

Supplemental Supporting Information for a Finding of Effect

Milo 20502.00

Scope: Bridge Replacement

Finding of Effect: **Adverse Effect**

Purpose and Need

The purpose of the project is to address the structural deficiency of the Old Toll Bridge #2867 that carries Route 6, 11, & 16 over the Piscataquis River in Milo.

The need for this project is due to significant deterioration in several areas of the bridge, including the beam seats, wingwalls, and wearing surface.

Project Background

The Old Toll Bridge was considered for replacement in a 1987 Preliminary Engineering Study, but the decision was made to replace the deck and widen the bridge to minimize archaeological impacts. This project started in 2013 with a scope of Bridge Improvement to determine repair or replacement options for bridge. A preliminary public meeting was held in 2014, but the project was deferred several times due to many factors, including a lack of available construction funds, a lack of immediately critical issues with the bridge condition, potential archaeological impacts, and design delays. Upon initiation of this project, the top side of the bridge was in good condition, with a new wearing surface having been installed by MaineDOT's Maintenance & Operations Office not long before. However, the ends of the beams and the piers showed significant levels of deterioration and have continued to worsen over the life of the project.

Proposed Action

The proposed action would replace the existing bridge with an off-alignment, two-span bridge comprised of a weathering steel beam superstructure with a cast-in-place concrete deck. The superstructure would be seated on concrete hammerhead piers and integral abutments with butterfly wings on H-piles driven to ledge. The bridge would carry two 11' lanes with 6' shoulders and 3-bar steel bridge rail. The total width would be 34' curb-to-curb. MASH guardrail would be used at the approach transitions.

The horizontal alignment would be tangent across the bridge, with a 650' radius horizontal curve at each end to match back into the tangent approaches. The north approach vertical alignment decreases at a -1.37% grade into a 350' sag curve before the bridge. The bridge is a 300' balanced crest curve with $\pm 2.75\%$ grades at each end, and another 350' sag curve transitions back into a slight -0.77% downward grade on the south approach.

The proposed bridge would be constructed on the downstream side of the existing bridge. It was determined that a downstream alignment would be better protected from flooding and erosion when compared to an upstream alignment. Additionally, the close positioning of the replacement bridge adjacent to the existing bridge on the downstream side would minimize archaeological impacts by constructing the north abutment in an area of fill. One lane of alternating one-way traffic would maintain traffic on the existing bridge during construction.

Federal Action

Federal funding.

Definition of Area of Potential Effect (APE)

The proposed project is located at the Route 6, 11, & 16 crossing over the Piscataquis River in Milo. The map below shows the APE.

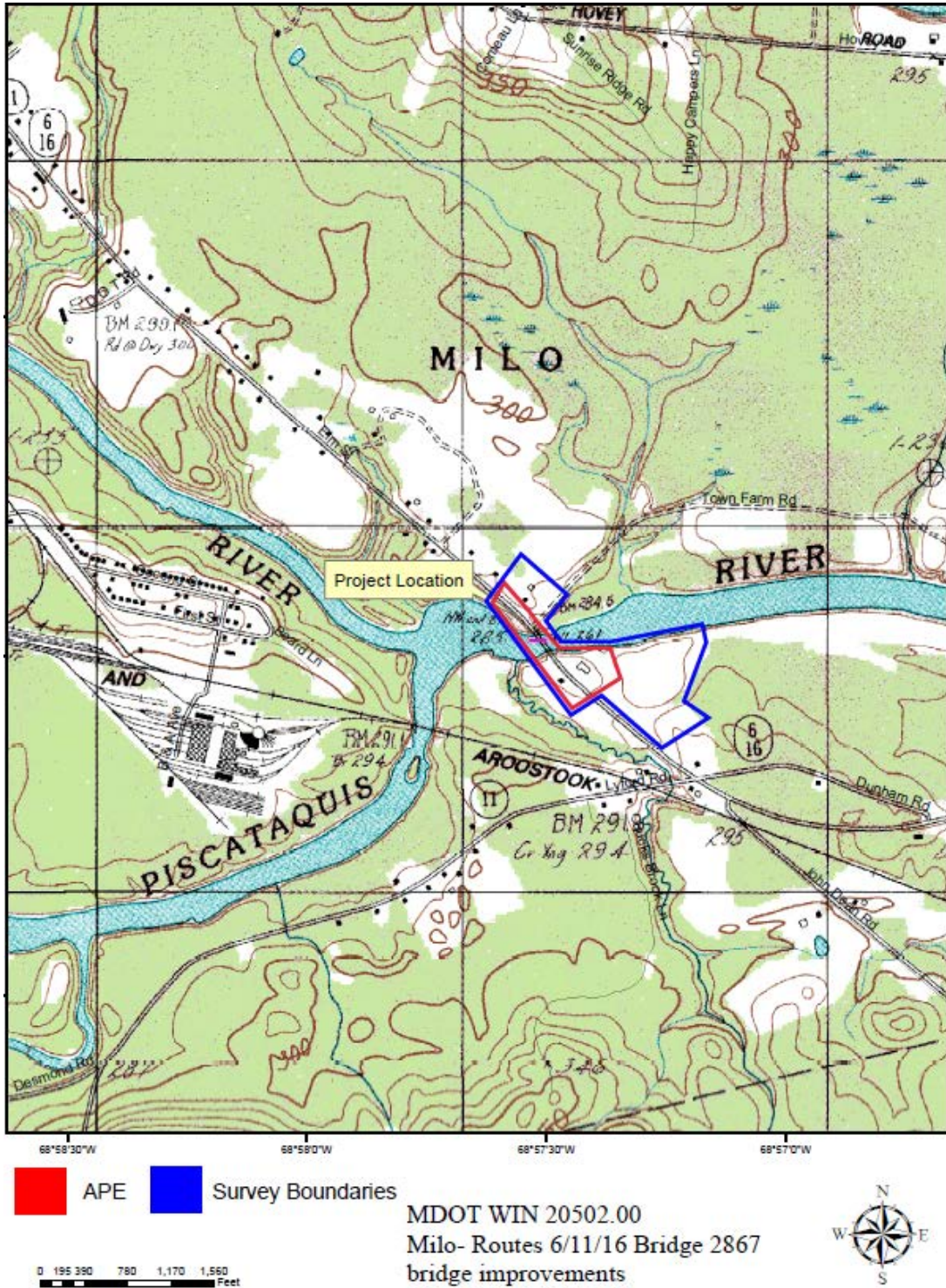


Figure 1. Milo 20502.00 Area of Potential Effect

Historic Resources

Historic Properties

There are no historic architectural resources in the project area.

Archeological Resources

Sharrow Site (ME 90.2d)

National Register-listed

Criterion D, Prehistoric

The Sharrow Site is a deeply stratified site with basal layers radiocarbon dated to about 9000 years. In the last 30 years, its Archaic culture sequence (9000 to 4000 years) has become a “type” sequence for comparison across northern interior New England and the Maritimes provinces, with regional significance. The Sharrow site was listed on the National Register of Historic Places in 1986 as one of five sites within the Sebec-Piscataquis River Confluence Prehistoric Archaeological District.

Impacts to Resources

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

Historic Properties

No historic architectural properties would be affected by the proposed undertaking.

Archaeological Resources

Sharrow Site (ME 90.2d)

National Register-listed

Criterion D, Prehistoric

The proposed action would result in an **Adverse Effect** to the Sharrow Site due to bridge construction. The proposed alternative would replace the existing bridge with an off-alignment weathering steel beam superstructure seated on concrete hammerhead piers. This action would adversely impact approximately 200 square meters of the site.

Avoidance and Minimization Efforts

Since the project’s initiation in 2013, effort has been made to minimize impacts to the archaeological resources that are present at the project location. Meetings were held between the Maine Historic Preservation Commission and the MaineDOT to discuss project goals and how to avoid extensive impacts to archaeological resources. As a result of those meetings, MHPC was able to focus their investigations in the areas most likely to affect the project and identify areas where construction would have minimal impact. The proposed action also minimizes impacts by maintaining traffic on the existing structure during construction. A temporary bridge option was studied but ultimately dismissed due to the additional archaeological impacts that would occur as a result.

Mitigation for the adverse impact includes data recovery (with follow-up analysis) of 10% of the approximately 200 square meter area of the site exposed from construction (up to 20 square meters). MHPC has determined this will be acceptable mitigation for the archaeological deposits in the eastern half of the APE, given that physical destruction of those deposits from construction will be limited. The remaining data recovery area (up to 10 square meters) will be distributed across the

eastern half of the APE to increase the sample of material (including more shallowly buried Ceramic period deposits).

As compensation for potential damage to the 90% of the area not scheduled for data recovery and other effects to the site and National Register District, other related mitigation measures are proposed as well. These measures include aerial photography and digital recordings, erosion monitoring, and scholarly publication for the public benefit. Further information can be found in MHPC's Mitigation and Data Recovery Plan (note – not available for public viewing).

Dismissed Alternatives

On-Alignment Replacement

The On-Alignment Replacement Alternative would minimize the roadway work and permanent right-of-way impacts, but would require either a temporary bridge or the construction of the pier in stages, both of which would have extensive impacts on the project cost and schedule. A temporary bridge would also add a significant amount of pile driving that would cause additional environmental and cultural impacts. Alternately, staged construction to avoid the use of a temporary bridge would present constructability issues and would further impact the schedule. For these reasons, the On-Alignment Replacement Alternative was dismissed from further consideration.

Off-Alignment Upstream Replacement

The Off-Alignment Upstream Replacement Alternative would have the least amount of property impacts. However, this alternative would require a longer bridge that would be more prone to damage from flooding because it encroaches on the wider pool area where the Piscataquis River and the Sebec River join. For these reasons, the Off-Alignment Upstream Replacement Alternative was dismissed from further consideration.

Proposed Materials

Concrete, reinforcing and structural steel, hot mix asphalt.

Public Involvement

MaineDOT contacted the four federally recognized Native American Tribes in Maine. The Penobscot Nation and the Passamaquoddy Tribe replied with no concerns about the undertaking.

The Town of Milo was contacted upon initiation of the project and asked to comment on knowledge of, or concerns with, historic properties in the area, and any issues with the undertaking's effects on historic properties. The Town corresponded with the Milo Historical Society and replied with no knowledge of historic properties in the area or concerns with the undertaking.

The public involvement period is ongoing.

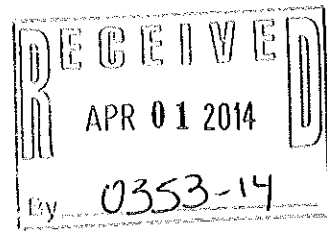
Plans

Milo, Piscataquis County, Old Toll Bridge over Piscataquis River, Routes 6, 11, & 16, Maine Department of Transportation 20502.00

Attachments

Kirk F. Mohney, MHPC, to Megan Hopkin (Rideout), MaineDOT, April 4, 2014
Kirk G. Money, MHPC, to Julie Senk, MaineDOT, August 2, 2021

STATE OF MAINE
Memorandum



Date: March 28, 2014

To: Earle G. Shettleworth, Jr., MHPC
From: Megan M. Hopkin, Maine DOT/ENV
Subject: Section 106 request for concurrence
Project: Milo 20502.00
Scope: bridge improvements

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 project consists of Preliminary Engineering for Future Bridge Improvements: Old Toll Bridge #2867 in Milo carrying Routes 6, 11, & 16 over the Piscataquis River. The Federal action for this project is Federal funding. The cultural review is scheduled to be completed by June 20, 2014.

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 bridge and within the project limits. The project limits are defined by the structure and the immediately adjacent area, as well as potential approach roadway and intersection improvements nearby. 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 is currently reviewing this undertaking.
- 800.4(a) (3) – The town of Milo was contacted via letter 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. The town has not replied to date.
- 800.4(a) (4) – Letters outlining project location and scope were sent to the 4 federally recognized Tribes in Maine. The Tribes have not replied to date.
- 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 is currently reviewing this undertaking. **The Maine DOT has determined that no architectural properties within the APE are 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 this determination of National Register eligibility within 30 days.

Please contact me at megan.m.hopkin@maine.gov or 592-3486 if you have any questions. Thank you.

cc: CPD e-file
enc: Architectural survey

Projex

CONCUR	
<i>Kirk F. Mohney</i>	<i>4/4/14</i>
Kirk F. Mohney, Deputy State Historic Preservation Officer	Date

STATE OF MAINE

Memorandum



Date: July 23, 2021

To: Kirk F. Mohney, MHPC
From: Julie Senk, Maine DOT/ENV
Subject: Section 106 request for concurrence
Project: Milo 20502.00, MHPC #0353-14
Scope: Bridge Improvements

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 bridge improvements to the Old Toll Bridge #2867 carrying Routes 6, 11, & 16 over the Piscataquis River in Milo.

This is a continuing project. The scope and project area have not changed in the time that has elapsed since the project kicked off, nor have any of the previously surveyed properties changed. However, the original APE has been expanded to include one additional resource. Due to the passage of time since the original survey effort took place, the MaineDOT is also requesting re-concurrence on the original finding of no historic architectural properties eligible or listed in the National Register.

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

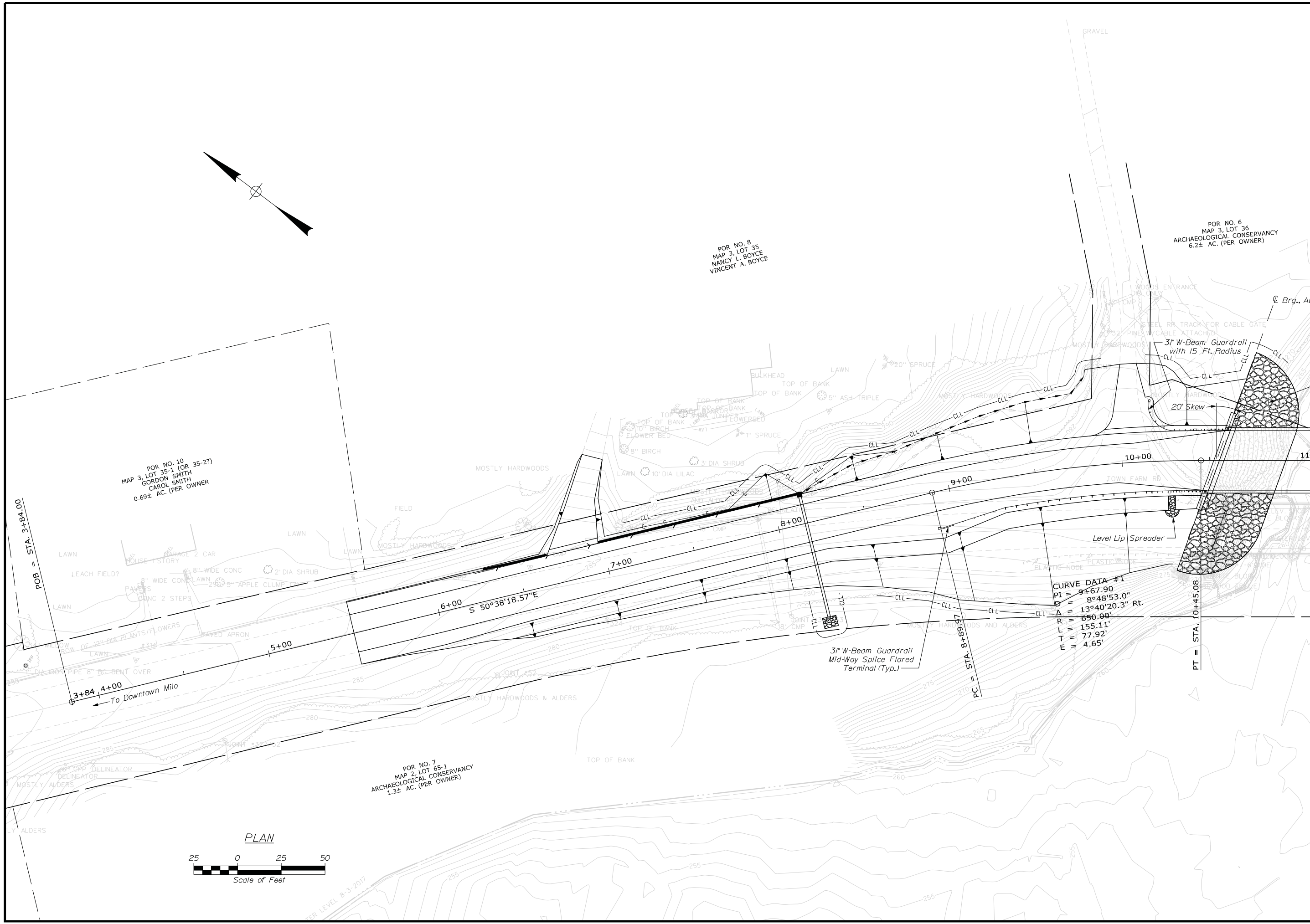
- 800.4(a) (1) - The Area of Potential Effect (APE) includes properties/structures adjacent to the bridge and within the project limits. The project limits are defined by the project area and the immediately adjacent area. Properties/structures adjacent to this project limit are considered to be within 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 Town of Milo was contacted via letter 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. The Town and Milo Historical Society replied with no obvious concerns.
- 800.4(a) (4) – Letters outlining project location and scope were sent to the 4 federally recognized Tribes in Maine. The Penobscot Nation and Passamaquoddy Tribe replied with no obvious concerns.
- 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 determined that the Sharrow Site is listed on the National Register of Historic Places. **The Maine DOT has determined that no architectural properties within the APE are 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.

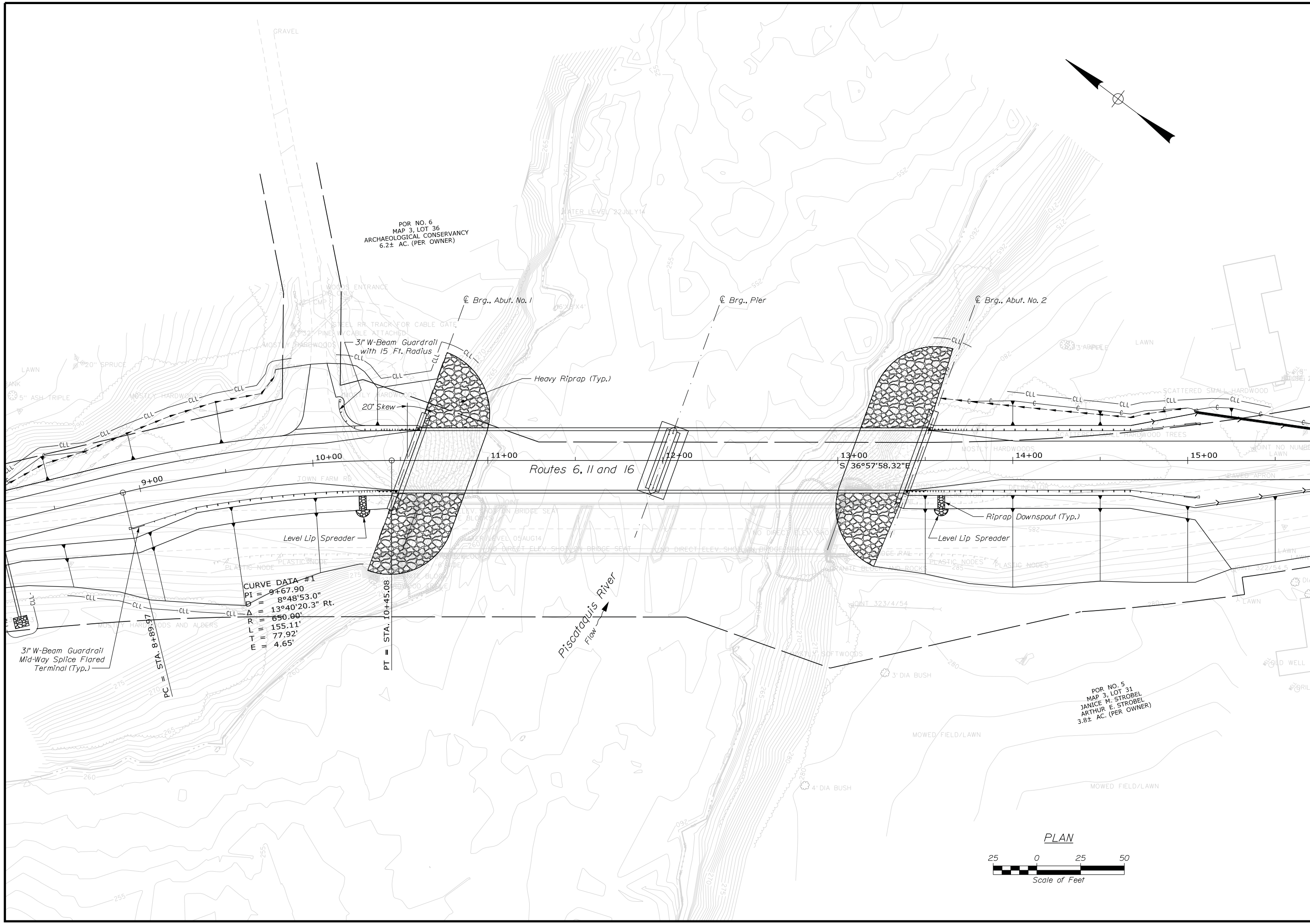
cc: CPD e-file
enc: Architectural survey

CONCUR	
	8/2/21
Kirk F. Mohney, State Historic Preservation Officer	Date

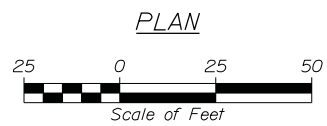


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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
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MILO		PISCATAQUIS COUNTY	
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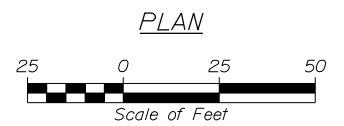
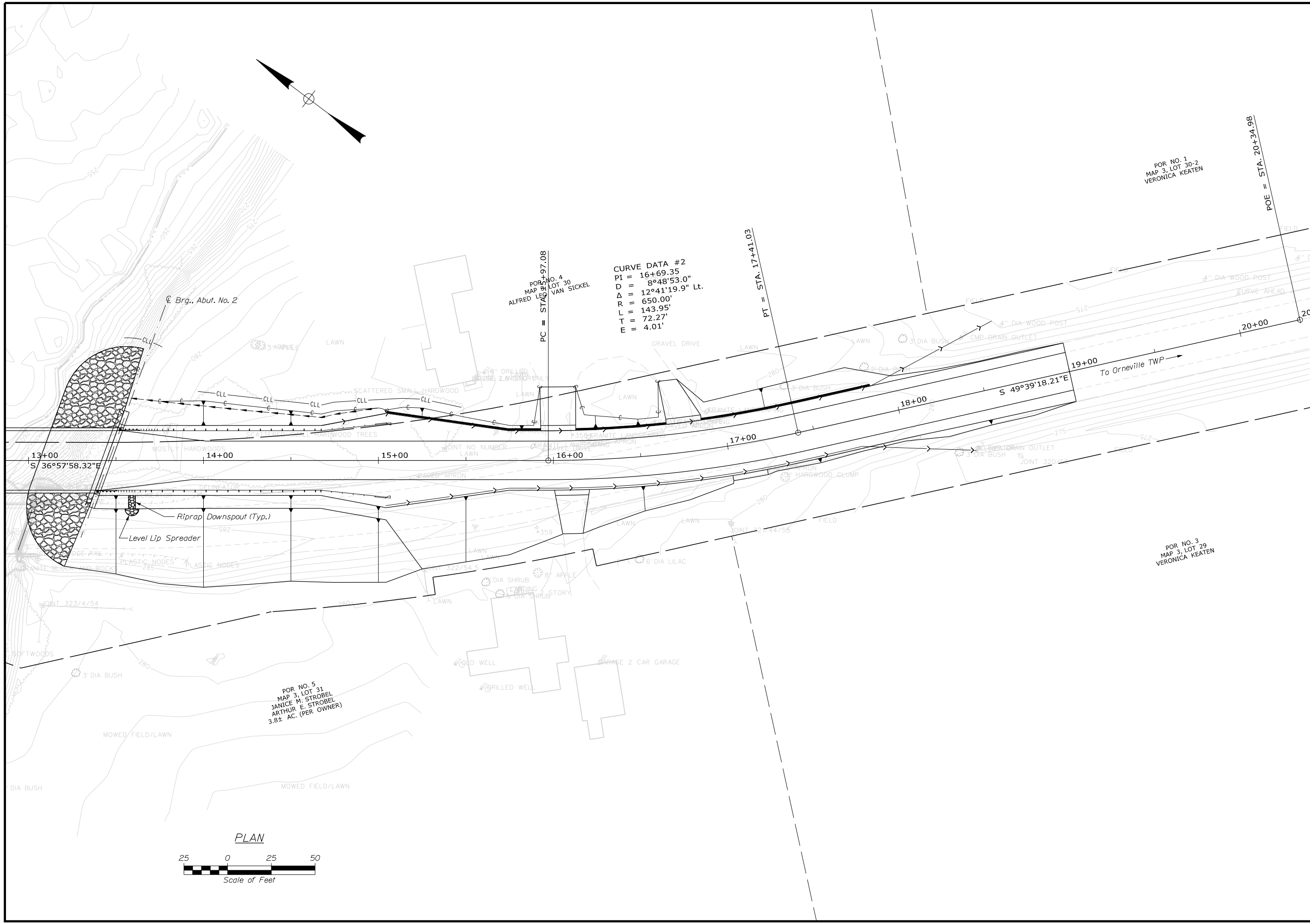


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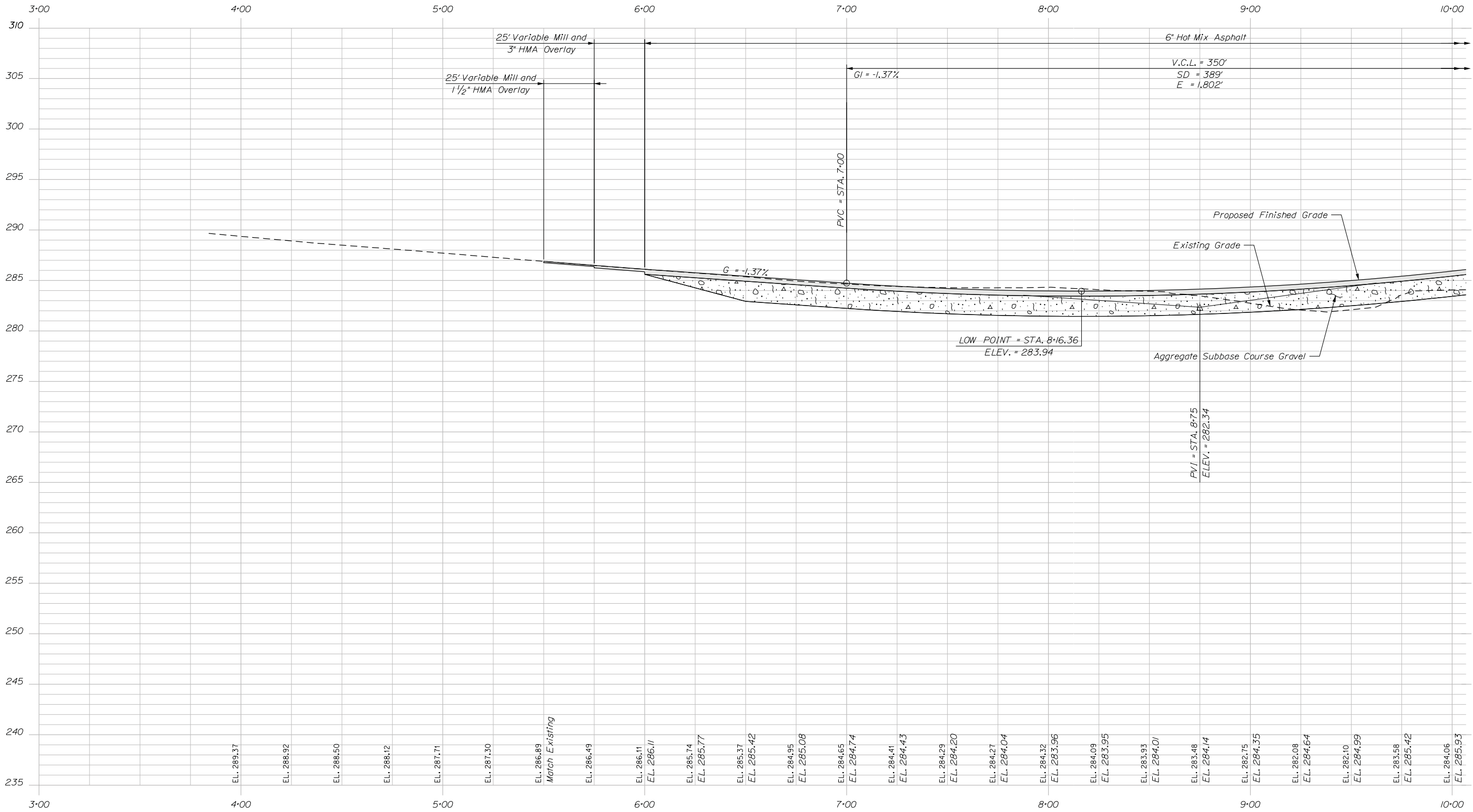
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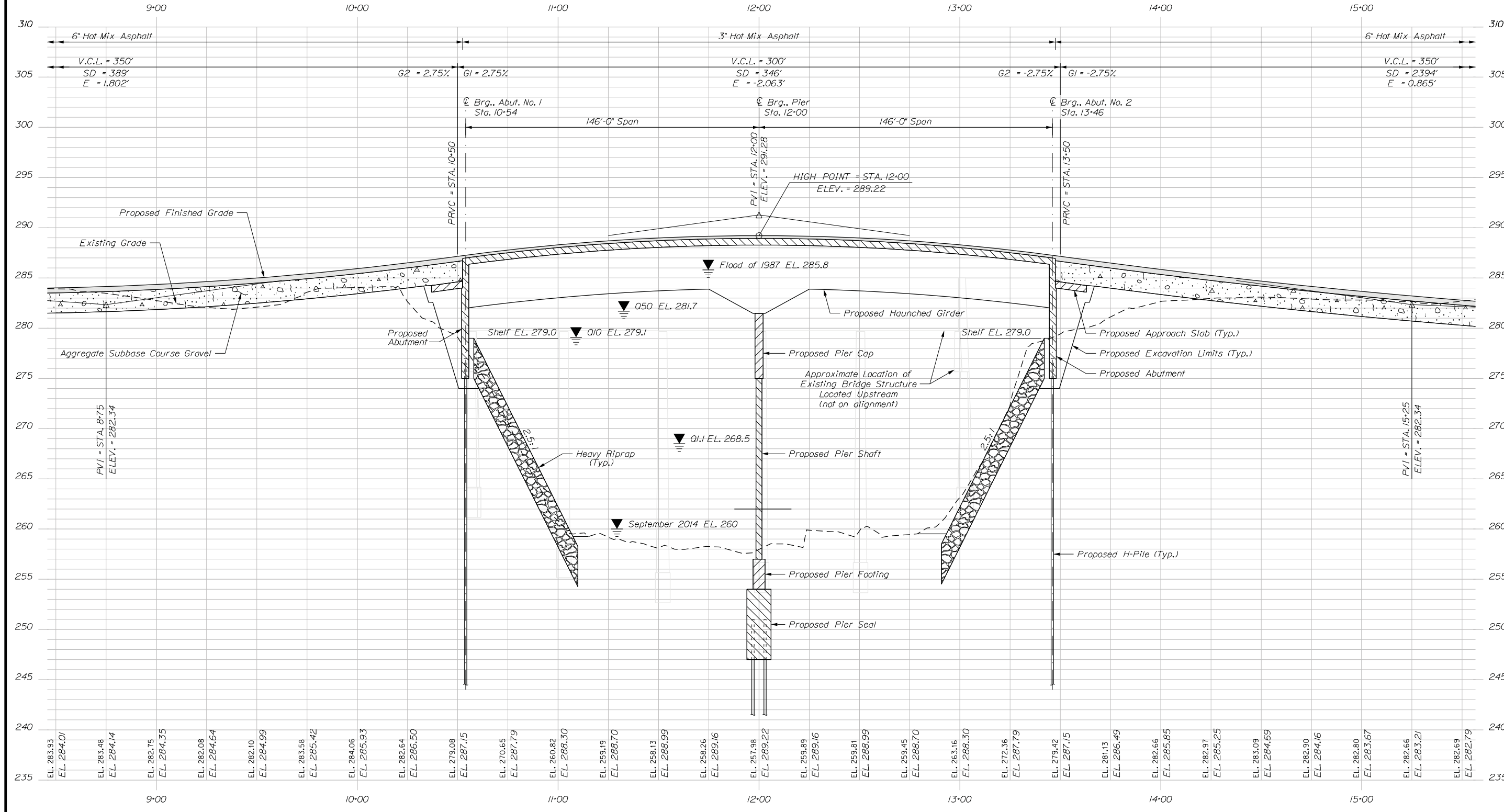


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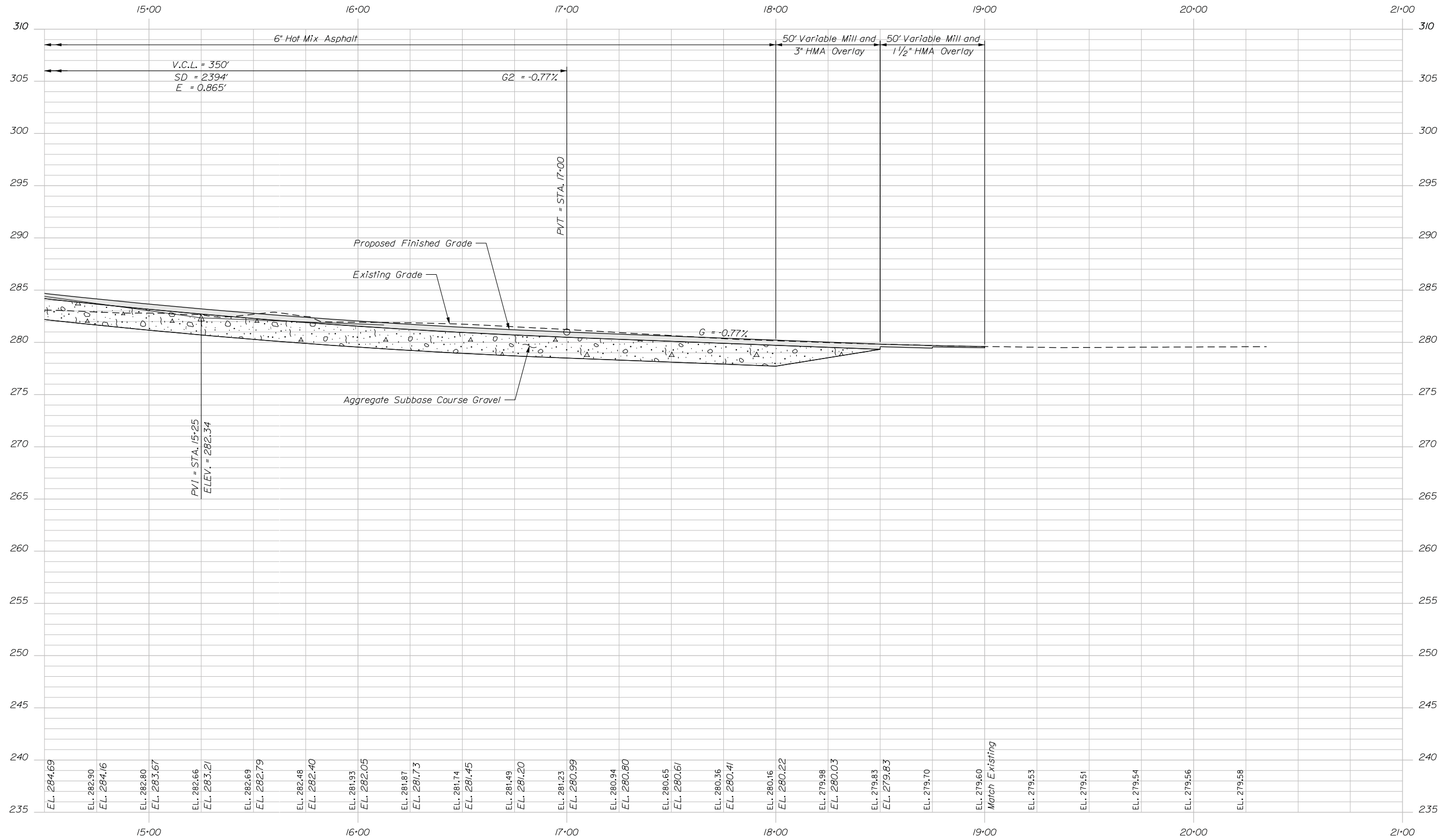
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PROFILE

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DEPARTMENT OF TRANSPORTATION
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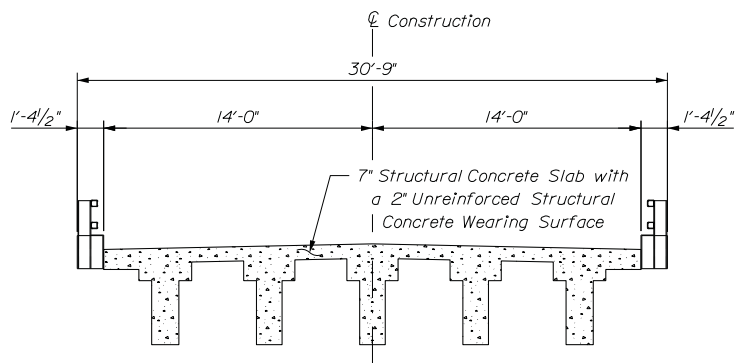
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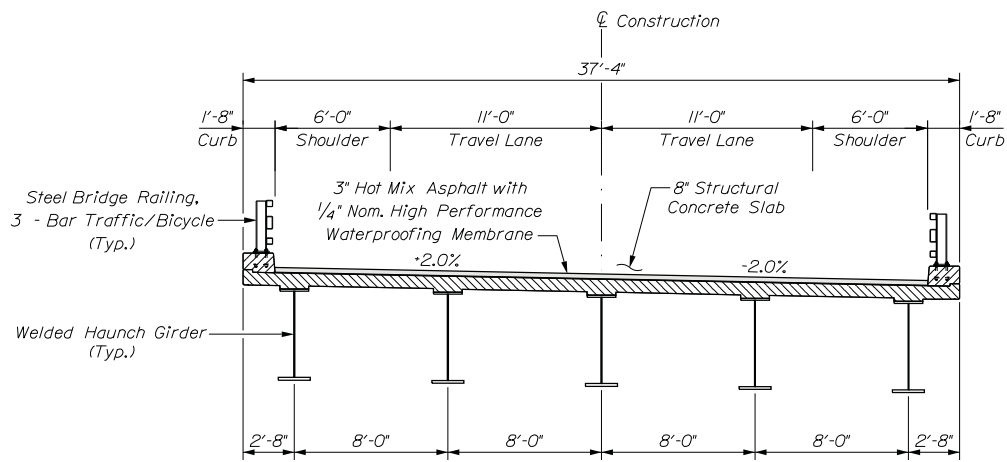
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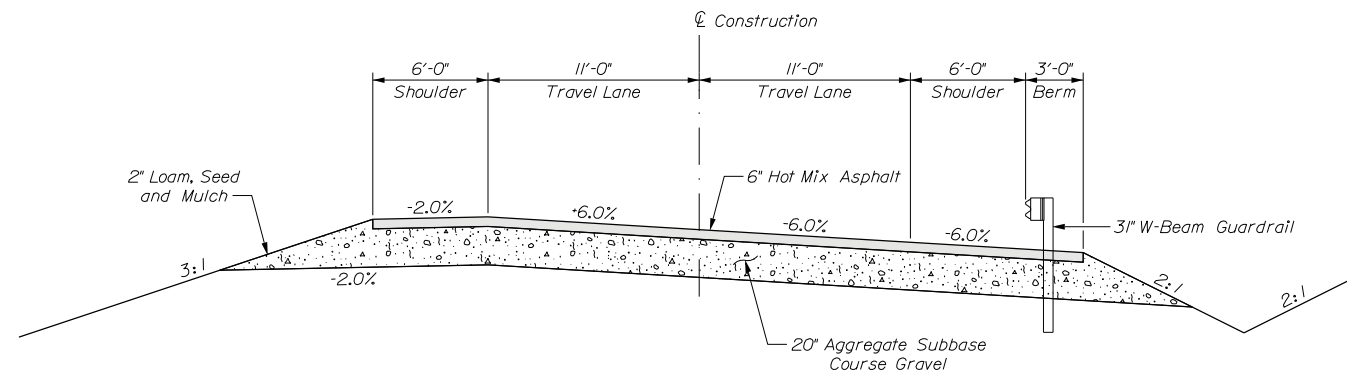




EXISTING BRIDGE SECTION



PROPOSED BRIDGE SECTION



TYPICAL SUPERELEVATED APPROACH SECTION

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