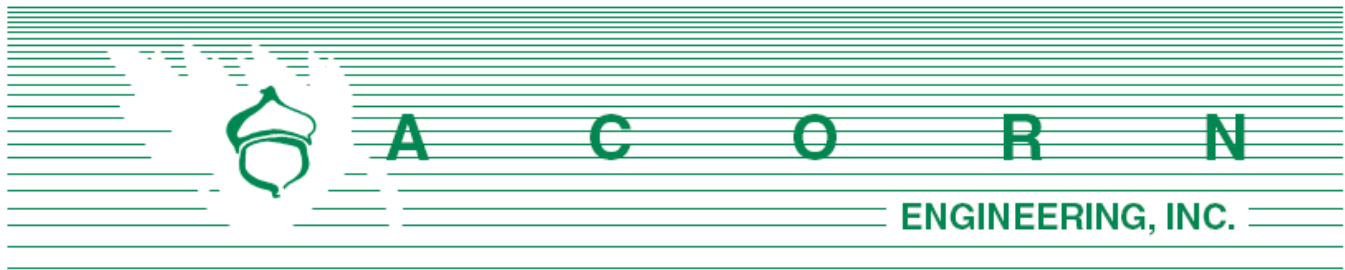
Conditions of Service

- MWC has the understanding that fire service demand is unknown at this time, are not to be included in this request, or accounted for in this Ability to Serve Determination.
- If fire service is required, a hydrant flow test at the nearest available hydrant will need to be conducted and analyzed by the sprinkler designer to ensure that adequate flows can be met during a peak fire demand event.
- The developer is required to pay for the cost of any modification, renewal of impacted service lines, and retirement of unused or discontinued services to MWC standards of best practice.
- Additional plan approval, paperwork, and fees associated with this project will require proper coordination with MWC. MWC requires upfront payment for inspection and paperwork to be fully completed before any construction on waterworks materials.
- Service lines must comply with MWC Cross Connection Control Program.
- Allow up to 30 days for the MWC utility review process once final plans are ready to be completed before any construction on waterworks materials will be approved.

Should a request for service or completion of the project 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 MWC Terms and Conditions as well as material specifications. All appropriate paperwork must be completed, and 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 Maine Public Utility 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 Patrick.Gere@mainewater.com. We look forward to working with you throughout design and construction.

Sincerely,
The Maine Water Company


Patrick Gere, PE
Project Engineer



City of Biddeford Department of Public Works
 Attn: Mr. Tom Milligan, P.E.
 205 Main Street
 Biddeford, Maine 04005

October 22, 2024

Subject: Redevelopment of Pearl Street Lot 1B & 1C, Biddeford
 Re: Sanitary Sewer – Ability to Serve

Mr. Milligan:

On behalf of Westbrook Development Corporation, we are pleased to submit the following request for Department of Public Works ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A will be built out at a later date with a separate developer.

It is our understanding there is an 18” gravity sewer main within Lincoln Street. As part of the project, it is proposed to connect a new 6” sewer service directly from the 18” sewer main to service each structure. Each 6” service will have a backflow valve. Based upon the City of Biddeford’s Building Sewer Application and Permit Instructions, the table below outlines the proposed flow.

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				
<i>Lot 1B</i>				
Residential Units	1-Bedroom	45	200	9,000
Total Gallons per Day (Proposed)				9,000
<i>Lot 1C</i>				
Residential Units	1-Bedroom	45	200	9,000
Total Gallons per Day (Proposed)				9,000
Total Gallons per Day (Proposed)				18,000

Net Change	18,000
-------------------	---------------

Based on the assumptions in the above table, the proposed project is anticipated to increase the net water and wastewater demand by approximately **18,000** gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the City of Biddeford's sewer ordinance.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Lincoln Street, Pearl Street, and existing service connections.
2. Any proposed infrastructure improvements within the project vicinity.
3. DPW's ability to serve the project.

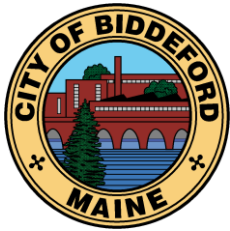
I have attached an Existing Conditions Survey created by Owen Haskell dated August 5th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



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





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 Lot 3 Lincoln Street Proposed Lot 1A and Lot 1B, Residential flow only

Peter Heil, PE
Project Manager
Acorn Engineering, Inc.
P O Box 3372
Portland, Me 04104

October 29, 2024

Brief description of project: **3 Lincoln Street Proposed Lot 1A and Lot 1B, Residential flow only
Biddeford, Maine-** Estimated new flows: **18,000 gpd.**

Determination

The applicant is proposing a two lot residential multifamily development project on 3 Lincoln Street. Based on an email request received from Acorn Engineers, Inc., dated October 22, 2024, it is currently projected that the use for Lots 1A and 1 B will discharge 18,000 gallons per day of flow to the system.

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. However, it should be noted, based on studies being performed by the City's engineering consultant, there may be sewer capacity issues and/or CSO issues in many of the sewershed areas that must be addressed in order to allow any additional flow into the collection and conveyance system. Sewer capacity issues may require certain upgrades be made to increase sewer system capacity as well as alternative sewer routing to redirect flow to an adjacent sewershed area.

Therefore, the City will allow all lots 1 A, 1 B and the future lot 1 C from this project to pump into the 2 inch force main stub leading into Lot 1 from Pearl Street as installed during the recent upgrades to Pearl

205 Main Street, Biddeford, ME 04005 P: 207.284.9313 F: 207.571.0678 www.biddefordmaine.org

*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.*

Street. The City will route a force main from Pearl Street to Lincoln Street and to the Main Street sewer system. No connections into the gravity sewer on Lincoln Street will be allowed.

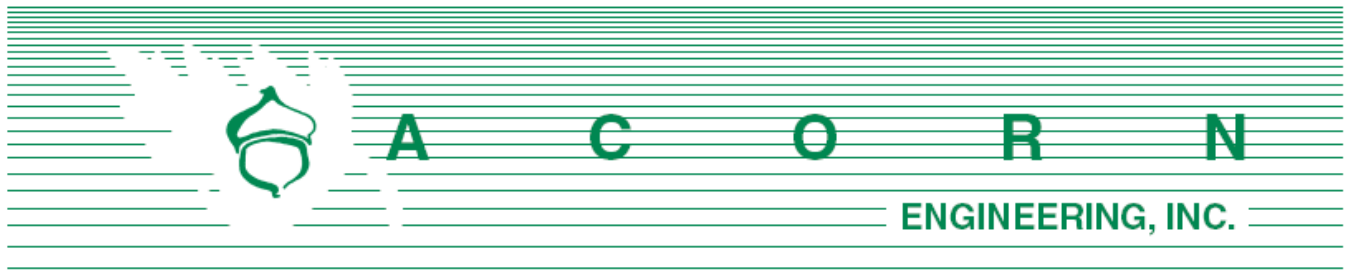
Changes to the project from that presented to this department may require a new review of the request for ability to serve. This determination will be effective for a period of one year from the date above. No roof drains or other sources of non-sanitary wastewater shall be discharged to the sewer system.

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.

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



Central Maine Power
Attn: Mr. Jay Agreste
162 Canco Road
Portland, Maine 04103

October 22, 2024

Subject: Redevelopment of Pearl Street Lot 1B & 1C, Biddeford
Re: Ability to Serve

Mr. Agreste:

On behalf of Westbrook Development Corporation, we are pleased to submit the following request for Central Maine Power's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

It is our understanding a subsurface utility vault was installed on Lincoln Street as part of the Pearl Street improvements with (3) 5" conduit stubs within Lot 1. This project proposes an underground electric service that will tie into the stubs and run to Lot 1B & 1C associated 9'x9' pad mounted transformers. See the attached Utility Plan for additional information.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed redevelopment
2. Any additional information, such as utility mapping within Lincoln Street and existing service connections.
3. Any proposed infrastructure improvements by CMP within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 5th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Fw: CMP Three Phase Service Process and Ability to Serve Letter 3 Lincoln Street Biddeford

From David Horne <dhorne@acorn-engineering.com>

Date Wed 10/23/2024 10:29 AM

To David Horne <dhorne@acorn-engineering.com>

5 attachments (1 MB)

Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; blank W9.pdf; EDET Feb 2024.xlsx; image001.jpg;

From: Agreste, Jay A. <Jay.Agreste@cmpco.com>

Sent: Wednesday, October 23, 2024 9:51 AM

To: Zach Stevens <zstevens@acorn-engineering.com>

Cc: DUPERRE, PAUL <paul.duperre@cmpco.com>

Subject: CMP Three Phase Service Process and Ability to Serve Letter 3 Lincoln Street Biddeford

Zach Stevens C/O Westbrook Development Corporation
Acorn Engineering INC
PO Box 3372
Portland, ME 04104

RE:

3 Lincoln Street, Biddeford, Maine
Letter of Ability to Serve Request

SAP TBD

Project Description:

The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

CMP has the ability to serve the proposed project in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. Please keep in mind if the new diversified connected load is above 500kw. A circuit capacity study will be required by CMP's Distribution Planning Department. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181.

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section

below. Please refer to [CMP Installation Checklists](#) for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)
- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger padmount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form). Please email them at your earliest convenience. If you are returning an Easement Form, a 1190 or State Permit please be sure to send those documents to lineclerknewservice@cmpco.com, All W9's should be sent to gettingconnected@cmpco.com. All other forms including the EDET (load sheet) and technical information should be sent to me.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#) An additional resource is our Distribution Construction Standards: CMP Distribution Construction Standards [CMP Distribution Construction Standards](#).

You will be responsible for installing the customer connections, conduits, and metering in accordance with the [CMP Handbook of Standard Requirements](#) The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: [CMP ArcGIS Information](#)

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the [CMP Handbook of Standard Requirements](#)

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to [Chapter 324 Interconnection Standards](#) and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW you will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: [Net Energy Billing](#)

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: [PolyphaseLineExtension](#).

This line extension will be part of Central Maine Power’s distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the “Customer” taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don’t already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
2. By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Worksheet and Sample Standard Easement
W9

Jay Agreste

Energy Service Specialist

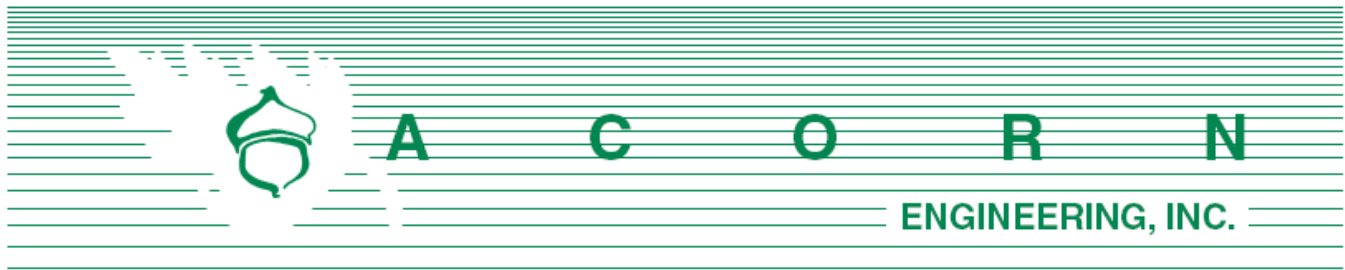
Central Maine Power

[439 Sanford Rd, Alfred ME.04002](#)Jay.Agreste@cmpco.com

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Unitil Service Corp.
Attn: Mr. Scott Carpenter
376 Riverside Industrial Parkway
Portland, Maine 04103

October 22, 2024

Subject: Redevelopment of Pearl Street Lot 1B & 1C, Biddeford
Re: Ability to Serve

Mr. Carpenter:

On behalf of Westbrook Development Corporation, we are pleased to submit the following request regarding Unitil's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

It is our understanding there is an existing gas main within Lincoln Street. As part of this project a new gas service is proposed to tie into the existing main to service buildings 1B, 1C, and a shared generator. Please see the attached Utility Plan for more information.

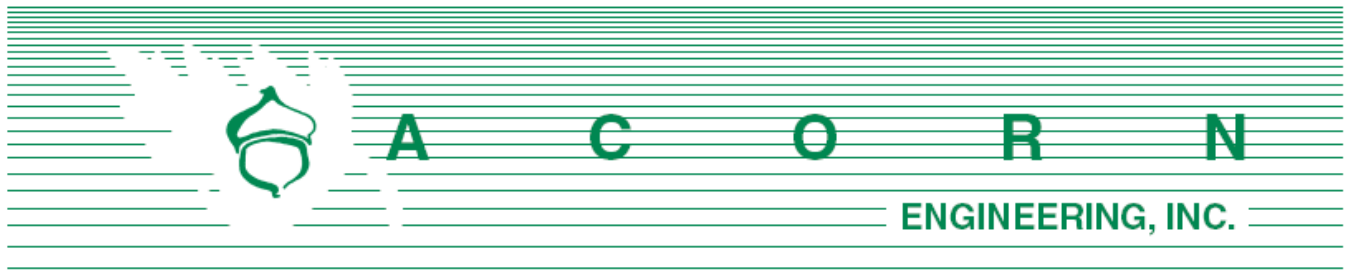
On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Lincoln Street location of existing service connections.
2. Any proposed infrastructure improvements by Unitil within the project vicinity.
3. Unitil's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 5th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Consolidated Communications
Attn: Mr. Patrick Morrison
45 Forest Avenue
Portland, Maine 04101

October 22, 2024

Subject: Redevelopment of Pearl Street Lot 1B & 1C, Biddeford
Re: Ability to Serve

Mr. Morrison:

On behalf of Westbrook Development Corporation, we are pleased to submit the following request for Consolidated Communications ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

It is our understanding that a subsurface utility vault was installed on Lincoln Street as part of the Pearl Street improvements with (8) 4" conduit stubs within Lot 1. This project proposes underground telecom services that will tie into the existing stubs to serve the new buildings on Lot 1B & 1C.

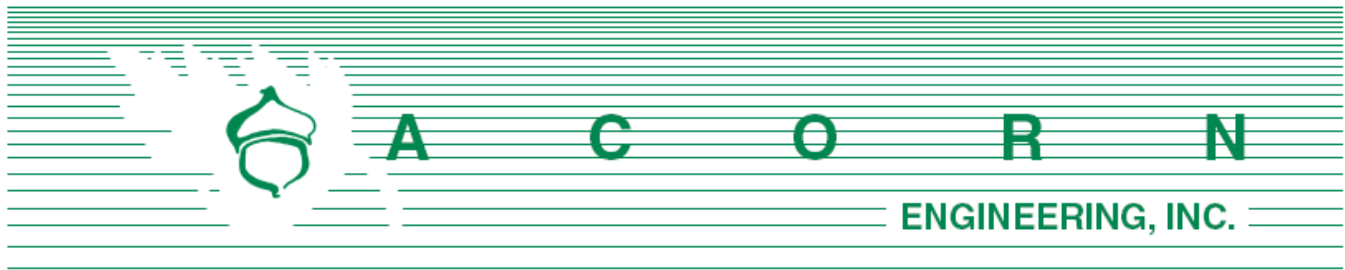
On behalf of the client, we are requesting the following information:

1. Any easements for services currently crossing the proposed development.
2. Any additional information, such as utility mapping within Lincoln Street, abutting properties, and/or existing service connections.
3. Any proposed infrastructure improvements by Consolidated within the project vicinity.
4. Consolidated's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 5th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Spectrum Cable
Attn: Mr. Steven Holmes
118 Johnson Road
Portland, Maine 04102

October 22, 2024

Subject: Redevelopment of Pearl Street Lot 1B & 1C, Biddeford
Re: Ability to Serve

Mr. Holmes:

On behalf of Westbrook Development Corporation, we are pleased to submit the following request for Spectrum Cable's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3) Zoning District. The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

It is our understanding a subsurface utility vault was installed on Lincoln Street as part of the Pearl Street improvements with (8) 4" conduit stubs within Lot 1. This project proposes underground telecom services that will tie into the existing stubs to serve the new buildings on Lot 1B & 1C.

On behalf of the client, we are requesting the following information:

1. Any easements for services currently crossing the proposed development.
2. Any additional information, such as utility mapping within Lincoln Street, abutting properties, and/or existing service connections.
3. Any proposed infrastructure improvements by Spectrum within the project vicinity.
4. Spectrum's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 5th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



October 25, 2024

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

RE: May Serve Letter by Charter Communications or an affiliated to provide service ("Spectrum")

Westbrook Development Corporation
30 Liza Harmon Drive
Westbrook, ME 04092

Dear Peter:

Thank you for your interest in receiving Spectrum service. Your Redevelopment of Pearl Street Lot 1B & 1C, Biddeford, ME 04005 ("Property") is within an area where Spectrum may lawfully provide video, internet and voice services.

However, this letter is not a commitment to provide service to the Property. Prior to any determination as to whether service can or will be provided to the Property, Spectrum will conduct a survey of the Property and will need the following information from you:

- Exact site address and legal description
- Is this an existing building or new construction?
- Site plans, blue prints, plat maps or any similar data
- The location of any existing utilities or easements
- [Other as required] _____

Please forward this information to me. Upon receipt, I will be assigned to you to work through the process. Ultimately, a mutually acceptable service agreement for the Property will be required and your cooperation in the process is appreciated.

Sincerely,

Steven Holmes
MDU Account Manager-Spectrum Community Solutions
444 Perry Road
Bangor, ME 04401
(207) 404-5529 – steven.holmes@charter.com

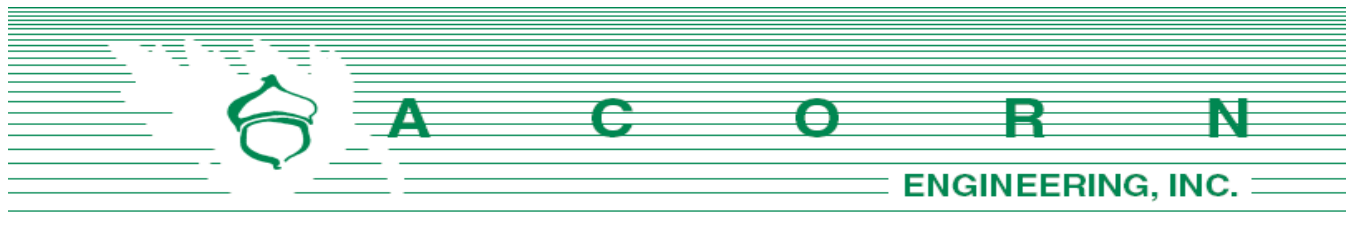
Section 29

Public Safety

Section 29: Public Safety Letter of Approvals

Please refer to the attached letters that were sent to the Fire and Police Departments on September 14, 2021. Responses from the Police Department is attached, and Fire Department response will be provided to the Planning Department upon receipt.





Biddeford Fire Dept.
Attn: Mr. Lawrence Best, Chief of Fire
Department 152 Alfred St
Biddeford, ME 04005

October 30, 2024

Subject: Redevelopment 15 Pearl Street, Lot 1B & Lot 1C, Biddeford
 Letter of Approval

Mr. Best:

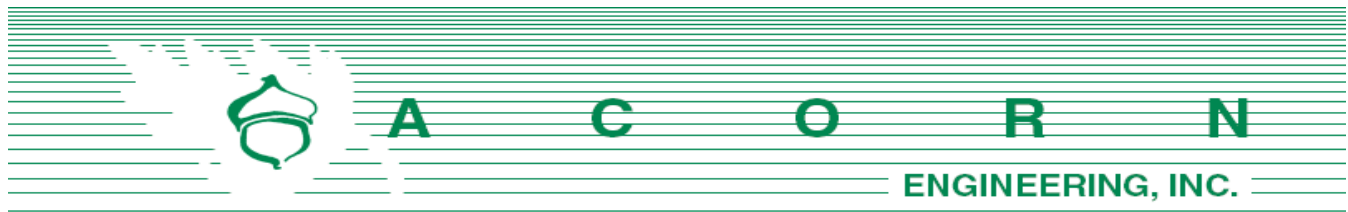
On behalf of Westbrook Development Corporation (WDC), we are pleased to submit the following request for a letter of approval as required by the City of Biddeford Subdivision & Site Plan application. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3). The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date. Accessways for emergency vehicles will be provided directly via Lincoln Street and Pearl Street. Additionally, the site provides three-sided access to all new buildings for emergency situations.

From a fire protection standpoint, it is our understanding that there is an existing fire hydrant located on Lincoln Street (directly west side of the parcel) and an additional hydrant located on Pearl Street (directly south of the Parcel). It is our understanding there is an existing 12" water main within Lincoln Street. This project proposes to tap a new 8" D.I fire protection main from the 12" water main within Lincoln Street. The 8" D.I. fire protection main will extend into the lot and provide a 6" D.I. fire protection water service with a 6" gate valve and a 4" domestic D.I. water service with 4" gate valve for each structure located on Lot 1B & 1C.

We are currently coordinating this design with Maine Water Company and the sprinkler designer. Please let me know if you have any questions or if you would like additional information from the sprinkler designer or code summaries from the architect.

Sincerely,

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



Biddeford Police Dept.
Attn: JoAnne W. Fisk, Chief of Police
39 Alfred St
Biddeford, ME 04005

October 30, 2024

Subject: Redevelopment 15 Pearl Street, Lot 1B & Lot 1C, Biddeford
 Letter of Approval
Mr. Fisk:

On behalf of Westbrook Development Corporation (WDC), we are pleased to submit the following request for a letter of approval as required by the City of Biddeford Subdivision & Site Plan application. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3). The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

The project anticipates multiple wall pack lighting fixtures and light bollards along the new buildings & courtyard, thus increasing nighttime visibility for patrons and residents. Furthermore, the additional “eyes on the street” created by the 90 units on Lot 1B and 1C will provide another layer of security on Pearl Street and the abutting properties.

Accessways for emergency vehicles will be provided directly via Lincoln Street and Pearl Street. We envision the newly developed Lot 1B and Lot 1C to be a contribution to the small community along Pearl Street and the flourishing downtown Biddeford area. We feel the proposed project will improve public safety when compared to the existing condition by ensuring adequate lighting and increasing the occupancy of the neighborhood.

Please do not hesitate to contact me for any questions or clarifications.

Sincerely,

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



RE: 15 Pearl Street (Lot 1) Redevelopment

From Fisk, JoAnne <joAnne.fisk@biddefordmaine.org>

Date Wed 10/30/2024 10:33 AM

To Zach Stevens <zstevens@acorn-engineering.com>; Gorton, Steven <Steven.Gorton@Biddefordmaine.org>; Galbraith, David <David.Galbraith@biddefordmaine.org>

Cc Pete Heil <pheil@acorn-engineering.com>

Good morning,

I do realize in the process it states that you will need a letter from the police department however, you do not. I have cc'd David Galbraith on this email.

Regards,
JoAnne Fisk



From: Zach Stevens <zstevens@acorn-engineering.com>

Sent: Wednesday, October 30, 2024 10:27 AM

To: Fisk, JoAnne <joAnne.fisk@biddefordmaine.org>; Gorton, Steven <Steven.Gorton@Biddefordmaine.org>

Cc: Pete Heil <pheil@acorn-engineering.com>

Subject: 15 Pearl Street (Lot 1) Redevelopment

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.
Hi JoAnne and Steven,

I am reaching out as part of our Preliminary Site Plan Application for the redevelopment of 15 Pearl Street (Lot 1) that requires an approval letter from the Police Department.

The project proposes to divide Lot 1 into three (3) separate lots each with its own associated infrastructure, including constructing two 45-unit senior residential buildings, one on Lot 1B, and another on Lot 1C. Lot 1A is anticipated to be developed at a later date.

Please see attached Letter of Approval Request, Draft Site Plan, and Photometric Plan for additional information. Feel free to reach out with any questions or comments.

Zachary Stevens, PE
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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Re: Lot 1B & 1C - Revised Trees and

From David Horne <dhorne@acorn-engineering.com>

Date Mon 1/13/2025 11:17 AM

To David Horne <dhorne@acorn-engineering.com>

From: Tyler Norod <tnorod@westbrookdevelopmentcorp.org>

Sent: Monday, January 13, 2025 9:53 AM

To: Dexter, Edward <Edward.Dexter@Biddefordmaine.org>

Cc: Galbraith, David <David.Galbraith@biddefordmaine.org>; Iriqat, Adi <adi.iriqat@biddefordmaine.org>; Gervais, George <George.Gervais@biddefordmaine.org>; Soren Deniord <soren@sorendeniord.com>; Pete Heil <pheil@acorn-engineering.com>; Kristin Styles <KStyles@westbrookdevelopmentcorp.org>; Zach Stevens <zstevens@acorn-engineering.com>; Jesse Thompson <jesse@kaplanthompson.com>; Sam Norod <sam.norod@gmail.com>

Subject: RE: Lot 1B & 1C - Revised Trees and

Thanks Ed,

We really appreciate you taking the time to work with us to make sure we could pull together an attractive design that works for everyone.

Tyler

From: Dexter, Edward <Edward.Dexter@Biddefordmaine.org>

Sent: Monday, January 13, 2025 9:50 AM

To: Tyler Norod <tnorod@westbrookdevelopmentcorp.org>

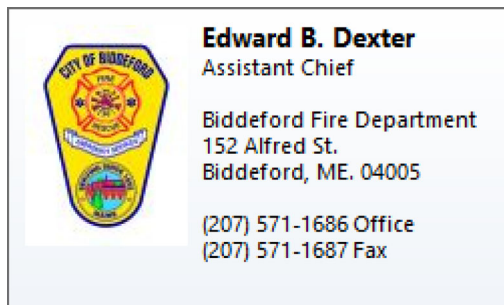
Cc: Galbraith, David <David.Galbraith@biddefordmaine.org>; Iriqat, Adi <adi.iriqat@biddefordmaine.org>; Gervais, George <George.Gervais@biddefordmaine.org>; Soren Deniord <soren@sorendeniord.com>; Pete Heil <pheil@acorn-engineering.com>; Kristin Styles <KStyles@westbrookdevelopmentcorp.org>; Zach Stevens <zstevens@acorn-engineering.com>; Jesse Thompson <jesse@kaplanthompson.com>; Sam Norod <sam.norod@gmail.com>

Subject: Re: Lot 1B & 1C - Revised Trees and

Good Morning Tyler:

Thank you for the updated photo and description of the trees. As long as they are pruned and kept closer to the 12' mark we can certainly sign off on this portion of it. Nicely done.

Sincerely,
Ed Dexter



From: Tyler Norod <tnorod@westbrookdevelopmentcorp.org>

Sent: Thursday, January 9, 2025 9:52 AM

To: Dexter, Edward <Edward.Dexter@Biddefordmaine.org>

Cc: Galbraith, David <David.Galbraith@biddefordmaine.org>; Iriqat, Adi <adi.iriqat@biddefordmaine.org>; Gervais, George <George.Gervais@biddefordmaine.org>; Soren Deniord <soren@sorendeniord.com>; Pete Heil <pheil@acorn-engineering.com>; Kristin Styles <KStyles@westbrookdevelopmentcorp.org>; Zach Stevens <zstevens@acorn-engineering.com>; Jesse Thompson <jesse@kaplanthompson.com>; Sam Norod <sam.norod@gmail.com>

Subject: Lot 1B & 1C - Revised Trees and

Caution: This is an external email. Please take care when clicking links or opening attachments. When in doubt, contact the IT Department

Good morning Ed,

Attached is a PDF of the *updated* Landscape Plan L1.0.

Per our call the other week with Soren Deniord, our landscape architect, the courtyard trees have been switched from columnar Oaks to Serviceberry *lat. Amelanchier canadensis* (see attached jpeg image)...with a planting note (#16.) to maintain the maximum height between 10' and 12'. Their typical growth habit is between 10' and 15'...but can be maintained shorter with occasional pruning. Since we won't have the vertical aspect of the trees as focal points, Soren selected a native flowering variety with a range of seasonal interest...robust white blooms / edible berry / sculptural branching habit / great red fall color...and added lowbush blueberries around the base for a more robust ground plane.

Please let me know if you have any questions or need additional information. I believe that these trees were the last item that we needed to address from your initial comments. If these revisions work for the Fire Department, I believe we still need a letter from your end to add to our application which is due next week on the 15th.

Thanks again for all of your continued guidance and willingness to take a collaborative approach as we work through the different iterations of our conceptual designs.

Tyler

Tyler Norod
Development Director
Westbrook Development Corporation
(207) 956-1575 Cell



(please note: WDC & WHA offices's are now closed on Fridays)

This email has been scanned for spam and viruses by Proofpoint Essentials. Click [here](#) to report this email as spam.

WARNING: This e-mail originates from an EXTERNAL source outside of Westbrook Housing. Be vigilant in opening any attachments or clicking on any external links. Thank you.

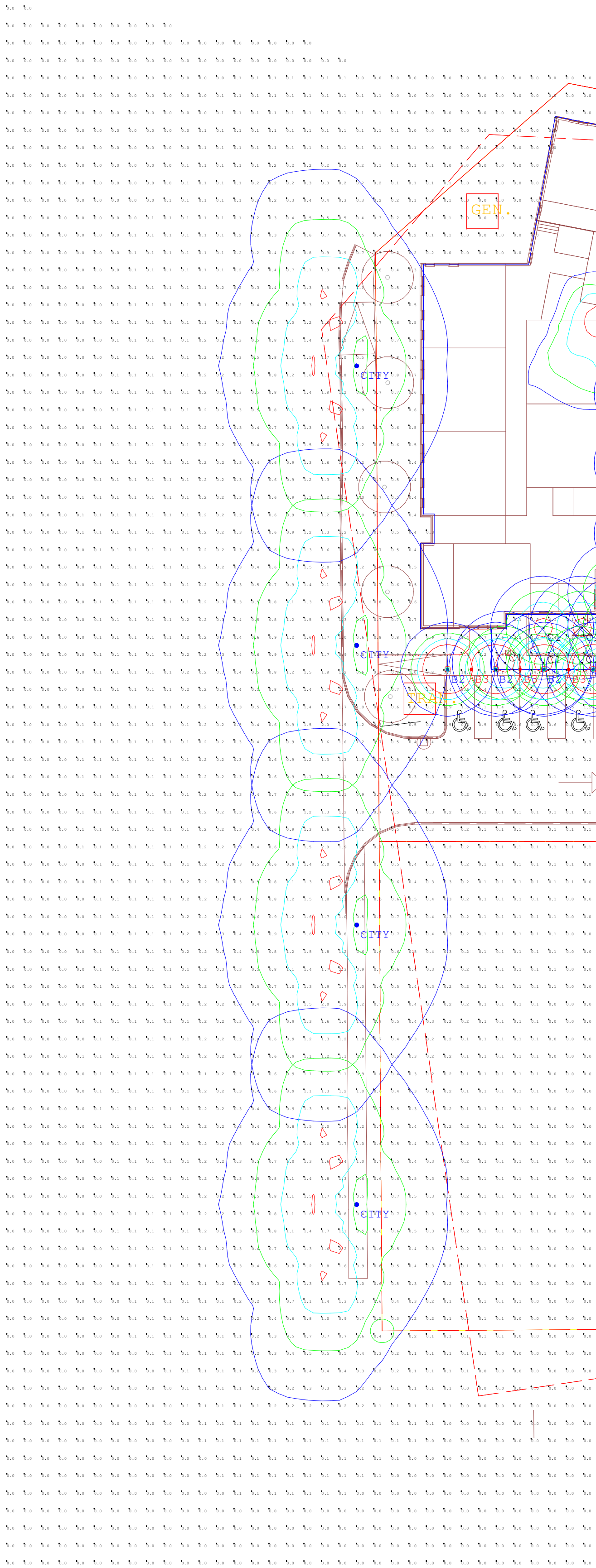
Section 30

Lighting

Section 30: Lighting

The project proposes to install wall mounted lighting at each egress and pole mounted lighting and bollards for the internal walkways. Please refer to the Photometric Plan and Cut Sheets attached below by Reflex Lighting. The lighting will be conforming to the City of Biddeford Regulations and be dark sky compliant.





Luminaire Schedule					
Symbol	Qty	Label	Description	Tag	LLF Luminaire Lumens
	9	B1	NLS: SSP-4-6R-PR-16L-53-10K7-UVV-AB-CXK	STANDARD BOLLARD (NON-IMPACT RATED)	0.900 2002
	9	B2	NLS: SSP-10R-4P-AB-SS1-11P-PR-16L-53-10K7-UVV-CXK	11\"/>	0.900 2002
	7	B3	BY OTHERS: UNIT BOLLARD		0.001 2002
	3	B4	BY OTHERS: UNIT COLLAPSIBLE BOLLARD		0.001 2002
	16	C1	COOPER: BLANCOFFBOL10MM (1000K SELECTION)	CANOPY LIGHT, ASSUMING 10\"/>	0.900 723
	4	C17	BY OTHERS: HOLLOWBONE TUD 2.10 10K AS M BR 3 S S BR	MOUNTED ON 11\"/>	0.900 7300
	5	W1	NLS: RV-W-T4-166-40-10K7-UVV-WM-CXK	MALL MTD 8.5\"/>	0.900 2470

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
ENTIRE AREA	Footcandle	Fc	2.53	24.3	0.0	N/A



Revisions	
#	Comments

Drawn By: Michael O'Brien
Checked By:
Date: 1/7/2025
Contact: mobrien@charroninc.com
Scale: NTS

WDC BIDDEFORD HOUSING SITE LIGHTING
BIDDEFORD, ME

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO

HLB4

4" LED Lens Downlight with Remote Driver / Junction Box

Typical Applications

Residential

Interactive Menu

- Order Information page 2
- Product Specifications page 3
- Energy Data page 3
- Photometric Data page 4
- Product Warranty
- Dimming Guide

Product Certification



Refer to ENERGY STAR® Certified Products List.
Can be used to comply with California Title 24 High Efficacy requirements.
Certified to California Appliance Efficiency Database under JA8.

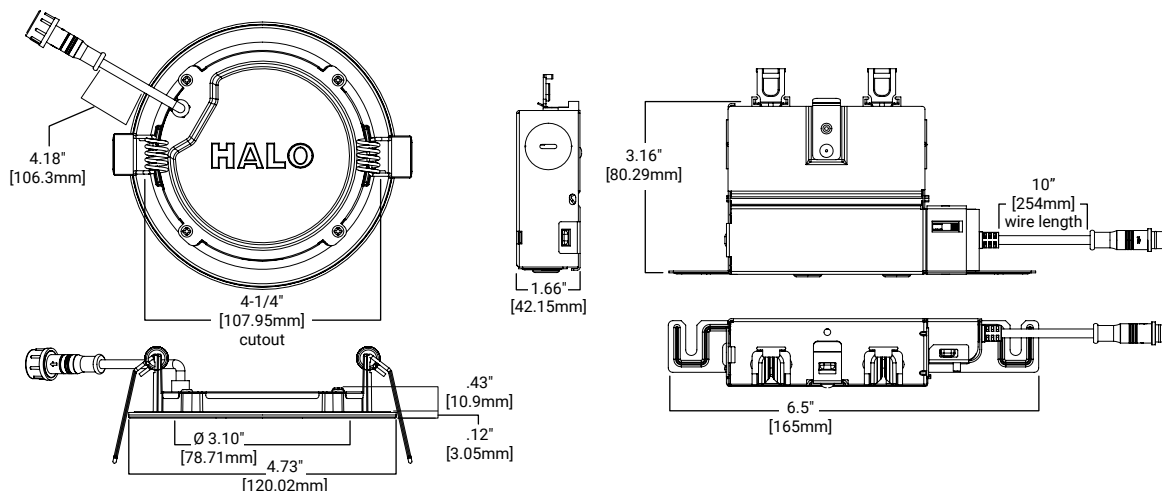
Product Features



Top Product Features

- Direct mount (does not require recessed housing or junction box)
- Delivers up to 750 lumens; Achieves L70 at 50,000 hours in IC and non-IC applications
- 2700K, 3000K, 3500K, 4000K and 5000K field selectable CCT; 3000K and 4000K fixed CCT
- 90 CRI (min), R9 50 and color accuracy within 4 SDCM
- Wet location listed for showers and protected ceilings; Available in 120V or 120-277V

Dimensional and Mounting Details



Order Information

SAMPLE ORDER NUMBER: **HLB4069FS1EMWR**

Models	Lumens	CRI / CCT	Driver	Finish	Packaging
HLB4 = 4-Inch LED lens downlight with remote driver / junction box	06 = 600 lumens (nominal)	930 = 90 CRI minimum, 3000K CCT 940 = 90 CRI minimum, 4000K CCT 9FS = 90 CRI minimum, field selectable 2700K, 3000K, 3500K, 4000K or 5000K CCT	1E = 120V 60Hz, LE & TE phase cut 5% dimming E010 = 120-277V, 0-10V 5% dimming ⁽¹⁾	MW = matte white flange	R = recyclable 4-color unit carton suitable for point of purchase merchandising display
Notes	Notes	Notes	Notes (1) E010 driver is only available in FS color temperature.	Notes	Notes

Accessories

Accessories	
HL4RSMF = 4" round and square mounting frame HLB4ROTMW = 4" round oversized trim, matte white Designer Trims HLB4RTRMMW = 4" round decorative overlay, matte white HLB4RTRMMB = 4" round decorative overlay, matte black HLB4RTRMSN = 4" round decorative overlay, satin nickel HLB4RTRMTBZ = 4" round decorative overlay, tuscan bronze	Extension Cable | Dedicated Driver/Jbox HLB06EC = 6 ft. extension cable HLB12EC = 12 ft. extension cable HLB20EC = 20 ft. extension cable Extension Cable | seleCCTable Driver/Jbox HLB06FSEC = 6 ft. extension cable HLB12FSEC = 12 ft. extension cable HLB20FSEC = 20 ft. extension cable



HLB4RTRMMW
White (Paintable), Splay



HLB4RTRMMB
Matte Black, Splay



HLB4RTRMSN
Satin Nickel, Splay



HLB4RTRMTBZ
Tuscan Bronze, Splay

Product Specifications

Housing

- Die-cast aluminum mounting frame with integral flange provides passive thermal cooling
- Achieves L70 at 50,000 hours in IC and non-IC applications
- High impact diffuse lens provides shielding to the light guide minimizing pixilation

Gasket

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

Optics

- Precision acrylic light guide organizes source flux into wide distribution with 1.4 spacing criteria, useful for general area illumination

LED Array

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- 90 color rendering index (CRI) minimum; R9 greater than 50 provides high color rendering
- Fixed 3000K and 4000K correlated color temperatures (CCT); color accuracy within 3 SDCM
- Optional field selectable color temperature, select 2700K, 3000K, 3500K, 4000K or 5000K CCT; color accuracy within 4 SDCM
- Meets ENERGY STAR® color angular uniformity requirements; Deviation is less than 0.006 u' v'

Remote Driver/Junction Box

- Pre-galvanized steel driver/junction box with captive hinged junction box cover
- Listed for six #12 AWG 90° C splice conductors: two in, two out plus two ground
- Two 1/2" conduit pry-outs
- Two Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box
- Accepts NM cable types: 14-2, 14-3, 12-2, 12-3 (U.S.) and 14-2, 14-3, 12-2 (Canadian)
- Three 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral mounting holes facilitate direct mounting to building structure or mounting frame

Driver

- Available in 120V or 120-277V, providing noise free operation
- Continuous flicker-free dimming down to 5% with select dimmers
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting, CMP/FT6 rated

Installation

- Can be installed in 1/2" to 1-1/4" thick ceilings
- Cutout utilizes standard round hole saw sizes; cutout template provided
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leak
- Housing is less than 1/2" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

Optical Mounting Frame

- Pre-galvanized steel mounting frame locates fixture fittings during electrical rough-in and provides cutout guidance for drywall contractor
- Provides attachment of remote driver/junction box

Compliance

- cULus Certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation (reference NEMA LSD57-2013)
- Wet location listed and IP44 ingress protection
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- State of California Title 24 high efficacy
- LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified (reference "Certified Light Fixtures" database)

Warranty

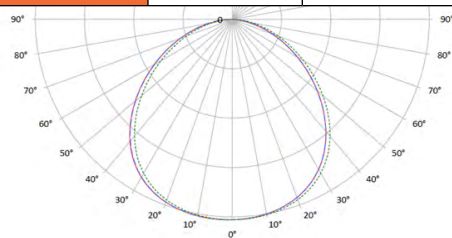
- Five year limited warranty, consult website for details. www.cooperlighting.com/warranty

Energy Data

Lumens	600 Series
Input Voltage	120V
Input Current	100 (mA)
Input Power	10.3 (W)
Efficiency	76.9 (LPW)
Inrush (A)	2.2 A @ 42mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 22 dba

Photometric Data

HLB4069FS1EMW-3000K		
Luminaire lumens		792
Input watts		10.3
LER (LPW)		76.9
Spacing Criteria	0-180	1.28
	90-270	1.28
	Diagonal	1.39
Beam angle (degrees)		110.2
Field angle (degrees)		160
Zonal lumen	Lumens	% Lumens
0-30	203	28.1
0-40	335	46.3
0-60	581	80.4
0-90	723	100



* Tested in accordance with IES LM63. Field results may vary.

Color Metric Summary - 3000K

TM-30-15	Rf = 90.9
	Rg = 100.7
CRI/CIE	Ra = 94.1
	R9 = 68.5

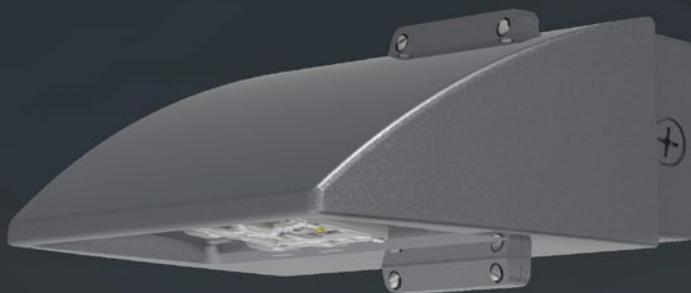
CCT - Range of 2700K- 5000K

Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	792
Watts	10.3
Lumens Per Watt (Efficacy)	76.9
Color Accuracy (CRI)	94
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
2700K	3000K
4500K	6500K

HLB4 4-inch	CCT	Lumens	Power (W)	LPW
Fixed CCT	3000K	734.6	10.2	72.7
	4000K	773.2	10.2	76.2
Field Selectable CCT	2700K	774	10.3	75.1
	3000K	792	10.3	76.9
	3500K	809	10.4	77.8
	4000K	822	10.4	79.0
	5000K	838	10.4	80.6

ARCHITECTURAL HIGH PERFORMANCE FULL CUTOFF WALL PACK



LED WATTAGE CHART

	16L	32L
400 milliamps	21w	-
530 milliamps	29w	-
700 milliamps	37w	71w
1000 milliamps	-	100w
1050 milliamps	56w	

KEY FEATURES

- Ideal for Exterior Walls, Entryways, Pathways, New Construction and Renovation, Warehouse and Receiving Docks, Court Yards, and School Playgrounds
- Sleek Minimalistic Design of the the NV-W (up to 11,000 Lumens, 12"W x 9"D x 5.5"H) Compliments the Design of the NV-W2 (up to 24,000 Lumens, 18"W x 9.38"D x 5"H)
- Amber, 2700K, 3000K, 3500K, 4000K, 5000K CCT Multichip High Power 70 & 80 CRI LEDs
- IP65 Rated Against Dust & Water Ingress, IK10 Rated for Tamper/ Vandalism/Impact Protection
- 20kA Surge Protection (120V - 480V) Cold Weather Integrated Battery Back-Up Safety Options
- Silicone Optics providing 96% Clarity and Heat Resistant up to 150°C
- 9 Standard Finishes, Custom Finish and Marine Grade Finish Available

- Controls Agnostic, Compatible with Most Control Systems and Sensors
- Environmentally Friendly Product Which Reduces Energy Consumption, L70 > 100,000 hours
- IDA qualified for 3000K CCT and Lower for Down-light Application, Reducing Light Pollution and Trespass
- Buy America(n) Option Available, Quick Mount for Easy Installation
- Cost Competitive and Short Shipping Lead Times in Days & Weeks

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



Project Name:

Type:

NV-W ORDERING GUIDE

Cat#	Light Dist.	# of LEDs	Miliamps	Kelvin	Volts
NV-W (NV-W)	Type 2 (T2) Type 3 (T3) Type 4 (T4)	16 (16L) 32 (32L)	400 (40) 530 (53) 700 (7) 1000 (1A) ⁵ 1050 (1) ⁶	Amber 585-600nM (AMBER) ^{1, 11, 14} 2700K, 70 CRI (27K7) ⁷ 2700K, 80 CRI (27K8) ^{1, 7, 13} 3000K, 70 CRI (30K7) ⁷ 3000K, 80 CRI (30K8) ^{1, 7, 13} 3500K, 80 CRI (35K8) 4000K, 70 CRI (40K7) 4000K, 80 CRI (40K8) ^{1, 13} 5000K, 70 CRI (50K7) 5000K, 80 CRI (50K8) ^{1, 13}	120-277 (UNV) 347-480 (HV)
Mounting	Color	Controls Options	Options	Lens Options	
Wall Mount (WM)	Bronze Textured (BRZ) White Textured (WHT) Smooth White Gloss (SWT) Silver Metallic (SVR) Black Textured (BLK) Smooth Black Gloss (SBK) Graphite Textured (GPH) Grey Textured (GRY) Green Textured (GRN) Hunter Green Textured (HGN) Custom (CS)	Nema 7-Pin Receptacle (PE7) ² Button Photocell (PC) ³ FSP-211 with Motion Sensor / Photocell (UNV Voltage) *8' and Below (FSP-8) ³ *9'-20" Heights (FSP-20) ³	Marine Grade Finish (MGF) Vanity Plate 22"x16" (VP) Housing Extension (HE) Surge Protector (20KA) Emergency Battery 4W (EM4) ^{2, 3, 4} Emergency Battery 8W (EM8) ^{2, 3, 4} Emergency Cold Pk Battery 14W (EMCP) ^{2, 3, 4} Black Hardware (BH) ¹ Black Optic Frame (BOF) ¹ Buy American Act (BAA) ¹² Trade Agreement Act	Glass Lens (GL) ^{8, 15} HAL Lens (HAL) ^{9, 15}	

NOTES:

1. Consult Factory for Lead Time.
2. Requires Housing Extension
3. Universal Voltage 120-277
4. All Emergency Battery Options Certified CA Title 20
5. 32L only
6. 16L only
7. 3000K or lower must be selected to meet International Dark Sky Association certification
8. Glass Lens: Low iron glass, fully tempered per ANSI C1047
9. HAL Lens: Yellow Polycarbonate Lens – less than 2% Blue Light Content
10. Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, Dali II, Avi-On, or other control systems)
11. Turtle Safe
12. Consult factory for all BAA/TAA/BABA requests
13. Consult Factory for 90 CRI Requests
14. Not Available above 700mA
15. Contact Factory



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PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP66 compartment
- CRI 70, 80, 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K

CONSTRUCTION

- Die Cast Aluminum
- Internal cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP65 seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP67 level seal around each PCB
- Silicone Micro Optics: Recessed, full cutoff, vandal resistant and non-yellowing
- Dark Sky Approved

OPTIONS

- MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Prebaked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- VANITY PLATE (VP) - Optional Vanity Plate was designed to cover the unsightly remains on a wall where a larger HID wallpack was removed. The aluminum Vanity Plate will be painted to match the finish of the NV-W2, custom finishes are available, please consult factory. The standard Vanity Plate is 22"W x 16"H.
- 20KA Surge Protector (20KA) - protects the complete system against nominal surges of up to 20KA. Protection against power surges, storms and lightning strikes.
- EMERGENCY COLD PACK BATTERY (EMPC) - Emergency cold pack (-20oC minimum) battery system available in 14W output.
- Black Hardware (BH) - Black stainless steel hardware.
- Black Optic Frame (BOF) - Black optic frame. Standard is white.
- GLASS LENS (GL) - Low Iron Glass, fully tempered.
- High performance amber lens (HAL)

CONTROL OPTIONS

- FSP-211 (FSP-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 Mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field. Programmable remote must be purchased separately.

- FSIR-100 commissioning remote is required to change sensor settings. Please contact factory for ordering.
- Controls Agnostic: Please contact factory for your preferred controls option.
- NEMA 7-PIN RECEPTACLE (PE7)—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.
- BUTTON PHOTOCELL—Dusk to dawn optional Button Photocell.

FINISH

- 3-5 mils electrostatic powder coat.
- NLS Lighting's standard high-quality finishes prevent corrosion, and protects against extreme environmental conditions.

WARRANTY

Five-year limited warranty for drivers and LEDs.

OPTICS

Silicone optics high thermal stability and light output provide higher powered LEDs with minimized lumen depreciation. UV stability with scratch resistance increases exterior application durability. Silicone optics do not yellow, crack or brittle over time.

LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65 Rated Fixture / IP67 Rated Optics
- IK10 Rated
- IDA Dark Sky Approved

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

<https://nslighting.com/buy-american/>



The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.



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PRODUCT SPECIFICATIONS

LUMENS							
PART NUMBER	T2	LM/W	T3	LM/W	T4	LM/W	WATTS
NV-W-16L-40-27K7	2561	122	2591	123	2561	122	21
NV-W-16L-40-27K8	2398	114	2426	116	2398	114	21
NV-W-16L-40-30K8	2571	122	2601	124	2571	122	21
NV-W-16L-40-30K7	2769	132	2801	133	2769	132	21
NV-W-16L-40-35K8	2571	122	2601	124	2571	122	21
NV-W-16L-40-40K8	2769	132	2801	133	2769	132	21
NV-W-16L-40-40K7	2992	142	3027	144	2992	142	21
NV-W-16L-40-50K8	2769	132	2801	133	2769	132	21
NV-W-16L-40-50K7	2992	142	3027	144	2992	142	21
NV-W-16L-53-30K7	3544	122	3579	123	3544	122	29
NV-W-16L-53-40K7	3756	130	3794	131	3756	130	29
NV-W-16L-53-50K7	3756	130	3794	131	3756	130	29
NV-W-16L-7-30K7	4388	119	4432	120	4388	119	37
NV-W-16L-7-40K7	4651	126	4698	127	4651	126	37
NV-W-16L-7-50K7	4651	126	4698	127	4651	126	37
NV-W-16L-1-30K7	5970	107	6029	108	5970	107	56
NV-W-16L-1-40K7	6328	113	6391	114	6328	113	56
NV-W-16L-1-50K7	6328	113	6391	114	6328	113	56
NV-W-32L-53-30K7	X	X	X	X	6,821	126	54
NV-W-32L-7-30K7	9010	127	9100	128	9010	127	71
NV-W-32L-7-40K7	9550	135	9646	136	9550	135	71
NV-W-32L-7-50K7	9550	135	9646	136	9550	135	71
NV-W-32L-1A-30K7	10871	109	10983	110	10871	109	100
NV-W-32L-1A-40K7	11426	114	11544	115	11426	114	100
NV-W-32L-1A-50K7	11426	114	11544	115	11426	114	100

3000K or lower, with fixed mounting options only, must be selected to meet International Dark-Sky Association certification.

EMERGENCY BATTERY BACK-UP LUMENS							
PART NUMBER	T2	LM/W	T3	LM/W	T4	LM/W	WATTS
EM4-30K7	520	130	524	131	516	129	4
EM4-40K7	544	136	548	137	540	135	4
EM4-50K7	560	140	564	141	556	139	4
EM8-30K7	1040	130	1048	131	1032	129	8
EM8-40K7	1088	136	1096	137	1080	135	8
EM8-50K7	1120	140	1128	141	1112	139	8
EM14-30K7	2080	130	2096	131	2064	129	16
EM14-40K7	2176	136	2192	137	2160	135	16
EM14-50K7	2240	140	2256	141	2224	139	16
EMCP-30K7	1820	130	1834	131	1806	129	14
EMCP-40K7	1904	136	1918	137	1890	135	14
EMCP-50K7	1960	140	1974	141	1946	139	14



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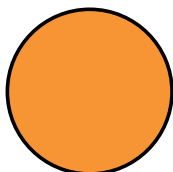
PRODUCT SPECIFICATIONS

BUG RATINGS BUG RATINGS

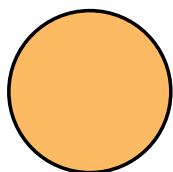
PART NUMBER	T2	T3	T4	WATTS
NV-W-16L-35-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	21
NV-W-16L-35-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	21
NV-W-16L-35-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	21
NV-W-16L-53-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	29
NV-W-16L-53-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	29
NV-W-16L-53-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	29
NV-W-16L-7-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	37
NV-W-16L-7-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	37
NV-W-16L-7-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G1	37
NV-W-16L-1-30K7	B1-U0-G1	B1-U0-G2	B1-U0-G2	56
NV-W-16L-1-40K7	B1-U0-G1	B1-U0-G2	B1-U0-G2	56
NV-W-16L-1-50K7	B1-U0-G1	B1-U0-G2	B1-U0-G2	56
NV-W-32L-7-30K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	71
NV-W-32L-7-40K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	71
NV-W-32L-7-50K7	B1-U0-G2	B2-U0-G2	B2-U0-G2	71
NV-W-32L-1A-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	100
NV-W-32L-1A-40K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	100
NV-W-32L-1A-50K7	B2-U0-G2	B2-U0-G2	B2-U0-G2	100

Lumen Maintenance Data							
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

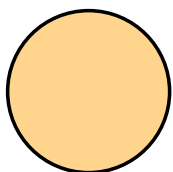
LED KELVIN RANGE



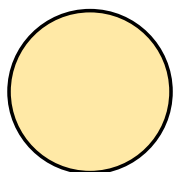
AMBER
585-600 nm



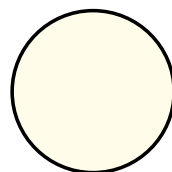
2700K 70 CRI



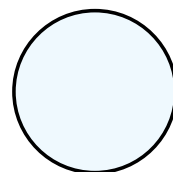
3000K 70 CRI



3500K 80 CRI



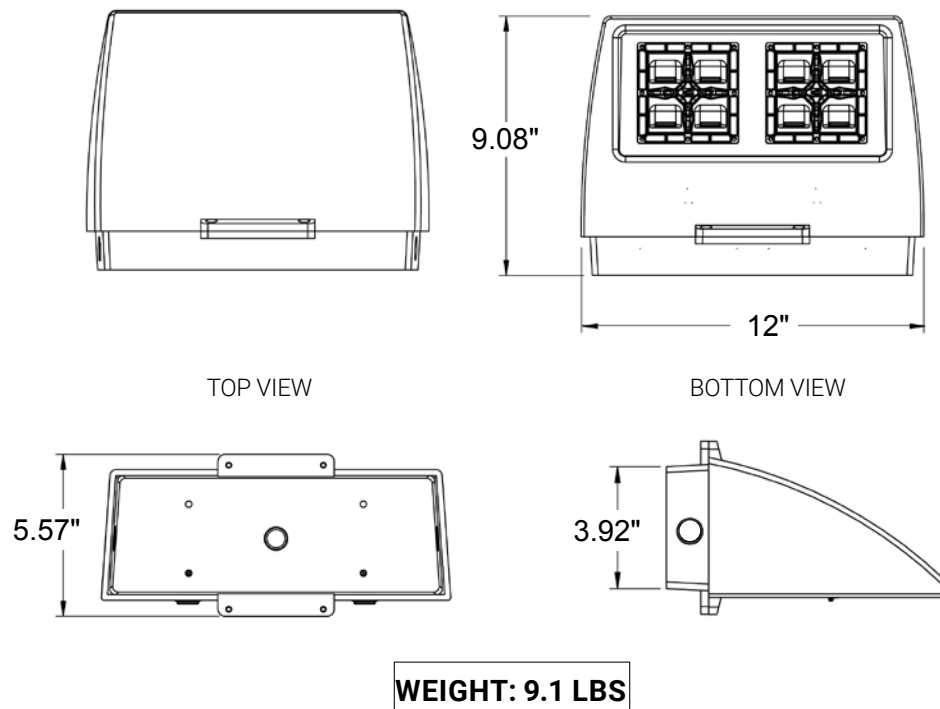
4000K 70 CRI



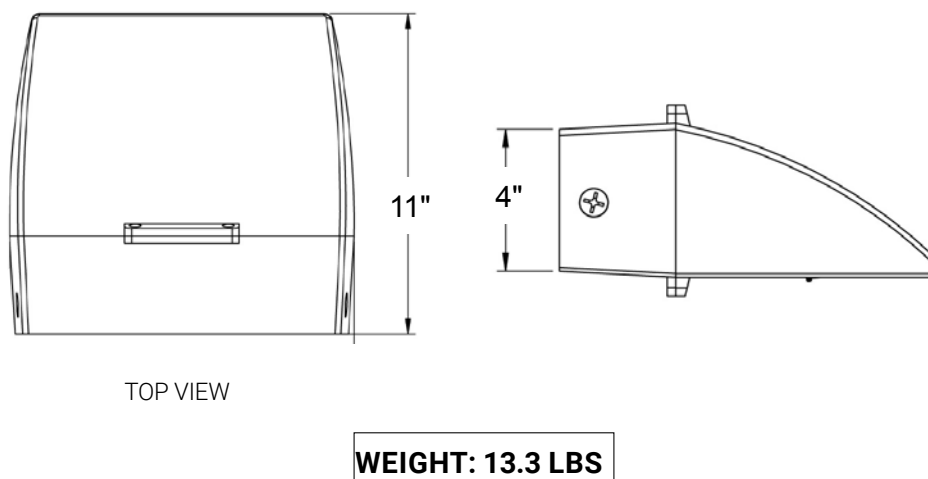
5000K 70 CRI

Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600

PRODUCT SPECIFICATIONS

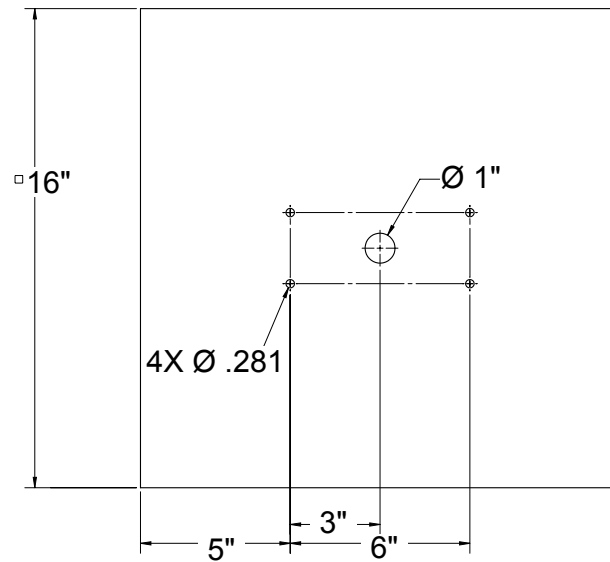


EMERGENCY BATTERY AND 7-PIN EXTENSION BOX DIMENSIONS

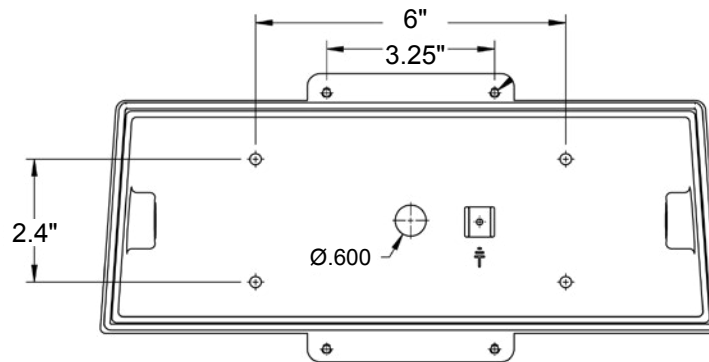


PRODUCT SPECIFICATIONS

VANITY PLATE (VP)



MOUNTING HOLE



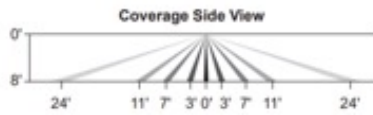
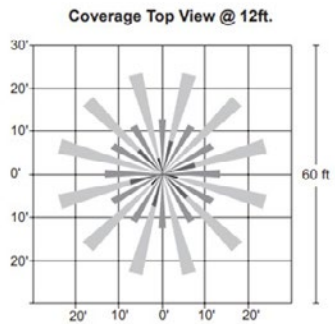
* 3 Conduit access points on either side or center back.

PRODUCT SPECIFICATIONS

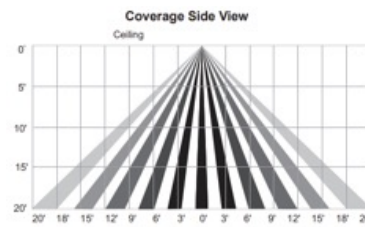
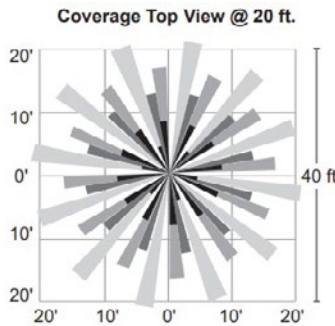
MOTION SENSOR PLACEMENT



FSP-8



FSP-20





LED WATTAGE CHART

	16L
400 milliamps	21w
530 milliamps	26w
700 milliamps	35w

The Sea Side Bollard is a combination of security, style and Vandal resistance that blends beautifully into any pathway environment.

This luminaire tower can disperse light in 45° angle with the cast Cutoff Grill (COG45). Paracline Reflector (PR) or Stacked Louver (SL) are also optional light distributions.

The Sea Side Bollard uses the patented Star Power™ reflector system. The Dome Top selection offers either Dome or Flat and are available in either 8" or 6" Round or 8" Square. Kelvin temperature offering of Amber, 2700K, 3000K, 3500K, 4000K and 5000K.

Conforms to the strictest Made in America standards—designed, tooled, fabricated and assembled in the USA.

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



STAR POWER™ OPTICAL SYSTEM

The Star Power™ reflector is an excellent system which provides great value and performance. Star Power Patent number: 10168023

Project Name:

Type:

SEA SIDE BOLLARD ORDERING GUIDE

Cat#	Height	Shaft Dim.	Light Dist.	No. of LEDs	Milliamps
Sea Side Flat Top (SSF)	26" (2)	6" Round (6R)⑨	Cut Off Grill (COG45)	16 (16L)	400 (40)
Sea Side Dome Top (SSD)⑥	36" (3)	8" Round (8R)⑨	Stacked Louver (SL)		530 (53)
	42" (4)	8" Square (8S)	Paracline Reflector (PR)		700 (7)

Kelvin	Volts	Mounting	Color	Options
Amber 585-600nm (AMBER)⑨⑩	120-277 (UNV)	Anchor Base (AB)	Bronze Textured (BRZ)	Button Photocell (PC)②
2700K, 70 CRI (27K7)	347-480 (HV)		White Textured (WHT)	Vandal Resistant Base (VRB)
2700K, 80 CRI (27K8)①			Smooth White Gloss (SWT)	Marine Grade Finish (MGF)
3000K, 70 CRI (30K7)			Silver (SVR)	House Side Shield (HSS)
3000K, 80 CRI (30K8)①			Black Textured (BLK)	Surge Protector (20K)
3500K, 80 CRI (35K8)①			Smooth Black Gloss (SBK)	Emergency Battery 8w (EM8)②③④
4000K, 70 CRI (40K7)			Graphite Textured (GPH)	Buy American (BAA)⑤
4000K, 80 CRI (40K8)①			Grey Textured (GRY)	Trade American (TAA)⑤
5000K, 70 CRI (50K7)			Green (GRN)	Build America Buy American (BABA)⑤
5000K, 80 CRI (50K8)①			Custom (CS)	Custom Controls Integration (CCI)④
				Integral GFCI Outlet (GFCI)
				USB Charging Outlet (USB)

Notes:

- ① Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
- ② Universal Voltage 120-277
- ③ (SSD) Dome Top only available on Round shaft
- ④ Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, Dali II, Avi-On, or other control systems)
- ⑤ Turtle Safe
- ⑥ Consult factory for all BAA/TAA/BABA requests
- ⑦ Contact Factory
- ⑧ All Emergency Battery Options Certified CA Title 20
- ⑨ Not Available with GFCI/USB options



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PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- CRI 70, 80 or 90
- Color temperatures: Amber, 2700, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20kA supplied as standard.

CONSTRUCTION

- Extruded Aluminum. Cast Aluminum. Spun Aluminum

OPTIONS

- MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Pre-baked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.

- VANDAL RESISTANT BASE (VRB)
- HOUSE SIDE SHIELD (HSS)
- 20KA SURGE PROTECTOR (20K)
- INTEGRAL GFCI OUTLET (GFCI)
- USB CHARGING OUTLET (USB)

CONTROL OPTIONS

- PHOTOCELL (PC) - Button Type
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, DALI II, Avi-On, or other control systems)

OPTICS

Recessed Star Power Optical System is 95% reflective material. Utilizes a linear diffused pattern, softening the light distribution and eliminating any dark shadows or striations.

FINISH

- 3-5 mils electrostatic powder coat.
- NLS Lighting standard high-quality finishes prevent corrosion and protects against extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.

WARRANTY

Five-year limited warranty for drivers and LEDs.

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

<https://nlsighting.com/buy-american/>



The information and specifications on this document are subject to change without any notification. All values are design, nominal, or typical or prorated values when measured under internal and external laboratory conditions.



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PRODUCT SPECIFICATIONS

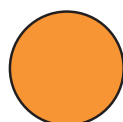
SEA SIDE BOLLARD - LUMEN DATA CHART

PART NUMBER	T5 LUMENS	T5 Lm/W	WATTS
SEA SIDE-COG45-16L-40-27K7	987	47	21
SEA SIDE-COG45-16L-40-27K8	924	44	21
SEA SIDE-COG45-16L-40-30K8	991	47	21
SEA SIDE-COG45-16L-40-30K7	1067	51	21
SEA SIDE-COG45-16L-40-35K8	991	47	21
SEA SIDE-COG45-16L-40-40K8	1067	51	21
SEA SIDE-COG45-16L-40-40K7	1153	55	21
SEA SIDE-COG45-16L-40-50K8	1067	51	21
SEA SIDE-COG45-16L-40-50K7	1153	55	21
SEA SIDE-COG45-16L-53-30K	1429	55	26
SEA SIDE-COG45-16L-53-40K	1502	58	26
SEA SIDE-COG45-16L-53-50K	1502	58	26
SEA SIDE-COG45-16L-7-30K	1906	53	36
SEA SIDE-COG45-16L-7-40K	2003	56	36
SEA SIDE-COG45-16L-7-50K	2003	56	36
SEA SIDE-SL-16L-40-27K7	1081	51	21
SEA SIDE-SL-16L-40-27K8	1012	48	21
SEA SIDE-SL-16L-40-30K8	1085	52	21
SEA SIDE-SL-16L-40-30K7	1169	56	21
SEA SIDE-SL-16L-40-35K8	1085	52	21
SEA SIDE-SL-16L-40-40K8	1169	56	21
SEA SIDE-SL-16L-40-40K7	1263	60	21
SEA SIDE-SL-16L-40-50K8	1169	56	21
SEA SIDE-SL-16L-40-50K7	1263	60	21
SEA SIDE-SL-16L-53-30K	1508	58	26
SEA SIDE-SL-16L-53-40K	1612	62	26
SEA SIDE-SL-16L-53-50K	1690	65	26
SEA SIDE-SL-16L-7-30K	2030	58	35
SEA SIDE-SL-16L-7-40K	2170	62	35
SEA SIDE-SL-16L-7-50K	2275	65	35
SEA SIDE-PR-16L-40-27K7	1397	67	21
SEA SIDE-PR-16L-40-27K8	1308	62	21
SEA SIDE-PR-16L-40-30K8	1402	67	21
SEA SIDE-PR-16L-40-30K7	1510	72	21
SEA SIDE-PR-16L-40-35K8	1402	67	21
SEA SIDE-PR-16L-40-40K8	1510	72	21
SEA SIDE-PR-16L-40-40K7	1632	78	21
SEA SIDE-PR-16L-40-50K8	1510	72	21
SEA SIDE-PR-16L-40-50K7	1632	78	21
SEA SIDE-PR-16L-53-30K	2002	77	26
SEA SIDE-PR-16L-53-40K	2106	81	26
SEA SIDE-PR-16L-53-50K	2184	84	26
SEA SIDE-PR-16L-7-30K	2695	77	35
SEA SIDE-PR-16L-7-40K	2835	81	35
SEA SIDE-PR-16L-7-50K	2975	85	35

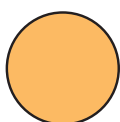
LUMEN MAINTENANCE DATA

Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

LED KELVIN RANGE



AMBER
585-600 nm



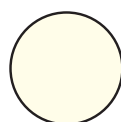
2700K 70 CRI



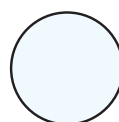
3000K 70 CRI



3500K 80 CRI



4000K 70 CRI



5000K 70 CRI

Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600



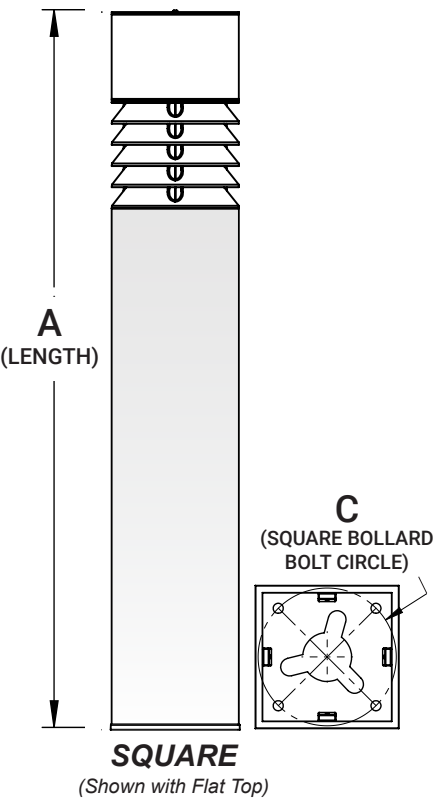
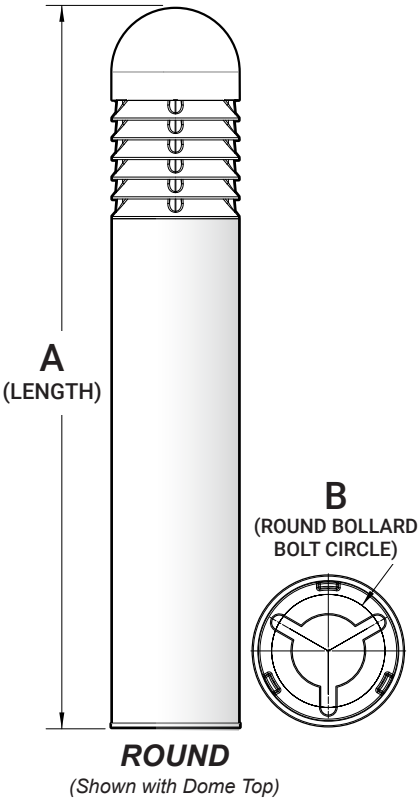
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PRODUCT SPECIFICATIONS

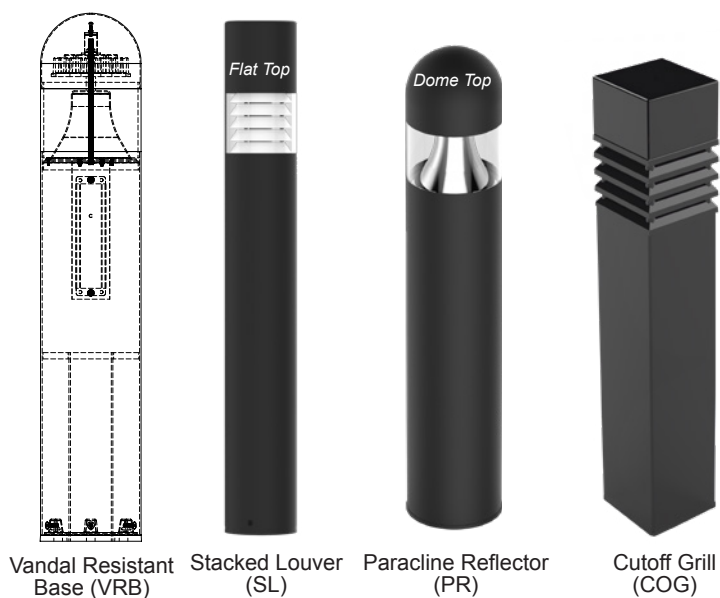
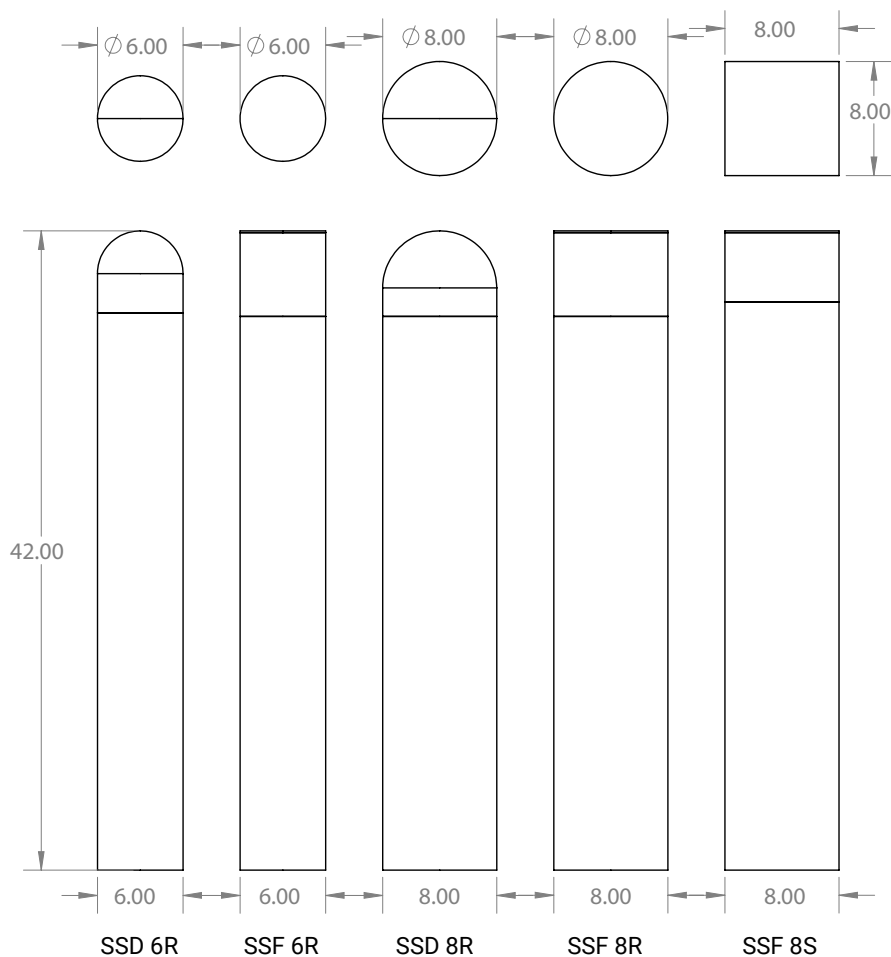
DIMENSION	6" ROUND	8" ROUND
A	26", 36", or 42"	26", 36", or 42"
B	3-5/8"	6"

DIMENSION	8" SQUARE
A	26", 36", or 42"
C	7.75"



PRODUCT SPECIFICATIONS

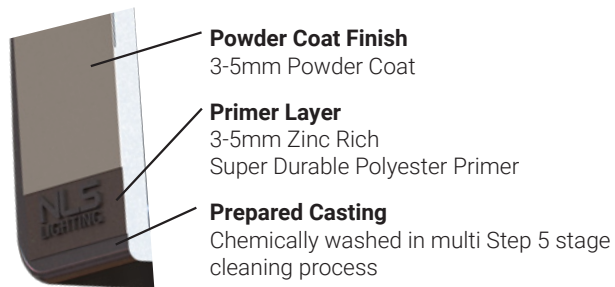
DIMENSIONS



PRODUCT SPECIFICATIONS

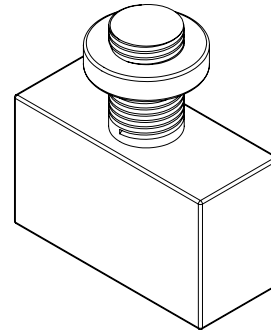
MARINE GRADE FINISH (MGF)

The **(MGF)** is a multi step process. Chemically washed in a 5 stage cleaning system. Pre-baked. Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.

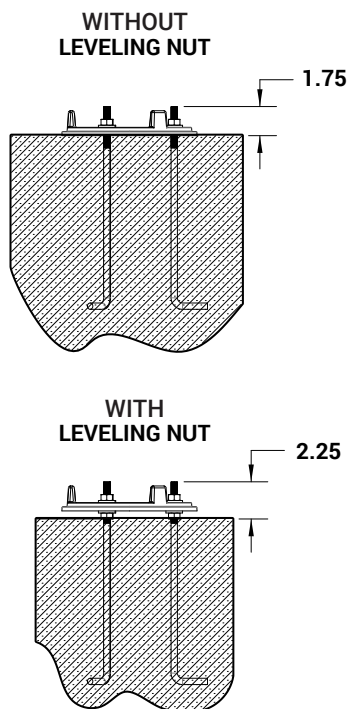


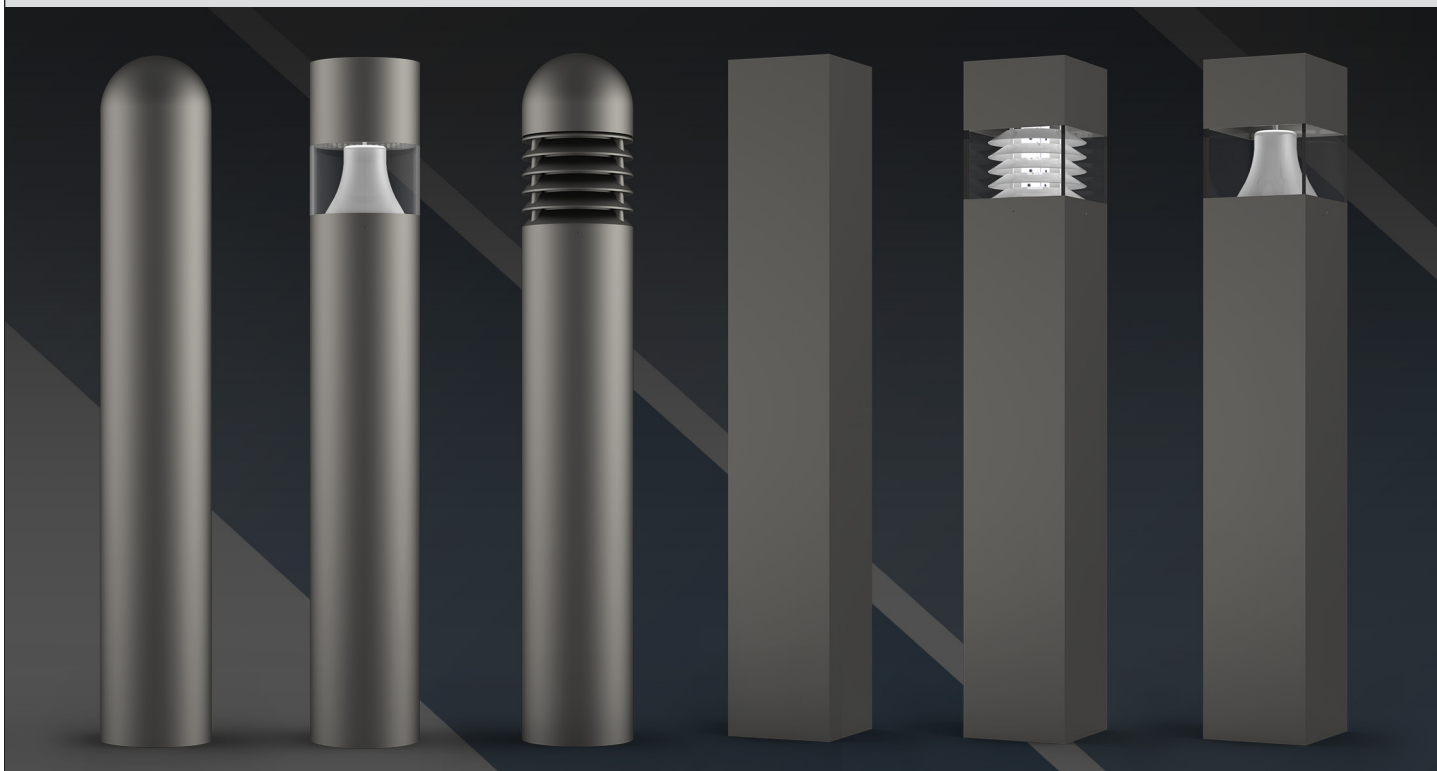
BUTTON TYPE PHOTOCELL (PC)

Photocell for dusk to dawn operation. Consult Factory.



LEVELING NUT DIAGRAM





LED WATTAGE CHART

	16L
400 milliamps	21w
530 milliamps	26w
700 milliamps	35w

Introducing NLS Impact Bollard with TG Core-In Protection System (impact rated core with sleeve) which has been ASTM F3016 full scale crash tested at an accredited test center; the 6" version offers a S10 impact rating (rated to stop a 5,000 lb vehicle up to 10 mph), while the 8" version comes with an impressive S20 impact rating (rated to stop a 5,000 lb vehicle up to 20 mph).

The Sea Side Impact Bollard combines security, style, and impact resistance that blends beautifully into any pathway environment while protecting from traffic intrusion.

This luminaire tower can disperse light in a 45° angle with the cast Cut Off Grill (COG45) with diffused lens standard. Paracline Reflector (PR) or Stacked Louver (SL) are optional light distributions with a clear lens standard. Optional unlit versions are available.

LED wattage ranges from 21 to 33 using 16 LEDs. The 6" or 8" round Sea Side Impact Bollard is available with the Dome Top or Flat Top. The 8" square Sea Side Impact Bollard only comes with the Flat Top option. Kelvin temperature offerings of Amber, 2700, 3000K, 3500K, 4000K, and 5000K.

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



Project Name:

Type:

SEA SIDE IMPACT BOLLARD ORDERING GUIDE

Cat#	Height	Shaft Dim.	Lit/UnLit	Light Dist.	# of LEDs
Sea Side Impact Bollard Flat Top (SSF-IMP)	49" (49)	6" Round Impact Rated up to 10 MPH (6R-S10)	Lit (LIT) UnLit (UNL) ²	Cut Off Grill (COG45) Stacked Louver (SL)	16 (16L)
Sea Side Impact Bollard Dome Top (SSD-IMP)		8" Round Impact Rated up to 20 MPH (8R-S20) 8" Square Impact Rated up to 20 MPH (8S-S20)		Paracline Reflector (PR)	

Milliamps	Kelvin	Volts	Color	Options
400 (40)	Amber 585-600nm (AMBER) ^{5 7}	120-277 (UNV)	Bronze Textured (BRZ)	Button Photocell (PC) ⁶
530 (53)	2700K, 70 CRI (27K7)	347-480 (HV)	White Textured (WHT)	Marine Grade Finish (MGF)
700 (7)	2700K, 80 CRI (27K8) ¹		Smooth White Gloss (SWT)	Emergency Battery Back-Up 4 Watts (EM4) ³
	3000K, 70 CRI (30K7)		Silver (SVR)	Emergency Battery Back-Up 8 Watts (EM8) ³
	3000K, 80 CRI (30K8) ¹		Black Textured (BLK)	House Side Shield (HSS)
	3500K, 80 CRI (35K8) ¹		Smooth Black Gloss (SBK)	Buy American (BAA) ⁶
	4000K, 70 CRI (40K7)		Graphite Textured (GPH)	Trade American (TAA) ⁶
	4000K, 80 CRI (40K8) ¹		Grey Textured (GRY)	Build America Buy American (BABA) ⁶
	5000K, 70 CRI (50K7)		Green (GRN)	Custom Controls Integration (CCI) ⁴
	5000K, 80 CRI (50K8) ¹		Custom (CS)	

Notes:

- ¹ Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
- ² If UnLit is selected the following categories will not be available: Light Distribution, # of LEDs, Milliamps, Kelvin, Volts, Photocell, and House Side Shield
- ³ Universal Voltage 120-277
- ⁴ Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinX, Crestron, DMX/RDM, Synapse, Casambi, Dali II, Avi-On, or other control systems)
- ⁵ Turtle Safe
- ⁶ Consult factory for all BAA/TAA/BABA requests
- ⁷ Contact Factory



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PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- CRI 70, 80, or 90
- Color temperatures: Amber, 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20kA supplied as standard.

CONSTRUCTION

- Extruded Aluminum. Cast Aluminum. Spun Aluminum

OPTIONS

- MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Pre-baked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- EMERGENCY BATTERY BACK-UP (EM)
 - 100-277 VAC $\pm$ 10%, 50/60 Hz Input Voltage
 - 43mA Max. Input Current
 - 2.82W Max. Input Power
 - 24-48 Hours Recharge Time
 - Battery Type NiCd 9.6VDC or LiFePO4 9.6VDC
 - 90 Minutes Min. Illumination Time
 - 20W Total Max. LED Powered
 - Class 2 Output Classification

- HOUSE SIDE SHIELD (HSS)

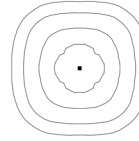
CONTROL OPTIONS

- PHOTOCELL (PC) - Button Type
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, DALI II, Avi-On, or other control systems)

LIGHT DISTRIBUTION

Utilizes a linear diffused pattern, softening the light distribution and eliminating any dark shadows or striations.

- IES Types



TYPE V (T5)

FINISH

- 3-5 mils electrostatic powder coat.
- NLS Lighting standard high-quality finishes prevent corrosion and protects against extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

<https://nlsighting.com/buy-american/>

INSTALLATION

https://www.youtube.com/watch?v=g1lvwW_K8yo

Proper installation of the NLS Impact Bollard is mandatory and required to ensure it can achieve the desired performance as the integrated TG Core-In Protection System comprising of impact rated core with sleeve was evaluated to per ASTM F3016. If the NLS Impact Bollard is modified in any way or form or fit or function during the installation, it may not perform as the integrated TG Core-In Protection System (impact rated core with sleeve) was tested per ASTM F3016. It is important to follow installation instructions, and make sure trained installers, proper equipment and procedures are used to install the NLS Impact Bollard. NLS Lighting bears no responsibility or liability for improper installation of NLS Impact Bollard. NLS Lighting is not liable for any failures due to soil conditions, incorrect installation, improper product use, and/or modifications to the NLS Impact Bollard. NLS specification sheet, installation instructions and video should be considered as guidelines therefore the soil condition, structural integrity and foundation and any other critical parameter related to installation of the NLS Impact Bollard are to be reviewed and approved by the customer and end user's structural engineer prior to installation. To comply with the ASTM F3016 crash rating the impact portion must be installed exactly as TG Core-In Protection System was tested at an accredited test center and the full-scale crash test summary can be provided upon request.



The information and specifications on this document are subject to change without any notification. All values are design, nominal, or typical or prorated values when measured under internal and external laboratory conditions.



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PRODUCT SPECIFICATIONS

SEA SIDE IMPACT BOLLARD - LUMEN DATA CHART

PART NUMBER	T5 LUMENS	T5 Lm/W	WATTS
SEA SIDE IMPACT-COG45-16L-40-27K7	987	47	21
SEA SIDE IMPACT-COG45-16L-40-27K8	924	44	21
SEA SIDE IMPACT-COG45-16L-40-30K8	991	47	21
SEA SIDE IMPACT-COG45-16L-40-30K7	1067	51	21
SEA SIDE IMPACT-COG45-16L-40-35K8	991	47	21
SEA SIDE IMPACT-COG45-16L-40-40K8	1067	51	21
SEA SIDE IMPACT-COG45-16L-40-40K7	1153	55	21
SEA SIDE IMPACT-COG45-16L-40-50K8	1067	51	21
SEA SIDE IMPACT-COG45-16L-40-50K7	1153	55	21
SEA SIDE IMPACT-COG45-16L-53-30K	1429	55	26
SEA SIDE IMPACT-COG45-16L-53-40K	1502	58	26
SEA SIDE IMPACT-COG45-16L-53-50K	1502	58	26
SEA SIDE IMPACT-COG45-16L-7-30K	1906	53	36
SEA SIDE IMPACT-COG45-16L-7-40K	2003	56	36
SEA SIDE IMPACT-COG45-16L-7-50K	2003	56	36
SEA SIDE IMPACT-SL-16L-40-27K7	1081	51	21
SEA SIDE IMPACT-SL-16L-40-27K8	1012	48	21
SEA SIDE IMPACT-SL-16L-40-30K8	1085	52	21
SEA SIDE IMPACT-SL-16L-40-30K7	1169	56	21
SEA SIDE IMPACT-SL-16L-40-35K8	1085	52	21
SEA SIDE IMPACT-SL-16L-40-40K8	1169	56	21
SEA SIDE IMPACT-SL-16L-40-40K7	1263	60	21
SEA SIDE IMPACT-SL-16L-40-50K8	1169	56	21
SEA SIDE IMPACT-SL-16L-40-50K7	1263	60	21
SEA SIDE IMPACT-SL-16L-53-30K	1508	58	26
SEA SIDE IMPACT-SL-16L-53-40K	1612	62	26
SEA SIDE IMPACT-SL-16L-53-50K	1690	65	26
SEA SIDE IMPACT-SL-16L-7-30K	2030	58	35
SEA SIDE IMPACT-SL-16L-7-40K	2170	62	35
SEA SIDE IMPACT-SL-16L-7-50K	2275	65	35
SEA SIDE IMPACT-PR-16L-40-27K7	1397	67	21
SEA SIDE IMPACT-PR-16L-40-27K8	1308	62	21
SEA SIDE IMPACT-PR-16L-40-30K8	1402	67	21
SEA SIDE IMPACT-PR-16L-40-30K7	1510	72	21
SEA SIDE IMPACT-PR-16L-40-35K8	1402	67	21
SEA SIDE IMPACT-PR-16L-40-40K8	1510	72	21
SEA SIDE IMPACT-PR-16L-40-40K7	1632	78	21
SEA SIDE IMPACT-PR-16L-40-50K8	1510	72	21
SEA SIDE IMPACT-PR-16L-40-50K7	1632	78	21
SEA SIDE IMPACT-PR-16L-53-30K	2002	77	26
SEA SIDE IMPACT-PR-16L-53-40K	2106	81	26
SEA SIDE IMPACT-PR-16L-53-50K	2184	84	26
SEA SIDE IMPACT-PR-16L-7-30K	2695	77	35
SEA SIDE IMPACT-PR-16L-7-40K	2835	81	35
SEA SIDE IMPACT-PR-16L-7-50K	2975	85	35

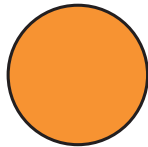
PRODUCT SPECIFICATIONS

LUMEN MAINTENANCE DATA

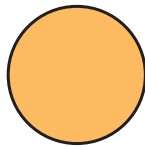
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

Standard Test Method	Condition Designation	Test Weight (lb) Range	Test Vehicle Class
ASTM F3016-19	S20	5000 ± 110 lbs	Passenger Pickup Truck Surrogate
Impact Speed (mph) Range	Actual Tested Speed (mph)	Actual Weight Tested	Dynamic Penetration (inches)
19–27.4	19.6	5014.4	14.13
Standard Test Method	Condition Designation	Test Weight (lb)	Test Vehicle Class
ASTM F3016M-19	S10	5000	Passenger Pickup Truck Surrogate
Impact Speed (mph) Range	Actual Tested Speed (mph)	Actual Weight Tested	Dynamic Penetration (inches)
9–18.9	10.2	5014.4	0.87

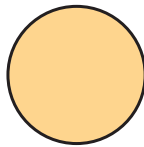
LED KELVIN RANGE



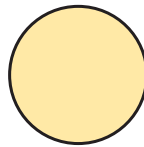
AMBER
585-600 nm



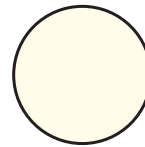
2700K 70 CRI



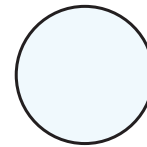
3000K 70 CRI



3500K 80 CRI



4000K 70 CRI



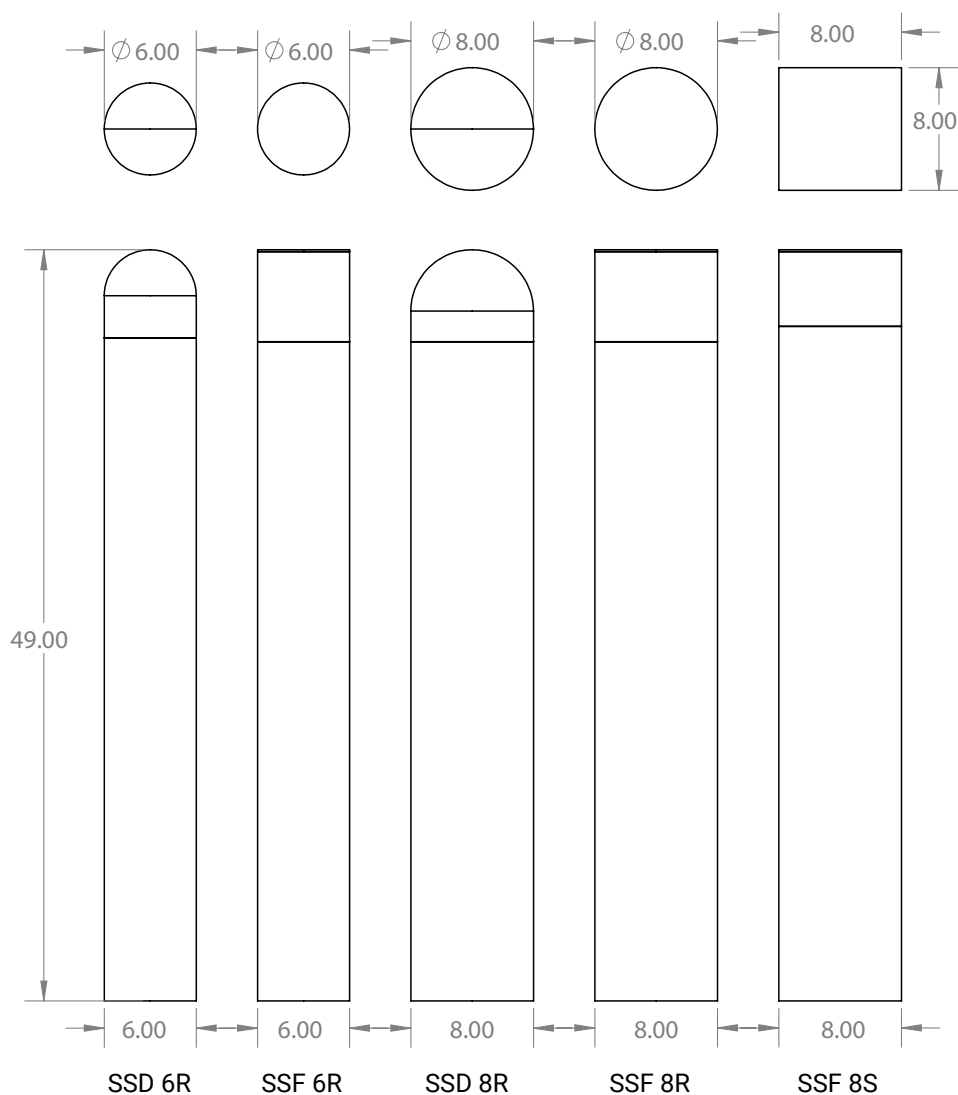
5000K 70 CRI

Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600

PRODUCT SPECIFICATIONS

DIMENSIONS

WEIGHT	
SS-6R-PR	14 LBS
SS-6R-SL	15 LBS
SS-6R-COG45	16 LBS
SS-8R-PR	19 LBS
SS-8R-SL	20 LBS
SS-8R-COG45	21 LBS
SS-8S-PR	33 LBS
SS-8S-SL	35 LBS
SS-8S-COG45	35 LBS



PRODUCT SPECIFICATIONS

SEA SIDE-SSD-6R



SSD-6R-UNL

SSD-6R-UNL-COG45

SSD-6R-COG45

SSD-6R-PR

SSD-6R-SL

PRODUCT SPECIFICATIONS

SEA SIDE-SSF-6R



SSF-6R-UNL

SSF-6R-UNL-COG45

SSF-6R-COG45

SSF-6R-PR

SSF-6R-SL

PRODUCT SPECIFICATIONS

SEA SIDE-SSD-8R



SSD-8R-UNL

SSD-8R-UNL-COG45

SSD-8R-COG45

SSD-8R-PR

SSD-8R-SL

PRODUCT SPECIFICATIONS

SEA SIDE-SSF-8R



SSF-8R-UNL

SSF-8R-UNL-COG45

SSF-8R-COG45

SSF-8R-PR

SSF-8R-SL

PRODUCT SPECIFICATIONS

SEA SIDE-SSF-8S



SSF-8S-UNL

SSF-8S-UNL-COG45

SSF-8S-COG45

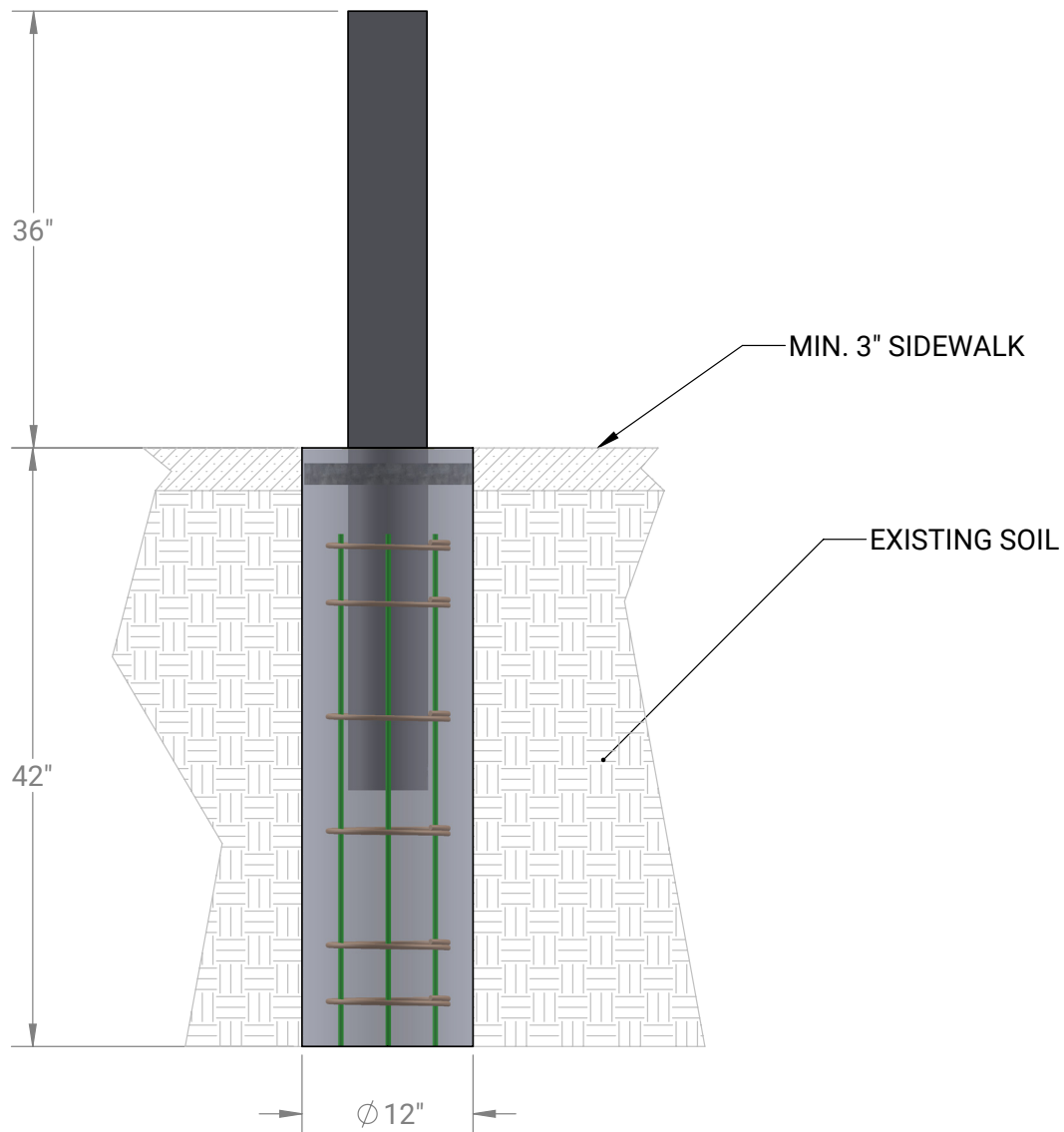
SSF-8S-PR

SSF-8S-SL

PRODUCT SPECIFICATIONS

Mounting

In-ground cement with rebar support cage (refer to installation instructions)



Section 31

Site Photographs

Section 31: Photographs



1. Standing west of existing parking garage. Facing north into lot 1.



2. Standing west of existing parking garage. Facing northwest into lot 1.



3. Standing in the middle of Lot 1. Facing east.



4. Standing in the middle of Lot 1. Facing southeast.



5. Standing in the middle of Lot 1. Facing east toward the existing parking garage.



6. Standing in the middle of Lot 1. Facing west.



7. Looking down onto Lot 1B from adjacent municipal garage.

Section 32

Waivers

Section 32: Waivers

The project does not propose any waivers at this time.



Section 33

Declaration of Easements, Covenants, and Restrictions

Section 33: Declaration of Easements, Covenants, and Restrictions

Access, maintenance, and utility easements are being proposed across the parcels based on proposed improvements. Please refer to the Subdivision Plat for additional information.

Please refer the attached plans for the existing easements across the property.

1. Existing Conditions Survey, prepared by Owen Haskell, Inc. dated August 5, 2021

Proposed easements across the property are shown on the Subdivision Plat. Proposed easements include:

1. Access & Maintenance Easement A to Lot 1A from Lots 1B And 1C,
2. Utility Access and Maintenance Easement B from Lot 1B to Lot 1C.
3. Utility Access and Maintenance Easement C from Lot 1C To Lot 1B.
4. CMP Easement D across both Lots 1B and 1C for Utility Access and Maintenance.
5. Maine Water Easement E across both Lots 1B and 1C for Utility Access and Maintenance.



City of Biddeford, Maine

COST ESTIMATE WORKSHEET



OWNER/APPLICANT:

WDC

PROJECT NAME:

15 Pearl Street Lots 1B/1C

	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Clearing and Grubbing	Acre	0		\$0.00
2	Erosion/Sediment Control	Lump Sum	1	\$3,000.00	\$3,000.00
3	Site Stabilization	Lump Sum	1	\$1.00	\$1.00
4	Ledge Removal	Cubic Yard	0		\$0.00
5	Sanitary Sewer				
	Manholes	Each	1	\$4,000.00	\$4,000.00
	Main	Linear Foot	347	\$19.00	\$6,593.00
	House Services - Pump Station	EA	1	\$22,000.00	\$22,000.00
6	Water Main				
	Main	Linear Foot	562	\$12.00	\$6,744.00
	House Services	Linear Foot	0		\$0.00
	Hydrants - Existing	Each	0		\$0.00
7	Electric				
	Underground Utility Trench	Linear Foot	646	\$15.00	\$9,690.00
	Conduit/Wiring	Linear Foot	646	\$22.00	\$14,212.00
	Transformer Bases & 38Y box	Each	3	\$5,000.00	\$15,000.00
8	Storm Drainage				
	Pipe/Culvert	Linear Foot	514	\$20.00	\$10,280.00
	Catch Basin	Each	9	\$5,000.00	\$45,000.00
	Other Treatment Devices	Each			\$0.00
9	Stormwater Management				
	Outlet Control Structure	Each			\$0.00
	Stormwater Management Facilities	Each			\$0.00
10	Excavate and Grade Subgrade	Cubic Yard			\$0.00
11	Roadways				
	Subbase Gravel	Cubic Yard	130	\$6.00	\$780.00
	Base/Finish Gravel	Cubic Yard	23	\$8.00	\$184.00
	Base Paving	Ton	1374	\$90.00	\$123,660.00
	Finish Paving	Ton	1036	\$113.00	\$117,068.00
	Geotextile Fabric	Ton	0		\$0.00
12	Sidewalks (concrete)				
	Subbase Gravel	Cubic Yard	383	\$6.00	\$2,298.00
	Base/Finish Gravel	Cubic Yard	188	\$8.00	\$1,504.00
	Concrete Sidewalks	SF	8836	\$5.00	\$44,180.00
	Finish Paving	Ton			\$0.00
13	Parking Lots/Other Areas				
	Subbase Gravel	Cubic Yard			\$0.00
	Base/Finish Gravel	Cubic Yard			\$0.00
	Base Paving	Ton	42	\$90.00	\$3,780.00
	Finish Paving	Ton	25	\$113.00	\$2,825.00

City of Biddeford, Maine

COST ESTIMATE WORKSHEET

14	Curbing – Bituminous	Linear Foot	128	\$9.00	\$1,152.00
15	Curbing - Concrete	Linear Foot	283	\$18.00	\$5,094.00
15	Curbing – Granite	Linear Foot	946	\$40.00	\$37,840.00
16	Pavement Striping	LS	1	\$2,500.00	\$2,500.00
17	Guardrail	Linear Foot	0		\$0.00
18	Fencing	Linear Foot	0		\$0.00
19	Loam and Seed	LS	1	\$5,000.00	\$5,000.00
20	Riprap	Cubic Yard	0		\$0.00
21	Landscaping	Lump Sum	1	\$7,000.00	\$7,000.00
22	Street Lights	Each	0		\$0.00
23	Site Lighting	LS	16	\$750.00	\$12,000.00
24	Monuments/Iron Pipes	Lump Sum	0		\$0.00
25	Clean Up	Lump Sum	1	\$3,000.00	\$3,000.00
26	As Builts	Lump Sum	1	\$1,000.00	\$1,000.00
27	Turf Pavers for Fire Access lane	SF	917	\$12.00	\$11,004.00
28	Courtyard Pavers	SF	1218	\$8.00	\$9,744.00
29	Other				\$0.00
30	Other				\$0.00
31	Other				\$0.00

COST ESTIMATE TOTAL:

\$528,133.00

150% of TOTAL:

\$792,199.50

FOR OFFICE USE ONLY

EROSION CONTROL/SITE STABILIZATION BOND (IF APPLICABLE):

PERFORMANCE GUARANTEE REQUIRED:

Name:

Signature:

Date:

Section 35. Salt Management Plan

Project Address:

15 Pearl Street, Lot 1B and 1C, Biddeford, Maine

Owner/Responsible Party

Westbrook Development Corporation
30 Liza Harmon Drive,
Westbrook, ME 04092

Purpose

The following Salt Management Plan (SMP) provides a guide for monitoring and documenting winter salt storage and application, as well as snow storage and disposal.

Applicability

Paved access drives, parking areas and sidewalks within project limits.

Responsibility

The owner of the facility will have primary responsibility for ensuring that winter maintenance activities are conducted in accordance with this plan. The owner may elect to subcontract winter maintenance responsibilities. A copy of this plan shall be provided to any subcontractors providing winter maintenance services.

Material Storage, Handling and Application

Minimal salt will be stored onsite. Salt that is stored on site will primarily be used for sidewalk and walkway applications. Salt that is stored onsite will be contained in covered, portable and watertight structures. The structures will be periodically inspected to ensure that they are operating as intended. When the structures show signs of deterioration that limit their effectiveness they will be replaced. Any salt that is spilled during loading and unloading operations will be collected and returned to the salt containment structure.

Plowing of snow in parking areas and removal of snow from walking areas will be completed prior to applying salt. Care will be taken to remove as much snow as possible from these areas prior to application of salt materials or as safety conditions dictate. Application of salt in parking and access drives will primarily be performed mechanically by truck mounted spreaders. Hand spreading of walkway areas will be permitted.

Snow Storage and Disposal

For the majority of the winter storms, plowed snow will be stored onsite. No storage of plowed snow will be allowed within stormwater management facilities. When accumulated plowed snow exceeds the capacity of the site for storage it will be removed by a subcontractor employed by the owner. The owner and subcontractor shall discuss the selected approved disposal location at the start of the winter season.

