

## **Supplemental Supporting Information for a Finding of Effect**

Project: Sanford-Alfred 21823.00; MHPC #0742-19

Scope: Large Culvert Replacement

Finding of Effect: **Adverse Effect**

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### **Purpose and Need**

The purpose of the project is to improve safety conditions located at the Sanford-Alfred town line along Route 202.

The need for the project is because Large Culvert #910881 at the project location has become structurally deficient. The metal culvert extensions at the inlet and outlet have separated from the dry-stone box culvert causing debris to fall through the gaps. The bottoms of the metal culvert extensions have rusted away. The structural deficiency and inadequate length of the culvert has caused slope failure and deterioration of the road.

### **Proposed Action**

The proposed action is to replace the structure with a precast concrete box that measures 10' in span, 112' in length, and 6' in rise. The precast concrete box culvert would be realigned to better span the stream and would have a slope of -0.3%. The inslope of the roadway would be 4:1. Two-way traffic would be maintained with staged construction.

### **Federal Action**

ACOE Permit.

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

The proposed project is located at the town line of Alfred and Sanford along Route 202 in York County. A map is attached below that shows the project APE.

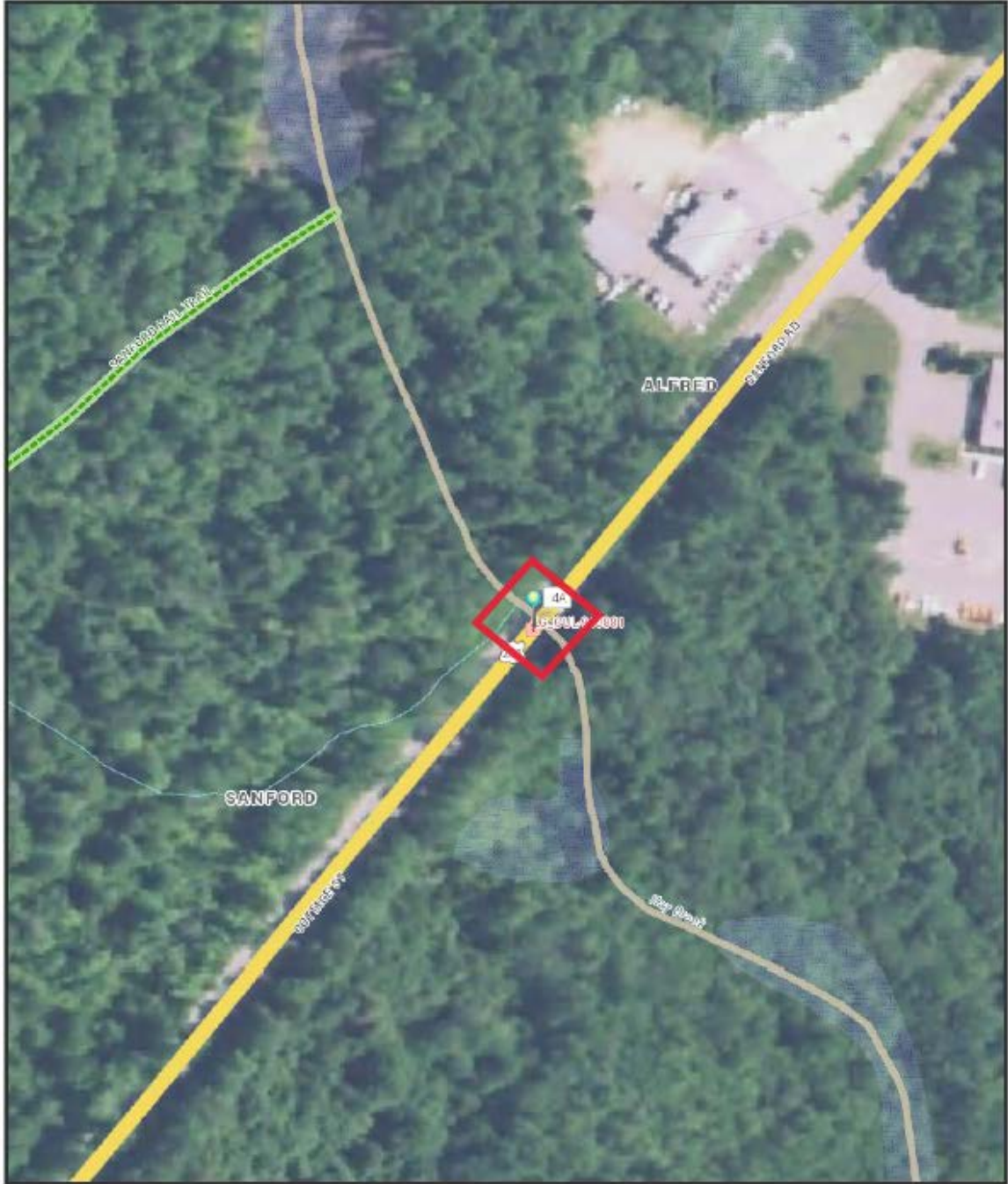


Figure 1. Sanford-Alfred 21823.00 Area of Potential Effect

## **Historic Properties**

The proposed project is in Sanford and Alfred. The project area holds one historic property.

### Stone Box Culvert (#910881)

*National Register Eligible, Criteria A*

The stone box culvert is eligible for listing under Criterion A for its local significance in Transportation. The post and lintel box culvert consists of rubble stone channel walls with a clearly defined stone slab top, measuring 5' X 5' X 32'. The culvert is located under US 202, a national highway designated sometime between 1915 and 1940. The road likely connected the village of Alfred to the burgeoning industrial area that is now downtown Sanford. Given the culvert does not exhibit indications it was constructed during the age of mechanized stone quarrying it is possible it was constructed during the 1830s or 1840s when a number of crossings were built using split stone and granite. It is an excellent example of early vernacular engineering.

### Archeological 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.

### Stone Box Culvert (#910881)

*National Register Eligible, Criteria A*

The preferred alternative of culvert replacement results in a finding of an **adverse effect** due to the removal of the stone box culvert (#910881), an individually eligible National Register resource.

## **Avoidance and Minimization Efforts**

Rehabilitation for the stone box culvert was evaluated. This rehabilitation option led to the eventual replacement of the existing structure. Please see below.

## **Dismissed Alternatives**

### No Build

The no build alternative would not take any action, resulting in further deterioration of the culvert and roadway and eventual failure. This alternative would not meet the purpose and need, therefore it was removed from further consideration.

### Alternative 1

Alternative 1 would be to replace the existing metal culvert extensions with new, longer metal, or reinforced concrete, culverts. This alternative would be the least costly and less

disruptive to traffic than a total replacement. However, the service life of the original stone box is unknown. Also, the connection between the stone box and the hybrid extensions would be difficult to achieve and would eventually result in the existing problem of roadway material leaking through the gaps and causing the roadway above to fail. For these reasons, this alternative was dismissed from further consideration.

#### Alternative 2

Alternative 2 would be to replace the existing metal culvert extensions with precast box ends. This alternative would make the connection with the original stone box easier to achieve, be slightly more costly than Alternative 1, and be the least disruptive to traffic. However, it does not eliminate the concerns about the durability of the original box. For these reasons, this alternative was dismissed from further consideration.

#### Alternative 3

Alternative 3 would consist of removing the metal extensions and extending the culvert with dry laid stone. This alternative would keep the look of the original stone box. However, this type of construction would be tedious, extremely costly, and would eliminate the ability to maintain a flow of traffic through the project during construction. Detouring traffic would create unacceptable impacts on this heavily traveled corridor. The structural integrity of this type of box would also be unpredictable. For these reasons, this alternative was dismissed from further consideration.

#### **Plans**

State of Maine Department of Transportation, Sanford-Alfred, York County, Route 202, State Project No. 21823.00, October 4, 2019

#### **Attachments**

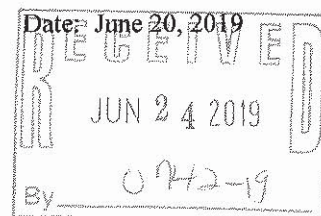
Art Spiess, MHPC, to Julie Senk, MaineDOT, June 3, 2019

Kirk Mohnney, MHPC, to Julie Senk, MaineDOT, July 16, 2019

# STATE OF MAINE

## Memorandum

To: Kirk F. Mohney, MHPC  
From: Julie Senk, Maine DOT/ENV  
Subject: Section 106 request for concurrence  
Project: Alfred 21823.00  
Scope: Culvert Replacement



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.

The proposed project consists of replacement of large culvert #91088 under Route 202/4A on the Sanford-Alfred town line.

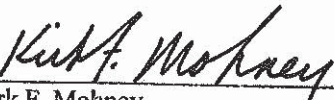
In accordance with 36 CFR Part 800.4, the following identification efforts of historic properties were made:

- 800.4(a) (1) - The Area of Potential Effect (APE) includes properties/structures adjacent to the road and within the project limits. The project limits are defined by the project area and the immediately adjacent area. Properties/structures adjacent to this project limit are considered to be within the APE. The APE is shown as a red polygon on the attached map.
- 800.4(a) (2) – Review of existing information consisted of researching the National Register and MHPC survey databases. The Maine Historic Preservation Commission Archaeological staff has reviewed this undertaking.
- 800.4(a) (3) – The towns of Sanford and Alfred, along with applicable historical societies, were contacted and asked to comment on knowledge of, or concerns with, historic properties in the area, and any issues with the undertaking’s effect on historic properties. The town was also requested to provide information regarding local historic societies or groups. No replies have been received to date.
- 800.4(a) (4) – Letters outlining project location and scope were sent to the 4 federally recognized Tribes in Maine. The Houlton Band of Maliseets replied with no concern.
- 800.4(c) – The Maine DOT conducted historic architectural surveys within the APE to determine if properties met National Register criteria. Maine Historic Preservation Commission Archaeological staff has reviewed this undertaking and found that “there will be no archeological properties affected.” **The Maine DOT has determined that one resource within the APE is eligible for the National Register of Historic Places.**

*In accordance with the PA and 36 CFR Part 800, please reply with your concurrence or objection to the determinations of eligibility for listing in the National Register of Historic Places within 30 days. If more information is deemed necessary, please supply a list of the specific resources in question.*

Please contact me at Julie.Senk@maine.gov or 592-3486 if you have any questions. Thank you.

cc: CPD e-file  
enc: Architectural survey

CONCUR	
	7/16/19
Kirk F. Mohney, State Historic Preservation Officer	Date

## Senk, Julie

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**From:** Senk, Julie  
**Sent:** Monday, October 07, 2019 12:48 PM  
**To:** Senk, Julie  
**Subject:** FW: Sanford-Alfred 21823.00

**From:** Spiess, Arthur  
**Sent:** Monday, June 03, 2019 2:58 PM  
**To:** Senk, Julie <Julie.Senk@maine.gov>  
**Subject:** RE: Sanford-Alfred 21823.00

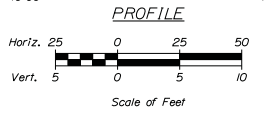
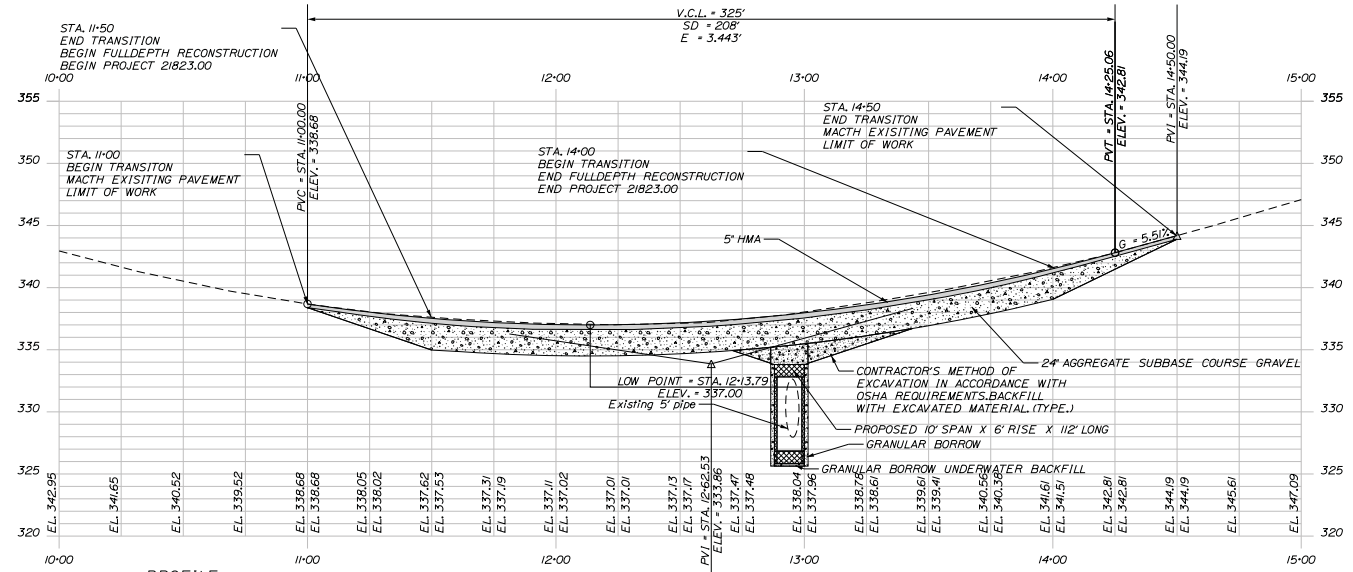
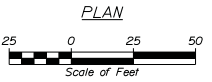
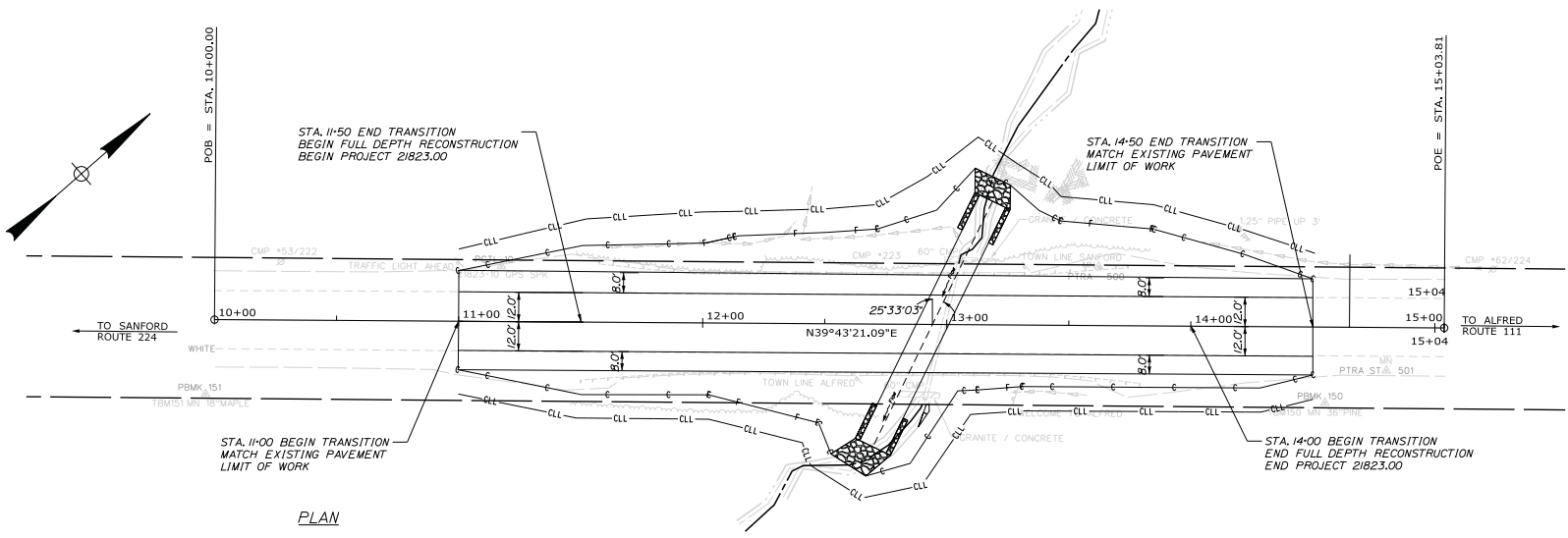
Hi Julie:

Both Leith and I say “no archaeological properties” in the project area. I will file a copy of this email with our files. If you need a full memo, please let me know.

Regards, Art

PS. Sorry – missed you being here by a half hour to hand deliver the message.

*Dr. Arthur Spiess*  
Senior Archaeologist, Maine Historic Preservation  
State House Station 65  
Augusta, ME 04333  
desk phone: 207-287-2789



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
CAPITAL PROJECTS  
WIN 021823.00  
HIGHWAY PLANS

SANFORD - ALFRED  
ROUTE 202

PROJ. MANAGER	DATE	BY
DESIGNED	10/04/2019	YUSUF SULTON
DRAWN	10/04/2019	YUSUF SULTON
CHECKED	10/04/2019	YUSUF SULTON
IN CHARGE	10/04/2019	YUSUF SULTON
REVISION 1		
REVISION 2		
REVISION 3		
REVISION 4		
FIELD CHANGES		

PLANS & PROFILE

SHEET NUMBER

6