



**Wells STP CULV(63)**

**Regional Concerns Meeting**

**VT Route 30 – Bridge #83 over Unnamed Brook**

June 11, 2019



**Accelerated  
Bridge  
Program**  
VTRANS

# Introductions

**JB McCarthy, P.E.**

VTrans Design Project Manager

**Laura Stone, P.E.**

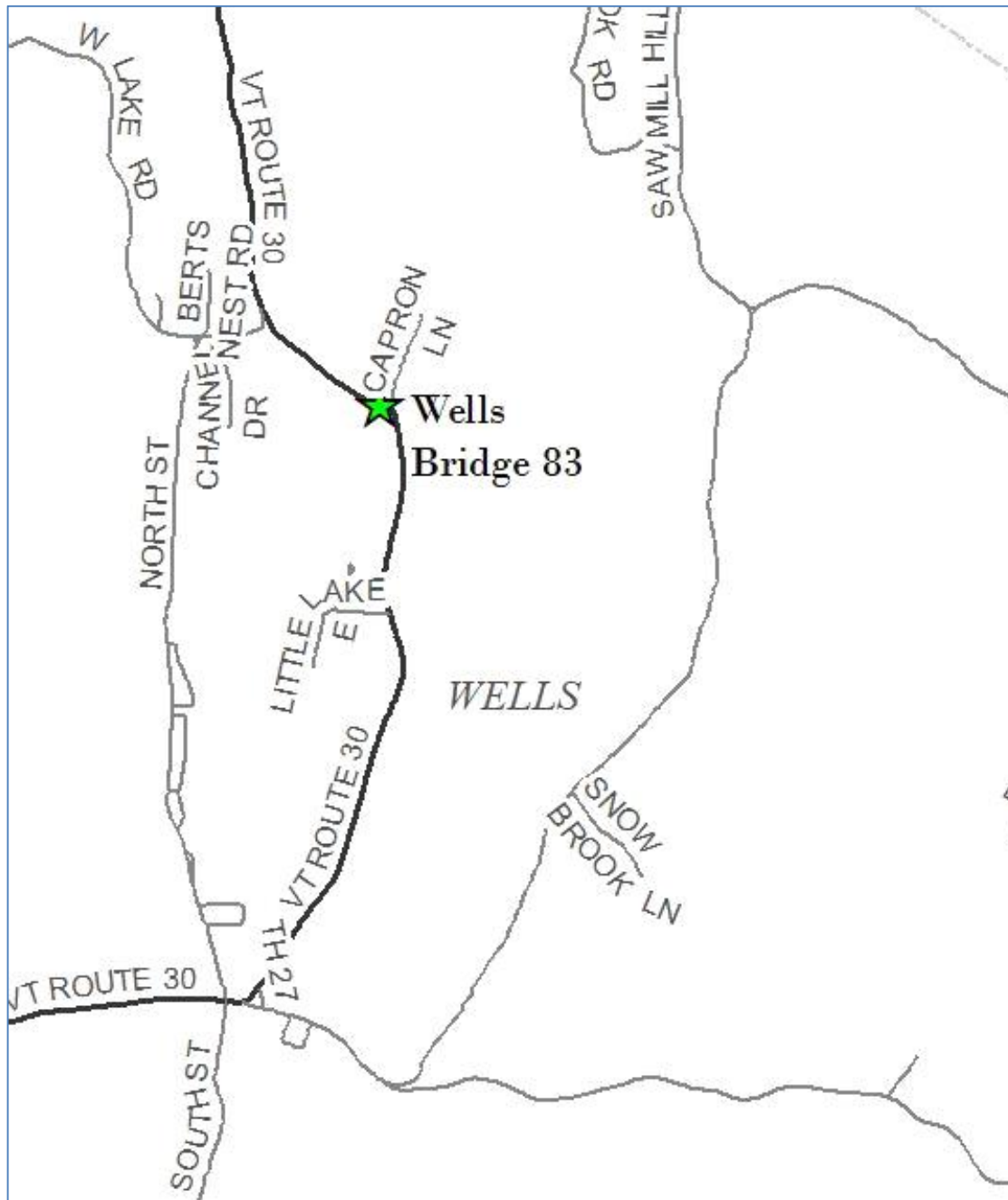
VTrans Scoping Engineer



# Purpose of Meeting

- Provide an understanding of our approach to the project
- Provide an overview of existing conditions
- Discuss the proposed project and traffic control
- Provide an opportunity to ask questions and voice concerns





Location Map





Bridge 83  
Project Location

Earth And Time

Capron Ln

Capron Ln

Capron Ln

Capron Ln

30

30

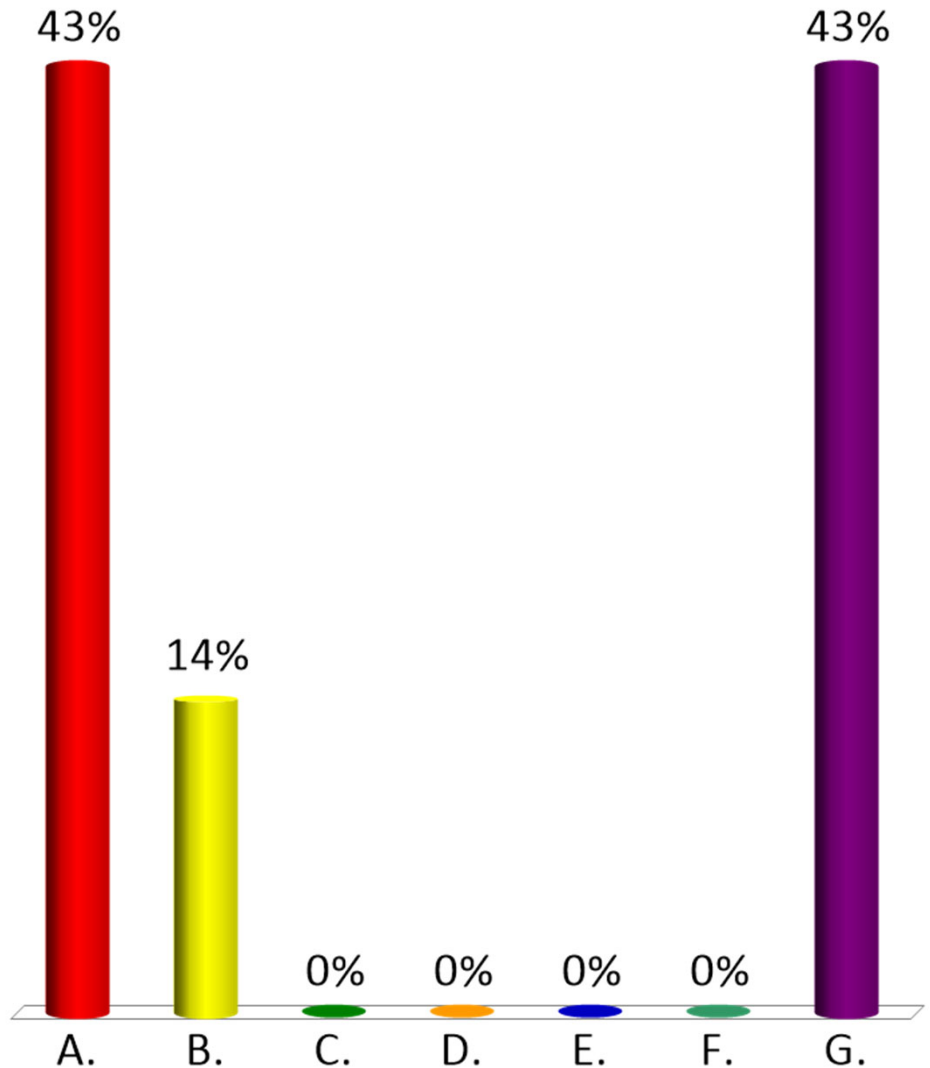
30

30

30

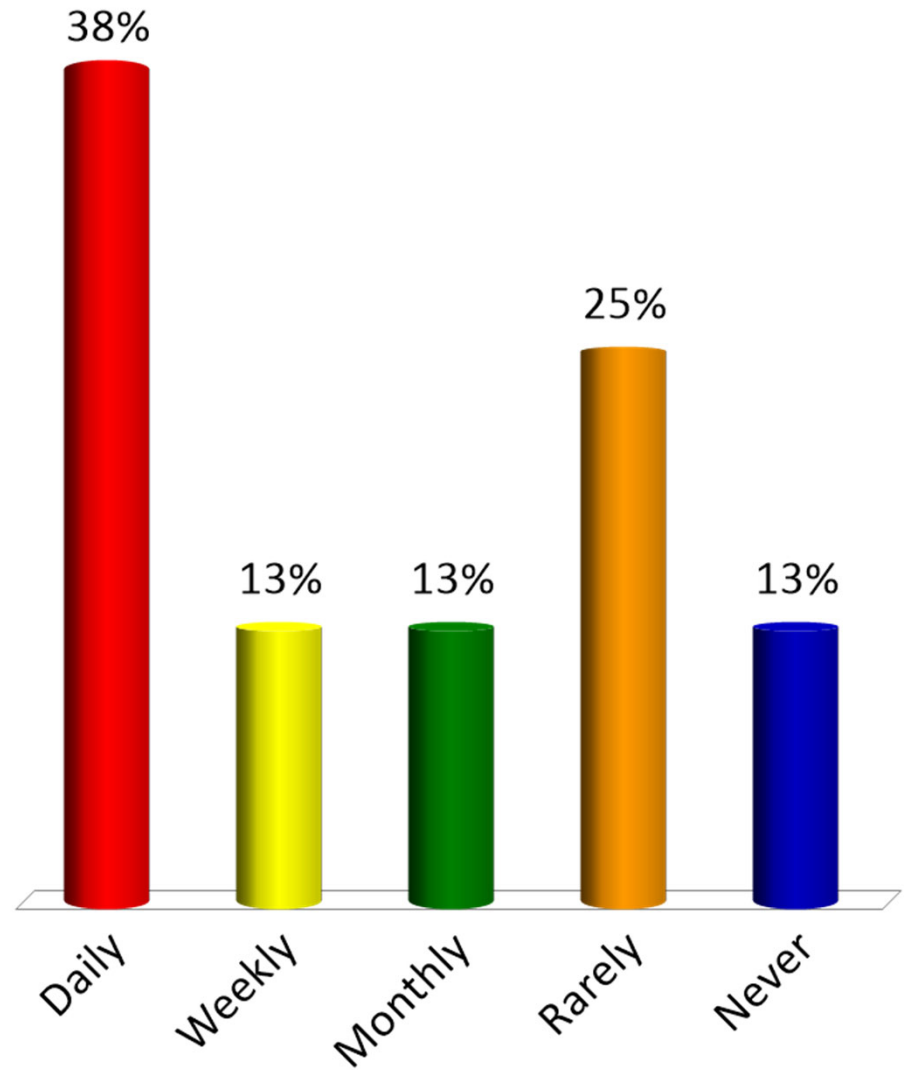
# Who are you representing?

- A. Municipal Official
- B. Resident
- C. Emergency Services
- D. Local Business
- E. Independent Organization
- F. Press
- G. Other



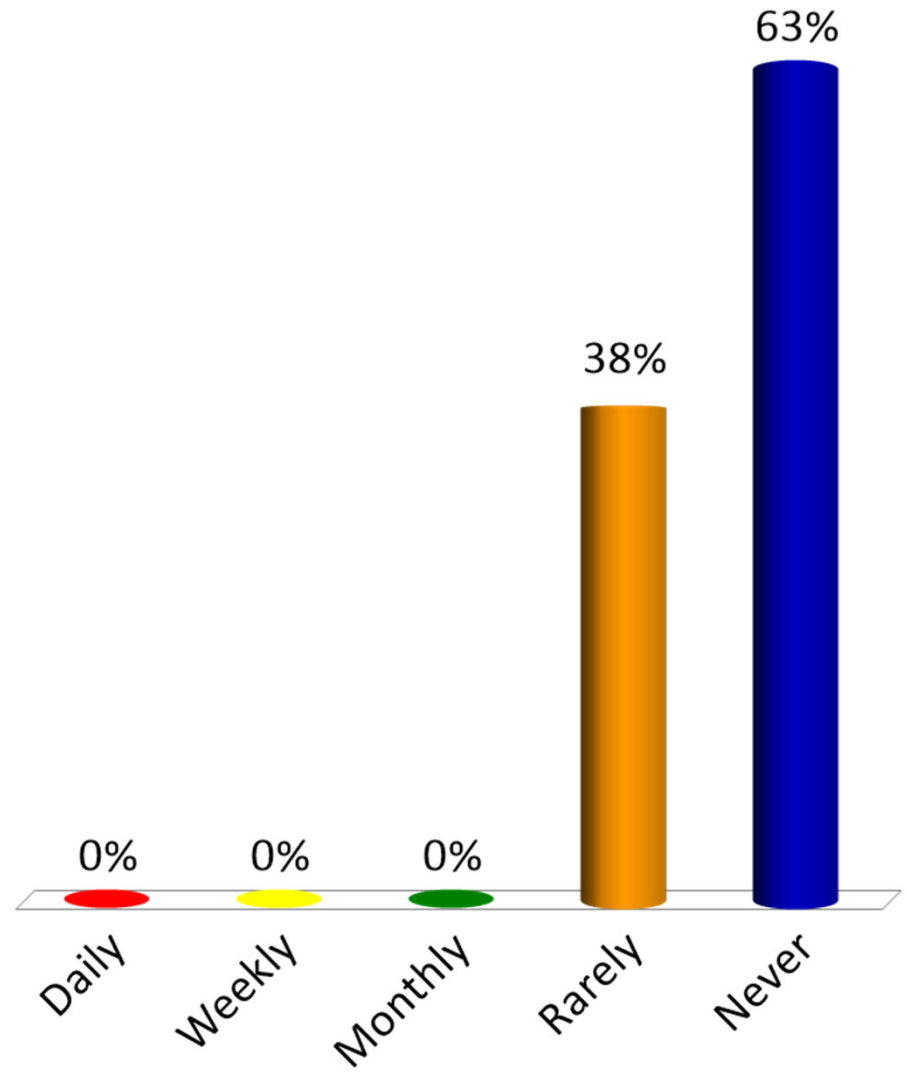
# How often do you use this segment of VT Route 30?

- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely
- E. Never



# How often do you walk over the bridge?

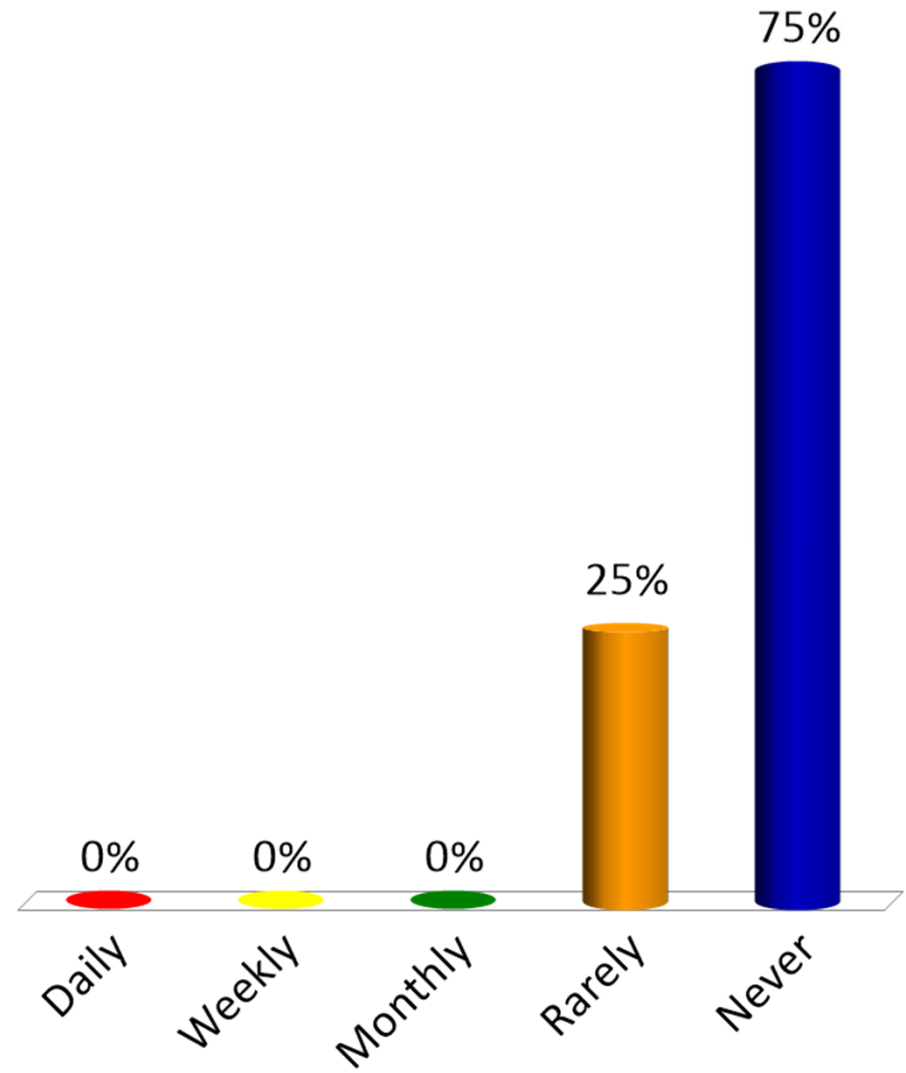
- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely
- E. Never





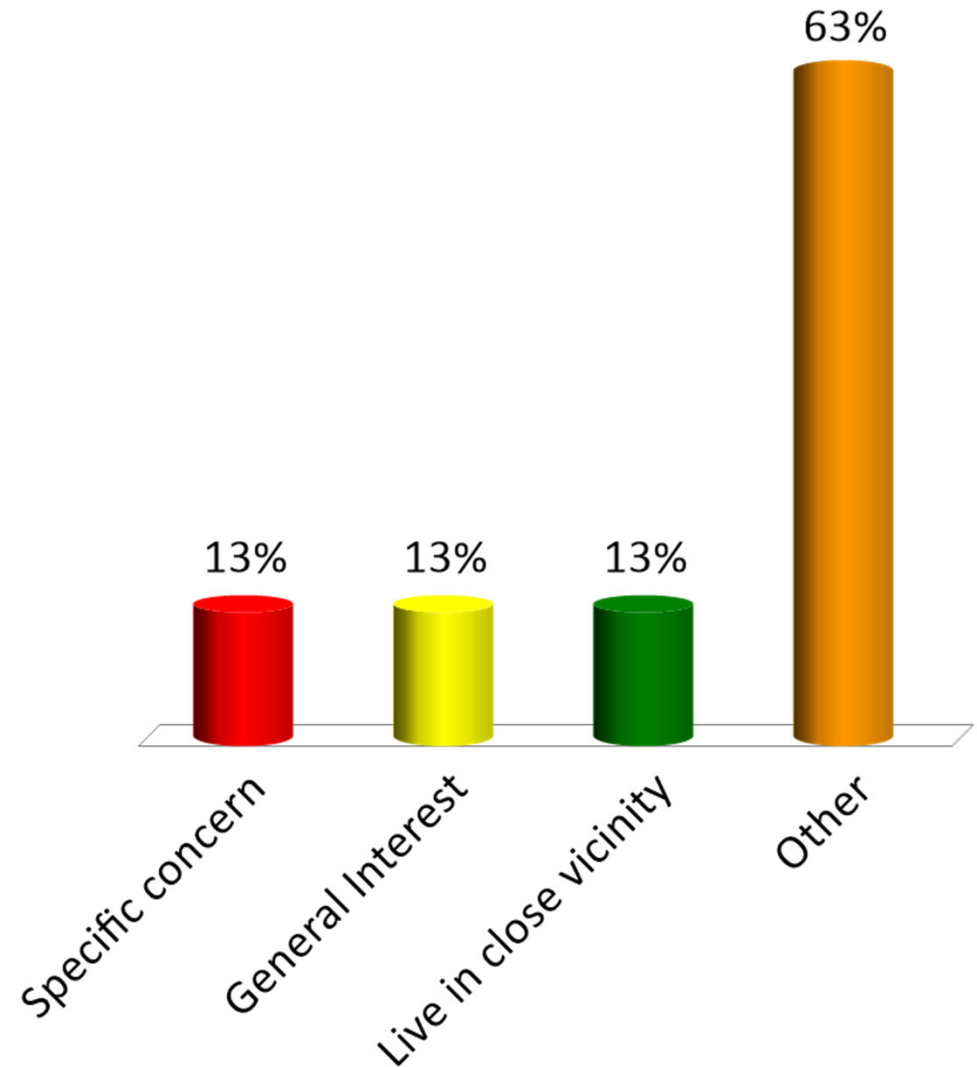
# How often do you bike over the bridge?

- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely
- E. Never



# What is your reason for attending this meeting?

- A. Specific concern
- B. General Interest
- C. Live in close vicinity
- D. Other



Looking East (South on VT Route 30) over Bridge



## Existing Conditions – Bridge #83

- Roadway Classification – Minor Arterial
- Bridge Type – 8' span, 48' long Corrugated Metal Plate Pipe Arch
- Ownership – State of Vermont
- Constructed in 1977

# Existing Conditions – Bridge #83

- The culvert is in critical condition
  - The culvert has failed with the invert torn through at inlet end and pushed upward
  - Outlet end has failed along the water line





## Condition Ratings



### Existing Conditions - Bridge #83

- Culvert Rating 2 (Critical)



Sink Hole



Existing Conditions - Bridge #83

- Outlet End



## Culvert Barrel



## Existing Conditions - Bridge #83

- Large Perforations

05/07/20



## Resources – Looking Upstream



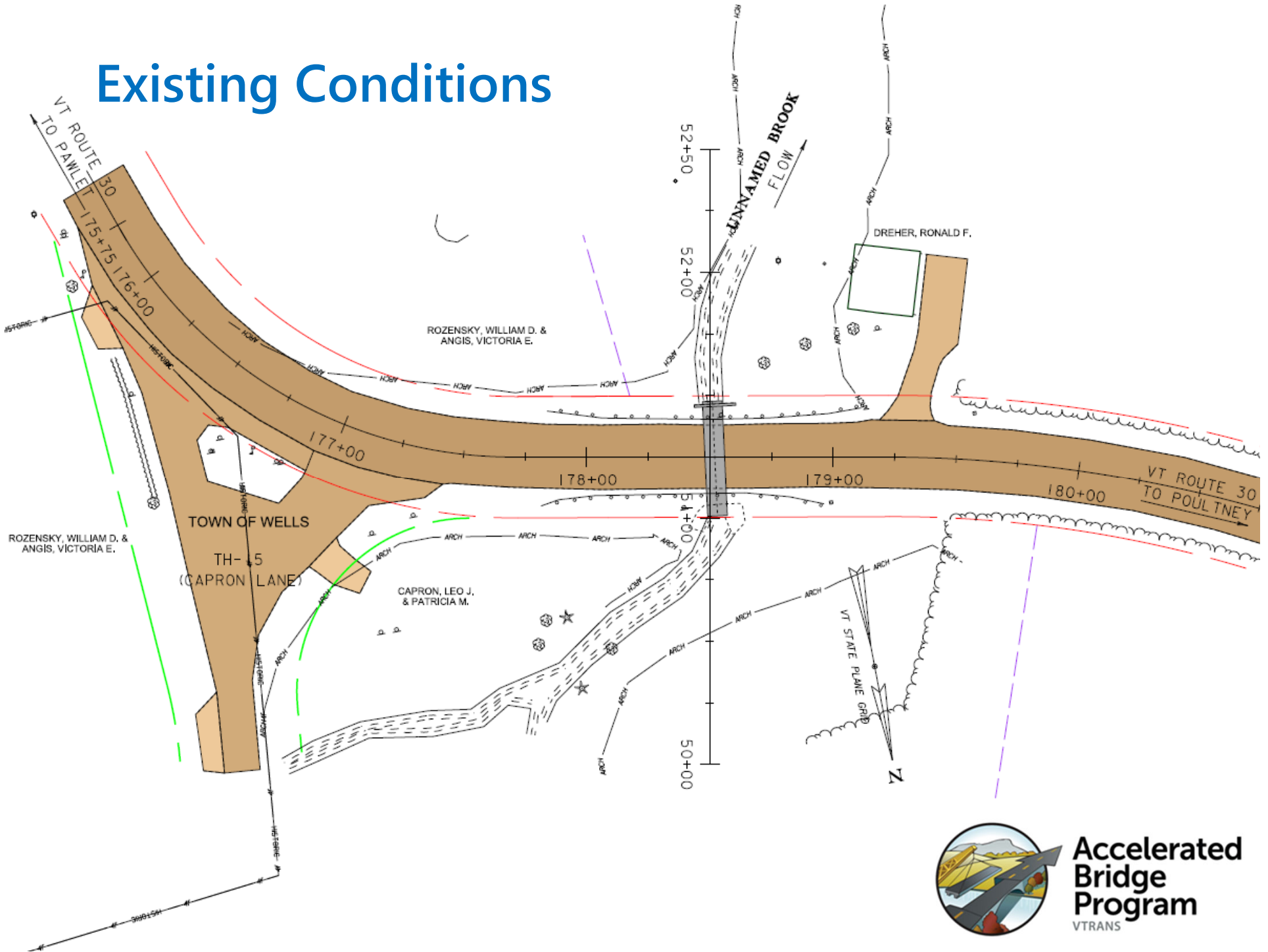
### Existing Conditions - Bridge #83

- Archaeological Resources
- Historic Resources

05/07/20



# Existing Conditions



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# Design Criteria and Considerations

- Average Daily Traffic of 980 Vehicles per day
- Design Hourly Volume of 150 vehicles per hour
- % Trucks: 20.1
- Design Speed of 50 mph
  - Warned for 25 mph

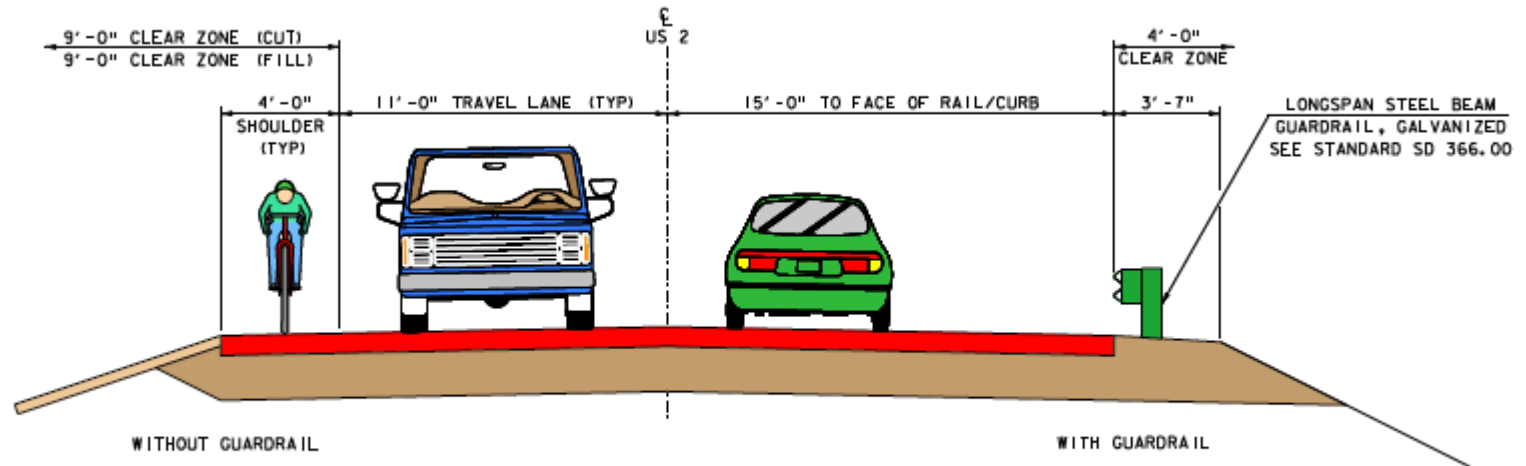


## Proposed Project - Bridge #83

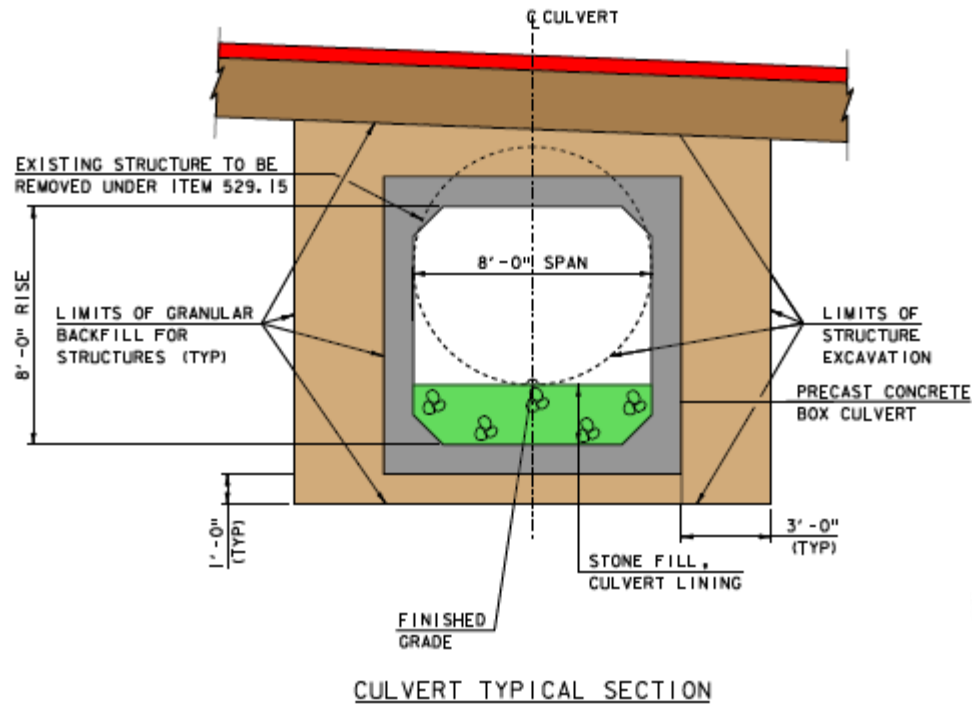
- Culvert Replacement with New Precast Box Culvert
  - 11'¼' typical
  - 75 year design life
  - Prefabricated 8-foot x 8-foot concrete box
    - Invert buried for natural stream bed



# Proposed Typical Section

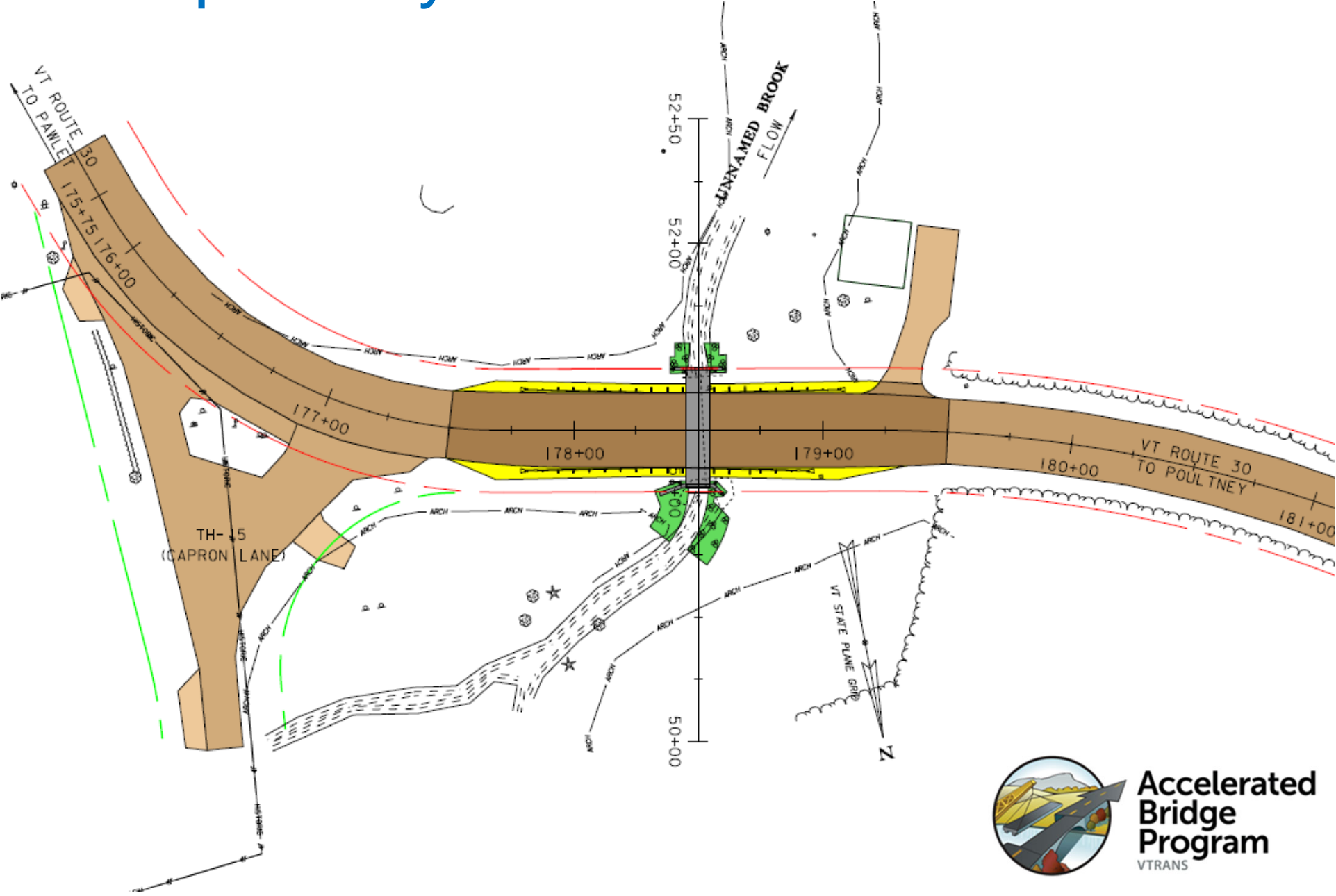


PROPOSED US ROUTE 2 TYPICAL SECTION



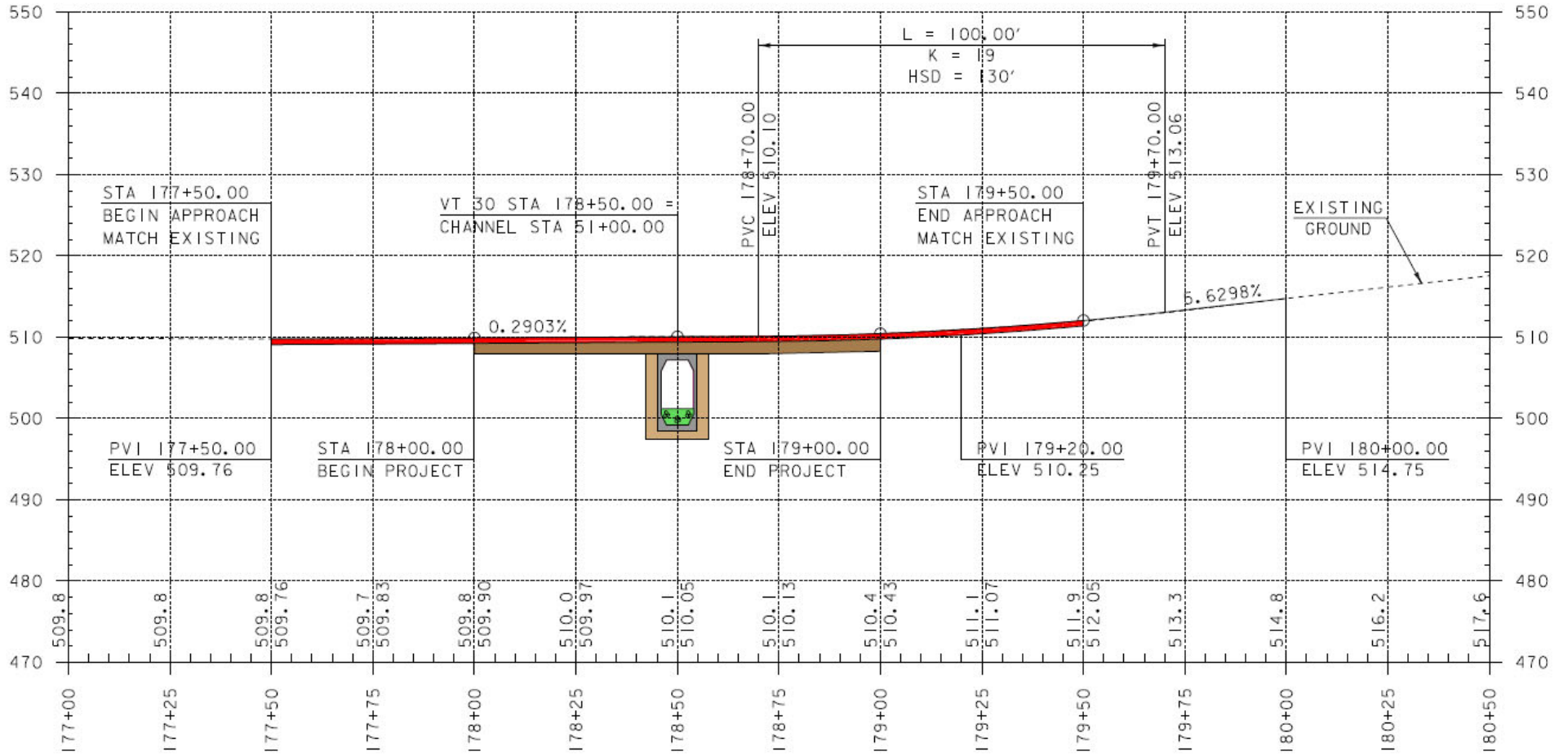


# Proposed Layout



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# Proposed Roadway Profile

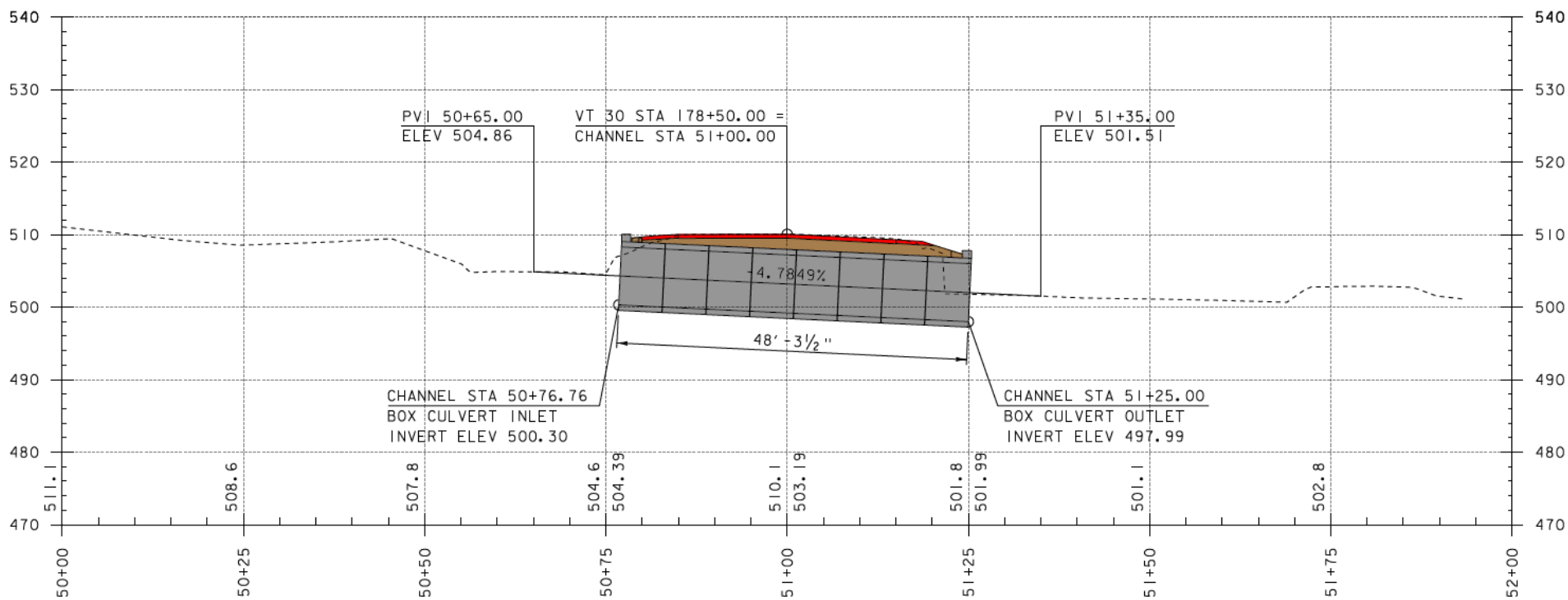


VT ROUTE 30 PROFILE



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# Proposed Channel Profile



VT ROUTE 30 BRIDGE 83 CHANNEL PROFILE



# Maintenance of Traffic Options Considered

- Offsite Detour
- Temporary Bridge
  - Not recommended due to increased project development time
- Phased Construction
  - Not recommended due to condition of existing structure





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 the words "ROAD CLOSED" in large, bold, black capital letters is mounted on two white posts. The background shows a concrete curb, a chain-link fence, and green trees under a clear sky.

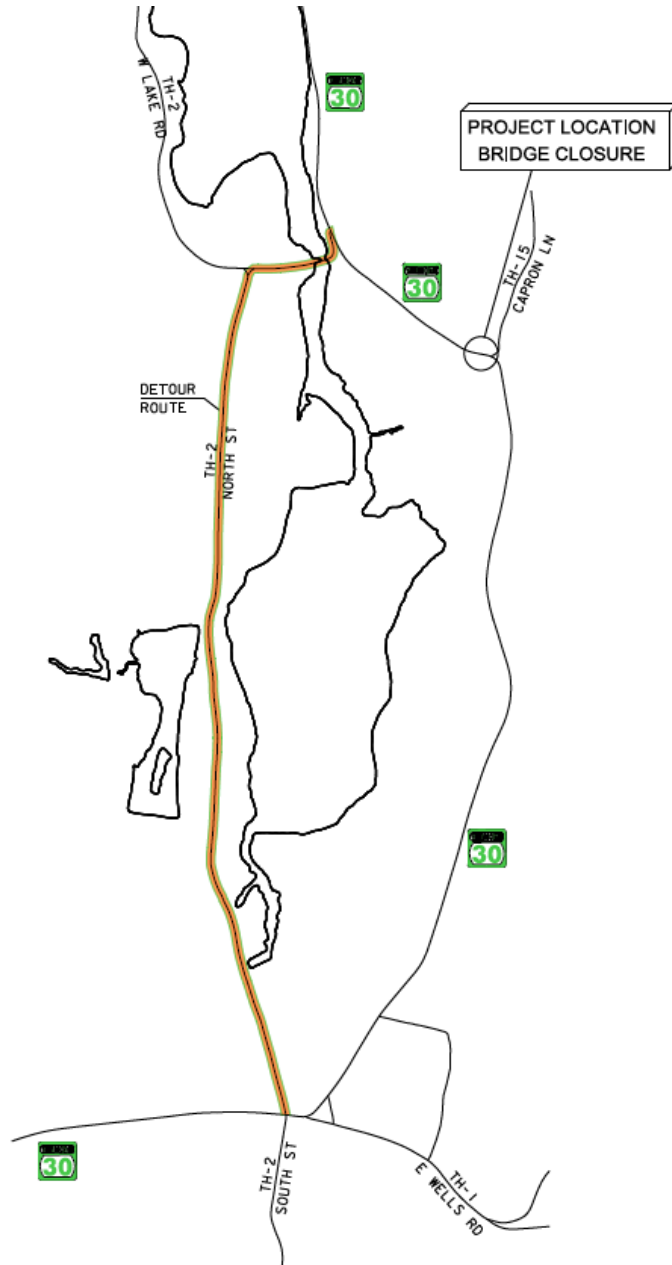
## Selected Maintenance of Traffic

### Road Closure

- Detour Signed by State on Town Owned Roads
- Shortest route is 4.6 miles end-to-end
- 60-hour road closure



# Traffic Control – Offsite Detour



- VT Route 30, to North Street, and West Lake Road, Back to VT Route 30 (End-to-End distance of 4.6 miles)

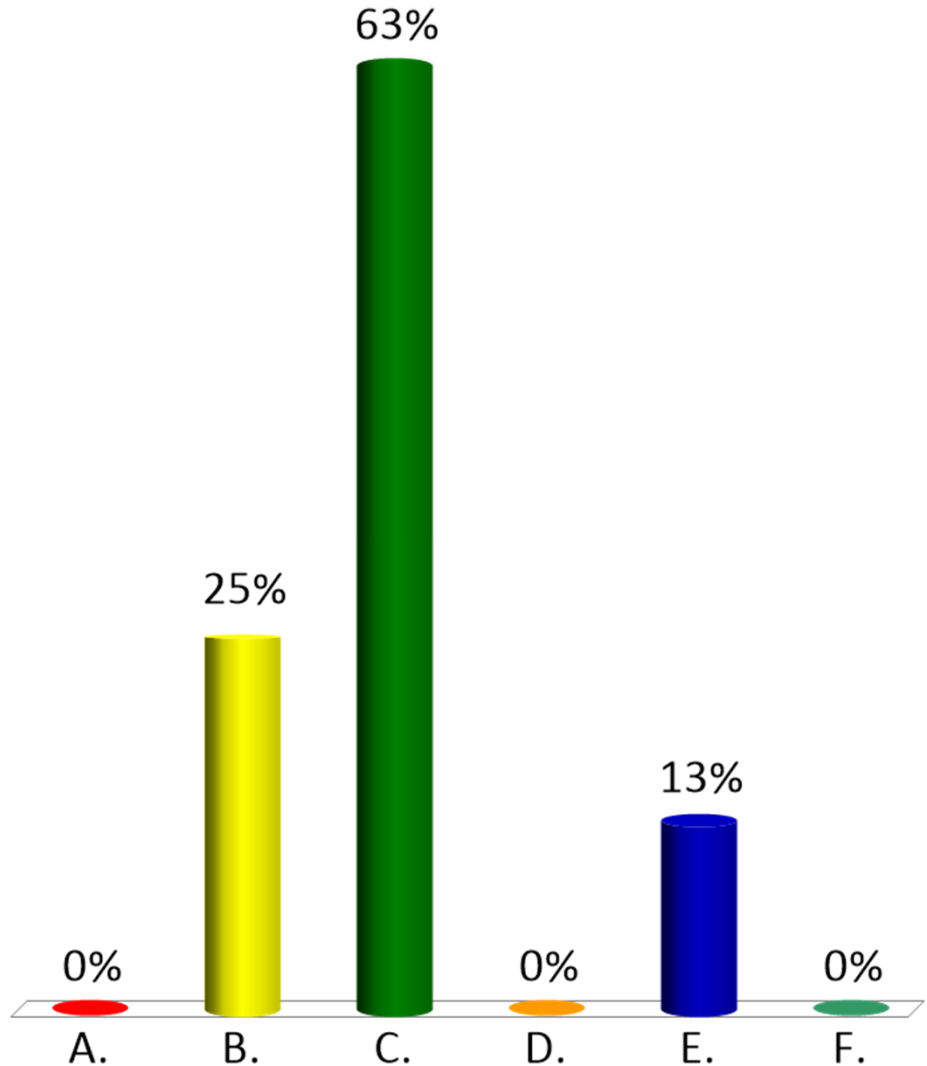
# Preliminary Project Schedule

- Construction Start – Fall of 2019
  - Total Cost Estimate: \$300,000



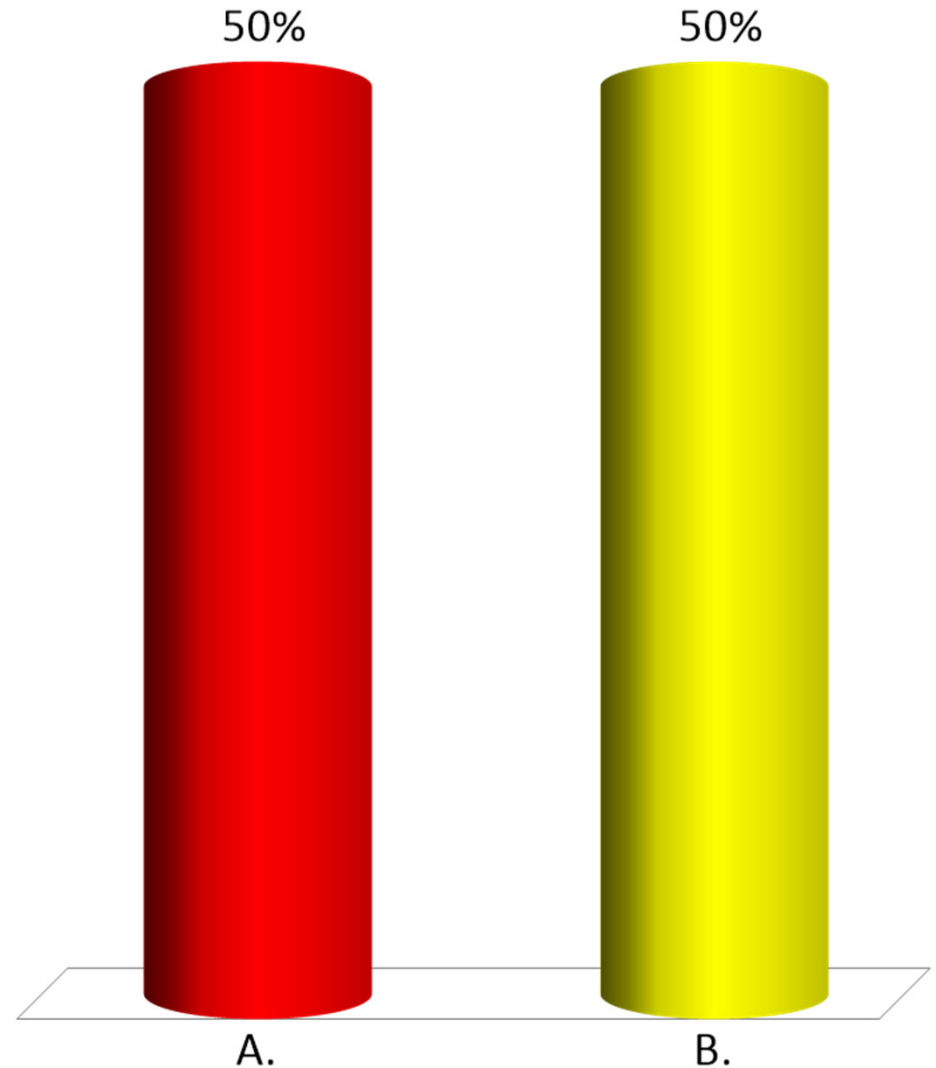
# What would be the maximum acceptable length of closure for Bridge #83?

- A. 48 hours
- B. 60 hours
- C. 72 hours
- D. 5 days
- E. 1 week
- F. A closure is not acceptable



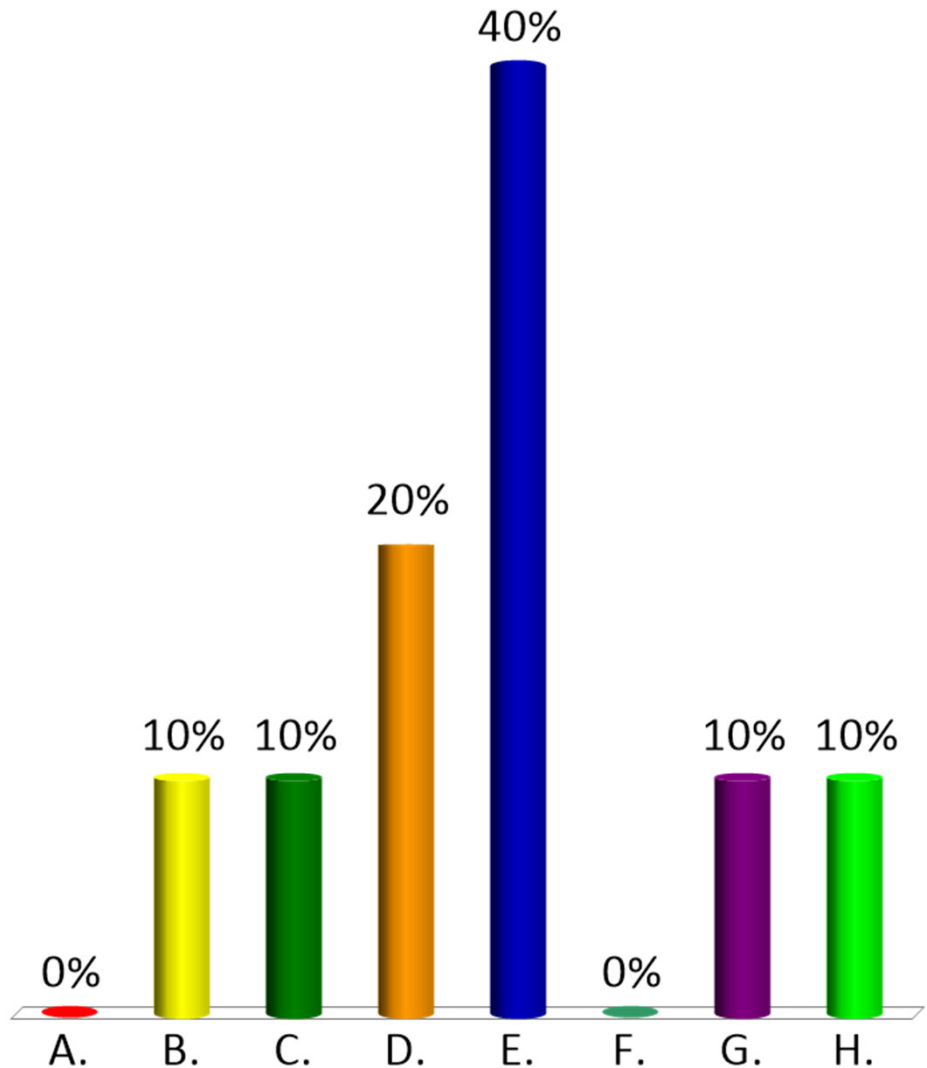
# Would you prefer a closure during the work week or over a weekend?

- A. During the Week
- B. Weekend



# Which Weekends would be acceptable for Bridge #83 to be closed? (More than one answer allowed)

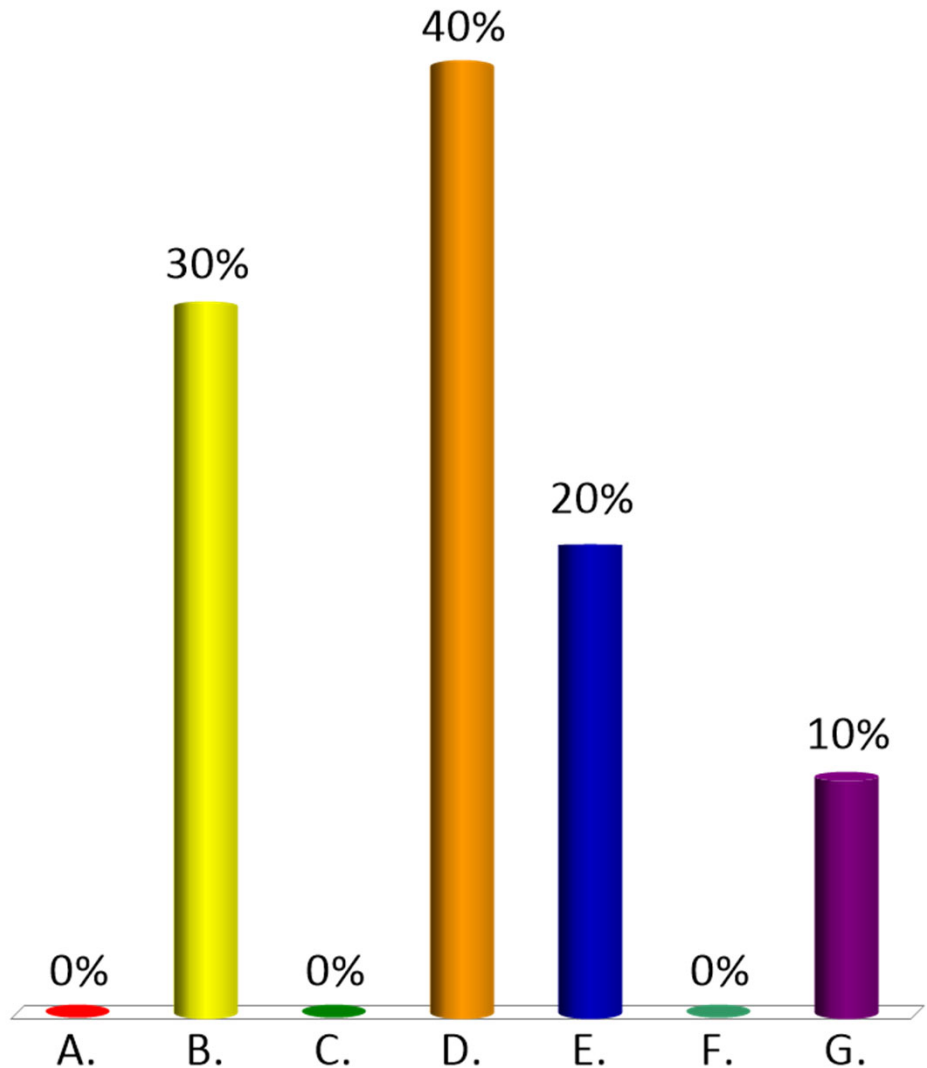
- A. September 7<sup>th</sup> and 8<sup>th</sup>
- B. September 14<sup>th</sup> and 15<sup>th</sup>
- C. September 21<sup>st</sup> and 22<sup>nd</sup>
- D. September 28<sup>th</sup> and 29<sup>th</sup>
- E. October 5<sup>th</sup> and 6<sup>th</sup>
- F. October 12<sup>th</sup> and 13<sup>th</sup>
- G. October 19<sup>th</sup> and 20<sup>th</sup>
- H. October 26<sup>th</sup> and 27<sup>th</sup>





# Which Week would be acceptable for Bridge #83 to be closed? (More than one answer allowed)

- A. September 9<sup>th</sup> and 13<sup>th</sup>
- B. September 16<sup>th</sup> and 20<sup>th</sup>
- C. September 23<sup>st</sup> and 27<sup>th</sup>
- D. September 30<sup>th</sup> and October 4<sup>th</sup>
- E. October 7<sup>th</sup> and 11<sup>th</sup>
- F. October 14<sup>th</sup> and 18<sup>th</sup>
- G. October 21<sup>st</sup> and 25<sup>th</sup>



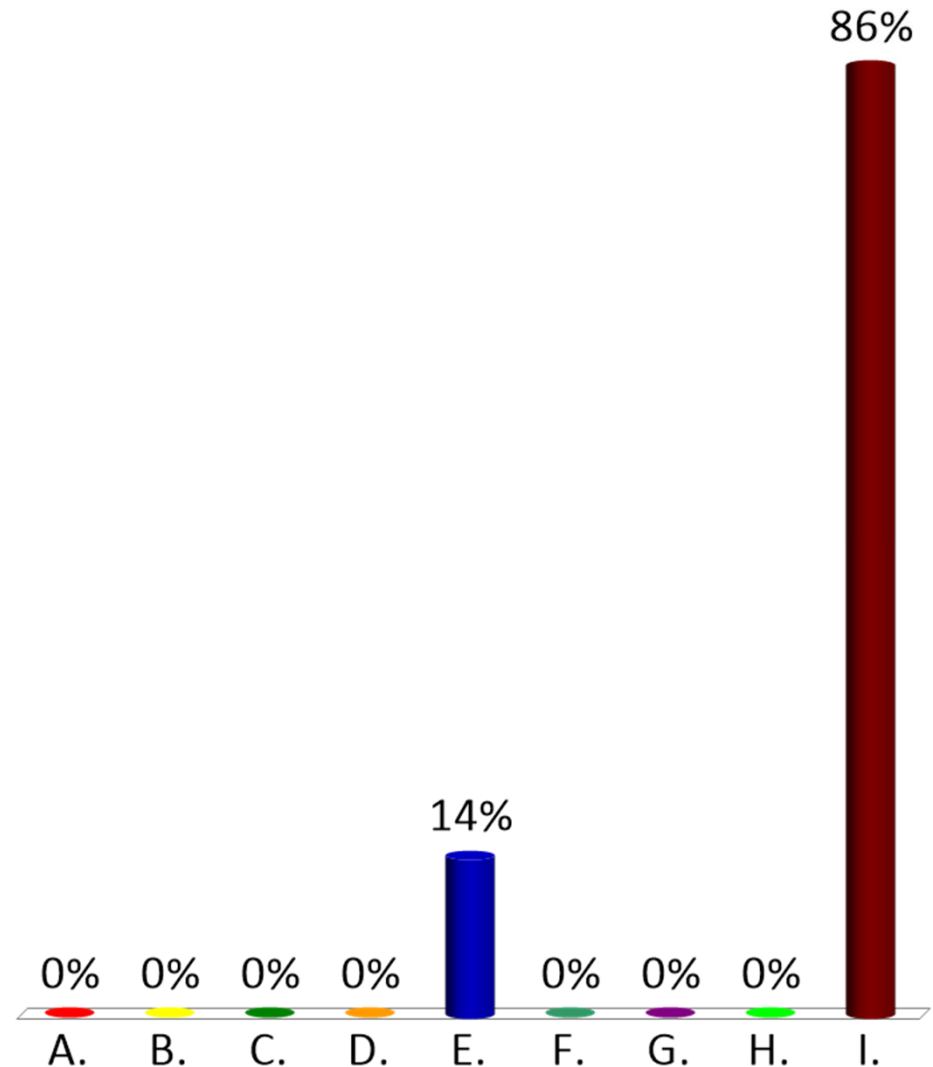
# Project Summary

- Culvert Replacement with New Precast Box Culvert with Traffic Maintained on an Offsite Detour
  - 60-hour road closure utilizing Town-owned roads for the official Signed Detour
  - 11'¼' typical
  - 75 year design life
  - Prefabricated 8-foot x 8-foot concrete box
    - Invert buried for natural stream bed



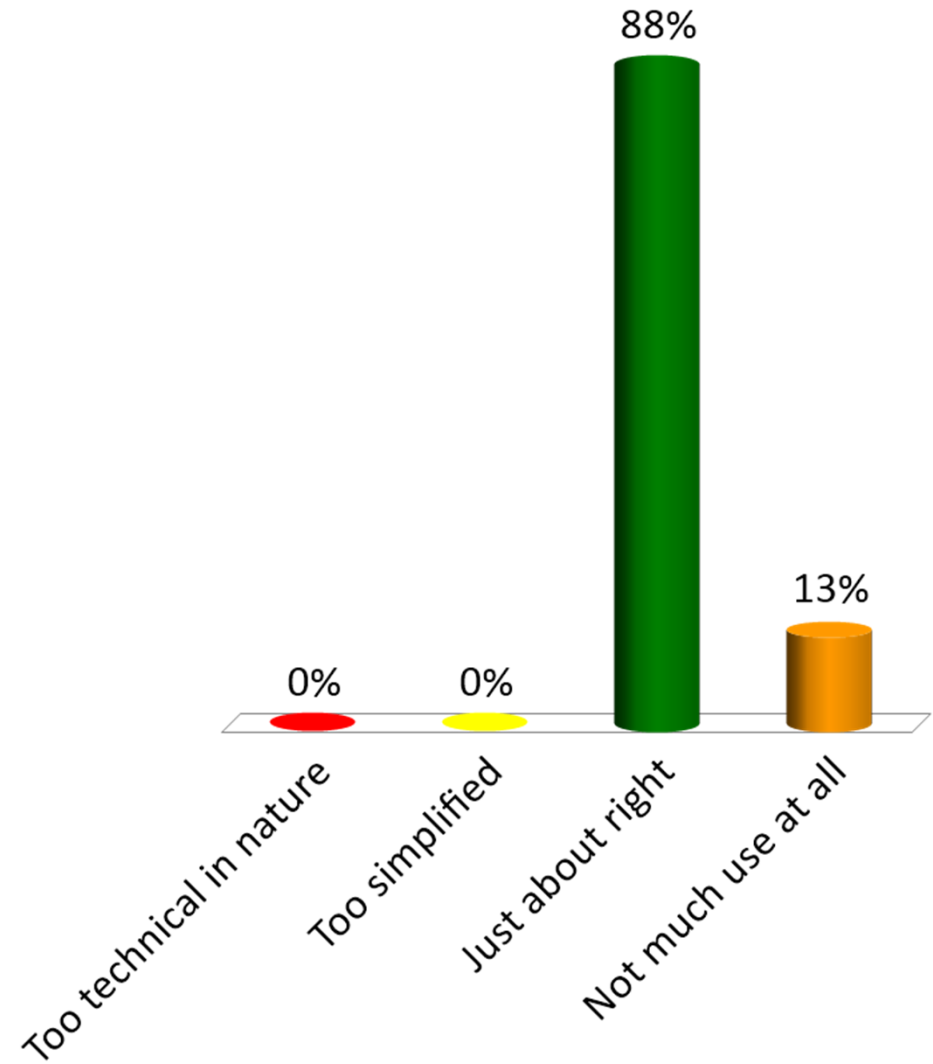
# Which would you be most concerned about?

- A. Construction delays on VT Route 30
- B. Detour Distance
- C. Duration of Detour
- D. Bridge Aesthetics
- E. Environmental Impacts
- F. Recreational Impacts
- G. Business Impacts
- H. Other
- I. Not really concerned



## Did you find this presentation to be?

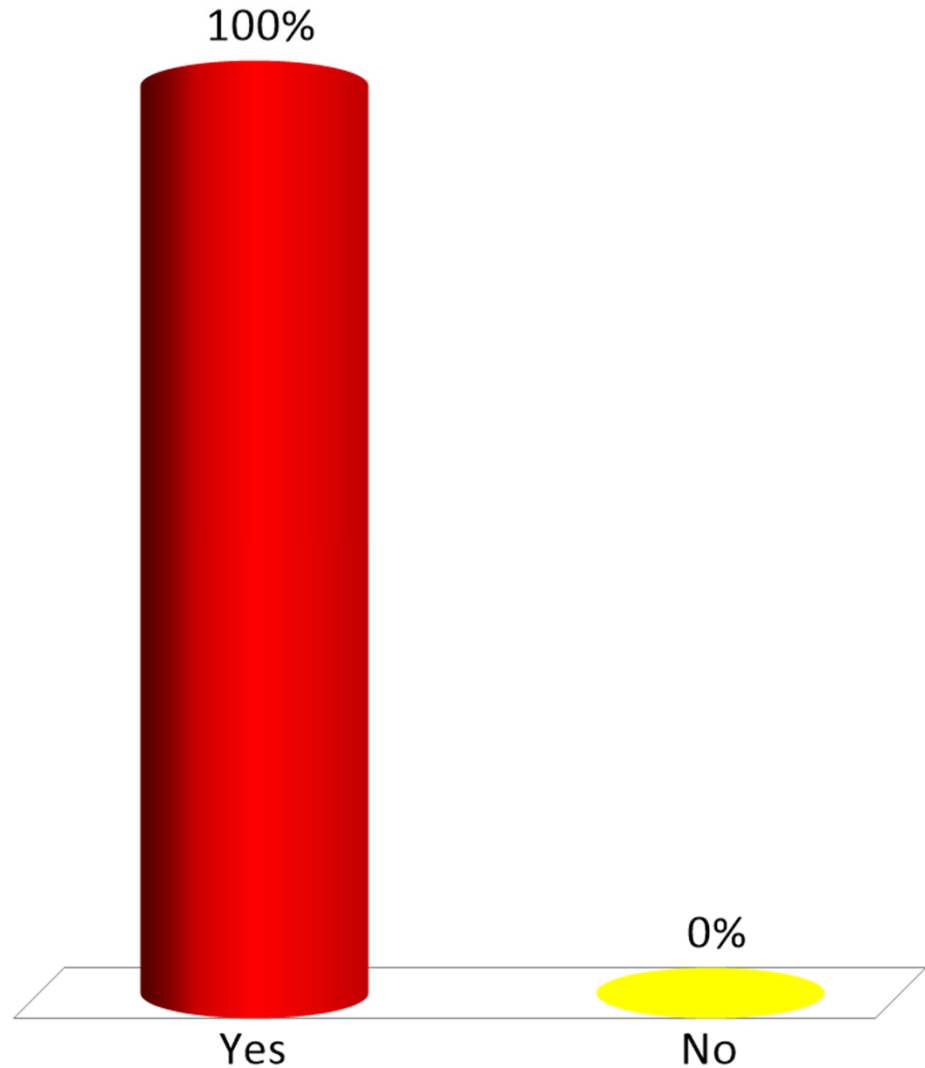
- A. Too technical in nature
- B. Too simplified
- C. Just about right
- D. Not much use at all



# Do you find the selected scope of work satisfactory?

A. Yes

B. No





## For more information:

- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/19B089>



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## Questions and Comments

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