MAINE DEPARTMENT OF TRANSPORTATION

MAINE WOODS TO WATER RAIL CONNECTION PROJECT

CONSOLIDATED RAIL INFRASTRUCTURE AND SAFETY IMPROVEMENTS (CRISI) 2022

ATTACHMENT 2
STATEMENT OF WORK

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U.S. Department of Transportation

Federal Railroad Administration

Maine Woods to Water Rail Connection Project

Consolidated Rail Infrastructure and Safety Improvements Program CRISI 2022

I. AUTHORITY

Authorization	49 U.S.C. 24407(c)(7)
Funding Authority/Appropriation	Authorization: §11301 of P.L. 114-94, FAST Act. Appropriations: Consolidated Appropriations Act, 2022, Division L, Title I, P.L. 117–103 and the Infrastructure Investment and Jobs Act, Division J, Title II, P.L. 117–58
Notice of Funding Opportunity	Notice of Funding Opportunity for the Consolidated Rail Infrastructure and Safety Improvements Program for Fiscal Year 2022, 87 Fed. Reg. 170 at page 54278, Friday, September 2, 2022

II. BACKGROUND

On September 2, 2022, the U.S. Department of Transportation's (USDOT) Federal Railroad Administration issued a Notice of Funding Availability (NOFA) for the Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program. In response, MaineDOT has applied for eligibility and ranking with the criteria outlined in the NOFA.

The forest products industry in Maine has long been dependent on critical infrastructure including roads and railroads. As the forest economy in Maine shifts due to increasing demand for sustainability worldwide, demands on Maine's transportation infrastructure are changing. Millinocket, Maine was formerly home to the largest newsprint paper mill in the world. The Millinocket site has been idled since papermaking operations were curtailed in 2008. Since the shutdown, rail infrastructure to the mill has deteriorated significantly, and portions of the local railyard in Millinocket have been scrapped by previous owners, discouraging investment in the Millinocket site.

This Project will result in improvements to rail infrastructure from Millinocket to the coast of Maine and the underutilized port infrastructure at the Mack Point terminal in Searsport due to increasing worldwide demand for sustainable bio-mass energy. The infrastructure investments

will stimulate private manufacturing development and significant traffic volumes across the forest products industry in Maine and beyond, resulting in additional business for the railroad system and enhancing the competitiveness of Maine forest products. Railcar volumes are anticipated to exceed 1.76-million tons per year of inbound and outbound material.

This Agreement funds the Grantee to support the deployment of the Maine Woods to Water Rail Connection Project. To the extent there is a conflict between Attachment 1 and this Attachment 2, Attachment 1 governs.

Primary applicant MaineDOT will initiate a contract with VHB to complete environmental work for the Project including a CE checklist for the railroad portions of the Project where track currently exists or previously existed in the railroad right-of-way. VHB will perform Environmental Assessment work on the greenfield portion of the Project location where the HCS loop track will be constructed. VHB has begun preliminary baseline data collection to identify natural and cultural resources potentially affected by the Project. The information will be refined during design and will be used to avoid and minimize impact while meeting the purpose and needs of the Project.

III. OBJECTIVE

This Project will restore and expand NBM Railways access to a strategically located industrial site in Northern Maine combined with improving safety, capacity and reliability along the NBM Railways mainline between Millinocket and Brownville Junction as well as Canadian Pacific's Bangor Subdivision and yard tracks at Mack Point in the Port of Searsport. This Project will spur private investment in a state-of-the-art wood pellet production facility fueling forest products exports to the European Union and stimulate greater rail volumes throughout the Maine forest products industry. The Project is inclusive of the following:

- Project Management
- Rehabilitation and track safety improvements to two 3,600-foot yard tracks in NBM's Millinocket Yard at milepost 104.7 by improving and replacing crossties, rail, ballast and turnouts. The tracks suffer from worn crossties and antiquated rail and have been dormant for a long period of time. The railroad needs to rebuild the tracks in order to safely and efficiently marshal covered hoppers of wood pellets into trains for transport to the Port via NBM and CP routing.
- Rehabilitation and track safety improvements to a mile-long dormant spur track connecting the Millinocket Yard to the industrial park entrance. Spur track renewal includes upgrade and selective replacement of crossties, rail, and turnouts along with new ballast and surfacing
- Restoration of signals and surface as well as safety upgrades to grade crossing protection devices at three highway/rail grade crossing locations– upgrades will result in flashers and crossing gates at all three grade crossing locations.
- Rehabilitation of the above-mentioned spur that continues into the Park (6,700 feet). Spur track renewal includes upgrade and selective replacement of crossties, rail, and turnouts along with new ballast and surfacing.

- Building a 22,700-foot loop track and parallel siding in the Park to serve a new HCS pellet production facility for direct loading of pellets from the production facility in to covered hopper cars.
- Reestablishing Packard Siding in Seboeis Lake. This involves reinstalling a 7,000-foot siding where a previous siding had existed that has been shortened and then not used in a number of years.
- Track structure upgrades and safety improvements on 75 miles of the CP Bangor and Searsport subdivisions. Work includes selective tie replacement, replacing worn and outdated single-sided tie plates with modern double-sided plates, properly anchoring the track, new ballast and surfacing along with replacing a worn bridge deck.
- Upgrades to rail infrastructure and safety improvements at the Mack Point terminal in the port of Searsport. This includes selective tie replacement and 8,000 feet of new modern 115lb rail replacing worn/outdated 85lb rail on existing yard tracks, ballast and surfacing. Additionally, 7,250 feet of new yard track will be constructed to add capacity at Mack Point to support the large increase in rail traffic and for efficient rail operations withing the terminal

The Project will enhance the safety of the existing rail infrastructure and improve capacity to serve new growth markets in forest products from Northern to Coastal Maine.

3.1 Task 1 – Project Management

During the final design and project scheduling, MaineDOT will work with its consultants, Highland Carbon Solutions, LLC, NBM Railways, and CP to finalize any needed design work, environmental approvals, and coordination that will be completed prior to execution of the CRISI grant agreement. The project management, construction engineering and inspection during the construction phase will be completed by MaineDOT. In addition, all required reporting to FRA will be completed by MaineDOT. This task will be funded by MaineDOT as part of the Project Match.

3.2 Task 2 – Improvements to Millinocket Railyard

Improvement to 7,200 feet of yard tracks in Millinocket Yard. Work will include new ballast, ties, rail, and switches.

3.3 Task 3 – Upgrade the Rail Spur from the Millinocket Railyard to the One North Industrial Site

Includes vegetation removal, upgrades to existing ballast, ties, rail, switches, as well as signalization, and safety equipment upgrades at three at-grade crossings in the Town of Millinocket. A 5,100-foot rail spur rehabilitation.

3.4 Task 4 – Upgrade the One North Rail Spur (Brownfield)

Includes sitework, removal of existing track, new ballast, ties, and rail, all to rehabilitate a 6,700-foot rail spur.

3.5 Task 5 – Construct New Greenfield Loop Track for One North Forest Products Campus

Includes clearing, earthwork, drainage, ballast, ties, and rail. A 22,700-foot new customer loop track will be constructed in this section of the Project.

3.6 Task 6 – Reconstruct Packard Siding
Includes reestablishing a 7,000-foot siding through reconstruction. Work includes clearing, new ballast, ties, rail, and turnouts.

3.7 Task 7 – Track / Bridge Structure Upgrades in Bangor and Searsport Subdivisions
Work includes selective crosstie replacement as well as replacement of worn out single-sided tie plates with modern double-sided plates, properly anchoring the track, new ballast and surfacing as well as replacing a worn bridge deck.

3.8 Task 8 – Rail Siding / Capacity Improvements at the Mack Point Yard, Port of Searsport
Reinstall connection to south tracks and storage tracks, upgrade Track 5 rail, refurbish other four tracks, construct two new tracks (A & B) at Searsport's port railyard. Port trackage is owned and operated by Canadian Pacific Railway. The work includes ballast, ties, rail and track installation.

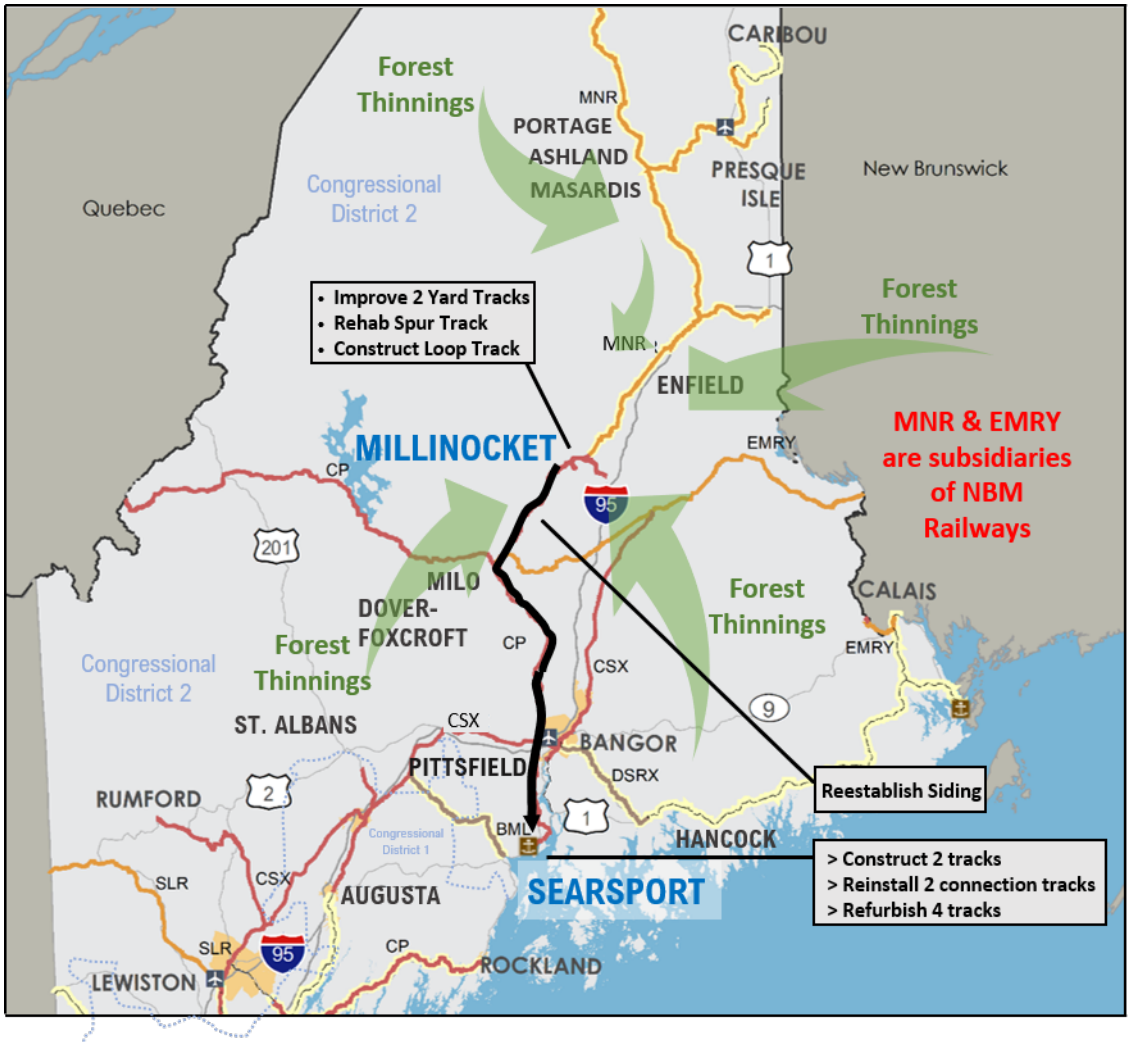
IV. PROJECT LOCATION

The Project stretches from Northern Maine to Mid-Coast Maine and runs through the following counties: Penobscot, Piscataquis, and Waldo. The Project is 100 percent located in rural area. The Project begins in the freight yard in Millinocket, Maine has spur improvements to the One North industrial site, siding improvements between Millinocket and Brownville, Maine, mainline track and structure improvements in the Bangor and Searsport Subdivisions, and ends with additional siding improvements at Mack Point in the Port of Searsport. The area is very remote and rural, although the Town of Millinocket was designated as an Urban Cluster in the 2020 Census.

The Project is a rural freight rail Project. According to the U.S. Census Bureau the population of Maine as of July 2021, was 1,372,247.

IV. DESCRIPTION OF WORK

4.1 Geographic Boundaries



4.2 Environmental Determination

MaineDOT will prepare a Categorical Exclusion Worksheet as part of this application for the areas of improvements encompassing existing track. While the proposed greenfield track improvements have been delineated for wetland impacts and evaluation of vernal pools, further investigation and permitting work under NEPA will be required after the submission of the Project application. MaineDOT intends to begin this effort in advance of a CRISI award in early 2023.

4.3 Scope of Services

- Task 1: Project Management / Engineering
- Task 2: Upgrade 7,200 LF of sidings in the Millinocket yard
- Task 3: Upgrade 5,100 LF of existing spur from the mainline switch (ST 0+00) near the Millinocket yard to the One North property line (ST 51+00).

- Task 4: Upgrade 6,700 LF of existing spur from the One North property line (ST 51+00) to the beginning of the proposed spur to the greenfield at ST 78+00.
- Task 5: Construct 22,700 LF of new spur in the One North greenfield including the loop track.
- Task 6: Rehabilitation of Packard Siding. Approximately 7,000 LF of new track overlaying existing ballast.
- Task 7: Track/bridge infrastructure improvements in the CP Bangor/Searsport subdivisions. Approximately 75-miles of ballast resurfacing, 45,000 tie replacements, 75-miles of plate/anchor replacements,
- Task 8: Reinstall connection to south tracks and storage tracks, upgrade Track 5 rail, refurbish other four tracks, construct two new tracks (A & B) at Searsport's port railyard.

Task 1: PROJECT MANAGEMENT

As part of the Project Management approach, the Grantee will ensure the Project stays on schedule and within budget. The Grantee will develop a detailed Project Work Plan that contains the work tasks necessary for completing the scope of work. The Project Work Plan will include information on the Project team organization, team decision making, roles and responsibilities, and interaction with FRA. In further detail, the plan will include communication standards, invoicing and progress reporting methods / procedures, and the scope of work. The Grantee will prepare and submit a Project Management Plan (PMP) outlining Project management and quality control. The Grantee will submit quarterly progress reports and invoices to include tracking of budgets and schedules. The Grantee will also perform Quality Assurance and Quality Control (QA/QC) of all deliverables prior to submission to FRA for approval.

Quarterly Progress Reports and Monthly Invoices

The Grantee will prepare detailed quarterly progress reports and invoices for submittal to FRA for approval within 30 days of each period completed.

Bi-weekly Project Progress Meetings

The Grantee will meet with its consultant team and Project partners on a bi-weekly basis, either in person or via conference call, to monitor progress and review upcoming tasks. In addition, the Grantee and Project partners will meet with FRA regularly, either bi-weekly or monthly, either in person or via conference call, to report progress, provide status updates on milestones achieved, outline work to be accomplished, and review the schedule and budget. The Grantee shall submit Progress Reports and Meeting Minutes of Progress Meetings to FRA for review.

Detailed Project Work Plan

The Grantee shall submit a detailed Project Work Plan to FRA for review and acceptance. The Grantee acknowledges that work on subsequent tasks will not commence until the Detailed Project Work Plan, Budget, and Schedule has been completed, submitted to FRA, and the

Grantee has received approval in writing from FRA. The FRA will not reimburse the Grantee for costs incurred in contravention of this requirement.

Final Performance Report

2 CFR §200.328(b)(1) requires all grant recipients to submit a final performance report detailing the cumulative activities completed during the life of the Project, including a complete description of the recipient's achievements with respect to the project objectives and milestones.

ENGINEERING DESIGN

The grantee will complete and submit the following Preliminary Engineering requirements to FRA for approval:

Preliminary Engineering Design

- The Grantee will provide a sufficiently annotated set of track charts for adequately defining the work limits for these elements, instead of scaled drawings. For supplementary alterations, the track charts may require additional details, including scaled drawings of minor reconfigurations and enhancements.
- The Grantee will prepare design plan drawings (as needed) overlaid on maps/photography showing existing right-of-way limits along with the railroad ownership.
- The Grantee will prepare drawings of existing and proposed signal design as required.
- Design submittals will include a title sheet identified with a drawing revision number or date, an index identifying various plan sheets comprising the drawing set, and a legend of symbols or abbreviations.
- The Grantee will obtain signature approval of the preliminary engineering cover sheet by all stakeholders impacted by the proposed track configuration and signal plan.
- The Grantee will provide a preliminary detailed project budget, based upon FRA line items – Standard Cost Category (SCC)

Final Design

Pending FRA acceptance of the Preliminary Engineering Design, the Grantee will complete the Final Design stage with feedback from FRA's project team in which the Preliminary Engineering Design deliverables will be updated, as necessary, and submitted to FRA for acceptance.

Task 1 Deliverable(s):

- Detailed Project Work Plan, PMP, Budget and Schedule
- Completion of all engineering and design documents
- Quarterly Progress Reports

- Status of task breakdown and percent complete
- Changes and reason for change in project's scope, schedule and/or budget
- Description of unanticipated problems and any resolution since the immediately preceding progress report
- Summary of work scheduled for the next progress period
- Final Performance Report

Task 2: Improvements to Millinocket Railyard

Rebuild two 4,000-foot sidings at the Millinocket rail yard owned and operated by NBM Railways. The two sidings will increase railcar storage capacity in the Millinocket yard to service Highland Carbon Solutions wood pellet operations as well as other forest products in the area. The new sidings will be located on existing ballast within the yard. New 115-lb rail will be utilized in this area.

Task 2 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 2 Progress

Task 3: Upgrade Rail Spur from the Millinocket Railyard to the One North Property Line

The existing rail spur from the Millinocket yard to the One North property line has been inactive since 2008. The existing alignment needs to be cleared of vegetation. The track needs rehabilitation with every third tie estimated to be replaced. Joint bars, track bolts, spikes, plates, and anchors will all be partially replaced along this alignment. Ballast will be added as required along this alignment. New 115-lb rail will be installed as well along with a single #10 Turnout.

Three at-grade crossings exist within the Town of Millinocket along this section of rail. The existing crossings have signalization equipment including mast-arms in-place that are in good condition. Rehabilitation of these crossings will include safety upgrades to the lighting (LED's to be added) and possible replacement of the existing battery systems. In addition, each crossing will have safety gates installed to further improve safety.

Task 3 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 3 Progress.

Task 4: Upgrade the One North Rail Spur (Brownfield)

Dormant since 2008, the One North brownfield rail spur requires significant upgrades. The existing alignment needs to be cleared of all vegetation. Existing track needs more substantial upgrades in this area with all ties and track to be replaced with new. New 115-lb rail will be

installed as well as joint bars, track bolts, spikes, plates, rail anchors and timber ties. Ballast will need to be replaced in its entirety in some areas with other areas requiring limited ballast replacement. A single new #10 turnout will be installed as well.

Task 4 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 4 Progress.

Task 5: Construct New Greenfield Loop Track

Soil boring information from previous site investigation at the One North site by Great Northern Paper Company in the late 1980's was utilized during the preparation of the estimate to utilize the best information in-hand to estimate the quantity of rock excavation. It should be noted, the soil borings that were available are a sizeable distance from the proposed alignment and will likely vary from actual conditions encountered during the design and construction of the Project. The Project estimate has included soil borings during the design phase.

Nearing the end of the existing brownfield rail spur, the new alignment to the greenfield and proposed loop track to service the wood pellet mill begins. Temporary erosion control measures will be installed, followed by clearing and grubbing the alignment and loop track. Portions of the proposed alignment cross previously delineated wetlands that will need to be addressed in the permitting process. An allowance for wetland mitigation fees has been included in the estimate based upon the anticipated impact footprint. It is important to note, the preliminary design process made every effort to mitigate wetlands both along the selected alignment and another potential site that was ruled a greater risk due to closer proximity to Millinocket Stream to the east.

After clearing and grubbing of the proposed alignment is complete, the site work contractor will construct temporary haul roads and stormwater ponds for use in the construction of the rail alignment. The contractor will then begin excavation and embankment of the new alignment. Provisions for maintenance of haul roads and dust control have been included. Much of the alignment is in areas that will result in excess excavation. The spoil will be hauled to a stockpile location upland of the proposed and stabilized with erosion control best management practices before the conclusion of the Project.

The estimate has included several temporary and permanent drainage features. Detailed design will refine the requirements to fit the topography and drainage needs of the site. In general, riprap ditches have been included for the areas of where the alignment slopes at 1.25% to the greenfield, combined with drainage culverts, and underdrain. Temporary stormwater detention ponds have been included.

After excavation and drainage have been installed, excavated slopes will be stabilized with 3" of loam and seed. The estimate has included jute mat on all 2:1 slopes. Gravel will be placed in the railbed in preparation for the railroad contractor.

The railroad contractor will place layers of ballast and sub-ballast along with timber ties, plates, joint bars, track bolts, and 115-lb rail for the entirety of the new alignment. A single #10 turnout will be installed. Heavier rail was considered for the loop track but opted against based upon feedback from NBM Railways for ease of maintenance and availability of spare parts.

Task 5 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 5 Progress.

Task 6: Rehabilitate Packard Siding at Seboeis Lake

Rebuild Packard Siding at Seboeis Lake 8,000-foot siding owned and operated by NBM Railways. The siding will allow a unit train traveling between Millinocket and Brownville to continue moving toward its destination while a similar sized train temporarily holds at Packard Siding. New 115-lb rail will be utilized in this area.

Task 6 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 6 Progress.

Task 7: Track / Bridge Infrastructure Improvements CP Bangor/Searsport Subdivisions

Track structure upgrades and safety improvements on 75-miles of the CP Bangor and Searsport subdivisions. Work includes selective tie replacement, replacing worn single outdated sided tie plates with modern double-sided plates, properly anchoring the track, new ballast and surfacing along with replacing a worn bridge deck.

Task 7 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 7 Progress.

Task 8: Rail Siding / Capacity Improvements at the Mack Point Yard, Port of Searsport

Reinstall connection to south tracks and storage tracks, upgrade Track 5 rail, refurbish other four tracks, construct two new tracks (A & B) at Searsport's port railyard. Port trackage is owned and operated by Canadian Pacific Railway. The work includes ballast, ties, rail and track installation.

Task 8 Deliverables:

- Bi-weekly progress meeting summaries and weekly Project highlights
- Updated Project schedule and budget as required by Task 2 Progress

V. PROJECT COORDINATION

The Grantee shall perform all tasks required for the Project through a coordinated process, which will involve affected railroad owners, operators, and funding partners, including:

- Highland Carbon Solutions, LLC
- NBM Railways
- CP Rail
- State of Maine, Department of Transportation, MaineDOT
- FRA

VI. PROJECT MANAGEMENT

The Grantee is responsible for facilitating the coordination of all activities necessary for implementation of the Project. Upon award of the Project, the Grantee will monitor and evaluate the Project's progress through regular meetings scheduled throughout the Project Performance Period. The Applicant/Grantee will:

- Participate in a project kickoff meeting with FRA
- Complete necessary steps to hire a qualified consultant/contractor to perform required Project work
- Hold regularly scheduled Project meetings with FRA
- Inspect and approve work as it is completed
- Review and approve invoices as appropriate for completed work
- Perform Project close-out audit to ensure contractual compliance and issue close-out report
- Submit to FRA all required Project deliverables and documentation on-time and according to schedule, including periodic receipts and invoices
- Comply with all FRA Project reporting requirements, including, but not limited to:
    a. Status of project by task breakdown and percent complete
    b. Changes and reason for change in project's scope, schedule and/or budget
    c. Description of unanticipated problems and any resolution since the immediately preceding progress report
    d. Summary of work scheduled for the next progress period
    e. Updated Project schedule
    f. Provide quarterly reports/performance measures as required by the FRA grant agreement.
- Provide weekly project highlights/updates to FRA
- Notify FRA of changes to this Agreement that require written approval or modification to the Agreement

The key risks for the Project are described in the trailing chart along with mitigation plans to

prevent or respond quickly to any encountered risks.

Project Risks	Mitigation
Environmental Permitting • Permitting and potential mitigation impacts to construction schedule	Proper Designing of Work • Perform environmental/NEPA early in the project. • Existing rail alignment improvements NEPA categorical exclusion eligible. • Wetlands / vernal pools have already been delineated for the Greenfield rail spur.
Rock Excavation • Rock excavation likely necessary in deeper excavation areas of the project.	Utilize Historic Data for Estimate and Quantify for Bids • Estimate has been prepared using historic boring data from the site to minimize risk. • Soil boring allowance provides for 16 borings at an estimated depth of 50 LF. +/- every 1,000 LF of new alignment.
Cost Control(s) • Detailed design has not been performed for all elements of the project and there will be additions to the scope of work as design progresses. • Construction contractor pricing increases • Material costs could escalate	Define Scope Expectations and Contingencies • Estimate has incorporated quantity allowances for drainage improvements, erosion control, and other likely areas of scope creep. • Preliminary Opinion of Probable Costs based on current industry pricing from a likely contractor. • 20% contingency allocated to site work portion of the project.
Long Lead Materials • Issues arise in obtaining supplies to proceed	Plan ahead • Order turnouts, rail, and long lead materials early • Utilize current market pricing from MaineDOT, NBM Railways and CP