

Sustainability & Transportation Committee Agenda

October 9, 2024 at 5:00 PM



MEMBERS

Councilor Regina Phillips, Chair
Councilor Victoria Pelletier, District 2
Councilor Anna Bullett, District 4

The Sustainability and Transportation Committee will conduct this meeting remotely via Zoom.. Allow your computer to install the free Zoom app to get the best meeting experience. If you are not able to attend live either in person or via Zoom, a recording will be available in the [Agenda Center](#) following the meeting.

For public comment via Zoom, you will need to use the "raise your hand" feature. To raise your hand via the telephone, please hit *9. You will be unmuted by the host when it is time for public comment.

<https://portlandmaine-gov.zoom.us/j/87554450883?pwd=djNlY0wrTkNqbKQ1bDJQdGNRZmtrdz09>

1. Review and approve minutes from September 11, 2024
 - a. Minutes from Sept. 11, 2024
2. Sustainability Program Updates
 - a. Sustainability Updates for October
3. Presentation and Discussion
Public comment may be taken
 - a. Update on the development of a formal process to review and approve naming of city facilities
Presentation: Masi Ngidi-Brown
No public comment will be taken
 - b. Presentation of the annual energy benchmarking report
Presenter: Erin Ferrell
No public comment will be taken
 - c. Report on the feasibility study to electrify cruise ship berths
Presenters: Troy Moon, Central Maine Power staff
No public comment will be taken

- d. St. Lawrence and Atlantic Rail Corridor: Update the committee on the conclusions of MaineDOT's Portland to Auburn Rail Use Advisory Council (RUAC) and request the committee make a recommendation to the City Council on preferred use(s) for the corridor.
Presenters: Assistant City Manager Greg Jordan and City staff
Public comment will be taken
- e. Review proposed lease of space in the Marginal Way Parking Lot for the installation of EV chargers
Presenter: Troy Moon
Public comment will be taken

4. Other Business

CITY OF PORTLAND, MAINE
Committee on Sustainability and Transportation
Councilor Regina Phillips (D3), Chair
Councilor Victoria Pelletier (D2)
Councilor Anna Bullett (D4)

Draft Minutes September 11, 2024

Members Present: Councilor Phillips, Councilor Bullett

Staff Present: Troy Moon, Erin Ferrell, Amy McNally, Greg Jordan, Mike Murray, Zachary Lenhert, Kevin Kraft, Jeremiah Bartlett, Bruce Hyman

Meeting was called to order.

July 10 Minutes

The July 10, 2024 meeting minutes were approved unanimously.

Sustainability Update

Presented by Troy Moon

The Sustainability Office hosted their third and fourth Landcare Lunchbreak webinars of the season, “Healthy Lawn Care Made Easy” with Cumberland County Soil & Water Conservation District and “Preparing Your Lawn for Winter” with landcare professional Jesse O’Brien.

The Sustainable Neighborhoods Program has been in full swing, which offers support to neighbors looking to build social connections and work together to build community resilience. The office has been able to support 3 block parties so far, a neighborhood seed swap, 4 neighborhood clean-up events, and several other community events.

In collaboration with Cultivating Community, the City hosted three workshops where community members worked collaboratively to rebuild the East End Community School learning garden, the Boyd Street Youth Garden, and new raised garden beds in a section of the Payson Park Community Garden. These workshops brought together community volunteers, both gardeners and nearby residents, and helped them develop stronger relationships by working together on a project. Participants left with new knowledge, experience, and instructions on how to build raised beds and were encouraged to share their knowledge with neighbors and build additional raised beds in their neighborhood. This project helps ensure that City community gardens are safe and accessible spaces and expands access to garden plots for community members with low or no incomes, people of color, and New Mainers. Special thanks to the PRF Horticulture team for help clearing the sites and spreading landscape fabric.

The Office’s Community Composting Program continues to help Portland divert organic waste from the municipal waste stream. Over the past five months, the 10 public compost drop-off sites have collected 97.92 tons of organic waste.

Total Portland Bike Share system rides are down by about 15% this 2024 season compared to 2023, 4 full months into the season. As of 9/3/2024, there were 7,402 rides for the 2024 season. The full e-bike fleet was replaced over a month ago to deal with some mechanical issues with the prior e-bikes. Since the fleet replacement, e-bike rides increased 40% for August 2024 versus August 2023. This bodes well for a strong 2024 season finish. This is the 3rd of 3 years of the City's contract with Tandem Mobility.

Use of the City's fleet of level 2 chargers continues to rise on a year over year basis. In 2023 during the period of January - August, the chargers were used for 4,063 sessions. July and August saw the most usage with 660 sessions and 734 sessions respectively. This year, we hosted 5,748 charging sessions in the same time period. July and August were once again the heaviest charging months with 912 sessions and 928 sessions. The DC fast chargers installed by EVgo in the Spring St. parking lot continue to have heavy use as well and we continue to work on opportunities to expand EV charging infrastructure in the City.

Councilor Comment on Sustainability Update

Councilor Phillips thanks Sustainability Staff for their recent efforts.

Amendments to Chapter 30

Presented by Amy McNally

Currently, Chapter 30 does not include all of the types of bicycle cabs operating in the City. The proposed edits in section 30-75 would amend the definition of bicycle cab to larger bicycles, not just two or three wheel bicycles, and also electric bicycles. The result would entail companies operating those types of bicycle in the City would be subject to licensure, which requires an application and a small fee per driver. It also regulates insurance for businesses, and other rules to ensure safety of operations. These amendments have been distributed to City staff for feedback: including, DPW, Parking Office, Police Department, etc. All City staff are on board with the amendments.

Public Comment on Amendments to Chapter 30

No public comment

Motion to move forward with Amendments to Chapter 30

Approved unanimously.

Councilor Comments on Amendments to Chapter 30

Councilor Bullett requests that the amendments are distributed to the downtown community to receive feedback from impacted parties before the item goes to the full council.

Vote on Amendments to Chapter 30

Unanimously approved.

Marginal Way Chargers

Presented by Troy Moon

The proposed chargers would be located near Miss Portland Diner, close to the 295 corridor. According to the Housing and Development Committee, these chargers wouldn't impact potential housing development projects. Many private companies submitted applications. Grid Wealth LLC will be installing the chargers. Efficiency Maine has approved the location and installation. The anticipated lifetime of the equipment is about 10 years.

The item will come back to the committee for a final vote in October, public comment will be included.

Councilor Comment on Marginal Way Chargers

Councilor Bullett asks about if flooding will affect the chargers and if the vendor is aware of the risk of flooding in this location. *Yes, the vendor is aware of flooding and Efficiency Maine also assessed the location to approve its viability for charging. The proposed location is not located in a flood plain, and the City will not be held responsible for the maintenance of those chargers.*

Update on the Transportation Priorities

Presented by Keith Gray, Bruce Hyman, Kevin Kraft, and Jeremiah Bertlett

Over the past several years, the City of Portland has been working with regional and state partners, including PACTS and MaineDOT, on a number of significant projects. One of the City's fundamental goals includes multi-modal transportation.

The Libbytown Safety and Accessibility Project includes the reconstruction of Congress St./Park Ave. between I-295 and St. John St. Establishes two-way traffic on one-way streets; includes a roundabout near former Denny's location, separated bike lanes, signal improvements, and streetscape enhancements (lighting, furniture, plantings).

Project estimated cost was \$28 million (\$25M construction; \$3M engineering). MaineDOT and City received \$22.4M in federal funding (Reconnecting Communities-Neighborhoods Grant Program). MaineDOT and the City are sharing equally the 20% local match of \$4.48M (\$2.24M each). Project estimates are still preliminary and additional funding may be needed.

Next public meeting tentatively scheduled for 10/17/24, Preliminary Design Review (PDR) to be completed by late 2024; final design in 2026. Grant funding requires construction by 2027.

The Morrill's Corner project includes a redesign of Forest Avenue and the three intersections from Warren Avenue to Stevens Avenue to improve safety and enhance predictability of operations. Redesign will focus on enhanced streetscape, active transportation facilities, and access management/turning movement restrictions at key locations, including Bishop Street.

No current estimate, but costs are expected to exceed \$10M. MaineDOT has identified either a RAISE or CDS grant as funding options. Local/state match percentage will be determined.

The plan to convert State and High Street will be addressed in the following agenda item.

The Redesign of Franklin Street to reconstruct the street as a more urban, downtown street that better supports the context for urban development, re-establishes missing neighborhood connectivity and creates state of the art active transportation facilities.

A RFP for consultant services was issued by the City in August 2024 with responses due mid-September. This phase is expected to be completed by January 2026. In addition, the DOT and City are currently working on a Reconnecting Communities-Neighborhoods Planning Grant application that would advance the project through design

Redesign of Forest Avenue between Woodford's Corner and USM/Exit 6 with evaluation of improving safety for all users, active transportation options and reducing congestion. The focus is on a short-term redesign concept to align with an expected paving project within the next five years, potentially to include a 'road diet' that would reduce lanes from 4 to 3 and allow in-street bike lanes. Currently funded for feasibility only.

Intersection improvements at the five-way Rosemont Corner intersection. Intersection will either be a revised traffic signal intersection or a roundabout design. MaineDOT is leading this analysis. There will be public engagement throughout this process, and consensus with MaineDOT will be needed. The City is looking to integrate this with a larger paving project in the future.

Funding is currently available for the feasibility study and for 50% design (PDR). Construction cost is to be determined as part of the alternatives selection process and preliminary design.

These pathways will fill gaps in the existing pathway network from Forest Avenue to the Fore River Parkway Trail pathway when completed. The Union Branch Pathway will convert the rail line from Forest Avenue to Park Avenue to a shared use pathway (0.7 miles). It will include a 12' paved pathway, pathway lighting, landscaping, connections to Deering Oaks Park, Fitzpatrick Stadium and Hadlock Field and a stone dust jogging path by infilling between the remaining rails. The Union Branch Connector will cross Park Avenue to Valley Street, Congress Street and connect to the Fore River Parkway Trail.

The Union Branch Pathway design is funded with 80% federal/20% local funding. The pathway's construction is funded 100% by state funding up to \$2.8M as well as a CIP allocation for costs the MaineDOT construction funding won't cover (e.g., landscaping). The Union Branch Connector is funded through design with 80% federal/20% local funding. There is no construction funding currently.

Final design of the Union Branch Path will be completed in December 2024 and expected to be bid in January 2025 to begin construction in the Spring 2025. The Union Branch Connector design is anticipated to be completed by Spring 2026.

The West Commercial Street Pathway will, when completed, extend from the terminus of the Fore River Parkway Trail path at Cassidy Point Drive to High Street/Hobson's Landing. The remaining segment (Phase III, 0.5 miles) is from Beach Street to High Street/Hobson's Landing.

A funding application to the MaineDOT for Phase III for design and construction, approximately \$1M, was submitted this summer which would be 80% federal/20% local funding.

Phase II, from the Fore River Parkway Trail to the Star Match Building, was completed Summer 2024. Much of it was constructed as part of the site development process of the VA Clinic. Phase I was completed by MaineDOT in 2018 as part of an International Marine Terminal expansion project.

The City is currently on several transportation infrastructure initiatives to make our City safer, more walkable and bikeable. With multiple projects happening simultaneously at several stages by different agencies creates a challenge for staff to prioritize projects and for others to understand the overall goal, so that is why the Planning and Development Department feels it is important to ensure they are effectively communicating and coordinating our Transportation plans and thinking more strategically. The City would like to begin embarking on an updated Transportation Plan. The City's Transportation Plan has not been comprehensively looked at since the 1990's. The transportation master plan would engage the public, identify and prioritize transportation goals, and identify the capital projects, programs, and policy initiatives necessary to achieve them. This project is still in its early stages.

Councilor Comment on Transportation Priorities

Councilors thank the employees for their work and presentation.

Plan to convert State and High Streets to two-way traffic

Presented by Jeremiah Bartlett

The State and High Two-Way Feasibility Study, ostensibly an update of a previous study in 2015, has reached the conclusion that, as it was in 2015, a two-way conversion is feasible. Some initial findings were presented to the S&T Committee on May 8, 2024. Since then, concept plans have been created and a public meeting held on September 5, 2024, which had generally positive feedback, although there were questions on potential for vehicle congestion, tree impacts and the long-term direction and type of bicycle facilities to be included in the ongoing design work.

94% of parking is occupied at a given time on State St.

The operation analysis indicates feasibility of a two-way State and High St.

In addition, MaineDOT provided feedback to the City that they concur with the finding of feasibility for a two-way conversion. Reduced volumes reduce needs for some turn lanes. Shorter turn lanes reduce parking impacts. State Street bridge approach requires two, not three lanes. There is a small delay, however it is relatively little delay for downtown urban conditions.

Loss of 7 parking spaces along State Street, however 12 parking spaces will be gained along High Street. Bicycle facilities are being explored and are very likely to be outside of the curb. A two-way street will also reduce vehicle speeds and eliminate double threats to pedestrians crossing both corridors. The City is not looking to impact the “heritage trees” ; this will impact the design of the bike lanes. Bicycle movements may be moved to the sidewalks in some areas.

This project is still at the conceptual stage, but if the City and MaineDOT can arrive at a two-party agreement for the project as part of the signal replacement project, the cost to the City is currently estimated to be between \$1.3M and \$1.7M for the signal conversion, and would be in place prior to the 2027 construction year (likely FY27). This assumes integration into MaineDOT’s project, and does not include a cost for off-road bicycle facilities, as more design work is required for a cost estimate. At this time, DPW has an initial rough estimate of \$2M to \$3M for that work to be completed.

Staff seek formal support from the Committee members for the conversion in concept, as well as supporting funding for future project delivery, potentially in conjunction in a future MaineDOT signal project. This item will then move to the Council for a formal vote of support.

Councilor Comment on the conversion of State and High Streets to two-way traffic

Councilor Bullett asks that pedestrian safety is a top priority while moving forward and asks that the bike safety plan is enhanced moving forward.

Public Comment on the conversion of State and High Streets to two-way traffic

Paul Drinan, representing the Bicycle Coalition of Maine, applauds staff for thinking of off-street bike lanes. The one-way cycle tracks on both sides would be preferred. Pauls asks for clarity on how the bike lanes would merge with York St. Paul asks if 11ft travel lanes would be considered. Regarding pg 14, the costs of the project, Paul notes that this investment will provide transportation equity. Paul suggests that the committee takes into consideration the comments from the Bike Ped Committee. The Bicycle Coalition of Maine supports this plan.

Zack Barowitz notes that it was difficult to find the meeting and make public comments. Zack prefers the term “restoration” to “conversion” and comments that travel times are outweighed by other time savings. Zack requests climbing lanes for bicycles be considered.

Kevin Parker made comments in support of the plan and requested that the City remain the project manager on this project rather than the Maine Department of Transportation.

Lynne notes concerns about residents being able to park without causing significant traffic congestion. Lynne hopes to do a trial run of the conversion for a month.

Markos Miller notes appreciation for the staff’s work and hopes the committee recommends the plan to the full council.

Council and Staff response to public comment

Jeremiah notes that although both streets would go down to only one lane but gaining another street in the same direction and notes that there would be less traffic because people will not be re-circulating.

Councilor Phillips asks if the plan presented today is the permanent plan or if there will be changes after it is brought to the council. *Jeremiah clarified that the committee is being asked to bring this item to the full council so that the plan can latch on to a much larger MDOT project. There will still be plenty of opportunities for public comment and changes to the bike plan.*

Councilor Bullett asks if MDOT would cover the cost of the additional streetlights. *The answer is no, they will not cover that cost. The City will be responsible for the cost of the streetlights.*

Motion to recommend the plan to the full council

Approved.

Vote to recommend the plan to the full council

Unanimously approved.

Franklin St Project Update and Funds Appropriation

Presented by Kevin Kraft

The Franklin Street project has evolved over many years of study and public participation. The Reclaiming Franklin Street study was adopted by the City Council in 2009, establishing a design concept that converts Franklin Street to a more standard urban street and restores lost neighborhood connectivity to the street's east and west. The Franklin Street Master Plan, adopted by the Council in 2015, refined the urban street concepts from the Reclaiming Franklin Street study into a recommended street concept that included a reduced street footprint, improved bikeways and streetscapes, and street connectivity at Oxford, Newbury and Federal Streets.

At a September 2023 City Council workshop, city staff presented an update on Franklin Street, reintroducing the project to the Council and providing a rationale for revisiting and updating the Master Plan concept. The presentation included an overview of the changes that have occurred since 2015, including significant development along and nearby Franklin Street, post-pandemic shifts in traffic conditions, and the opportunity to obtain new significant federal funding for projects like Franklin Street. The strong sentiment of the Council at the workshop was that the time is right to re-engage with the public and advance an update to the Master Plan concept.

In April 2024, the City of Portland and MaineDOT entered into a Village Partnership Initiative (VPI) agreement to update the 2015 Franklin Street Master Plan through the Franklin Street Enhanced Project Scoping project. The total agreed cost of the Planning Study is \$300,000. The City of Portland is contributing \$150,000 and MaineDOT will cover the remaining \$150,000.

At the City Council's 9/16 meeting, City Staff will be requesting that the Council approve the use of existing impact fee funds in the total of \$250,000 in order to provide a 10% local match for the

MaineDOT Reconnecting Communities and Neighborhoods federal grant application for the Franklin Street Design phase, which will begin following the completion of the Enhanced Project Scoping project. The remaining funding would be \$250,000 (10%) from MaineDOT and \$2,000,000 (80%) in federal funds, contingent upon the successful award of the grant.

Anticipated potential funding sources for future phases include the Reconnecting Communities & Neighborhoods grant, the Safe Streets for All (SS4A) grant, RAISE grant, and Congressionally Designated Spending (CDS) earmarks. Potential local funding sources for future phases may include proceeds from future parcel sales, development revenue, TIF revenue, impact fees, CIP funds, and water resources funds.

Public Comment on Franklin St Project Update and Funds Appropriation

Zack Barowitz thanks staff for their hard work and brings up that Kevin Kraft is a great asset to this project in particular due to his prior experience.

Markos Miller thanks the staff and committee for working on this project and looking forward to the economic development focus. Recommends that the land use plan should be integrated in the transportation plan and believes that the plan is in the right direction. Asks about how many homes can be built on Franklin St and notes that the Franklin St Reclamation group conducted a housing study that estimates significant housing opportunities and revenue from land sales. Markos asks that the committee recommend this to the full council.

Councilor Comments on Franklin St Project Update

Councilor Bullett asks that the housing organizations are aware of the project and where things stand. Councilor asks that the public engagement process be as robust as ReCode.

Motion to Recommend Local 10% Match of \$250,000

Moved unanimously

Vote on Recommendation of Local 10% Match of \$250,000 for the Reconnecting Communities Grant Application

Approved Unanimously.

Downtown Parking Update

Presented by Greg Jordan and John Peverada

Individuals working in the downtown area have expressed concern that there is insufficient affordable and easy long-term parking options that are in close enough proximity to places of employment.

In early August, city staff met with representatives of workers who are advocating for the parking proposal. The meeting was an opportunity to hear directly from workers about their challenges accessing parking in close proximity to workplaces. Representatives expressed the view that garages/lots generally do not have capacity, are not affordable, and do not allow late night exits. They also communicated a concern about personal safety related to

walking from work sites to parking garages. Due to these concerns, workers who choose to use on-street metered parking must move their vehicles every 2 hours (through 6pm) in order to avoid tickets.

Key Survey Results for Workers:

- 68% of respondents indicated they are Portland residents.
- 68% of respondents indicated they work for a restaurant/bar or retail business.
- 84% stated they either always or often drive to work.
- Most workers are using on-street metered or free parking; few report using garages or lots.
- 74% report that they cover the cost of parking entirely on their own.
- 39% report paying under \$100 per month for parking; 44% pay between \$100-\$300 per month, and 17% pay over \$300. - Nearly 50% of workers walk from their vehicles to work in 5 minutes or less, 0% walk 5-10 minutes, and 11% walk over 10 minutes.
- When asked about using garages and surface lots within a 10 minute walk to work sites, workers were either very or extremely concerned about parking affordability (69%), followed by late night garage access (35%), personal safety (29%), walking distance (27%), and accessibility (20%).
- When asked about options to make mobility/parking easier, workers expressed the most interest in a worker sticker pass (76%) followed by added downtown parking (37%), free transit passes (33%), safety-security improvements (29%), improved bike-pedestrian infrastructure (25%), pre-tax commuter benefits (23%), and late night bus service (18%).
- Only 17% reported awareness of the Portland Downtown District's Park and Work Program.

Key Survey Results for Businesses:

- 70% of respondents indicated they own or manage a restaurant/bar or retail business.
- Business owners indicated that affordable housing and the cost/availability of parking make it harder to recruit and retain employees.
- 41% reported providing some financial assistance to employees to help with parking costs.
- When asked about options to make mobility/parking easier, business owners expressed the most interest in a worker sticker pass (63%) followed by added downtown parking (49%), safety-security improvements (37%), free transit passes (32%), improved bike-pedestrian infrastructure (20%), late night bus service (19%), and pre-tax commuter benefits (16%).
- 67% of business owners expressed that customer parking would be very or somewhat impacted by allowing workers to park for extended periods in 2 hour meters.
- Only 15% of business owners reported knowing about the Portland Downtown District's Park and Work Program.

Among the municipalities that have programs for downtown workers, all restrict permit use to certain garages or lots. These locations are generally located along the peripheries of downtown

districts. None allow permit holders to park for extended periods in the central business district's 2 hour metered parking spaces.

Short-term metered parking in the downtown area is mainly provided to support the general public and local businesses by facilitating convenient customer access. The two-hour time limit fosters high turnover which is conducive to both customer needs and retail business/restaurant owners' desire for high traffic. As the peer review indicates, this approach to on-street parking in downtown business districts is common.

Lowering the supply of available short-term, metered parking should be expected to reduce the general public's ability to conveniently access downtown businesses. An industry accepted benchmark suggests that an on-street parking space generates \$45,000 to \$95,000 in annual retail sales.

While the survey results indicate strong support for the sticker program, the approach would allow workers to park beyond the 2 hour limit in the highest demand areas of the city. Such a program would be expected to reduce the supply of parking for customers and the general public. Where peer municipalities provide programs that aim to support downtown workers, these focus on making outlying parking more affordable while preserving high-turnover parking in core downtown districts.

City staff share the goal of making parking easier and more affordable for workers, and suggest we consider alternatives that balance the needs of workers with customers and local Businesses:

- Improve Affordability and Access to Parking Garages/Surface Lots
- Increase Metered Parking Time Frames at Underutilized Location(s)
- Improve Overall Communications about Parking Options
- Free Transit Pass Program for Downtown Workers
- Expand Metro's Peninsula Circulator

Councilor Comment on Downtown Parking Update

Councilor Bullett is wanting to know what neighborhoods the downtown workers are commuting in from. This could be useful information to inform public transit or future micro transit. Asks what needs to be done to increase the income guidelines for the Portland Downtown District Work and Park program. PDD runs the program and would likely need to be the ones to change the income limits. Councilor asks if moving the Spring St parking to 10hr parking would lead to Cross Arena parkers using those spots. Councilor Bullett asks what the limits would be for the downtown worker free transit pass program and asks that housekeeping staff is also included in the program and asks that the employers may be responsible for the price of the program. Greg hopes that the program run a pilot year with two participating employers.

Public Comment on Downtown Worker Parking

No public comment

Motion to approve the recommendations of downtown parking

Approved unanimously

Motion to Adjournment

The motion was moved by Councilor Bullett, and seconded by Councilor Phillips

The motion was accepted unanimously.

Meeting Adjourned



Sustainability Updates

October 9, 2024

Office Update

The Sustainability Office was happy to host Kayley Weeks, a GPCOG Resilience Corps member, for the last 10 months. Kayley worked on many projects in the office including the DIY Electrify! Program, outreach efforts for the Landcare Ordinance, and coordinating the interdepartmental Resilience Working Group to identify City infrastructure that is vulnerable to sea level rise. We thank Kayley for her work in the Sustainability Office and wish her luck in her future endeavors. We submitted an application to GPCOG to host another Fellow in 2025.

Energy Updates

On Sept 18th, Governor Mills and U.S. Department of Energy Secretary Jennifer M. Granholm announced the launch of Maine's new [Home Energy Rebate Program](#). The program is funded through the Inflation Reduction Act with \$36 million in federal grants to help eligible households save money on energy, upgrade to clean energy equipment, and improve energy efficiency in their homes. Current rebates apply to larger new construction multi-family buildings with low-income residents and low-income manufactured homeowners. The program will be administered by [Efficiency Maine](#). The Sustainability Office is staying up-to-date on this program and is available as a resource for interested Portland residents.

Community Resilience

Sustainability Office staff have met with student teams from UMaine Farmington, Harvard University, University of Buffalo, and more participating in the [Envision Resilience Challenge](#), a coastal resilience initiative connecting academia, local leadership and community members to envision innovative approaches to the impacts of climate change. Teams work to reimagine coastal communities and propose imaginative solutions to the impacts of sea level rise. Portland has been chosen for the location for the fall of 2024.

Community Engagement

On Sept 13, we hosted a Coffee & Climate event with guest speaker Dr. Nirav Shah, the Principal Deputy Director for the U.S. Center for Disease Control and Prevention. Dr. Shah spoke about the public health impacts of climate change including increased spread of disease, new invasive pests, mental health impacts, and heat stress. The next Coffee and Climate event will be on October 11th at 9am with guests from CruiseMaine and the Cruise Line International Association to speak about the cruise industry and how we will work together for a sustainable future.



On Sept 20th, the Sustainability Office along with staff from the Parks Department and Public Works participated in Park(ing) Day. Park(ing) Day is a global, public, participatory project. Groups worldwide turn parking spaces into parks for a day to promote safer, greener, and more equitable streets for people. Every year, we host Park(ing) Day - a day where groups worldwide turn parking spaces into parks for a day to promote safer, greener, and more equitable streets for people.

On September 21st we cohosted Portland's Coastal Clean Up event with the Maine Coastal Program. We recruited volunteers to help pick up litter across Back Cove on International Coastal Cleanup Day, where countries worldwide participate in litter clean-up events.

As always, visit www.oneclimatefuture.org to sign up for our once-a-month newsletter where we share information on upcoming events, programs launching, and climate action progress. We also host monthly Climate and Coffee events, which are community conversations that happen on the 2nd Friday of the month at 9 AM. You can also follow us on social media. Instagram @sustainableportlandme // FB @SustainablePortlandME



To: Sustainability and Transportation Committee
Councilor Regina Phillips, Chair

MEETING DATE

October 9, 2024

AGENDA ITEM

Agenda Item #1 – Process of Naming City Facilities

PURPOSE

Update the committee on the development of a formal process to review and approve naming of city facilities.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT

While not included in the committee’s work plan, the City Council’s 2024 goals identify improving diversity, equity and inclusion (Goal 1) and community engagement (Goal 5). A formalized process for naming city facilities would advance these goals by building in appropriate review criteria and expanding community engagement elements to the review process.

BACKGROUND/ANALYSIS

Previous requests to name city facilities (e.g., parks, streets, buildings, etc.), have been reviewed by committees and ultimately approved by the City Council. However, the city lacks a formalized process for conducting this review. In recent months, several requests to name city facilities have been received by staff including a city block, a baseball field, and Harborview Park. In light of these multiple requests, staff recommend taking the opportunity to develop a more formal and rigorous process that broadens inclusions, widens community engagement, improves transparency, and effectively aids the City Council in making these decisions.

Staff are just commencing this review and do not have materials to share at this time. Staff is seeking input from committee members on the key questions and concerns they would want this process to address.

CONCLUSION(S)

This item is being introduced at this time and is for information and discussion. Staff will present a draft process for consideration at a future meeting.

PRIOR COMMITTEE REVIEW

None.

PREPARED BY

Masi ngidi-Brown
Interim JDEI Director
Executive Department

Greg Jordan
Assistant City Manager
Executive Department

2023 Energy Benchmarking Report

October 9, 2024

Overview

Energy benchmarking is the process of measuring a building's energy and water use over time. Jurisdictions all over the country have implemented energy benchmarking and transparency policies as foundational tools to support building decarbonization. Energy Benchmarking ordinances encourage the efficient use of energy and water and help to reduce greenhouse gas emissions. By taking inventory of energy usage each year and comparing buildings of similar size and use, owners can identify underperforming areas that can be improved.

On November 7, 2016, the City of Portland adopted an energy benchmarking ordinance that requires covered properties to annually report water and energy usage. On July 15, 2019, the City Council voted to require all single-occupant buildings to begin reporting their energy and water consumption. A single-occupant building is defined as any building with a single tenant that utilizes 90% or more of the building space. All other covered properties must be compliant one year after the Sustainability Office certifies that the energy data is available from utilities in a convenient electronic format. The Sustainability Office will alert affected property owners when this certification is made.

How It Works

Unique Building IDs

The Office obtains a list of buildings 20,000 sq ft or more from the Assessor's Office. Each building is assigned a Unique Building Identifier that is geolocated and is unique for that building even if the building envelope may change.

How Data Is Reported

The ordinance relies on self-reported data input into Energy Star Portfolio Manager by building owners or individuals designated by the building owner. Portfolio Manager applies a complex analytic model to compare and rank similar types of buildings across the country and over time by adjusting for differences in weather, climate, and use characteristics.

Benchmarking Score

Certain property types can receive a 1 - 100 Energy Star score, which compares properties to similar properties nationwide. A score of 50 represents median energy performance, while a score of 75 or higher means your building is a top energy performer.

Weather Normalization

Energy use changes due to colder winters or hotter summers; weather-normalized energy accounts for this difference and allows for a closer look at changes in energy use without the effect of weather.

Energy Use Intensity (EUI)

EUI is expressed as energy per square foot per year. It is calculated by dividing the total energy consumed by the building in one year by the total gross floor area of the building.

2023 Reporting

All owners of buildings 20,000 sq ft or more in the City of Portland received a notice letter in December 2023. Letters informed building owners of the requirement to report for single-tenant building owners and the delayed requirement to report for multi-tenant building owners.

Multi-tenant building owners will be required to report once the utility is able to provide whole-building aggregated energy use information in a convenient online format.

Trainings and Outreach

The Sustainability Office created many short tutorials for common questions and explaining how to fix common errors in benchmarking reports. Sustainability staff met one-on-one with numerous building owners to assist in completing and submitting reports. All trainings and presentations can be found at portlandmaine.gov/energybenchmarking.

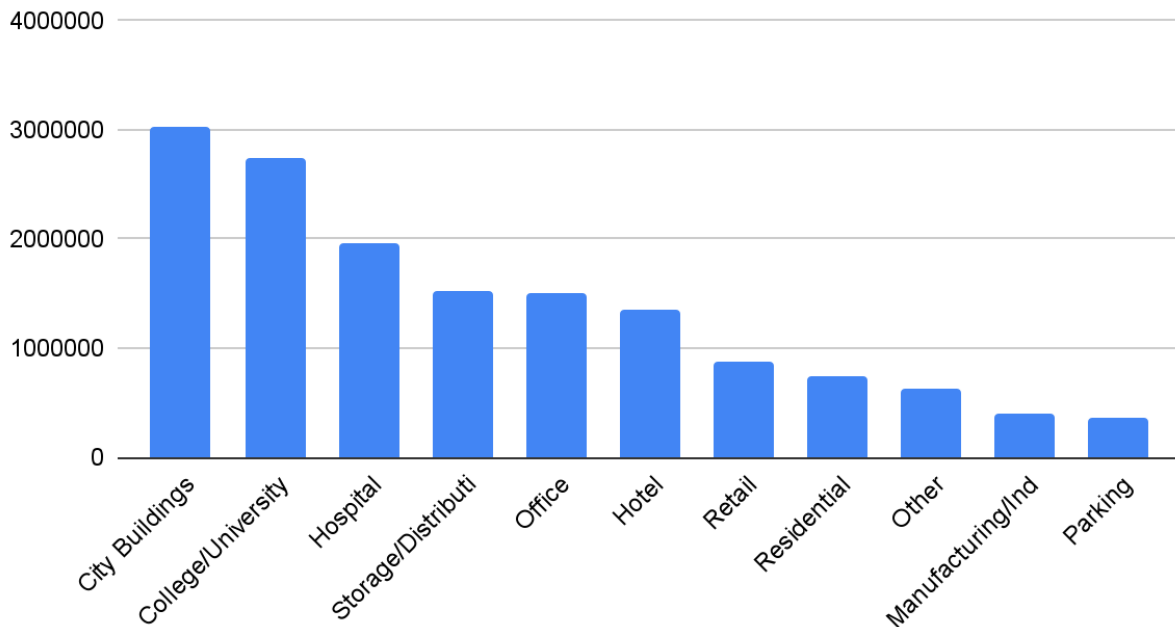
2023 Data Analysis

The Sustainability Office received 198 Energy and Water Use Benchmarking Reports for calendar year 2023. There were 40 municipal buildings and 158 commercial/residential/industrial buildings reported. Of the non-municipal buildings, 137 reported enough energy and water data to designate Building Energy Use Intensity (EUIs) for the buildings. No EUI can result from missing data, having gaps in the dates data is entered, or if the building is part of a larger campus that shares meters between buildings. Only 21 reports were missing crucial data requested. Of the buildings with EUIs, there are 44 unique property types.

Property Type Breakdown: Who Reported?

Category	Property Use	Number of Reports	Gross Floor Area (GFA) in Sq Ft
City Buildings	City Hall, Fire Stations, Jetport, Etc.	40	3,021,026
College	College/University	32	2,741,031
Hospital	General, Medical, Surgical, and Specialty Hospital; Surgical Centers	6	1,953,755
Storage/Distribution	Non-Refrigerated Warehouse; Self-Storage Facility	20	1,527,984
Office	Medical Office; Financial Office; Bank; Courthouse	19	1,498,804
Hotel	Hotel	14	1,344,333
Retail	Strip Mall; Auto Dealership; Supermarket; Retail Store	22	872,394
Residential	Senior Living; Multifamily Housing; Residential Care Facility	12	752,080
Industrial	Manufacturing/ Industrial Plant	5	392,315
Parking	Parking Garages	3	357,634
K-12 Schools	Private K-12 Schools	7	210,174
All Other Buildings	Repair Services, Fitness Center, Performing Arts, Bowling Alley, Library, Mixed Use Property, Not Available, Worship Facility	18	721,157
TOTAL		198	15,298,210

Square Footage Reported



Average Energy Star Score

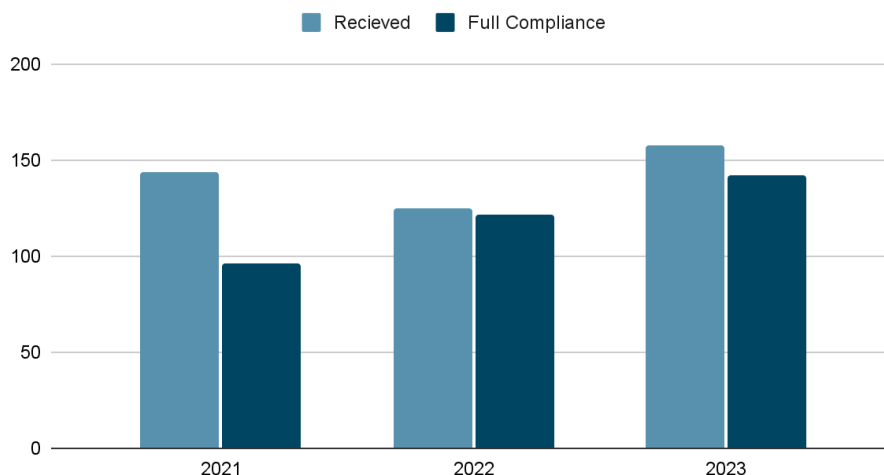
The average Energy Star Score for qualifying property types is 63. An Energy Star Score of 50 is considered an average performing building.

Data Quality

Staff implemented the use of an implementation platform called BEAM by Clearly Energy during the 2022 reporting season. Previously, data quality checks for each report were done manually making it difficult to correct errors in reports after the initial report was submitted.

Data quality has improved each year since using BEAM.

Data Accuracy



Properties using default, estimated, and temporary values are considered low levels of data quality. Site EUI and Source EUI may be noted as “Not Available” if energy data was input incorrectly, there was not a full year of data to analyze, or if the building is part of a parent property. Energy Star scores of 1 or 100 indicate energy data or property gross floor area (GFA) were input incorrectly. 9 Reports fall into this category.

Looking to the Future

- *Multi-tenant buildings:* As the ordinance states, multi-tenant buildings 20,000 square feet or more are required to report energy and water use metrics once the utility is able to provide whole-building energy usage data in a convenient online format. Central Maine Power is currently working on this platform, with hopes to launch in 2024. The Sustainability Office anticipates multi-tenant buildings will be required to report starting in 2026.
- *Contact with building owners:* There are around 600 buildings covered under the ordinance in the City of Portland. The Office has had difficulty reaching the building owners of these buildings as Assessor’s Office information is the basis for benchmarking contact. In December 2023, the Office requested contact information for building owners and those who would be responsible for completing the reporting required. The Office currently has contact information for 391 covered buildings (64%).
- *Contact information:* Additionally, staff struggle to continue to reach the correct contact at each building due to turnover and new reporters unable to access their existing accounts. Staff is working to better communicate with reporters to create continuity over time in case of turnover.

Status	Exemption	campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUI (kBtu /ft²)	Site EUI (kBtu /ft²)	Source EUI (kBtu /ft²)	Source EUI (kBtu /ft²)	Water Use Intensity (gal/ft²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
City Buildings													
In Compliance	Not Exempt		Allen Av Fire Station	386 Allen Av	4.9	77.9	84	149.4	158.2	29.65		5600	Fire Station
In Compliance	Not Exempt		Bramhall Fire Station	784 Congress St	5.4	92.3	100.4	141.3	150.1	20.74		14675	Fire Station
In Compliance	Not Exempt		Central Fire Station	380 Congress St	4.1	72.9	83.5	98.2	109.2	12.16		16110	Fire Station
In Compliance	Not Exempt		Stevens Avenue Fire Barn	212 Stevens Avenue	8.2	111.3	111.3	150.9	150.9	6.75		5040	Fire Station
In Compliance	Not Exempt		Exposition Building	239 Park Av	9.3	150.3	160.6	281.8	291.6	23.66		62038	Fitness Center/Health Club/Gym
In Compliance	Not Exempt		Portland Ice Arena	225 Park Av	15.7	257.2	260.9	460.1	461.8	37.31		33437	Ice/Curling Rink
In Compliance	Not Exempt		Deering High School	370 Stevens Av	4.7	85.1	95.1	109.5	120.3	6.81	36	191438	K-12 School
In Compliance	Not Exempt		East End Community School	195 North St	5.9	100.4	108.8	154.9	163.7	6.86	14	72620	K-12 School
In Compliance	Not Exempt		King Middle School	92 Deering Av	4.6	80.1	89.7	111.9	122.3	9.63	42	89263	K-12 School
In Compliance	Not Exempt		Lincoln Middle School	522 Stevens Av	4.3	75.6	84.9	106.6	116.6	2.53	49	93936	K-12 School

In Compliance	Not Exempt		Longfellow Elementary School	432 Stevens Av	0.9	12.5	12.5	34.9	34.9	3.77	99	46924	K-12 School
In Compliance	Not Exempt		Lyman Moore Middle School	171 Auburn St	4.4	77.7	86.8	104.5	114.1	5.74	49	162669	K-12 School
In Compliance	Not Exempt	x	Lyseth Elementary School	175 Auburn St	1.2	16.6	16.6	46.4	46.4	18.87	97	49444	K-12 School
In Compliance	Not Exempt		PATHS	196 Allen Av	3.9	65.3	72.1	100	107.1	4.54	53	172173	K-12 School
In Compliance	Not Exempt		Peaks Island School	4 Church St	13.3	180.3	199.2	212	231.9	7.19	2	6750	K-12 School
In Compliance	Not Exempt		Portland High School	284 Cumberland Av	2.7	47.3	53.7	71.2	78.2	2.96	80	266228	K-12 School
In Compliance	Not Exempt		Presumpscot Elementary School	69 Presumpscot Street	6.3	110.1	123.7	155	169.2	8.72	16	25430	K-12 School
In Compliance	Not Exempt		Reiche Community School	166 Brackett Street	4.2	73	79.4	108.6	115.8	4.89	41	112346	K-12 School
In Compliance	Not Exempt		Riverton School	1600 Forest Avenue	4.4	72.5	77.5	127	132.3	8.34	29	106754	K-12 School
In Compliance	Not Exempt		Ocean Av Elementary School	150 Ocean Av	3.1	52.1	56.6	84	88.7	2.19	59	68847	K-12 School
In Compliance	Not Exempt		Amanda C. Rowe Elementary School	23 Orono Road	3.5	59.3	59.3	97.9	97.9	4.19	55	76053	K-12 School
In Compliance	Not Exempt		Fire Museum	157 Spring St	3.7	49.9	56.3	52.5	59	0.12		6000	Museum
In Compliance	Not Exempt		School Administration Building	353 CUMBERLAND AVE	18.5	320.4	363	479.4	524.1	14.79	21	11236	Office

In Compliance	Not Exempt		Portland Central Kitchen	92 Waldron Way	7.9	130.2	139.9	231.4	241.2	8.52		21180	Other
In Compliance	Not Exempt		39 Forest Ave	39 Forest Ave	3.8	61.9	67.2	110.8	116.1	6.69		37250	Other - Public Services
In Compliance	Not Exempt		Portland Ocean Gateway and Information Center	6 Commercial St	12.2	202.4	210.5	349.3	357.9	110.43		18466	Other - Public Services
In Compliance	Not Exempt		City Hall and Merrill Auditorium	389 Congress St	5.2	89.3	96.7	138.6	146.1	3.55		165876	Other - Public Services
In Compliance	Not Exempt		Cummings Community Center & Munjoy Hill Fire Station	134 Congress St	5.4	92.2	99.7	147.7	155.3	13.1		15840	Other - Public Services
In Compliance	Not Exempt		Evergreen Cemetery Building	672 Stevens Av	10.2	138	152.5	172.4	189.1	9.62		5597	Other - Public Services
In Compliance	Not Exempt		Riverside Golf Course Clubhouse	1158 Riverside Street	4.8	71.6	74.4	164.7	167.7	27.37		10154	Other - Public Services
In Compliance	Not Exempt		Peaks Island Community Center and Public Safety Building	129 Island Av	3.6	49.4	52.7	84.5	89.6	6.28		7956	Other - Public Services
In Compliance	Not Exempt		Portland Public Works	250 Canco Road	3	52.5	59.3	78.9	86.7	4.11		80713	Other - Public Services
In Compliance	Not Exempt		Elm St Parking Garage	21 Elm St	0.2	2.4	2.5	6.9	7.1	0.42		172291	Parking

In Compliance	Not Exempt		Spring Street Parking Garage	45 Spring Street	0.4	5.2	5.6	14	15.2	0.32		222270	Parking
In Compliance	Not Exempt		Portland Police Station	109 Middle St	6.4	104	114.1	194.3	208	5.38		63038	Police Station
In Compliance	Not Exempt		Fish Exchange	1 Portland Fish Pier	6.7	104.1	108.5	217.4	221.3	18.46		38824	Refrigerated Warehouse
In Compliance	Not Exempt		Barron Center	1145 Brighton Av	5.1	85.5	89.6	141.5	146.1	34.07	94	117032	Senior Living Community
In Compliance	Not Exempt		Portland Ocean Terminal	40 Commercial St	4.2	65.4	71	133.2	139.2	6.33		140798	Transportation Terminal/Station
In Compliance	Not Exempt		Portland International Jetport	1001 Westbrook Street	18.8	281.8	295.3	643.4	653.7	51.71		140000	Transportation Terminal/Station
In Compliance	Not Exempt		Public Works Administration - Parks, Recreation and Facilities Department	212 Canco	2.4	40.4	44.5	68.1	72.4	3.41	43	68730	Non-Refrigerated Warehouse
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUl (kBtu /ft²)	Weather Normalized Site EUl (kBtu /ft²)	Source EUl (kBtu /ft²)	Weather Normalized Source EUl (kBtu /ft²)	Water Use Intensity (All Water Sources) (gal/ft²)	ENE RGY STA R Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
College/University													
In Compliance	Not Exempt	x	Wishcamper Center	34 Bedford Street	0	0.1	0.1	0.1	0.1	2.73		59704	College/University

In Compliance	Not Exempt	x	Glickman Family Library	314 Forest Avenue	2.5	46.4	48.5	48.7	50.9	1.46		126432	College/University
In Compliance	Not Exempt	x	Abromson Community Education Center	88 Bedford Street	0							44124	College/University
In Compliance	Not Exempt	x	Luther Bonney Hall	85 Bedford Street	0							76685	College/University
In Compliance	Not Exempt	x	Woodbury Campus Center	35 Bedford Street	0	0.2	0.2	0.2	0.2			28256	College/University
In Compliance	Not Exempt	x	Masterton Hall	71 Bedford Street	0					1.38		36636	College/University
In Compliance	Not Exempt	x	Maine Law Building	246 Deering Avenue	0					0.41		92983	College/University
In Compliance	Not Exempt	x	Sullivan Gym Complex	66 Foulmouth Street	0.2	3.9	3.9	4.1	4.1	5.47		58062	College/University
In Compliance	Not Exempt	x	Science Building	70 Falmouth Street	0.2	4	3.8	4.2	4	5.79		152806	College/University
In Compliance	Not Exempt	x	Payson Smith Hall	96 Falmouth Street	0.1	2.4	2.4	2.6	2.6	7.04		52516	College/University
In Compliance	Not Exempt	x	East Campus	Bedford Street	3.3	45.3	45.2	126.8	126.7			230260	College/University
In Compliance	Not Exempt	x	West Campus	Bedford Street	2.6	36.6	36.4	102.5	101.8			497944	College/University
In Compliance	Not Exempt		College of Pharmacy	706 Stevens Avenue	11.2	189	200.4	306.7	319.4	5.37		46380	College/University
In Compliance	Not Exempt		Oral Health Center	1 College Street	7	102.5	105.3	250.8	252.8	26.65		40300	College/University

In Compliance	Not Exempt		Blewett Hall	716 Stevens Avenue	2.9	48.4	52	80.1	83.9	7.29		31650	College/University
In Compliance	Not Exempt		Central Loop	716 Stevens Avenue	1.3	19	19.4	46.1	46.6	9.54		254806	College/University
In Compliance	Not Exempt	x	Goddard Hall	716 Stevens Avenue	1.4	25.7	28.6	27	30.1	89.06		12696	College/University
In Compliance	Not Exempt	x	Proctor Hall	716 Stevens Avenue	3.2	44.4	44.4	124.4	124.4	24.2		31074	College/University
In Compliance	Not Exempt	x	Linnell Hall	716 Stevens Avenue	0					3.48		12411	College/University
In Compliance	Not Exempt	x	Hersey Hall	716 Stevens Avenue	0					0.25		22170	College/University
In Compliance	Not Exempt	x	Alumni Hall	716 Stevens Avenue	0					2.44		12612	College/University
In Compliance	Not Exempt	x	Innovation Hall	716 Stevens Avenue	1.8	24.9	24.6	69.7	68.9	4.35		63700	College/University
In Compliance	Not Exempt	x	Coleman Hall	716 Stevens Avenue	3.5	65.4	73.1	68.7	76.8	6.28		10718	College/University
In Compliance	Not Exempt	x	Ginn Hall	716 Stevens Avenue	46	837.7	904	1020.8	1093.4	41.64		18783	College/University
In Compliance	Not Exempt	x	Alexander Hall	716 Stevens Avenue	3	41.2	41.2	115.3	115.3	11.46		22098	College/University
In Compliance	Not Exempt	x	MacDougal Hall	716 Stevens Avenue	0							15308	College/University
In Compliance	Not Exempt	x	Parker Pavilion	716 Stevens Avenue	29.1	405.4	386	1135.1	1080.8			6600	College/University

In Compliance	Not Exempt	x	Placeholder Property (Bills from Unknown Source)	Unknown	0					67.62		10000	College/University
In Compliance	Not Exempt	x	McGoldrick Center	35 Bedford Street	0							42000	College/University
In Compliance	Not Exempt	x	Portland Commons	Bedford Street	0							218000	College/University
In Compliance	Not Exempt	x	Abplanalp Library	716 Stevens Avenue	0					8.27		26636	Library
In Compliance	Not Exempt	x	Parking Garage	88 Bedford Street	0					0.32		386681	Mixed Use Property
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO ₂ e /ft ²)	Site EUI (kBtu /ft ²)	Weather Normalized Site EUI (kBtu /ft ²)	Source EUI (kBtu /ft ²)	Weather Normalized Source EUI (kBtu /ft ²)	Water Use Intensity (All Water Sources) (gal/ft ²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft ²)	Primary Property Type - Portfolio Manager-Calculated
Hospital													
In Compliance	Not Exempt		Outpatient Specialty & Surgery Center	155 Fore River Parkway	19.8	323.9	328	578.8	578.9	92.93	20	33045	Ambulatory Surgical Center
In Compliance	Not Exempt		33 Sewall St	33 Sewall St	8.4	127.6	132.3	289.4	294	29.32		54000	Ambulatory Surgical Center
In Compliance	Not Exempt		MMC Brighton	335 Brighton Ave	10.6	174	177.5	312.2	314.4	67728.47	93	210000	Hospital (General Medical & Surgical)
In Compliance	Not Exempt		MMC Bramhall	22 Bramhall Street	15.3	255.1		425.7		8.93	53	1500000	Hospital (General Medical & Surgical)

Exempt	Exempt		Spring Harbor Hospital	123 Andover Road	19.5	304.8	313.5	632.2	641.4		8	88000	Hospital (General Medical & Surgical)
In Compliance	Not Exempt		Portland VA CBO	141 West Commercial Street	11	181.7	184.1	313.4	313.2	6.46		68710	Urgent Care/Clinic/Other Outpatient
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO ₂ e /ft ²)	Site EUI (kBtu /ft ²)	Weather Normalized Site EUI (kBtu /ft ²)	Source EUI (kBtu /ft ²)	Weather Normalized Source EUI (kBtu /ft ²)	Water Use Intensity (All Water Sources) (gal/ft ²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft ²)	Primary Property Type - Portfolio Manager-Calculated
Hotel													
In Compliance	Not Exempt		Portland ME HAMP	209 Fore St	6	97.4	101.6	175.2	179.6	16.85	56	71206	Hotel
In Compliance	Not Exempt		Maple Hotel Enterprises LLC dba Motel 6	1 Riverside Street	2.9	54.1	54.1	58.6	58.8	180.44	100	44944	Hotel
In Compliance	Not Exempt		2049-Portland	340 Park Ave.	3.9	62.8	64.1	123.1	126.8	49.17	87	50864	Hotel
In Compliance	Not Exempt		The Press Hotel	119 Exchange St	7	115.8	119	204.7	207.7	48.62	44	83506	Hotel
In Compliance	Not Exempt		Portland DT Waterfront ME ACH	158 Fore St	4	64.5	65.5	125.2	125.4	36.77	90	105975	Hotel
In Compliance	Not Exempt		Canopy Portland Waterfront	9 Center Street	3.6	67.8	67.9	73.6	73.6	32.02	100	104000	Hotel
In Compliance	Not Exempt		Portland Harbor Hotel	468 Fore Street	9.7	160.3	164.2	275	278.6	65.79	2	54376	Hotel

In Compliance	Not Exempt		86 Newbury Street Condo 5	25 Hancock Street	1.8	33.5	33.5	37.2	37.2	24.18	100	78845	Hotel
In Compliance	Not Exempt		Embassy Suites by Hilton	1050 Westbrook St	6.4	102.1	106.6	198.6	207.3	42.95	63	103048	Hotel
In Compliance	Not Exempt		Clarion Hotel	1230 Congress st	4.5	72.1	74.8	136.5	139.5	55.58	90	99000	Hotel
In Compliance	Not Exempt		HGI Portland	65 Commercial st.	5.4	87.1	87.8	159.8	159.9	53.22	84	76472	Hotel
In Compliance	Not Exempt		Westin Portland Harborview Hotel	157 High Street	5.9	96	98.4	172.2	174.2	31.55	66	254268	Hotel
In Compliance	Exempt		Cow Plaza Hotel LLC	433 Fore Street						49.95		80189	Hotel
In Compliance	Not Exempt		Portland Downtown ME RI	145 Fore St	4.5	72	74	141	142.9	37.89	80	137640	Hotel
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUl (kBtu /ft²)	Weather Normalized Site EUl (kBtu /ft²)	Source EUl (kBtu /ft²)	Weather Normalized Source EUl (kBtu /ft²)	Water Use Intensity (All Water Sources) (gal/ft²)	ENERGY Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
K-12 School													
In Compliance	Not Exempt		64 Emery Street	64 Emery Street	3.1	53.5	59	82.3	88.6	4.53	80	42779	K-12 School
In Compliance	Not Exempt		16 Storer Street	16 Storer Street	1.9	31.9	35	49.8	53.1	1.79	95	73799	K-12 School
In Compliance	Not Exempt	x	Breakwater Learning	856 Brighton Ave.	0							35986	K-12 School

In Compliance	Not Exempt	x	Jessie	856 Brighton Ave.	3.9	53.2		62.9			94	5553	K-12 School
In Compliance	Not Exempt	x	Brick	858 Brighton Ave.	3	53.2	57.7	74.3	79		74	21288	K-12 School
In Compliance	Not Exempt	x	Gym	856 Brighton Ave.	5.7	78.1		116.4			53	9145	K-12 School
In Compliance	Not Exempt		Glickman Academy	587 Washingt on Ave	3.1	57.1	66.2	69.9	79.3	7.61		21624	Other - Education
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUI (kBtu /ft²)	Weather Normalized Site EUI (kBtu /ft²)	Source EUI (kBtu /ft²)	Weather Normalized Source EUI (kBtu /ft²)	Water Use Intensity (All Water Sources) (gal/ft²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
Manufacturing/Industrial													
In Compliance	Not Exempt		Allagash Brewing Company	50 Industrial Way	17.6	299.4	298.7	474.3	472.5	161.25		75000	Manufacturing/Industrial Plant
In Compliance	Not Exempt		Barber Foods, LLC	70 St. John Street	29.6	462.4	479.5	953	978.4	184.31		146233	Manufacturing/Industrial Plant
In Compliance	Not Exempt		500 Riverside - 500 Building	500 Riverside Industrial Parkway	7.8	117.3	121.3	268.3	272.1	5.65		34400	Manufacturing/Industrial Plant
In Compliance	Not Exempt		525 Riverside - 520/540 Building	524 Riverside Industrial Parkway	6.6	103.4	105.8	208.8	210.5	5.97		51952	Manufacturing/Industrial Plant
In Compliance	Not Exempt		Oakhurst Dairy	364 Forest Avenue	33.9	469.3	471.4	964.6	965.5	343.12		84730	Manufacturing/Industrial Plant

Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUI (kBtu /ft²)	Weather Normalized Site EUI (kBtu /ft²)	Source EUI (kBtu /ft²)	Weather Normalized Source EUI (kBtu /ft²)	Water Use Intensity (All Water Sources) (gal/ft²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
Office													
In Compliance	Not Exempt		Norway Savings Bank	1200 Congress Street	7.8	126.7	129.2	234.5	235.6	4.56	38	28886	Bank Branch
In Compliance	Not Exempt		CUMBERLAND COUNTY COURTHOUSE	142 FEDERAL STREET	3.1	53.6	61.8	79.3	87.9	5.97	94	78000	Courthouse
Failed	Not Exempt		Baxter	562 Congress st	2.1	36	39.8	52.4	56.1			105872	Financial Office
In Compliance	Not Exempt		216 Vaughan Street	216 Vaughan Street	6.8	116.3	123.7	180.5	188.2	13.28	46	28220	Medical Office
In Compliance	Not Exempt		Eye Venture Associates	53 Sewall St	11.5	182.4	180.9	358.6	354.4	24.65	49	26030	Medical Office
In Compliance	Exempt		Northern Light Health	43 Baxter Blvd	2.5	38.6	41	77.8	79.8	4.45	100	24524	Medical Office
Approved for annual exemption	Not Exempt		31301101 - Fore River Medical Building	195 Fore River Parkway	14.8	208.4	208.4	571.6	571.6		2	75784	Medical Office
In Compliance	Not Exempt		Maine Eye Center	15 Lowell Street	4.4	71	75.5	129.9	134.2	9.72		34000	Medical Office
In Compliance	Not Exempt		#1208 - Thompson's Point -	8 Thompsonso	6.3	112	112.6	151.5	153.3	3.19	9	28000	Office

			Brick South	ns Point Road									
In Compliance	Not Exempt		5DFR	5 DAVIS FARM RD	4.7	72.7	75.6	154.7	157.2	12.16	63	80683	Office
In Compliance	Not Exempt		Cianbro (Ricker's Wharf Facility)	60 CASSIDY PT RD	3.3	49.7	55.5	108.7	118.1	4.57	59	21901	Office
In Compliance	Not Exempt		Congress Street LLC	2331 Congress Street	5.7	98.8	108.3	142.3	152.4	14.37	53	22000	Office
In Compliance	Not Exempt		Unum Portland, ME Campus	2211 Congress Street	4.4	71.5	75.5	132.8	137.1	15.06		719311	Office
In Compliance	Not Exempt		Auto Europe LLC	43 Northport Drive	2.9	47.3	50.8	86.1	90.8	1.8	85	26784	Office
In Compliance	Not Exempt		Avesta Housing - 307 Cumberland Ave	307 Cumberland Ave	3.4	57.4	62	89.5	94.1	2.93	76	25650	Office
Failed	Not Exempt		501 Forest Ave	501 Forest Ave								26400	Office
In Compliance	Not Exempt		Julia Welsh	619 Congress St	1.8	32.8	38	36.8	42.2	2.2	99	24187	Office
In Compliance	Not Exempt		41 Hutchins Drive, LLC	41 Hutchins Drive	6.3	108.9	115.4	165.7	171.7	2.22		57572	Office
In Compliance	Not Exempt		PWD Admin Facility	225 Douglass St.	3	41.6	41.7	115.4	115.5	6.1	81	65000	Office
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions	Site EUI (kBtu /ft²)	Weather Normalized Site EUI	Source EUI (kBtu /ft²)	Weather Normalized Source EUI	Water Use Intensity (All Water Source	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated

					Intensity (kgCO2e /ft²)		(kBtu /ft²)		(kBtu /ft²)	s) (gal/ft²)			
<i>Other</i>													
In Compliance	Not Exempt		Bayside Bowl	58 Alder St	3.2	57.2	63.5	59.7	66.4	27.61		33000	Bowling Alley
In Compliance	Not Exempt		Planet Fitness Portland	145 Marginal Way	6.3	97.3	100.9	206.5	208.6	36.27		20000	Fitness Center/Health Club/Gym
In Compliance	Not Exempt		Children's Museum and Theatre of Maine	250 Thompso n's Point Road	2.9	44.3	45.8	97.8	99	12.06		40000	Museum
In Compliance	Not Exempt	x	Building G	100 West Commerci al Street	3.2	51.5	56.3	58.4	63.5	7.27		20000	Other
In Compliance	Not Exempt	x	Wayneflet e Rowing	100 West Commerci al Street	0.3	3.6	3.7	10	10.4	7.34		2000	Other
In Compliance	Not Exempt		238 Riverside	238 Riverside Street	1.3	21.6	24.2	40.7	43.5	1.7		36340	Other
In Compliance	Not Exempt		APEX Fitness & Racket Center LLC	2445 Congress St	1.8	26.6	26.6	60	60	0		82000	Other - Recreation
In Compliance	Not Exempt		YMCA of Southern Maine	70 Forest Avenue	6.3	112. 9	120.3	148.7	156.3	21.14		98180	Other - Recreation
In Compliance	Not Exempt		Portland Yacht Services	100 West Commerci al Street	4.5	69.3	74.7	118.2	125.1	18.79		86400	Other - Services
In Compliance	Not Exempt		Cumberlan d Club	116 High St	8.8	152. 8	164.5	223	234.7	16.59		20000	Social/Meeting Hall
In Compliance	Not Exempt		First Baptist Church in Portland	360 Canco rd	2.2	38.1	43.4	52.6	58.5	1.27	93	28327	Worship Facility

In Compliance	Not Exempt		Woodfords Congregational Church	202 Woodford Street	3.4	45.9	45.9	56.8	56.8	599.15	58	44000	Worship Facility
In Compliance	Not Exempt		Temple Beth El	400 Deering Avenue	3.8	65.9	72.1	93.3	99.7	8.94	46	21674	Worship Facility
In Compliance	Not Exempt		Grace Baptist Church	476 Summit Street	9.1	124.4	140	185.8	206.3	12.01		4737	Worship Facility
Failed	Not Exempt		St. Joseph Church	671 Stevens Avenue								20000	Worship Facility
Failed	Not Exempt		St. Pius X Church	492 Ocean Ave.								20000	Worship Facility
In Compliance	Not Exempt		First Parish Church	425 Congress Street	2.1	37.3	42.5	53.3	59.4	5.33	48	17637	Worship Facility
In Compliance	Not Exempt		State Street Church UCC	159 State Street	2.6	46.9	53.8	59.2	66.4	5	53	32385	Worship Facility
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO ₂ e /ft ²)	Site EUI (kBtu /ft ²)	Weather Normalized Site EUI (kBtu /ft ²)	Source EUI (kBtu /ft ²)	Weather Normalized Source EUI (kBtu /ft ²)	Water Use Intensity (All Water Sources) (gal/ft ²)	ENE RGY Score	Property GFA - Calculated (Buildings) (ft ²)	Primary Property Type - Portfolio Manager-Calculated
Parking													
In Compliance	Not Exempt		One City Center Parking Garage	23 Free Street	0.2	2.7	2.7	7.5	7.6			175134	Parking
Approved for annual exemption	Exempt		Harbor Plaza	468 Fore Street	0.1	1.5	1.5	4.3	4.3			61650	Parking

			Parking Garage										
In Compliance	Not Exempt		86 Newbury Street Condo 4	25 Hancock Street	0.3	3.6	4	10.1	11.1			120850	Parking
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUI (kBtu /ft²)	Weather Normalized Site EUI (kBtu /ft²)	Source EUI (kBtu /ft²)	Weather Normalized Source EUI (kBtu /ft²)	Water Use Intensity (All Water Sources) (gal/ft²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
<i>Residential</i>													
In Compliance	Exempt		deering pavilion	880 forest ave	2.9	48.5	51.2	83.5	86.4	33.22	85	135968	Multifamily Housing
Approved for annual exemption	Exempt		Back Bay Tower - Reliant	401 Cumberland Ave						15.15		229083	Multifamily Housing
In Compliance	Not Exempt		10590 Woods At Canco	257 Canco Road	3.9	64.2	68.9	116.8	124.5	32.78	39	112647	Multifamily Housing
In Compliance	Exempt		Danforth Heights - Building A	240 Danforth Street	5.2	90.4	97.2	128.3	135.8	35.25	46	24612	Multifamily Housing
In Compliance	Exempt		Danforth Heights - Building B	213 Danforth Heights	7.9	141.7	147.8	180.8	187.9	155.36	7	30436	Multifamily Housing
In Compliance	Exempt		Danforth Heights - Building C	48 Salem Street	6.2	109.4	117.4	153.6	162.9	41.71	41	55604	Multifamily Housing
In Compliance	Not Exempt		ST Joseph's Manor	136 Ray Street	9.4	160	166.9	225.8	232.4	43.43		88000	Residential Care Facility
In Compliance	Not Exempt		Salvation Army Adult Rehabilitation Center	98 Preble Street	6.1	102.8	111	169.7	178.3	24.85		23826	Residential Care Facility

In Compliance	Not Exempt	x	Sue Wright House	899 Riverside St	1.3	18.2		18.4		0.16		4576	Residential Care Facility
In Compliance	Not Exempt	x	Bigelow	899 Riverside St	1.9	32.7	35.1	51.4	53.9	9.91		12460	Residential Care Facility
In Compliance	Not Exempt	x	Kineo	899 Riverside St	2.9	51.7	55.8	70.1	73.9	10.11		9180	Residential Care Facility
In Compliance	Not Exempt		899 Riverside St Campus	899 Riverside St	2.2	37.6		53.2				25688	Residential Care Facility
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO2e /ft²)	Site EUI (kBtu /ft²)	Weather Normalized Site EUI (kBtu /ft²)	Source EUI (kBtu /ft²)	Weather Normalized Source EUI (kBtu /ft²)	Water Use Intensity (All Water Sources) (gal/ft²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft²)	Primary Property Type - Portfolio Manager-Calculated
Retail													
Failed	Not Exempt		127 MW	127 marginal way	0.1	1.4		2.7				27554	Other - Mall
Failed	Not Exempt		161 MW	161 marginal way	8.6	159.9	166.9	176	183.4			54922	Other - Mall
In Compliance	Not Exempt		Ruth's Reusable Resources	39 Blueberry Rd	1.7	26.7	27.1	36.8	38	0.53	96	27000	Retail Store
In Compliance	Not Exempt		Hub Furniture Co	291 Fore St	1.2	19.6	22.2	32.2	35	0.87	96	35000	Retail Store
In Compliance	Not Exempt		145 Presumpscot Store	145 Presumpscot St	1.7	23.1	23	64.8	64.4	3.12	96	21600	Retail Store
In Compliance	Not Exempt		2401 - PORTLAND	245 RIVERSIDE STREET	4.4	73.1	81.3	122.9	131.5	6.77	81	107085	Retail Store

In Compliance	Not Exempt		Branch 616 - Portland, ME	425 Warren Ave	3	52.2	59.4	72.2	80.3	0	54	26357	Retail Store
In Compliance	Exempt		2541AS - Portland, ME	91 Auburn St Ste A	12	186.8	193.7	392.3	398.7	14.77	71	63100	Supermarket/Grocery Store
In Compliance	Exempt		4543AS - Portland, ME	1364 Congress St	12.4	189.8	196.9	419.6	425.8	9.63	69	38949	Supermarket/Grocery Store
Failed	Not Exempt		8354-Portland	787 Riverside Street	12.6	198.2	206	404.3	410.4	13.72	64	35895	Supermarket/Grocery Store
In Compliance	Not Exempt		10291-PTL Portland Bayside	2 Somerset Street	17.7	280.4	288.6	557.8	564	39.03		56059	Supermarket/Grocery Store
In Compliance	Not Exempt		Quirk Chevrolet	1000 Brighton Ave	2.6	40.2	42.3	82.3	84.4	2.82	87	56000	Vehicle Dealership
In Compliance	Not Exempt		Moose LLC	375 Riverside Street	3.1	50.6	56.1	92.1	97.3	6.22	71	26285	Vehicle Dealership
In Compliance	Not Exempt		Hutchins Real Estate, LLC	299 Warren Avenue	4.8	81.7	85.3	127.3	131.3	3.79	46	33710	Vehicle Dealership
In Compliance	Not Exempt		Maine Yacht Center	100 Kensington Street	2.7	40.9	42	75.7	76.1	12.11		49300	Vehicle Repair Services
In Compliance	Not Exempt	x	Building A	100 West Commercial Street	0.2	2.9	3	8.2	8.4	3.8		19200	Vehicle Repair Services
In Compliance	Not Exempt	x	Building B	100 West Commercial Street	4.3	64.3	69.3	117.4	124.2	20.27		28800	Vehicle Repair Services
In Compliance	Not Exempt	x	Building C	100 West Commercial Street	2.1	34.3	37.5	66	69.3	4.29		21600	Vehicle Repair Services
In Compliance	Not Exempt	x	Building D	100 West Commercial Street	4.2	70.8	80.3	113.7	124.8	12.06		4800	Vehicle Repair Services

In Compliance	Not Exempt	x	Building E	100 West Commercial Street	6.5	103.7	112.4	126	135.4	30.4		12000	Vehicle Repair Services
In Compliance	Not Exempt		Moody's Collision Centers Portland	495 Presumpscot St	19.6	264.8	289.2	339.3	363.9	15.4		11250	Vehicle Repair Services
In Compliance	Not Exempt		N001946-PORTLAND ME	1058 BRIGHTON AVENUE	4	64.7	70.5	121.3	127.3	3.71	82	115928	Wholesale Club/Supercenter
Status	Exemption	Property is part of a campus	Property Name	Address Line 1	Total (Location-Based) GHG Emissions Intensity (kgCO ₂ e /ft ²)	Site EUI (kBtu /ft ²)	Weather Normalized Site EUI (kBtu /ft ²)	Source EUI (kBtu /ft ²)	Weather Normalized Source EUI (kBtu /ft ²)	Water Use Intensity (All Water Sources) (gal/ft ²)	ENERGY STAR Score	Property GFA - Calculated (Buildings) (ft ²)	Primary Property Type - Portfolio Manager-Calculated
Storage/Distribution													
In Compliance	Not Exempt		Sprague Operating Resources	92 Cassidy Pt Dr	0.6	7.9	8.6	17.1	18.4	0.77		227594	Distribution Center
Failed	Not Exempt		JB Brown - 150 Read Street	150 Read Street								59520	Distribution Center
In Compliance	Not Exempt		CONGDON -52 Canco	52 Canco Road	1.6	29.1	34.6	36.5	42.3	2.99	76	48782	Distribution Center
In Compliance	Not Exempt		187-209 Read St, LLC	203 Read St	2.2	39.7	46.1	52.4	59.5	0.64	72	165000	Distribution Center
In Compliance	Not Exempt		85 St. James Street	85 St. James Street	2.1	28.1	30	54.6	56.5	3.47	55	20160	Distribution Center
In Compliance	Not Exempt		Partners for World Health	40 Walch Drive	2.1	33.1	33.1	50.4	50.4	1.57	60	25000	Distribution Center

In Compliance	Not Exempt		The Salvation Army ARC Warehouse and Store	30 Warren Ave.	3.6	63.1	71.9	86.9	96.2	2.22		42708	Distribution Center
In Compliance	Not Exempt		Micucci Wholesale Foods	961 Riverside Street	0.8	14.1	16.9	15	18	1.42		40000	Food Sales
In Compliance	Not Exempt		NU Portland Facility	376 Riverside Industrial Parkway	2.7	43	47.1	81	85.6	1.13	68	64759	Non-Refrigerated Warehouse
In Compliance	Not Exempt		Pine Tree Paper Co	633 Warren Ave	0.5	7.3	7.8	17.8	18.7	0.01	97	20000	Non-Refrigerated Warehouse
In Compliance	Not Exempt		165 Presumpscot	165 Presumpscot St	0.2	3.4	3.6	9.5	9.9	2.21		44100	Non-Refrigerated Warehouse
In Compliance	Not Exempt		NEPW Logistics, Inc. (70 Quarry)	70 Quarry Road	1.2	19.5	22.6	32.1	35.3		86	90400	Non-Refrigerated Warehouse
In Compliance	Not Exempt		NEPW Logistics, Inc. (90/118 Q)	90/118 Quarry Road	1.1	18.6	20.5	28.9	31.2	0.14	88	175000	Non-Refrigerated Warehouse
In Compliance	Not Exempt		NEPW Logistics, Inc. (Read)	182-184 Read Street	2.8	50.3	57.5	68.9	76.5	0.49	71	77000	Non-Refrigerated Warehouse
In Compliance	Not Exempt		Building 2	344 Riverside St	1.4	24.9	27.2	36.3	38.7	140.98	75	12800	Non-Refrigerated Warehouse
Received but not in compliance: Warning	Not Exempt		POME	29 West Commercial St	4.1	71	80.5	103.2	113.2		47	23000	Non-Refrigerated Warehouse
Failed	Not Exempt		00616-Portland	290 Presumpscot Street	0							39900	Non-Refrigerated Warehouse

Failed	Not Exempt		006881-Portland ME	125 Industrial Way								100000	Non-Refrigerated Warehouse
In Compliance	Not Exempt		10573002 - Portland	165 Read Street	3.2	46.6	46.4	117.7	117.3	74.33	82	196599	Refrigerated Warehouse
In Compliance	Not Exempt		U-Haul Moving & Storage At Rte 295 (731066)	411 Marginal Way	2.8	48.2	55.5	73.9	81.9	0.98		55662	Self-Storage Facility

MEETING DATE

October 9, 2024

AGENDA ITEM

Report on the feasibility of electrifying cruise ship berths

PURPOSE

Update the Committee and the public on efforts to reduce carbon emissions from the port.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT

The City's climate action plan, One Climate Future, recommended the City analyze the feasibility of installing "shore power" to the cruise ship berths to reduce the amount of time they idle engines while in port. (See Section TLU 3.4.)

BACKGROUND/ANALYSIS

Ports around the world have begun installing electrical infrastructure that allows vessels in berths to connect their systems to the local electrical grid so they can power essential systems on the vessel without running their engines. Connecting to "shore power" in this manner reduces carbon emissions as well as the emission of other pollutants including fine particles, sulfur dioxide, and nitrogen dioxide. In North America, ports in Brooklyn, Seattle, San Diego, San Francisco, Halifax, Vancouver, Brooklyn, and Long Beach have installed shore power infrastructure. Globally, ports including Copenhagen, Göteborg/Göteborg, Malmö, Busan, Osaka, Kobe, Yokohama, Tokyo, Hamburg, and Tange have installed shore power. Worldwide, there are 35 ports with at least one powered berth. More are planned. See the attached map of active and proposed shore power installations.

The cruise industry is very supportive of adopting shore power. According to Cruise Lines International Association (CLIA), 239 ships shore power capable ships are expected to be in service. This includes existing ships that will be retrofitted and new ships currently on order for construction. This is more than 60% of the worldwide fleet.

Cruise Maine, Cruise Lines International Association (CLIA), staff from several cruise lines, and others provided valuable information to City staff and the CMP team that advanced the work of the feasibility study. This included the opportunity to examine shore power equipment installed in Brooklyn as well as the ship side equipment on several vessels.

FISCAL IMPACT

As noted in the study, the electrical supply at the cruise ship berths is inadequate to power the two largest cruise ships. Providing adequate electrical power will require an additional substation. As a stand alone project, this would cost approximately \$346 million. Integrating shore power into future distribution system upgrades reduces this cost to approximately \$60 million. Infrastructure upgrades to the mega-berth and Maine state pier to accommodate shore power are not included in these estimates. Staff have not conducted an engineering analysis at this time but note that significant modifications would be required to install the necessary equipment.



A cruise ship plugging into shore power in Hamburg, Germany (source: CLIA)

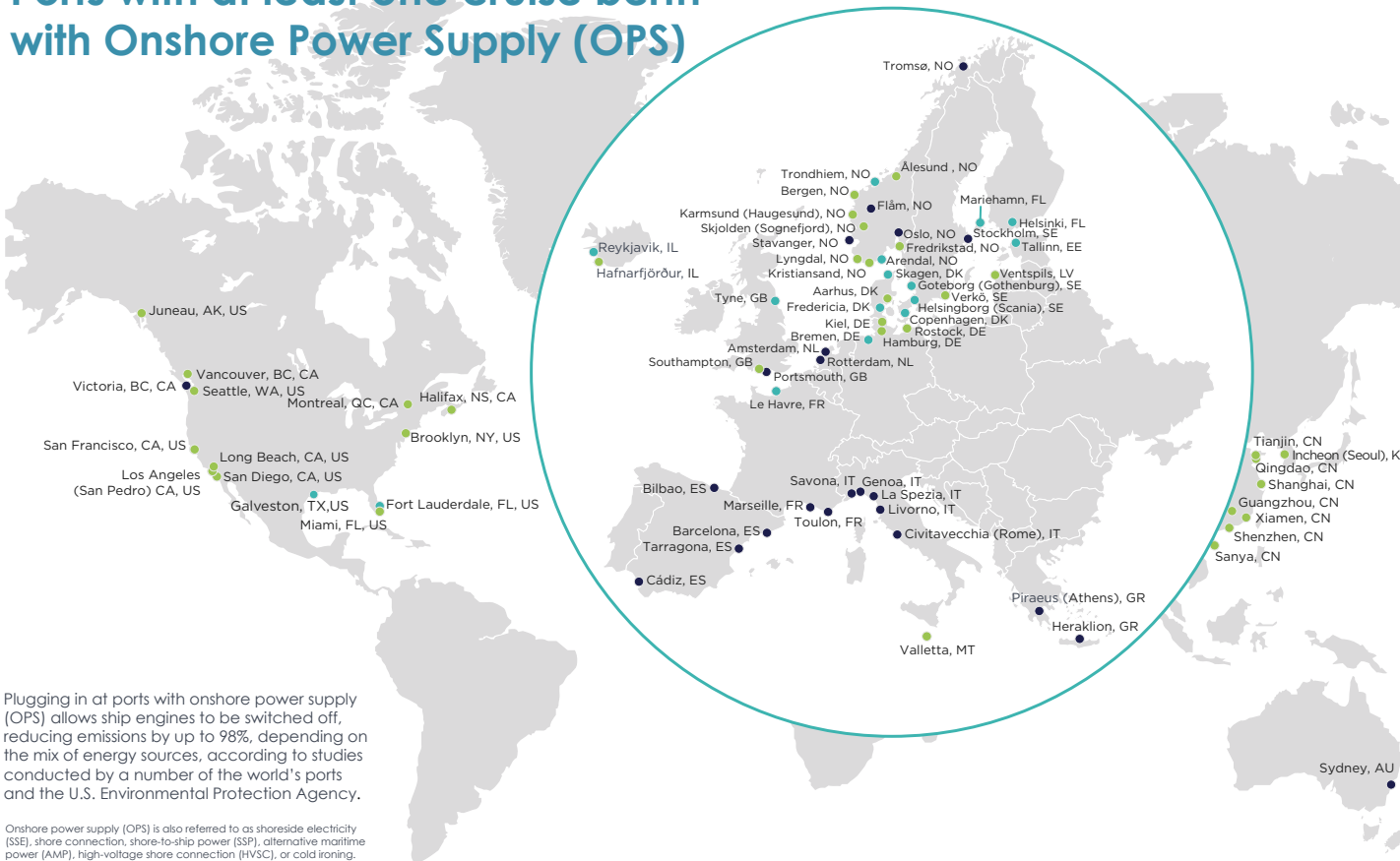
CONCLUSION(S)

The feasibility study has provided valuable insight into the capabilities of the electrical distribution system and completed an action item from One Climate Future. While adoption of shore power in the short to medium term seems cost prohibitive, understanding the requirements of a shore power system provides important information for consideration during upcoming grid modernization efforts.

ATTACHMENTS

Final draft of the CMP feasibility study
Onshore power supply map (CLIA)

Ports with at least one cruise berth with Onshore Power Supply (OPS)



Plugging in at ports with onshore power supply (OPS) allows ship engines to be switched off, reducing emissions by up to 98%, depending on the mix of energy sources, according to studies conducted by a number of the world's ports and the U.S. Environmental Protection Agency.

Onshore power supply (OPS) is also referred to as shoreside electricity (SSE), shore connection, shore-to-ship power (SSP), alternative maritime power (AMP), high-voltage shore connection (HVSC), or cold ironing.



ACTIVE 35

CANADA Halifax, NS | Montreal, QC | Vancouver, BC

CHINA Guangzhou | Qingdao | Sanya | Shanghai
Shenzhen | Tianjin | Xiamen

DENMARK Aarhus

GERMANY Hamburg | Kiel | Rostock

ICELAND Hafnarfjörður

LATVIA Ventspils

MALTA Valletta

NORWAY Ålesund | Bergen | Fredrikstad | Karlsund (Haugesund)
Kristiansand | Lyngdal | Skjolden (Sognefjord)

SOUTH KOREA Incheon (Seoul)

SWEDEN Verkö

UK Southampton

USA Brooklyn, NY | Juneau, AK | Long Beach, CA
Los Angeles (San Pedro), CA | Miami, FL | San Diego, CA
San Francisco, CA | Seattle, WA

FUNDED 23

AUSTRALIA Sydney

CANADA Victoria, BC

FRANCE Marseille | Toulon

GREECE Piraeus (Athens) | Heraklion

ITALY Genoa | La Spezia | Livorno | Civitavecchia (Rome) | Savona

NETHERLANDS Amsterdam | Rotterdam

NORWAY Flåm | Oslo | Stavanger | Tromsø

SPAIN Barcelona | Bilbao | Cádiz | Tarragona

SWEDEN Stockholm

UK Portsmouth

PLANNED 16

DENMARK Copenhagen | Fredericia | Skagen

ESTONIA Tallinn

FINLAND Helsinki | Mariehamn

FRANCE Le Havre

GERMANY Bremen

ICELAND Reykjavik

NORWAY Arendal | Trondheim

SWEDEN Göteborg (Gothenburg) | Helsingborg (Scania)

UK Type

USA Fort Lauderdale, FL | Galveston, TX

Shore Power Sub-Transmission Interconnection Feasibility Study

Final Report: 003

Charles Reed – 2024



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Revision Log

Report Version	Updates
001	• First Report Released
002	• Added Appendix A, which includes a table comparing all potential solutions.
003	• Added additional summary table in the Executive Summary.



1 Executive Summary

1.1 Objective

This report documents feasibility study results for the Shore Power Interconnection project (“the Project”). The report describes the results of the steady state performance of the proposed Project on the Central Maine Power Company (“CMP”) Portland Area sub-transmission 34.5 kV network. This study was performed in accordance with ISO-NE Planning Procedure 5-6 “Interconnection Planning Procedure for Generation and Elective Transmission Upgrades”, ISO-NE reliability standards as explained in the ISO-NE Transmission Planning Technical Guide, and AVANGRID Technical Manual TM 1.2.00 “Electric Transmission Planning Manual - Criteria & Processes,” to demonstrate that the proposed Project will not result in significant adverse impacts on the reliability and operating characteristics of the CMP sub-transmission system.

The Project proposes to interconnect a maximum of three ships to receive power from the sub-transmission network while ported. There will be three separate docking locations off Thames Street in downtown Portland. The maximum load capabilities of the docking locations would be 2 MW, 9 MW, and 14 MW, respectively. If all three docking locations are utilized simultaneously, there would be a load demand of 25 MW on the sub-transmission system, at a power factor of 0.975. The primary areas of concern for this study are the Portland Area 34.5 kV area network, and the limited 115 kV sources to the Portland Area.

Study results pointed toward three potential solutions to serve the full customer load demands. Reference Table 1-1 for a summary of these solutions. Reference Section 5 and Appendix A for additional details on these solutions.

Table 1-1: Summary of Proposed Solutions

Options	Maximum Supported Power	Total Cost	Total Timeline
Option 1 - Using Existing Distribution Capacity	2 MW Ocean Gateway Small - 2 MW	\$0.2 M	<1 year
Option 2 - Expedite construction of Bayside substation, with a 115 kV Transmission Line from the Cape Substation	9 MW - 25 MW Ocean Gateway Small - 2 MW, Portland Terminal - 9 MW, Ocean Gateway Large - 14 MW	\$332 M - \$345.55 M	7+ years
Option 3 - Bayside substation constructed as proposed, with necessary distribution lines to connect the Customer	9 MW - 25 MW Ocean Gateway Small - 2 MW, Portland Terminal - 9 MW, Ocean Gateway Large - 14 MW	\$46.58 M - 60.13 M	10+ years

Note 1: Maximum power for berth sizes in Table 1-1 were provided by the customer.

Note 2: All costs in Table 1-1 are high-level estimates (+200%/-50%) that are provided for order-of-magnitude only and are subject to change.



2 Introduction

2.1 Objective

This report documents feasibility study results for the Shore Power Interconnection project (“the Project”). The report describes the results of the steady state performance of the proposed Project on the Central Maine Power Company (“CMP”) Portland Area sub-transmission 34.5 kV network. This study was performed in accordance with ISO-NE Planning Procedure 5-6 “Interconnection Planning Procedure for Generation and Elective Transmission Upgrades”, ISO-NE reliability standards as explained in the ISO-NE Transmission Planning Technical Guide, and AVANGRID Technical Manual TM 1.2.00 “Electric Transmission Planning Manual - Criteria & Processes,” to demonstrate that the proposed Project will not result in significant adverse impacts on the reliability and operating characteristics of the CMP sub-transmission system.

2.2 Study Area / Project Description

The Project proposes to interconnect a maximum of three ships to receive power from the sub-transmission network while ported. There will be three separate docking locations off Thames Street in downtown Portland. The maximum load capabilities of the docking locations would be 2 MW, 9 MW, and 14 MW, respectively. If all three docking locations are utilized simultaneously, there would be a load demand of 25 MW on the sub-transmission system at a power factor of 0.975. The primary areas of concern for this Study are the Portland Area 34.5 kV area network, and the limited 115 kV sources to the Portland Area.

Figure 2-1 and Figure 2-2 below show the Project’s geographical map and one-line diagram respectively.

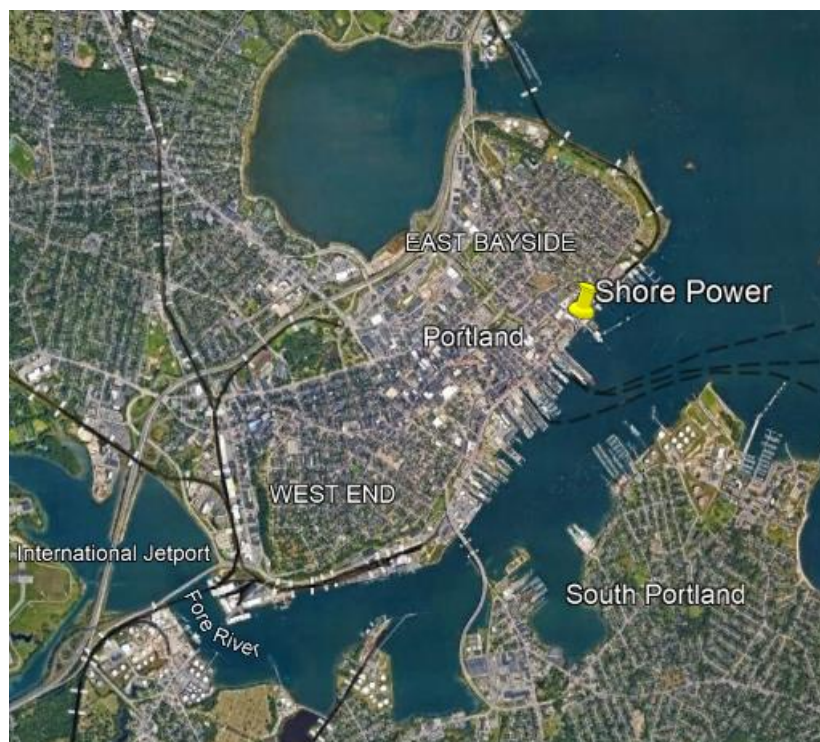


Figure 2-1: Geographical Overview

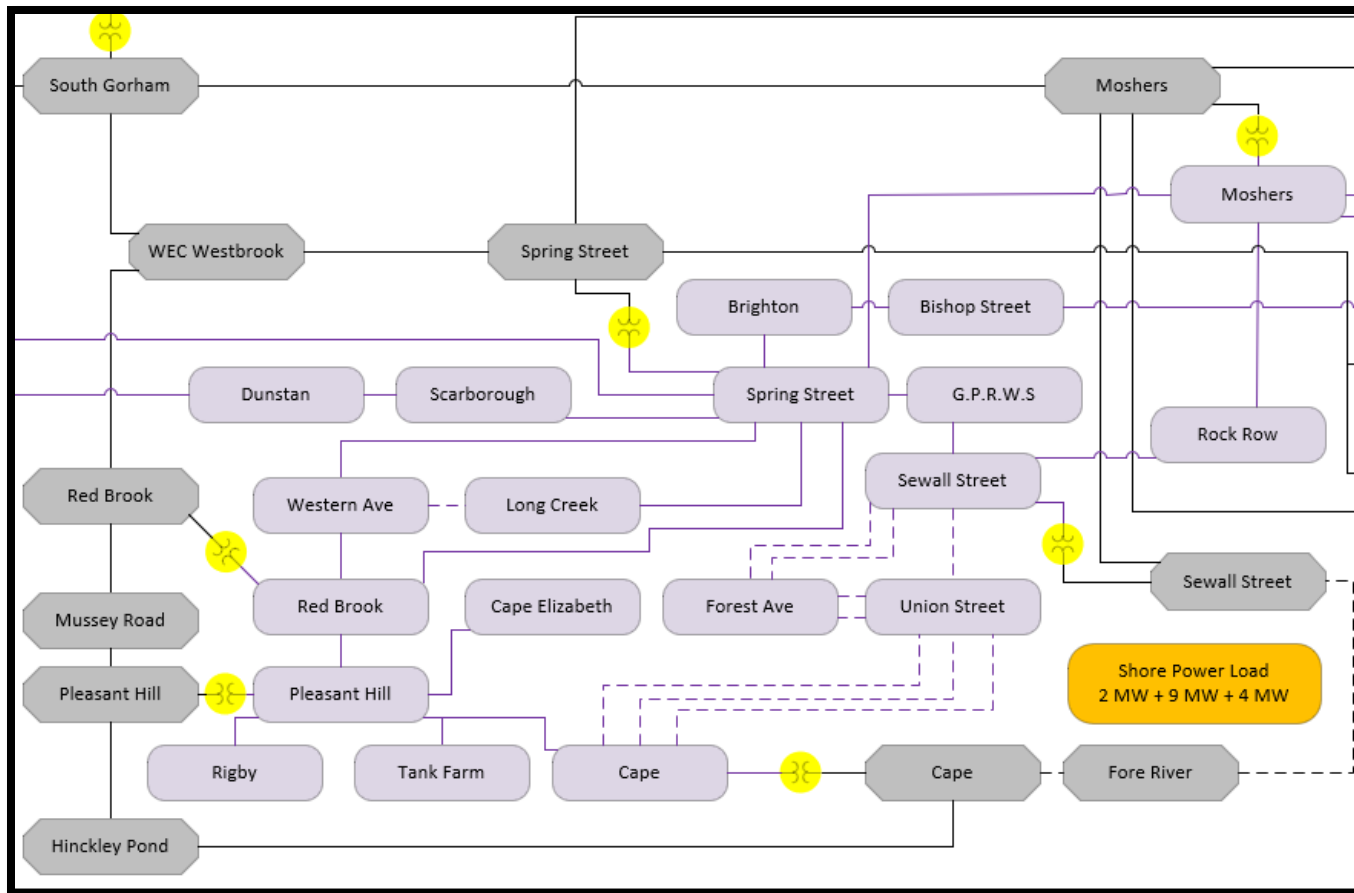


Figure 2-2: Existing Greater Portland Area Topology



3 Steady State Analysis

3.1 Analysis Description

This study includes a comprehensive steady state analysis in accordance with the MPUC Safe Harbor Criteria including the following types of analysis:

- **Thermal Analysis** – Determined the level of steady-state power flows on transmission circuits under base case conditions and following Planning Events.
- **Voltage Analysis** – Determined steady-state voltage levels and performance under base case conditions and following Planning Events.
- **Loss of Load Screening** – Determine whether any contingency events result in consequential loss of load violating Safe Harbor criteria.

Unless otherwise stated, the study assumption and methodologies for the analysis performed were consistent with the ISO-NE Transmission Planning Technical Guide¹.

3.2 Study Assumptions

3.2.1 Source of Cases

The 2021 ISO-NE Library Base Cases were utilized as the source of the Transmission Area Study. This case set included 2022 N+0 cases and 2032 N+10 cases. These cases were modified to include relevant larger generator interconnections or QP projects, spot loads, and distributed generation. This set of modified ISO-NE library cases was reviewed and modified as necessary to support the greater Portland Transmission Area Study.

3.2.2 Load Levels Studied

The load level assumptions made were as follows. Reference Table 3-1 for summary.

- **Summer/Winter Peak Load Level Analyses:** 100% of the 90/10 peak load level (i.e., 10% probability of being exceeded due to variations in weather). CMP load level brought to 1,700 MW in PSS®E.
- **Off-Peak Load Level Analyses (i.e., Scheduled Maintenance Testing):** Load at the 90th percentile calculated from last 3 years of historic data, unless no material change in load is observed from last calculation². CMP load level brought to 1,312 MW in PSS®E.
- **Light Load Level:** Load calculated from the ISO-NE target for non-manufacturing load or 12,180 MW. The intent of the light load scenario was to determine the study area's sensitivity to regional load levels, as well as to identify any possible high voltage violations or thermal overloads

¹ The ISO-NE Technical Planning Guide is updated on a periodic basis. The latest revision, 8.0, can be accessed at [transmission_planning_technical_guide_rev_8.pdf \(iso-ne.com\)](https://www.iso-ne.com/transmission_planning_technical_guide_rev_8.pdf)

² Adopted from ISO-NE intermediate load methodology.



created at the lower load values while area generation is at maximum. CMP Load level was brought to 760 MW in PSS®E.

- **Demand Resources:** utilization of ISO-NE's regional base cases that incorporate all demand resources that are procured through the Forward Capacity Market and forecasted energy efficiency and distributed generation resources included in the annual Capacity, Energy, Load, and Transmission ("CELT") report forecast.

Table 3-1: Initial CMP Load Levels Per Case Type

Case Name	Case	Initial CMP Load		Net Load (Pct of Initial CMP Load)
		2022 case	2032 case	
EPK1	Summer Evening Peak	1700	2032 CELT	100%
EPK2	Summer Evening Peak	1700	2032 CELT	95%
EPK3	Summer Evening Peak	1700	2032 CELT	92%
MPK1	Mid-Day Peak	1700	2032 CELT	100%
MPK2	Mid-Day Peak	1700	2032 CELT	100%
MPK3	Mid-Day Peak	1700	2032 CELT	100%
MNT	Scheduled Maintenance	1300	1300 MW of 2032 CELT	100%
LL	Light Load	2022 CELT LL	2032 CELT LL	100%
LL2	Light Load	2022 CELT LL	2032 CELT LL	100%

3.2.3 Safe Harbor Load Loss Criteria

For area studies, and consistent with the Safe Harbor criteria, CMP utilizes the following load interruption acceptability criteria.

- **Consequential³ Load Interruption:**
 - *N-1 single element contingency:* 25 MW
 - *Scheduled maintenance testing:* 60 MW
- **Non-Consequential Load Interruption:** not allowed during local transmission planning

³ Consequential is defined as the resulting loss of load connected to a station directly impacted by the contingency event. Example would include a radial transmission line interrupted during a line contingency causing the radially fed substation to be disconnected from the transmission source unable to support the load connected to it via another transmission source.



3.2.4 *Generation Dispatch Assumptions*

The following existing generation assumptions were used for the area study.

- **Non-Intermittent Resources:** one major unit offline in the study area.
- **Wind Generation:** single availability factor (% of nameplate) calculated every 5 years for all onshore wind generation at all load levels. Median value (percent of nameplate) based on all day. Separate value for summer peak months (June-September) and shoulder months (April, May, October, November). Summer peak value is 10%; shoulder months value is 20%. Shoulder value to be used for maintenance outage modeling.
- **Run-of-River Hydro Generation:** Separate availability factors (MW) for summer peak and shoulder periods, calculated every 5 years for each hydro generating plant. Median value based on all day for summer peak months (June-September); Median value based on all day for shoulder months (April, May, October, November). Shoulder value to be used for maintenance outage modeling.
- **Solar Generation:** Solar generation was modeled at different percentages in accordance with the guidance provided by ISO-NE's Transmission Planning Guide. Reference Table for details
- **Batteries:** Batteries were modelled as one-sixth the nameplate value in summer evening peak cases, and offline in all other cases. In accordance with the guidance provided by ISO-NE's Transmission Planning Guide.

Furthermore, Yarmouth 1 and 2 (approximately 50 MW each) are assumed out of service as both units are not included in the ISO-NE CELT report.



Table 3-2 – Generation Assumptions for Case Types

Case Name	Case	PV	Batteries	ROR & Wind
EPK1	Summer Evening Peak	26%	Nameplate div by 6	Peak Safe Harbor
EPK2	Summer Evening Peak	10%	Nameplate div by 6	Peak Safe Harbor
EPK3	Summer Evening Peak	0%	Nameplate div by 6	Peak Safe Harbor
MPK1	Mid-Day Peak	40%	OOS	Peak Safe Harbor
MPK2	Mid-Day Peak	65%	OOS	Peak Safe Harbor
MPK3	Mid-Day Peak	65%	OOS	Peak Safe Harbor
MNT	Scheduled Maintenance	26%	OOS	LL Safe Harbor
LL	Light Load	90%	OOS	LL Safe Harbor
LL2	Light Load	90%	OOS	LL Safe Harbor



3.2.5 Modelling of Proposed Avangrid Transmission Projects and Queued Interconnections

Projects were reviewed and included on the bases of their in-service date. For example, in the N+0 year case, projects in-service prior to June 30, 2021 were included in the 2021 cases. This date was chosen because they are the conservatively early dates at which the peak load conditions can occur for summer load distributions. ISO-NE limits the base case inclusion of planned projects to those with an in-service date within five years of the current study year. As a result, the 2029 (N+10) cases model only those projects currently projected to be in service up to 2026.

Table 3-3: Spot Load Additions

BUS #	BUS NAME	P, MW	Q, MVAR	Load ID
102258	BRIGHTON AVE	0.58	0.19	L1
100124	FORE RIVER	1.71	0.56	L1
100124	FORE RIVER	1.52	0.50	L2
100124	FORE RIVER	0.55	0.18	L3
102245	LAMBERT ST	0.71	0.23	L1
800111	ROCK ROW	18.20	7.77	RR
100141	PLEASANTHILL	2.09	0.69	L1
100141	PLEASANTHILL	0.52	0.17	L2
100141	PLEASANTHILL	0.47	0.15	L3
100141	PLEASANTHILL	0.54	0.18	L4
102299	RIGBY	1.24	0.41	L1
100127	SPRING ST	1.71	0.56	L1
102296	UNION STREET	0.55	0.18	L1
102296	UNION STREET	0.84	0.27	L2
100457	MUSSEY ROAD	3	0	IX
100457	MUSSEY ROAD	1.2	0	CO
100457	MUSSEY ROAD	4.4	2.156	SD

Table 3-4: QP Project Additions

QP #	Type	Nameplate	State	Nearest Bus
1021	Solar	16.3 MW	Maine	W Buxton / Spring St.
639	HVDC	1200 MW	Maine	Larrabee Rd
889	STATCOM	600 MVAR	Maine	Buxton



3.2.6 *Analysis Software*

Siemens/PTI's PSS®E Version 34.9.4 was used to modify the individual power-flow basecases, develop the area solutions, and cross-check N-1 results. TARA Version 2301.1 Contingency Analysis ("CA") and Security Constrained Re-Dispatch ("SCRD") were used to perform the N-1 and N-1-1 analysis.



3.3 Study Methodology

When performing contingency analysis, three distinct time frames were studied, each requiring consideration of different factors, limits, and planning criteria.

- **All Lines In**– This represents the normal system state, with the system pre-postured to respond to contingency events. A similar pre-postured state exists in-between a first and second contingency during N-1-1 testing.
- **Pre-Adjustments**– In the time immediately following a contingency event, only dynamic devices (generators, STATCOMS, SVCs, etc.) would have had time to respond to the new system conditions. Operator actions or automatic equipment operations that occur after a time delay will not be considered.
- **Post-Adjustment** The time after automatic equipment operations and certain operator actions have occurred.

3.3.1 Solution Parameters

Table 3-5 outlines the pre-contingency and post-contingency solution parameters used for steady-state analysis. “Phase Angle Regulators” and “Area Interchange Control” settings were disabled for post-contingency operation. This was done to model the immediate effects following a contingency prior to operator actions, but after automatic control (such as LTC actions and automatic switched shunts).

Table 3-5: Steady State Solution Parameters

Scenario	Area Interchange Control	Tap Adjustments	Phase Angle Regulators	SVDs & Switched Shunts	DC Tap Adjustments
All-Lines-In (N-0)	Disabled	Stepping	Enabled	Enabled	Enabled
Post-Contingency Pre-Adjustment (N-1 & N-1-1)	Disabled	Disabled	Disabled	Continuous Only	Enabled
Post-Contingency Post-Adjustment (N-1 & N-1-1)	Disabled	Stepping	Enabled	Enabled	Enabled



3.3.2 Thermal Criteria

AVANGRID utilizes ratings of its facilities in its transmission planning studies to ensure safe operation without excessive loss of equipment life. The ratings used are consistent with those developed in compliance with the NERC FAC-008-3 standard for the bulk electric system (“BES”) and approved methods for local transmission facilities. The following three rating categories (also described in Table 3-6) were monitored in the steady state analysis:

- **Normal** – This rating is the continuous rating of the transmission facility adjusted to seasonal ambient conditions. There are no restrictions on utilization of the full normal rating for any extent of time.
- **Long Time Emergency (LTE)** – Facilities may be loaded between their Normal and LTE rating for a number of hours after a contingency depending on ambient conditions. The transmission facility must return to a loading level below its normal rating once the time duration of the LTE has expired.
- **Short Time Emergency (STE)** – This rating is applicable for short term loadings on transmission facilities after a contingency has occurred, assuming the pre-contingent loading is within the facility’s normal rating. The maximum length of time that a facility may be within its STE rating is 15 minutes.

For this study, operating transmission element within their “Long-term Emergency” (LTE) rating following a contingency or a scheduled maintenance outage is acceptable.

Table 3-6 – Steady State Thermal Limits

System Condition	Time Interval	Thermal Rating
All Lines-In (N-0)	Continuous	Normal
Post Contingency (N-1 and N-1-1)	More than 15 minutes following contingency	LTE
	Within 15 minutes of contingency	STE

Avangrid considers a thermal significant adverse impact when the post-project flow across a non-BES element exceeds its appropriate thermal rating and the flow across the element increases from the pre-project case by more than 2%.



3.3.3 Voltage Criteria

The voltage limits on all transmission buses in Maine with a nominal voltage of 34.5 kV and above were monitored in this study. Transmission system voltages must remain within the steady state bandwidth of 0.95 – 1.05 per-unit both before and after a contingency. In the post-transient period following a contingency however, before non-dynamic system adjustments can be made, per-unit system voltages of between 0.90 and 1.05 are permitted. This is depicted in Table 3-7 below.

Table 3-7 – Steady-State Voltage Limits

System Condition	Low Voltage Limit	High Voltage Limit
All-Lines-In (N-0)	0.95	1.05
Post-Contingency Pre-Adjustment (N-1 & N-1-1)	0.90	1.05
Post-Contingency Post-Adjustment (N-1 & N-1-1)	0.95	1.05

In addition to these voltage magnitude limits, the AVANGRID Electric Transmission Planning Manual details the Delta-V criterion. The term “Delta-V” refers to the change in voltages seen following routine switching actions that occur less than once per hour (e.g. capacitor bank or shunt reactor switching). This criterion is intended to comply with IEEE Standard 1453 in order to keep voltage flicker within tolerable limits during normal system conditions. In an all-lines-in (N-0) scenario, the Delta-V following any planned switching action should be limited to 3%. With an element out-of-service for routine maintenance (lineout), the Delta-V should be limited to 5%. Voltage change during a fault, generation trip, or the operation of a series transmission element is not considered voltage flicker and will not be tested against the Delta-V criterion.



The proposed solutions to the area needs were developed to comply with the Delta-V criterion as shown in Table 3-8; however, the Delta-V criterion was not used as a basis to identify needs in this study.

Table 3-8 – Delta-V Limits

System Condition	Delta-V Limit (%)
N-0	3
Line-out	5

3.3.4 Loss of Load Criteria

The Maine PUC Safe-Harbor Planning Standards include provisions that define the acceptable loss of load following certain contingency scenarios. For a valid single-element N-1 contingency or a scheduled maintenance outage paired with a subsequent single element contingency occurs, the consequential loss of load served must remain below the prescribed limits. These limits are listed in Table 3-9.

Table 3-9 – Loss of Load

Contingency Event	Loss of Load Limit (MW)
Single Element (N-1)	25
Scheduled Maintenance + Single Element (Sched. Maint. N-1-1)	60



3.4 Contingency Modelling

Contingencies local to the project were studied as part of the analysis. Contingency events studied include the loss of transmission and sub-transmission facilities, loss of a local transformers, loss of local generation, breaker failure contingencies, loss of elements without a fault, and bus outages. Three groups of contingencies were created for this study and arranged into contingency “decks” run during the steady-state analysis:

- **N-1** – A deck including contingencies that are acceptable for N-1 analysis.
 - Single-element contingencies (lines, transformers, generators, etc.)
 - Scheduled maintenance outages⁴
 - Multi-element contingencies (bus faults, double circuit towers, breaker failure, etc.) that impact bulk power system (BPS) elements
- **Lineout** – A deck consisting of contingencies that make up the acceptable first-level events when performing N-1-1 testing.
 - Single-element contingencies (lines, transformers, generators, etc.)
 - Scheduled maintenance outages (Maintenance load only)⁵
- **Contingency** – A deck consisting of contingencies that make up the acceptable second-level events when performing N-1-1 testing.
 - Single-element contingencies (lines, generators, etc.)
 - Multi-element contingencies (bus faults, double circuit towers, breaker failure, etc.) that impact bulk power system (BPS) elements⁶

⁴ Maine Safe Harbor criteria excludes transformers as a second contingency for N-1-1 scenario.

⁵ Scheduled maintenance outages are not valid for identifying needs in peak load cases. For informational purposes, the peak load cases were also subjected to maintenance outage testing as a sensitivity screening. These scenarios were not considered when developing solutions.

⁶ https://www.npcc.org/Standards/Directories/Directory%204_TFSP_Rev_20151001_GJD.pdf



4 Results

4.1 Initial Screening Results

An initial screening was conducted to determine the best potential interconnection points for the Project. Four interconnection locations were selected and tested based on proximity to the project site.

1. Connect to existing Distribution System (Served from Union Street Station) nearest to Project location.
2. Run new 34.5 kV line from Union Street Station to the Project.
3. Run new 115 kV line from the Cape 115 kV station to the Project.
4. Serve the Project from a planned future substation location called Bayside.

Using PowerGEM's TARA Transfer limit analysis, load was incrementally added to each interconnection point until a violation occurred. These results were then cross checked manually using a second software program PSSE. The results of this analysis are summarized in [Table 4-1](#).

Descriptions of each of these four locations are described further in this section.

Table 4-1: The Maximum Load Level Supported by Each Interconnection Point

Load Level (MW)	Solution Source			
	Existing Distribution	New Line from Union Street 35 kV Station	New Line From Cape 115 Station	New Line from NEW Bayview Station
2	X	X	X	X
9			X	X
11 (2+9)			X	X
14			X	X
16 (14+2)			X	X
25 (14+2+9)			X	X



4.1.1 Existing Distribution

A review of the area distribution system determined that existing Portland 12.47 kV circuits would see overloads if more than 2 MW of additional load were connected.

4.1.2 New Line from Union Street 34.5 kV Substation

The N-1 limiting element for this location was the Sewall Street Transformer. The N-1-1 limiting element(s) for this location are the underground cables between Sewall, Forest, Union, and Cape substations. After 2 MW of load is added to Union Street, these cables begin to see N-1-1 criteria violations. These cables cannot be further upgraded as they are currently the largest size the existing duct banks can support and the existing duct banks are also at their capacity. There are additional N-1-1 criteria violations for the Cape, Spring Street, and Red Brook transformers, as well as the 115 kV source concerns noted in the description of the Cape interconnection location in Section 4.1.3.

Reference Figure 4-1 for additional details.

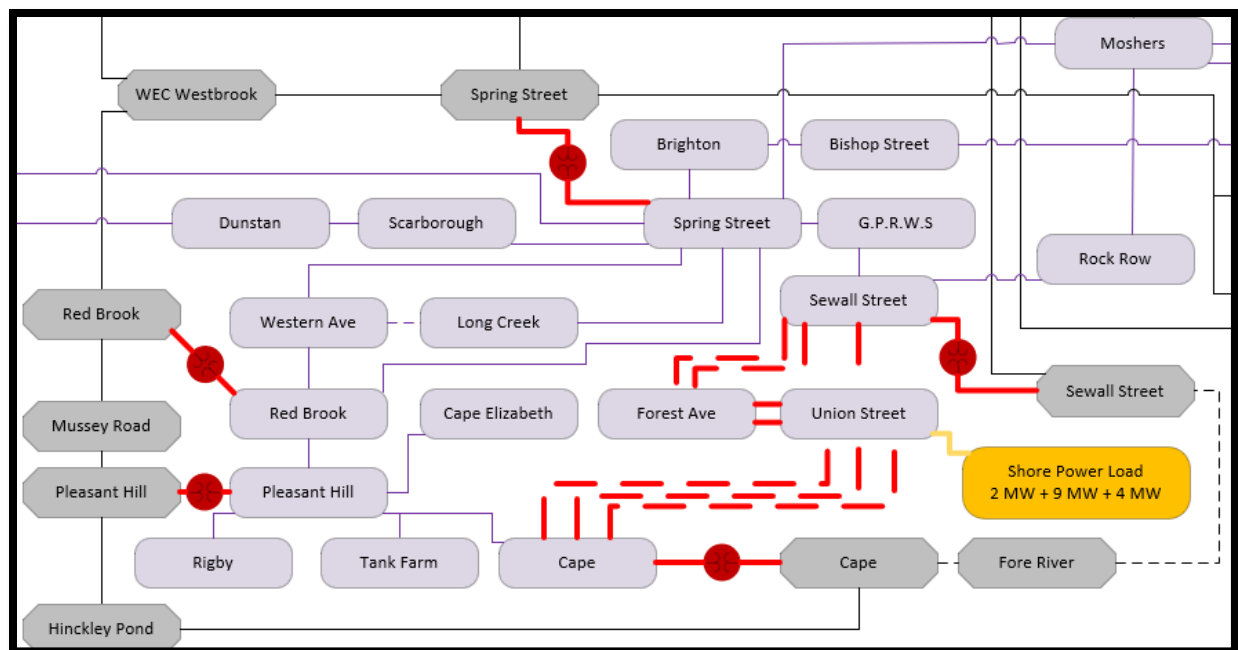


Figure 4-1: Potential Violations (Red) in Screening Cases for the Union Street Solution as Load Levels Exceed 2 MW



4.1.3 New Line from Cape 115 kV Substation

The location screening further indicated that the Cape Substation could handle up to 25 MW of additional load. There are some concerns with the Portland 115 kV loop that contains Cape Substation. There are certain contingency combinations that result in reverse power and/or loss of load violations. Adding load to Cape would result in adverse impact to this loop. But these concerns could be resolved with additional reverse power protections at the Cape and Redbrook substations, combined with a new 115 kV source connecting to Pleasant Hill. Reference Figure 4-2 for additional details.

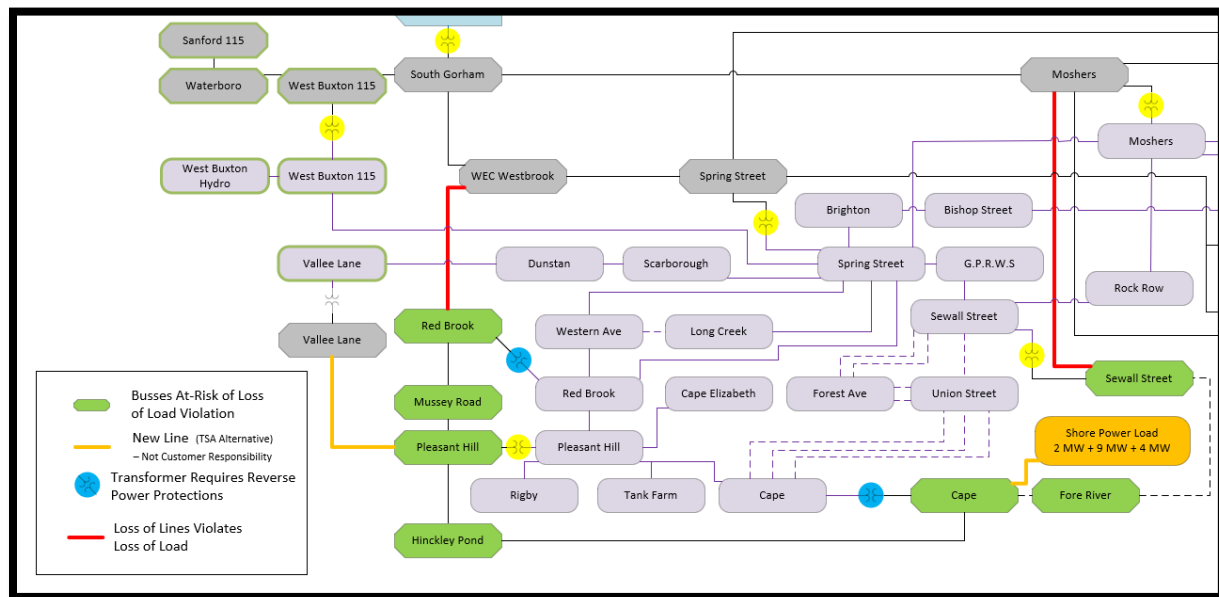


Figure 4-2: Limiting Factors for the Cape Solution

4.1.4 New Line from Future Bayside Substation

The need for a new 115 kV source in Portland has been observed in similar studies for this region. A new 115 kV substation would help prevent adverse impacts and provide support for new projects, initiatives, and area growth. One of the potential options for a new 115 kV source is the Bayside substation, located on the north side of the Greater Portland Peninsula. Reference Figure 4-3. This substation would be a 115/12.47 kV substation that could be able to support 11.6 – 31 MVA of new load for Greater Portland. (Final load values dependent on design constraints, real estate, and size of transformers). This could be a long-term solution to serve the load needs of the project.

CMP is recommending the construction of this substation along with new 115 kV transmission lines connecting this station to at least two other 115 kV substations near the Portland Area. Reference Figure 4-4. The construction of this Bayside substation is dependent on several factors, including review and approval by the Maine Public Utilities commission, and support from the community. Following the construction of the Bayside substation, up to the full 25 MW of shore power load could be supported, all that would be required would be the construction of distribution circuits along the 1.3 miles between the Bayside substation location and the Shore Power location.



Figure 4-3: Location of Bayside substation relative to Shore Power Site.

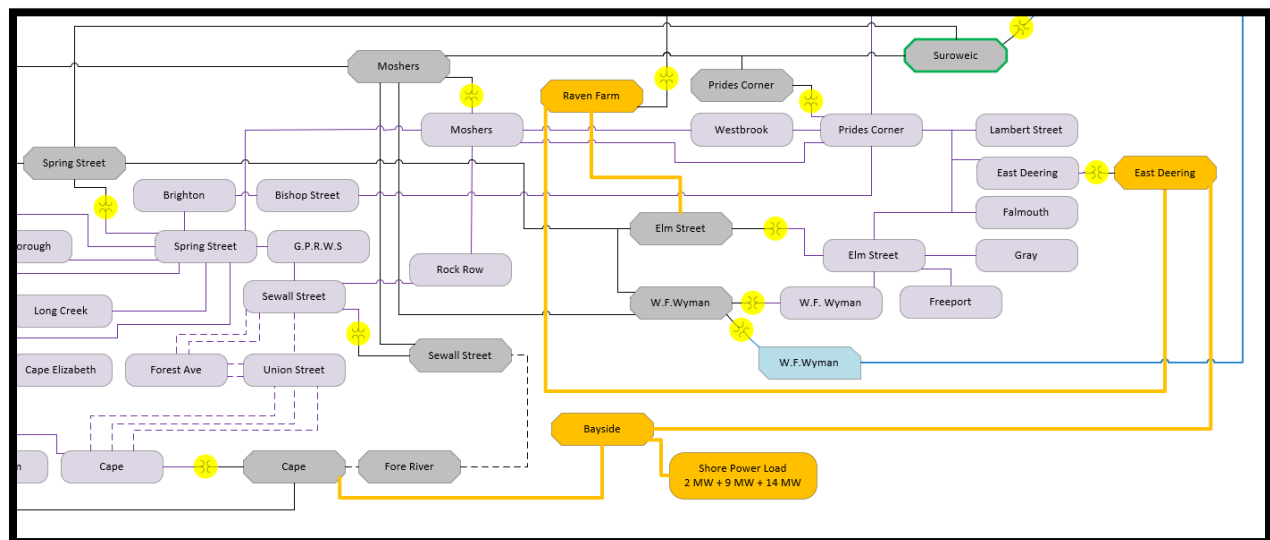


Figure 4-4: Bayside Solution Example



5 Solutions

5.1 Distribution-Only Solution

The nearest 12.47 kV distribution circuit is 645D3 and is fed from the Union Street substation. As of October 2023, this circuit has capacity to feed a load of 2 MW and (assuming summer 2022 peak load conditions) could support the smallest berth of the shore power project with no major upgrades.

The load capacity is limited by an underground cable from Union Street substation (0.6 miles), as well as constraints on the sub-transmission underground network.

This load capacity assumes present day conditions and cannot be guaranteed. Availability would need to be re-evaluated if there are load changes to the area prior to project construction.

With no circuit or substation upgrades required, the typical scope of work to interconnect a 2MW load would be a 4-wire riser pole, radial underground #2AL 15kV distribution cable to a 2MVA padmounted transformer. Typical costs are used because no detailed site plan is available. Scope of work and costs are subject to change with site plan details. CMP costs include only electrical components (pole, cable, transformer, and connections). Excavation and conduit manhole infrastructure will be provided and installed by customer and are not included in cost estimate. Actual costs will come from detailed design in SAP. Estimate for this scope of work, accounting for uncertainty on site details is \$200,000.

5.2 Expedited Cape Substation Solution

To serve the additional 9 MW berth and 14 MW berth, a connection to a 115 kV substation would be required, as the 34.5 kV sub-transmission network in the area does not have the available load capacity at this time.

The shore power equipment is designed to connect to a 12.47 kV or 34.5 kV power source and cannot directly connect to a 115 kV substation. A full 115 kV solution would require a substation on the greater Portland peninsula to convert 115 kV power to a distribution voltage level that could support the shore power equipment. Reference [Figure 5-1](#).

Reference Table 5-1 for the estimated cost to construct the Bayside substation (or similarly sized local substation), the cost to construct a 115 kV line to connect it to the nearest 115 kV source, and the cost to construct four underground distribution circuits to connect project site to nearest local substation.

These costs are high-level estimates that are provided for order-of-magnitude only. These costs could vary if a different site were found for a local substation, or if a different route were determined for the 115 kV line. If substation location other than Bayside were preferred, it would be the responsibility of the project to procure a suitable site location.



Table 5-1: High Level Estimated Cost to Construct New Local Substation.

Solution Component	Estimated Cost in Millions
Local 115/12.47 kV substation	\$ 116.12 M
Cape SS Modifications	\$ 49.41 M
New 115 kV line between Cape and Local substation	\$ 119.89 M
Distribution Costs to Connect Project to Local Substation	\$ 60.13 M
TOTAL COST	\$ 345.55M



Figure 5-1: Example of Cape Solution



5.3 Shore to Bayside Solution

Central Maine Power has observed the need for new substations on the Greater Portland peninsula in other regional studies and is recommending the construction of the Bayside substation to support area load growth. This substation would be a 115/12.47 kV substation that could be able to support 11.6 – 31 MVA of new load for Greater Portland. Assuming this longer-term project moves forward, the project would only be responsible for the distribution costs to connect the project site the 1.3-mile distance to the Bayside substation. Reference [Figure 5-1](#).

The construction of this Bayside substation is dependent on several factors. In addition to requiring approval by NERC, FERC and ISO-NE, the project will also require review and approval by the Maine Public Utilities commission, and support from the community. This is a long-term project that may take up to 10 years or longer to complete.

Following the construction of the Bayside substation, the project would only be responsible for the distribution circuit cost necessary to connect the project site to the Bayside site. The (+200/-50%) estimate to construct 4 circuits to support >20MW is \$60.13M. Reference [Table 5-2](#) to see how the desired megawatt need of the final solution impacts the number of required circuits and the relative cost.

Table 5-2: Distribution Solution Cost Options

MW	Distribution circuits	Cost
2	1	\$ 0.20 M
9	2	\$ 46.38 M
14	3	\$ 53.25 M
23 (9+14)	4	\$ 60.13 M



6 Conclusion

The results of this feasibility study revealed adverse impacts to the current subtransmission and distribution systems if more than 2 MW of additional load is connected to present-day downtown Portland. This could support the smallest berth of the project, but a new 115kV/12.47 kV substation will be required on the greater Portland peninsula to support the additional 9 MW and 14 MW berths. CMP is currently advocating for a new 115kV/12.47 kV substation at the Bayside location to support load growth in the area. The normal process to advocate for new infrastructure involves several parties external to CMP and could take up to 10 years to review and complete. Following the successful construction of this Bayside substation the customer would only be responsible for construction of the required distribution circuits, which is estimated to be about \$60M to support both the 9 MW and 14 MW berths. If the customer wanted to expedite this timeline, they would need to find a suitable location for a 115/12.47 kV substation, connect this new substation to the nearest source (Cape 115 kV), and construct the required distribution circuits. The costs to expedite this timeline vary but are estimated to be about \$346M.



Appendix A – Summary Table of Potential Solutions

Supported Berths	Transmission Solution	Transmission Cost	Distribution Solution	Distribution Cost	Total Cost	Total Timeline
2 MW	NA	NA	1 Circuit tap off local source 645D3	\$0.2M	\$0.2 M	<1 year
9 MW	Customer Moves Bayside Project Forward, with Transmission Line from Cape	\$285.42 M	2 Circuits from Bayside to Shore	\$46.58M	\$332 M	7+ years
9 MW	CMP constructs Bayside Substation	NA	2 Circuits from Bayside to Shore	\$46.58 M	\$46.58 M	10+ years
14 MW (Or 2 + 9)	Customer Moves Bayside Project Forward, with Transmission Line from Cape	\$285.42 M	3 Circuits from Bayside to Shore	\$53.25 M	\$338.67 M	7+ years
14 MW (Or 2 + 9)	CMP constructs Bayside Substation	NA	3 Circuits from Bayside to Shore	\$53.25 M	\$53.25 M	10+ years
23 MW (9 + 14)	Customer Moves Bayside Project Forward, with Transmission Line from Cape	\$285.42 M	4 Circuits from Bayside to Shore	\$60.13 M	\$345.55 M	7+ years
23 MW (9 + 14)	CMP constructs Bayside Substation	NA	4 Circuits from Bayside to Shore	\$60.13 M	\$60.13 M	10+ years

Note 1: All costs are high-level estimates (+200%/-50%) that are provided for order-of-magnitude only and are subject to change.

Note 2: The costs listed above represent only the customer-funded portions of the solutions.



To: Sustainability and Transportation Committee
Councilor Regina Phillips, Chair

MEETING DATE

October 9, 2024

AGENDA ITEM

Agenda Item #3D - St. Lawrence and Atlantic Rail Corridor

PURPOSE

Update the committee on the conclusions and outcomes of MaineDOT's Portland to Auburn Rail Use Advisory Council (RUAC) and request the committee form a recommendation to the City Council on the preferred use(s) for the corridor.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT

On September 9, 2021, the City Council approved [Resolve 1-21/22](#) which expressed support for the creation of a "Rail Corridor Use Advisory Council to consider future use of the Casco Bay SLA Corridor as a multi-use 'trail-until-rail'." The Sustainability and Transportation Committee's 2024 work plan includes a goal to examine opportunities to promote bike, pedestrian and transit opportunities. The City Council's 2024 goals include acting on the recommendations of [One Climate Future](#) which calls for strengthening of the city's multi-modal transportation network.

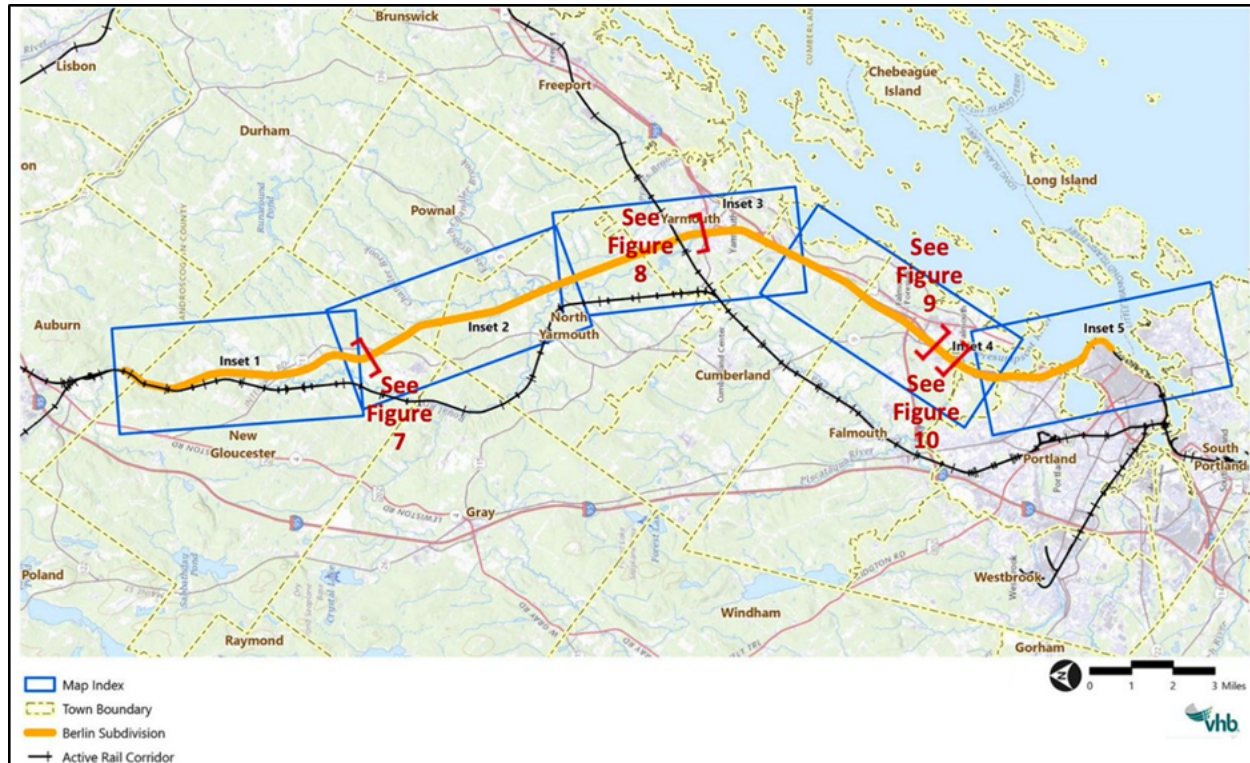
BACKGROUND/ANALYSIS

The Portland to Auburn Rail Use Advisory Council (RUAC) was formed in April of 2022 by the MaineDOT Commissioner as a result of [L.D. 1133, An Act To Amend the Transportation Laws](#).

L.D. 1133 established guidelines for the review of nonrail recreational or non-recreational transportation use of state-owned inactive rail corridors by the RUAC. Advisory Councils are tasked with reviewing and making recommendations on the likelihood, economic benefits and costs of potential uses of the rail corridor, including, but not limited to, rail use, trail use or bikeways. Any non-rail use of a rail corridor must be considered by a council to be interim in nature, and all such rail corridors must be preserved for future rail use.

The Portland to Auburn RUAC reviewed the approximately 26.5-mile section of the St. Lawrence and Atlantic Rail (SLR) corridor also known as the Berlin Subdivision from railroad milepost 0.0 in Portland to railroad milepost 26.5 in Auburn. The SLR corridor is a state-owned rail corridor with a southern terminus near Ocean Gateway in Portland, and northern terminus at Danville Junction in Auburn (See Figure 1 on the next page).

Figure 1: SLR Corridor



Recent Historical Context and Related Studies

This corridor has been viewed as having a future alternative transportation purpose. This view was foundational to the State’s acquisition of this section of the St. Lawrence and Atlantic in the late 2000s. It was identified as having significant potential for commuter transit near I-295 from Yarmouth to Portland, along with potential connectivity to Auburn. Significant investment in serving this line took place in 2010 when MaineDOT completed a \$7.5 million overhaul of I-295 Exit 15, including a 300-space park and ride facility adjacent to the line.

Portland Peninsula Transit study (2008) – identified a number of recommendations including deeper consideration of a streetcar service on Commercial Street and regional light rail on the SLA corridor from the Ocean Gateway facility to communities north.

Portland, Lewiston, and Auburn Joint Resolution (2013) – All three City Councils passed a joint resolution in support of a Portland North passenger transit service connecting these communities. The resolution cited the “growing need for fast-economical and environmentally sound transit service between Portland, Lewiston and Auburn” to “help employment, medical and entertainment opportunities” and “support the goal of reducing single-passenger vehicle trips.”

Lewiston-Auburn Passenger Rail Service Plan: Transit Propensity Report (2018) – This [study](#) was commissioned by the Northern New England Passenger Rail Authority (NNEPRA) and the Maine Department of Transportation (MaineDOT) to develop ridership demand estimates for passenger rail service between the Portland and Lewiston-Auburn regions without regard to specific corridors. The Transit Propensity Report produced the following major findings:

- 6,200 new residents and 5,600 new jobs could be generated in the study area by 2040 with the introduction of passenger rail service (p. ES-11).
- A low frequency commuter rail service (like the Downeaster) could generate 250-330 average daily boardings by 2040.
- A high frequency transit service could generate 700-1,900 average daily boardings by 2040.

Lewiston-Auburn Passenger Rail Service Plan: Operating Plans and Corridor Assessments (2019) – This [report](#) builds on the work of the Transit Propensity Report. This report examined what kind of service should be provided to meet the travel demand/patterns observed in Transit Propensity Analysis with specific focus on alternative route alignments.

The study focused on three (3) feasible Full Build Alignments, as well as 2 phased alignments (not discussed below). For all alignments, the study assumed the mode of service to be Commuter Rail operating at 30 minute headways during peak hours and serving four stations. The report states that light rail transit (LRT) is not appropriate for the corridor because LRT cannot operate on the existing tracks. The report also states that Bus Rapid Transit (BRT) is not appropriate for the corridor as it cannot operate on the existing tracks and is generally a mode designed for shorter lines in urban settings. There have been questions raised about these two conclusions.

The alternatives were evaluated along numerous criteria including metrics for mobility, environmental impact, cost and implementation timeframe.

- **Alignment 1A - Lewiston-Auburn to Portland using the Pan Am Railroad (PAR) corridor (now owned/operated by CSX).** It would start in Lewiston-Auburn, and pass through the towns of New Gloucester, Gray, North Yarmouth, Yarmouth, Cumberland, and Falmouth, before terminating in Portland at the (relocated) Portland Downeaster station.
- **Alignment 1B - Lewiston-Auburn to Portland using the PAR (now CSX) and Saint Lawrence & Atlantic (SLR) corridors.** It would start in Lewiston-Auburn, and pass through the towns of New Gloucester, Pownal, North Yarmouth, Yarmouth, Cumberland, and Falmouth, before terminating in Portland at the (relocated) Portland Downeaster station.
- **Alignment 2B - Lewiston-Auburn to Portland using the SLR corridor.** It would start in Lewiston-Auburn, and pass through the towns of New Gloucester, Pownal, North Yarmouth, Yarmouth, Cumberland, and Falmouth, then enter the Portland peninsula using a new Back Cove rail bridge, operate on the rail bed now used by Maine Narrow Gauge Railroad, and terminate near the Ocean Gateway terminal. *This is the same corridor considered by the RUAC for possible multi-use trail upgrades.*

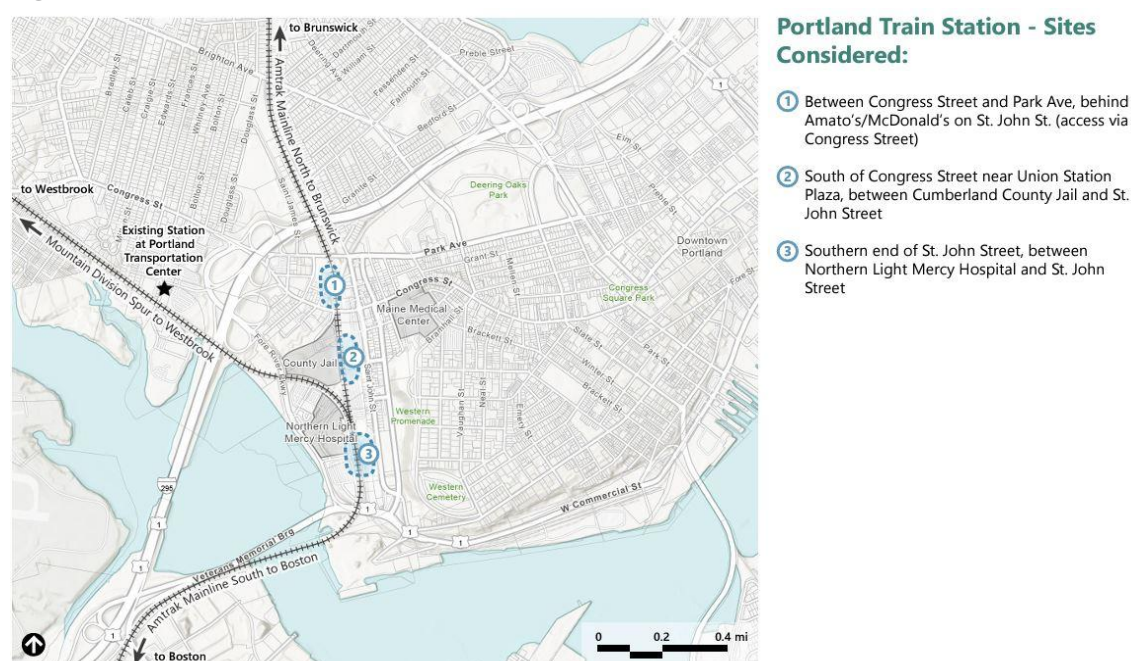
The detailed results of this evaluation are available on page [83 of the report](#). According to the study's findings, Alignment 2B (compared to alternatives 1A and 1B) would generate less ridership, carry greater potential environmental impacts, cost more to construct and operate, and take longer to implement due to additional design and permitting requirements. Although the Project Committee concluded the entry and alignment on the east end of Portland to be costly and impractical, the report recommends engagement with the City to determine its priorities and long-range plans for this section of the city.

Notably, the study did not (or was not able to) address a key issue pertaining to Alignments 1A and 1B. The current CSX freight operation includes six train movements per day. There is no confirmed information on the concrete opportunities and constraints related to introducing new passenger rail service to a privately owned and operated rail corridor. As a result, the potential feasibility of these alignments for the assumed level service is not known.

NNEPRA Portland Train Station Relocation Site Evaluation (2024) – MaineDOT led a 2021 study evaluating intercity bus, rail, and related modes at the Portland Transportation Center and alternative station sites. The study recommended a new rail facility on the mainline adjacent to St. John's Street. NNEPRA is currently in the process of evaluating relocation of the Downeaster station along St. John's Street aiming to reduce bottlenecks, decrease travel time, and enhance transit connectivity. Three potential sites are under consideration for the new Downeaster station along the CSX mainline, east of I-295 (See Figure 2 on following page):

- (Site 1) Between Congress Street and Park Ave, behind Amato's/McDonald's.
- (Site 2) South of Congress Street, near Union Station Plaza.
- (Site 3) Southern end of St. John Street, near Northern Light Mercy Hospital.

Figure 2: Train Station Site Relocation Options



Source: NNEPRA/VHB Portland Train Platform & Station Site Alternatives Evaluation – Public Meeting Presentation, August 13, 2024.

RUAC Process and Outcomes

City of Portland staff participated on the RUAC from April thru December 2022 which was tasked with reviewing future use options for the SLR rail corridor. The RUAC was composed of the communities along the SLR and several advocacy organizations. All were given equal weight for votes (i.e. not weighted by population or other metrics).

In coordination with MaineDOT, and its consultants (VHB, RKG), the RUAC evaluated the following options:

- **Interim “Trail Until Rail”** - removes existing track and replaces it with a multi-use path. The interim designation is required by LD 1133 and stipulates that any subsequent legislation must include language stating that “any track removal or other change for nonrail use is considered interim in nature and that the rail corridor will be preserved for future rail use...”
- **Rail with Trail** - co-locates trail facilities with the existing rail infrastructure.
- **Rail Only** - no trail element in order to best position the corridor for future rail service.

The RUAC Summary and Recommendations (Attachment A) and final Berlin Subdivision Rail Corridor Study (Attachment B) are also available [here](#). Table 1 below reports the breakdown of public comment received during the RUAC process (Attachment B, p. 42), and the votes submitted by RUAC members on December 22, 2022 (Attachment A, pp. 6-7).

Table 1: Breakdown RUAC Member Votes and Community Input

Option	RUAC Member Votes*	Community Input & Associated Notes
1. Interim Trail until Rail	7	766 comments expressed support for a trail of some kind. Consultant’s feedback process did not explicitly distinguish “trail until rail” and “rail with trail” concepts.
2. Rail with Trail	5	
3. Rail Only	1	73 comments expressed support for passenger rail service exclusive of a trail component.

* Two RUAC members abstained.

Table 2: Capital Cost Estimates and Environmental Impact Assessments

#	Alternative	Cost Estimates	Assessment of Environmental Impact
1A	Restore Freight Rail Service	\$13.4 - \$31 million	No anticipated environmental impacts.
1B	Establish Passenger Rail Service	\$274 million	Environmental impacts anticipated due to required expansion of embankment.
2A	Interim Trail Until Rail - Gravel/Stone	\$47.5 million*	No anticipated environmental impacts.
2B	Interim Trail Until Rail - Paved	\$55.0 million*	No anticipated environmental impacts.
3A	Trail With Rail - Gravel/Stone	\$90.0 million	Environmental impacts anticipated due to required expansion of embankment.
3B	Trail With Rail - Paved	\$94.3 million	Environmental impacts anticipated due to required expansion of embankment.

* There may be additional costs associated with 1) track removal related to removal/storage of contaminated materials if such materials are discovered, and 2) trail upgrades for lighting and other amenities.

For both trail options, the federal RAISE Grant received in connection with the Roux Institute project will provide funding for an enhanced Tukey's Bridge active transportation facility providing an improved connection to the Bayside end of the Eastern Prom trail. As a result, the future cost of alternatives 2A, 2B, 3A, and 3B would be reduced by some amount.

Table 3: Estimated Costs and Economic Impact

#	Alternative	Capital Cost (in millions)	Annual Maint. Cost* (in millions)	Value Added (in millions)	Jobs Created (Construction)	Jobs Created (Ongoing)
1A	Restore Freight Rail Service	\$13.4 - \$31	\$2.13 per year	\$19.02	281	18
1B	Establish Passenger Rail Service	\$274.0	\$2.34 per year	\$234.77	3,474	20
2A	Interim Trail Until Rail - Gravel/Stone	\$47.5	\$0.12 per year	\$40.70	602	1
2B	Interim Trail Until Rail - Paved	\$55.0	\$0.10 per year	\$47.12	697	1
3A	Trail With Rail - Gravel/Stone	\$90.0	\$0.12 per year	\$77.11	1,141	1
3B	Trail With Rail - Paved	\$94.3	\$0.10 per year	\$80.80	1,196	1

* Study estimated passenger rail annual maintenance cost only and did not estimate annual operating costs. MaineDOT's Lewiston-Auburn Passenger Rail Service Plan (2019) estimated annual operating-maintenance costs to be \$17-\$21 million.

As the Committee considers the multi-use trail opportunities along the SLR corridor as reviewed by the RUAC process, it is important to consider the recent passenger rail studies and their findings on the feasibility, costs and performance associated with the various rail corridors in southern Maine, including the SLR.

FISCAL IMPACT

For the trail options, it remains an open question whether host municipalities would be asked to provide local funding to match state and federal funding to cover construction costs. When federal funding is accessible, a common cost sharing model involves 80% federal funding, 10% state funding, and 10% local funding. Under this scenario, the potential local funding required from host municipalities breaks down as follows.

Interim Trail until Rail – \$5.5 million

Trail with Rail – \$9.43 million

Passenger Rail – \$27.4 million

However, for major passenger rail projects, the Federal Transit Administration’s Capital Investment Grants Program (CIG) is a principal source of federal funding for such projects. The maximum CIG share varies by project type and can range from 60–80%, so the scope of local funding required may be greater than 10%.

Actual cost sharing among municipalities would have to be determined, so it is not possible to determine an estimate specifically for Portland. A related consideration is the degree to which the federal RAISE grant awarded for the Tukey’s bridge trail connection, Portland’s additional contribution could range from

Discussions between senior city staff and the MaineDOT Commissioner have determined that a trail facility would be operated and maintained by the host community. As a result, Portland would share some portion of the operating-maintenance cost estimates based both scope of expense in Portland and proportionate share of the corridor.

CONCLUSION(S)

Although the criteria for decision making on this are complex and there are trade-offs, staff have attempted to summarize the essential conclusions and open questions/concerns.

- The MaineDOT Commissioner plans to submit a bill to the legislature that would designate the SLR (initially from Portland to Yarmouth) as an interim “trail until rail” corridor.
- There was a preponderance of support for the “trail until rail” option among RUAC members and community members who provided input.
- The total capital cost of the “trail-until-rail” option is \$40 million less than the “Rail with Trail” option.

- Based on the RUAC Report, the “Trail-until-Rail” direction has fewer environmental impacts and a quicker implementation timeframe.
- Subject to funding, the “Trail-until-Rail” direction has an easier pathway to construction and offers the City a near-term multi-modal transportation infrastructure improvement. However, this near-term opportunity must be weighed against the risk of constraining future opportunities for passenger rail, in the event that level of service on this corridor is determined to be feasible.
- As required by state law, the “Train-until-Rail” direction does not preclude the opportunity to construct passenger rail service on the SLR in the future. However, it must be recognized that removing the existing rail infrastructure may make a reinstallation harder and more costly.
- The 2019 passenger rail study concluded that the PAR/CSX rail corridor is more advantageous for future passenger rail compared to the SLR corridor. The proposed relocation of the NNEPRA Downeaster station to St. John’s Street positively impacts the potential of this alignment. However, this alignment requires partnering with CSX and the potential constraints on future passenger rail expansion are not known.
- On September 9, 2021, the City Council approved [Resolve 1-21/22](#) which expressed support for the creation of a “Rail Corridor Use Advisory Council to consider future use of the Casco Bay SLA Corridor as a multi-use ‘trail-until-rail’.”

Based on the foregoing, staff is seeking the Committee’s direction on next steps which could include resting on the City Council’s 2021 resolve, or advancing a follow-up resolution to the City Council that either reaffirms support for the interim “Trail-until-Rail” direction or expresses support for the “Rail-with-Trail” option.

Regardless of the direction chosen by the City, staff recommends that the City have direct involvement in any design process as it takes place. Staff also supports ongoing examination of this corridor for various long-term transit outcomes.

PRIOR COUNCIL/COMMITTEE REVIEW

City Council (September 9, 2021) - Passed [Resolve 1-21/22](#)

Sustainability & Transportation Committee (January 11, 2023) - [Staff Presentation](#)

Sustainability & Transportation Committee (March 8, 2023) - [Staff Presentation](#)

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ATTACHMENTS

Attachment A - Auburn to Portland Rail Use Advisory Council (RUAC)

Attachment B - Berlin Subdivision Rail Corridor Study

Portland to Auburn Rail Use Advisory Council

Summary and Recommendations

Executive Summary

After a 9-month review of potential rail and non-rail uses for the state-owned Berlin Subdivision rail corridor from Portland to the Auburn/New Gloucester town line, seven of fifteen (7 of 15) members of the Portland to Auburn Rail Use Advisory Council (RUAC) voted to recommend the conversion of 26.5 miles of existing railroad track to an interim bicycle and pedestrian trail. Additionally, five (5) members of the RUAC voted to recommend the Trail with Rail option (i.e., leaving the track in place and building bicycle and pedestrian trail at an offset) and one (1) member voted for the Rail Use-only option. All the recommendations are included in this report. Two (2) members of the Council abstained.

Background

In June of 2021, two bills were signed into law that established a new process for reviewing a non-rail recreational or nonrecreational transportation use along state-owned rail corridors. [Public Law 21, Chapter 239](#) gave the Maine Department of Transportation (MaineDOT) Commissioner the authority to establish a Rail Use Advisory Council, upon the petition of one or more governmental entities. The purpose of these councils is to facilitate discussion, gather information, and provide advice to the commissioner regarding the future use of a rail corridor identified in the petition. These recommendations will include the benefits and costs of potential uses of the rail corridor, including rail and trail use, with the understanding that any non-rail use of the corridor is considered interim in nature

MaineDOT received letters of support from all communities along the rail corridor requesting the formation of a Rail Corridor Council and that the future use of the 26.5 miles of state-owned, inactive rail-line be studied and reviewed. The initial meeting of the RUAC occurred in April 2022. The process was concluded in January 2023.

The 15-member RUAC was composed of a single representative from each town along the section of rail corridor under consideration: Portland, Falmouth, Cumberland, Yarmouth, North Yarmouth, Pownal, New Gloucester and Auburn. In addition, members included representatives from Bicycle Coalition of Maine, Casco Bay Trail Alliance, Genesee & Wyoming, Greater Portland Council of Governments (GPCOG), Live + Work in Maine, Maine Rail Transit Coalition, and Maine Yacht Center:

Table 1. Portland to Auburn Rail Use Advisory Council Members

Nate Wildes, Executive Director, Live + Work in Maine	Scott Laflamme, Director of Economic Development, Yarmouth
Brian Harris, General Manager, Maine Yacht Center	Jeremiah Bartlett, Transportation Systems Engineer, Portland
Charles Hunter, AVP Government Affairs, G&W RR Services, Inc.	Natalie Thomsen, Town Planner, New Gloucester
Tony Donovan, Maine Rail Transit Coalition	Jonathan P. LaBonté, Transportation Systems Analyst, Auburn
Dick Woodbury, Casco Bay Trail Alliance	Diane Barnes, Town Manager, North Yarmouth
Angela King, Advocacy Manager, Bicycle Coalition of Maine	Becky Taylor-Chase, Town Administrator, Pownal
Bill Shane, Town Manager, Cumberland	Christopher Chop, Transportation Director, Greater Portland Council of Governments (GPCOG)
Hope Cahan, Town Councilor, Falmouth	

The following MaineDOT Staff provided technical support and administration for the Council:

- Nate Moulton, Director, Office of Freight and Passenger Services
- Nathan Howard, Director, Rail Program

I. Location

The portion of the Berlin Subdivision located within the State of Maine is slightly more than 85 miles long, of which approximately 26.5 miles between Auburn/New Gloucester town line and Portland is situated on right of-way owned by the State of Maine and is the subject of this RUAC Study. The State-owned portion of the Berlin Subdivision was previously owned and operated by St. Lawrence and Atlantic Railroad (SLR) and is currently out of service. The subject corridor is rendered inaccessible through the installation of a barricade and removal of



Berlin Subdivision Rail Corridor Study area

a short section of rail, demarking the northernmost point of State ownership and preventing trains from entering the State-owned ROW.

The State-owned corridor starts at Ocean Gateway in Portland and runs just past the Auburn/New Gloucester town line, passing through Portland's East Deering neighborhood, Falmouth, Cumberland, Yarmouth, North Yarmouth, Pownal and New Gloucester. The section corresponds to railroad mile point 0.0 to 26.5.

The rail swing bridge at Back Cove in Portland (MP 1.4 - 1.7) is damaged beyond repair and a portion of the trestle has been removed.

II. Existing and Recent Uses of the Berlin Subdivision

The Maine Narrow Gauge Railroad Co. & Museum provides seasonal tourist excursions along a short portion of corridor from Ocean Gateway to a point south of the swing bridge along the Eastern Promenade. The Eastern Promenade Trail is located adjacent the rail along this same corridor.

In 2007 and 2010, MaineDOT acquired portions of the railroad line from SLR. In late 2015, SLR stopped providing service to B&M Baked Beans factory at Mile Post 1.7 in Portland, the only customer south of Auburn at the time. The SLR freight service between Auburn and Portland was placed in a status of discontinuance and has remained out of service to this day. However, SLR retains freight operating rights along the corridor.

III. Rail Use Advisory Council Process

The RUAC met 8 times from April 2022 to January 2023. The Council was Chaired by Bill Shane, Town Manager of Cumberland. MaineDOT staff provided technical support and administration. The civil and transportation engineering firm, VHB, provided engineering services and prepared the Feasibility study report (Section III).

The Council reviewed the approximately 26.5-mile-long section of the Berlin Subdivision from Portland to the Auburn/New Gloucester line for potential rail and non-rail uses. At these meetings, VHB presented the feasibility study for future rail, rail with trail, interim trail use options and an assessment of economic benefits prepared by RKG Associates. The Council also heard presentations on various rail and trail related topics from guest speakers, Council members and MaineDOT staff.

Over the course of nine months the Council considered three primary uses of the railroad corridor:

- 1. Rail Use.** This alternative provides for possible restoration of rail service in the future with potential rehabilitation of the existing railroad infrastructure to support reestablishment of rail operations. Operations may include:
 - Continuation of MaineDOT's current patrol and maintenance activities along the existing track corridor to ensure the existing rails remains intact and viable for possible

reestablishment of rail service in the future as required by the [State Rail Preservation Act](#).

- Reestablishment of freight rail service, including performance of State of Good Repair and Deferred Maintenance projects, targeted to accommodate delivery of materials and goods to commercial and industrial customers.
- Implementation of a passenger rail service, including capital infrastructure improvements needed to attain higher operating speeds and support a level and frequency of service that would meet ridership demands

- 2. Interim Trail until Rail (TUR)** (multi-use trail using the existing rail bed). This alternative includes removal of the existing tracks and ties and developing a multi-use trail on the former track bed. The trail surface may be gravel/stone dust or paved. The corridor will require minor modifications to support trail user loads and provide a uniform surface appropriate for the trail as well as a railing system where needed to safely accommodate bicyclists and pedestrians.

The conversion of the state-owned railroad to a trail is considered an interim non-rail use under the Rail Preservation Act requiring legislative approval.

- 3. Rail with Trail (RWT)** (multi-use trail adjacent to the existing rail bed). This alternative maintains the existing tracks and ties in current condition and establishes an adjacent and parallel multi-use trail with either a gravel/stone dust or paved surface. Grade differences in certain areas of the corridor will require retaining walls to support a new trail. Since this option assumes the rail will be in service, or someday return to service, the near edge of the trail (not including shoulder) shall be a minimum of 15 feet from the nearest rail, in accordance with MaineDOT standards for development of a RWT. However, this setback may be reduced to 10.5 feet, with MaineDOT approval, if a fence meeting MaineDOT standards is installed at the edge of the trail shoulder between the trail and the closest rail. A Rail with Trail configuration adjacent to passenger trains—typically moving much faster than freight trains—can be an uncomfortable experience for trail users when a minimum of 15 feet is not provided.

Rail with trail currently exists along the corridor from Ocean Gateway to a point south of the swing bridge along the Eastern Promenade.

Public engagement was an important part of the Berlin Subdivision Rail Corridor Study process. Comments were solicited in a variety of channels between April 2022 and January 2023, including five virtual RUAC meetings, three in-person RUAC meetings, one public meeting and through email comments, via direct email to MaineDOT and submissions through the MaineDOT website contact form. The public comments were reviewed, and specific opinions regarding the project were tabulated.

Over 700 public comments were received in an eight-month period from May 2022 through December 14, 2022. Approximately 86% of the public comments received indicated support for a trail. This included comments specifying desire for “trail until rail” and/or support for the development of the

relevant segment of the Casco Bay Trail Loop. A detailed assessment of the public comments can be found in Chapter 5 of *Berlin Subdivision Rail Corridor Study*.

IV. Summary of Berlin Subdivision Rail Corridor Study (Study)

Cost Estimates

Potential uses for the corridor and their associated cost estimates were developed based on the type of proposed rail service (passenger or freight) and trail surface (paved or gravel/stone dust). The Study also provided cost estimates for the “status quo” scenario – Alternative 0 maintain and preserve existing rail corridor. The costs range from \$0 in additional capital expenditure for maintaining/preserving the existing corridor to \$274 million for restoration of passenger rail service.

A conceptual cost estimate summary of each option for use of the corridor is shown in Table 2.

Table 2 Conceptual Cost Estimate Summary

Alternative	Segment	Cost Estimate
0: Maintain/Preserve Existing Corridor		
Narrow Gauge RR Operations	1: MP 0.0 to 1.3	No additional cost beyond current maintenance
MaineDOT Patrol & Repairs	2: MP 1.3 to 26.5	
1: Restore Rail Service on Existing Corridor		
1A: Freight Rail Service (Class 1-2)	1: MP 0.0 to 1.7	NA
	2: MP 1.7 to 26.5	\$13,400,000 - \$31,000,000
1A TOTAL		\$13,400,000 - \$31,000,000
1B: Passenger Rail Service (Class 3)	1: MP 0.0 to 1.7	\$60,000,000
	2: MP 1.7 to 26.5	\$214,000,000
1B TOTAL		\$274,000,000
2: Interim Trail Until Rail (TUR)		
2A: Gravel/Stone Dust Trail	1: MP 0.0 to 1.7	\$19,100,000
	2: MP 1.7 to 26.5	\$28,400,000
2A TOTAL		\$47,500,000
2B: Paved Trail	1: MP 0.0 to 1.7	\$19,200,000
	2: MP 1.7 to 26.5	\$35,800,000
2B TOTAL		\$55,000,000
3: Rail with Trail (RWT)		
3A: Gravel/Stone Dust Trail	1: MP 0.0 to 1.7	\$19,300,000
	2: MP 1.7 to 26.5	\$70,700,000
3A TOTAL		\$90,000,000
3B: Paved Trail	1: MP 0.0 to 1.7	\$19,300,000
	2: MP 1.7 to 26.5	\$75,000,000
3B TOTAL		\$94,300,000

Economic Benefits: Summary

This study included an economic impact analysis of the various options for the state-owned rail corridor. While more detail can be found in both Chapter 4 and the Appendix of the Study, the key take-aways include:

- Based on economic modeling, the direct investments in any of the scenarios will have ripple effect through the regional and state economy (though varying with each alternative)
- Related to the preservation of the corridor with restoration of rail service
 - Development potential exists at future passenger rail stations, especially for housing and mixed-use buildings
 - Either freight or passenger rail service will induce increased employment and economic activity
 - Passenger rail service will provide a commuting alternative between Lewiston/Auburn and Portland and could lead to reduction of motor vehicle traffic, emissions, and transportation costs (though a more robust transportation study is needed to understand the level of impact)
 - Passenger rail service promotes more active lifestyle via walking and bicycling to/from station stops, and can lead to reduced health care costs
- Related to conversion of the corridor for interim trail use (either TUR or RWT configuration)
 - A strong baseline of potential trail users exists along the corridor based on socio-economic metrics, area population density, and demand for walking and bicycling facilities
 - Potential for increased consumer activity by trail users could lead to \$3.5m to \$5.3m in annual spending
 - Presence of either a TUR or a RWT has potential to show a positive fiscal impact on residential property values along the corridor
 - Offering expanded recreational facilities, an interim trail will encourage more active lifestyles and can lead to reduced health care costs

V. Council Recommendations to the MaineDOT Commissioner

Recommendation 1: Interim Trail until Rail (7 members)

The Rail Use Advisory Council recommends ***Interim Trail until Rail*** (multi-use trail using the existing rail bed). This alternative includes removal of the existing tracks and ties and developing a multi-use trail on the former track bed. The recommendation was made by seven (7) out of fifteen (15) Council members.

This non-rail use recommendation by the Council for the rail corridor is considered interim in nature, because all such rail corridors must be preserved for future rail use as provided in the [State Rail Preservation Act](#).

Recommendation 2: Rail with Trail (5 members)

The recommendation **Rail with Trail** (multi-use trail adjacent to the existing rail bed) was supported by five (5) of (15) Council members. This alternative maintains the existing tracks and ties in current condition and establishes an adjacent and parallel multi-use trail with either a gravel/stone dust or paved surface. Grade differences in certain areas of the corridor will require retaining walls to support a new trail. Rail with Trail includes construction of new bridges, adjacent to existing rail bridges, to carry the trail over roadways and waterways. Additionally, this alternative also includes construction of new overhead bridges (i.e., bridges that carry roadways over the rail tracks) that are wide enough to allow rail and trail where the existing bridge clearance is insufficient.

Recommendation 3: Rail Use (1 member)

A single member (1) of the Council voted for **Rail Use**. This alternative provides for possible restoration of rail service in the future with potential rehabilitation of the existing railroad infrastructure to support reestablishment of rail operations.

Finally, two (2) members of the Council abstained from voting altogether.



FEASIBILITY STUDY

Berlin Subdivision Rail Corridor Study

Portland to Auburn, Maine



MaineDOT

Maine Department of
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February 2023

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1

Introduction and Summary

The Maine Department of Transportation retained VHB to study potential uses of the state-owned Berlin Subdivision rail corridor from Portland's Old Port to the Auburn/New Gloucester line. The work effort included analysis of the environmental impacts and potential economic benefits of either the introduction of a trail along the state-owned, inactive rail corridor (to either temporarily replace the railroad tracks or to run alongside them) or preserving the existing rail corridor for possible restoration of rail service in the future. This report summarizes the findings of the 9-month long study.

1.1 Purpose of the Study

The purpose of this report is to summarize the analysis of potential uses along the Berlin Subdivision rail line from Portland's Ocean Gateway to the Auburn/New Gloucester line, the 26.5-mile-long, state-owned corridor running through parts of Portland, Falmouth, Cumberland, Yarmouth, North Yarmouth, Pownal and New Gloucester. The intent is to inform the recommendation of the Rail Use Advisory Council (RUAC), as established by Maine's Legislative Document (LD) 1133. The RUAC's recommendation will be addressed to the MaineDOT Commissioner for final assessment and decision. Throughout the process, the consultant team—led by VHB, with assistance from economists RKG Associates—evaluated three potential uses for the corridor with sub-options for the first alternative. The potential alternatives include:

- › **Maintain and Preserve Existing Rail Corridor** – provides for possible restoration of rail service in the future with potential rehabilitation of the existing railroad infrastructure to support reestablishment of rail operations. Operations may include:
 - Continuation of MaineDOT's current patrol and maintenance activities along the existing track corridor to ensure the existing rails remains intact and viable for possible reestablishment of rail service in the future.

- Reestablishment of freight rail service, including performance of State of Good Repair and Deferred Maintenance projects, targeted to accommodate delivery of materials and goods to commercial and industrial customers.
 - Implementation of a passenger rail service, including capital infrastructure improvements needed to attain higher operating speeds and support a level and frequency of service that would meet ridership demands
- › **Interim Trail until Rail (TUR)** – interim multi-use trail using the existing rail bed. This alternative includes removal of the existing tracks and ties and developing a multi-use trail on the former track bed. The trail surface may be gravel/stone dust or paved. The corridor will require minor modifications to support trail user loads and provide a uniform surface appropriate for the trail as well as a railing system where needed to safely accommodate bicyclists and pedestrians.
- › **Rail with Trail (RWT)** – multi-use trail running adjacent to the existing rail bed. This alternative maintains the existing tracks and ties in current condition and establishes an adjacent and parallel multi-use trail with either a gravel/stone dust or paved surface. Grade differences in certain areas of the corridor will require retaining walls to support a new trail. Since this option assumes the rail will be in service, or someday return to service, the near edge of the trail (not including shoulder) shall be a minimum of 15 feet from the nearest rail, in accordance with MaineDOT standards for development of a RWT. However, this setback may be reduced to 10.5 feet, with MaineDOT approval if a fence meeting MaineDOT standards is installed at the edge of the trail shoulder between the trail and the closest rail. A RWT configuration adjacent to passenger trains—typically moving much faster than freight trains—can be an uncomfortable experience for trail users when a minimum of 15 feet is not provided.

For this high-level analysis, GIS-based maps were reviewed and analyzed, and online information was gathered (e.g., Google Earth). The study team was familiar with the corridor from previous studies performed for MaineDOT. Several study team members joined MaineDOT and RUAC members for a one-day review of the rail corridor via hi-rail vehicle. Detailed site inspection visits and topographic survey

Members of the Berlin Subdivision Rail Use Advisory Council (RUAC)

- Chair Bill Shane (Cumberland Town Manager)
- Angela King (Bicycle Coalition of Maine Advocacy Director)
- Becky Taylor-Chase (Town Administrator, Pownal)
- Brian Harris (Maine Yacht Center)
- Charles Hunter (Assis. VP for Genesee & Wyoming)
- Chris Chop (GPCOG Transportation Director)
- Diane Barnes (North Yarmouth Town Manager)
- Dick Woodbury (Casco Bay Trail Alliance)
- Hope Cahan (Falmouth Town Councilor)
- Jeremiah Bartlett (Portland Transportation Engineer)
- Jonathan LaBonte (Transportation Analyst for Auburn Town Manager)
- Natalie Thomsen, Town Planner, New Gloucester
- Nate Wildes (Live and Work in Maine)
- Scott LaFlamme (Yarmouth Economic Development Dir.)
- Tony Donovan (Maine Rail Transit Coalition)

MaineDOT Staff Support

- Director of Freight and Passenger Services, Nate Moulton
- Project Manager Nate Howard, Director, Rail Program

were not performed as part of this study.

Monthly or bi-monthly meetings were held with the RUAC. These meetings were critical to help the study team understand the key issues along the corridor. In December, one public meeting is to be held in Cumberland to allow members of the public to bring forth ideas or to express any concerns. Any future planning and design work along the corridor will require additional research, topographical survey, environmental review, site investigations, and more extensive outreach to abutters and nearby residents and businesses.

1.2 Study Area

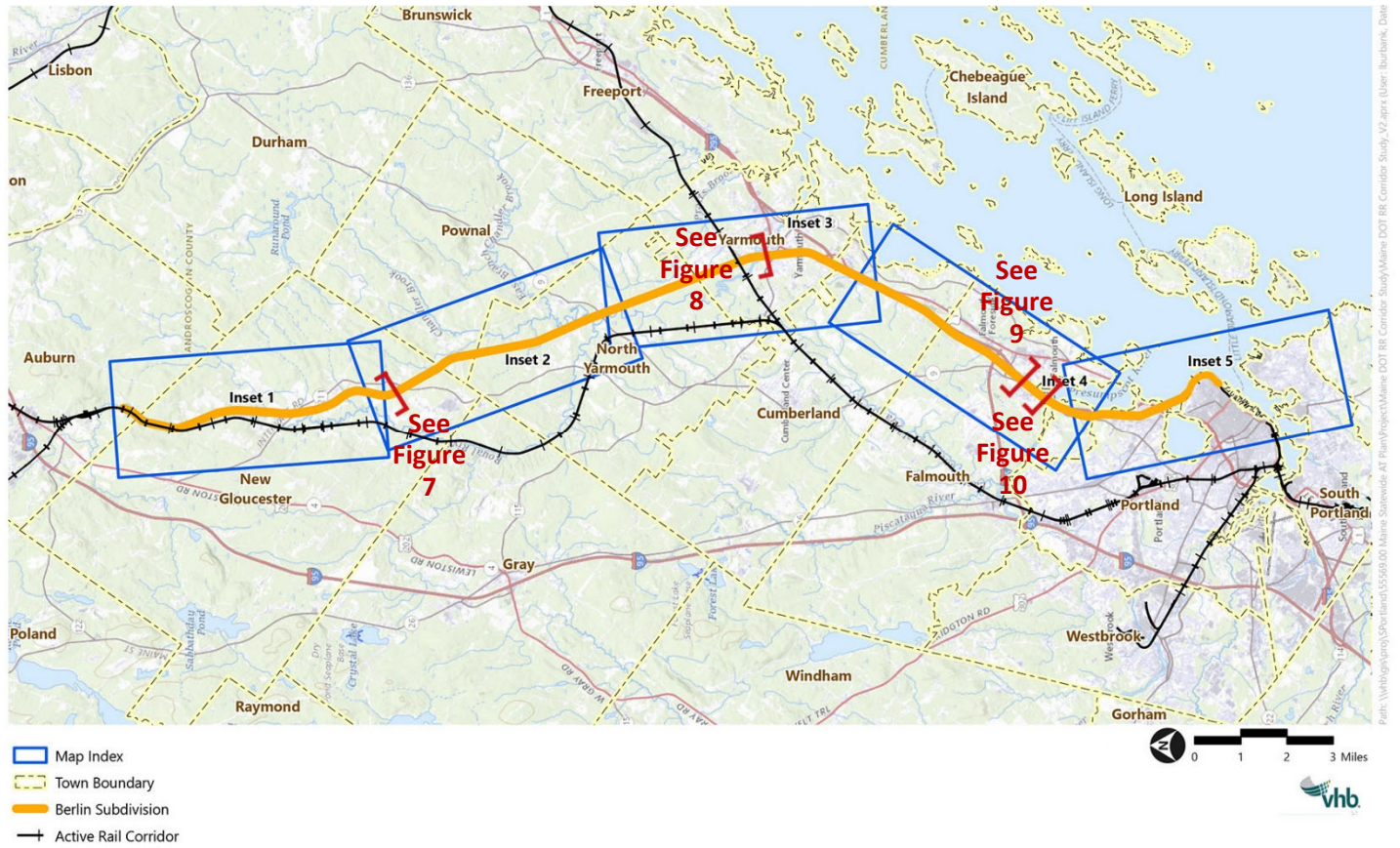
The Berlin Subdivision Rail Corridor runs along a 96-126-foot-wide, state-owned corridor through eight towns, including Portland, Falmouth, Cumberland, Yarmouth, North Yarmouth, Pownal, New Gloucester, and Auburn. Termini of the state-owned portion of the corridor includes Ocean Gateway in Portland at the south end and the Auburn/New Gloucester line¹ at the north end. This features forty-seven (47) at-grade rail crossings (including public, private, and farm), eleven (11) of which are signalized. The corridor overlaps directly with several large, environmentally-sensitive resource areas, including 100-year floodplain, National Wetlands Inventory (NWI) wetlands, conservation lands, and habitat for endangered or threatened species or species of concern. As depicted in the Existing Conditions Maps and Sections provided in the following pages, where the corridor does not directly overlap with existing resources areas, it runs parallel in numerous places.



Berlin Subdivision Rail Corridor Study area

¹ Approximately one mile south of Danville Junction and six miles south of Downtown Auburn

Figure 1: Study Area Overview Map



See subsequent pages for individual inset maps (Figures 2-6) and cross section views (Figures 7-10)

Figure 2: Berlin Subdivision Corridor Inset 1, Auburn-New Gloucester

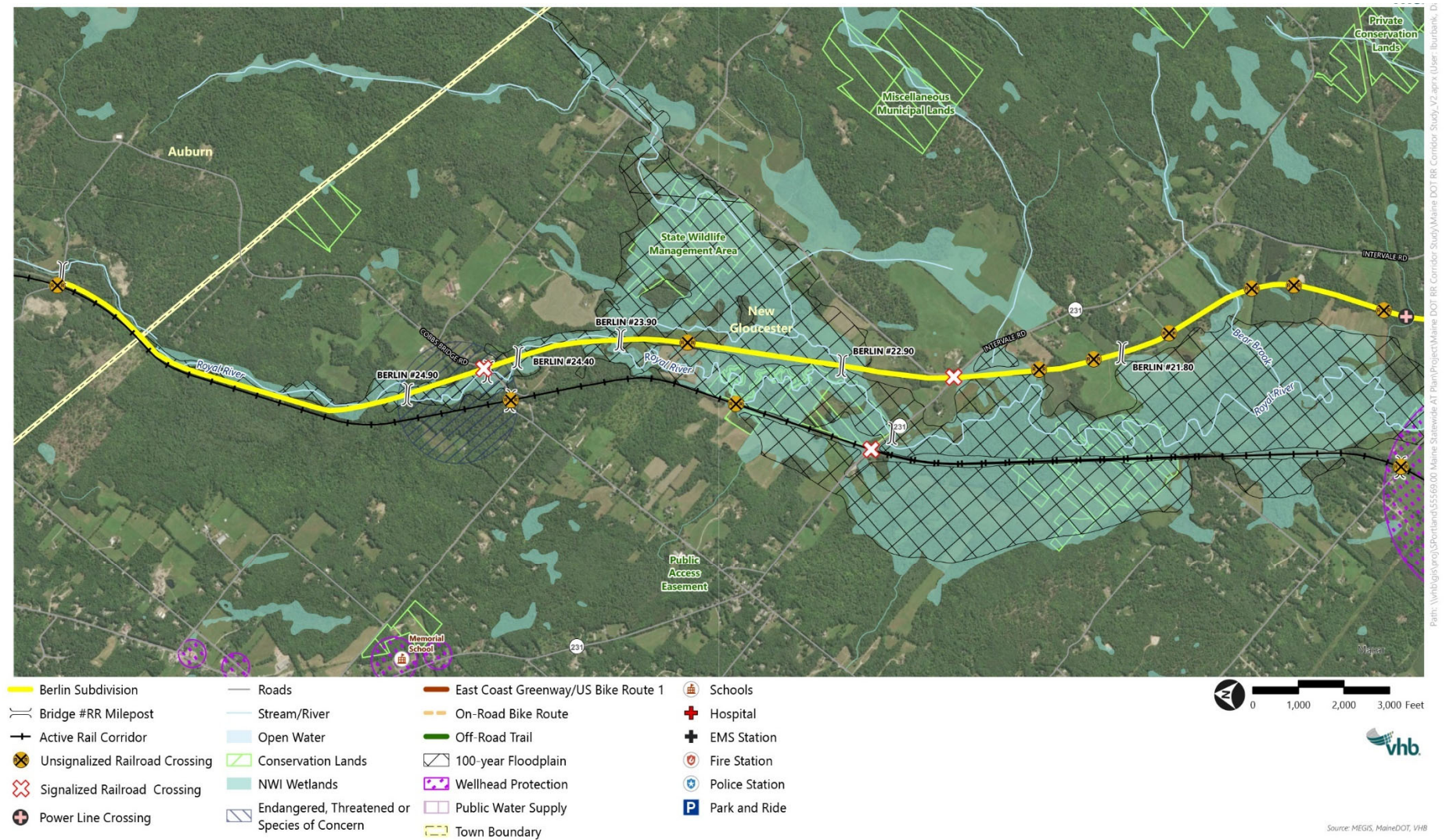


Figure 3: Berlin Subdivision Corridor Inset 2, New Gloucester-Pownal-North Yarmouth

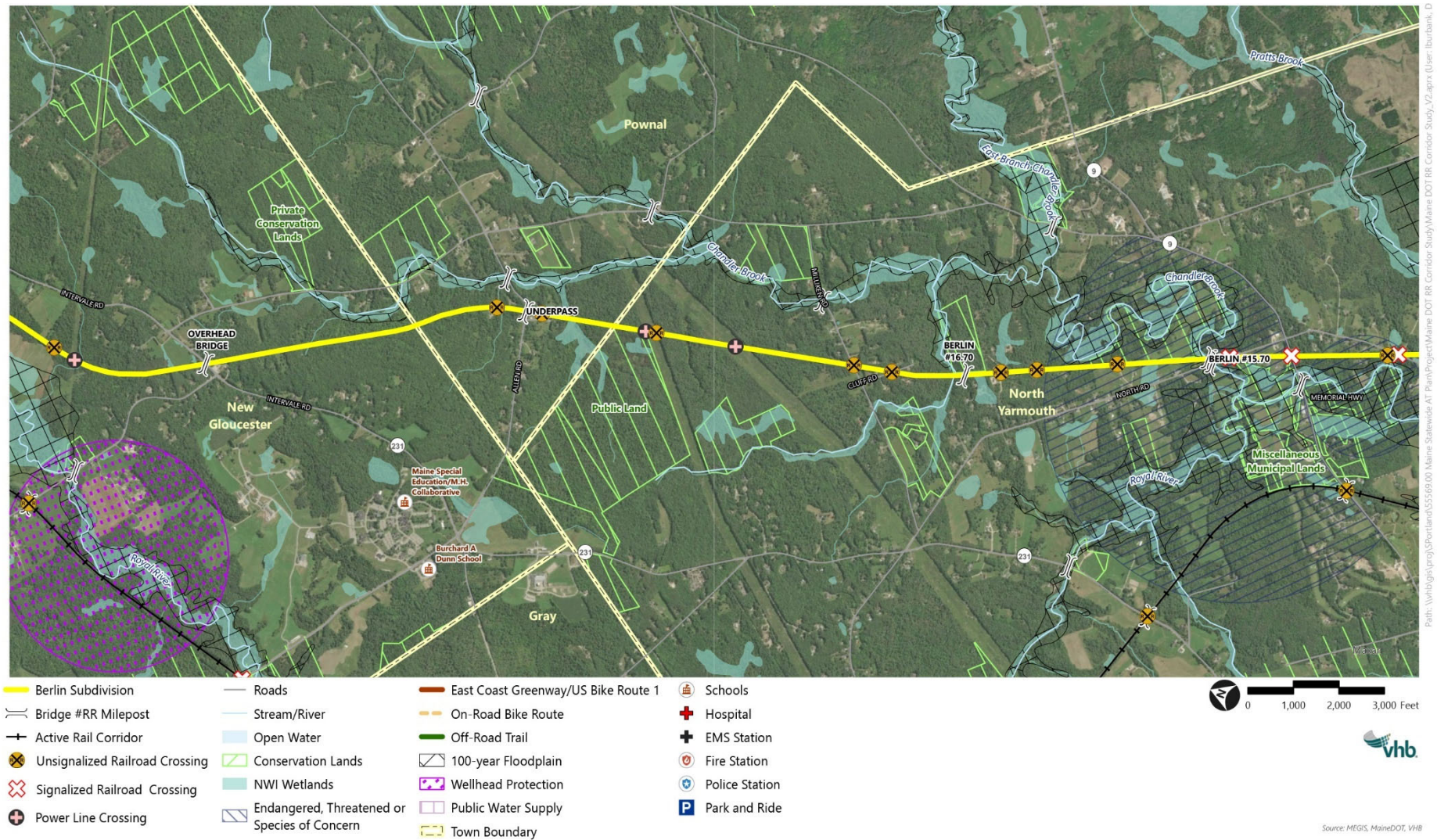


Figure 4: Berlin Subdivision Corridor Inset 3, North Yarmouth-Yarmouth-Cumberland

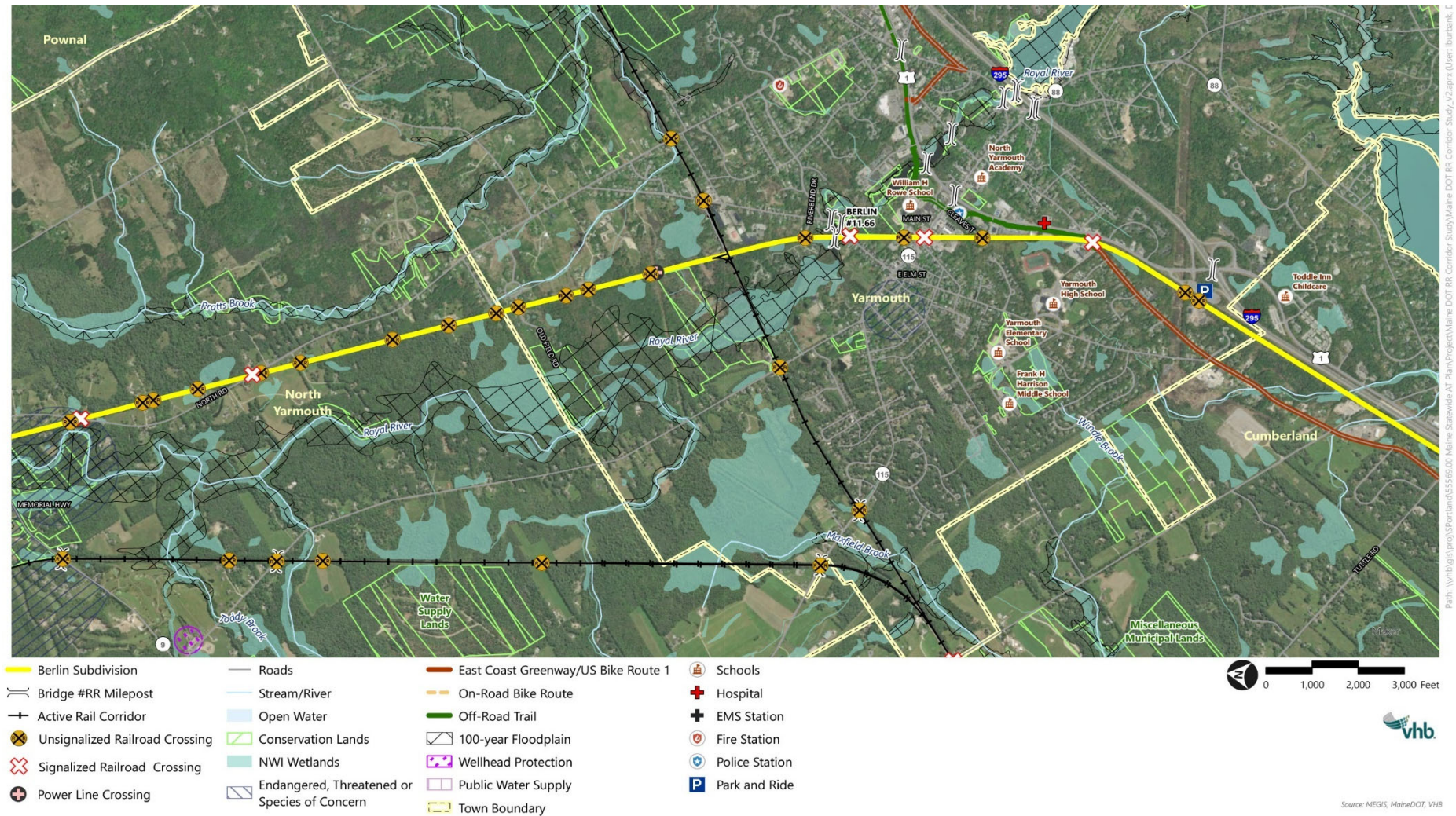


Figure 5: Berlin Subdivision Corridor Inset 4, Cumberland-Falmouth

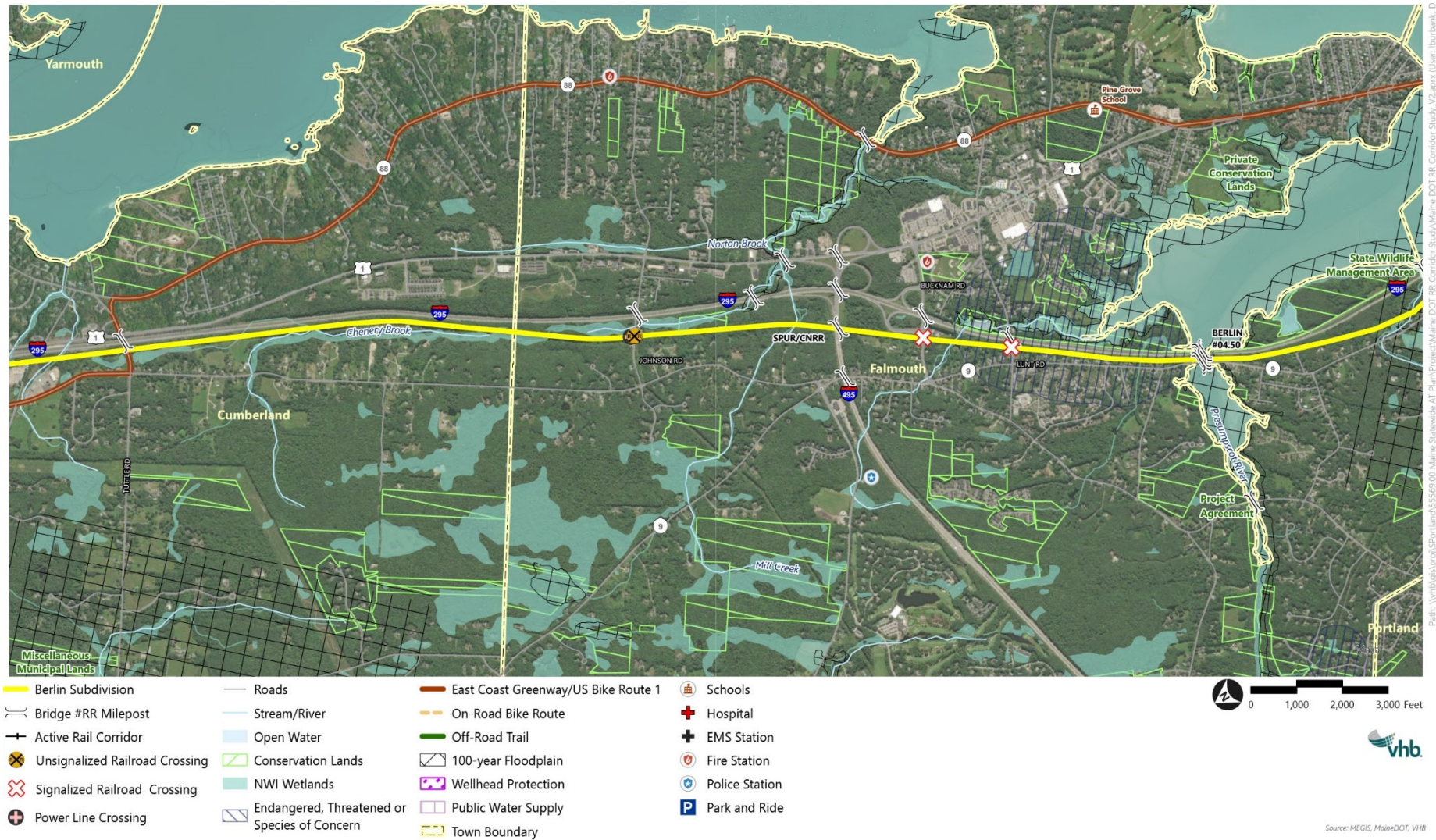


Figure 6: Berlin Subdivision Corridor Inset 5, Falmouth-Portland



EXISTING CONDITION CROSS SECTIONS

Figure 7: Just north of Rt. 231/Intervale Road, New Gloucester

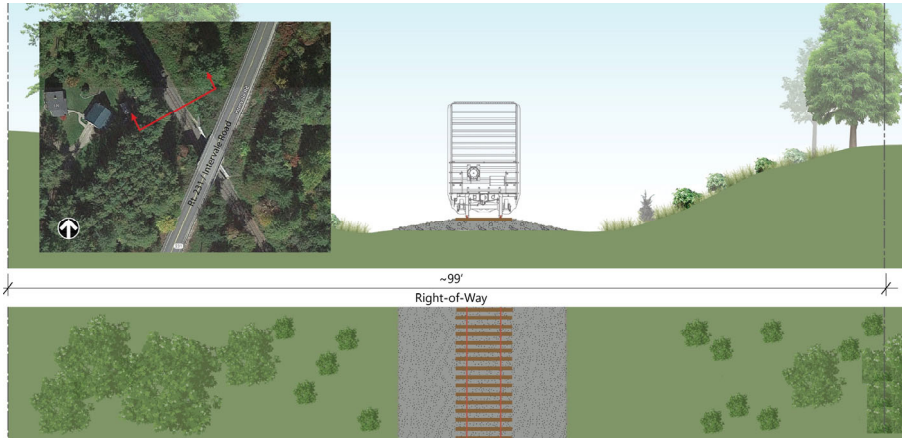


Figure 8: Just south of Elm Street crossing, Yarmouth



Figure 9: Adjacent to and parallel with Rt. 9/Middle Rd., Falmouth

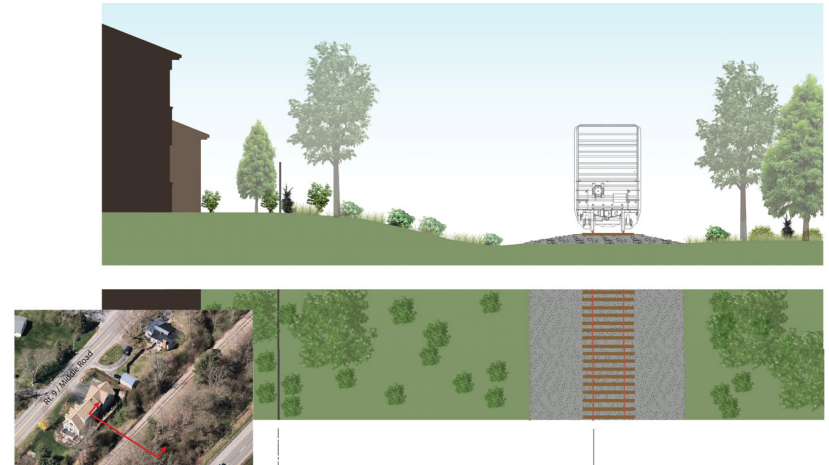
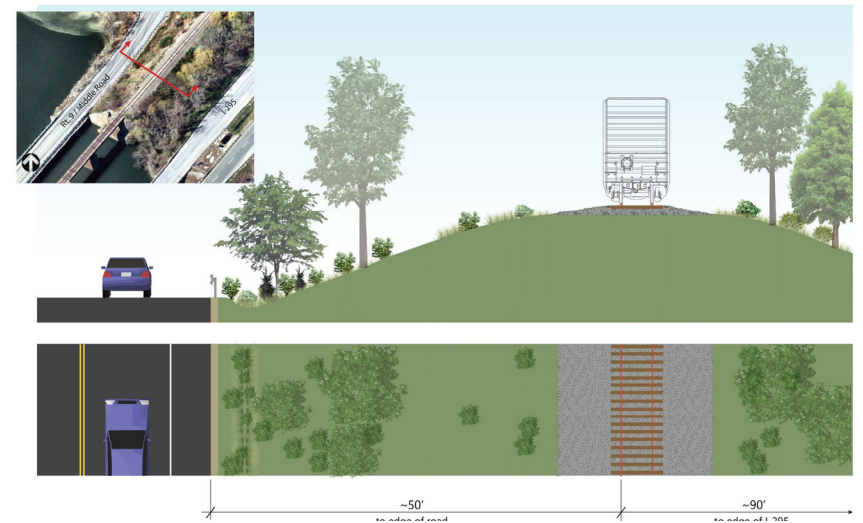


Figure 10: Adjacent to Rt. 9/Middle Rd., Falmouth (just north of bridge)



Assessment of Study Area Environmental Challenges

As part of the feasibility study, VHB conducted a desktop-level GIS analysis to identify any potential impacts to adjacent natural resources. Desktop data sources included: US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Mapping; Inland Waterfowl and Wading Bird Habitat (IWWH), Tidal Waterfowl and Wading Bird Habitat (TWWH), Endangered, Threatened and Concerned Wildlife Habitat, and Significant Vernal Pools as mapped by the Maine Department of Inland Fisheries and Wildlife (MDIFW) Beginning with Habitat web-based map viewer; and FEMA Flood Zone Layers (MEGIS & FEMA). Desktop-level GIS analyses are limited in nature due to the availability and quality of publicly available natural resource data and should not be used for permitting purposes. However, these data are a great tool that can be used to approximate resource areas and abundance, estimate potential impacts, and inform the evaluation of the feasibility of alternatives.

In the next chapter, the environmental analysis of the multiple alternatives for the Berlin Subdivision Rail Corridor is summarized, including the restoration of rail service, establishment of interim trail use, and permitting requirements related to wetlands and sensitive habitats.

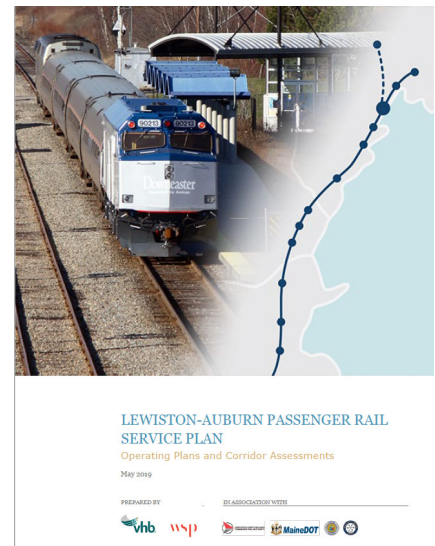
1.3 Previous Planning Reports and Studies

Two previous studies were referenced in this Berlin Subdivision Rail Corridor Study, including:

Lewiston-Auburn Passenger Rail Service Plan: Operating Plans and Corridors Assessments (2019, VHB with subconsultant WSP)

The 2019 VHB & WSP Lewiston-Auburn Passenger Rail Service Plan examined potential establishment of passenger rail service between the downtown Lewiston and Auburn area into Portland. This study focused on answering three primary questions: if a passenger rail connection were provided between Lewiston-Auburn and Portland: 1) How many people would ride it; 2) What would it look like; and 3) How much would it cost?

Portions of the subject Berlin Subdivision were included in the multitude of route alternatives that were evaluated for consideration to support a passenger rail service between the two regions. The route alternatives also considered portions of the Pan Am Railways (PAR) Freight Main Line (FML), recently acquired by CSX. The 2019 report documents the identification of the alignment alternatives considered, selection of Preferred Alignments for additional consideration and analysis during the Study, an evaluation of the modes and vehicle technologies that were considered to support a future passenger service, an assessment of the existing rail infrastructure and identification of improvements that would be needed to support implementation (including key



challenges and constraints), as well as capital costs and operation and maintenance costs. This information was used to evaluate and compare each of the Preferred Alternatives.

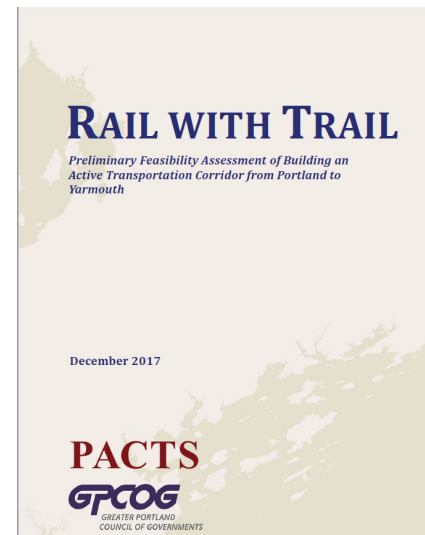
All of the Preferred Alternatives utilized the existing FML from the downtown Lewiston/Auburn area to Danville Junction. The Preferred Alternatives also considered alternative destinations within Portland, including the Portland Transportation Center (located on the PAR FML, presently utilized by the Amtrak Downeaster service) as well as a new terminal station located at Ocean Gateway, along the Portland Waterfront. The route to Ocean Gateway utilized the entirety of the State-owned portion of the Berlin Subdivision, while the northern section between Danville Junction and Yarmouth Junction was also used for consideration to provide connection to Portland Transportation Center.

Rail with Trail: Preliminary Feasibility Assessment of Building an Active Transportation Corridor from Portland to Yarmouth (2017, Greater Portland Council of Governments)

The 2017 Greater Portland Council of Governments (GPCOG) Rail-with-Trail Study Area included a ten-mile stretch of rail running north from Portland, through Falmouth and Cumberland, to Yarmouth. The rail right-of-way (ROW) is approximately 99 feet wide in most places – 55 feet to the west and 44 feet to the east of the center of the existing tracks. The railroad follows the St. Lawrence and Atlantic railway and parallels the I-295 highway for most of the length of the ten-mile corridor.

Rail use within the designated Study Area is currently discontinued, although the physical tracks remain. Were rail use to resume, it would be limited to 25 miles per hour for freight service. This rail line has been used to transport freight in the past, most recently ferrying raw materials to the Portland baked bean factory, B&M. Freight service concluded in 2015 and no rail service has run on the line since. The Portland Yacht Center currently leases a portion of the track between their facility at Mile Post 1.8 to Mile Post 2.45 (approximately located behind the Eldredge Hardware building, north of the private roadway crossing). The Yacht Center uses the tracks to bring large boats and equipment into and out of their facility that otherwise would not be feasible through use of their driveway entrance.

The tracks in the Study Area run through four municipalities and cross five bridges, six large culverts, and nine roads. There are physical and environmental constraints to adding a multi-use trail next to the existing rail ROW. Physical constraints include crossing the Presumpscot River, going under the Falmouth Spur, and areas where the ground slopes steeply away from the railbed. Construction requirements appear to be more amendable on the west side of the existing tracks. MaineDOT has minimum standards for the development of a trail next to a rail, including a required set-back of 15 feet from the rail. DOT can grant exceptions, but will not compromise safety, efficient rail line operations, or maintenance. Currently, no multi-use trail exists in any portion of the rail property and walking or biking on the rail ROW is prohibited.



1.4 Summary of Findings

The consultant team developed conceptual cost estimates for the three corridor alternatives described earlier, running from Ocean Gateway to the Auburn/New Gloucester line including:

- › **1: Restore Rail Service on Existing Corridor** – including freight rail operations (along Class 1-2 track) and Passenger rail service (along Class 3 track)
- › **2: Interim Trail until Rail (TUR)** – remove existing track and associated infrastructure, construct trail on existing rail bed (either gravel/stone dust or paved)
- › **3: Rail with Trail (RWT)** – construct trail adjacent to the existing tracks and within the current state-owned ROW (either gravel/stone dust or paved)

Table 1: Conceptual Cost Estimate Summary

Alternative	Segment	Cost Estimate
0: Maintain/Preserve Existing Corridor		
Narrow Gauge RR Operations	1: MP 0.0 to 1.3	No additional cost beyond current maintenance
MaineDOT Patrol & Repairs	2: MP 1.3 to 26.5	
1: Restore Rail Service on Existing Corridor		
1A: Freight Rail Service (Class 1-2)	1: MP 0.0 to 1.7	NA
	2: MP 1.7 to 26.5	\$13,400,000 - \$31,000,000
1A TOTAL		\$13,400,000 - \$31,000,000
1B: Passenger Rail Service (Class 3)	1: MP 0.0 to 1.7	\$60,000,000
	2: MP 1.7 to 26.5	\$214,000,000
1B TOTAL		\$274,000,000
2: Interim Trail Until Rail (TUR)		
2A: Gravel/Stone Dust Trail	1: MP 0.0 to 1.7	\$19,100,000
	2: MP 1.7 to 26.5	\$28,400,000
2A TOTAL		\$47,500,000
2B: Paved Trail	1: MP 0.0 to 1.7	\$19,200,000
	2: MP 1.7 to 26.5	\$35,800,000
2B TOTAL		\$55,000,000
3: Rail with Trail (RWT)		
3A: Gravel/Stone Dust Trail	1: MP 0.0 to 1.7	\$19,300,000
	2: MP 1.7 to 26.5	\$70,700,000
3A TOTAL		\$90,000,000
3B: Paved Trail	1: MP 0.0 to 1.7	\$19,300,000
	2: MP 1.7 to 26.5	\$75,000,000
3B TOTAL		\$94,300,000

(See the next chapter for the assumptions used when determining estimated costs.)

Once the Berlin Subdivision RUAC selects the preferred option to recommend to the Commissioner, further study and analysis beyond the level of detail within this study will be required to determine:

- › more detailed cost estimates
- › level of interest in taking advantage of potential freight rail service from local businesses and/or regional industries
- › opportunities to establish a Foreign Trade Zone (FTZ) either on or adjacent to the corridor
- › potential operators for passenger rail service
- › (Optional) More-detailed economic, environmental, and transportation impacts and benefits (see below for high level baseline of economic impacts)

This study included an economic impact analysis of the various options for the state-owned rail corridor. While more detail can be found in both Chapter 4 and the Appendix, the key take-aways include:

- › Based on IMPLAN modeling, the direct investments in any of the scenarios will have ripple effect through the regional and state economy (though varying with each alternative)
- › Related to the preservation of the corridor with restoration of rail service
 - Development potential exists at future passenger rail stations (specific sites TBD), especially for housing and mixed-use buildings (leading to economic benefits for the communities along the corridor)
 - Either freight or passenger rail service will induce increased employment and economic activity
 - Passenger rail service will provide a commuting alternative between Lewiston/Auburn and Portland and could lead to reduction of motor vehicle traffic, emissions, and transportation costs (though a more robust transportation study is needed to understand the level of impact)
 - Passenger rail service promotes more active lifestyle via walking and bicycling to/from station stops, and can lead to reduced health care costs
- › Related to conversion of the corridor for interim trail use (either TUR or RWT configuration)
 - A strong baseline of potential trail users exists along the corridor based on socio-economic metrics, area population density, and demand for walking and bicycling facilities
 - Potential for increased consumer activity by trail users could lead to \$3.5m to \$5.3m in annual spending, depending on level of activity by snowmobilers
 - Presence of either a TUR or a RWT has potential to show a positive fiscal impact on residential property values along the corridor
 - Offering expanded recreational facilities, an interim trail will encourage more active lifestyles and can lead to reduced health care costs

2

Evaluation of Corridor for Rail Use

This Section documents evaluation of the State of Maine owned portion of the Berlin Subdivision corridor for potential future rail use, including an assessment of the existing conditions along the corridor as well as development of conceptual capital improvement programs that could be completed to support either reestablishment of freight rail service at varying levels or the implementation of a new passenger rail service on the line.

2.1 Maintain Corridor (Current Baseline Conditions)

The St. Lawrence and Atlantic Railroad (SLR) operates over 235 miles of contiguous main line track between Auburn and Ste. Rosalie, Quebec and has rights to operate along the Berlin Subdivision between Portland and Auburn. SLR provides freight service to warehouse distribution, intermodal, and bulk transloading facilities in Maine and provides a key transportation link through Lewiston, Auburn, Mechanic Falls, and South Paris, Maine. SLR's primary commodities include the three key forest products of lumber, pulp, and paper, as well as chemicals, plastics, fuels, and agricultural products.

The portion of the Berlin Subdivision located within the State of Maine is slightly more than 85 miles long, of which approximately 25.7 miles between Danville Junction and Portland is situated on right-of-way owned by the State of Maine and is the subject of this RUAC Study. The State-owned portion of the Berlin Subdivision was previously owned and operated by SLR and is currently out of service. The subject corridor is rendered inaccessible through the installation of a barricade and removal of a short section of rail, demarking the northernmost point of State ownership and preventing trains operating at Danville Junction from entering the State-owned ROW. Much of the track and rail infrastructure on the State-owned section remains in-tact between Danville Junction and the Portland Yacht Center (approx. Mile Post 1.8), while automatic highway crossing warning (AHCW) devices located at roadway at-grade crossings have been disabled and track switch components have been removed from the now out-of-service sidings and spurs previously used to serve customers.

The State-owned corridor starts at Mile Post 0.0 in Portland and runs just past the Auburn/New Gloucester line at Mile Post 26.5, passing through Portland's East Deering neighborhood, Falmouth,

Cumberland, Yarmouth, North Yarmouth, Pownal and New Gloucester. The existing southern end of main line track is located at the Portland Yacht Center, near Mile Post 1.7, at an access road between the Yacht Center and Sherwood Street to the northwest. Historically, the Berlin Subdivision continued south, over Back Cove and into the Portland Waterfront area, ending near the existing Ocean Gateway Pier.

In 1984, the rail swing bridge and trestle at Back Cove in Portland was significantly damaged by fire. The bridge was subsequently placed out of service along with approximately 1.5 miles of track located in the Eastern Promenade. The tracks south of Back Cove are currently used by the Maine Narrow Gauge Railroad and Museum for scenic excursion trips through the Eastern Promenade park and recreation area. There is also a multi-use paved recreational path between the tracks and the Atlantic Ocean.

In 2007 and 2010, MaineDOT acquired portions of the railroad line from SLR. In late 2015, SLR stopped providing service to B&M Baked Beans factory at Mile Post 1.7 in Portland, the only customer south of Danville Junction at the time. The SLR freight service between Auburn and Portland was placed in a status of discontinuance and has remained out of service to this day. MaineDOT currently inspects track conditions via hi-rail at least once per month and performs maintenance activities as needed to ensure that the rail segment remains contiguous, including brush cutting, weed spray, ditching and culvert repairs as needed. . MaineDOT has also completed replacement of the track and surface infrastructure at public grade crossings on an as-needed basis, including at Johnson Road in Falmouth within the past 5 to 7 years.

For the purposes of this RUAC study, the default baseline condition for the Berlin Subdivision corridor is assumed to simply maintain and preserve the state-owned corridor as MaineDOT currently does. It is acknowledged that there is a financial cost to MaineDOT associated with providing this service of maintaining the corridor such that the track infrastructure remains in-tact, but it can be presumed that these activities will continue to occur should neither reestablishment of rail service, construction of an interim recreational trail, or a combination thereof be initiated on this corridor.

2.2 Inventory of Existing Corridor

VHB had an opportunity to join MaineDOT during hi-rail inspections performed on November 28, 2019 (during the previous Lewiston-Auburn Passenger Service Rail Study) and on June 23, 2022 to evaluate the general conditions of the existing railroad infrastructure along the Berlin Subdivision. VHB also performed an assessment of the trackage behind Portland Yacht Center and south of Back Cove bridge along Eastern Promenade on June 23, 2022. Considering the relatively minimal level of railroad maintenance activities presently performed on the line (less maintenance is needed without trains operating), the track and infrastructure along the out-of-service portion of the tracks north of Portland Yacht Center was observed to be in relatively fair to good condition.

Existing Track and Rail Infrastructure

The majority of the corridor is a single-track main line with AREMA standard-gauge jointed rail secured to wooden railroad ties, situated upon ballast stone. The existing northern end of the State-owned section sits roughly at the Auburn/New Gloucester line at Mile Post 26.5 with the southerly end of main line track located at the Portland Yacht Center, near Mile Post 1.8, at an access road between the Yacht Center and Sherwood Street to the northwest.

Portions of the track that ran through the Portland Yacht Center property (south of Mile Post 1.8) have

since been removed, though the northern portion of the Back Cove Bridge and the track situated on causeway that led to the bridge still remain. The tracks south of the Back Cove bridge are currently used by the Maine Narrow Gauge Railroad and Museum through a lease and operating agreement with MaineDOT for scenic excursion trips through the Eastern Promenade park and recreation area. The narrow gauge (i.e., the distance between the rails) is not consistent with the equipment used by modern railroads.

Several old freight sidings and spurs still exist along the ROW, but most of the switch components (or the switches in their entirety) to these tracks have been removed since there is no active service on the line. The exception being the existing railroad sidings located north of the Yarmouth Junction Diamond and the connection to the CSX Brunswick branch at Mile Post 12.2, which is still intact though portions are overgrown with trees and brush.

Generally, the quality of the existing railroad ties has slightly degraded since VHB's initial inspection of the corridor in 2019, presumably due to exposure to weather and local drainage conditions. Localized areas of embankment washouts were observed along the ROW, but not to the extent that significant erosion has compromised the integrity of the tracks or ROW.

Signal System

The subject corridor is not equipped with a wayside railroad signal system. In lieu of an operating signal system, railroad movements were managed by timetable and permissions from the Local Train Dispatcher, where the Maximum Authorized Speed did not exceed 25 miles per hour. In Danville Yard, trains may operate on the SLR track within yard limits; however, they cannot foul the SLR track until it is determined that there are no conflicting movements. All movements must operate at Restricted Speed (no greater than 20 mph and capable of stopping within one-half the range of vision short of obstructions and/or other equipment fouling the track, misaligned switches and derails, or any signal requiring a stop). Railroad operating limits and/or methodology would need to be refined accordingly to better accommodate future passenger service based on the routing alignment that is ultimately selected as well as the nature and use of other existing freight-only yard tracks operated by SLR and CSX.

Grade Crossings

Active AHCW Systems are installed at roadway crossings to warn drivers and pedestrians that a train is approaching the grade-crossing. Approximately half of the twenty-nine (29) publicly accessible at-grade roadway crossings on the Corridor are equipped with active AHCW devices, all of which are currently out of service (turned off). Several of the private and passive crossings are only furnished with crossbucks while others have no signage at all. Due to the relative old age of the crossing devices (some estimated to have been installed circa 1980's) and relatively recent development that has occurred in the region since the grade crossings were last improved, a Diagnostic Team Review (a joint inspection process conducted with representatives of the operating railroad, local and state officials, and railroad design engineers to review and evaluate the crossing location in the field) may be warranted should rail service ever be reestablished to ensure adequate protections are in place at each crossing location. Roadway surface conditions at the crossings varied throughout the corridor from extremely poor to excellent, as several crossing locations are either unpaved or are not equipped with flangeway protecting the rails through the roadway surface.

Undergrade Bridges & Culverts

There are currently eight (8) ballasted deck bridges and one (1) open timber deck bridge (over Presumpscot River at Mile Post 4.5) north of the Portland Yacht Center. Condition inspection and load rating capacity analysis of bridges were outside the scope of this study. A comprehensive Culvert location list was provided by MaineDOT for the entire corridor. VHB looked for evidence of track and ROW embankment degradation during the hi-rail inspections but did not perform a detailed investigation of culvert conditions along the line.

2.3 Conceptual Improvement Programs for Rail Service

For the purposes of this study, VHB developed conceptual capital improvement programs to support the railroad infrastructure improvements for the envisioned service levels supporting freight or passenger rail service on the line. VHB recognizes that the extent of capital improvements that may be performed to support any of the rail service options contemplated may ultimately be dictated by the amount of funding available to support the project or the type of service that is implemented. These estimates were developed for conceptual planning services only and are generally consistent with the parameters assumed during the previous Lewiston-Auburn studies. Ultimately, the associated parameters for the capital infrastructure improvements would be further established, defined, and optimized should it be decided that any rail corridor improvement projects move forward.

Low-end and high-end program cost estimates were developed using historical data obtained from comparable railroad improvement projects completed within the State of Maine over the past ten (10) years. Additional details regarding this process are discussed in Section 2.7 of this report. VHB had the benefit of previously evaluating the corridor in conjunction with the Lewiston-Auburn Passenger Rail Study.

2.4 Reestablishment of Freight-Only Rail Service

VHB developed low-end and high-end conceptual estimates for infrastructure improvements envisioned for the support for reestablishment of Freight Service on the line maintained to either Class 1 or Class 2. It was assumed that freight-only tracks would remain as a single main line, primarily utilizing the existing jointed rail. At the direction of MaineDOT, it was assumed that the section of Berlin Subdivision south of Portland Yacht Center (Mile Post 1.8) would not be rehabilitated to support freight service, as this section of track has not been serviced by freight since 1984 and it is not envisioned that a future potential freight customer will be located along the Eastern Promenade or the Portland Waterfront. As such, the capital cost estimates for reestablishment of freight service are not burdened with the costs associated with rehabilitation or reconstruction of the swing/draw bridge over Back Cove, nor the reconstruction of the existing tracks along the Eastern Promenade south to Ocean Gateway (Mile Post 0.0). Additionally, the costs associated with installation of new spur tracks to serve future customers were not included in the freight-only service concepts.

For both sets of freight alternatives, it was assumed that the entirety of the existing track along the corridor would be aligned and surfaced through the addition, regulation (spreading) and tamping of ballast stone beneath the tracks. VHB also assumed that ROW expansion and/or the reconstruction of overhead bridges will not be required.

Additionally, both the low-end and high-end alternatives envision reconstruction of two new run-around tracks within the existing ROW near the southerly end of the corridor in the East Deering neighborhood of Portland. The runaround tracks would allow for temporary storage of railcars as well as provide operational flexibility for the freight service operator to allow a locomotive to change ends of a trainset.

Lastly, since detailed structural bridge inspection and load rating services were not performed, both alternatives provide an identical \$800K allowance to accommodate structural repair work on the eight undergrade bridges (approximately \$100K per bridge), including possible open deck tie replacement on the Presumpscot River bridge or other abutment or superstructure repairs on the eight bridges, should these needs be identified in the future.

The differences between the low-end and high-end freight only program estimates are summarized in the table below. Both programs include a varying amount of deteriorated spot tie replacement (as indicated in the table) and spot rail removal and replacement.

It should be noted that Sperry rail testing, used within the rail industry to detect track defects, has not been performed as part of the corridor evaluations to date. For the purposes of the low-end and high-end estimate, a representative proportion of the 6-miles of curved track, where rail wear is typically to occur more frequently, was assumed for replacement. Future Sperry testing could be performed and the data used to determine exactly where partial rail replacement would need to be performed when infrastructure improvements are programmed, and the results of which may alter the quantities of rail replacement assumed for these concepts.

The high-end estimate also assumed reconstruction of the freight yard tracks located north of Yarmouth Junction near Mile Post 12.2 to Mile Post 13.0. The high-end estimate also includes replacement of the existing wooden-planked decks at the eighteen (18) farm crossings (excluded from the low-end estimate) as well as a greater amount of at-grade crossing rehabilitation (the low-end assumed track and roadway surface replacement and AHCW device upgrade at a handful of select locations while the high-end assumed that upgrades would be performed at all public roadway at-grade crossings that are currently unpaved). Lastly, the high-end estimate provides a greater allowance to cover various levels of culvert work, from minor rehabilitation to complete replacement. Since the exact number and locations of culverts requiring rehab is unknown, the estimate assumes that between 5%-30% of culverts will need replacement.

Further details regarding the cost estimates generated to support conceptual programs developed during this study are attached as Appendix A of this report.

Table 2: Components for Cost Estimating - Freight

Component	Class 1 or 2 Freight: MP 1.7 to MP 26.5	
	Freight Only – Low End	Freight Only – High End
Tie Replacement	375 ties/mile	625 ties/mile
Rail Replacement	2 track miles	4 track miles
Freight Service Tracks	East Deering Only	East Deering & Yarmouth Junction
XING Rehabilitation	\$1.6M	15 XINGs (all unpaved)
Farm XING Decks	NONE	18 (All Existing Locations)
Culvert Rehab	5% (7 Locations)	30% (42 Locations)

Environmental and Permitting Considerations: Freight Rail Service

As part of this study, VHB evaluated the potential environmental impacts and permitting requirements needed to reestablish freight rail service along the existing Berlin Subdivision Rail Corridor from Ocean Gateway (MP 0.0) to the Auburn/New Gloucester line (MP 26.5). Because this existing corridor is currently maintained by MaineDOT and was originally used for freight rail service, it can be assumed that no expansion of the corridor is required and therefore no new wetland impacts would be necessary with this alternative. A field delineation of wetland areas and more specific project information would be required to confirm this alternative meets this assumption.

The existing rail corridor crosses one section of mapped Open Water, two rivers – the Presumpscot River and the Royal River, and 22 streams mapped within the defined study area. The current condition and quality of the existing infrastructure associated with these water crossings has not been evaluated as part of this feasibility study. Repair or replacement of these bridges and culverts may lead to wetland or waterway impacts; however, these impacts cannot be quantified at this time through a desktop-level analysis. Additionally, any proposed work associated with improving existing culverts or bridges may require permit approvals or agency consultations to determine if these activities may be considered exempt from regulation.

2.5 Implementation of Passenger Rail Service

There has been extensive study of possible passenger rail service between Portland and Lewiston-Auburn (L-A) area over the years, some of which have included use of portions of and/or the entire State-Owned portion of the Berlin subdivision between Portland and Danville Junction. In May 2019,

VHB issued the Operating Plans and Corridor Assessments Report which summarized a comprehensive evaluation of what types of service could be provided to meet travel demand/patterns (including route alignment, service frequency, vehicle type, etc.), as well as the estimated costs to build and operate a passenger service.

As part of this study, MaineDOT asked VHB to provide cost estimates associated with the capital improvements. The following parameters were assumed to support the concept:

- Achieve a minimum of Class 3 Track Conditions, capable of supporting up to 60 mph passenger service (assume up to 750 ties/mile to be replaced in existing track)
- Replace all existing jointed rail with continuous welded rail (CWR) through the entire corridor.
- Construct 2nd Main Line Track where feasible to allow for operation of multiple train sets,
- Positive Train Control including Cab Signaling (federally required for any rail lines with passenger service of more than six round trips per day)
- Complete rehabilitation (new track, pavement, and modernized AHCW devices) at all public at-grade crossings
- Other than passenger station platforms, no obstructions and/or supports for overhead bridges located within 9 feet of the track centerline. Vertical clearance at existing bridges would need to be maintained to existing conditions, while any new construction would be required to provide 22'-6" above top of rail.
- Replacement of timber decks at all (18) existing farm crossings
- Replacement of all ballasted deck undergrade bridges in proposed double-track territory and replacement of all ties on Presumpscot River Bridge
- Repair or replacement work at 30% of the culvert locations

To maintain consistency with previous studies, including the 2019 Lewiston-Auburn Passenger Rail, it was assumed that traditional Commuter Rail would be the preferred mode for the passenger service for purposes of the estimate. Because this study is an evaluation of what is necessary to improve the existing state-owned infrastructure in the corridor, the additional costs for passenger station construction and any improvements beyond the boundary of state ownership at Danville Junction, including any improvements required on the CSX-owned portion required to access the downtown Lewiston/Auburn areas, were not included in this RUAC study.

Unlike the assumptions made to support the freight rail concepts, should this corridor be utilized for passenger rail, there would likely be demand for service to the Portland waterfront area. Therefore, the cost associated with rehabilitation or reconstruction of the swing/draw bridge over Back Cove and the reconstruction of the existing tracks along the Eastern Promenade to Ocean Gateway (MP 0.0) were included in the estimate for the conceptual program to support a passenger rail service on the line.

Environmental and Permitting Considerations: Passenger Rail

VHB also evaluated the potential environmental impacts and permitting requirements needed to establish passenger rail service along the corridor. Redeveloping the rail for passenger service would require expansion of the rail embankment and construction of new sections of siding that would allow for the passage of two trains at once, as such, this alternative would require disturbance of adjacent wetlands, unlike the Freight Only alternative. These impacts would occur along certain portions of the right-of-way where there is a wetlands area a new siding is necessary. For the purposes of this study, it

is envisioned that the construction of new siding would involve an estimated 10-foot expansion of the existing railroad embankment towards the north and west. It is assumed that this 10-foot wide expansion would impact multiple locations along the right-of-way, totaling approximately 9,000 feet of linear impact and approximately two (2) acres of impact to wetlands. It should be noted that wetland areas and other environmentally sensitive receptors would be further evaluated if this alternative were to be advanced and refinements to the embankment expansion design would be considered to limit or possibly avoid adverse impact to these areas.

Additionally, wetland impacts are anticipated where existing bridges will be replaced to accommodate double track sections. The extent and nature of these impacts cannot be readily determined, as bridge replacement design parameters would need to be advanced to a suitable level of design during future project phases.

Impacted wetland types would consist of freshwater forested, scrub shrub, emergent, riverine, and floodplain wetlands, as well as estuarine and intertidal wetlands. As NWI wetland mapping historically underrepresents wetlands, a field delineation for wetlands, waterways and vernal pools would be necessary to properly quantify the actual level of potential impacts associated with this alternative.

2.6 Summary of Conceptual Cost Estimates

As documented above, conceptual cost estimates considered the costs associated with reestablishment of freight service (low-end and high-end) and implementation of passenger service on the State-owned portion of the Berlin Subdivision from Portland's Ocean Gateway (MP 0.0) to the Auburn/New Gloucester line (MP 26.5). Conceptual program cost estimates were developed as part of the Lewiston-Auburn study using historical data obtained from comparable railroad improvement projects completed within the State of Maine over the past ten (10) years.

Unit costs of infrastructure improvements developed during the Lewiston-Auburn study were adjusted from 2108 dollars to 1st quarter 2022 dollars using heavy construction inflation factors derived by R. S. Means (x1.277 inflation factor). Costs include 30% construction contingency, 10% design engineering and 15% construction administration and engineering.

The freight only option includes a bare-minimum low-end estimate to bring the corridor up to Class 1 railroad service, and a high-end estimate that provides an improved standard of Class 2 freight rail service. This includes the corridor from Mile Post 1.7 to Mile Post 26.5. As documented in the above Sections, both Freight-only options exclude replacement of the Back Cove bridge and trackage into Portland's waterfront. These costs were included in the Passenger Rail service Option.

Table 3: Potential Restoration of Rail Service Cost Estimates

Total Estimated Costs for Conceptual Infrastructure Program Improvements		
Freight Rail, Class 2, MP 1.7 to 26.5 (East Deering to the Auburn/New Gloucester line)	Low End Cost	\$13,400,00
	High End Cost	\$31,000,000
Passenger Rail, Class 3, MP 0.0 to 26.5 (Ocean Gateway to the Auburn/New Gloucester line)	MP 0.0 to MP 1.7 (includes new Back Cove Bridge)	\$60,000,000
	MP 1.7 to 26.5	\$214,000,000
	TOTAL (MP 0.0. to 26.5)	\$274,000,000

3

Evaluation of Corridor for Trail Use

Recognizing public support for using inactive rail corridors for human-powered transportation and recreation, the study team considered opportunities to incorporate interim and permanent trail alternatives along the Berlin Subdivision corridor. To develop cost estimates for interim trail use, the team took into account both the replacement of the current rail infrastructure for a trail, and the engineering requirements to develop a trail adjacent to the existing rail line.

3.1 Introduction

To understand the costs associated with the future development of a trail (aka shared use path) along the rail corridor, the team looked at two options:

- **Interim Trail until Rail (TUR)** – remove existing track and associated infrastructure, and construct multi-use trail on existing rail bed (either gravel/stone dust or paved)
- **Rail with Trail (RWT)** – construct permanent multi-use trail running adjacent to the existing tracks and within the current state-owned ROW (either gravel/stone dust or paved)

The TUR and/or RWT options, depending on context, could be restricted to either non-motorized use only (with most e-bikes permitted), or allow motorized uses such as snowmobiles and possibly ATVs. In any of the scenarios, the potential for future rail service must be maintained by State Statute. Therefore, any interim trail could potentially be removed in the future to make way for rail service. State law via the State Railroad Preservation Act² (RPA) provides MaineDOT the right of first refusal to purchase a rail corridor if rail service has ceased or is proposed for abandonment. While any purchase by MaineDOT under the RPA is intended for rail transportation, through the RUAC process, interim trail use is permissible.

² For more information, see: <https://legislature.maine.gov/legis/statutes/23/title23ch615sec0.html>

3.2 Methodology and Assumptions

The conceptual project cost estimates for the TUR and RWT alternatives were developed using construction costs from recent, similar trail projects. For each alternative, costs were determined for the trail construction, grade crossing upgrades and bridge improvements. Costs were estimated for both stone dust/gravel and paved wearing surfaces for both TUR and RWT configurations. Each alternative includes 30% construction contingency, 10% design engineering and 15% construction administration and engineering. Potential additional costs for right of way impacts or environmental permitting were not included.

Because trail crossing improvements are required at all public grade crossings, for the purposes of this high-level study, the typical treatment at each crossing is based primarily on the speed of the roadway crossing the trail. In future phases of this project, the assignment of which approach has the right-of-way priority and other crossing improvement recommendations should be designed for site-specific traffic volumes, anticipated path volumes and roadway geometrics at each crossing. The assumed safety improvements at each crossing include:

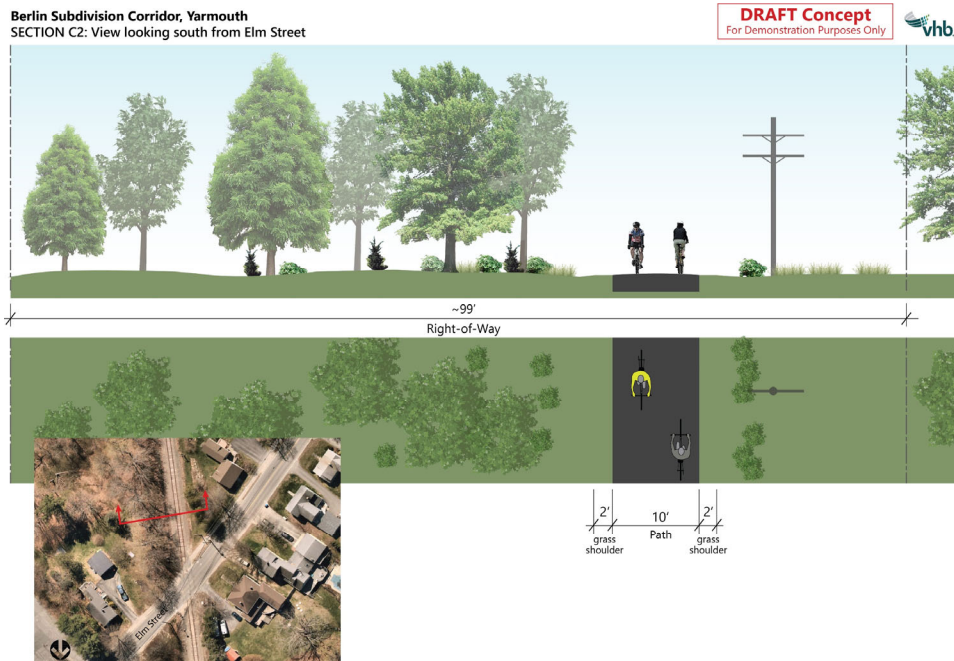
- › At roadways with speed limits of 30 MPH or lower, the typical treatment includes a marked crosswalk and trail crossing warning sign assemblies on the roadway and roadway crossing warning signs on the trail.
- › At roadways with speed limits of 35 MPH or 40 MPH, the typical treatment includes a marked crosswalk, and trail crossing warning sign assemblies on the roadway, roadway crossing warning signs on the trail and rectangular rapid flashing beacons (RRFB) on the roadway approaches.
- › In accordance with MaineDOT policy, a marked crosswalk is not permitted on roadways with a speed limit of 45 MPH or greater unless the crossing is signalized. At roadways with speed limits of 45 MPH or greater, the typical treatment includes trail crossing warning sign assemblies at the crossing, advanced trail crossing warning sign assemblies and pavement markings (i.e. TRAIL XING) on the roadway approaches, advance roadway crossing warning signs and markings on the trail approaches and a STOP condition on the trail approaches.

Interim Trail-until-Rail (TUR) Design Assumptions

- › Replacement of existing rail line with interim trail use (see photo at right and graphic below).
- › Estimated costs for the trail construction include:
 - removal of the existing track, railroad ties, and associated infrastructure;
 - surfacing and regrading of the existing ballast; and,
 - placement of either stone dust/gravel or pavement.
- › Estimated costs for the undergrade bridge improvements generally include construction of a new timber wearing surface and timber bridge rails.
- › The trail will utilize the same alignment as the removed track and therefore modifications to the existing overhead bridges are not anticipated.
- › Estimated costs do not include any potential parking facilities, information kiosks, or other elements associated with formal trailheads.



Example Trail-until-Rail configuration (Down East Sunrise Trail)

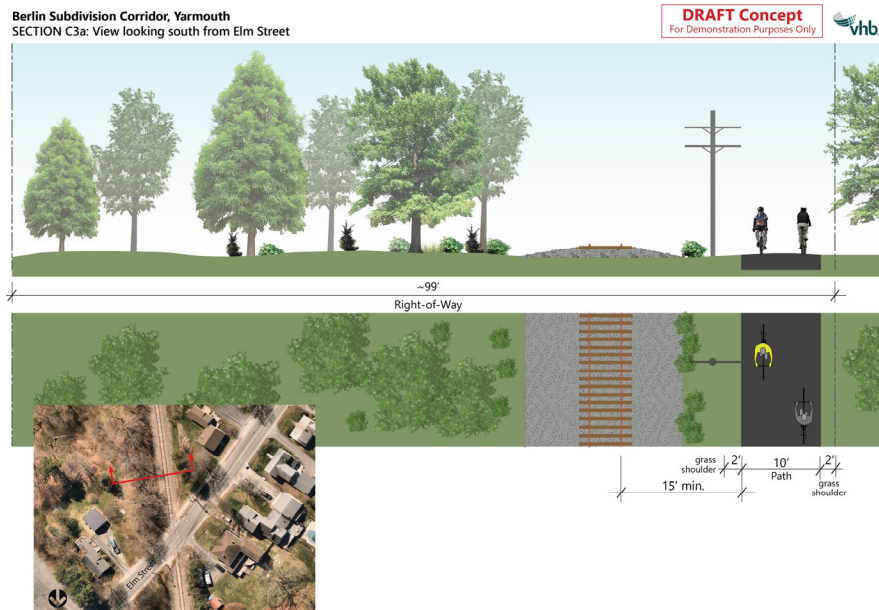


Rail-with-Trail (RWT) Design Assumptions

- › Construction of a permanent trail adjacent to the existing rail line incorporating a minimum 15' offset³ from edge of trail to centerline of the tracks, consistent with MaineDOT guidelines (see photo at right and graphic below).
- › Estimated costs for the trail construction include assumptions for 1) areas with no significant cut or fill, 2) areas with a modest amount of cut or fill, and 3) areas of significant cut or fill sections that may require retaining walls. For each section, costs include preparation of the subbase and placement of either stone dust/gravel or asphalt pavement.
- › Retaining walls and other engineered elements will allow future rail-with-trail design to stay within the state-owned railroad ROW.⁴
- › Estimated costs for undergrade bridge (i.e., bridge that carries the rail tracks) improvements generally include construction of new adjacent superstructures that carry the new trail. Based on the configuration of the existing bridges, the new superstructures can be supported by existing structure or supported on new substructure.⁵
- › Estimated costs for overhead bridges (i.e., bridges that carry roadways over the rail tracks) include constructing a new bridge that is wide enough to allow rail and trail where the existing bridge clearance is insufficient.
- › Although not included in the cost estimate, a more-detailed feasibility study could assess opportunities for the trail to run off-corridor and use nearby, parallel roadways to accommodate



Example Rail-with-Trail configuration (with MaineDOT-approved 10'-6" offset and fence) in Ellsworth



³ Represents MaineDOT's standard recommended offset from existing rail lines. In constrained conditions, a reduced 10'-6" offset is permitted with the provision of a security fence. Any subsequent feasibility study and/or design project would need to determine if the reduced offset would be appropriate. This may have an impact on the anticipated cost estimate.

⁴ Any survey or verification of railroad ROW is not included within the Scope of Work. This assumption should be confirmed in subsequent design phases of a future project.

⁵ In this context, "superstructure" refers to structural members of the bridge that sit above the supports, e.g., girders and trusses, and "substructure" refers to the piers and abutments that hold up the superstructure.

pedestrians and bicyclists. This could be a significant cost savings in discrete locations such as at overhead bridges without sufficient clearance for rail-with-trail. Note: evaluation of off-corridor alternatives was beyond the scope of this study.

- › Estimated costs also do not include any potential parking facilities, information kiosks, or other elements associated with formal trailheads.

3.3 Berlin Subdivision Corridor Cost Estimates

The cost estimates below include a stone dust/gravel surface and an asphalt paved surface options for both the interim TUR and permanent RWT alternatives. In all cases, the various options run from MP 0.0 at Ocean Gateway in Portland to MP 26.5, just north of the Auburn/New Gloucester line. Similar to the estimates for restoration of freight and/or passenger rail service, no cost estimates are included north of the state-owned segment, i.e., from the Auburn/New Gloucester line to Downtown Lewiston-Auburn. The state-owned segment is broken into two parts to distinguish the portion of the corridor that includes the challenge of replacing the swing bridge over the Back Cove. Because a trail already exists along the rail line in the Eastern Promenade park, the new bridge accounts for nearly all of the MP 0.0 to 1.7 cost estimate.

Table 4: Potential Interim Trail Use Cost Estimates

Berlin Subdivision Corridor Trail Alternatives	MP 0.0 to 1.7	MP 1.7 to 26.5	TOTAL Cost
Interim TUR with Stone Dust/Gravel Wearing Surface	\$19,100,000	\$28,400,000	\$47,500,000
Interim TUR with Asphalt Wearing Surface	\$19,200,000	\$35,800,000	\$55,000,000
RWT with Stone Dust/Gravel Wearing Surface	\$19,300,000	\$70,700,000	\$90,000,000
RWT with Asphalt Wearing Surface	\$19,300,000	\$75,000,000	\$94,300,000

3.4 Potential Trail Use Estimates

The Potential Use Estimates task includes extraction and review of data from shared use paths and rail trails in similar contexts to the Berlin Subdivision corridor. The resulting data has been refined to calculate both high and low usage estimates for interim trail usage in the corridor during “peak month” of pedestrian and bicycle use (i.e., 30-day period in summer or early fall).

Methodology

VHB used existing data to establish the respective context, identifying the precedent trails' location, population, development patterns, mileage, and nearby destinations. Existing trail usage data includes non-motorized trail-user counts recorded before and during the first two years of the COVID-19 pandemic, during which time there were spikes in trail usage nationwide. Existing trails selected for this task include shared-use paths, rail-to-trail, and rail-with-trail examples.

Case study pedestrian and bicycle usage counts from three existing trails in Maine included:

- › Maine's Kennebec River Rail Trail
- › Maine's Eastern Trail in Scarborough
- › Maine's Mountain Division Line (both the Fryeburg segment and the Windham segment)

Because available count data was collected during different months and for different durations (10-day counts, two-week counts, etc.), a thirty-day period called the "Peak Month" was extrapolated for each trail. The goal is to have Peak Month trail use for each trail that could be used as an "apples to apples" comparison between the seven case studies.

Trail Use Estimates

The three trails described above were selected as case study corridors based on three key trail characteristics that correlate with use by pedestrians and bicyclists:

- › corridor length, in miles
- › population of towns along the trail corridor
- › number of destinations (state parks and beaches, other multi-use trails, and town/village centers) within ½ mile of the corridor center line.

Averages for each of the three key characteristics were calculated and compared with current conditions along the Berlin Subdivision corridor. A multiplier was calculated after comparing data from the average of the three case study trails with the available data for the Berlin Subdivision. Finally, a 10% add-on was included with each corridor to account for mid-term growth in trail use based on modest population increase and increased demand for trail use that arose during the COVID-19 pandemic that is expected to continue.

Per the estimated Peak Month trail trips above, the planning team calculated Annual Trips, based on a multiplier for all 12 months relative to the Peak Month. The multiplier was estimated based on typical monthly temperature and precipitation levels, length of daylight hours, and seasonal recreational patterns. Therefore, relative to the Peak Months of June through September, the proportion of estimated trips for the other 8 months of the year include:

- › 75% of peak in October and May
- › 40% of peak in March, April, and November
- › 25% of peak December through February (walking, bicycling, cross-country skiing, and snowshoeing).

The Peak Month, therefore, represents 13.3% of the annual total (i.e., the Peak Month is multiplied by 7.5 to arrive at the annual estimate). The low-use and high-use range in the tables below reflect a 20% margin of error on the resulting estimate.

Table 5: Estimated Trips for the Berlin Subdivision Corridor

SATP corridor	Low use estimate	High use estimate
Berlin Subdivision Peak Month Use	17,300	26,000
Berlin Subdivision Annual Use	129,750	195,000

3.5 Environmental and Permitting Considerations

Interim TUR

The TUR option is designed to be built over the existing rail embankment. As a result, construction of the multi-use trail is assumed to occur only within the existing rail bed and road crossings and no expansion of the rail corridor would be necessary. The existing railbed is considered upland for the purpose of this desktop review; therefore, it is assumed there would be no wetland impacts associated with this option. More detailed project information and field delineation of wetlands would be required to confirm this assumption. The existing rail corridor crosses one section of mapped Open Water, two rivers – the Presumpscot River and the Royal River, as well as 22 streams mapped within the defined study area. Sizing, condition and quality of the existing infrastructure associated with water crossings has not been considered in this feasibility study. Repair or replacement of these crossings may lead to wetland impacts which cannot be quantified at this time through a desktop analysis. Additionally, any proposed work associated with improving existing culverts or crossings may require permit approvals or agency consultations to determine if these activities may be considered exempt from regulation.

RWT (potential future freight or passenger rail service)

As a project baseline, each of the potential alternatives evaluated in this study are anticipated to be contained within the limits of the existing MaineDOT-owned portion of the Berlin Subdivision rail corridor ROW. For the purpose of this assessment, it was assumed that an embankment expansion approximately 25-feet in width would be required to construct the trail portion of a RWT option. The extra width would include construction of the 10-foot-wide, multi-use path as well as any fill and grade changes that may be necessary to expand the existing rail embankment. If the trail were to be constructed along the north/west side of the existing tracks, the embankment expansion would result in roughly 14,000 linear feet of disturbance to wetlands adjacent to the existing railbed and an estimated eight (8) acres of total wetland impacts.

As referenced in Section 2, there are areas along the corridor where a second main line track would need to be constructed parallel to the existing line in support a future passenger rail service. In these instances, the width of embankment expansion would increase from 25-feet to 35-feet in areas where double-tracking would be performed, so that installation of the second track and a trail with fence could be accommodated. Assuming that the future track and trail would be installed to the

north/west side of the existing track, the embankment expansion would result in roughly 14,000 linear feet of disturbance to wetlands adjacent to the existing railbed and an estimated ten (10) acres of total wetland impacts.

To reiterate, it is envisioned that any alternative evaluated within this study would be confined to the existing state-owned ROW, whether a 25 foot or 35 foot expansion is needed. This overview does not consider potential impacts posed by local conditions and/or temporary access easements that may be required to accommodate construction. Should a RWT alternative be recommended for advancement, the proposed infrastructure alignment/location requirements may be further refined to minimize impact to wetland areas and other sensitive environmental conditions.

Wetlands of Special Significance and Sensitive Habitats

All alternatives which involve expansion of the rail corridor or in-water work could involve impacts to State of Maine Natural Resource Protection Act (NRPA) designated Wetlands of Special Significance (WOSS). Confirmation of the presence of WOSS wetlands and impacts would be based on field data collection conducted as part of any future study or permitting effort.

The expansion of the corridor necessitated by the RWT alternatives would potentially impact a state-mapped Significant Vernal Pool (SVP) that is located along the project's extent. A field survey by a qualified biologist would be necessary to confirm the presence/absence of vernal pools and the extent of any additional SVPs.

The existing corridor passes through other mapped sensitive habitats, including two (2) state listed endangered species polygons (Least Bittern and "Rare Animal"), one (1) Inland Wading and Waterfowl Habitat, four (4) Tidal Wading and Waterfowl Habitats, one (1) Maine Natural Areas Program (MNAP) Species of Special Concern area, and two (2) Maine Department of Inland Fish and Wildlife (MDIFW) Species of Special Concern areas. In order to determine the specific listed Species of Special Concern, consultation with IFW and MNAP would be required. Section 9 of the Endangered Species Act (ESA) prohibits the taking (e.g., harm or harassment) of an ESA-listed species. Further, Part 1.1.5 and Appendix D of the 2022 CGP requires determination of eligibility regarding protection of threatened and endangered species, as well as designated critical habitat. Potential impacts to state- and federally-listed endangered species would be assessed through consultation with MDIFW and USFWS and field surveys as needed and to determine potential permitting implications, such as construction timing or disturbance limitations. Although similar protections are not generally required for Species of Special Concern and associated habitat, their presence should be noted during future evaluations for all alternatives.

Permitting Requirements

The need for federal, state, and/or local permits and approvals depends on numerous factors, such as final location of facilities and project layout, land ownership, equipment used, construction methodology, and presence and proximity of protected natural resources. For all alternatives, consultation with regulatory agencies throughout the planning and development process, along with

disclosures of anticipated impacts will assist with identifying the required permits, approvals, and authorizations that may be necessary as project details are advanced and finalized.

Neither the potential restoration of freight rail service or the interim TUR alternatives would require expansion of the existing rail corridor. That would therefore result in minimal environmental impacts and correspondingly less permitting effort compared with potential restoration of passenger rail service or RWT alternatives which would require significant expansion of the existing rail corridor. However, due to (1) the prevalence of wetlands and streams along the existing corridor and (2) the potential need for improvements to existing wetland and waterway crossings associated with all alternatives, some degree of wetland and waterway impacts that require permit applications and/or agency consultations may be expected for all alternatives.

All alternatives that directly impact (i.e., fill) wetlands or waterbodies would require NRPA and U.S. Army Corps of Engineers (Corps) authorizations. The amount and type of resources impacts would determine the level of NRPA (i.e., Tier level permit or Permit-By Rule) and Corps permitting (i.e., Self-Verification Notification Form, Pre-Construction Notification or Individual Permit) that would be required. Notification to and consultation with the Maine Historic Preservation Commission (MHPC) would be required for NRPA and Corps permits. In addition, Corps approval would require compliance with the ESA and Section 106 of the National Historic Preservation Act (NHPA). Alternatives that require tree-clearing would require a USFWS Northern Long-Eared Bat 4 (d) consultation as part of Corps review. Any option that disturbs over an acre of soil would require Maine Construction General Permit (MCGP) approval and options that create over an acre of new impervious area would be subject to the requirements of Chapter 500, the Maine Stormwater Law. It should be noted that due to the significant amount of wetland impacts that would be anticipated for alternatives that expand the rail corridor, a substantial degree of agency coordination, along with extensive wetland mitigation and compensation, would be required.

A State of Maine Site Location of Development (Site Law) Permit would be triggered by any alternative that occupies more than 20 acres; includes 3 or more acres to be graded, stripped, and not revegetated; or if the project site has an existing Site Law permit requiring amendment.

Finally, some level of municipal coordination and local permitting may be required for all alternatives that impact natural resources and public amenities and to ensure compliance with applicable local land use ordinances, Shoreland Zoning, and other local zoning regulations.

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4

Economic Benefits

This chapter presents a summary assessment of the economic benefits and impacts of an interim trail and/or maintaining and preserving the existing rail corridor for possible restoration of rail services along the 26.5-mile Berlin Subdivision Rail Corridor from Ocean Gateway in Portland to the Auburn/New Gloucester line just south of Danville Junction. Both interim trail and potential rail use consider the construction-related economic impacts, ongoing maintenance costs, as well as post-construction benefits that could accrue from users. More detail can be found in RKG's Demographic & Economic Analysis report in Appendix B.

4.1 Introduction

The team utilized the IMPLAN econometric model to develop estimates of the direct, indirect, and induced economic impacts associated with maintaining/preserving the existing state-owned rail corridor⁶ for possible restoration of rail use and/or interim trail use. Estimates include construction

⁶ The economic analysis was restricted to the 26.5-mile, state-owned corridor, plus a hypothetical station site at Danville Junction. This contrasts with the 2019 study discussed in Section 1.3 above which included a portion of the CSX line further north to Downtown Lewiston-Auburn

costs (i.e., the initial capital investment), ongoing annual maintenance costs (e.g., replace/repair rail ties for rail, vegetation removal, etc.), and any other resulting economic activity, for these three alternatives:

- › 1: Maintain and preserve existing rail corridor for potential restoration of:
 - Freight rail operations (along Class 1-2 track)
 - Passenger rail operations (along Class 3 track)
- › 2: Interim Trail using existing rail bed (Trail until Rail or “TUR”)
 - TUR with gravel/stone dust surface
 - TUR with paved surface
- › 3: Permanent Trail adjacent to existing rail bed (Rail with Trail or “RWT”)
 - RWT with gravel/stone dust surface
 - RWT with paved surface

4.2 Demographics along the Corridor

The 26.5-mile-long corridor includes approximately 15,000 residents within a half-mile radius of the current rail corridor. The dominant land use is residential with 3,382 single family units. The median household income in the corridor units is \$87,556. Approximately 46% of the residential population is 45 years or older with 56% over those >25 years old holding a college degree. A few dozen businesses lie within a half-mile as well including a number adjacent to Ocean Gateway, along Veranda Street and Presumpscot St in East Deering, on Main Street and Highway 1 in Yarmouth. Due to the presence of I-295, linkage to Falmouth’s business district is weak, especially for pedestrians and bicyclists.

4.3 Alternative 1: Potential Restoration of Rail Service

The focus of Alternative 1 is the maintenance and preservation of the current Berlin Subdivision Rail Corridor in roughly its current state. This involves the continuation of annual maintenance performed by MaineDOT since the department purchased the corridor. The annual maintenance includes road-crossing surface repairs, clearance of encroaching vegetation, preventative maintenance at culverts, removal of graffiti or other vandalism, and occasional replacement of damaged/broken rail ties. While continuation of this *de facto* “no build” scenario is an alternative, the economic analysis focused on the costs, impacts, and benefits of the restoration of rail use along the corridor, as either freight operations or passenger service. With either option, the general benefits accrued would include:

- › Temporary (construction) and permanent (maintenance) job creation
- › Potential additional investments such as expanded maintenance facilities
- › Reduction of demand for heavy truck traffic to carry freight
- › Reduction in vehicle traffic and associated emissions along the Auburn/Portland corridor
- › Potential changes in the development mix and resulting land values, especially as may be associated with the potential build-out of future passenger rail stations

Potential Freight Rail Service

Currently the corridor is used by the Portland Yacht Center to move boats from the waterfront to a

storage facility in East Deering. There is no other commercial activity along the corridor. In an alternative where the rail infrastructure is upgraded and used for freight rail service, both the money used for capital upgrades and annual maintenance would be expected to have an economic impact.

- Capital Costs: the estimated \$22.2m spent on restoration of freight rail service is anticipated to produce 281 temporary construction jobs, leading to \$15.2m in labor income, \$19.0m in “value added”⁷ and \$42.4m in total output.
- Annual Maintenance: the estimated \$2.1m spent on annual maintenance (exclusive of operations) is anticipated to produce 18 permanent jobs, leading to \$1.4m in labor income, \$2.0m in “value added” and \$4.1m in total output.

Regarding any change in land value, it is important to note that while freight rail can be a net benefit for commercial properties along the corridor, residential proximity to active freight lines can detract from property values due to noise and safety issues.

Potential creation of a Foreign-Trade Zone

In the freight rail alternative, additional economic benefits could be captured if the Berlin Subdivision rail corridor was established as a Foreign-Trade Zone (FTZ). Being adjacent to the City of Portland’s established FTZ, the Berlin Subdivision FTZ could bring benefits including the deferral, reduction, or elimination of certain duties, relief from some tariffs, and other benefits spelled out at the end of chapter 1 in the RKG report in Appendix B

Potential Passenger Rail Service

In an alternative where the rail infrastructure is upgraded and used for passenger rail service, both the investment in capital upgrades and annual maintenance expenditures would be expected to have an economic impact.

- Capital Costs: the estimated \$274.0m spent on development of passenger rail service is anticipated to produce 3,474 temporary construction jobs, leading to \$187.0m in labor income, \$234.8m in “value added” and \$523.4m in total output.
- Annual Maintenance: the estimated \$2.3m spent on annual maintenance (exclusive of operations) is anticipated to produce 20 permanent jobs, leading to \$1.6m in labor income, \$2.2m in “value added” and \$4.5m in total output.

Besides money used for capital upgrades and annual maintenance for potential passenger rail service, other economic impacts are expected through passenger spending, development of stations, and increased real estate values near the station sites and along the corridor itself.

Passenger Rail Station Locations

At potential rail station locations, the team analyzed the current population and number of housing units within a 1, 2, and 3 mile radius (or a 15-minute walkshed, where appropriate), and determined the median value of homes, along with median household and per capita income level. Figures for these categories included the years 2010 and the 2021 current baseline along with projections for the year 2026. The number of businesses within a 1, 2, and 3 mile radius (or the walkshed) were tallied as

⁷ “Value added” refers to the concept of a dollar spent re-circulates throughout the economy, or the “ripple effect”

well (for the retail, office, services, and manufacturing sectors).

Three rail station or platform locations were selected along the 26.5-mile corridor with a fourth station placed at a logical location just north of the state-owned corridor. All station locations were general in nature and do not represent specific passenger rail station sites on individual parcels. The four locations included:

- › Danville Junction in Auburn (roughly a mile north of the terminus of the state-owned rail corridor, requiring coordination with CSX, the owner of the adjacent rail line to Lewiston)
- › Pineland in North Pownal
- › Yarmouth Junction, as close as possible to the junction with the main line to create a transfer point with Amtrak service to Brunswick and south to Boston
- › Ocean Gateway station in Portland, near the cruise ship terminal (and approximately ¼ mile north of the Peaks Island Ferry)

As shown in more detail in RKG’s report in Appendix B, fiscal and economic impacts were analyzed for each of the four general station sites to determine future development potential (retail and residential), estimated household retail spending, new employment activity, and property valuations (and associated property tax increment) for both residential and commercial properties.

Fiscal and Economic Impact

Team member RKG developed a set of inputs, assumptions and modeling—as discussed in more detail in the full report—to estimate a variety of fiscal and economic impacts at three of the four station areas. Because the urban fabric around Portland’s Ocean Gateway is—relative to the other three locations—built out, the incremental changes were anticipated to be minimal. Therefore, it is not included in the table below.

Table 6: Summary Fiscal and Economic Impact of Passenger Rail Service

Summary Comparison of Potential Benefits - by Station Study Area	Auburn		Pineland East		Yarmouth Junction	
	Low	High	Low	High	Low	High
New Housing (1)	37	58	17	26	85	172
Owner Units	26	43	13	22	60	135
Renter Units	11	15	4	4	25	37
Change in HH Spending in \$1,000's	\$898.7	\$1,427.0	\$538.4	\$871.9	\$3,425.9	\$5,416.1
Development Potential	4,559		5,073		15,682	
Retail SF	666		4,580		11,342	
Non-Retail SF (2)	3,894		493		4,340	
Potential Employment (3)	62		8		74	
Potential Spending	\$99,674		\$12,886		\$118,794	
Potential Fiscal Impacts (FY22)	Low	High	Low	High	Low	High
Owner Value (4)	\$5,328.67	\$8,812.80	\$3,830.67	\$6,482.67	\$17,680.00	\$39,779.99
Renter Value (5)	\$1,447.37	\$1,973.69	\$481.72	\$481.72	\$3,010.74	\$4,455.90
Total Residential Value \$1,000's	\$6,776.04	\$10,786.49	\$4,312.38	\$6,964.38	\$20,690.74	\$44,235.89
Estimated Gross Property Tax	\$161,405	\$256,934	\$59,511	\$96,109	\$409,677	\$875,871
Retail Value/SF	\$150		\$150		\$150	
Non-Retail Value/SF	\$225		\$225		\$225	
Total Non- Residential Value \$1,000's	\$975.87		\$797.95		\$2,677.75	
Estimated Gross Property Tax	\$23,245		\$11,012		\$53,019	

Source: RKG Economic Analysis report, Table 8 on p. 17 (see Appendix B)

Commuting Patterns

According to the U.S. Census Bureau, roughly 55,730 workers commute from outside of Portland to job sites in Portland. Of these, nearly 31% of the inbound commuters come from a distance greater than 24 miles. Also, 1,050 residents commute from Portland to Lewiston and 815 commute to Yarmouth. It is reasonable to assume that nearly all of these commuters use personal motor vehicles to access their jobs on a regular basis.

Passenger rail estimates in 2025 for the Lewiston/Auburn-to-Portland corridor range from 210-240 passengers per day along intercity, commuter-rail type of service based on the Lewiston-Auburn Passenger Rail Service Plan – Transit Propensity Report from August 2018. This equates to 76,650 to 87,600 passengers annually. While more detailed analysis would be required to better understand origin and destination points, these passengers between the Ocean Gateway area of Portland to Lewiston-Auburn would remove a portion of the automobile-commuter traffic between the two cities.

Summary of Benefits from Restoration of Rail Service

In summary, the potential restoration of rail service along the Berlin Subdivision rail corridor could:

- › Create new jobs related to construction of improved rail infrastructure, maintenance of the rail line, and other jobs such as engineers and conductors.
- › Induce additional construction and investment in related rail infrastructure and maintenance facilities, as well as potential development that may arise from station construction; this includes fiscal and economic benefits from new residential and non-residential activity.

- › Enhance safety along the Lewiston/Auburn-to-Portland corridor due to reduced heavy truck traffic, and a potential reduction of the financial burden on public maintenance of the roadways.
- › Improve affordable mobility by lower-income individuals with the additional opportunities afforded by passenger rail transit.
- › Based on potential spending (on the train, at the station, or adjacent business), rail passengers could generate \$114,000 to \$130,000 in economic activity annually

4.4 Alternative 2 and 3: Potential Trail Use

As described in section 3.4 above, the number of potential trail user trips is anticipated to range from 130,000 to 195,000, whether an interim TUR or a permanent RWT configuration. These trip estimates form the basis of subsequent estimating non-local users and trip estimates, which in turn form the basis for evaluating 1) potential spending by trail users, 2) any resulting economic impact on adjacent communities, and 3) the potential health benefits. Separately, the economic analysis has also looked into the potential property value benefits.

Potential Spending by Users

To determine potential spending by the 130,000 to 195,000 trail users, an estimate of how many trips derive from non-local residents is needed. Based on other trail studies, it is estimated that approximately 23% of trips are non-local. This equates to roughly 30,000 to 45,000 trips from out-of-towners who are expected to spend more money within the local economy relative to a local resident who would use the trail and simply go home immediately afterwards without patronizing any nearby businesses. Some trail studies indicate that the average non-local trail user spends an average of \$118 for each daily trip to the trail for food, lodging, and equipment.⁸ Using \$118 as a multiplier, spending by non-local trail users would range from \$3.5m to \$5.3m annually.

Economic Value Added

To determine the economic value added to the statewide economy based on development of an interim trail, IMPLAN modeling software was employed. IMPLAN is used to determine the direct, indirect, and induced impacts⁹ of spending by regular users, by construction activity, and by on-going maintenance of a particular facility such as a trail or shared use path. Using this model, the team measured the economic impact of trail user spending and how the additional dollars could impact Maine's economy (aka "value added" or the "ripple effect" to the gross state product or GSP). The results were a value added of \$3.3m to \$4.9m to the GSP, with most of that going to food and lodging expenditures.

⁸ see: *Economic Impact of Eastern Trail*, Southern Maine Planning and Development Commission (November 2021), page 5.

⁹ Direct impacts refer to the initial dollar investment into the economy such as user spending, the estimated construction cost, and on-going operations/maintenance. Indirect Impacts result from spending by workers building, operating, or maintaining the facility as well as business to business spending to buy equipment and supplies, rent space, pay their employees, etc. Induced Impacts refer to the impacts of spending by the employees generated by the direct and indirect impacts.

Potential Health Benefits

According to the federal Center for Disease Control (CDC), many adults are at health risk from limited physical activity. For Maine, the CDC estimates 24.8% of the adult population is considered “inactive” or “insufficiently active”. When applied to the >45 population of roughly 7,000 people living within one half mile of the rail corridor, that equates to 1,738 persons. Per the CDC, the annual per capita health care costs of being “inactive” is \$1,704 and “insufficiently active” \$846, an average of \$1,275 annually. As a major active transportation and recreational opportunity for walking, rolling, bicycling, and cross-country skiing for the region, an interim trail along the Berlin Subdivision Rail Corridor could hypothetically reduce the number of inactive and insufficiently active adults by 5% (174 total). Encouraging 174 more adults to meet recommended CDC levels of activity helps eliminate the \$1,275 of annual health care costs for each, resulting in a regional benefit of roughly \$222,000 annually.

Potential Property Value Benefits

The average home value for the 3,382 single family homes within one half mile of the rail corridor is \$347,500. While studies vary related to a home’s value when close to a park space or trail, it generally is considered to improve the resale value between 5%-10%. This equates to \$17,375 to \$34,750 per home. Existing home values in each community along the rail corridor vary, ranging from a low of \$105,100/unit in Pownal to \$561,550/unit in Falmouth. Correspondingly, the potential added value upon resale of a home would range from \$5,255-\$10,510 in Pownal to \$28,077-\$56,154 in Falmouth.

Table 7: Added Home Value due to Presence of Interim Trail

Summary Residential Values by Town - Berlin Subdivision Rail Corridor					
Single Family Units					
Location	# of Units	Total Valuation (in millions)	Average Value per Unit	5% Value Increase	10% Value Increase
Auburn	6	\$1.12	\$186,250	\$9,313	\$18,625
Cumberland	338	\$153.73	\$454,833	\$22,742	\$45,483
Falmouth	530	\$297.62	\$561,541	\$28,077	\$56,154
New Gloucester	189	\$42.90	\$226,977	\$11,349	\$22,698
North Yarmouth	284	\$105.00	\$369,726	\$18,486	\$36,973
Portland	1,096	\$248.08	\$226,353	\$11,318	\$22,635
Pownal	45	\$4.73	\$105,098	\$5,255	\$10,510
Yarmouth	894	\$321.99	\$360,172	\$18,009	\$36,017
Totals or Averages	3,382	\$1,175.17	\$347,479	\$17,374	\$34,748

Source: Vision Government Solutions, via RKG Economic Analysis report, Table 13 on p. 25 (see Appendix B)

Capital and Maintenance Costs

The IMPLAN model was also used to estimate the impact that both the capital funding for the interim trail and the annual maintenance costs would have on the state's economy.

Table 8: Capital and Maintenance Cost Impacts of Interim Trail Use

SUMMARY COMPARISONS - IMPLAN Models (total) and in rounded \$millions					Estimated
Infrastructure Costs					Initial Costs
Type of Use(s)	Employment	Labor Income	Value Added	Output	Direct
TUR - Gravel	602	\$32.42	\$40.70	\$90.73	\$47.50
TUR - Paved	697	\$37.54	\$47.12	\$105.06	\$55.00
RWT - Gravel	1,141	\$61.43	\$77.11	\$171.92	\$90.00
RWT - Paved	1,196	\$64.36	\$80.80	\$180.13	\$94.30
SUMMARY COMPARISONS - IMPLAN Models (total) and in rounded \$millions					Estimated
Annual Maintenance Costs					Annual
Type of Use(s)	Employment	Labor Income	Value Added	Output	Direct
TUR - Gravel	1	\$0.08	\$0.09	\$0.23	\$0.12
TUR - Paved	1	\$0.08	\$0.08	\$0.19	\$0.10
RWT - Gravel	1	\$0.08	\$0.11	\$0.23	\$0.12
RWT - Paved	1	\$0.08	\$0.09	\$0.19	\$0.10

Source: IMPLAN, VHB and RKG (2022)

Note - constant 2022 dollars in \$millions

Note - totals reflects combination of direct, indirect and induced

5

Community Input

Public engagement was an important part of the Berlin Subdivision Rail Corridor Study process. Comments were solicited in a variety of channels between May 2022 and late January 2023, including four virtual RUAC meetings, two in-person RUAC meetings, one public meeting and through email comments, via direct email to MaineDOT and submissions through the MaineDOT website contact form. The public comments were reviewed, and specific opinions regarding the project were tabulated.

5.1 Key Findings

Roughly 800 public comments were received in a nine-month period from May 2022 through late January 2023. Additionally, 64 individuals testified at the December 5 public meeting in Cumberland. VHB reviewed all comments and made a determination whether the comment was 1) supportive of trail use along the corridor, 2) supportive of the restoration of rail service along the corridor, or 3) presented either a neutral stance, or simply asked a question(s) as part of their comments to MaineDOT. To more thoroughly understand what motivated the responders' interests in their position, a sample of roughly one-third of the comments were further analyzed with attention to stated interests and preferences supporting their opinion on the project. VHB categorized and tabulated the more nuanced reasons why people felt as they did to track any trends that could inform the RUAC recommendations and subsequently the MaineDOT Commissioner's decision related to the Berlin Subdivision corridor. While the detailed table can be found in Appendix C, the summary table of comments is below.

Table 9: Summary Table of Community Input¹⁰

	Supports Interim Trail	Supports Restoration of Rail Service	Neutral/Other or Rail with Trail*
Verbal Comments (RUAC meetings and 12/5 public meeting)	45	21	28
E-mail Comments	671	52	22
Total (% of 823)	716 (88.2%)	73 (9.0%)	50 (6.2%)

* Note: of 812 comments received, many in support of Rail with Trail were in addition to support for other options so the percentage totals equal > 100%.

Responses Supporting a Trail

Approximately 88% of the public comments received indicated support for a trail¹¹. This included comments specifying desire for “rail until trail”¹², and/or support for the development of the relevant segment of the Casco Bay Trail Loop. Of the comments sampled for further analysis (percentages refer to sample size for all comments, not to each category alone), reasons and concerns cited for their support of the interim trail included the following areas:

- › Traffic safety concerns (37%, inclusive of all 592 comments received)
- › Alternative transportation benefits (17%)
- › Economic benefits and an asset for community (15%)
- › Environmental concerns and benefits (13%)
- › Health benefits and/or outdoor recreation benefits (10%)
- › Social benefits and community cohesion (5%)
- › Improved livability and quality of life for nearby residents (5%)

At 37%, **traffic safety concerns** were the largest category reported throughout the sampled comments. They primarily stated a strong desire for safe separation from vehicles, stated that roads are increasingly unsafe to walk and bike on with an observed increase in aggressive driver behavior (24%). Another 6% referenced that they lacked any other safe place to walk or bike in their neighborhood. 7% of respondents felt that the trail option would be good for children, and that it would be the only safe option for children, families, and seniors to utilize for active transportation. Many of these respondents stated that they lived near the trail corridor location and had a strong desire to use such a facility on a frequent basis.

¹⁰ Comments received from April 2022 through late January 2023

¹¹ It should be noted that while this shows overwhelming support for an interim trail by those who submitted written comments to MaineDOT, it may not reflect the attitude of the broader population of people living in communities along the Berlin Subdivision corridor.

¹² Although only two commenters specifically expressed support for both rail use and trail use (i.e., RWT), it is not clear if all others' stated support for a trail would exclude a RWT configuration as a desirable option

Roughly 17% of sampled comments cited **alternative transportation benefits**, primarily referencing a desire to utilize the trail for commuting, errands, and visiting friends and family. Another 2% of respondents felt the trail would benefit and complement the regional alternative transportation network by creating new links.

Economic benefits and tourism were another highlight of the sampled public comments, with 15% seeing the potential for general economic benefits due to the trail, 10% believing the trail will aid with tourism in the area by drawing visitors in, and 9% see it as a community amenity and asset - adding value to the community.

Environmental concerns comprised of a total of 13% of sampled responses. These included the potential for the trail to encourage “green” transportation modes while reducing vehicle usage emissions (9%) and reduce traffic and congestion (4%).

Public Health was another top concern category, with 10% of respondents indicating the trail could provide health benefits generally, in relation to mental health, physical health, and general wellness. 14% felt that it could encourage recreation, 15% specifically highlighted the benefit of encouraging outdoor recreation and exposure to nature which they felt would be beneficial also for mental health. Another 12% specified the health benefits of encouraging more exercise, generally, with the trail.

Social benefits were described as improved community cohesion, neighborhood engagement, creating more opportunities for local residents to interact with one another, and accounted for 5% of the comments.

Improved livability, desirability of community, and improved quality of life made up 5% of the sampled comments, many of these respondents also stated they thought it would make life more enjoyable for everyone using the trail.

Other notes on commenters and preferences:

Motorized Trail Use - 7% of respondents also voiced their preference for a motorized multi use trail, specifically advocating for a motorized use option for vehicles such as snowmobiles and all-terrain vehicles (ATVs), referencing examples of other trails throughout Maine where this is practiced. Respondents cited potential economic benefits tied to the tourism generated for this use, and for the purchasing of permits for these motorized uses. In general, this group of respondents feel that expanding the modes allowed on the trail would increase activity and use of the facility and take advantage of the winter snow trail conditions.

Proximity to the Rail Corridor - Of the respondents supporting the interim trail, 4% of respondents stated they lived close to the rail line, and 3% specifically abutted the rail right of way.

Responses Supporting Restoration of Rail Service

Approximately 9% of the public comments indicated support for restoring passenger rail service, with many referencing the ongoing Lewiston-Auburn Rail Study. Generally speaking, this group felt very strongly that implementing passenger rail service would bring great benefit to the region, serve a greater cross section of the area’s population than trail use alone, and were highly concerned that removal of the rail infrastructure would be a disservice to the community.

Of the comments sampled for further analysis (percentages refer to sample size for all comments, not to each category alone), reasons and concerns cited for their support of the interim trail included the following areas:

- › Environmental benefits/concerns
- › Economic benefits and concerns
- › Alternative transportation benefits & creating affordable transit options

Environmental benefits were a frequent comment, similar to many of the respondents in favor of the trail option, 4% of the 592 comments received expressed that a passenger rail option could reduce vehicular emissions, reduce overall vehicle traffic and congestion, and promote more green transportation choices.

Economic benefits and concerns were cited both in terms of rail adding to the regional economy (6%) and supporting the development of affordable housing options (2%). Some economic concerns referenced that in the long term, a trail would not be in the best interest of the public, and that it was not economically sound (2%).

Alternative transportation benefits were a top concern for this group of respondents, that the restoration of rail service would provide more alternate transportation options (5%). These benefits were also cited in terms of providing affordable. Year-round transit options to residents without cars (2% of all comments), and that it would help a wider range of constituents with transportation access, to be more inclusive of those who cannot walk, bike, or roll as their mode of transportation (3%).

Roughly 1% of the 823 respondents were very concerned that if the rail infrastructure is removed, it would not actually be replaced, even if the possibility remained.

Also notable is that a representative from the Maine Rail Group provided to MaineDOT a petition signed by 380 individuals at the September 23-25 Common Group Fair expressing support for the return of passenger rail service from the Portland-Brunswick area to Bangor. Because the petition was promoted outside of the RUAC process and was intended to show general support for passenger rail in the region, rather than explicitly along the Berlin Subdivision rail corridor, they were not included in the totals above.

Neutral and/or Other Responses

Approximately 6% of all public comments that deviated from “Supports Interim Trail” or “Supports Restoration of Rail Service” were categorized as “Neutral/Other or Rail with Trail”. These responses did not specify support or opposition for either a trail or rail, and consisted primarily of questions about the study, concerns from residents abutting the rail corridor, and general questions about the process and/or timeline. Some expressed support for both rail service and a trail sharing the corridor.

Comments from residents abutting the rail corridor included concerns regarding liability and privacy with regards to interaction between potential trail users and property owners. These comments did not specify explicit opposition to the potential interim trail use, but rather registered concerns and posed questions to MaineDOT and the study team.

Other questions in this category related to specifics of the rail corridors, the timeline, next steps, and sharing on-the-ground knowledge of the area. A few comments were made specific to the public engagement process or prior studies, but not tied to a stance on this particular study.

APPENDICES

Appendix A:

Cost Estimate Back-up Sheets

Appendix B:

Draft Berlin Subdivision Rail Corridor Demographic and Economic Analysis (RKG report, October 20, 2022)

Appendix C:

Summary Table of Public Comments

Hello,

My name is Kate Kyle and I live in Portland on Broadway in Riverton. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation and recreation option for people who don't drive or want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. It would help the environment by getting more people out of their cars. The current trail system in Portland is one of the great things about living in this area and adding to it will encourage more use, improving the health and well-being of Maine residents. Please vote in favor of the trail!

Best regards,

Kate Kyle

Please support the Casco Bay Trail. Adding 26 miles of trails to the Portland area will help many more people use sustainable transportation for commuting. It also will provide a way for thousands of people to exercise, and it will serve as a significant tourism draw.

Sincerely,

Shoshana Hoose

My name is Paul Lones. I live in Portland, on Newbury Street. While I have a car, I usually walk or ride my bicycle on errands or commuting to my volunteer work with Habitat for Humanity of Greater Portland. I support the proposed Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north and to other local trail networks in Portland. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive or want to drive less. It would make the prospect of car free commuting into Portland safer and more appealing. For both environmental reasons and congestion/noise, having fewer cars coming in and out of Portland can make a difference in our quality of life. Please vote in favor of the trail.

Thank you,

Paul Lones

My name is Laura Hinerfeld and I live in Portland on Caleb Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Please vote in favor of the trail. This is a transportation and recreation option that my family and I would use.

Thank you,

Laura Hinerfeld

To the City Council,

We are active walkers and bike riders. As such, we are huge supporters of increasing and improving all trail options in the greater Portland area for commuter and recreational activities. The Casco Bay Trail would link to public transportation and to other trail networks in Portland.

How much better could it get?

Please support the Casco Bay Trail plans that the council will be voting on this week.

Lin Lisberger and Peter Bass

Dear Councilors Phillips, Pelletier, & Bullett,

My name is Elise Boyson and I live in Portland on Vesper Street.

I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less.

The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. And support people moving their bodies, which is great for our physical and mental health.

A lot of people don't feel comfortable riding their bikes on the street, because the cars feel too dangerous. The trail would be a safe option for those folks!

Please vote in favor of the trail!

Many thanks,

Elise Boyson

My name is Steven Linnell and I live in Portland on Alton Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north.

Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Please vote in favor of the trail!

Steve Linnell

Good morning,

I am writing you today to share my strong support for the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less. This is a unique opportunity for Portland and all of Maine to put non-vehicular transportation up front as a priority for commuting residents and visiting tourists alike. This would be an amazing amenity, and I know I would use it regularly to

go to and from work and for recreation. I hope you will be able to support this exciting initiative, and please don't hesitate to reach out if there is anything else I can do.

All the best,

Sam Reiche

Good morning, Transportation Committee!

I am writing to **share my enthusiasm for the Casco Bay Trail** and to encourage the three of you to support the initiative and do everything you can to support bringing a valuable community asset and amenity to life.

My name is Eliza Cress (33) and I live on 24 Norwood Street in Portland. I am writing to advocate for the 26-mile, Casco Bay multi-use trail that would connect the new Roux Institute campus to points north.

Long-distance trails like the proposed Casco Bay Trail provide a safe and approachable transportation alternative for people who can not drive (young and elderly people alike) who don't drive—or people who simply want to drive less or who would prefer a multi-modal commute. The Casco Bay Trail would link to public transportation and to other trail networks providing a more robust city transportation system and making Portland easier to navigate for people traveling without cars.

Please vote in favor of the trail!

Gratefully,

Eliza Cress

My name is Stephen Bentsen and I live in Portland on Kineo Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Please vote in favor of the trail!

--

Stephen

My name is Jennifer Tingle and I live in Portland on Arcadia Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful

transportation option for people who don't drive—or simply want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Please vote in favor of the trail!



My name is Stephen Greene and I live in Portland at 30 Merrill Street. I enthusiastically support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe, environmentally-friendly transportation option. It also strengthens ecotourism for the region. As a long-distance cyclist and member of the national nonprofit, Rails to Trails Conservancy, I and other members seek out longer distance trails throughout the country. These longer trails provide an economic boost to the small towns situated along them.

As part of linking the Casco Bay Trail with Portland trails, I also strongly recommend the building of a safe trail under Tukey's Bridge linking Portland to the Roux Institute. Currently, there is no safe direct path but rather requires a cyclist or pedestrian to cross one of the city's busiest and most dangerous intersections (Washington Avenue and Veranda Street).

Sincerely,

Stephen Greene

My name is Jacqui Baker and I live in Portland on William Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars.

Please vote in favor of the trail!

I'm writing in support of the Casco Bay Trail. What a fantastic idea to support human powered transport between some of Maine's larger cities and towns. I live in Portland and I would definitely use this as a safe way to get out and enjoy a bike ride!

Please consider supporting this project!

Ann Hitzrot

I thoroughly support the development of any walking and biking trails in Maine, but the Casco Bay trail sounds like an opportunity that should not be passed up.

Maine is getting more and more densely populated; roads are busier and green space is getting eaten up by population growth. Do this now.

I know from living in densely populated New Jersey just how much people appreciate trails. New Jerseyans have passed every single green space and active transportation bond put before them. And they use the trails!

Mainers will too. I certainly will.

Thank you!

--

Janet Heroux

I ask you to NOT support this rail corridor trail proposal. There are the obvious reasons to not proceed with a high traffic trail route at the expense of a potential passenger rail line. I'll point to several, but the "Stop the Casco Bay Trail" Website (at stopcascobaytrail.com) outlines many more.

I don't think you'll find a similar trail that hasn't generated a significant increase in unlawful camp sites, property damage, and physical assaults. Who will patrol and who will respond to folks abusing private property. If this is to be state-property...where does that liability lie, what are our protections? There is no public access in much of the corridor; how will police or rescue units respond? Recently Portland Trails said it's discouraging people from using part of the Presumpscot River Trail. There have been documented incidents of violence and injury to people.

The Trail Alliance claims the trail will reduce the use of vehicles; this RECREATIONAL trail would increase vehicle emissions. The Rail Use Advisory Council process that investigated the trail use was flawed. The membership of the council was loaded with special interest groups. There was no input from personal property owners from any of the towns affected by this trail. Well-organized and well-funded proponents of the project have abused the public engagement process, and have pushed this project through before property owners have been notified about

what is going on. This is nothing short of a vaguely disguised land grab by special interest groups.

This railway was purchased during the Baldacci Administration. The line from Portland to Lewiston Auburn is one of the most important in our state. Governor Baldacci knew the value of this railway. This current proposal would remove the railway forever; it would not be an "interim" use. History tells us that once the tracks are pulled, they almost never get replaced. Once torn up the line will be legally-defined as abandoned. Per court decisions, an abandoned line will revert to abutting property owners. This attempted conversion will result in a massive class-action law suit and eliminate the potential for any future rail OR trail activity.

Passenger rail traffic is increasing. Amtrak has set records this year for both ridership and revenue levels. They expect to double ridership nationwide by 2040, with a strong focus on the East Coast. Boston is now looking at an \$8 billion rail plan that would benefit Maine. This plan would link North and South Stations and finally connect Maine to the rest of the country through one rail line. Maine has pledged to reduce its transportation emissions significantly. Clean fast electrified rail will transform the region and remove tens of thousands of cars from the roads. The line between Portland and Auburn is part of America's first International rail line. The railway connects Portland to Montreal. This can be the start of future expansion north to Montreal, but we need to preserve this rail-line to accomplish that. Rail proponents have identified the federal dollars to accomplish how we can convert this line to electrified passenger rail in 2 to 3 years and run 20 trips per day between Maine's largest metro areas.

New rail-line usage offers a vision for our economic and environmental future. While other transportation sectors have been slow to electrify, 75% of all passenger rail transportation takes place on clean electric trains.

It's common sense. Don't rip up our railroads for recreational trails.

Regards,
Joe Kumiszczka
3 Middle Road
Cumberland, ME 04021

I am Jack Duffin, and I am emailing you to voice my opposition to the Casco Bay Trail proposal to remove the Berlin Subdivision from Portland to Lewiston, Maine.

You will hear many arguments for passenger rail on this corridor, all of which are valid: this is the easiest way to connect the cruise port and the Roux Institute development to places like Lewiston but also Brunswick to connect directly with the Downeaster. However, another vital note is that the St. Lawrence and Atlantic railroad wants to maintain freight rights on the tracks to East Deering for projected future rail use. Freight is the most environmentally friendly, efficient way to move goods long distances, and to remove this would result in strangling businesses into using solely trucks, a nightmare for our roads and our environment.

Please, consider this truthfully. Consider rail-with-trail to preserve this vital transportation link, and prevent the irreversible removal of our nation's vital railroad infrastructure.

Regards,
Jack Duffin

My name is Matthew, and I am an avid bike-commuter living on High Street in Portland. I am writing to express my support of the Casco Bay Trail! This multi-use trail would be transformative to the greater-portland community if completed. This project supports the mission of sustainability by getting people out of their cars, promotes healthy life-styles by giving people space to recreate, and increases accessibility to greater Portland for those who do not drive.

Please vote in favor of this trail!

All the best,
Matthew

My name is Matt Gilligan. I live in Portland at 27 Belmont Street. I whole heartedly support the 26 mile multi use Casco Bay Trail that would connect the new Roux Institute campus to points North.

Please vote in favor of the trail.

Matt

My name is Nicolette Centanni and I live at 45 a Wordsworth st in Portland maine. I am so excited about the prospect of the casco bay trail that my family and I could easily access from Arcadia street. I've been wanting something like this for awhile and to think it could be out our back door?! Please supper this amazing effort.

Thank you,
Nicolette

I am in favor of expanding passenger rail service in Maine. We will be needing it more in the near future with increased population especially in this area near Portland. If we do not keep the existing railroad right of ways and rails, they will be lost and probably not replaced due to the property required for a new one. Keep what we have and expand where possible.

Boston is seriously considering a connection between North and South stations. This will connect Maine directly to the rest of the country and make rail travel immensely more desirable. Instead of driving to visit my daughter in North Carolina and our relatives in Texas, a train ride there without a transfer of terminals in Boston would be very desirable.

My son commutes from Mechanic Falls to Portland every day. A commuter train would save many miles of driving every day.

Thanks for your attention.

Ralph Oulton
Cumberland, Maine

I am writing to you to state my support for the Casco Bay Trail, and my hope that you will treat this issue with as much encouragement and approval as possible.

Thank You,

Tom Crutcher
Jefferson, Maine

We live in Portland on Longfellow Street. We support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. In addition to providing a safe transportation option for people who don't drive, or want to drive less, the proposed Casco Bay Trail will provide a great long-distance recreation trail for bicycling, running, walking, and other outdoor exercise. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Please vote in favor of the trail!

Michael Hollyday and Susan O'Connor

What moron is proposing ripping up rail? Rail is more important than these moronic rails. How about you come up with a passenger rail plan, the most sustainable transit there is, what a JOKE this entire trail proposal is. If you do this, there will be consequences to this action.

Matthew Gromala

I am writing to you to support the Casco Bay Trail development, connecting Portland, L-A, and Brunswick, and the intervening communities. I typically commute using a mix of car and bike and this expansion would greatly improve my bike commuting abilities as well as recreational opportunities.

While I have you, I also hope you will do what you are able to support other bike and pedestrian active transit in the greater Portland region, such as completing the connector between Scarborough's eastern trail and SoPo's green belt, which would significantly increase the safety and enjoy ability of commuting in to Portland from the south/east, or supporting a mass transit and active transit alternative to the proposed highway through Portland's western suburbs, which would increase the connectivity between Portland and Westbrook, Gorham, west Scarborough, Windham, Hollis, Buxton, and Standish.

Thank you for your time and your efforts to make our city and region a healthier, safer, and more sustainable place to live!

Best,
Eric

My name is Douglas Moore, and I live in Portland Maine (at 37 Fleetwood St.) and I'm asking for your support for the Casco Bay Trail (CBT). The following are just some of the many reasons:

First, I encourage you to think big. The Casco Bay Trail will be part of a network of 2,500 rail-trails in the US. Fortunately, every state (including Maine) has dozens of them. Moreover, the CBT, like many rail-trails, will be stitched together to form long-distance spine networks. The CBT for example, will connect to the Eastern Trail and the East Coast Greenway that stretches 3,000 miles along the Eastern Seaboard (from Fort Kent, Maine to the Florida Keys). And it will eventually be part of the rail-trails that cross New England (NH, VT, NY) and continue across the US.

Rail-trails like the CBT provide a safe, beautiful, and practical corridors for human-powered transportation. We need more safe corridors like the CBT, where we can walk, ride, wheelchair, etc. with our families and pets and not have to worry about getting runover. Human-powered activities should not be synonymous with foreboding, stress, and danger. Many Mainers (like me at 76) are fit (doing triathlons, etc.) mainly because they've been active (biking and hiking on safe corridors like the CBT).

Also let me be clear, the CBT, like the other 2,500 rail-trails in the US, would be a magnet beckoning to tourists all over the world.

Lastly, the CBT would be an interim trail so your vote for the CBT will never be cast in stone. Fortunately, the ME DOT will forever retain the right to use that corridor for whatever is determined to be the best use at the time.

Good day,
Douglas Moore

My name is Brendan Amy-Lee. I live at 5 Poe St., in Portland, and I am writing to you in support of the Casco Bay Trail.

Rails to Trails have been successfully implemented across the country to great effect. The Casco Bay Trail would follow this proven formula, and provide the most cost effective, and more importantly, most quickly implementable solution to a fallow resource. Please don't let a good, usable, and positive future go to waste.

The Casco Bay Trail would provide a much needed protected outdoor recreation space, and alternative transportation option that the north side of Greater Portland sorely lacks. Portland is

behind other communities in this, and the Casco Bay Trail would be a huge and important first step to bringing Portland up to speed with its goals. Let us put our money and our efforts where our mouths and hearts are, and embrace a Yes In My Back-Yard attitude to greener transportation and outdoor activity, today.

Thank you.

For deeper insight, I worked in the railroad industry as a civil engineer for 10 years. I have intimate knowledge of the Berlin Subdivision (having been paid to perform engineering for this line), and know that necessary repair and replacement costs, as required to upgrade the track to passenger service, would be astronomical (and this is supported by 3rd party estimates for this project). I also have a deep understanding of the revenue necessary to support a passenger railroad, and see that we do not currently have anywhere near the potential ridership levels required to support a new passenger line. I also believe that the fully operational, existing, and parallel (duplicate) CSX corridor would be a much better fit, should Maine ever decide to pursue passenger rail to Lewiston/Auburn, as it currently ties directly into the existing Amtrak line. Whether passenger rail is fully utilized or appropriately implemented in the State is another huge question for me, outside the scope of this project. (Please keep in mind this is all spoken as an avid passenger rail supporter, who often daydreams about the sad loss of our own Portland trolleys, which would have much better ridership levels than the Berlin Subdivision, should they be reimplemented.)

My name is Brian McNiff, and I live in the West End of Portland on Spring Street. I am writing to you today in support of the 26 mile Casco Bay Trail that is proposed to go north toward Auburn from the old Boston Baked Beans property.

After I had heart surgery at Maine Med 4 years I have been walking, biking or skiing for a few miles every day, initially as recovery therapy but also for the joy of getting out and about in the wonderful area we live in all weather. There are some good short and moderate distance trails throughout Portland that the City and Portland Trails have done a great job protecting and maintaining. I have the Portland Trails map of these properties mounted and hung in my entryway, and I use these trails frequently along with many others.

However, getting further afield - such as towards Falmouth, Westbrook or Scarborough - requires getting onto roads with varying accommodation for pedestrians and bikers. As you no doubt know, it can be challenging walking and biking in our city when sharing the road with cars and trucks. The East Coast Greenway, for instance, is excellent when it is separate from the road, but sometimes scary when it is separated only by a painted line. Also, the Sebago to Sea Trail provides some great separated paths, railroad beds and biking routes through a partnership of towns and the State, but the shared road parts are stressful and can be dangerous.

The use of the St Lawrence and Atlantic rail corridor in the proposed Casco Bay trail would provide a wonderful, expansive walking and biking route for longer outings for exercise and enjoyment of the outdoors that doesn't require competing with vehicles.

I urge you to vote to recommend that the city of Portland support the use the rail corridor for this purpose.

thank you

I am writing on behalf of myself, Terry Sutton and my husband, Michael Reali. We live in Portland on Newbury Street.

We strongly support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. We are both cyclists and navigate the roads to ride our bikes north...and it's always a bit of a challenge. The proposed trail would make it so much safer for people like us who seek to take advantage of this access. It would also encourage others to cycle, run and walk.

Please vote in favor of the trail!

I took some time to review the Proposed Casco Bay Trail this morning.

I have been riding my bike in the City of Portland for 35 years. I have pedaled through the good decisions & the bad decisions over the years and am happy to see this new project developing.

In addition to the obvious recreational uses, one of the uses that jumps out to me when I see this map is increasing workers' access to the city and its jobs.

I ride my bike in Portland every day. I see an increasing number of people without the luxury of an automobile riding electric bicycles and electric scooters to work in the City. These new vehicles and this trail would give folks a more comprehensive radius of access to jobs in the City of Portland.

On a smaller scale, anything that connects the City to Veranda Street, bypassing the entire Veranda, Bates, and Washinton Ave intersection, is a momentous step forward.

Thank you for your continued work, Deke

As you know, the Portland Bicycle and Pedestrian advisory Committee supports the Casco Bay Trail Alliance in its efforts to win council approval for the interim trail option.

As a Portland resident with parents in Cumberland, Yarmouth, and Durham, I see me and my kids using an eventual trail to visit their grandparents via bike and/or ebike.

More importantly, when the Roux Institute moves to the East Deering location, the snarl of highway ramps will make the area a traffic nightmare. It will be critical that the neighborhood has other non-car connections, particularly off the streets, which will become even more dangerous if I-295 continues to facilitate dangerously fast driving onto tight ramps in conflict with neighborhoods.

Finally, I consider myself to be as big a supporter of rail transit as a person can reasonably be while still being reasonable. More rail connections to Portland would be great, but they should be integrated into our existing network based on the CSX line through St. John's Valley. We also have a lot of work to do to get our Downeaster service up to a reasonable level from the current 4 slow trains per day.

Thank you for your attention to this issue!

Myles Smith
Vice Chair, Portland Bike Ped Advisory Committee

I just received information of your meeting. Don't you have to give more public notice, by law?

I am very opposed to changing the Berlin subdivision from rail to trail. You are being coerced by a very powerful and well-funded bicycle coalition to support a resolution so they can go to Augusta and say, "Look, all the towns and cities along this corridor support this." Cumberland did not support the resolution and the matter will not be taken up again until residents along the proposed trail can meet with the DOT for more information. Then, if the Cumberland Town Council supports the resolution, it will be by a 4-3 margin. Changing this corridor from rail to trail is short sighted and elitist. It is also an incredible invasion of privacy for residents from Portland to Yarmouth which is expected to be the most used part of the Eastern Trail in Maine (their projection, not ours).

Please do not join this effort of political gamesmanship. Support rail; it's a more equitable and much needed system for addressing transportation and parking needs of Portland.

Thank you,
Shirley Storey-King
Retired Town Councilor, 18 years
Cumberland

I live in East Deering, and have walked along the old railroad bed from Tukey's bridge toward the Falmouth line many times for exercise. Currently the beauty of the corridor is marred by quite a bit of trash, and it is unsuitable for bicycles. There are so many people in the neighborhood who would benefit from turning it into a multi-use trail. Please vote in favor of the Casco Bay Trail.

thanks,
Renée Russell

At our September meeting, after much consideration, the Portland Bicycle and Pedestrian Advisory Committee voted to sign the Casco Bay Trail Alliance's letter asking the council to take action on the St. Lawrence and Atlantic RUAC study, and support interim trail (attached).

Please vote to send this item to the full council, and recommend that they support interim trail, and support the Casco Bay Trail Alliance's vision for the corridor.

It would be tremendously useful for the greater Portland region to have such a safe way for people to cycle into Portland; while perhaps few would commute from Lewiston/Auburn on the trail, the section between Portland and Yarmouth would surely see heavy usage by transportation users.

My own decision making looked something like this- **what's below is all my own opinion**, and presented as my own comment and does not necessarily reflect the position of PBPAC:

The challenges presented by a rail with trail design may be too much, (as the rail corridor is very narrow in places), so such a decision would very likely be the same as voting for rail: **IE, no trail, and not really a decision.** While many of our members, very much including myself, would love to see commuter rail to Lewiston and Auburn, the challenges faced by using the portion of this corridor between the Roux Campus and Commercial Street seem likely to be insurmountable, and in my opinion a waste of money to study. Namely:

1. **Proximity to sea level** makes the whole portion of the line along the prom very inadvisable: we don't know how much the sea will rise, but the sea is already on these tracks in storms and those storms are increasingly violent.
2. The mile plus rail line along the eastern prom would thus need to be elevated, and the exposed position **may not be safe in foul weather** no matter the elevation. **This would presumably cost an astronomical amount of money.**
3. The highly gentrified east end is unlikely to allow an elevated train line through their park, presenting endless strife for anyone who imagines they can make it happen.
4. The Bridge would need to be rebuilt, and built significantly higher so that an elevated line along the eastern Prom would meet it. **Again, this is likely to be more expensive than existing estimates.**

Thus, I think the utility to those in Portland wishing to safely cycle to Yarmouth, Falmouth, & points north outweighs the potential for rail service on this corridor, which I consider to be a dead end, and unlikely to be worth studying.

However, **I think it's very worth pursuing alignment 1A**, from Lewiston/Auburn to the St. John Street station. Working with the private company that owns the track seems insurmountable, but it's a much better option than throwing money into the sea, and I hope to see the S&T committee, Portland and the region pursue it.

Thank you again for taking this up, and I hope my thoughts prove useful.

Winston Lumpkins IV (he/him/his)

Past Chair, Portland Bicycle & Pedestrian Advisory Committee

My name is Alexander Jaegerman and I live in Portland at 398 Spring Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north.

I have a long-standing interest in trail planning in the greater Portland area, as former Planning Division Director in Portland, and subsequently as Planning Director in Yarmouth, until my retirement in 2021. In Portland, I was directly involved in the conception and implementation of the Bayside Trail, and envisioned the soon to be realized circumnavigation trail around the peninsula. In Yarmouth, I was active in planning and acquiring PACTS and MaineDOT funding for the extension of the Beth Condon Pathway from the Cumberland Town line to the existing trail along Route 1, and the northerly extension currently under construction to Freeport. While in Yarmouth I was active with the proponents of the Casco Bay Trail, and developed plans for the route within Yarmouth associated with current development proposals. A segment of the trail in Yarmouth can be developed within a portion of the excess rail right-of-way that would connect the high school to Main Street.

While working in Yarmouth for almost six years and commuting from Portland, I occasionally biked to work along Rt. 88 or on Middle Road. The St. Lawrence rail corridor would make an ideal off-road commuter bicycle commuting corridor, much preferable to the roadway routes. A study in Germany I read about in the New York Times some time ago (I don't have the citation unfortunately) found that an off-road bicycle commuter facility with a distance of 12 miles is conducive to a significant volume of commuter usage. That is approximately the distance from Portland to Yarmouth, a significant commuter route. The St. Lawrence rail segment, off-road, straight, and with gentle grades, would make an attractive commuter route, in addition to its recreational value. With the planned trail extensions from Yarmouth to Freeport, there is additional commuter utility associated with the St. Lawrence trail corridor.

Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less. The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Please vote in favor of the trail!

Alexander Jaegerman

My name is Tina West. I am a resident of Yarmouth, a member of the Yarmouth Bicycle and Pedestrian Committee, and a Town Trail Builder for the Casco Bay Trail. I am writing to testify ***in strong support of the Casco Bay Trail***, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north.

The Casco Bay Trail is one of the most important pieces of planned biking and walking infrastructure within the region. It realizes one of the principal regional connectivity goals laid out in the NOPO bicycle and pedestrian connectivity plan and provides an important safe connectivity corridor from Portland to Auburn. The Casco Bay Trail provides a once-in-a-lifetime opportunity to connect Southern Maine communities via a world-class walking and biking trail.

The increase in demand for safe walking and biking infrastructure during the pandemic, combined with the need to act on climate change by reducing transportation emissions, makes this the perfect time for Portland to engage with its neighbors and MaineDOT as part of a regional effort to build the Casco Bay Trail.

The Casco Bay Trail also has the potential to generate significant economic activity in Portland and its neighboring towns along the trail. People who bike and walk will utilize the trail as a safe, off-road alternative to riding (or driving!) along our busy highways and it will serve as a gateway for through riders on the East Coast Greenway..

I strongly urge you to vote in favor of the trail at your meeting this evening.

Thank you for your consideration!

Respectively submitted,

Tina West

My name is Lacey Amy-Lee and I live in Portland on Poe Street. I support the Casco Bay Trail, a 26-mile, multi-use trail that would connect the new Roux Institute campus to points north. Long-distance trails like the proposed Casco Bay Trail provide a safe and beautiful transportation option for people who don't drive—or simply want to drive less.

The Casco Bay Trail would link to public transportation and to other trail networks in Portland. Plus, it would help the environment by getting more people out of their cars. Portland has indicated it is interested in following Sustainability directives, and getting people out of their cars is a way to do just that. Cyclists need safety on the streets, and the only way to provide cyclists with that safety is to give them dedicated transit routes that do not favor or prioritize car traffic. Safety on the road can help convince those people on the fence to get out on their bikes. With this in mind, please vote in favor of the trail!

I am writing as a resident of Deering Center and an abutting tenant to the proposed Casco Bay Trail. My organization, the Maine Island Trail Association (MITA), operates a coast-wide water trail out of the Maine Yacht Center, which abuts the future Roux Institute in East Deering. The Maine Island Trail runs from Kittery to Cobscook Bay, linking over 220 islands and mainland sites suitable for day-use and overnight recreation. MITA is the nation's foremost water trail organization. As a boating organization MITA supports water access for recreational boaters and multi-modal connections between the Trail and the land.

The Casco Bay Trail is an idea whose time has come. It will connect the vibrant new Roux Institute to communities to the north and all of greater Portland's recreational trails. It will enhance transportation options and reduce pollution by making it easier for cyclists, joggers, and pedestrians to leave their cars at home. This will be good for Roux, its students and faculty, and -- most importantly -- Portlanders generally. On behalf of MITA (and myself as a biking citizen) I strongly support the Casco Bay Trail. Thank you!

Sincerely,

Doug Welch

My name is Emma Bond and I live on Arcadia Street in East Deering, Portland. I strongly support an interim multi-use trail on the Casco Bay Trail route. With existing investment in bike and pedestrian routes to connect the Roux Institute to the peninsula and Back Cove, the Casco Bay Trail route would provide a long-distance corridor from Portland to all points north. It would perfectly complement the Eastern Trail going south.

Not only would the Casco Bay Trail provide a beautiful public space, but it would also offer an important transportation option and connect to public transit. Rail trails like the Casco Bay Trail also provide an accessible way for all to enjoy the outdoors. During a period when I was using a wheelchair, I often sought out rail trails because they provide an even and level surface. These

corridors are public spaces that should be used and enjoyed by all. Please vote in support of an interim trail!

Thank you for all you do.

Best,
Emma

I am in support of this plan. I ride my bike in Portland everyday to work to the gym to appointments. At least once a week I have a close call with a motorist that wants me off the road. I'd love to be off the road , currently there are many areas where I have no choice. Let's make Portland bikeable! Diane Stoller.

Since I moved to Portland from North Yarmouth 15 years ago I have enjoyed the many benefits of being able to ride and walk to places in the city most of the year. I have seen some improvements in bike and pedestrian access and safety over that time (thank you). However, the area around Veranda street/Washington Ave. continues to be a dangerous bottleneck. We are known as a progressive city, approving a motion to study the possibility of a multi-use trail leading from this area to points north would be entirely in our city's endorsement of sustainable practices. Please approve this motion to study the potential for a multi-use trail.

Thank you,
Mike Boyson

I hope this message finds you well. During our September meeting, **the Portland Bicycle and Pedestrian Advisory Committee thoughtfully decided to endorse the Casco Bay Trail Alliance's letter urging the council to act on the St. Lawrence and Atlantic RUAC study and to support the interim trail (attached).**

I kindly ask that you consider bringing this matter to the full council for a vote, advocating for their backing of the interim trail and the vision put forth by the Casco Bay Trail Alliance for the corridor.

Establishing a safe route for cycling into Portland would greatly benefit the greater Portland area, and provide an important, safe connection, away from sharing the road with cars. The segment between Portland and Yarmouth is especially likely to see substantial use by those traveling for transportation purposes.

Regarding my personal perspective—shared solely as my own and not as an official PBPAC stance—I have some reservations about the practicality of the rail-with-trail design due to the narrowness of the rail corridor. Such an approach could effectively mirror a vote for rail service: if the challenges are too great, it may result in no trail being developed at all. Although many of us, myself included, support the idea of commuter rail to Lewiston and Auburn, I believe the obstacles presented by the section between the Roux Campus and Commercial Street are likely unmanageable and not worth the investment in further study.

For instance:

- The rail line's proximity to sea level poses significant risks, especially during increasingly severe storms, which have already affected the tracks.
- Elevating the rail line along the eastern promenade would entail enormous costs and might still leave it vulnerable in bad weather.
- Community pushback from the East End could complicate any attempts to implement an elevated line through public parks.
- Additionally, rebuilding the bridge to accommodate a higher line would incur substantial expenses beyond current estimates.

Given these factors, **I believe that prioritizing safe cycling routes for those traveling to Yarmouth, Falmouth, and beyond is far more beneficial than pursuing what I see as a less viable rail service option.**

However, I do see merit in pursuing Alignment 1A, connecting Lewiston/Auburn to the St. John Street station. While collaborating with the private track owner presents its own challenges, this route is a more promising alternative compared to investing resources in a potentially futile endeavor.

Thank you for considering these points, and I hope they contribute to our ongoing discussions.

Thanks,
Gordon Platt
Chair, Portland Bicycle and Pedestrian Advisory Committee

Dear Chair Phillips and Members of the Sustainability and Transportation Committee,

My name is Derek Strout and I live in Portland on Capisic Street.

I would like to offer this letter of **support for the development of the Berlin Subdivision Corridor into an interim multi-use trail as a critical piece of a larger Casco Bay Trail network vision.**

My wife and I have two young sons, and we appreciate every bit of park and trail infrastructure the city and state invest in. We cherish the ability to use local and regional trails for recreation, stress-relief, adventure, education and for getting to local destinations like the children's museum safely and enjoyably. Trails are wonderful assets that provide community benefits in all these ways, and we think the Casco Bay Trail presents an opportunity to be a transformational element of Maine's active transportation network. The physical and mental health benefits alone of trails has been well documented, as has the economic impacts, including that of similar projects like the Eastern Trail, which has been found to inject over \$44 million annually to the region, in the form of sales and taxable earnings.

The Berlin Subdivision Rail Corridor Study process has generated overwhelming public support for the trail. [As Rep. Art Bell notes in introducing LD209](#), "Over 700 comments were received in an eight-month period from May 2022 through December 14, 2022. Approximately 86% of the public comments received indicated support for a trail."

While some have raised questions about the legality and safety of new rail trails being proposed or built, I would like to just suggest that many of these concerns and myths can be addressed, alleviated, and debunked by looking at the successes and techniques from any of the over 2,400 rail trails already being used and loved by millions across the country. While the Casco Bay Trail is a unique project in many ways, the process of improving rights-of-way like this is not new, and countless studies have shown that many of the fears surrounding privacy and safety simply do not reflect the reality of how trails are used. Again, we could look at success stories around the country, or even New England, but projects right here in the state show how safe and valuable these trails can be, with the Belfast Rail Trail and Mountain Division Trails as just two other great examples.

We kindly ask that you support the Casco Bay Trail to:

Advance our [One Climate Future](#) Goals

By providing a safe, accessible route through East Deering connecting directly into Back Cove Trail and East Prom Trail, The Casco Bay Trail would reduce Greenhouse gas emissions (GHGs) by connecting all users to neighborhoods, businesses and public spaces without driving a vehicle. This includes short trips around town which is known to contribute significantly to transportation emissions as well as longer trips north through Falmouth and south through South Portland.

Advance the [Maine State Active Transportation Plan](#)

As highlighted in the AT Plan, it is estimated that the Casco Bay Trail (referred to as the Berlin Subdivision Corridor) would see between 129,750 and 195,000 annual trips. Based on this and many other criteria, this corridor was evaluated to be the top priority of the four state-owned, inactive rail corridors in terms of potential candidates for interim trail use. Creating rail trails like this is [specifically highlighted as one of the twelve plan strategies](#). With infuriatingly high numbers of crashes and close calls on Portland roads, investment in these types of off-street pathways are critical to providing access for all ages and abilities.

Support the recommendation of [Maine DOT's Rail Use Advisory Council](#) process

And you don't have to take our word for it. As you know, the RUAC process was established to evaluate these state-owned corridors to determine the best use of them for the communities that they once connected by train. Given a lack of passenger train service demand, overwhelming public support for a multiuse trail, development costs, environmental impacts, and economic and public health benefits, "the Rail Use Advisory Council recommends Interim Trail until Rail (multi-use trail using the existing rail bed)."

As you know, the railbanking legislation states that rail-trail conversions are only an interim use of the corridor, and that this particular RUAC process is not meant to decide on a permanent use, but the one that **makes the most sense given all current factors**. This process provides for a return to trains in the future if that is determined as the best use of the ROW in the future. This trail would simply make the best use of the corridor in the interim, allowing the state and trail communities to benefit in countless ways until then.

Support the city's stated position on using the active rail line for any future passenger rail

Portland has already expressed a preference *against this route* for any future passenger rail to Lewiston-Auburn. The City's [testimony](#) to the state legislature in 2021 stated that the "focus on the Portland Ocean Gateway Pier as a hub would cause significant new congestion and negative impacts in the historic downtown area, as well as serve as a less effective and efficient mode of transportation than existing alternatives."

- The City's testimony also stated that "Staff recommends that a future expansion of rail service to/from Portland leverage the existing Downeaster corridor/Pan Am main line, as it already provides for passenger service and acquisition of this line by CSX may bring additional capital investment opportunities."

Join surrounding towns in supporting connected communities

The Casco Bay Trail, as a critical element of Maine's active transportation network, offers a once-in-a-generation opportunity to improve the lives of residents and visitors alike through each of the communities along the route. While we live in Portland, we have friends that live adjacent to the route in Falmouth and Yarmouth who could not be more excited about the trail passing right by their property.

[As the Casco Bay Trail Alliance documents](#), "Town Councils in [North Yarmouth](#), [Yarmouth](#), and [Falmouth](#) passed resolutions in support of an interim trail on the Casco Bay Trail corridor. The [Brunswick](#) Town Council previously passed a resolution in support of interim trails on the Casco Bay Trail and the Merrymeeting Trail."

We sincerely thank you for your work on the council and considering the enormous benefits offered by the Casco Bay Trail, one that I truly hope my family and many others will be able to enjoy in the coming years.

Derek M. Strout
Portland



September 20, 2024

Councilor Regina Phillips, Chair
 Councilor Victoria Pelletier
 Councilor Anna Bullett
 Sustainability and Transportation Committee
 sustainabilityoffice@portlandmaine.gov

Dear Chair Phillips and Members of the Sustainability and Transportation Committee,

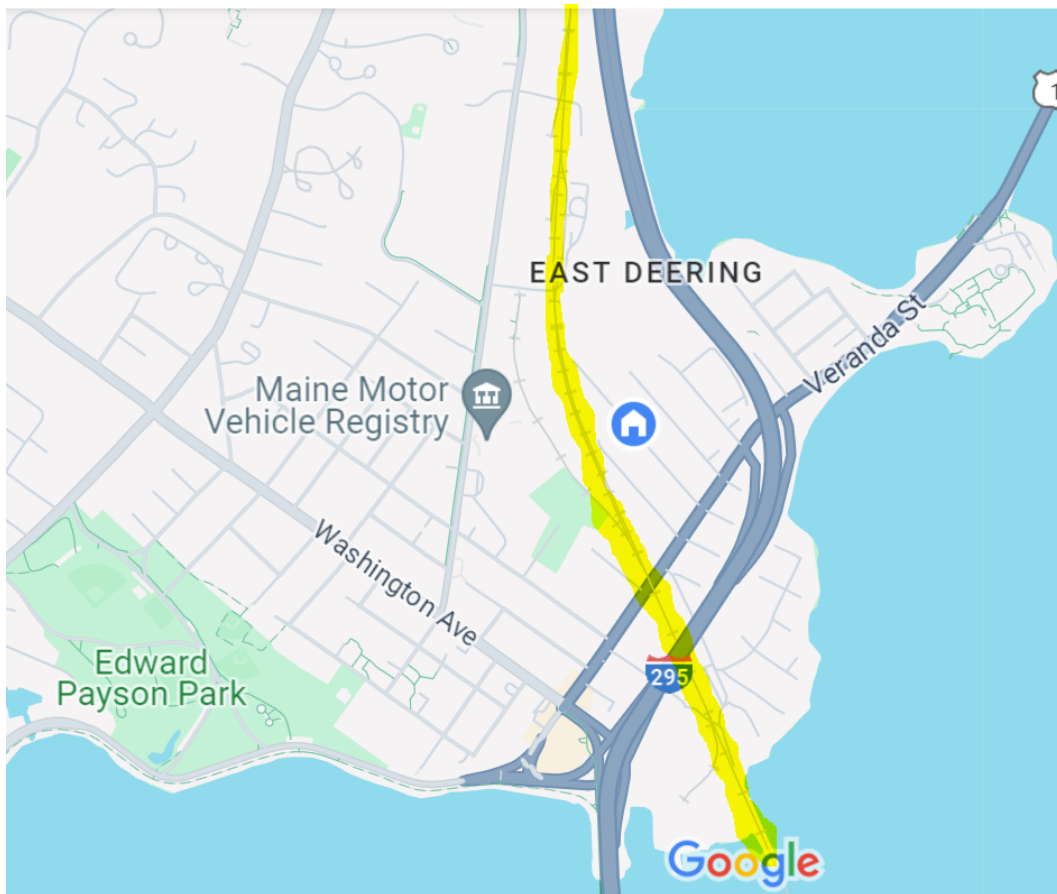
The Casco Bay Trail proposes a 26-mile multi-use trail connecting the new Roux Institute campus in Portland to points north--including Falmouth, Cumberland, Yarmouth, North Yarmouth, Pownal, New Gloucester, and Auburn. Approval of the Casco Bay Trail route as an interim trail would allow for future planning and design. **We ask the committee to support an interim trail on the Casco Bay Trail route.**

The proposed multi-use trail would use the discontinued Berlin Subdivision corridor, a portion of which is already used as a trail along the Eastern Promenade. The Eastern Prom trail is one of the gems of Portland and extending a trail to East Deering and points north would provide an unparalleled active transportation resource for the city.



¹ <https://www.portlandmaine.gov/1222/5487/Eastern-Promenade>.

The proposed Casco Bay Trail would advance equity, consistent with the City Council’s core value. Many people in Portland don’t or can’t drive—or simply want to drive less. Yet, our roads are often unsafe for pedestrians. In Cumberland County alone, five pedestrians died in traffic fatalities in 2023, with many more injured in car accidents.² The proposed Casco Bay Trail is traffic-separated and would provide a safe and beautiful transportation option for all ages and abilities to safely bike, walk, run, or use a wheelchair within Portland and between Portland and points north. A portion of the proposed route in Portland is highlighted below:



The Casco Bay Trail route would connect to the new Roux Institute campus, which will become a hub for regional active transportation. A recent \$25 million federal grant will improve bicycle and pedestrian infrastructure by connecting the Roux Institute campus to the Eastern Prom and Back Cove—so people traveling on the Casco Bay Trail can access the peninsula and Back Cove without traveling over the narrow path on Tukey’s bridge.³ The light and dark green lines in the

² <https://www.pressherald.com/2024/01/06/despite-overall-drop-in-traffic-deaths-pedestrian-fatalities-remain-high-in-maine/>

³ <https://www.pressherald.com/2024/06/26/state-gets-25-million-for-traffic-improvements-around-future-roux-institute-in-portland/#:~:text=The%20Maine%20Department%20of%20Transportation,vehicle%20and%20pedestrian%20traffic%20patterns.>

diagram below show the new pedestrian trails that will be constructed with the aid of this Federal grant:



Figure 2. Project Scope of Work Image. See Attachment B

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The Casco Bay Trail would also enable people to combine active transportation with public transit. The route offers numerous stops on the METRO and BREEZ buses—including the 7, 9A, and 9B buses, which stop in East Deering, and the 5 bus, which is planned to stop at the new Roux Institute campus. People can put bikes on the bus, providing additional flexibility. Among other uses, the Casco Bay Trail would provide a resource to people in the East Deering neighborhood who do their food shopping and other errands at Shaws, Wal-Mart, or other stores on Route 1 in Falmouth.

⁴ <https://www.maine.gov/mdot/grants/raise/docs/2024/eastdeering/Project%20Description.pdf>

The trail would also bring environmental benefits by reducing car trips. Many people wish they could commute by bike, but don't feel safe doing so. The Casco Bay Trail would provide a safe and beautiful option to get people out of their cars and reduce car trips in Portland—especially during the busy spring, summer, and fall months.

The Casco Bay Trail is an important part of a broader active transportation vision for Portland. The City has already made strides with other multi-use trails, including the Eastern Prom Trail, the Back Cove Trail, the Bayside Trail—and continues to make progress with the Bayside Trail Extension. Combining these investments with the Casco Bay Trail would revolutionize trails and active transportation infrastructure in Portland.

Next Steps:

The first step to achieve this vision is to authorize an interim trail use on the rail corridor. Under state law, the Berlin Subdivision cannot be approved for a non-rail use (like a trail) without completing an advisory council process and obtaining legislative approval. Only after an interim trail is approved, can design and engineering of the proposed trail begin.⁵

For example, the Mountain Division Line between Standish and Fryeburg recently completed the authorization process—with an advisory council recommending an interim trail use, the MDOT Commissioner approving the recommendation, and the legislature voting in favor of an interim trail in LD 404. MDOT is now conducting a feasibility study, which will lead to proposed engineering designs for the route.⁶

The Casco Bay Trail is still working on the first step—legislative approval of an interim trail. The advisory council process was completed in January 2023, with a majority of voting members supporting an interim trail. We're now seeking buy-in from local governments. Many of the communities along the corridor and other neighboring communities—including Falmouth, Yarmouth, North Yarmouth, Pownal, Brunswick, and Freeport—have already approved support for the trail.

⁵ Even after legislative approval, any trail use is “interim” in nature, and the rail corridor will be preserved for future rail use. 23 M.R.S. 7107.

⁶ <https://storymaps.arcgis.com/stories/dec4a29e8e5d44d6a08dcd21c18f5099>. The MDOT 2024 work plan includes planning, development, and outreach to local governments. *See, e.g.*, <https://www.maine.gov/mdot/projects/workplan/data/workplan/town/Standish.pdf>



Berlin Subdivision Rail Corridor Study area

7

We ask for your support for an interim trail, so that we can reach the next steps for this exciting project—including a proposed design for the portion of the trail in Portland.

Thank you for your consideration.
Sincerely,

Casco Bay Trail Alliance
Portland Trails
Bicycle Coalition of Maine (BCM)
Portland Bike Ped Advisory Council (BPAC)
Vision Zero Maine
The Roux Institute at Northeastern University
Portland Parks Conservancy
Maine Island Trail (MITA)

7

<https://www.maine.gov/mdot/ofps/docs/parac/2023/Portland%20to%20Auburn%20Rail%20Use%20Advisory%20Council%20Summary%20and%20Recommendations%20Final%202.1.23.pdf>

October 8, 2024

Regina Phillips, Chair
Sustainability and Transportation Committee
City of Portland



RE: St. Lawrence and Atlantic Rail Corridor—Casco Bay Trail Support

Dear Chair Phillips,

Portland Trails supports using the St. Lawrence and Atlantic Rail Corridor for a multi-use trail between Portland and Lewiston/Auburn. We are committed to supporting regional trails that all converge in Portland, including the Casco Bay Trails, Mountain Division Trail, and the Eastern Trail. Portland Trails is working to develop transit level connections between each of these trail systems, and we are committed to ensuring that these trail resources are designed for all users. This equity requires wide, flat trails that everyone feels safe using as well as our continued committee to engage Greater Portland's BIPOC community with trails through our Healthier Neighborhood program.

In addition, we know that trails provide significant economic development benefits. The Eastern Trail between S. Portland Kennebunk generates \$46M per year based on a recent economic impact study, which is lodging, restaurants, and related equipment purchases. I'm confident Portland to Lewiston/Auburn would probably exceed this amount.

Thank you for the opportunity to express our support, and we hope the Sustainability and Transportation Committee will recommend use of the corridor for a multi-use trail.

Sincerely,

Jon Kachmar
Executive Director

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Lois Winter

Executive Director

Jon Kachmar



POST OFFICE BOX 5494
AUGUSTA, ME 04332
mainerailgroup.org
trains@mainerailgroup.org

October 8, 2024

To: The City of Portland's Sustainability and Transportation Committee
From: Peter Cole, President of the Maine Rail Group

Dear Committee Members:

Why are we discussing eradicating state-owned rail corridors only to replace them with “interim regional trails” for the proven falsehood that we are connecting communities.

Why are we discussing vandalizing existing rail corridors for a million dollars a mile only to create a “prestige project” that benefit, the already entitled?

“Prestige projects” are not conducive to “active transportation” nor environmental benefits.

- Long distance commuting trails have not shown to be successful in reducing automobile commuting anywhere in the world.
- Trails through less developed areas only further our reliance on individual automobiles to access them and this counters any environmental benefits.
- Trails that, due to long distances, are not friendly for young children, low-income working families, the elderly, or those with physical disabilities and benefit only the few at the expense of the many.

If the goal is truly “active transportation” then that means:

- Building safe routes for children to get to school.
- Allowing for errands that can be completed while riding a bicycle.
- Creating cycle paths in towns and cities that are created in grids allowing access:
 - Every .3 of a mile to the main cycle paths
 - Every .2 of a mile to the secondary cycle paths
 - Every .1 of a mile for cycle paths in residential areas.
- Supporting public transport that is frequent and can easily carry bicycles.
- Constructing bicycle storage.
- Create a rail with trail once other pieces are in place.

The time for climate action is now. If you are serious about this issue and you want healthier communities, then allow rail service to bring communities together and within those towns and cities create the infrastructure that supports “active transportation.”

Peter Cole



Lease area approximately 2,600 square feet
442-A-2 MARGINAL WAY 31133 SF LOT 1

MEETING DATE

September 11, 2021 / October 9, 2024

AGENDA ITEM

License agreement with Gridwealth LLC to install EVSE in the Marginal Way parking lot

PURPOSE

Seek endorsement from the Sustainability and Transportation Committee for the license agreement.

COMMITTEE WORK PLAN/CITY COUNCIL GOAL ALIGNMENT

The City's climate action plan, One Climate Future, calls for the deployment of EV charging infrastructure in order to spur the adoption of electric vehicles as a way to reduce greenhouse gas emissions.

BACKGROUND/ANALYSIS

Demand for EV charging infrastructure continues to increase as more and more Portland residents and visitors purchase and operate electric vehicles. Staff identified the Marginal Way parking lot near the Miss Portland Diner as an ideal location for DC Fast Chargers because of its proximity to Interstate 295 as well as amenities such as dining and shopping. It is also located in close proximity to existing multi-tenant housing. (See attached plan indicating the location of the proposed charging equipment.) Earlier this year, Efficiency Maine Trust issued an RFP seeking locations to install DC fast chargers along designated travel corridors as part of the Federal NEVI program. Two different charging companies submitted proposals using the Marginal Way location as the basis of their proposal. Gridwealth LLC was successful and has entered into an agreement with EMT to install the equipment. City staff have worked with representatives from Gridwealth LLC on a license agreement with Gridwealth LLC for them to install, own, and operate charging equipment that includes four plugs. This will occupy five existing parking spaces and will include a handicap accessible charging station. The necessary transformers and switchgear will be installed in the space between the existing curb and I-295. Per the agreement, Gridwealth LLC will be fully responsible for the operation and maintenance of the charging equipment. The City will retain the responsibility for plowing and routing parking lot maintenance. We have already determined that the local distribution circuit has capacity to serve the installed charging equipment. Moving forward with the agreement will make driving electric vehicles more convenient and help spur further adoption of EVs.

FISCAL IMPACT

As part of the agreement, Gridwealth LLC will provide a monthly payment of \$1,000 for use of the four parking spaces where EVSE will be installed. There is currently no paid parking in this parking lot so this will be a revenue increase of \$12,000 per year.

CONCLUSION(S)

Staff seek support from the Committee members to authorize the City Manager to execute this agreement in substantially similar form as presented in the packet. If so recommended, this item will then move to the Council for a formal vote to authorize the agreement.

PRIOR REVIEW

Staff met with the Housing and Economic Development Committee in March, 2023 to discuss the plan to install EVSE in the Marginal Way parking in order to ensure that this would not conflict with future opportunities to support housing. The Committee agreed that installing charging near the Miss Portland Diner would not impact future housing development and aligned with City goals to support electrification of transportation.

ATTACHMENTS

City of Portland Letter of Support for Gridwealth LLC's NEVI application
Site plan showing the location of the proposed EVSE
Draft agreement

HOST SITE LEASE AGREEMENT

This Host Site Lease Agreement ("Lease" or "Agreement"), shall be made effective as of the _____ day of _____, 2024 ("Effective Date"), by and between the City of Portland, a body politic and corporate, located in Cumberland County and State of Maine, (hereinafter the "Lessor") and **Gridwealth EV LLC** with an address of c/o Gridwealth Holdings Inc., 33 Union Avenue, Sudbury, MA 01776 (hereinafter the "Lessee").

For good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

1. Premises: Lessor hereby leases to Lessee, and Lessee rents and takes from Lessor, approximately 2,600 square feet located at or near 140 Marginal Way, Parcel Number 442-A-2, Lot 1, Marginal Way, Portland, Maine, further shown on the attached aerial plan included herewith as Exhibit A which is incorporated by reference into this Lease (the "Premises").
2. Term: The initial term of this Lease shall be Ten (10) years, commencing on the date of Base Term Commencement, as defined herein as the date all four (4) EV chargers are placed into commercial service, which occurred on _____ until _____ ("Base Term"). At the expiration of the Base Term, the Lease may be extended by mutual written agreement of the parties for up to Two (2) additional term(s) of Five (5) year(s) each, on the same terms and conditions of this Lease, except as to rent, which shall be negotiated by the parties.
3. Rent: For the duration of the Base Term, the Lessee agrees to pay to the Lessor **\$1,000/month** as rent for usage of the Premises, paid in monthly installments on the first of each month, commencing on the earlier of (a) the date that Lessee completes installation, testing, acceptance, commissioning, of the Lessee's Equipment (as defined below) and begins commercial electric vehicle charging services, or (b) the date that is eighteen (18) months after the Effective Date (the "Base Term Commencement"). In the event the Base Term Commencement occurs on a date other than the first day of the month, rent shall be prorated per diem from the date of Base Term Commencement through the last day of that same month, and payment shall be due on or before Base Term Commencement.
4. Use of Premises: Lessee shall have nonexclusive use of the Premises for the following purpose(s) only: installation, operation, and maintenance of Four (4) Electric Vehicle ("EV") charging stations available for public use (the "Equipment") (the Equipment is more fully described in the attached Exhibit B, which is hereby incorporated into this Lease). Lessee shall not use the Premises for any other purpose without the prior written consent of the Lessor. Lessee shall be responsible for obtaining, at its sole expense, any permits or approvals required for its operation of the Equipment on the Premises. The Lessee shall not conduct, permit or agree to any unlawful, improper or offensive use of the Premises or any use thereof contrary to any law, regulation or ordinance now or hereafter made, or which shall be injurious to any person or property, with the exception of reasonable EV charging and associated use, or which shall endanger or affect any insurance on the said Premises or to increase any insurance premium thereof. Lessee understands and agrees that it has had the full opportunity to inspect the Premises and it is explicitly understood and agreed that the Premises will be rented "as is" with no warranties from Lessor.
5. Maintenance of Premises. Lessee and its agents, employees, contractors, and vendors may, at any time during the lease term, access the Premises to maintain, inspect, repair, upgrade, remove or replace any portion of the Equipment. During the lease term, Lessor shall maintain the Premises in substantially the same condition that they are in as of the date of Base Term Commencement, and in a timely fashion after notice from Lessee that reasonable maintenance is needed. Lessor shall keep the parking portion of the Premises clear of snow or other debris, if any, in the same manner as it does for

other areas of City-owned property. Lessee acknowledges and agrees that its Equipment will be temporarily unavailable from time to time for snow removal or other emergencies. For the avoidance of doubt, Lessor shall have no obligation to maintain the Equipment or any associated electrical infrastructure, which shall be maintained at Lessee's sole expense. Except as specifically set forth in this Lease, Lessor shall have no obligation to maintain, repair, or improve the Premises.

6. Lessee Customers. City shall provide Lessee's subscribers, customers, agents, employees, contractors, vendors, guests and invitees ("Lessee Customers") ingress and egress access to the Premises at all times during the lease term. Lessee acknowledges that Lessor may enforce reasonable restrictions on the size and weight of vehicles entering the Premises.

7. Redevelopment. In the event that Lessor decides to redevelop all or a substantial portion of the Premises in a manner that will have a material adverse effect on the Lessee's use of the Equipment, Lessor shall so notify Lessee and identify a reasonably comparable location for the operation of the Equipment at another location (the "Replacement Premises") that is also acceptable to and approved by Efficiency Maine Trust, in accordance with the terms of Lessee's Maine Electric Vehicle Charging Incentive Agreement for the duration of its term. If and when such an acceptable Replacement Premises is approved by Efficiency Maine Trust, and Lessee, within 90 days after the date of said notice, Lessee shall relocate its Equipment and other Lessee Property to the acceptable Replacement Premises, and within 30 days after the date that the Equipment becomes operable at the Replacement Premises, Lessor shall reimburse Lessee for the commercially reasonable documented expenses of such relocation. If Lessee, or Efficiency Maine Trust, determines that the Replacement Premises is not a suitable location for its Equipment, and Lessee's Maine Electric Vehicle Charging Incentive Agreement is terminated as a result, Lessee may terminate this Lease, but in this case, Lessor will remit to Efficiency Maine Trust or its designee, all amounts related to Lessee's early termination and likely breach of its Maine Electric Vehicle Charging Incentive Agreement with Efficiency Maine Trust.

8. Insurance: During the term of this Lease, the Lessee shall maintain in force a policy of commercial general liability insurance with a limit of not less than \$1,000,000 per occurrence, covering bodily injury, personal injury, and property damage. Lessee shall also maintain commercial automotive liability insurance with a limit of not less than \$1,000,000 per occurrence. To the extent it is required by law, Workers' Compensation Insurance coverage shall be provided and shall include an endorsement waiving all rights of subrogation against the City of Portland, its officers or employees. Proof of all such insurance shall be provided by Lessee upon request.

All insurance shall be issued by companies acceptable to the Lessor, and each insurance policy shall name Lessor as an Additional Insured for coverage for claims for which the Lessor does not have governmental immunity, including, without limitation, those areas where government immunity has been expressly waived as set forth in 14 M.R.S. A. § 8104-A, as limited by § 8104-B, and § 8111. This provision shall not be deemed a waiver of any defenses, immunities or limitations of liability or damages available to the Lessor under the Maine Tort Claims Act, other Maine statutory law, judicial precedent, common law, or any other defenses, immunities or limitations of liability available to the Lessor. Policies required herein shall be primary and noncontributory. Prior to execution of this Agreement, the Lessee shall furnish the Lessor and thereafter maintain certificates evidencing all such coverages, which certificates shall guarantee thirty (30) days' notice to the Lessor of termination of insurance from the insurance provider or agent. Lessee shall also provide a copy of any endorsement naming the Lessor as additional insured.

Upon Lessor's request, Lessee shall provide Lessor with a complete copy of any of the above-referenced policies. Lessee shall be responsible for any and all deductibles and/or self-insured retentions (not to exceed \$10,000.00 without prior written approval of Corporation Counsel). Lessor's acceptance or lack of acceptance of Lessee's Certificate of Insurance or other evidence of insurance shall not be construed as a waiver of the Lessee's obligation to obtain and maintain such insurance as required by this Agreement.

Lessee is responsible for insuring or self-insuring all of Lessee's Equipment, personal property

and other contents, betterments, and improvements ("Lessee's Property"). Lessor is not responsible for loss or damage of Lessee's Property or that of Lessee's employees, agents or guests, except to the extent caused by the negligent acts or omissions of the Lessor.

9. Indemnity; Liability, Hazardous Waste:

(a) Lessee shall defend, indemnify, and hold harmless the Lessor from and against any and all expenses, claims, lawsuits, judgments and costs, including reasonable attorney's fees, that the Lessor may become liable to pay or defend due to claims of bodily injury or property damage caused in whole or in part by the negligent acts or omissions of the Lessee, its officers, employees or agents, invitees, or anyone else for whom Lessee may be liable, arising out of or in connection with the leasing or use of the Premises by the Lessee pursuant to this Lease. Lessee's obligations under this paragraph shall survive expiration or termination of this Lease.

(b) Lessee covenants that it shall not discharge, dump or maintain, toxic, hazardous, or radioactive substances, materials or wastes, including asbestos, in or on the Premises ("Lessee Hazardous Actions"). Further, within its reasonable control, Lessee shall not, knowingly allow, suffer or permit, toxic, hazardous, or radioactive substances, materials or wastes, including asbestos, to be discharged, dumped or maintained in or on the Premises. The term "Hazardous Substances" as used and referred to in this Lease shall include, without limitation, any chemical, material or substance which is or may be regulated as toxic or hazardous, or exposure to which is prohibited, limited or regulated by any federal, state or other governmental authority or agency. If Lessee should fail to reasonably cooperate in any action required by Lessor or by any governmental entity with respect to the clean-up of any such described substances, materials or wastes on the Premises, Lessor, at its option, may retain such experts and consultants at the expense of Lessee and take such action as Lessor deems advisable; and Lessor may advance such sums of money as it deems necessary with respect to the clean-up of any such substances, materials or wastes on the Premises. In this instance, Lessee shall pay to Lessor immediately and upon demand, all sums of money advanced or expended by Lessor pursuant to this section, together with interest on each such advancement at a rate of interest per annum equal to the Prime Rate as published in The Wall Street Journal plus one percent (1%) and all sums, and the interest thereon, shall be secured hereby, as sums spent to preserve and protect the security. The Lessee shall indemnify and hold harmless the Lessor from and against all reasonable loss, damage, and expense (including, without limitation, attorney fees and costs incurred in the investigation, defense, and settlement of claims) that the Lessor may incur as a result of or in connection with the assertion against the Lessor of any claim relating directly or indirectly, in whole or in part, to the presence or removal of any such Hazardous Substances, or relating to any activity on or off the Premises, during the term of the Lease, and to the extent such activity was carried on by the Lessee or any employees, agents, contractors or third parties for whom Lessee may be responsible, with the exception of Lessee's customers who are EV charging, if such activity involved Hazardous Substances, in whole or in part, directly or indirectly, or noncompliance with any federal, state or governmental laws, ordinances, rules, regulations or orders relating thereto. Provided, however, that notwithstanding any other provisions herein, the indemnities hereunder shall not extend to any liabilities for Hazardous Substances created or deposited upon the Premises by the Lessor or the Lessor's predecessors in title or for liabilities created by the improper disposal of Hazardous Substances by the Lessor or its predecessors in title. The Lessee shall promptly notify Lessor in writing of any order or pending or threatened action by any regulatory agency or other governmental body, or any claims made by any third party, relating to Hazardous Substances in or on, or emissions thereof from the Premises and shall promptly furnish the Lessor with copies of any correspondence, documentation and legal pleadings in connection therewith. Lessee's obligations under this paragraph shall survive termination of this Agreement.

(c) Environmental Indemnity: Lessor shall indemnify and hold harmless the Lessee and its trustees, shareholders, members, managers, officers, employees, agents, representatives and independent contractors from and against losses arising from or out of any environmental condition on or under the Premises, including, without limitation, any pollution or contamination that violates any local, state or federal environmental protection law, policy or regulation, that existed or exists prior to the Effective

Date. Lessee shall indemnify, defend and hold harmless the Lessor and its trustees, shareholders, members, managers, officers, employees, agents, representatives and independent contractors from and against losses arising from or out of any environmental condition on the Premises that is caused by Lessee on or after the Effective Date. Notwithstanding the foregoing, the indemnity provided under this Section by a Party shall not extend to losses to the extent attributable to the negligence or willful misconduct of an indemnified party.

(d) Lessor has, to the best of its knowledge, disclosed to Lessee any and all improvements existing on, under or over the Premises, and no improvements currently exist on, under or over the Premises that have been constructed or installed by Lessor without all necessary and proper permits, licenses, and approvals. To the best of Lessor's knowledge, neither the Premises nor any portion of Lessor's property containing the Premises is in violation of any environmental law. To the best of Lessor's actual knowledge, no portion of the Premises has been previously used for the production, generation, transportation, treatment, storage, or use of hazardous material in violation of any environmental law.

(e) Lessor is not responsible for any capital or operational costs related to Lessee's property, including, but not limited to, operations & maintenance contracts, equipment insurance, site preparation, and electric utility bills.

10. Compliance with Law; Applicable Law: Lessee shall comply with all material federal, state, and local laws, rules, regulations (including, without limitation, all zoning ordinances and building codes) applicable to or impacting the performance of its obligations under this Lease. This Lease shall be interpreted and governed according to the laws of the State of Maine, without regard to its choice of law provisions. All parties hereto hereby consent to the exclusive jurisdiction of the Superior Court for the County of Cumberland in the State of Maine, for all actions, proceedings, and litigation arising from or relating directly or indirectly to this Agreement or any of the obligations hereunder, and any dispute not otherwise resolved as provided herein shall be litigated solely in said Court.

11. Changes in Law. If a new law is enacted, or there are any revisions in the implementation of amendments to, or interpretations of, any law, including, without limitation, approved or anticipated federal or state funding of Lessee's EV charging stations, through the National Electric Vehicle Incentive program, and/or Efficiency Maine Trust, as administrator for the Maine Department of Transportation, and such changes significantly affect associated grant(s) or other significant funding that Lessee has been approved for, and is a primary source of funding for its installation and maintenance of the EV charging stations on the Premise, Lessee will have the right, at its option, to terminate this Agreement without penalty or damages with thirty (30) days written notice to Lessor and evidence of such change in law and its detrimental impact on Lessee. Should Lessee terminate this Lease pursuant to this section, it will as soon as reasonably possible, but within one hundred twenty (120) days within a reasonable time after the end of such Lease, remove any and all EV charging equipment and leave the Premises in substantially the same condition as it was originally in, wear and tear taken into account. If Lessee terminates this Agreement due to changes in law, all payment and related Lease contractual terms will survive until the removal of such EV charging equipment and Lessee it will remain responsible for paying all amounts due through such EV charging equipment removal date, with proration if necessary, through the date of termination.

12. Default; Termination:

(a) The occurrence of any of the following shall be an event of default under this Lease (each, an "Event of Default"):

- i. Failure of a Party to perform any obligations or comply with any terms or conditions under this Lease and such failure continues for a period of fifteen (15) days from such Party's receipt of written notice from the other Party; provided, however, that if such failure to perform a material obligation is not capable of being cured within fifteen (15) days from receipt of written notice, then such period shall be extended, provided that

the defaulting Party commences to cure such failure within thirty (30) days and thereafter diligently continues to cure such failure to completion.

- ii. Either Party becomes insolvent or is a party to a bankruptcy, reorganization, insolvency, liquidation, receivership, dissolution, winding-up or relief of debtors, or any general assignment for the benefit of creditors or other similar arrangement or any event occurs or proceedings are taken in any jurisdiction with respect to the Party which has a similar effect.

(b) Upon a Party's default and failure to cure, the other Party shall have the right, at its option, and in addition to any other remedies, to terminate this Lease by giving the Party in default written notice thereof and upon the giving of such notice, this Lease and the term hereof shall cease.

(c) Upon expiration or earlier termination of this Lease, Lessee shall quit and surrender to Lessor the Premises in accordance with the provisions hereof. If this Lease is terminated due to a Tenant uncured default, Lessee shall pay all reasonable costs, expenses, liabilities, losses, damages, fines, penalties, claims, and demands, including reasonable attorneys' and consultants' fees, that are incurred by Lessor in enforcing the provisions of this Lease.

(d) Upon expiration or earlier termination of this Lease, the Lessee agrees to return the Premises to the Lessor in substantially its original condition, excluding normal wear and tear, and the Lessee will be responsible for removing all of Lessee's Property from the Premises at its own expense, unless another arrangement is agreed upon in writing by both parties.

13. **Assignment:** Lessor and Lessee agree to execute the required **Conditional Assignment of Lease**, attached as **Exhibit C**, as an express condition of this Lease as such **Conditional Assignment of Lease** is a requirement under Lessee's Maine Electric Vehicle Incentive Agreement that will provide material funding to enable Lessee to build and maintain the Electric Vehicle charging stations that are the principal subject matter of this Lease. With the exception of the Conditional Assignment of Lease, this Lease shall not be assigned, subleased, transferred or conveyed in whole or in part by one Party to a non-affiliate/third-party without the prior written consent of other Party, but notwithstanding this need for consent, this Lease may be assigned without consent after Lessee obtains sufficient authority to do so from Efficiency Maine Trust in accordance with its Maine Electric Vehicle Charging Incentive Agreement, and with sixty (60) days' prior written notice to Lessor for an assignment: (1) as part of a corporate reorganization, consolidation, merger, or sale of all or substantially all of its assets (including, for the avoidance of doubt, the sale of the EV Charging System(s) or the equity interests of Lessee); (2) to an affiliate, including a special purpose entity created to house this particular project; or (3) a third party whose credit worthiness, technical and operational skills are equal to or better than Lessee's, as determined by Lessor in its sole discretion, based on evidence acceptable to Lessor and provided by Lessee at least thirty (30) days prior to the effective date of any such transaction. In the case of any assignment, Lessee shall remain liable to Lessor for the payment of all Rent and for the full performance of all covenants and conditions of this Lease unless and until the assignee assumes all obligations of Lessee hereunder by written agreement delivered to Lessor, following which Lessee shall be released from further obligations hereunder.

14. **Non-discrimination:** Lessee shall not discriminate and shall comply with applicable laws prohibiting discrimination on the basis of race, color, religion, sex, sexual orientation, including transgender status or gender expression, genetic information, national origin or citizenship status, age, disability, or veteran status. The Lessor encourages the Lessee in the employment of individuals with disabilities.

15. **Non-Waiver:** The failure of either party to exercise any of its rights under this Lease for a breach thereof shall not be deemed to be a waiver of such rights, and no waiver by either Party, whether written or oral, express or implied, of any rights under or arising from this Lease shall be binding on any subsequent occasion; and no concession by either party shall be treated as an implied modification

of the Lease unless specifically agreed to in writing.

16. Severability: In the event one or more clauses of this Lease are declared invalid, void, unenforceable or illegal, that shall not affect the validity of the remaining portion of this Lease.

17. Entire Agreement: This Lease sets forth the entire agreement of the Parties on the subject and replaces and supersedes any previous agreement between the parties on the subject, whether oral or written, express or implied. This Lease contains all of the agreements and conditions made between the parties concerning the Premises. There are no collateral agreements, stipulations, promises, understandings or undertakings whatsoever between the respective Parties concerning the subject matter of this Lease. This Lease may be amended or modified only by a writing signed by both parties.

18. Destruction: If at any time during the term of this Lease, or any extension thereof, the Premises shall be totally or partially destroyed by fire, earthquake, or other calamity, then this Lease shall terminate as to the part so destroyed, and Lessee shall have the option within 30 days after assessing the amount of damage and amount of usable space, to either continue with the Lease, or choose to terminate the Lease without further obligation by Lessee or Lessor. In case, however, Lessee chooses to remain in the Premises but Lessor elects not to rebuild or repair said Premises, Lessor shall so notify Lessee by written notice within the period of 30 days after the damaging event, and thereupon this Lease shall terminate without further obligation by Lessee or Lessor. In any event, Lessee's rent shall be abated to the extent its use is prevented or reduced by such destruction or failure.

19. Condemnation: In the event the Premises, or any part thereof, are taken, damaged consequentially or otherwise, or condemned by public authority, this Lease shall terminate as to the part so taken, and Lessee shall have the option within 30 days after assessing the amount taken or damaged and amount of usable space, to either continue with the Lease, or choose to terminate the Lease without further obligation by Lessee or Lessor. In any event, Lessee's rent shall be abated to the extent its use is prevented or reduced by such condemnation, damage or taking. Any damages and payments resulting from any public authority taking, damage or condemnation of the Premises shall accrue to and belong to Lessor, and Lessee shall have no right to any part thereof. However, in the event the damages and payment is related to any of Lessee's property and equipment at the Premises, then same shall be paid over immediately upon receipt by the Lessor to the Lessee.

20. Holdover: If Lessee remains in possession of the Premises after expiration or termination of this Lease, such possession will be on a month-to-month basis at a monthly rental rate equal to that of the previous Lease term plus Fifteen percent (15%) of the previous rental rate. During this holdover period, all of the other provisions of this Lease shall be applicable.

21. Binding Effect: This Lease shall both benefit and bind the parties hereto and their respective successors, personal representatives and permitted assigns.

22. Taxes: The Lessee shall be solely responsible for any and all taxes assessed against the Lessee's personal property. Lessee shall not be responsible for the payment of any real estate taxes for the Premises.

23. Lessor's Right of Entry: Lessor shall have the right to enter upon the Premises to inspect the same and to make any and all improvements, alterations and additions of any kind upon the Premises, as long as such will not negatively impact the reasonable use of Premises and EV charging equipment on such Premises. Should any such improvements, alterations, and/or additions negatively impact the Premises, the Parties will communicate and take reasonable steps to attempt to accomplish such actions desired by Lessor.

24. Notice: Any notice to either Party under this Lease must be in writing signed by the Party giving it, and shall be served either personally or by registered or certified mail addressed as follows:

To Lessor: City of Portland
c/o Troy Moon
389 Congress Street
Portland, Maine 04101
thm@portlandmaine.gov
With a copy to the Office of Corporation Counsel

To Lessee: Todd Ford
c/o Gridwealth Holdings Inc.
33 Union Avenue
Sudbury, MA 01776
legal@gridwealth.com

or to such other address as may be hereafter designated by written notice provided in accordance with this section. All such notices shall be effective only when received by the addressee.

25. Alterations, Additions and Improvements: Lessee shall not make, or suffer or permit to be made, any alterations, additions or improvements in or about the Premises without first obtaining the written consent of Lessor; provided, however, that such consent, if given, will be subject to the express condition that any and all alterations, additions and improvements shall be done at Lessee's own expense, and that no liens of mechanics, material men, laborers, architects, artisans, contractors, subcontractors, or any other lien of any kind shall be created against or imposed upon the Premises, or any part thereof. Any mechanic's lien or any other lien which may be filed against the Premises by reason of any work performed under this Lease shall be defended (by counsel reasonably acceptable to the Lessor) and promptly discharged by Lessee at its own expense. Lessor may require the Lessee to provide a bond satisfactory to the Lessor to indemnify it against any lien and as a substitution in place of a lien. If the Lessee should fail either to defend the Lessor against the lien or to discharge it, then the Lessor may do so at Lessee's expense. In the event of such an undertaking by the Lessor, the Lessee will promptly reimburse the Lessor for all its costs and expenses in so doing, including, but not limited to, reimbursement of the Lessor's reasonable counsel fees, as well as costs which may be incurred by it in substituting a bond in place of a lien. Lessee's obligations under this paragraph shall survive termination of this Agreement.

26. Quiet Enjoyment: On payment of rent and performance of the covenants and agreements on the part of the Lessee to be paid and performed hereunder, the Lessee shall peaceably have and enjoy the Premises and all of the rights, privileges and appurtenances granted by this Lease free from any interference by Lessor or any other person.

27. Utilities: Lessee shall be responsible, at its sole expense, for installation of and use charges for electricity required for Lessee's Equipment under this Lease. Lessee shall furnish and pay for any other services or supplies it desires that are not otherwise described in this Lease.

28. Appurtenant Rights: Lessor hereby grants to Lessee for the duration of the Base Term: (i) a non-exclusive easement and right of way over, across and through Lessor's property containing the Premises, in order for Lessee, its employees, invitees, agents, contractors and subcontractors to access by vehicle, foot or otherwise, the Premises and the charging equipment and charging stations from all nearby public and private rights of way controlled by Lessor, for the permitted use; and (ii) an easement to build, maintain, upgrade, install and from time to time relocate electrical lines running to and from the charging equipment and charging stations, as well as related equipment and communication facilities servicing the charging stations including without limitation customer meters and transformers, together with the right to interconnect the charging equipment to the electric utility distribution network, or other mutually approved location(s), and (iii) an easement to use portions of

Lessor's property reasonably required by Lessee for the placement, storage and parking of equipment, materials and vehicles during construction, maintenance and repair of the charging stations and during the decommissioning period; and (iv) an easement and right to access and utilize existing water, electricity and drainage that may be available at the Premises during construction, maintenance, repair and decommissioning of the charging facilities; and (v) the right, license and privilege to otherwise enter upon, use and occupy the ~~the~~ Premises for the permitted use in accordance with the terms hereof. The Appurtenant Rights granted from Lessor to Lessee hereunder shall burden Lessor's property and benefit the Premises and shall run with the land during the Base Term. Lessor reserves the right to relocate utility easement locations, with a minimum of ninety (90) days advance written notice to Lessee, provided that such relocation does not disrupt operation of the charging station(s) and that Lessor shall cover the actual cost of any such relocation.

29. Parking: Parking on the Premises is provided at the discretion of Lessor and subject to Lessor's published parking policies, as amended from time to time.

30. Lessor's Covenants: Lessor agrees to maintain the Premises in a condition fit for their intended use, and make all necessary repairs of which Lessor is or becomes aware, including a sound physical structure.

Signatures to follow.

IN WITNESS WHEREOF, the authorized representative of the parties have executed this Lease Agreement on this ____ day of _____, 2024.

LESSOR: **City of Portland**

LESSEE: **Gridwealth EV LLC**

Signature: _____

Signature: _____

Printed Name: Danielle P. West

Printed Name: _____

Title: City Manager

Title: _____

Approved as to form:

Approved as to funds:

City Corporation Counsel's Office

City Finance Director

STATE OF MAINE

_____, ss _____, 2024

Then personally appeared before me the above-named _____ in his/her capacity as _____ of the City of Portland and acknowledged the foregoing instrument to be his/her free act and deed.

Before me,

Notary Public/Attorney at Law

Printed Name
My Commission
Expires: _____

STATE OF MASSACHUSETTS

_____, ss _____, 2024

Then personally appeared before me the above named _____ in his/her capacity as _____ of the _____ and acknowledged the foregoing instrument to be his/her free act and deed.

Before me,

Notary Public/Attorney at Law

Printed Name
My Commission
Expires: _____

EXHIBIT A

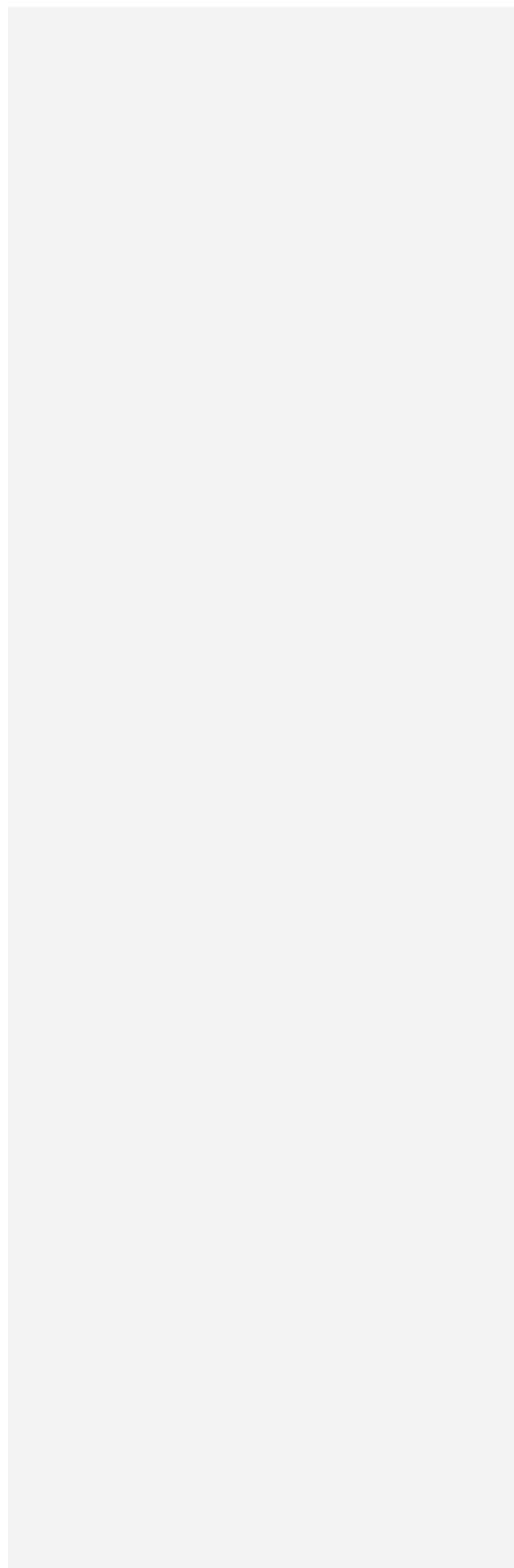


EXHIBIT B

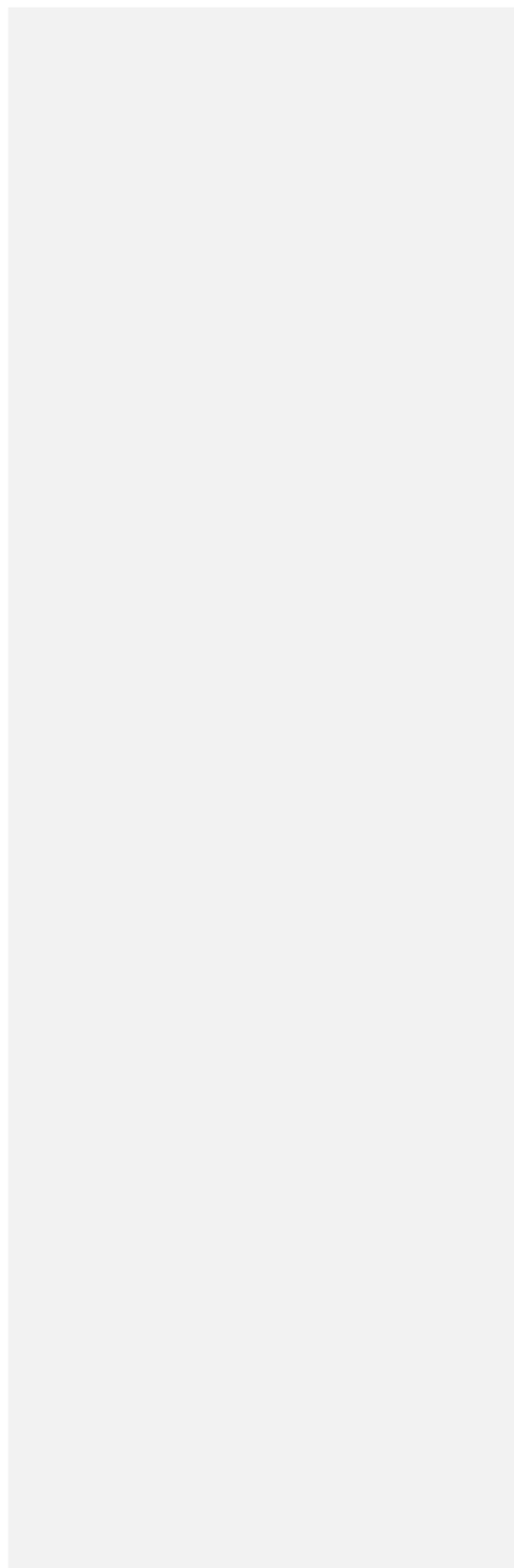


EXHIBIT C
CONDITIONAL ASSIGNMENT OF LEASE

THIS CONDITIONAL ASSIGNMENT OF LEASE (this "Assignment") is made as of the [REDACTED] day of [REDACTED], 2024, by and among **GRIDWEALTH EV LLC**, a limited liability company organized and existing under the laws of the State of Delaware whose mailing address is 33 Union Avenue, Sudbury, MA 01776 ("Assignor"), and **THE CITY OF PORTLAND**, a body politic and corporate, located in Cumberland County and State of Maine, whose mailing address is 389 Congress Street, Portland, ME 04101 ("Host" or "Landlord"), and **EFFICIENCY MAINE TRUST**, an independent quasi-state agency of the State of Maine, whose mailing address is 168 Capitol Street, Suite 1, Augusta, Maine 04330-6856 (together with its successors and assigns, "Assignee").

WHEREAS, Assignor is the **T**enant under a certain Host Site Lease Agreement with Landlord dated on or about [REDACTED], a true and correct copy of which, together with all amendments thereto, is attached hereto as **Exhibit A** (collectively, the "Lease"), with respect to that certain real property of approximately 2,600 square feet and located at 442-A-2 Marginal Way, Lot 1, Marginal Way in Portland, Maine and more particularly described in the Lease (the "Host Site"); and

WHEREAS, Assignor has entered into a certain Maine Electric Vehicle Charging Incentive Agreement with Assignee dated of even or near date herewith (the "Incentive Agreement") in connection with the operation of an electric vehicle charging station at the Host Site; and

WHEREAS, to induce Assignee to enter into the Incentive Agreement, Assignor has agreed to assign its rights under the Lease to Assignee and to secure Landlord's consent and agreement to such assignment, all on the terms set forth in this Assignment.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

1. Assignment of Lease. Assignor hereby assigns to Assignee, its successors and assigns, all of Assignor's right, title and interest in and to the Lease, effective upon the occurrence of both of the following: (i) Assignee having given Assignor and Landlord a Notice of Intent to Assume (as that term is hereafter defined) after the occurrence of either (a) an uncured breach by Assignor under its Lease with Landlord; or (b) an uncured breach by Assignor under the Incentive Agreement; and (ii) provided that Assignee has not given Assignor and Landlord a Cancellation Notice (as that term is hereafter defined), prior to the occurrence of the Assignment Effective Date (as that term is hereafter defined). Until the assignment contemplated hereby becomes effective, the rights assigned under this Assignment are reserved to and retained by Assignor.

2. Notice of Intent to Assume; Cancellation Notice; Inspections.

(a) Assignee is hereby irrevocably authorized and empowered, at Assignee's option, exercisable in Assignee's sole discretion by giving Notice to Landlord and Assignor (the "Notice of Intent to Assume") within the following time periods, to elect to take assignment of Assignor's right, title, and interest in and to the Lease, effective as of a date specified in the Notice of Intent to Assume (the "Assignment Effective Date"), which Assignment Effective Date shall not be more than forty-five (45) days after the date of the Notice of Intent to Assume, all subject to and in accordance with the terms of this Assignment:

(i) Within fifteen (15) days after Assignee receives a Termination Notice (as that term is hereafter defined) from Landlord; or

(ii) At any time after a Default by Assignor under the terms of the Incentive

Agreement that continues beyond applicable notice and/or cure periods set forth in the Incentive Agreement, but in no event more than fifteen (15) days after Assignee receives a Termination Notice from Landlord; or

(iii) Within fifteen (15) days after Assignee exercises its option to acquire the EV charging station equipment located at the Host Site pursuant to the Option Agreement between Assignor and Assignee of near or even date with the Incentive Agreement (the "Option Agreement").

Commented [AD1]: What are the triggers for this to occur under the Option Agreement?

(b) In the event that Assignee gives a Notice of Intent to Assume, Assignee shall have the right, exercisable in Assignee's sole discretion, to revoke and cancel the Notice of Intent to Assume by giving Notice to Assignor and Landlord of Assignee's exercise of such right (a "Cancellation Notice") at any time prior to the Assignment Effective Date, in which event the Notice of Intent to Assume shall be void and all right, title, and interest under the Lease shall remain vested in Assignor.

(c) In the event that Assignee gives a Notice of Intent to Assume, then Assignee shall thereafter have the right to enter upon the Host Site and conduct such investigations, inspections, tests, sampling, and surveys as Assignee deems necessary or advisable. Assignee shall be responsible for the repair of any damage caused by Assignee's activities on the Host Site pursuant to this Section 2(c).

3. Consent of Landlord; Termination Notice; New Lease.

(a) Landlord hereby consents to the assignment of the Lease to Assignee subject to the terms and conditions set forth in this Assignment and, upon the vesting in Assignee of Assignor's right, title, and interest in and to the Lease as provided in Section 4, Landlord shall recognize Assignee as the Tenant under the Lease subject to and in accordance with the provisions of this Assignment.

(b) Landlord agrees that both:

(i) prior to any termination of the Lease for any reason; and,

(ii) if the Assignor has failed to exercise any right under the Lease to extend the term of the Lease,

Landlord shall provide Notice to Assignee of the condition or facts resulting in the right to terminate the Lease or otherwise causing the termination of the Lease (including expiration thereof on account of failure to exercise such a right to extend the term of the Lease) and the fact that applicable cure rights of Assignor have expired (a "Termination Notice") and provide to Assignee the right to give Landlord and Assignor a Notice of Intent to Assume as provided in this Assignment. Landlord shall specify in the Termination Notice all monetary defaults by Assignor under the Lease, if any ("Curable Defaults").

(c) In the event that the Lease terminates for any reason prior to the expiration of the term thereof (including any extension terms provided therein) without Assignee's prior written consent or without Assignee having given a Cancellation Notice to Landlord, then, at Assignee's election made within forty-five (45) days after Landlord is given notice of such termination, Landlord agrees to enter into a new lease with Assignee on the same terms as the Lease and for a time period equal to the period that was then remaining under the Lease (and including all options or rights to extend the term of the Lease), subject however, to such terms and conditions relative thereto as are set forth in this Assignment.

4. Assignment and Assumption.

(a) In the event that Assignee gives a Notice of Intent to Assume and has not given a Cancellation Notice prior to the Assignment Effective Date, then, effective as of the Assignment Effective Date, all of Assignor's right, title and interest in and to the Lease shall vest in Assignee as of

the Assignment Effective Date and, except as set forth in this Assignment, Assignee shall be deemed to have assumed the obligation to observe and perform the terms, conditions, covenants to be observed or performed on the part of Assignor under the Lease to the extent the obligation to observe and perform the same: (i) first arises after the Assignment Effective Date; and (ii) does not arise out of any failure by Assignor to observe or perform any of the terms, conditions, or covenants under the Lease prior to the Assignment Effective Date.

Commented [AD2]: How would this situation be cured?

(b) In the event that Assignee gives a Notice of Intent to Assume and has not given a Cancellation Notice prior to the Assignment Effective Date, then, in addition to the obligations assumed by Assignee under Section 4(a), Assignee agrees with Landlord that Assignee will cure all Curable Defaults identified in the Termination Notice within the number of days provided for cure thereof in the Lease, measured from the Assignment Effective Date. Assignor agrees to reimburse Assignee, upon demand, for all costs and expenses incurred by Assignee under this Section 4(b). For avoidance of doubt, Assignee shall not have any obligation to cure any defaults by Assignor under the Lease that are not Curable Defaults identified in the Termination Notice.

5. Additional Provisions.

(a) Landlord shall provide Notice to Assignee of any default by Assignor under the Lease at the same time that Notice is provided to Assignor and, in the event that Assignor fails to cure such default within the time period provided in the Lease, Landlord shall give Assignee Notice of such failure and shall permit Assignee the right, at Assignee's option and without assuming the Lease or waiving its right to assume the Lease, to cure any such default with a period of ten (10) days, measured from the date of such Notice to Assignee that Assignor has not cured the default (or, if the default is not reasonably capable of being cured within said ten (10) day period, then such longer period as is reasonably necessary to effectuate cure, provided that cure is commenced within said ten (10) day period to the extent possible and thereafter diligently prosecuted to completion). Assignee's failure to cure any such defaults under this Section 5(a) shall not impair or prejudice Assignee's rights under this Assignment, including the right to give a Notice of Intent to Assume and the obligation to cure after the Assignment Effective Date the Curable Defaults identified in the Termination Notice.

(b) Assignor will not, without Assignee's written consent, which may be withheld in Assignee's sole discretion, but in no event shall be unreasonably withheld: (i) assign Assignor's rights under or interest in the Lease to any person or otherwise transfer or encumber Assignor's right, title, or interest in or to the Lease, including through any leasehold mortgage or (ii) surrender or terminate the Lease.

6. Limitation on Obligations of Assignee. Except as provided in Section 4, this Assignment shall not operate to place upon Assignee any responsibility for, and Assignor and Landlord agree that, except as aforesaid, Assignee shall not have any responsibility for: (a) the control, care, operation, management, maintenance, or repair of, the Host Site; (b) the observance or performance of any of the terms, conditions, covenants to be observed or performed by the Tenant under the Lease; (c) any condition with respect to the Host Site; (d) any negligence or other breach of duty (whether under common law, statute, or agreement, including the Lease) with respect to activities at the Host Site; or (e) the compliance of the Host Site with applicable laws, ordinances, rules, or regulations.

Commented [AD3]: Even once the Assignee takes over as Tenant?

7. Termination. Provided that Assignor's right, title, and interest in and to the Lease has not vested in Assignee as provided in this Assignment, then, upon full performance and satisfaction of all of Assignor's obligations under and the expiration (without renewal or extension) of the Incentive Agreement and the Option Agreement, this Assignment shall terminate. This Assignment shall also terminate if Landlord gives Assignee a Termination Notice and either (a) Assignee fails to give a Notice of Intent to Assume within the required time period; or (b) Assignee gives a Notice of Intent to Assume and thereafter gives a Cancellation Notice.

8. Notice. All notices (each a "Notice") required to be sent under the provisions of this Assignment to Landlord, Assignee or Assignor shall be in writing and shall be deemed properly given if:

(i) delivered personally with receipt acknowledged in writing; (ii) sent by overnight courier service such as FedEx or UPS; or (iii) sent by certified mail, return receipt requested. Notices shall be directed to the parties at their respective addresses as set forth in the preamble to this Assignment or to such other address(es) as a party may designate by Notice. All Notices shall be deemed given on the day when actually delivered (if delivered personally) or on the day the same is sent (if given by overnight courier service or by certified mail, return receipt requested).

9. Further Assurances; Recording. No further instrument of assignment from Assignor or consent from Landlord shall be required to vest in Assignee all of Assignor's right, title, and interest in and to the Lease as provided herein. Notwithstanding the foregoing, Landlord and Assignor agree to execute such further instruments as may be reasonably requested by Assignee to more fully perfect and/or confirm the assignment of the Lease to Assignee and as may be requested by Assignee if Assignee gives a Notice of Intent to Assume that is not canceled by a Cancellation Notice. Assignee may record a Notice of Conditional Assignment of Lease in the registry of deeds or such other recording offices as Assignee deems appropriate, and Landlord and Assignor agree to execute any such documents that are necessary to effectuate such recording.

10. Miscellaneous. This Assignment shall bind and is for the benefit of all parties and their successors and assigns (but the foregoing shall not be construed to permit any assignment by Assignor). This Assignment constitutes the entire agreement of the parties with respect to the assignment and assumption of the Lease. This Assignment may not be modified or amended except by an instrument in writing executed by Assignor, Landlord, and Assignee. This Assignment shall be construed in accordance with the laws of the State of Maine, without regard or reference to its conflicts of law provisions, and any proceedings relating to this Assignment shall be brought in the state or federal courts located in the State of Maine. Any time period set forth or calculated under this Agreement which expires on a Saturday, Sunday, or statutory holiday in the State of Maine shall be automatically extended to the next day that is not a Saturday, Sunday, or statutory holiday in such location. The invalidity or unenforceability of any one or more phrases, sentences, clauses, or sections contained in this Assignment shall not affect the validity or enforceability of the remaining portions of this Assignment or any part thereof. This Assignment may be executed in multiple counterparts, each of which shall be **constitute** considered an original, and all of which, taken together, shall constitute a single instrument.

IN WITNESS WHEREOF, Assignor, Landlord, and Assignee have caused this instrument to be executed by their duly authorized representatives as of the date given above.

ASSIGNOR:
GRIDWEALTH EV LLC

By: _____
Printed Name: A. Quincy Vale
Its: Manager

LANDLORD:
THE CITY OF PORTLAND

By: _____
Printed Name: _____
Its: _____

ASSIGNEE:
EFFICIENCY MAINE TRUST

By: _____

Printed Name: Michael D. Stoddard

Its: Executive Director