



Montgomery STP DECK (47) and
Montgomery STP DECK (40)
Public Presentation Meeting
VT 118– Bridge #20 over West Hill Brook and
Bridge #19 over the Trout River

October 2, 2017

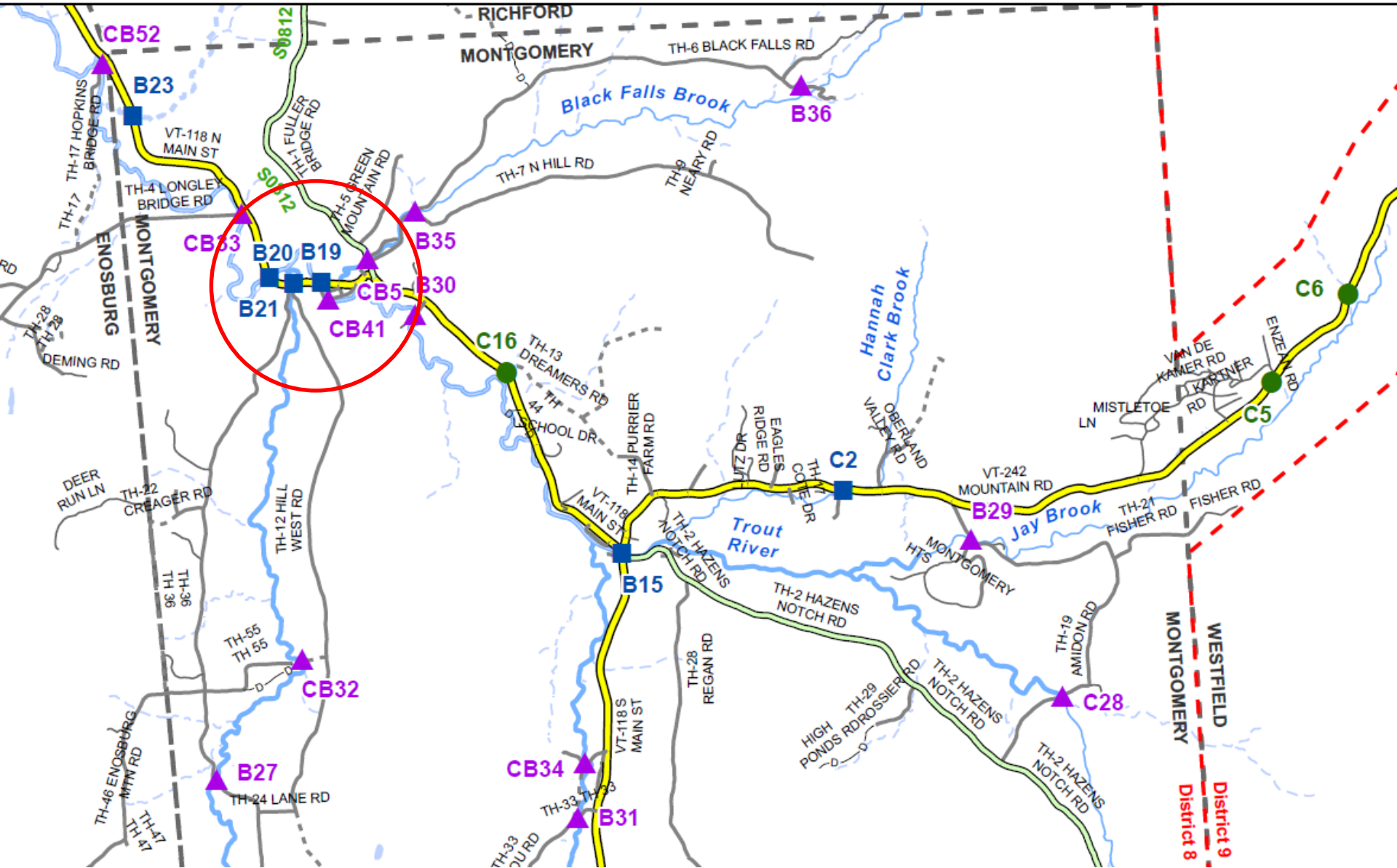
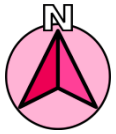


Purpose of Meeting

- Provide an understanding of our approach to the projects
 - Concerns from March 21st 2016 meeting
- Discuss Bridge Railing
- Traffic Control
- Provide an opportunity to ask questions and voice concerns



Location Map – Bridge #19 and 20





Project Locations

BRIDGE 20

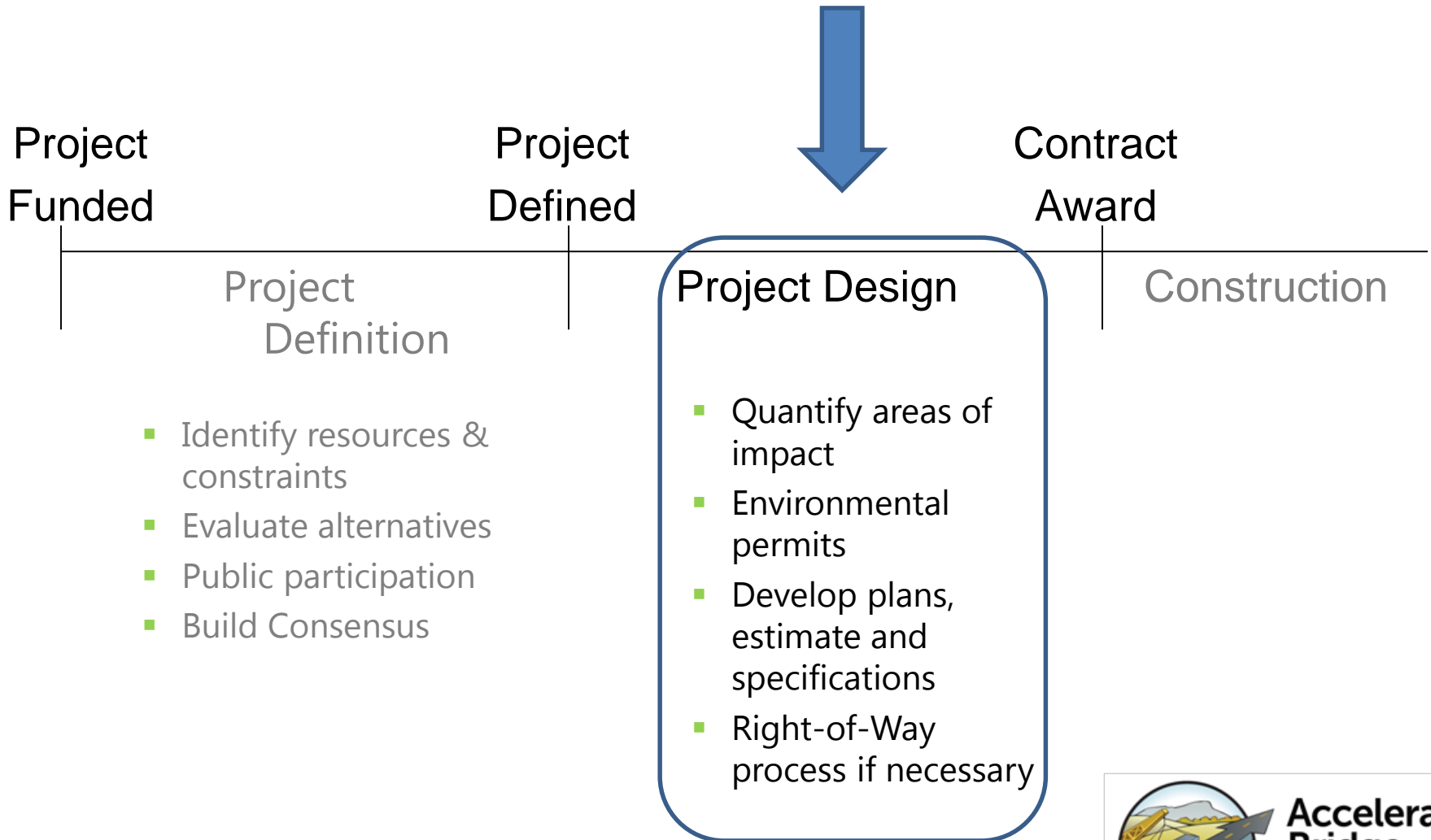
BRIDGE 19

Meeting Overview

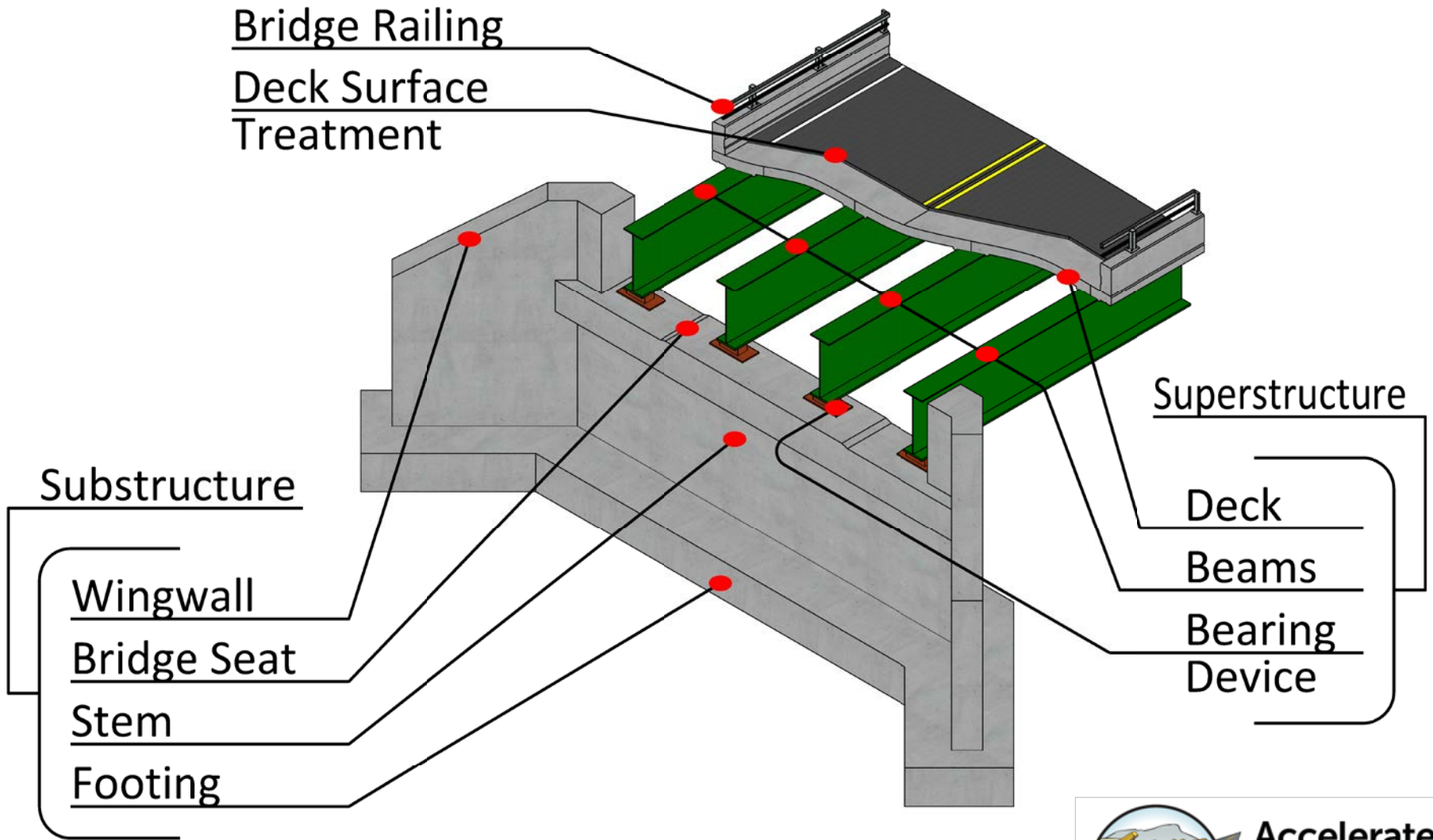
- VTrans Project Development Process
- Project Overview
 - Existing Conditions Bridge 20
 - Existing Condition Bridge 19 Recap
- Bridge Railing and Speed Limit
- Maintenance of Traffic
- Summary
- Questions



VTrans Project Development Process



Description of Terms Used




Existing Conditions

- Roadway Classification –Major Collector
- Bridge Type –3-span Cast in Place deck on Rolled Beams
- Constructed in 1953
- Ownership – State of Vermont



Existing Conditions - Bridge #19

- Deck Rating 4 (Poor)
- Superstructure Rating 7 (Good)
- Substructure Rating 6 (Satisfactory)



Existing Conditions - Bridge #20

- Deck Rating 5 (Fair)
- Superstructure Rating 6 (Satisfactory)
- Substructure Rating 6 (Satisfactory)



- Bridge and Approach Rail is Substandard (Both Bridges)

Resource Constraints



- Historic Bridge Rail– Concrete Parapet/Metal Railing

Design Criteria and Considerations

- ADT of 2,500
- DHV of 330
- % Trucks: 4.3
- Design Speed of 35 mph
- Historic Bridge Railing



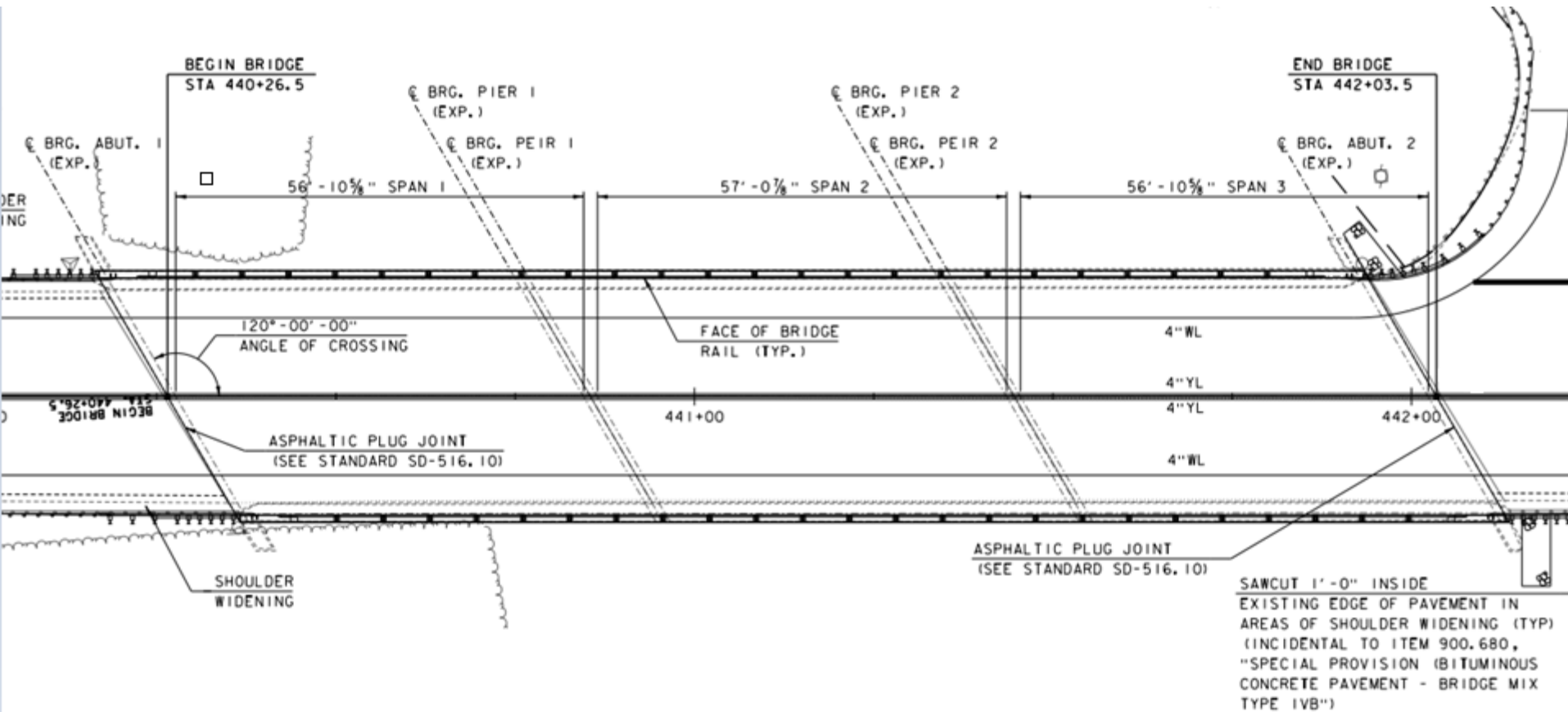
Alternative Selected – Bridge #19 and #20

- Previous Meeting
 - March 21, 2016
 - Presented Alternatives for Bridge 19
 - Discussed need for a railing that was not concrete
 - Reduce Speed Limit through this area
 - Discussed adding bridge 20 to the project

- Selected Alternative: Deck Replacement
 - Replace the deck with a cast-in-place concrete deck
 - New Three Rail Bridge Railing
 - Maintain the existing bridge width
 - Three simple spans with continuous deck (link slab)
 - No Right-Of-Way needed



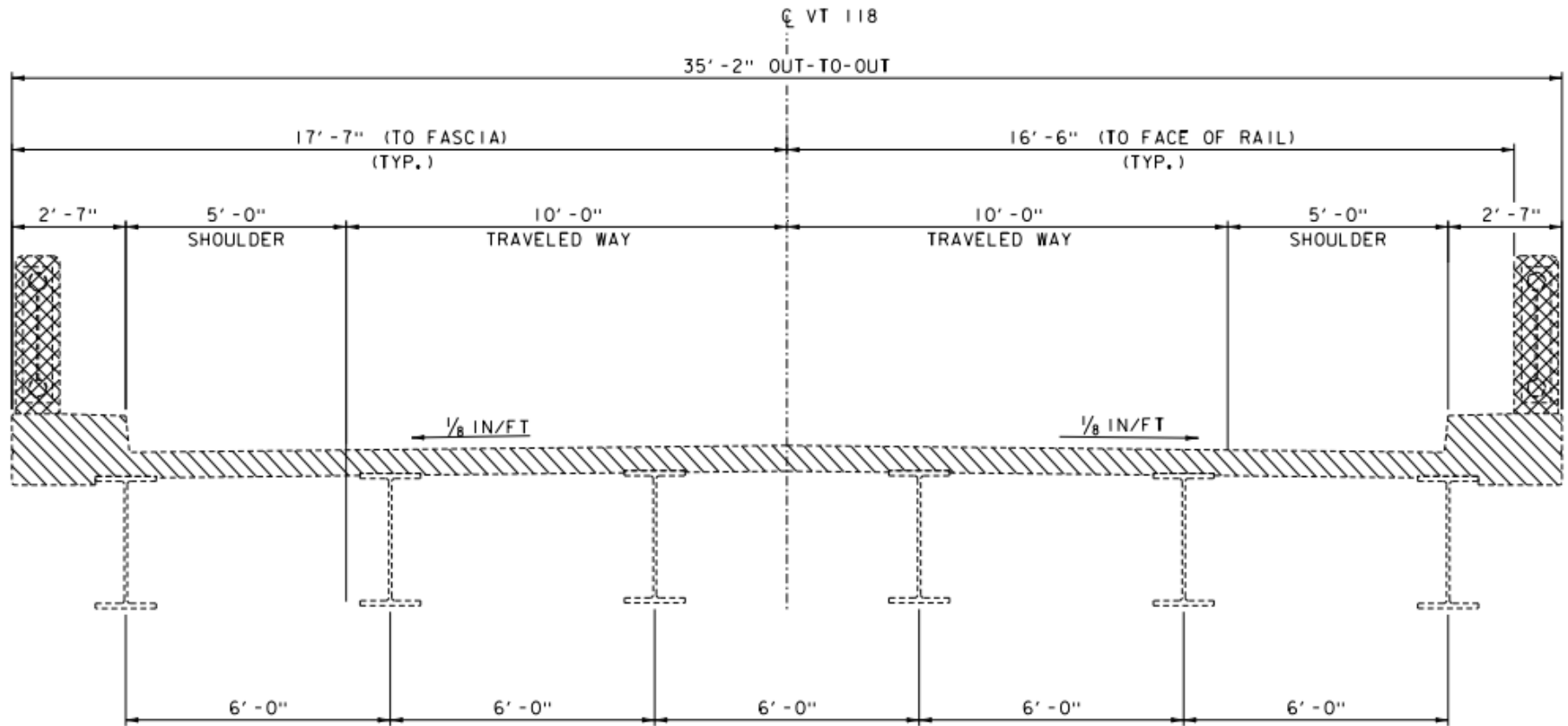
Bridge #19



Full Deck Replacement - Bridge #19

- Maintain Bridge Width
- Improve Bridge Railing Safety

Existing Typical Section #19 & #20

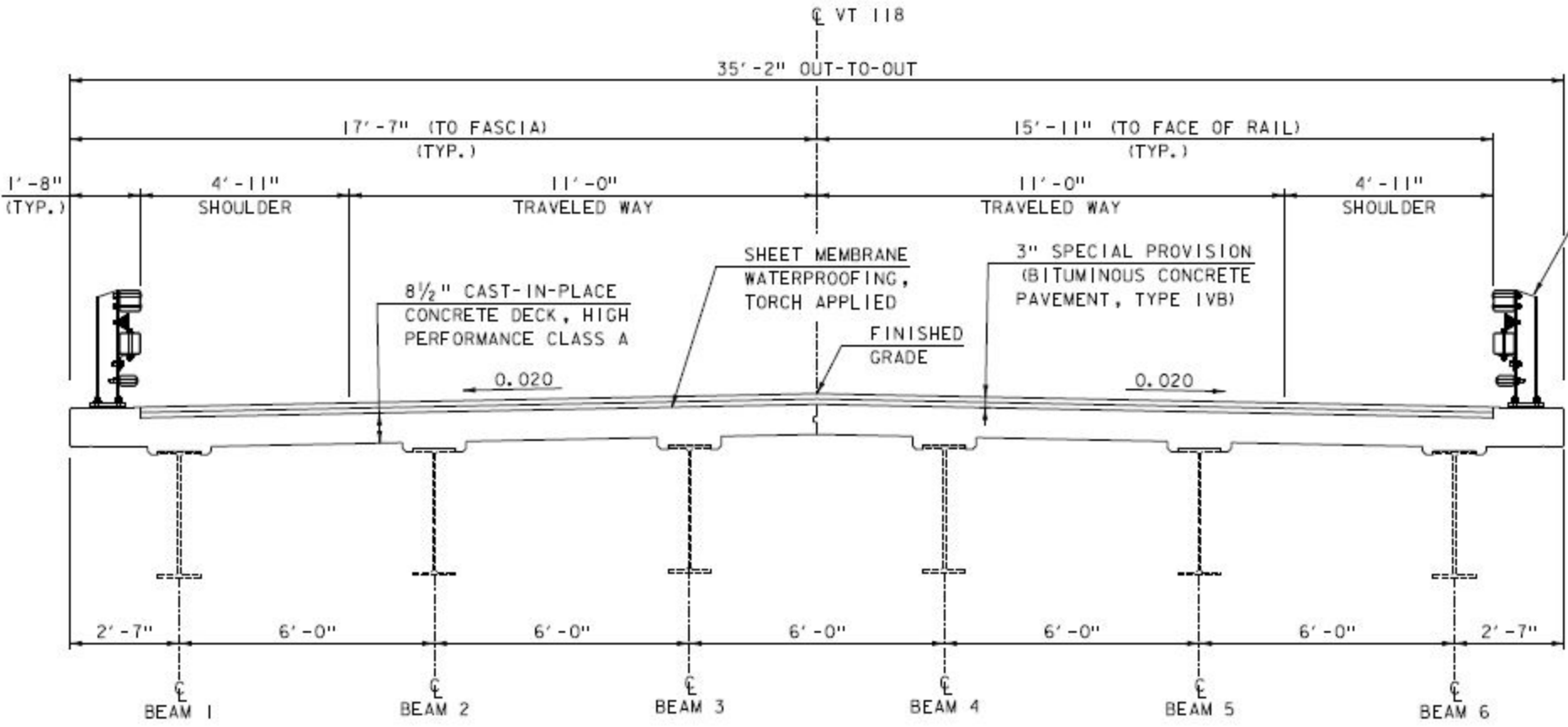


EXISTING TYPICAL BRIDGE SECTION

SCALE: 1/2" = 1'-0"

 PARTIAL REMOVAL OF STRUCTURE

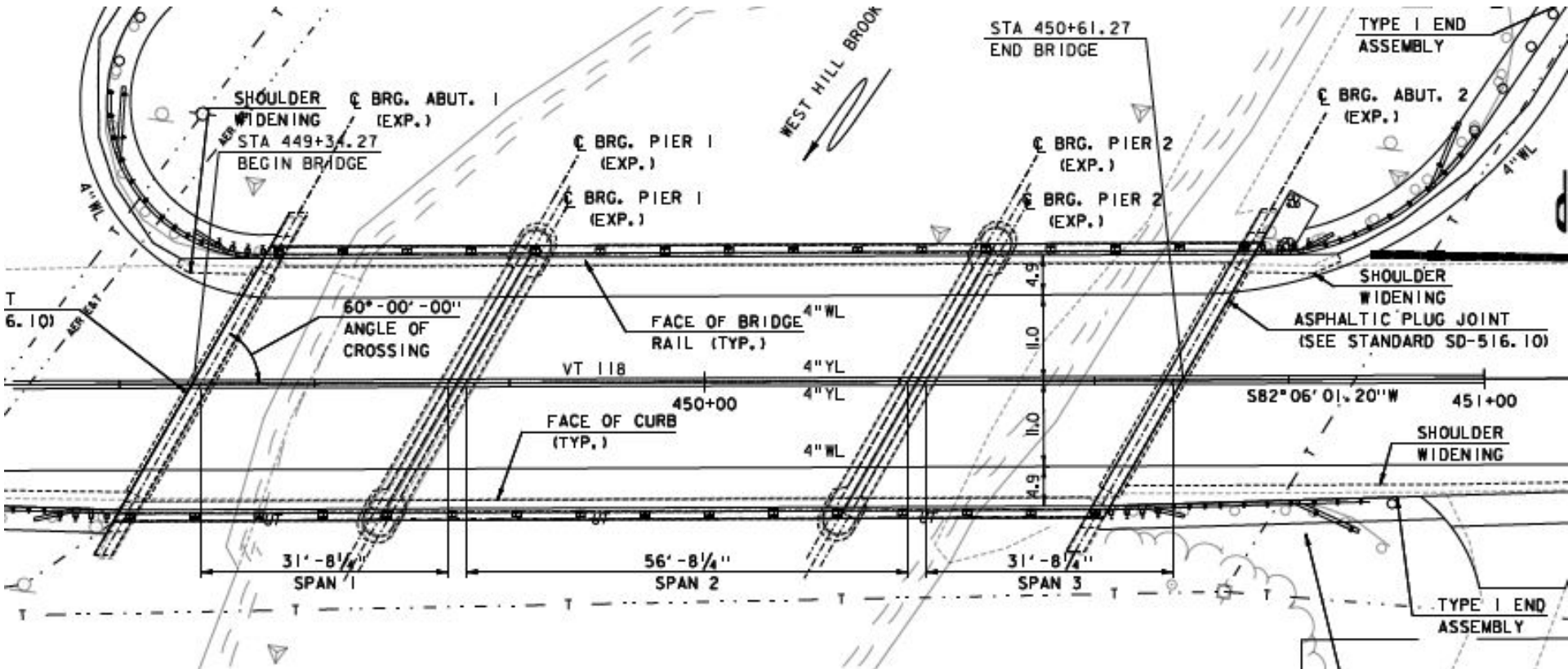
Proposed Typical Section #19 & #20



TYPICAL BRIDGE SECTION

SCALE: 1/2" = 1'-0"

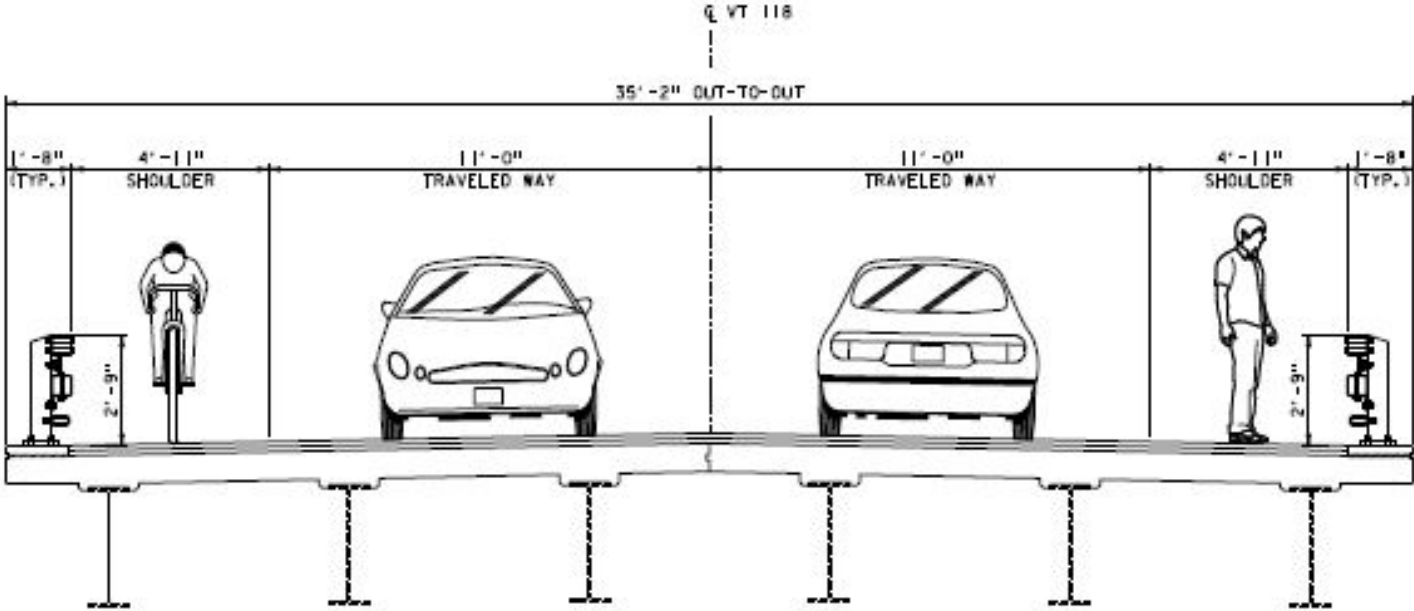
Bridge #20



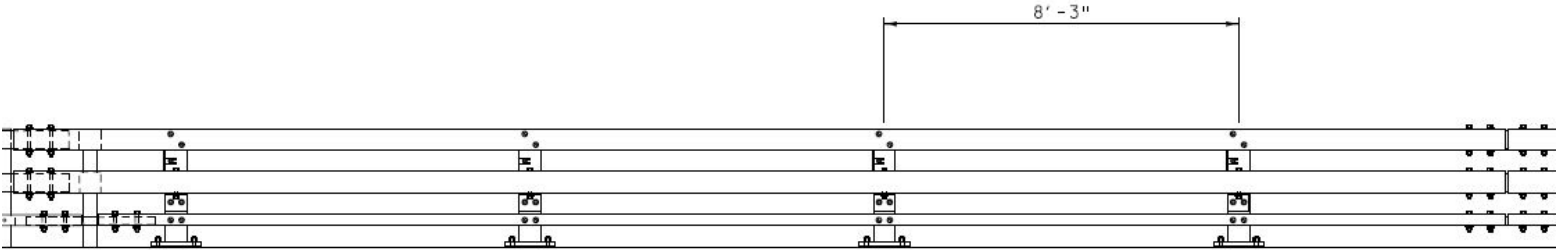
Full Deck Replacement - Bridge #20

- Maintain Bridge Width
- Improve Bridge Railing Safety

Proposed Bridge Rail



3 Rail Box Beam Bridge Rail



3 Rail Box Beam

Recommended Alternative - Bridge #19 and #20

■ Deck Replacement

- Replace the deck with a cast-in-place concrete deck
- Maintain the existing bridge width
- Three simple spans with continuous deck (link slab)
- No Right-Of-Way needed

■ Cost Estimates

- Bridge #19 Construction (including Construction Engineering and Contingencies):

\$1,920,000

- Bridge #20 Construction (including Construction Engineering and Contingencies):

\$1,848,000



Maintenance of Traffic Options Considered

- Short Term Road Closure w/ Offsite Detour
 - Signed by State
 - Passenger car/pedestrian route: 0.60 miles end-to-end
 - Regional truck detour route: 41.8 miles end-to-end
- Phased Construction
 - Alternating 1-Way Traffic
- Temporary Bridge
 - Not considered





Phased Construction

- Alternating 1-way traffic maintained
- Bridge closed to pedestrians for construction season

Project Recommendation

- Replace deck with new cast-in-place concrete deck with traffic maintained onsite using phased construction
 - Maintain Existing Bridge Width
 - Increased Load Capacity
 - New Bridge and Approach Rail
 - No Right-Of-Way Needed
 - Construction – Summer 2019



For more information:

- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/15b107>
- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/16b090>



Montgomery STP DECK (47) and Montgomery STP DECK (40) Questions and Comments

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