



# Salisbury-Cornwall BO 1449(45) Project Update to Town

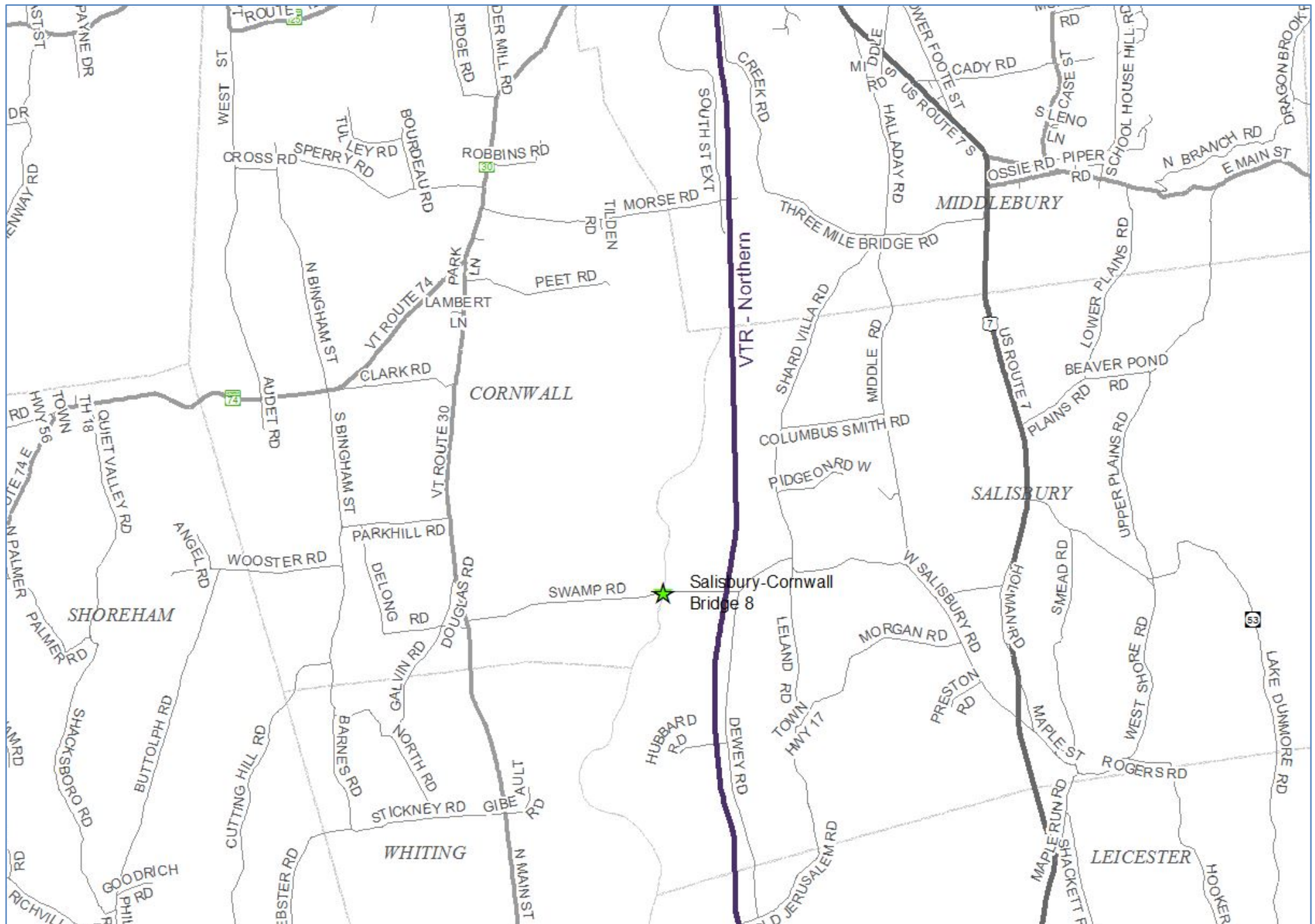
**Town Highway 1/3 – Bridge 8 over Otter Creek**

December 16, 2021

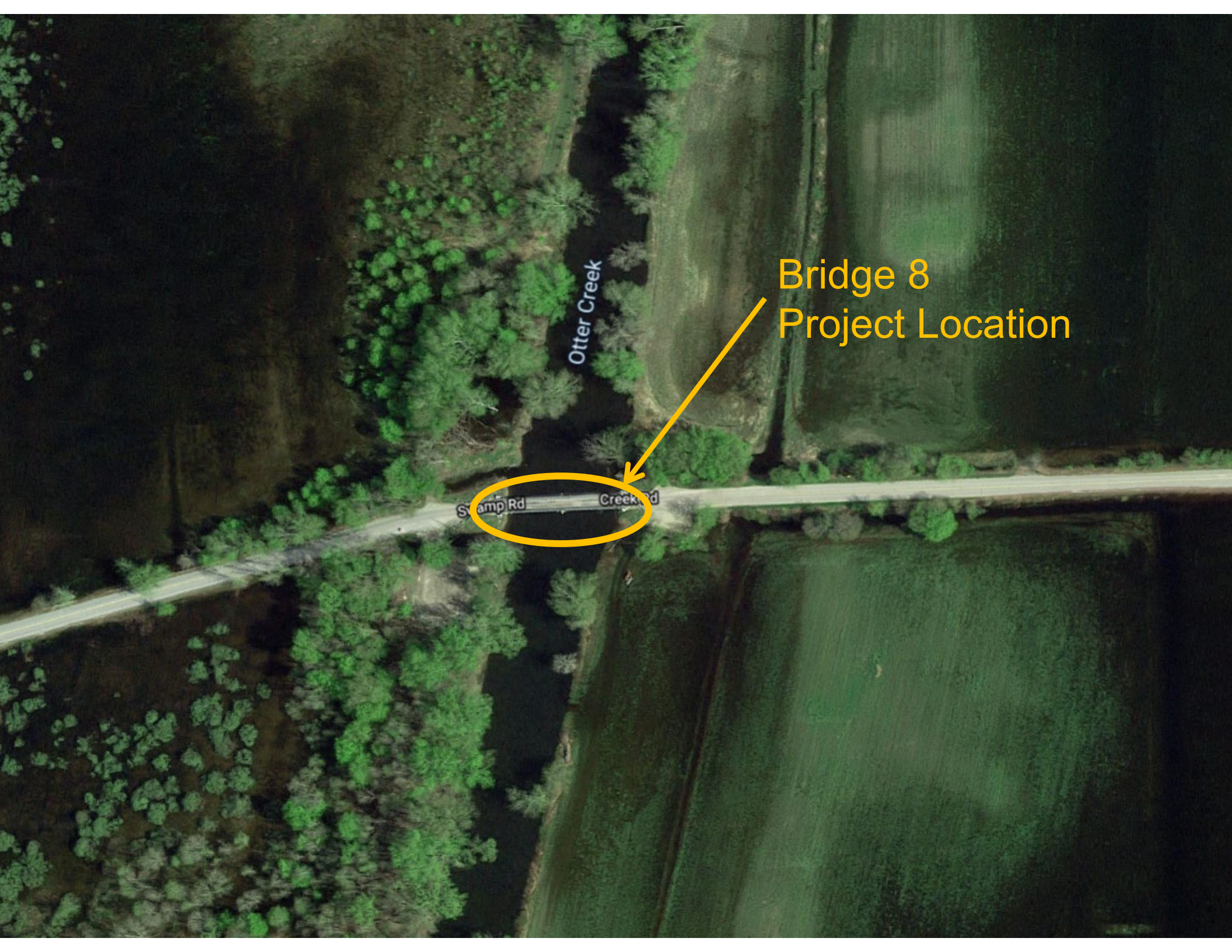
# Introductions

**Laura Stone, P.E.**

VTrans Scoping Engineer



Location Map



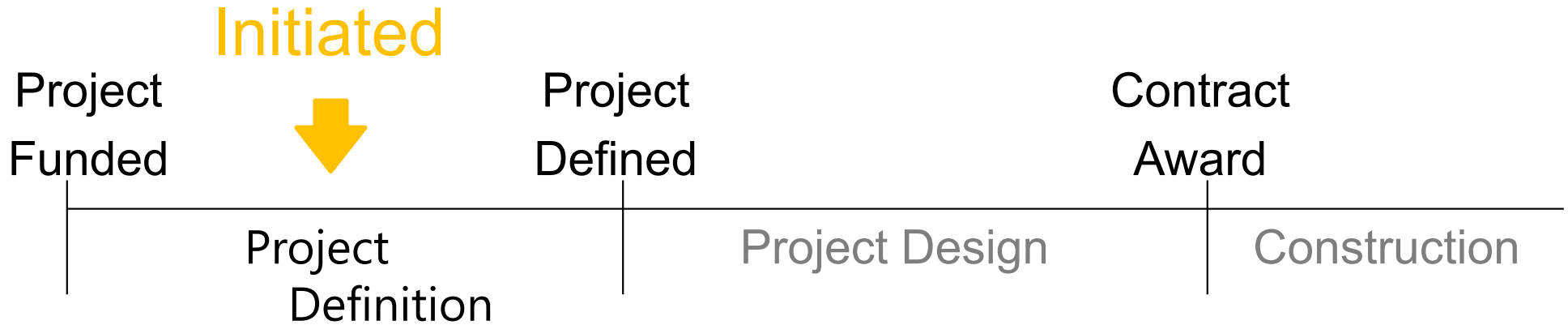
Otter Creek

Bridge 8  
Project Location

Swamp Rd

Creek Rd

# VTrans Project Development Process



- Identify resources & constraints
- Evaluate alternatives
- Public participation
- Build Consensus

- Quantify areas of impact
- Environmental permits
- Develop plans, estimate and specifications
- Right-of-Way process if necessary

# ACT 153 of the 2012 Legislative Session

	Local Share	
	Road Closed During Construction	Road Open During Construction
Rehabilitation	2.5%	5%
Replacement	5%	10%

- Per Act 153, the local share is reduced by 50% for rehabilitating versus replacement
- Per Act 153, the local share is reduced by 50% for closing the road to traffic during construction

## Looking East over Bridge 8



### Existing Conditions – Bridge #8

- Roadway Classification – Local Road
- Bridge Type – 154' Span Town Lattice Covered Bridge
- Ownership – Towns of Salisbury and Cornwall
- Constructed in 1865, Reconstructed in 2008

## Looking West over Bridge 8



## Existing Conditions – Bridge #8

- Temporary bridge in place

01/31/2017



# Existing Conditions – Bridge #8

- The structure was destroyed by a fire in 2016 and needs replacing.
- The existing roadway is substandard in width for the speed and traffic volumes present.

## Condition Ratings

### Existing Conditions - Bridge #8

- Deck Rating 0 (Failed)
- Superstructure Rating 0 (Failed)
- Substructure Rating 6 (Satisfactory)

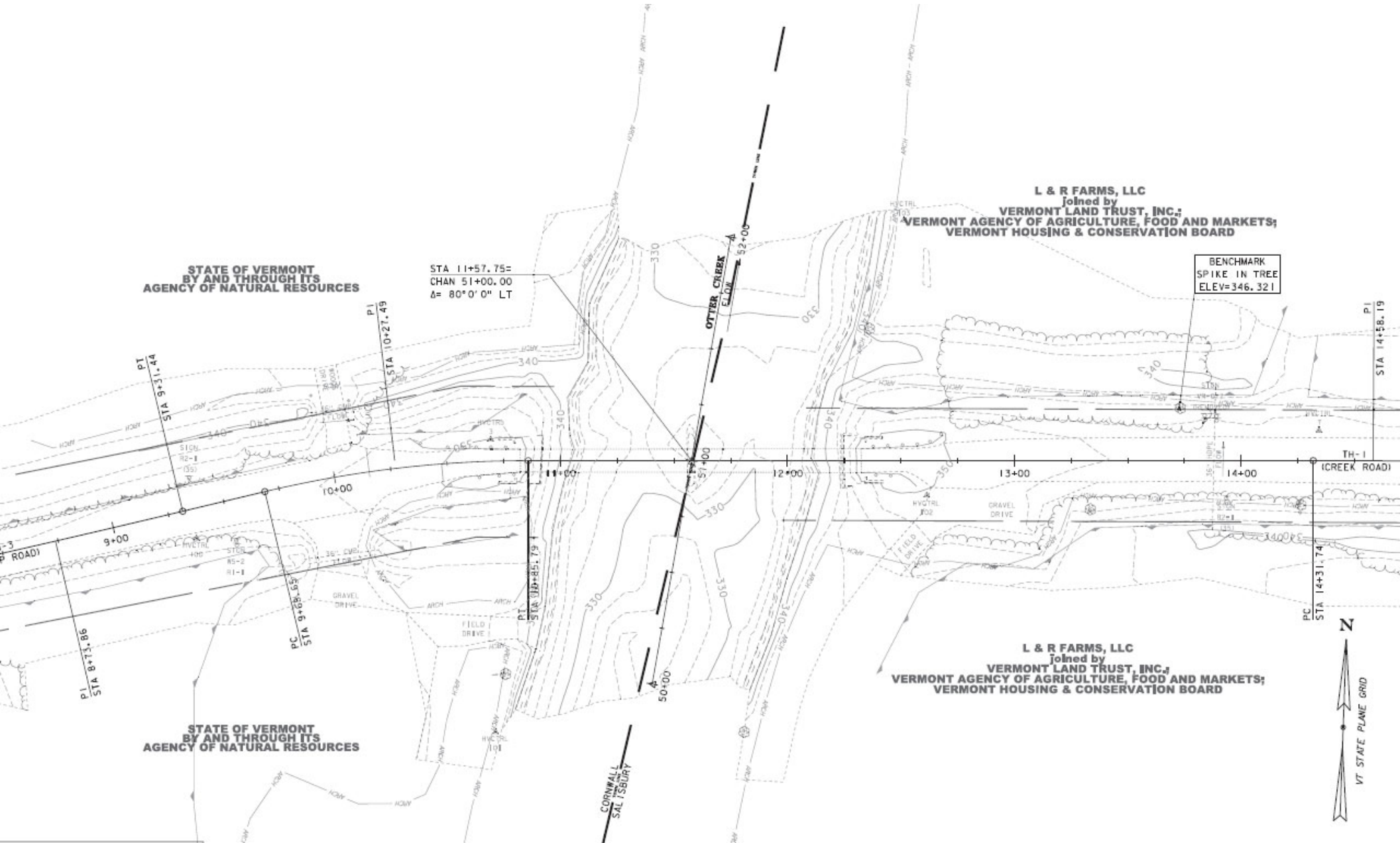




## Existing Conditions – Bridge #8

- The Cedar Swamp, a 6,619-acre wetland complex
- Several RTE species
- Wildlife habitat
- Highly archaeologically sensitive areas

# Existing Conditions



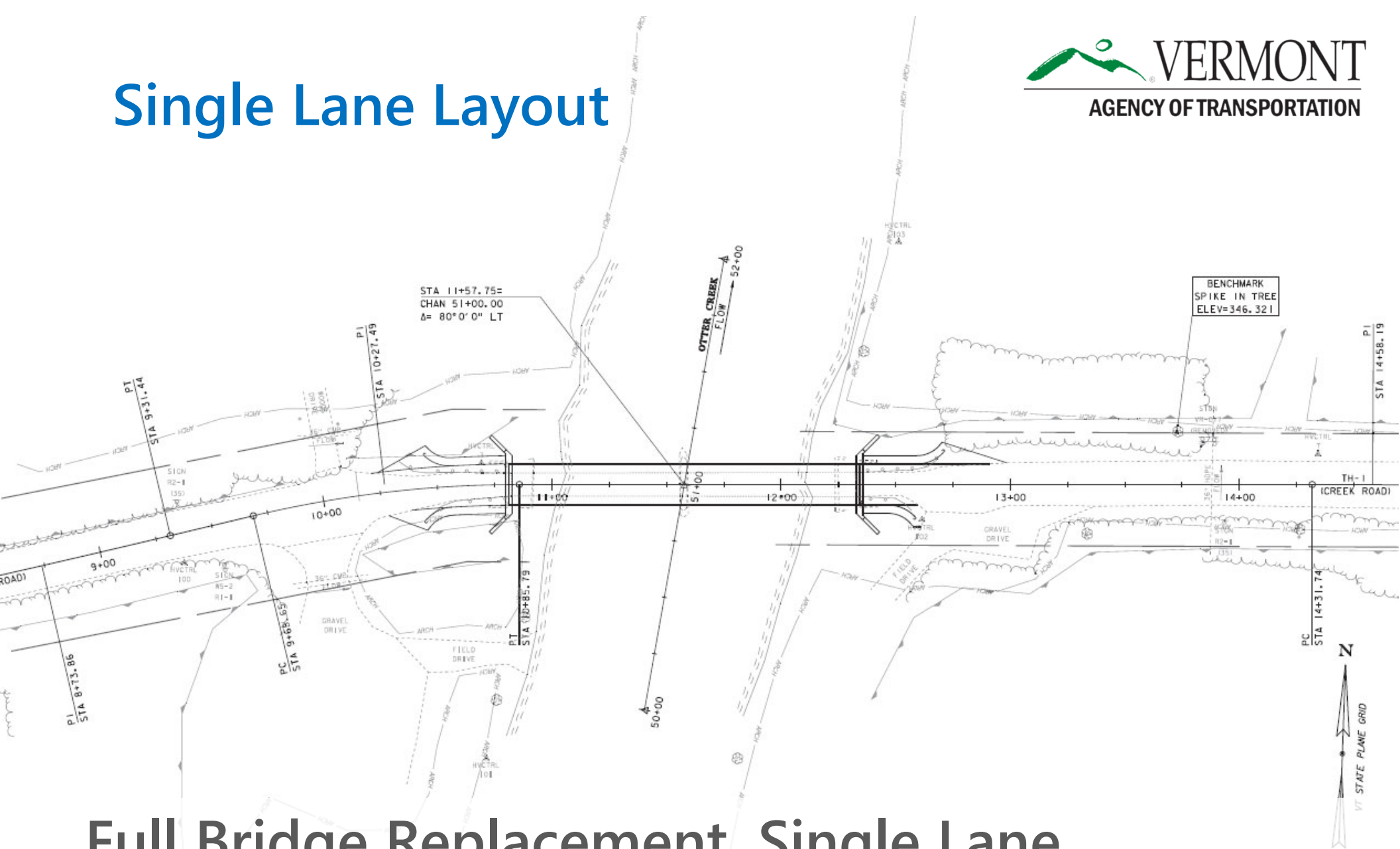
# Design Criteria and Considerations

- Average Daily Traffic
  - 540 vehicles per day
- Design Hourly Volume
  - 85 vehicles per hour
- % Trucks
  - 4.3%

# Alternatives Considered – Bridge #8

- Both Towns have indicated that a covered bridge or a bridge with similar height constraints may be preferred by some citizens. Additionally, Swamp Road on the Cornwall side of Bridge 8 is not designed for heavier truck traffic and Cornwall's current road ordinance prohibits traffic on Swamp Road that is heavier than 12,000 lbs. and/or wider than eight feet.
- Full Bridge Replacement with New Steel Beam Bridge
  - 150' length
  - 1 or 2-lane bridge
  - 75-year design life
- Full Bridge Replacement with New Truss
  - 150' length
  - 1 or 2-lane bridge, minimum 14' width
  - 75-year design life
- Full Bridge Replacement with New Covered Bridge
  - 150' length
  - Single lane bridge, 14' width
  - 75-year design life

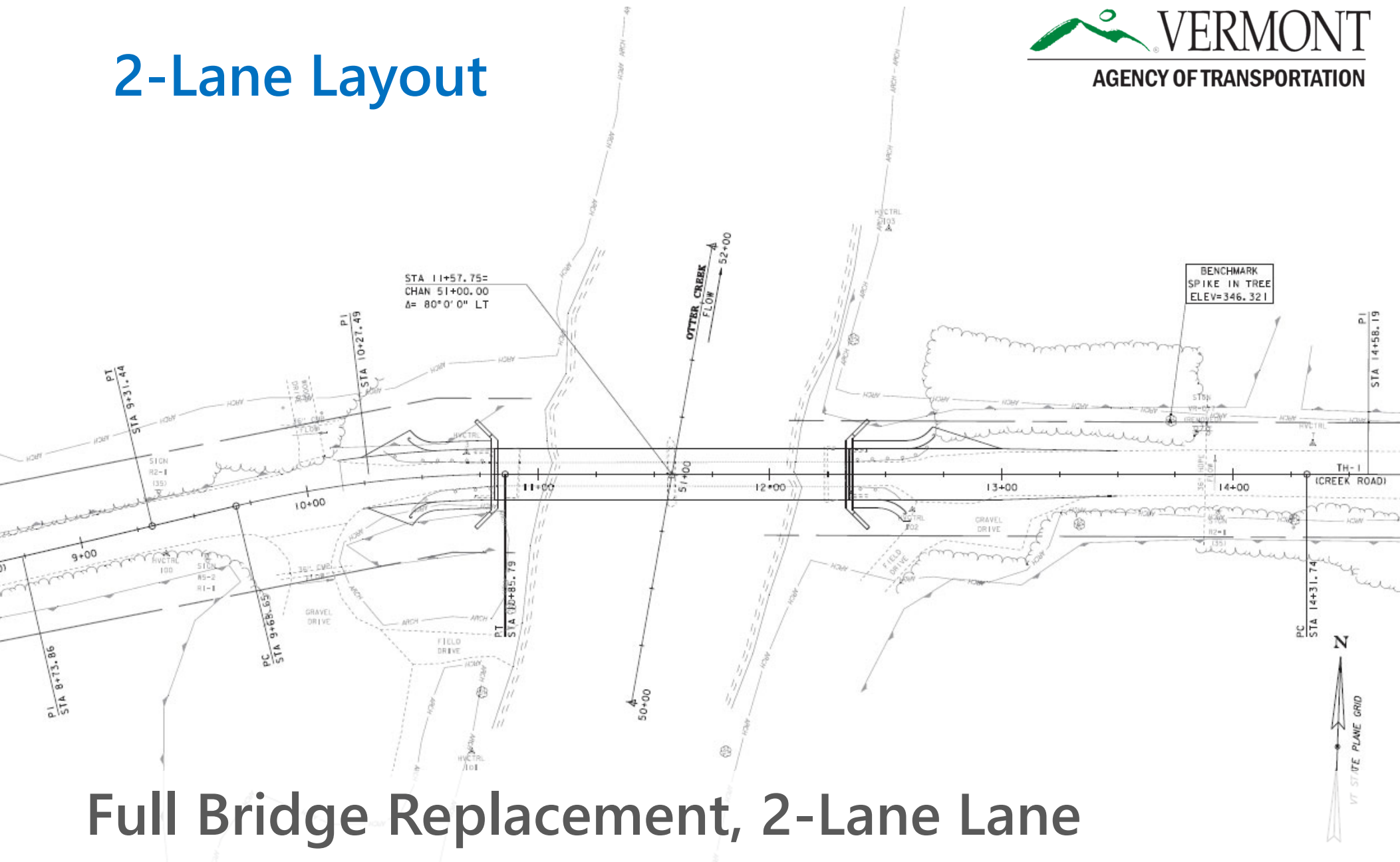
# Single Lane Layout



## Full Bridge Replacement, Single Lane

- 18' typical
- 150' length
- 75-year design life

# 2-Lane Layout



## Full Bridge Replacement, 2-Lane Lane

- 22' typical
- 150' length
- 75-year design life



# Recommended Alternative - Bridge #8

- Full Bridge Replacement On-Alignment
  - Conventional Steel Beam Bridge, Truss, or Covered Bridge to be chosen by the town
  - New single lane or 2-lane bridge
  - 150' length single or 2-span bridge to match existing conditions
  - 75-year design life

# Maintenance of Traffic Options Considered

- Offsite Detour
- Temporary Bridge

A photograph of a road closure barrier. The barrier consists of several horizontal white panels with red diagonal stripes. In the center, a white rectangular sign with a black border and black text reads "ROAD CLOSED". The sign is mounted on two white posts. The background shows a concrete curb, a chain-link fence, and green trees under a clear blue sky.

**ROAD  
CLOSED**

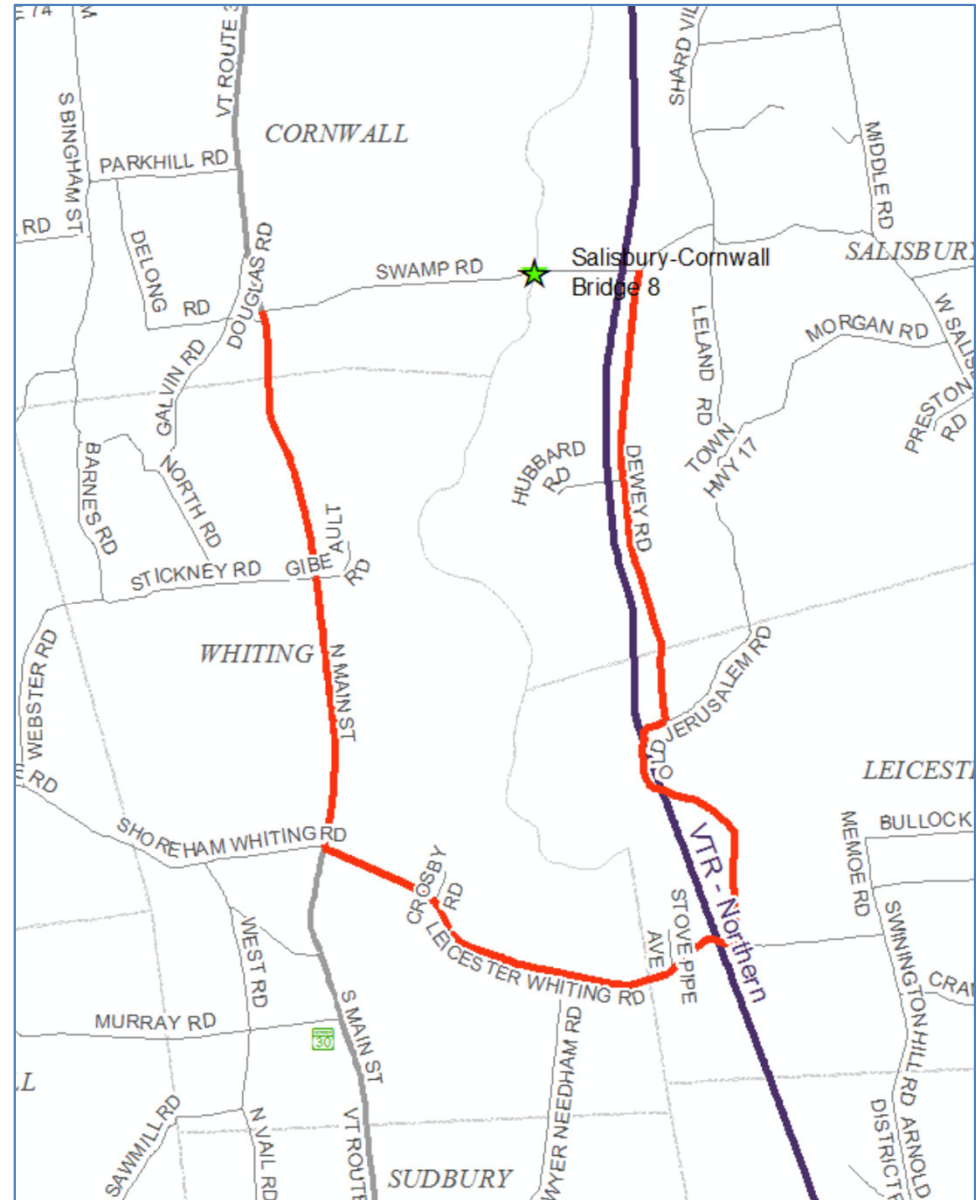
## Road Closure

- Detour chosen and signed by Town
- Construction Season duration
- Shortest Detour Route is 13.9 miles end-to-end

# Traffic Control – Detour 1

- **Local Detour Route:** Creek Road to Dewey Road, Old Jerusalem Road, Leicester Whiting Road, VT-30 North, to Swamp Road

- Through Route: 2.5 Miles
- Detour Route: 11.4 Miles
- Added Distance: 8.9 Miles
- End-to-End Distance: 13.9 Miles

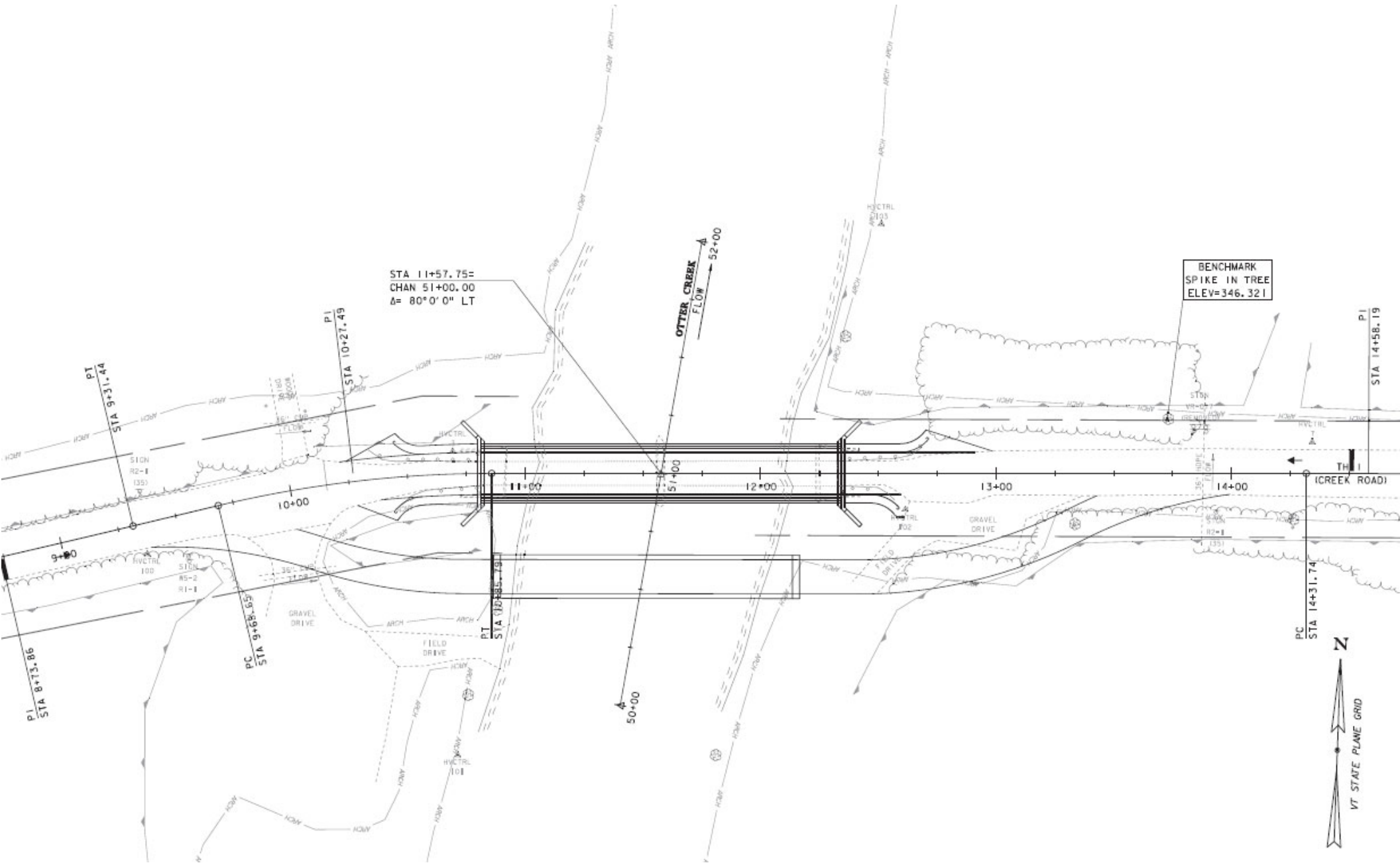




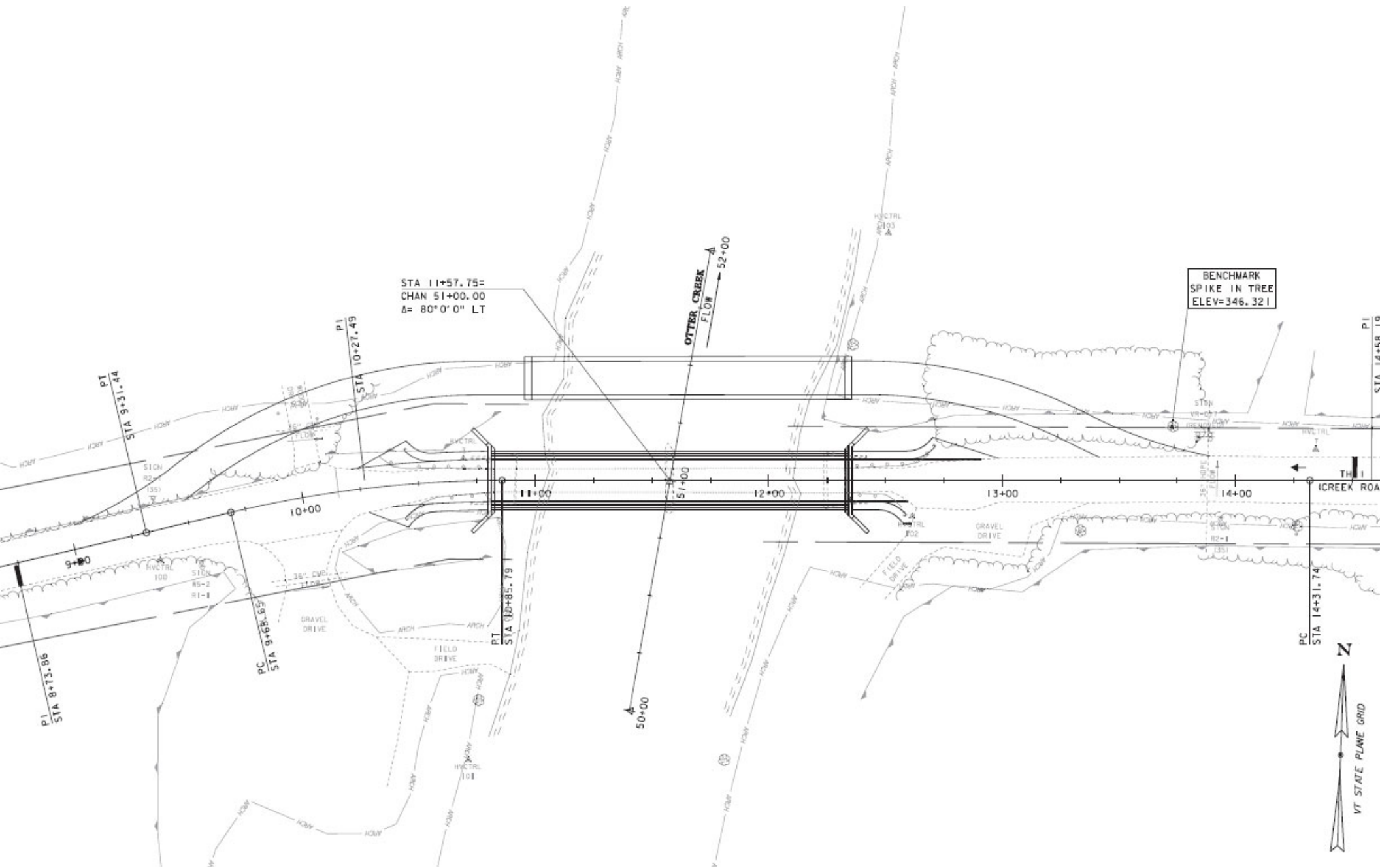
## Temporary Bridge

- One Lane Temporary Bridge constructed either Upstream or Downstream side of Bridge 8

# Upstream Temporary Bridge Layout



# Downstream Temporary Bridge Layout



# Recommendation: Bridge 8

- Full Bridge Replacement On-Alignment with Traffic Maintained on and Offsite Detour
  - Closure for a construction duration
  - Conventional Steel Beam Bridge, Truss, or Covered Bridge to be chosen by the town
  - New single lane or 2-lane bridge
  - 150' length single or 2-span bridge to match existing conditions
  - 75-year design life
  - Right-of-Way likely needed





# Preliminary Project Schedule

- Construction Start – 2025

# Next Steps – Bridge #8

This is a list of a few important activities expected in the near future and is not a complete list of activities.

- ➔ Public Meeting
- ➔ Wait for Town response to recommendation on proposed project
  - Develop Conceptual plans and distribute for comment
  - Process local agreements
  - Right-of-Way process
  - Updates on project plans and estimates at each submittal



# Salisbury-Cornwall BO 1449(45) Questions and Comments

**Town Highway 1/3 – Bridge 8 over Otter Creek**

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