



# Project Initiation Meeting

Barre City Vermont – June 5<sup>th</sup>, 2023

Bridge 308 on the Washington County Railroad, Montpelier & Barre Division

VTrans Project: Barre City WACR(22)



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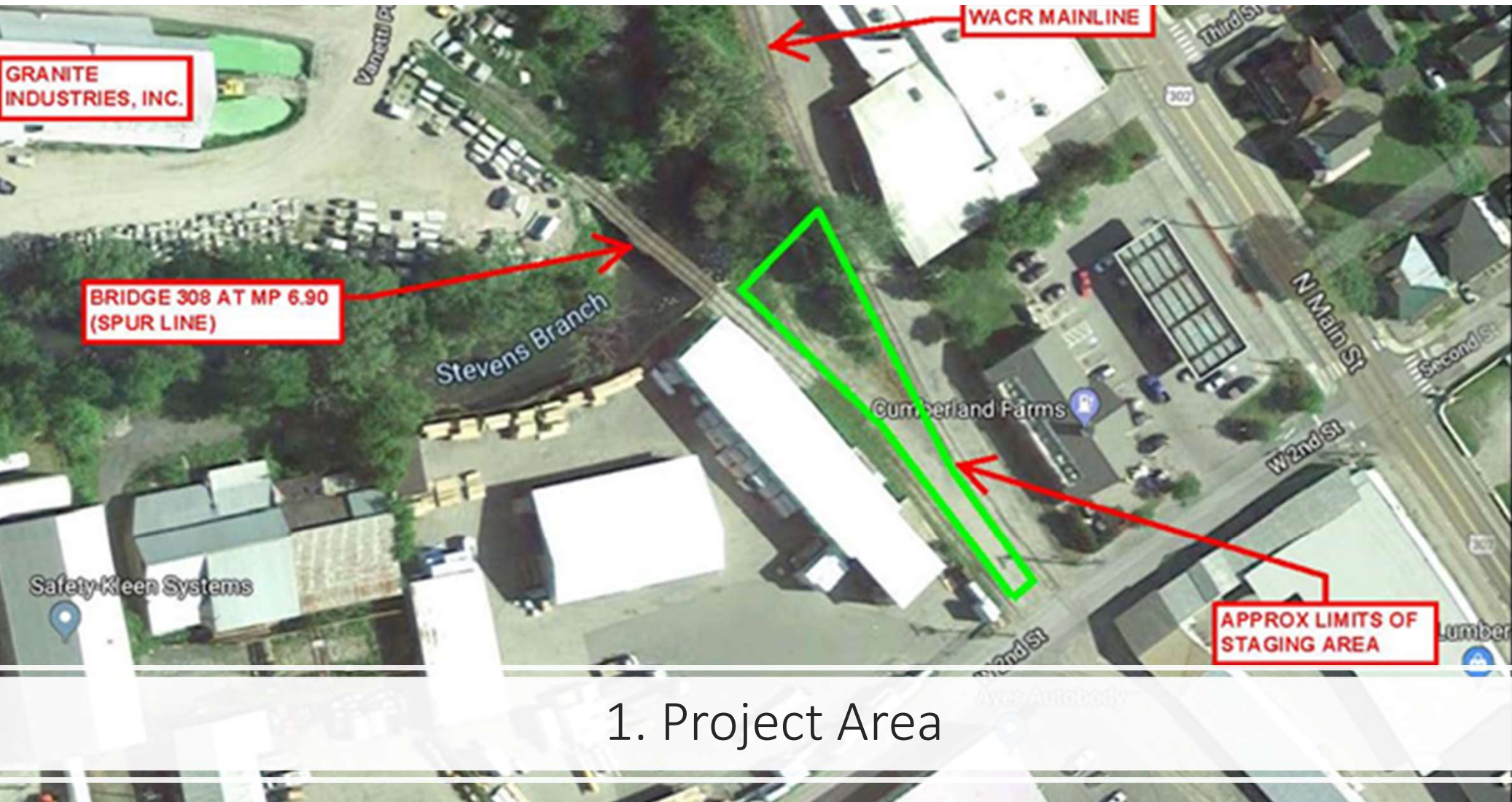
John Wilson, PE  
Jacobs Project Manager

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## Agenda

1. PROJECT AREA
2. EXISTING CONDITIONS
3. OVERVIEW OF PROJECT SCOPE OF WORK
4. OVERVIEW OF BRIDGE ALTERNATIVES
5. PUBLIC INPUT/QUESTIONS
6. DISCUSSION OF NEXT STEPS
7. POTENTIAL FUNDING OPPORTUNITIES



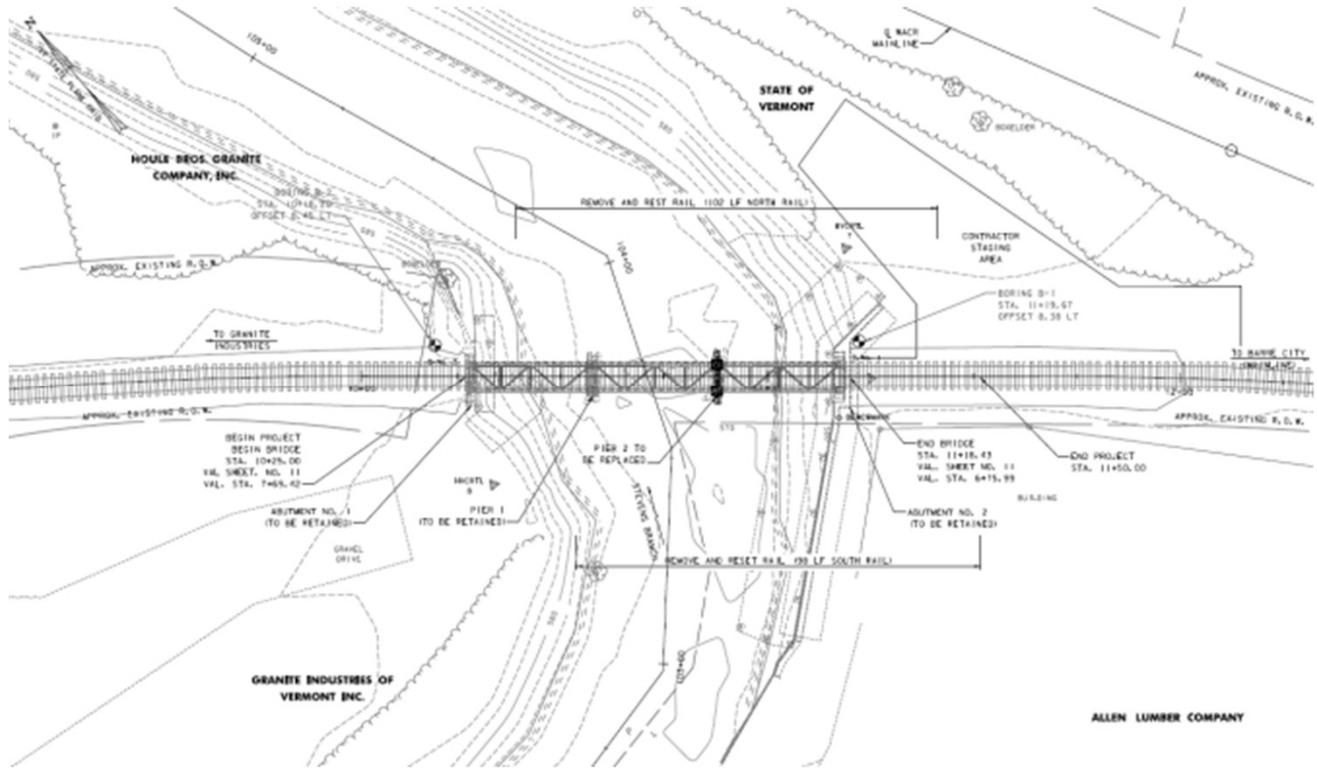


## 2. Existing Conditions

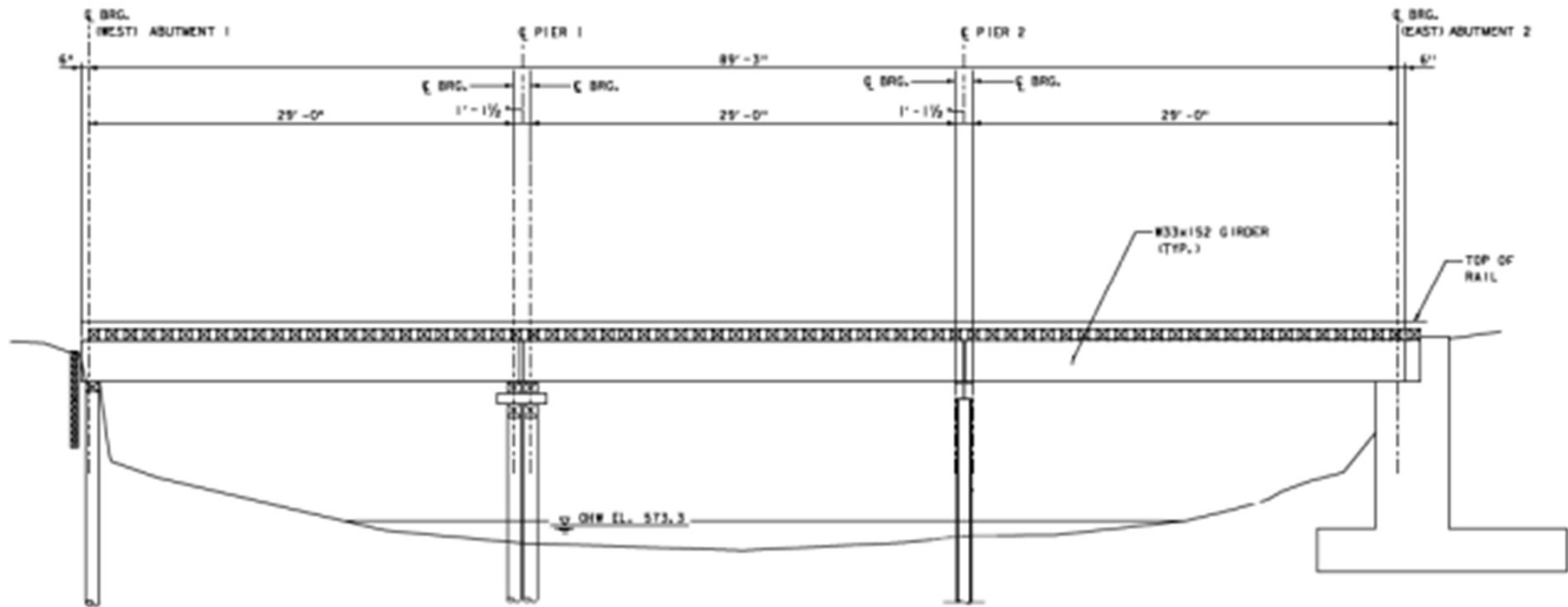
- Bridge 308 was constructed in 1950 to cross the Stevens Branch of the Winooski River.
- The bridge is on a spur line that is part of the Washington County Railroad, Montpelier & Barre Division to service Granite Industries, Inc.
- The bridge is currently closed due to ice damage of the pier.
- The superstructure girders are in satisfactory condition and require minor repairs.
- Abutment 1 block wall and timber bent are in satisfactory condition.
- The two timber bents within the channel are in serious condition.
- Abutment 2 is in excellent condition and was recently replaced in 2013.



# Bridge Site Plan




# Existing Bridge Elevation



### 3. Overview of Project Scope of Work

- The Vermont Agency of Transportation has received a FEMA Building Resilient Infrastructure and Communities (BRIC) Grant to study the alternatives available in this location.
- Review existing hydraulic data and obtain additional data such as survey and resource evaluation.
- Complete hydrologic and hydraulic analysis of the bridge site to determine the flood elevations and velocities of the existing condition.
- Determine specifics of the proposed alternatives sufficient to create hydraulic modeling.
- Complete hydraulic analysis of each proposed bridge alternative and compare to existing condition to summarize downstream and upstream affects of each alternative.
- Provide cost estimates for each of the proposed alternatives.
- Present alternatives at Public Informational Meeting.
- Determine preferred alternative and complete a FEMA Benefit Cost Analysis Report.





## 4. Overview of Bridge Alternatives

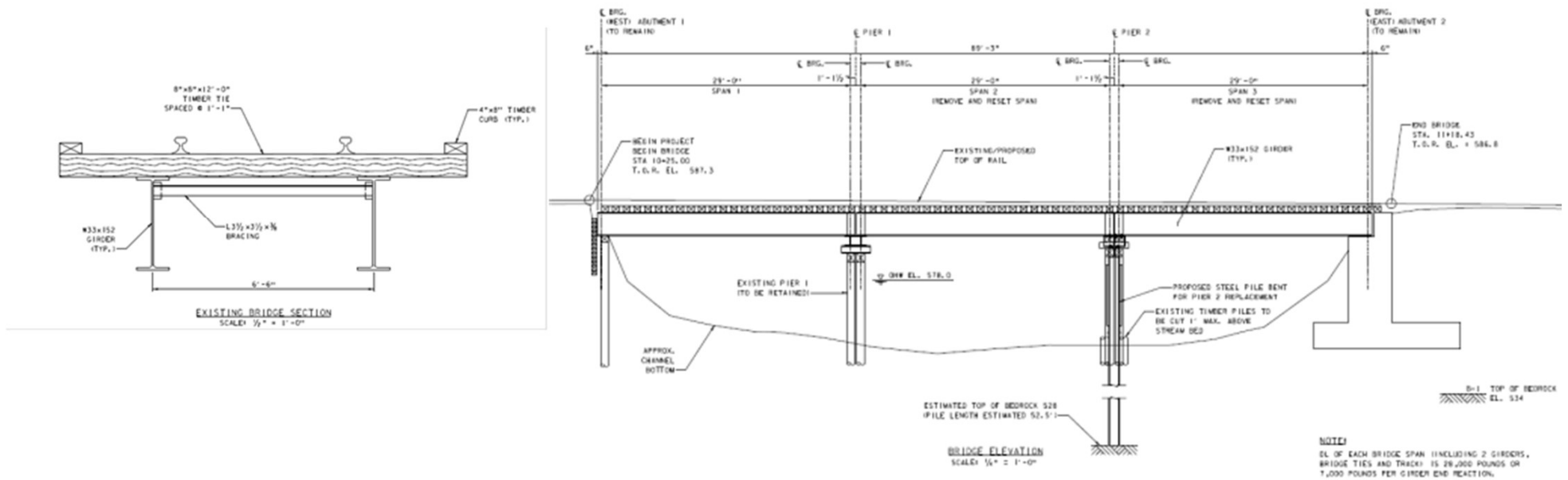
Potential options being considered for this project include:

- A. No Action (Graphic not provided)
- B. Bridge Repair.
- C. Bridge Replacement with a new 2-Span Structure.
- D. Bridge Replacement with a new Single Span Structure.
- E. Bridge Removal while retaining Existing Substructure for potential future use.
- F. Bridge Removal including Substructures.



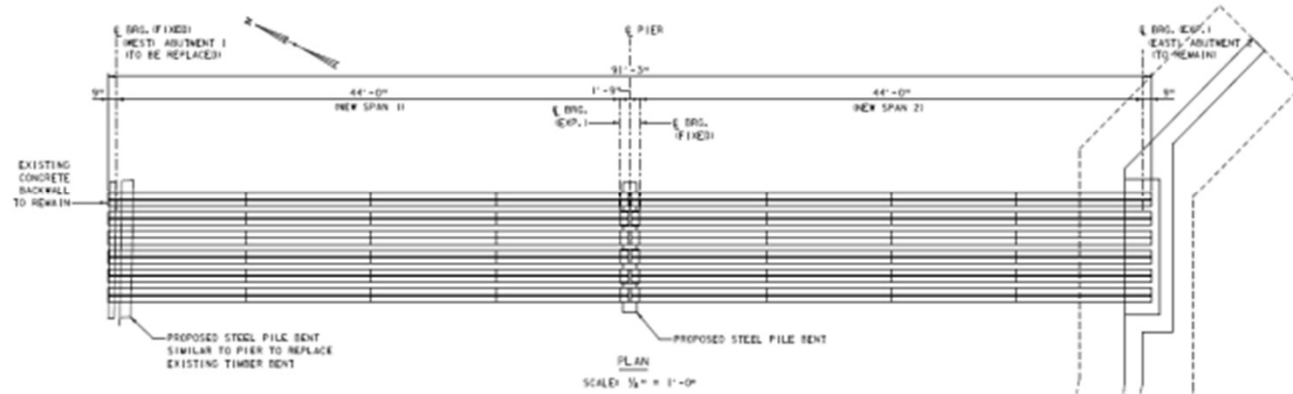
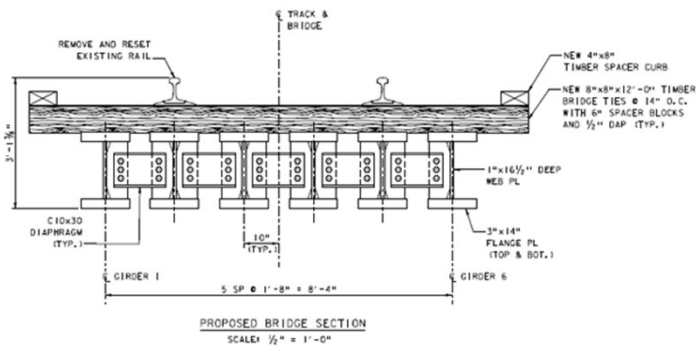
## B. Bridge Repair Alternative

- Replace damaged Pier 2, retain existing Pier 1, retain both abutments, minor repairs to superstructure.
- No change to Hydraulic Opening.



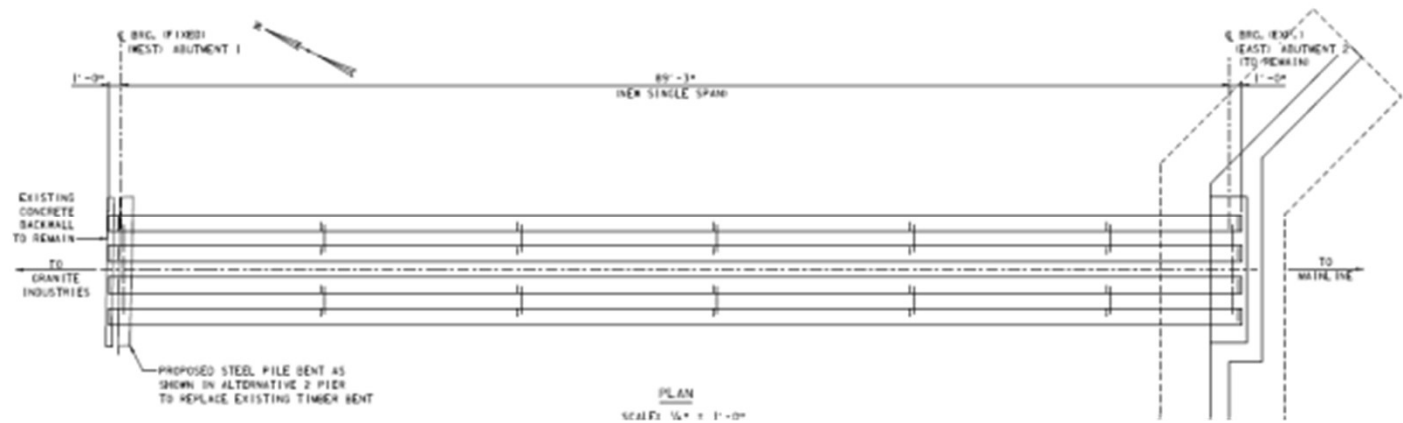
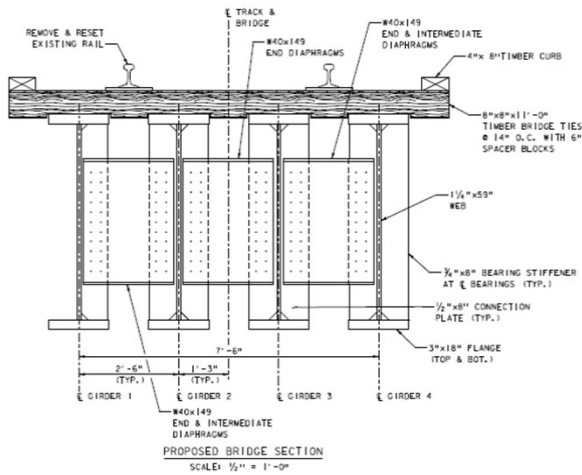
# C. Bridge Replacement with new 2-Span Structure

- New abutment 1, new superstructure, remove existing piers, new center pier (location can be shifted for hydraulics), abutment 2 to remain.
- Girders are shallower and a pier is removed in channel, both improve hydraulic opening.



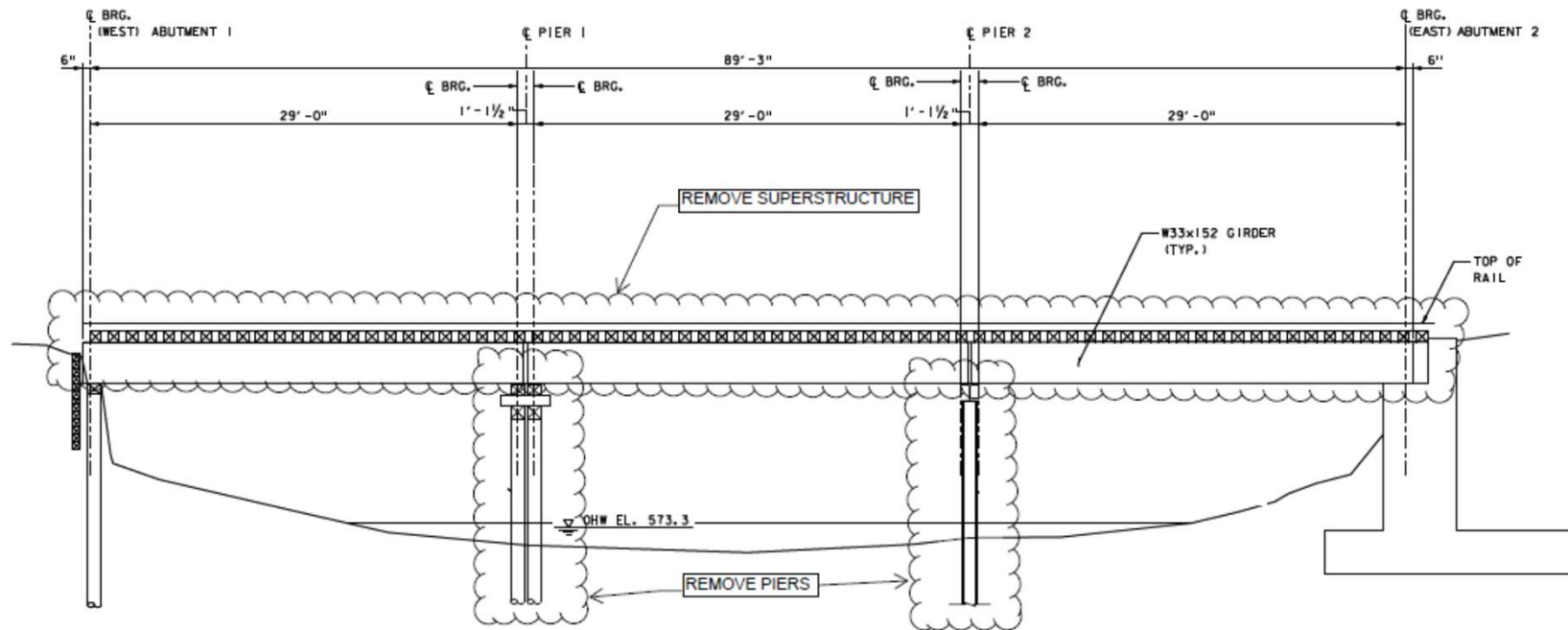
# D. Bridge Replacement with new Single Span Structure

- New abutment 1, new superstructure, remove existing piers, abutment 2 to remain.
- Removes both piers in the channel and improves hydraulic opening.
- Girders are taller than existing and requires raising track profile.



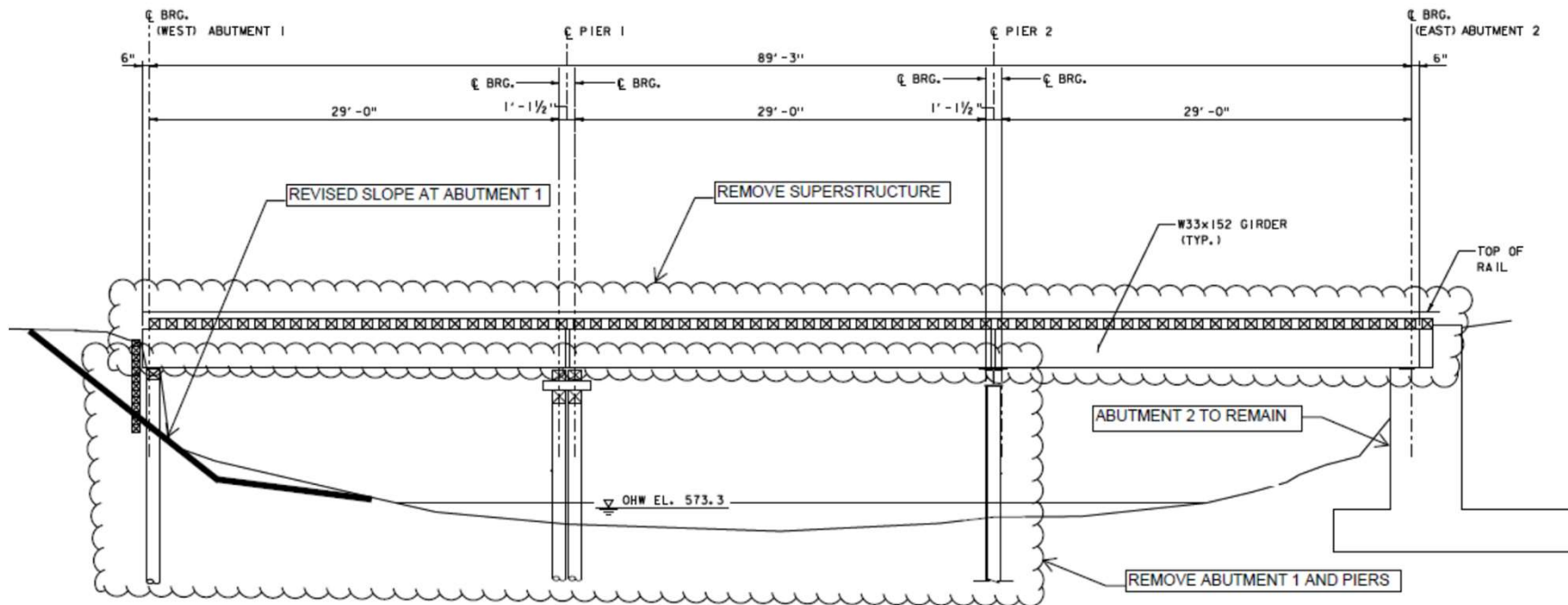
# E. Bridge Removal while retaining Existing Abutments for potential future use

- Remove superstructure and existing piers.
- Abutments to remain.
- Removes both piers in the channel and improves hydraulic opening.



## F. Bridge Removal including Substructures

- Remove superstructure, piers and abutment 1; Abutment 2 to remain.
- Removes both piers in the channel and slope westerly embankment to improve hydraulics.





**Jacobs**

5. Public Input / Questions?



## 6. Discussion of Next Steps

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- A. Development and Refinement of Bridge Alternatives
- B. Complete Hydrologic Analysis and Hydraulic Analysis of Existing Conditions
- C. Complete Hydraulic Analysis of Proposed Alternatives
- D. Develop Cost Estimates of Proposed Alternatives
- E. Submit Draft Alternatives analysis report including Hydraulics and Cost Estimates
- F. Engage stakeholders and conduct Public Meeting to present Proposed Alternatives
- G. Submit final Proposed Alternatives Analysis Report
- H. Select preferred alternative and complete Cost Benefit Analysis Report
- I. Final coordination with stakeholders, VTrans and FEMA; submit final Cost Benefit Analysis Report



# 7. Potential Funding Sources

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- A. Hazard Mitigation Grant Program (HMGP)
- B. Flood Resilient Community Fund (FRCF)
  - A. This would be applicable only if structure is removed
- C. Building Resilient Infrastructure and Communities (BRIC) Grant



<https://vem.vermont.gov/funding/mitigation>