



WE12 - Worcester Elmore VT Route 12 Public Informational Meeting

VT Route 12 – Elmore Bridges #90 & 94

February 9, 2022

Introductions

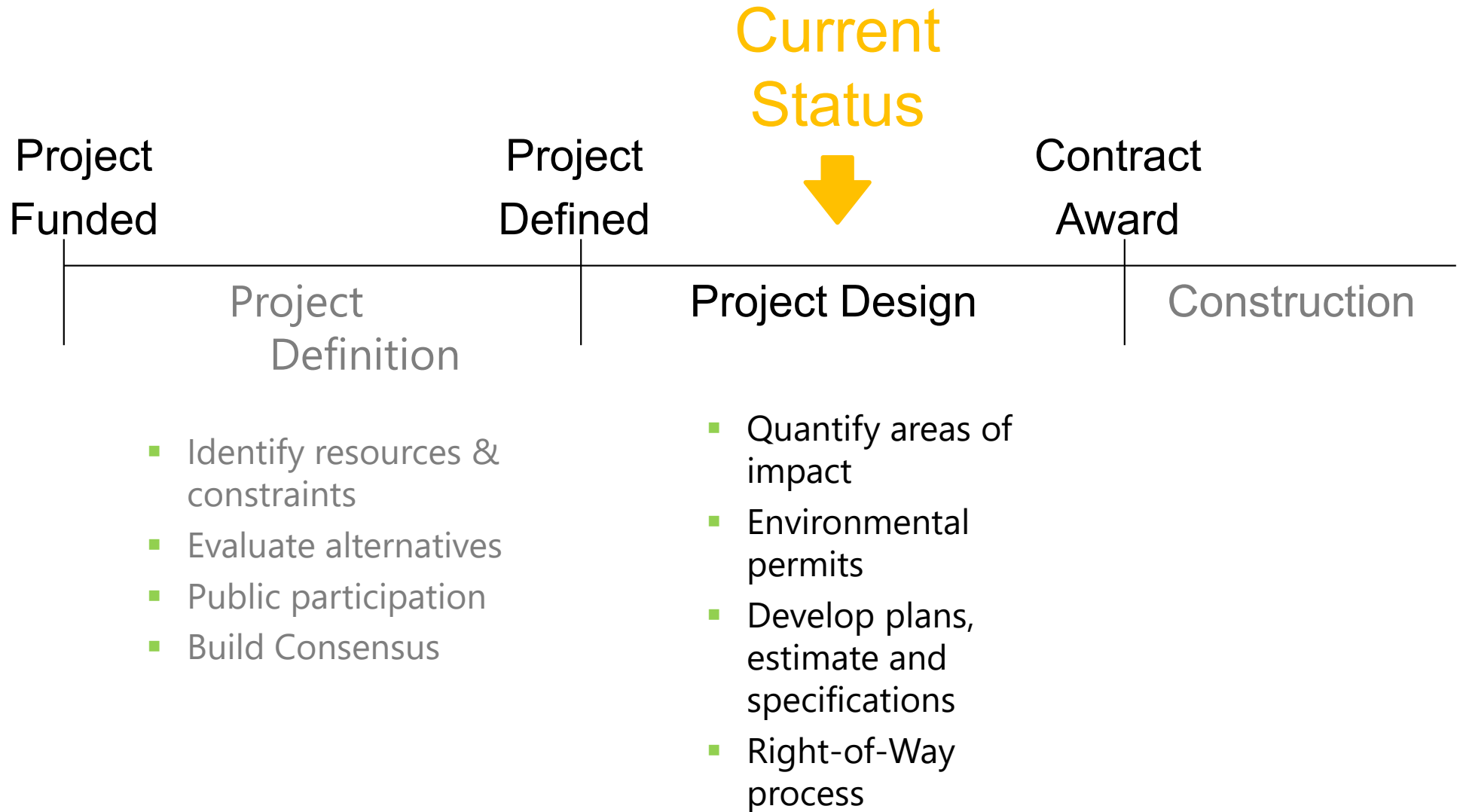
Laura Stone, P.E.

VTrans Consultant Project Manager

Purpose of Meeting

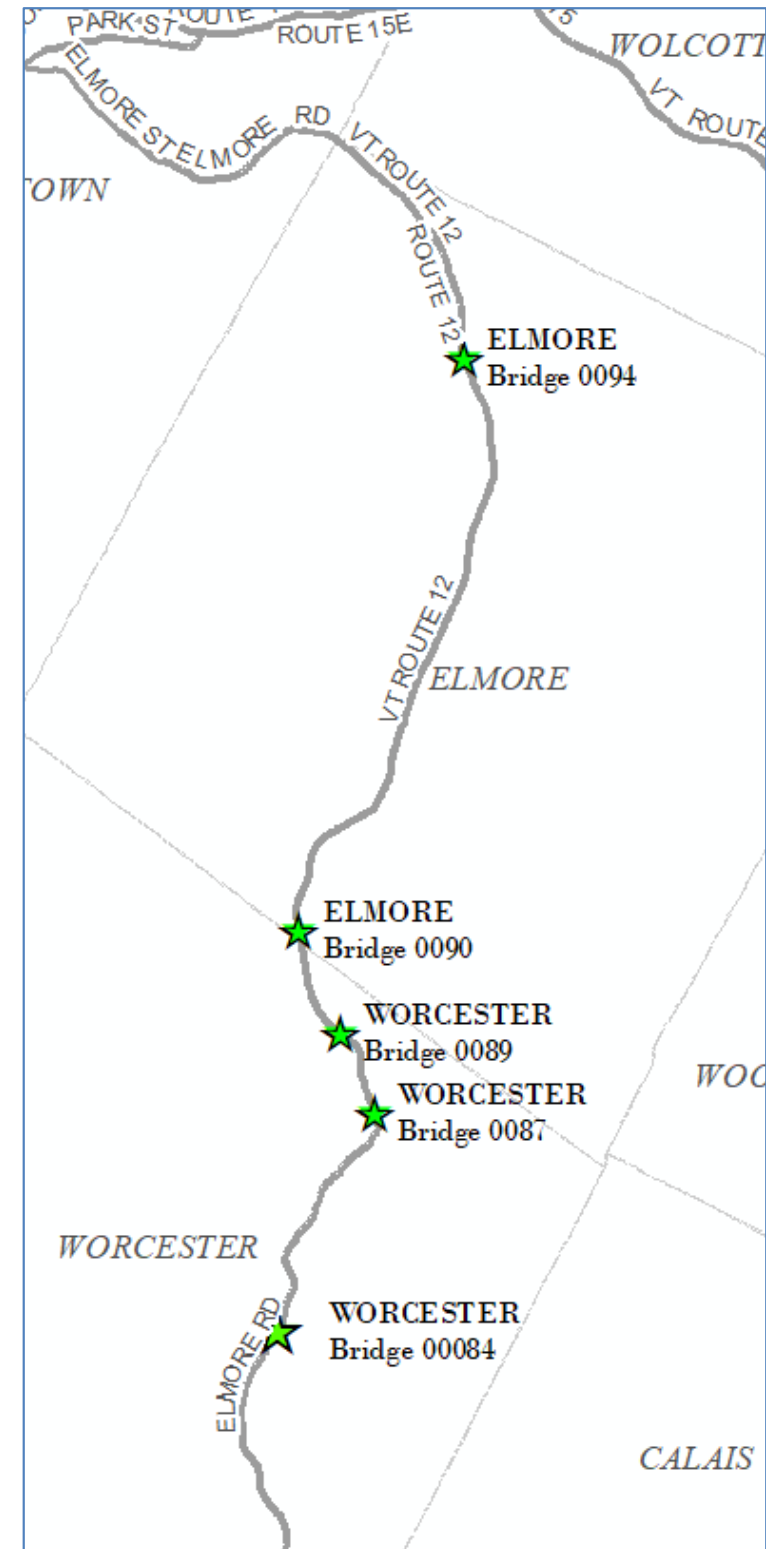
- Provide an understanding of our approach to the project
- Identify current efforts and anticipated schedule
- Provide an opportunity to ask questions and voice concerns

VTrans Project Development Process



Location Map

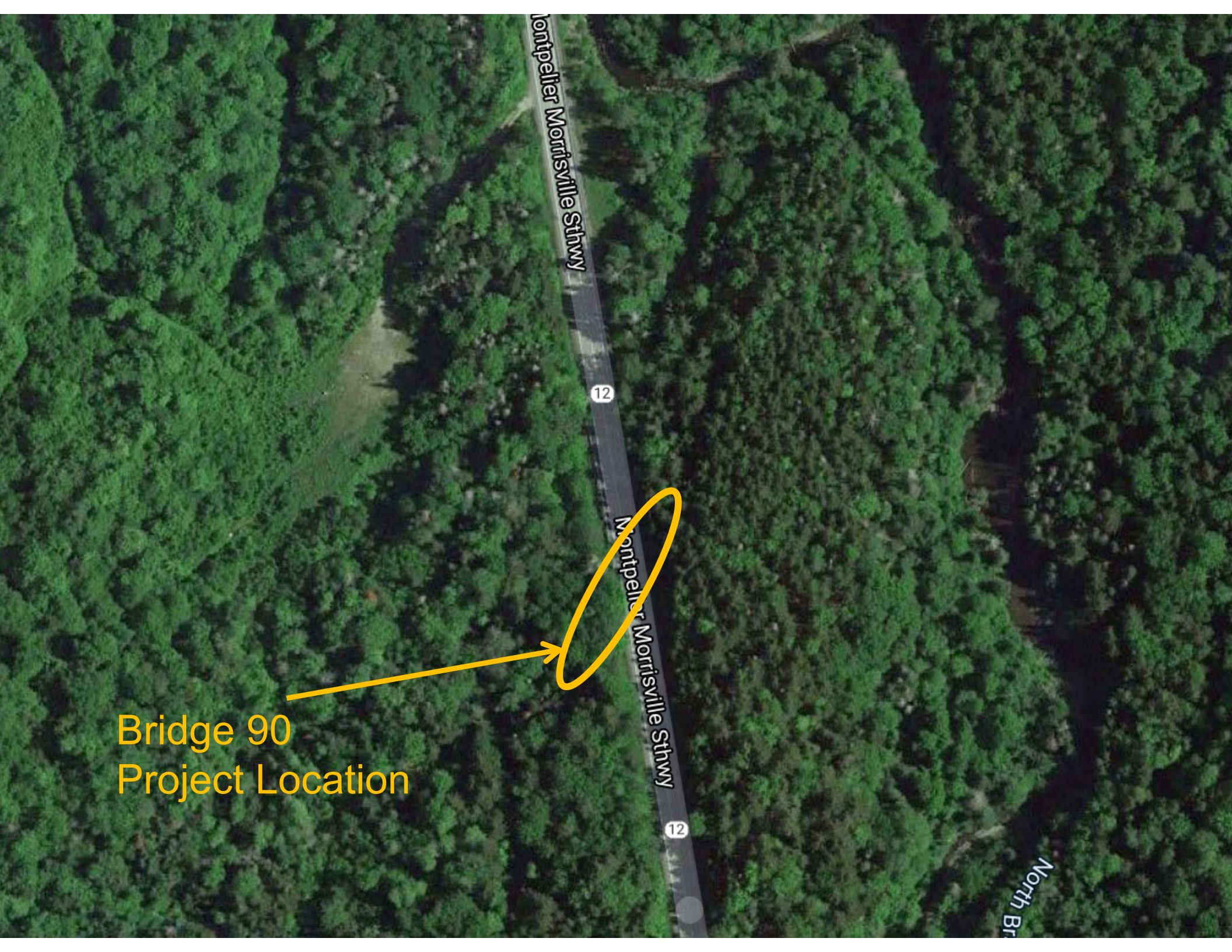
- ELMORE BF 0241(55) 19B212, VT Route 12, Bridge 94 over unnamed brook.
- ELMORE STP CULV(64) 18B003, VT Route 12, Bridge 90 over unnamed brook.
- WORCESTER BF 0241(56) 19B213, VT Route 12, Bridge 87 over Hardwood brook.
- WORCESTER BF 0241(57) 19B214, VT Route 12, Bridge 89 over North brook.
- WORCESTER BF 0241(59) 86E053, VT Route 12, Bridge 84 over the north branch of Winooski river





Elmore STP CULV(64)

VT Route 12– Bridge #90 over Unnamed Brook



Montpelier Morrisville St Hwy

12

Montpelier Morrisville St Hwy

12

North Br

Bridge 90
Project Location

Looking North over Bridge 90



Existing Conditions – Bridge #90

- Roadway Classification – Major Collector
- Bridge Type – 6' Span CGMPP (Corrugated Galvanized Metal Plate Pipe)
- Culvert Length – 208 feet
- Fill Over Culvert – 18 feet
- Ownership – State of Vermont
- Constructed in 1964

Inlet



- Culvert is in serious condition
 - Heavy rust scaling and holes throughout invert
 - Pipe has buckled under the roadway and cracks have formed
- Existing culvert is hydraulically undersized

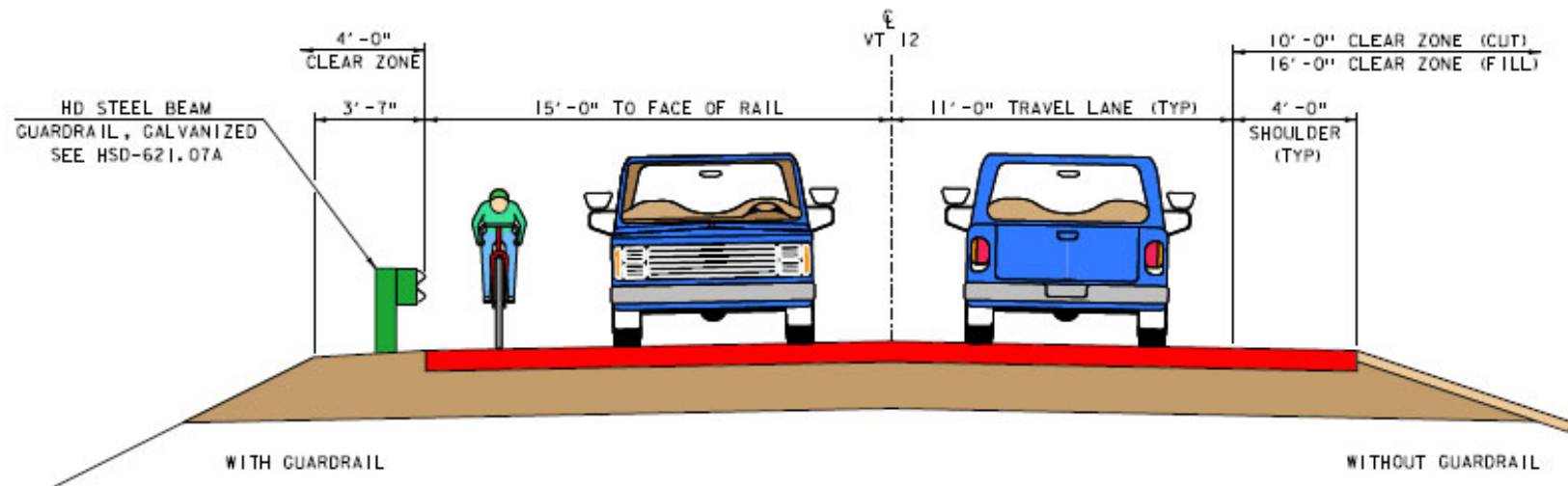
Existing Conditions - Bridge #90

Outlet

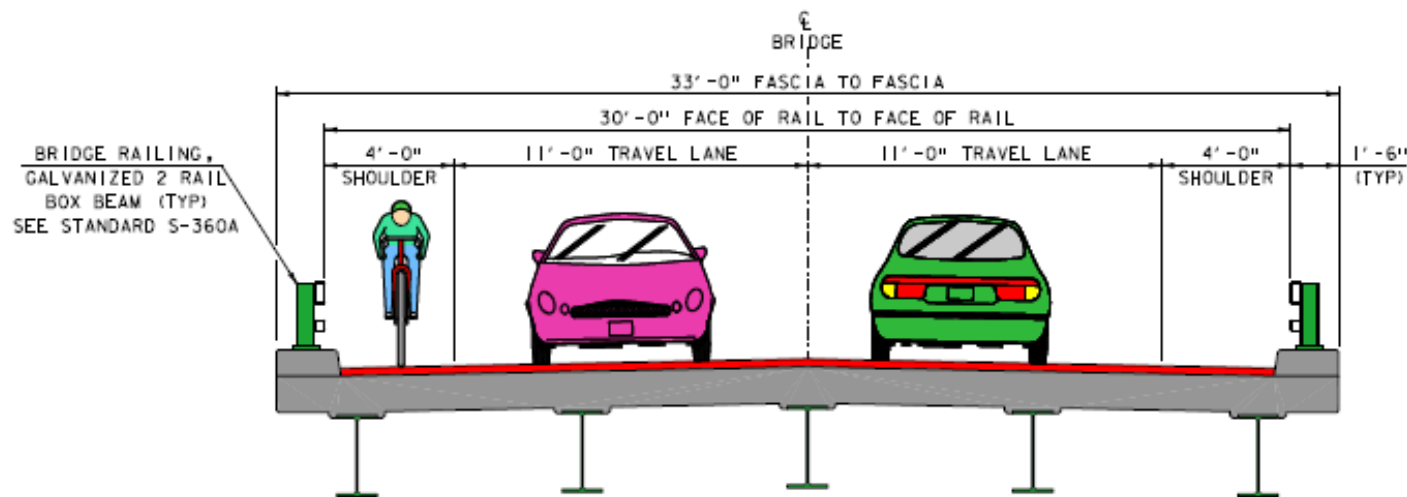


Existing Conditions - Bridge #90

Proposed Typical Section



PROPOSED VT ROUTE 12 TYPICAL SECTION



FLOW

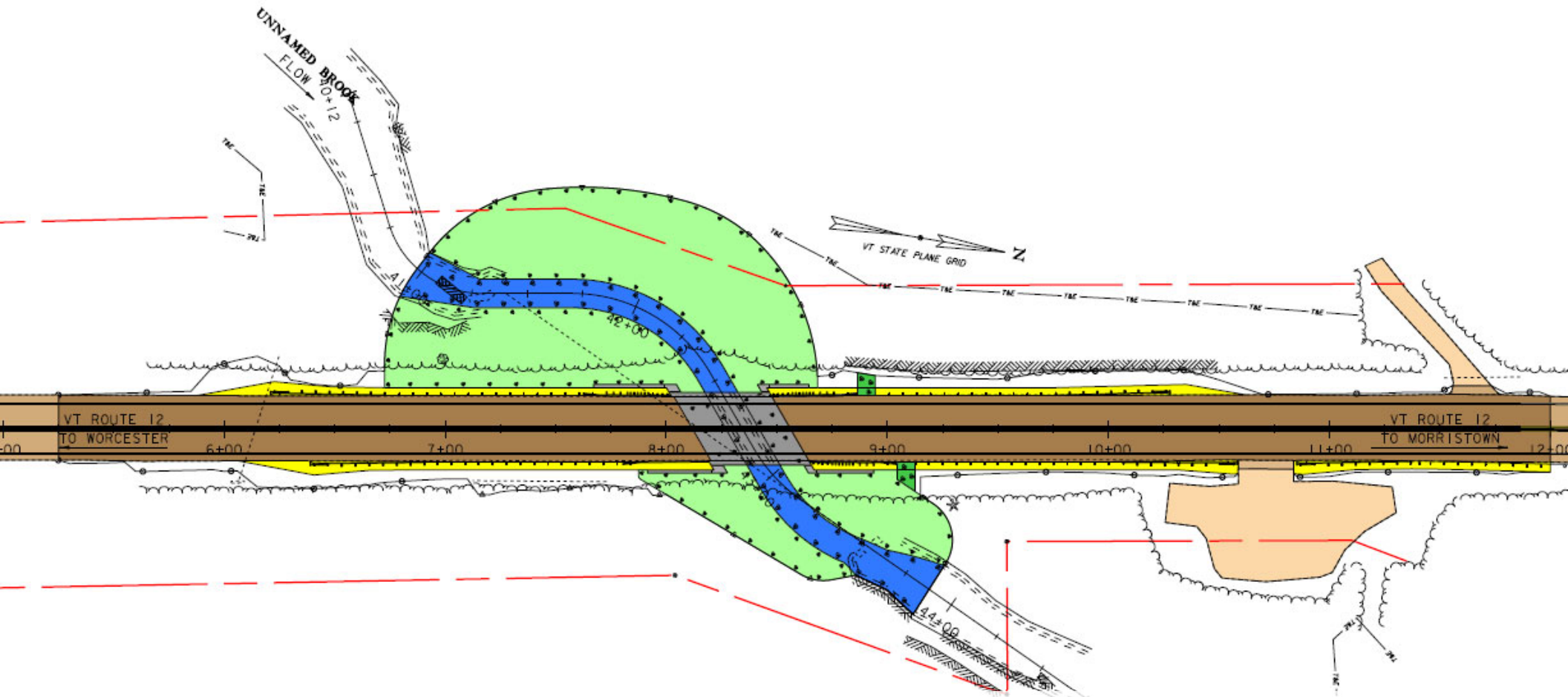
BRIDGE 90 PROPOSED TYPICAL SECTION

Slide 12

SL1

Stone, Laura, 2/4/2021

Proposed Layout



Full Bridge Replacement - Bridge #90

- 11³/₄' typical, 75-year design life
- 45' Span
- Stream to be re-established back to natural state

Proposed Bridge - Bridge #90

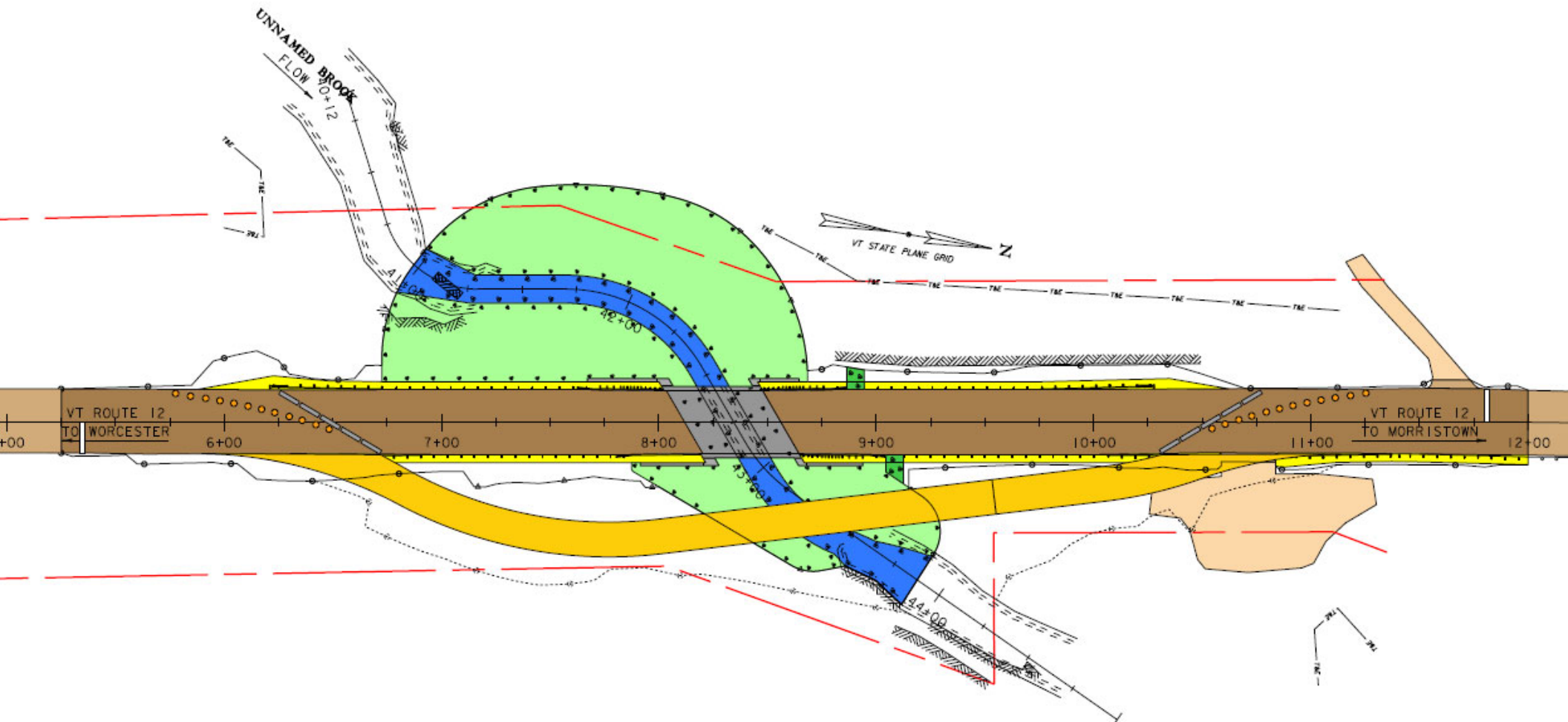
- Culvert Replacement with a New Bridge and One Lane Alternating Traffic Maintained on a Temporary Bridge
 - 45' span
 - 11'¼' typical to match existing conditions
 - Exceeds the 11'⅓' standard typical section
 - 75-year design life
 - Right of Way needed for temporary bridge and slope limits



Temporary Bridge

- One Lane Temporary Bridge constructed on Downstream side of VT Route 12

Downstream Temporary Bridge Layout



Downstream Temporary Bridge

- Limits outside the Right-of-Way
- Temporary impacts to North Cascades parking lot

Preliminary Project Schedule

- Construction Start – Summer 2024
 - Total Cost Estimate: \$2,700,000

For more information:

- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/18B003>



Elmore STP CULV(64) Questions and Comments

VT Route 12– Bridge #90 over Unnamed Brook



Elmore BF 0241(55)

VT Route 12– Bridge #94 over Unnamed Brook



12

Montpelier Morrisville Sthwy

Bridge 94
Project Location

Google

Looking North over Bridge 94



Existing Conditions – Bridge #94

- Roadway Classification – Major Collector
- Bridge Type – 6' Span ACCGMPP (Aluminum Coated Corrugated Galvanized Metal Plate Pipe)
- Culvert Length – 74 feet
- Fill Over Culvert – 10 feet
- Ownership – State of Vermont
- Constructed in 1959

Looking South over Bridge 94



Existing Conditions – Bridge #94

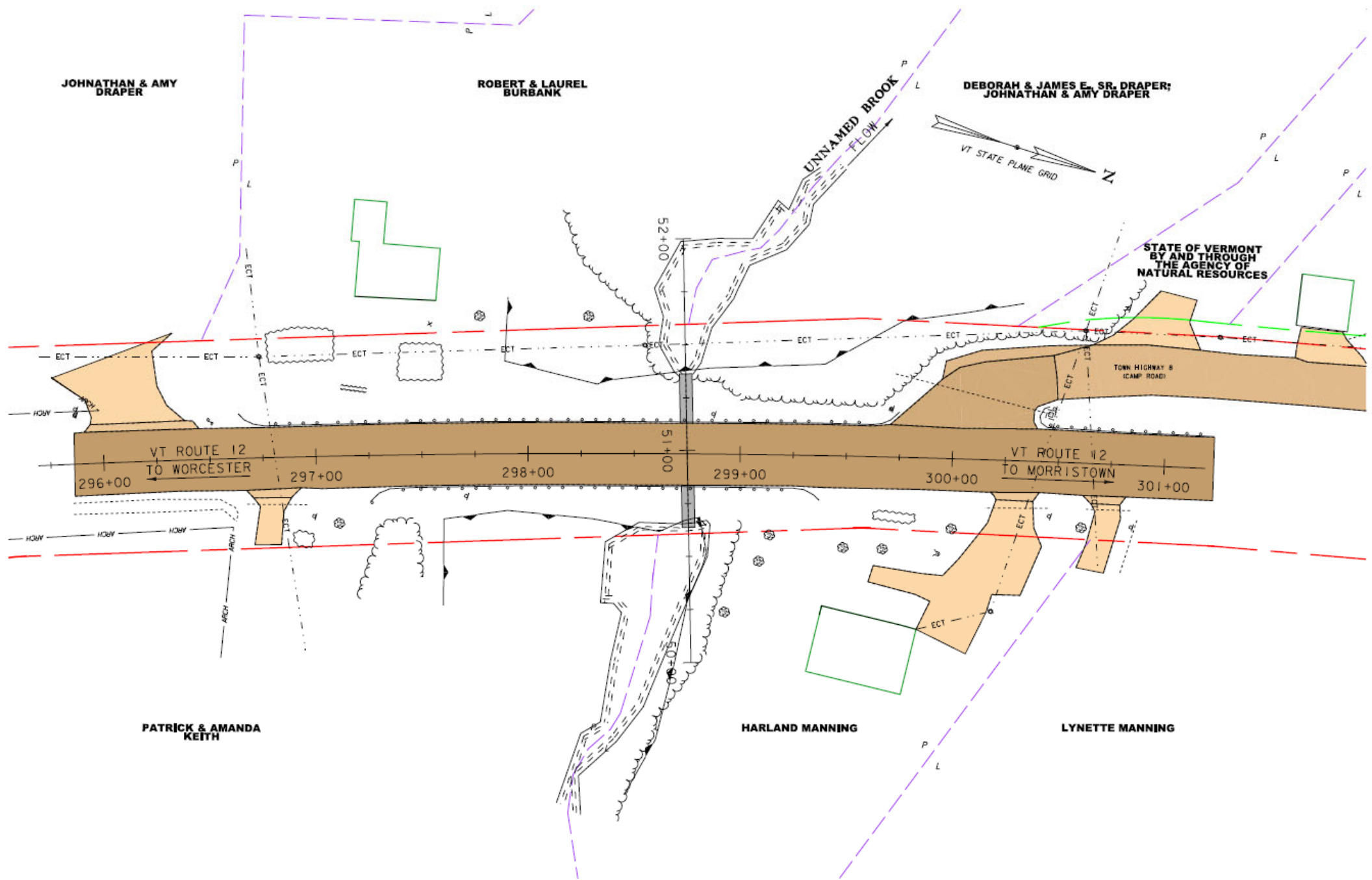
- Aerial Utilities

Condition Barrel

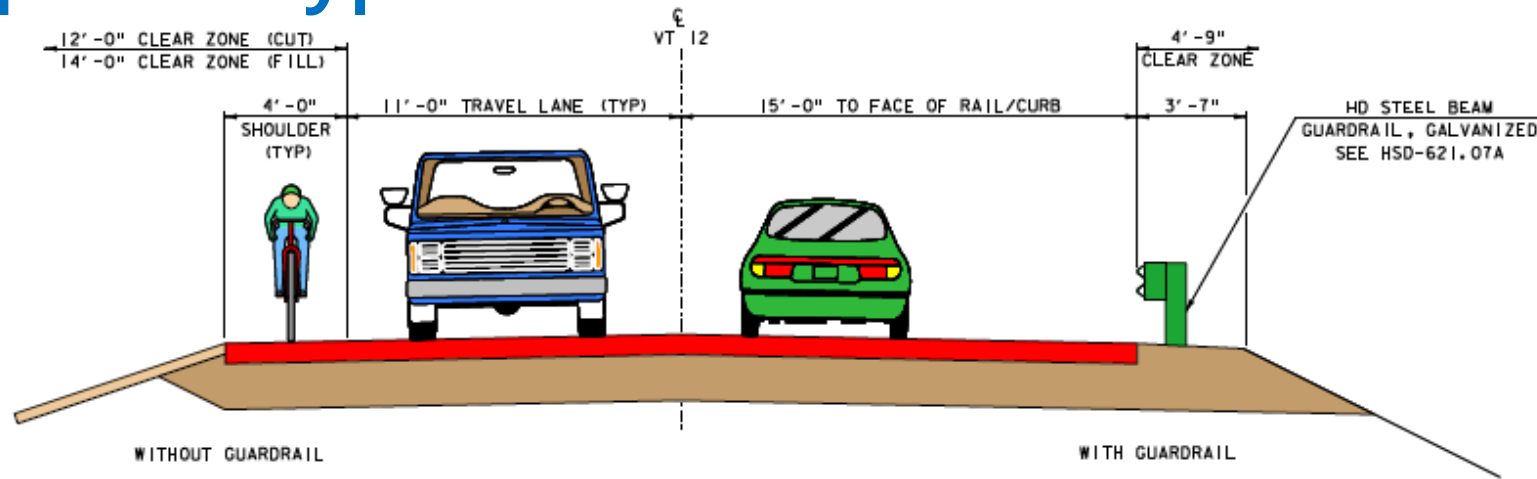
- Culvert is in fair condition
 - Holes throughout the invert up to 2-inches in diameter
 - Deflection in being seen in the culvert
- Existing culvert is undersized



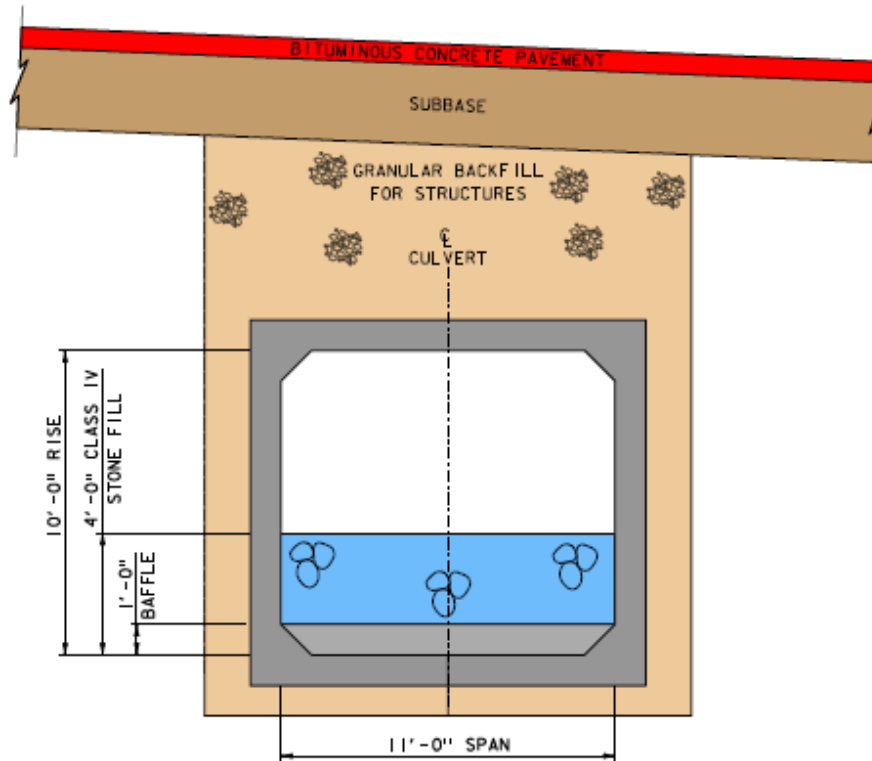
Existing Conditions



Proposed Typical Section

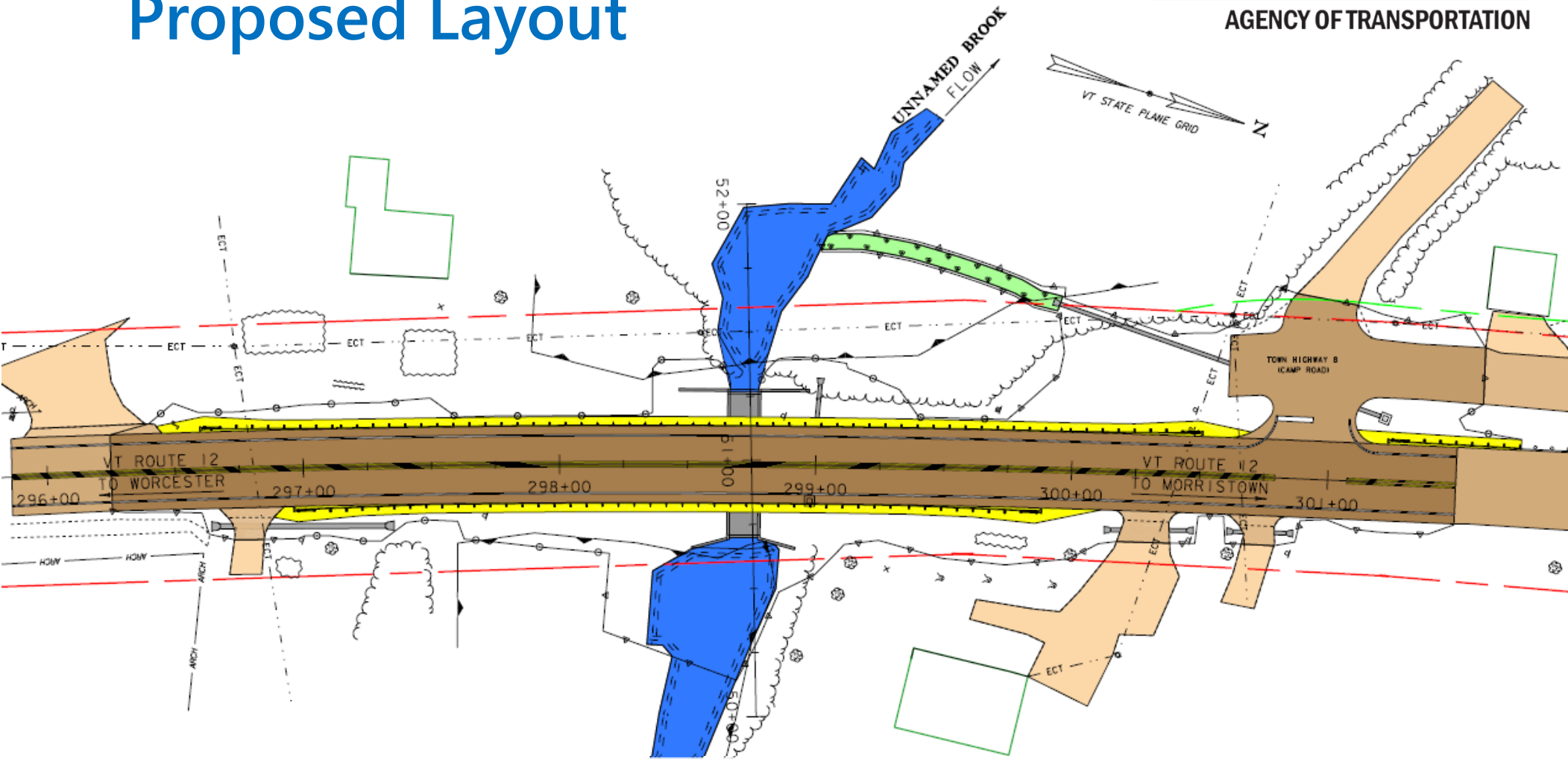


PROPOSED VT ROUTE 12 TYPICAL SECTION



CULVERT 90 TYPICAL SECTION

Proposed Layout



New Buried Structure, Frame or Box - Bridge #94

- 11³/₄' typical, 75-year design life
- 11' x 6' waterway opening
- 75' Culvert Length

Proposed Bridge - Bridge #94

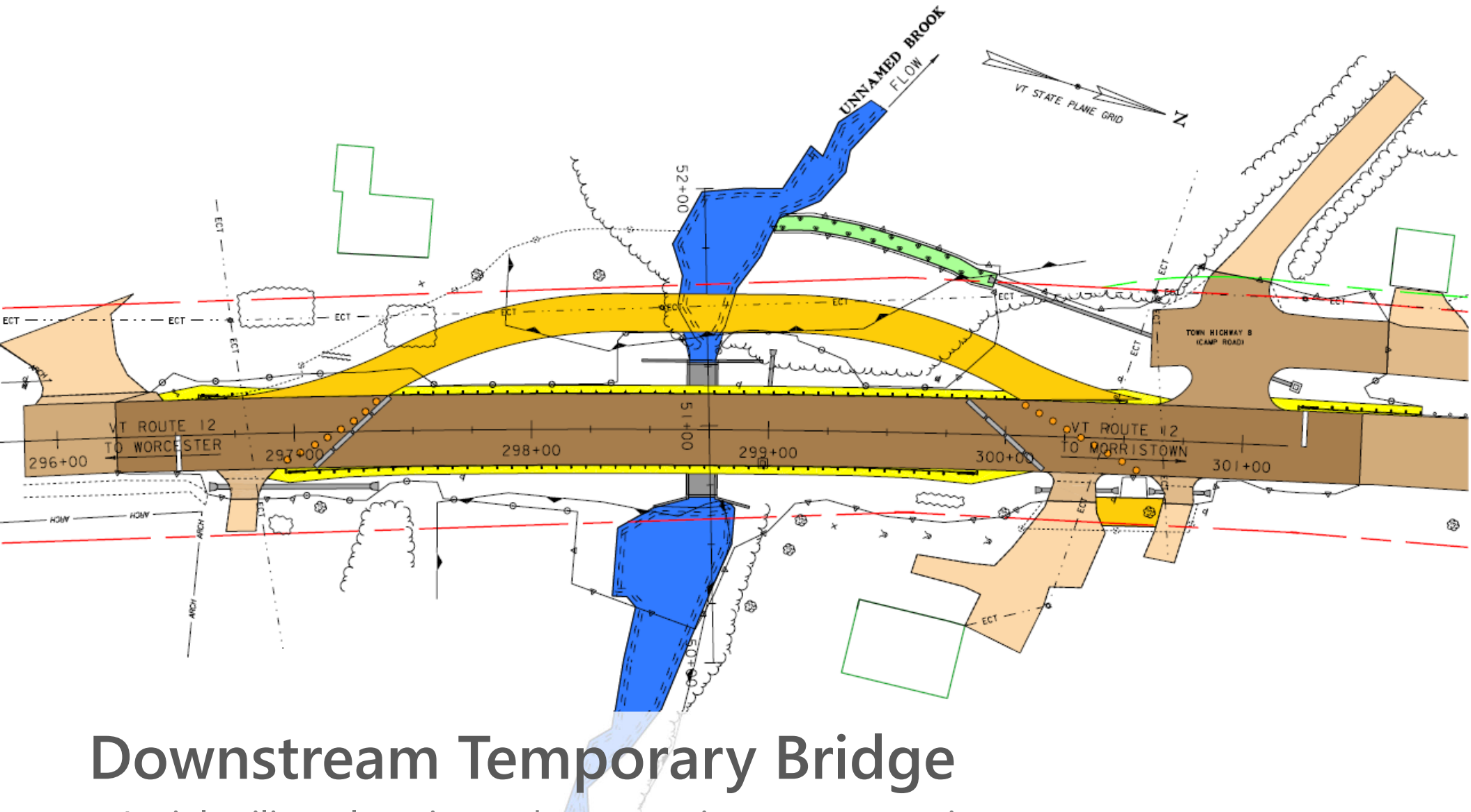
- Culvert Replacement with a New Buried Structure
 - Precast Concrete Box
 - Borings have confirmed
 - 11' x 10' box with Type E4 Stone
 - 11' x 6' waterway opening
 - 75' Culvert Length
 - 11'¼' typical to match existing conditions
 - Exceeds the 11'⅓' standard typical section
 - 75-year design life



Temporary Bridge

- One Lane Temporary Bridge constructed on Downstream side of VT Route 12

Downstream Temporary Bridge Layout



Downstream Temporary Bridge

- Aerial utility relocation to happen prior to construction
- Camp Road intersection impacts
- Wetland area impacted

Preliminary Project Schedule

- Construction Start – Summer 2024
 - Total Cost Estimate: \$1,720,000

For more information:

- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/19B212>



Elmore BF 0241(55)

Questions and Comments

VT Route 12– Bridge #94 over Unnamed Brook



Worcester,
Bridge 89



Elmore,
Bridge 90



Worcester,
Bridge 84



Elmore,
Bridge 94



Worcester,
Bridge 87

WE12 - Worcester Elmore VT Route 12 Questions and Comments

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