

## Supplemental Supporting Information for a Finding of Effect

[DRAFT PUBLIC COMMENT COPY]

**Project:** Alna 27250.00

**Scope:** Bridge Rehabilitation

**Finding of Effect:** No Adverse Effect

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*Please note: this report describes the Maine Department of Transportation's compliance with **Section 106 of the National Historic Preservation Act (36 CFR Part 800)**. It details the finding of effect to historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) that are located in the subject project's Area of Potential Effect (APE). This report also assesses how the proposed project may directly or indirectly affect and/or diminish those characteristics and aspects of integrity that qualify a historic property for inclusion in the NRHP. **This report is specific to the Section 106 assessment of effects, as opposed to general environmental impacts.** Consultation with coordinating agencies and the public is ongoing.*

### **Project Scope**

The proposed project consists of the rehabilitation of Dock Bridge (#3284) that carries Dock Road over the Sheepscot River in Alna, located 0.22 of a mile south of Route 194.

### **Purpose and Need**

The purpose of this project is to address the structural deterioration of Dock Bridge, maintain load-carrying capacity under two traffic lanes, and address safety issues both on the bridge and the adjacent roadway. A successful project will bring the condition rating of all bridge elements to 5 (fair) or better, maintain or improve the load posting, reduce risk associated with collision damage, improve safety and reliability with respect to all expected users, and preserve the historic nature of the structure.

The existing bridge is currently in poor condition, with the deck rated 4 (poor), the superstructure rated 6 (satisfactory), the bearing devices rated 4 (poor), and the substructure rated 4 (poor). The deck has scattered areas of delamination and moderate cracking with efflorescence and exposed reinforcement. The abutment bridge seats have moderate to major spalling, especially around the bearing areas, which has exposed reinforcement and some undermining of the bearings. The south abutment (Abutment 1) has a full height vertical crack through the breast wall and backwall and has major spalling and delaminations. The southwest wingwall has a full height vertical crack 1 ¾" wide and the wall has documented differential movement at the crack. The bearings have debris buildup within the mating surfaces and significant anchor bolt section loss. The bridge is currently posted for a 30-ton limit.

Additionally, the bridge rail does not meet current crash standards, is corroded, and does not protect the truss structure from vehicular impact as evidenced by impact damage to certain truss top chord members and gusset plates. The transition and approach rail does not meet current standards and poses safety concerns.

### **Proposed Action**

The proposed action would rehabilitate Dock Bridge's substructure and bearings. Additionally, the action would include replacing the deck, increasing floor system capacity, and updating safety features. Rehabilitation would specifically include the following:

- Rehabilitate abutments and wingwalls by patching spalled or delaminated areas on the bridge seat and backwall and sealing cracks. At Abutment 1, the breastwall and wingwalls will be chipped and a 6" minimum thick reinforced concrete facing will be placed on the breastwall and the southwest wingwall, and an 8" minimum facing on the northwest wingwall. The patches and facing will have drilled and anchored reinforcement.
- Place a concrete cap on top of all wingwalls to seal them and raise the top of the wings to account for the change in grade behind the wingwalls.

- Jack, remove, and replace bearings in-kind or with elastomeric or disc bearings, as appropriate.
- Strengthen the floorbeams and stringers by adding shear studs and creating composite action with the new deck.
- The bridge railing will be removed and replaced with a modified steel truss-mounted railing with brackets that will align the face of railing with face of curb. This will better protect the truss from collision damage and likewise better protect vehicular traffic.
- New bridge railing transitions and approach guardrail will be installed at all four quadrants to bring them up to TL-2 MASH tested standard.
- Full depth reconstruction of the approaches where new guardrail will be installed then transition to match into the existing pavement.
- 2' berm offset with 2:1 slopes along the approaches and riprap placed behind the wingwalls at 1.75:1./km

The preferred alternative would minimize impacts to the historic truss. The rehabilitation of the abutments and wingwalls and deck replacement would improve the condition rating of those respective elements to a 5 (fair) or better, meeting those purpose criteria. A new lightweight concrete deck would be installed, which would significantly decrease the overall dead load, thereby achieving a rating that is significantly above the 30-ton posting load. The construction cost for this alternative is \$1,700,000.

**Federal Action**

Federal funding.

**Definition of Area of Potential Effect (APE)**

The proposed project is located in Alna, Lincoln County, Maine. The map below shows the APE.

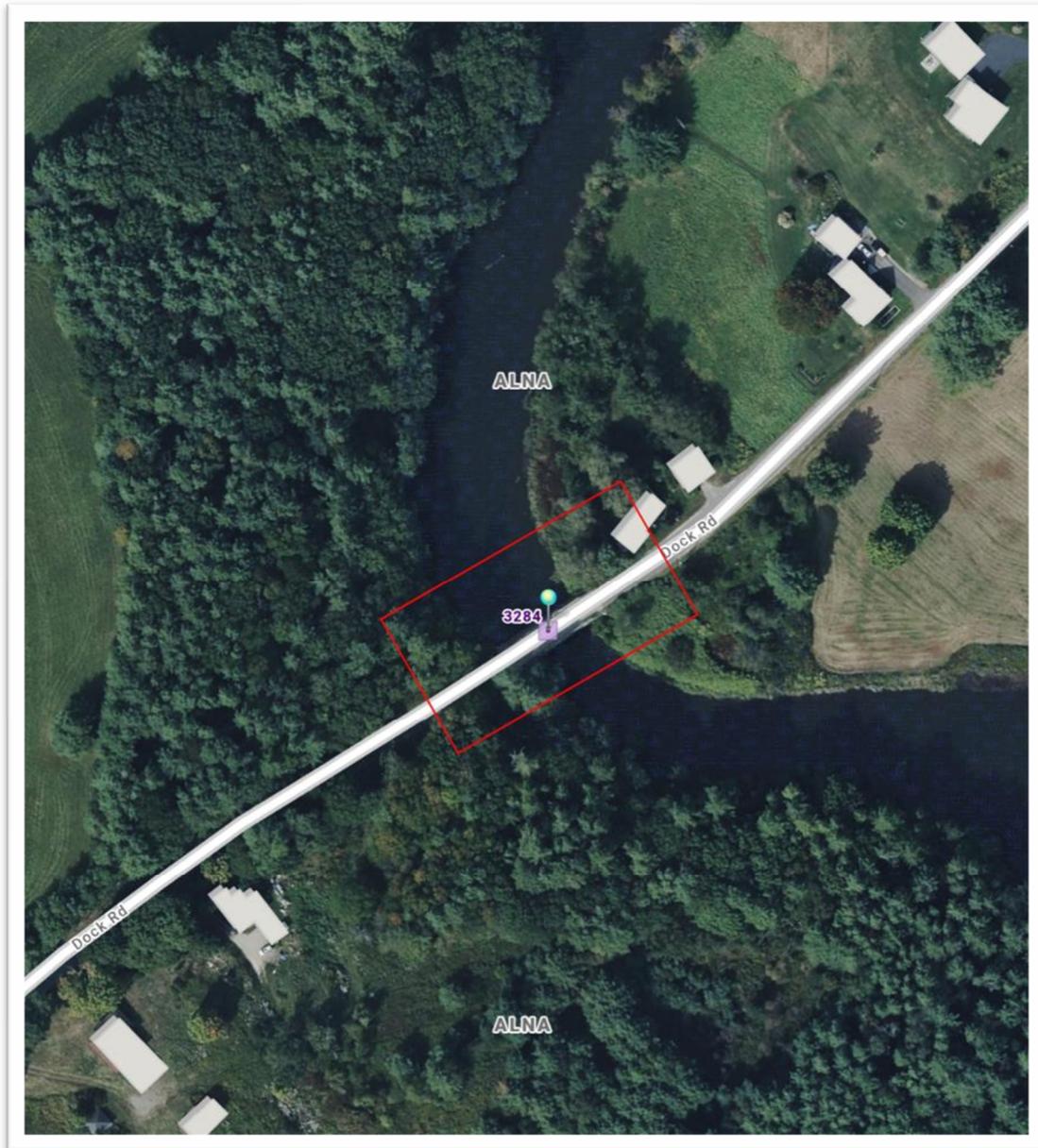


Figure 1. Alna 27250.00 Area of Potential Effect

**Historic Properties**

The proposed project is located in Alna. The description is based on Maine Historic Preservation Commission (MHPC) forms.

**Dock Bridge #3284 (Maine Department of Transportation: Sta. 2+70 to 4+25 Right and Left)**  
***National Register-Eligible***  
***Criterion C, Engineering***

Dock Bridge #3284 is eligible for listing in the National Register as an individual resource under Criterion C for Engineering on the statewide level (and contributes to the Alna Rural Historic District). The bridge is a significant example of a Warren pony truss, as one of the few remaining examples found in the MaineDOT system. The bridge was designed by the Maine State Highway Commission Bridge Division and constructed by the American Bridge Company. Its period of significance is 1936.



*Figure 2. Dock Bridge*

**Alna Rural Historic District (Various Owners: Sta. 2+15 to 4+90 Right and Left)**  
***National Register-Eligible***

Criteria A and C for Agriculture, Architecture, Commerce, Industry, Literature, and Religion

The Alna Rural Historic District is eligible for listing in the National Register under Criteria A and C for Agriculture, Architecture, Commerce, Industry, Literature, and Religion on the local level. The district encompasses the village of Head Tide (NR #74000320), which was established in the mid-1700s. The village developed around the head of tide of the Sheepscot River and residents harnessed the river's water power for a multitude of mills (saw, grist, shingle, and stave, etc.) in the nineteenth and early twentieth centuries. The southern end of the historic district includes the village of Alna (also known as Puddle Dock), which developed at the intersection of Dock Road and Route 194. Alna village included residences, commercial entities, a shipyard, and a brickyard. Between the two villages, farms developed along the Sheepscot River. A Warren pony truss bridge at Dock Road provided a crossing over the river that linked Alna village with Wiscasset, a major shipping port. The district is also the

birthplace of notable American poet, Edwin Arlington Robinson, the first person to win a Pulitzer Prize

for poetry. The district retains all seven aspects of integrity. The buildings largely retain massing and original materials, and the district contains little development outside of the period of significance, which is c.1750-c.1940.



*Figure 2. Alna Rural Historic District*

#### Archaeological Resources

There are no archaeological resources in the project area.

#### Impacts to Property

The following addresses potential impacts to properties as a result of the proposed action.

#### **Dock Bridge #3284 (Maine Department of Transportation: Sta. 2+70 to 4+25 Right and Left)** ***National Register-Eligible*** ***Criterion C, Engineering***

The proposed action would result in **No Adverse Effect** to Dock Bridge. The majority of the work would make in-kind repairs and replacements to various bridge elements, as previously mentioned on page one. The introduction of new materials would not have a significant impact on the overall integrity of the structure, including the installation of a lightweight concrete deck and new steel bridge railing. Although the original standard-design bridge rail is not considered to be a significant component of the bridge, the modified truss-mounted railing with brackets would meet safety considerations while still reflecting the original design. In general, the proposed action avoids adverse effects by making appropriate in-kind repairs and replacements, while maintaining the original pony truss, which remains the most significant component of the bridge.

**Alna Rural Historic District (Various Owners: Sta. 2+15 to 4+90 Right and Left)**  
**National Register-Eligible**

Criteria A and C for Agriculture, Architecture, Commerce, Industry, Literature, and Religion

The proposed action would result in **No Adverse Effect** to the Alna Rural Historic District. In order to grade the slopes and reconstruct the approaches where new MASH-compliant guardrail will be installed, temporary rights would be required at the Jones' House and Barn property located at the northeastern side of the bridge. One tree would be removed to accommodate the slope work. The new guardrail would be installed in the approximate location of the existing guardrail. It would run parallel to the road, rather than terminate with a flare-end on the property like the existing. The project area constitutes a minor area within the historic district boundary, and the work proposed within said area is minor in scope and would thus have minimal effect on the overall integrity of the historic district's aspects of integrity.

**Archaeological Resources**

There are no archaeological resources in the project area.

**Avoidance and Minimization Efforts**

The proposed action avoids and minimizes adverse effects by taking a minimal approach that would rehabilitate the historic bridge through the use of in-kind repairs and sensitive material replacements while avoiding major impacts to the historic district. Overall, the proposed action minimizes the introduction of materials that are not currently found at the project location and minimizes direct impacts to the historic properties to the greatest extent possible while still meeting the project's purpose and need.

**Dismissed Alternatives**

Three additional alternatives were analyzed as part of the preliminary engineering of this project:

**No Build**

The existing deck and substructure have a condition rating of 4 (poor) due to spalling, exposed reinforcing steel, efflorescence, and cracks varying from hairline to wide. Failure to act would result in the further decline of condition ratings and structural damage. The bridge would also need a load posting reduced from the current posting of 30 tons. Therefore, this option does not meet the purpose of this project and was dismissed from further consideration.

**Rehabilitation with Normal Weight Concrete Deck**

This alternative involves rehabilitation of the substructure and bearings, deck replacement, increasing floor system capacity, and updating safety features that are also included in the preferred alternative. However, a 30-ton posting load might not be achievable using regular weight concrete, and further analysis would be required. Therefore, it is uncertain whether this alternative would fully meet the purpose of the project and was dismissed from further consideration.

**Full Bridge Replacement**

This alternative consists of a full bridge replacement using reinforced cast-in-place concrete abutments and a steel girder superstructure assumed to have a span length of 100 feet to match the existing truss. Assuming a curb-to-curb width of 24'-0", which is sensitive to the approach pavement width, and an approximate average unit cost of \$1,000 to \$1,400 per square feet of deck for similar recent projects, this alternative would have a construction cost of roughly \$3,000,000 to \$4,000,000. This alternative is more costly than the other alternatives relative to the low AADT and the short detour route. Additionally, this option would not meet the purpose and need component of preserving the historic truss. Therefore, this alternative was dismissed from further consideration.

**Public Involvement**

MaineDOT contacted the four federally recognized tribes in Maine about this project. The Passamaquoddy Tribe and Penobscot Nation replied with no concerns.

The Town of Alna was contacted by email in 2023 and asked to comment on knowledge of, or concerns

with, historic properties in the area, and any issues with the undertakings effect on historic properties. The Town replied and provided historic information related to the project area. This finding of effect will be shared with the Town during the public comment period.

An on-demand virtual preliminary public meeting was posted on the MaineDOT website in September 2024. Information on the historic properties was included in the presentation. Responses varied, but a portion of the comments were in favor of the rehabilitation alternative. An on-demand formal public meeting was posted on the MaineDOT website in September 2025. There were no public comments related to the historic review or impacts to the historic properties.

The public involvement process is ongoing.

**Plans**

Alna, Lincoln County, Dock Bridge Truss over Sheepscot River, Bridge #3284, WIN 27250.00, May 21, 2025.

**Attachments**

Kirk Mohny, MHPC, to Julie Senk, MaineDOT, February 12, 2024

Julie Senk, MaineDOT, to Kirk Mohny, MHPC, September 23, 2024

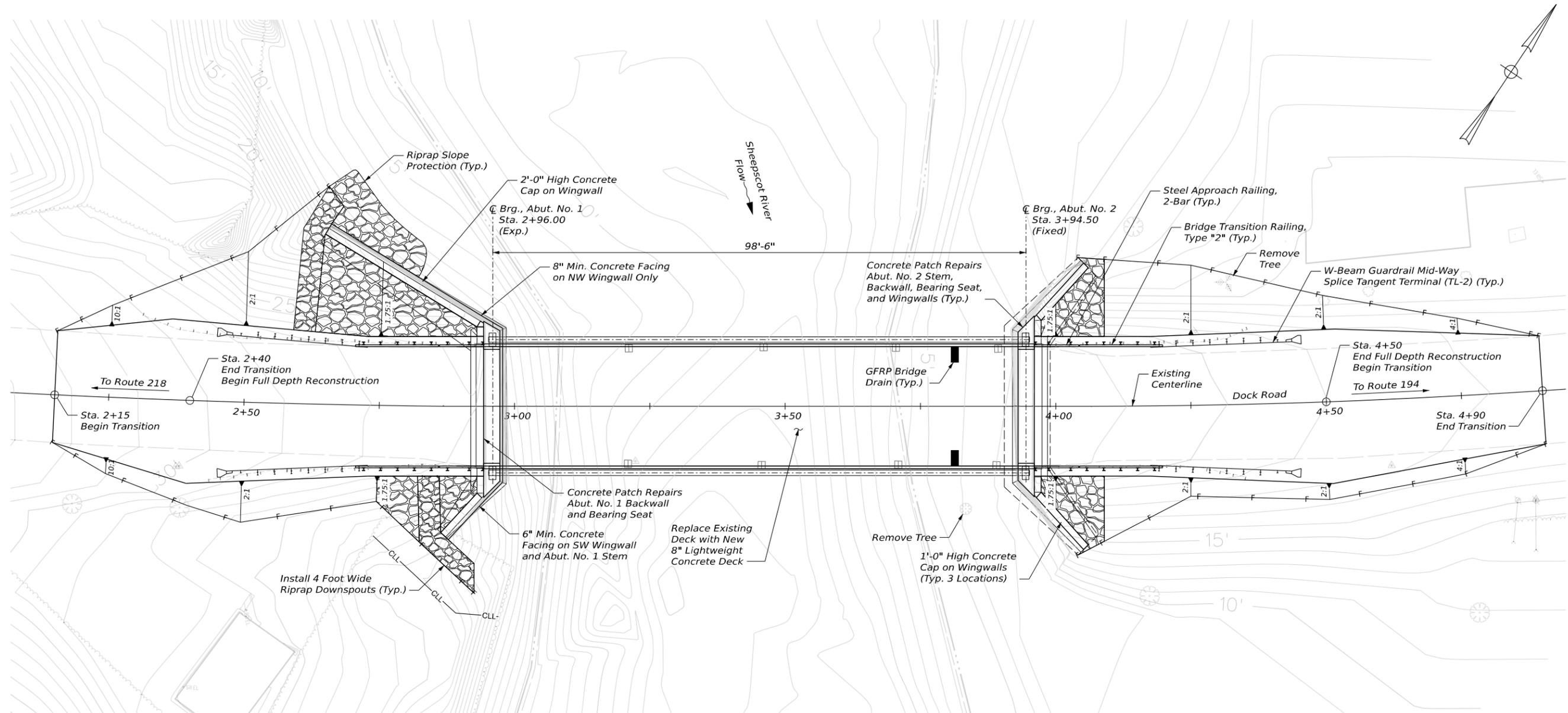
Kirk Mohny, MHPC, to Julie Senk, MaineDOT, October 9, 2024

J. N. Leith Smith, MHPC, to Julie Senk, MaineDOT, April 10, 2025

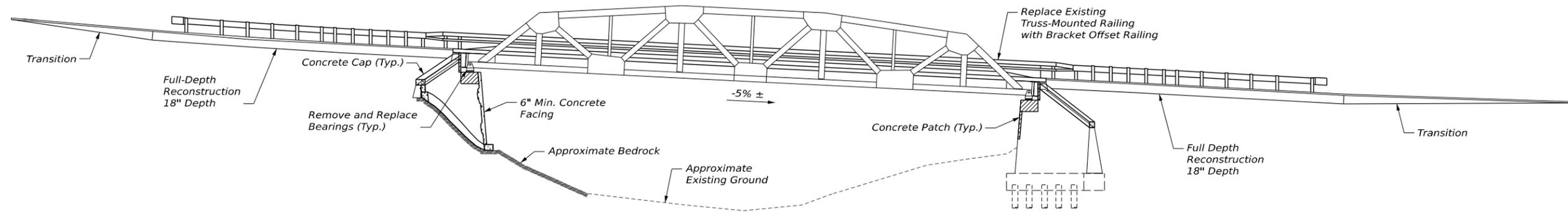


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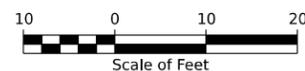
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PLAN

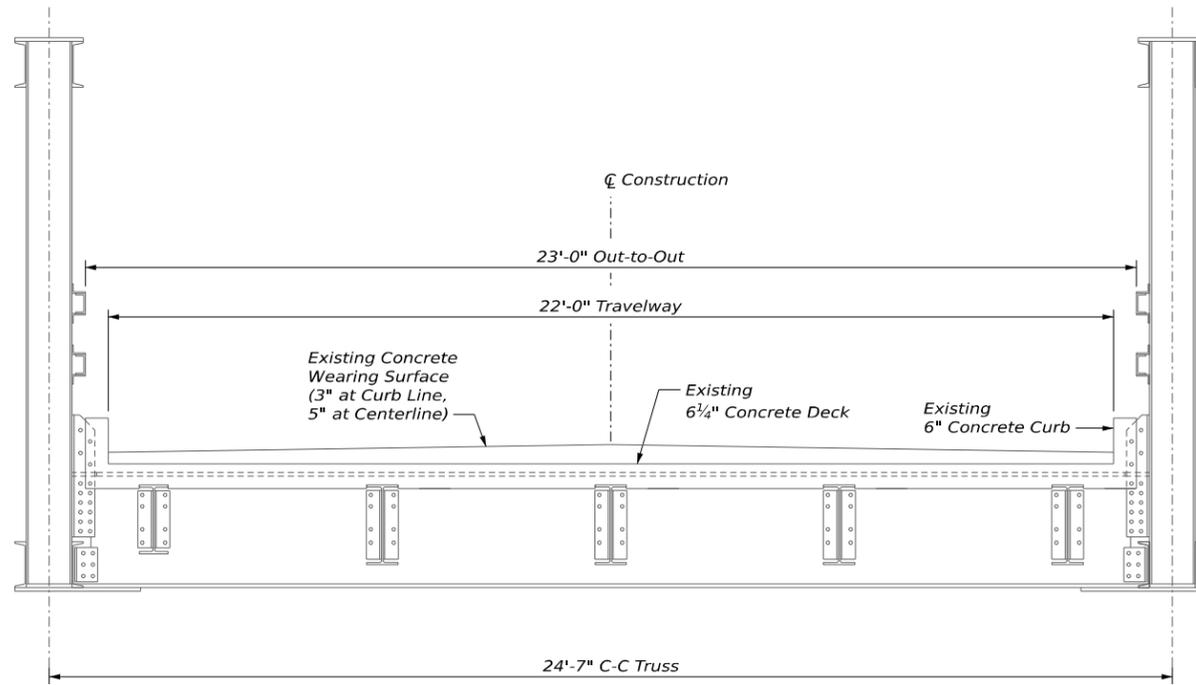


ELEVATION

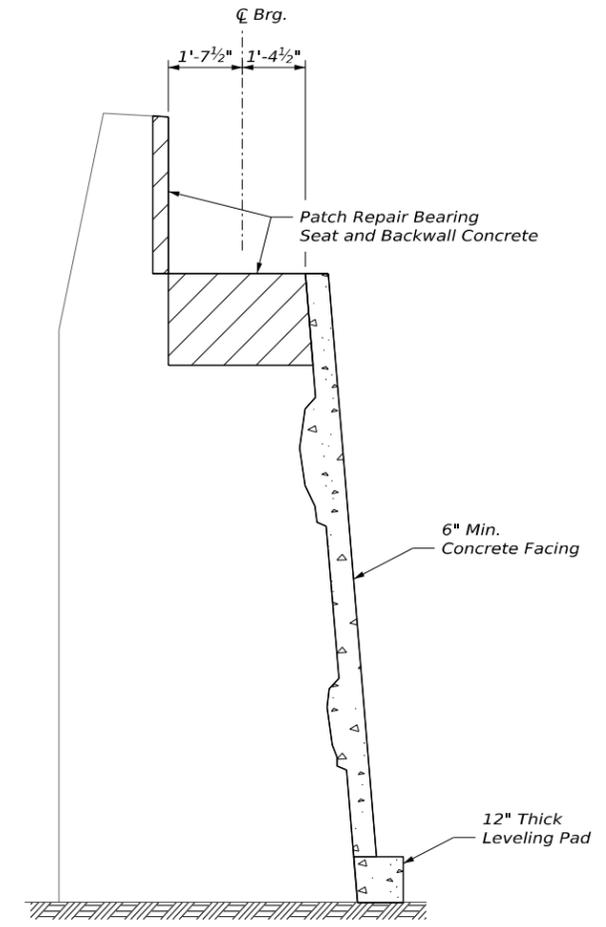


PROJ. MANAGER	A. LATHE	BY	DATE
DESIGN-DETAILED	ELW	BJM	5/2025
CHECKED-REVIEWED	CIA	RSB	5/2025
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DESIGN-DET FILED 03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

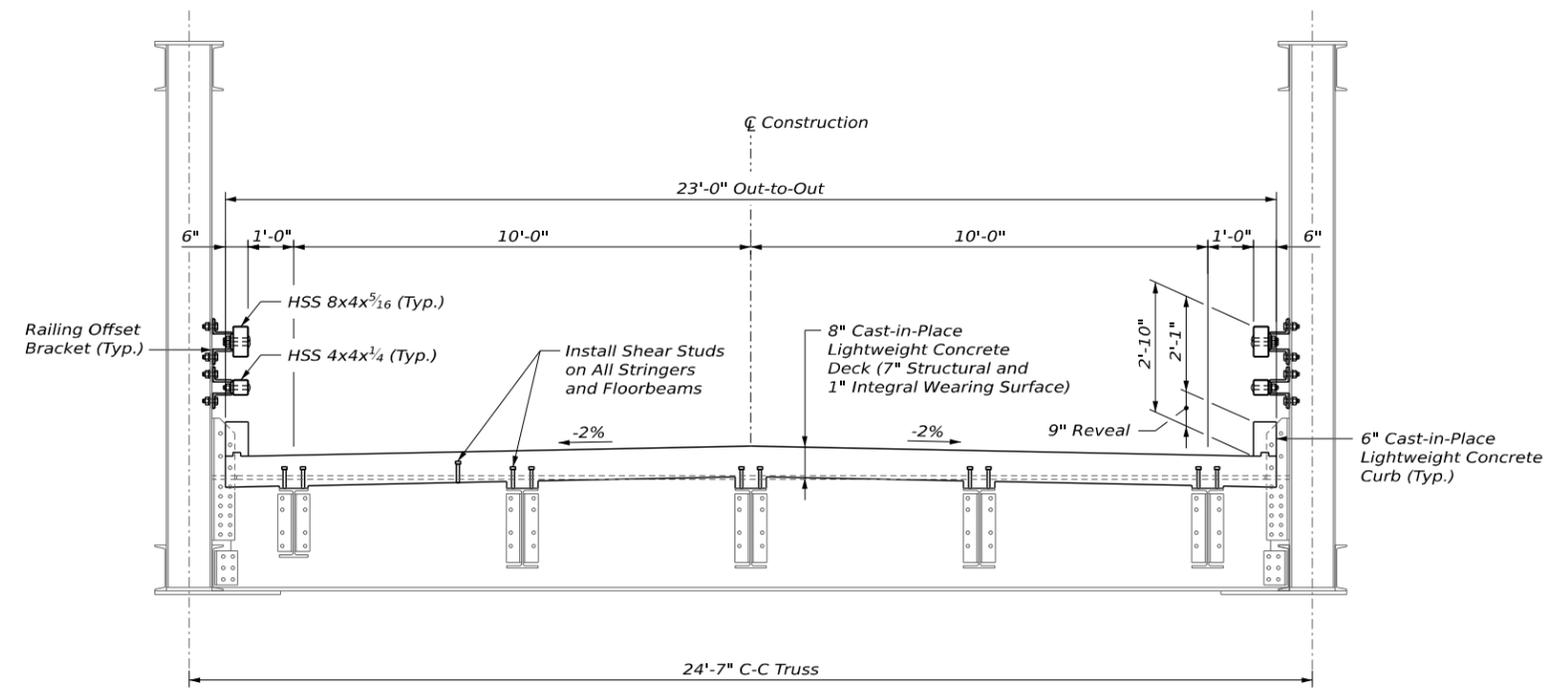
DOCK BRIDGE  
OVER SHEEPSCOT RIVER  
BRIDGE PLAN AND  
ELEVATION  
ALNA  
LINCOLN



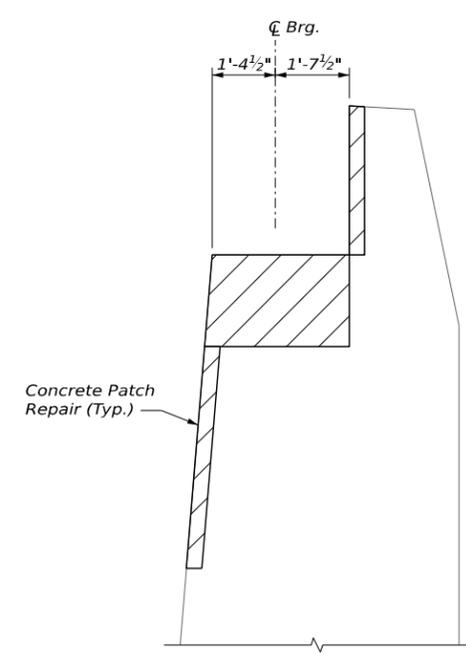
**EXISTING TRANSVERSE SECTION**  
Scale: 1/2" = 1'-0"



**ABUTMENT NO. 1  
CONCRETE REPAIR SECTION**  
Scale: 1/2" = 1'-0"



**PROPOSED TRANSVERSE SECTION**  
Scale: 1/2" = 1'-0"



**ABUTMENT NO. 2  
CONCRETE REPAIR SECTION**  
Scale: 1/2" = 1'-0"



PROJ. MANAGER	DESIGN-DETAILED	ELW	CTA	A. LATHE	BY	DATE
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	DESIGN-DET FILED 02					
	DESIGN-DET FILED 03					
	REVISIONS 1					
	REVISIONS 2					
	REVISIONS 3					
	REVISIONS 4					
	FIELD CHANGES					

DOCK BRIDGE  
OVER SHEEPSHOT RIVER  
ALNA  
LINCOLN  
TYPICAL SECTIONS

# STATE OF MAINE

## MEMORANDUM

February 12, 2024

To: Julie Senk, ENV/Maine Department of Transportation

From: Kirk F. Mohny, State Historic Preservation Officer *KFM*

Subject: WIN 27250.00, Alna, Dock Bridge 3284, Bridge Rehabilitation; MHPC #1412-23

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In response to your recent request, I have reviewed the information received January 24, 2024 to continue consultation on the above referenced undertaking pursuant to the Maine Programmatic Agreement and Section 106 of the National Historic Preservation Act of 1966, as amended.

In order to continue consultation, please provide additional information on Survey Map # 4.

Please contact Megan M. Rideout of our office if we can be of further assistance in this matter.

**STATE OF MAINE**  
**Memorandum**

Date: September 23, 2024

To: Kirk Mohnney, MHPC  
From: Julie Senk, Maine DOT/ENV  
Subject: Section 106 Request for More Information  
Project: Alna 27250.00, MHPC #1412-23

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The Maine DOT has reviewed this project pursuant to the Maine Programmatic Agreement (PA) and Section 106 of the National Historic Preservation Act of 1966, as amended.

This memo is in response to MHPC's request for more information on National Register eligibility, dated February 12, 2024.

Please contact me at [Julie.Senk@maine.gov](mailto:Julie.Senk@maine.gov) or 592-3486 if you have any questions. Thank you.

cc: CPD e-file  
enc: Erin Ware, Kleinfelder, to Julie Senk, MaineDOT, April 26, 2024



## MEMORANDUM

TO: Julie Senk, MaineDOT  
FROM: Erin Ware, Kleinfelder  
DATE: April 26, 2024  
SUBJECT: Alna 27250.00; MHPC #1412-23

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This memo is in response to Maine Historic Preservation Commission's letter dated February 12, 2024 requesting more information on the building at SM #4. The project consists of bridge rehabilitation of Dock Bridge #3284 carrying Dock Road over the Sheepscot Bridge in Alna.

SM #4 is a small building that is part of 91 Dock Road which also includes a house that appears to date from c.1800. The house was not surveyed due to it being outside the APE. The property was Thomas N. Ayer's farm in the early twentieth century. It was owned by ceramic artist Robert W. Archambeau from 1965 to 1986.<sup>1</sup> He and his family used the Alna property as a summer residence. During their tenure, there was a small spring house at the location of SM #4. It was a much smaller structure than currently exists and was clad in wood shingles.<sup>2</sup> According to the current owner, SM #4 was built by Myles Jordan, a professional musician, in order to practice cello. Jordan owned the property from 1997 to 2013. Google street view shows the structure in place by 2007.<sup>3</sup> The date of construction is therefore sometime between 1997 and 2007. The structure is less than 50 years old and does not meet Criteria Consideration G. SM #4 is not eligible for listing in the National Register of Historic Places.

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<sup>1</sup> Thomas N. Ayer Jr. to Robert W. Archambeau, Book 604, Page 481, 18 October 1965, Lincoln County Registry of Deeds, Wiscasset, Maine; Robert W. Archambeau to Thomas L. Hinkle, Book 1362, Page 62, 24 December 1986, Lincoln County Registry of Deeds, Wiscasset, Maine.

<sup>2</sup>"Robert Archambeau," The Canadian Encyclopedia, accessed 9 April 2024, <https://www.thecanadianencyclopedia.ca/en/article/robert-archambeau>; "Mourning the loss of acclaimed artist and Professor Emeritus, Robert Archambeau," University of Manitoba News, accessed 9 April 2024, <https://news.umanitoba.ca/mourning-the-loss-of-acclaimed-artist-and-professor-emeritus-robert-archambeau/>; Email correspondence with Robert Archambeau (son of Robert W. Archambeau), 10 April 2024.

<sup>3</sup> Thomas Wilson to Myles Jordan, Book 2266, Page 291, 22 August 1997, Lincoln County Registry of Deeds, Wiscasset, Maine; The Bank of Maine vs. Myles C. Jordan and Honora P. Jordan, Book 4739, Page 298, 26 November 2013, Lincoln County Registry of Deeds, Wiscasset, Maine; "Officials eye Alna tree house for take-down," *Wiscasset Newspaper*, 6 January 2015, accessed 10 April 2024, <https://www.wiscassetnewspaper.com/article/officials-eye-alna-tree-house-take-down/46276>; Google Maps, accessed 11 April 2024, <https://www.google.com/maps>.

# STATE OF MAINE

## MEMORANDUM

October 9, 2024

To: Julie Senk, ENV/Maine Department of Transportation

From: Kirk F. Mohny, State Historic Preservation Officer *KFM*

Subject: WIN 27250.00, Alna, Dock Bridge # 3284, Bridge Rehabilitation; MHPC #1412-23

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In response to your recent request, I have reviewed the information received September 23, 2024 to continue consultation on the above referenced undertaking pursuant to the Maine Programmatic Agreement and Section 106 of the National Historic Preservation Act of 1966, as amended.

Thank you for the additional information on SM# 4. We concur with MDOT's finding that the building is not eligible for listing in the National Register of Historic Places.

Please contact Megan M. Rideout of our office if we can be of further assistance in this matter.

**STATE OF MAINE**  
**Memorandum**

Date: April 10, 2025

To: Julie Senk, Historic Preservation Coordinator, MaineDOT Environmental Office

From: J. N. Leith Smith, MHPC

Subject: Continued Consultation, Review of PDR Plans

Project: MHPC #1412-23, WIN 27250.00; Alna  
Rehabilitation of Dock Bridge #3284, carrying a small road over the Sheepscot River, located  
0.22 of a mile south of Route 194.

Dear Julie,

Thank you for submitting PDR plans for the above referenced proposed project received April 9, 2025. Previous review in 2023 found concern for potential impacts to pre-contact archaeological sites on the terrace overlooking the river as well as potential impacts to the Ayers & Jones shipyard that was present in the area in 1857. The present review of project plans finds that the proposed work will have no impact on pre-contact or post-contact archaeological sites. In following the procedures specified in the Federal Highway/MHPC/MDOT programmatic agreement, we **recommend a finding that there will be no archaeological properties affected by the proposed undertaking.**