



# Bennington Intersection Improvement on VT Route 67A

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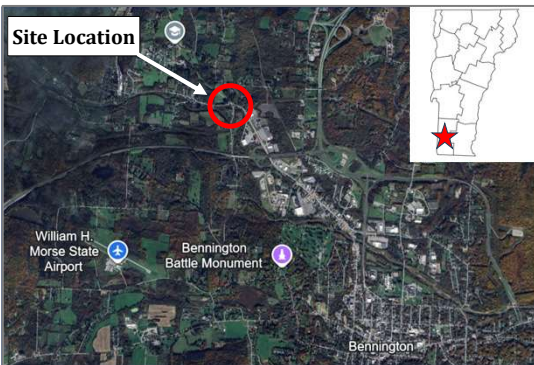
## Introduction

The purpose of this project is to improve traffic flow, safety and pedestrian accommodation.

### Project Scope:

The existing site includes a skewed 4-way intersection with a fifth approach that comes from Bennington College. VT Route 67A runs east-west, with Rice Ln to the north, Silk Rd to the south, and College Dr to the northwest. Site constraints include a historic house and adjacent private property. Design alternatives, including a traffic signal, full-size roundabout, and peanut roundabout, were evaluated using a decision matrix. The peanut roundabout was refined using AutoTURN analysis, utility relocations, grading and drainage design, typical sections, and construction phasing.

## Location



## Decision Matrix

Alternatives were evaluated relative to each other. The weighted scores are shown below (scored 1-5).

Criterion	Weight	Traffic Signals	Full-Size Roundabout	Peanut Roundabout
Level of Service	5	20	25	25
Traffic Safety	4	12	16	20
Pedestrian Accommodation	4	20	12	16
Cost	3	12	9	6
Constructability	3	6	9	9
Cultural Resources	2	8	6	6
Aesthetics	1	2	4	5
<b>Total:</b>	-	<b>80</b>	<b>81</b>	<b>87</b>

## Design Alternatives



## Preferred Alternative: Peanut Roundabout

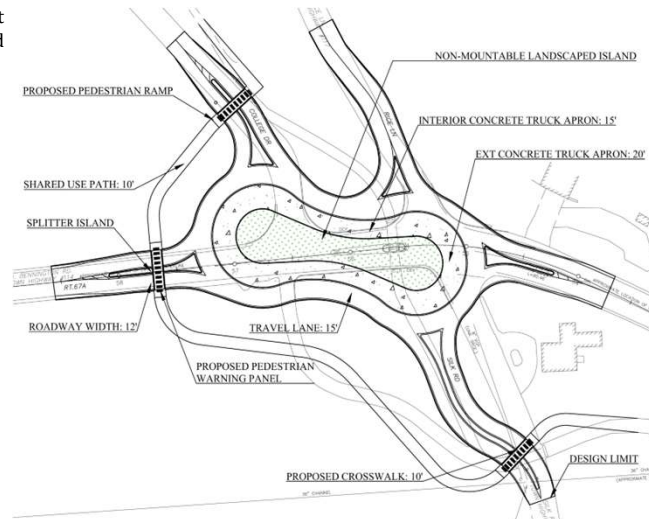
The preliminary design did not accommodate WB-67 vehicles and was refined using AutoTURN.

### Design Refinements:

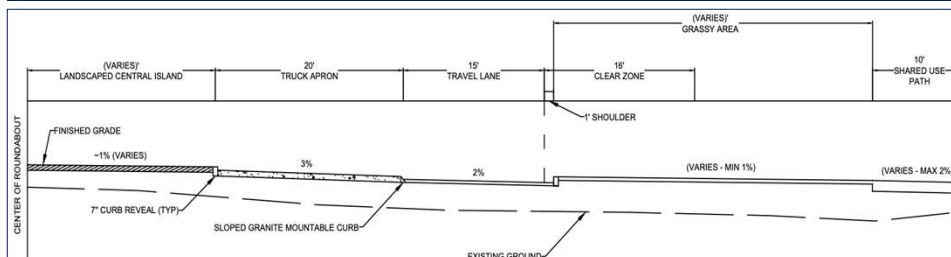
- Enlarged peanut geometry to accommodate WB-67 trucks
- Continuous truck apron
- Expanded pedestrian path to 10 ft (shared-use)
- Reduced island deflection to improve vehicle maneuverability

### Key Dimensions:

- Travel lane: 15 ft
- Truck apron: 15 ft (interior), 20 ft (exterior)
- Approaches: 12 ft



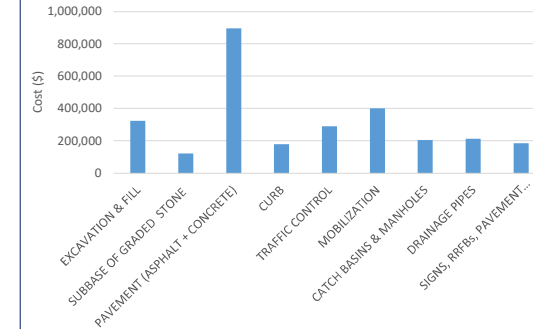
## Roundabout Typical Section



The typical section shows the roundabout grades used for drainage and roadway design.

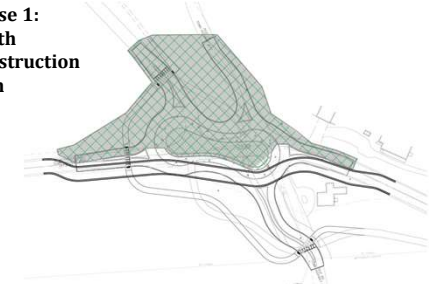
## Cost Analysis

The estimated project cost is \$2.67M including a 30% contingency for design uncertainty, resulting in \$3.47M.

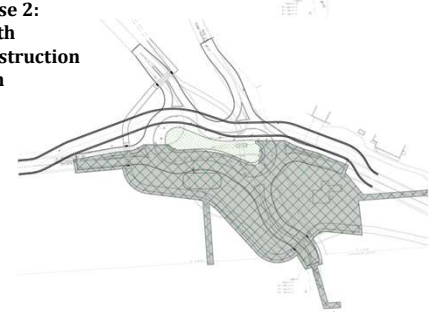


## Construction Phases

### Phase 1: North Construction Plan



### Phase 2: South Construction Plan



## Acknowledgements

- Joseph Labrecque, E.I.T – Green International Affiliates
- Tony Puntin, P.E. – University of New Hampshire

## References

FHWA – Roundabouts; MUTCD – Manual on Uniform Traffic Control Devices  
 VTTrans - Design Standards/Drainage Manual