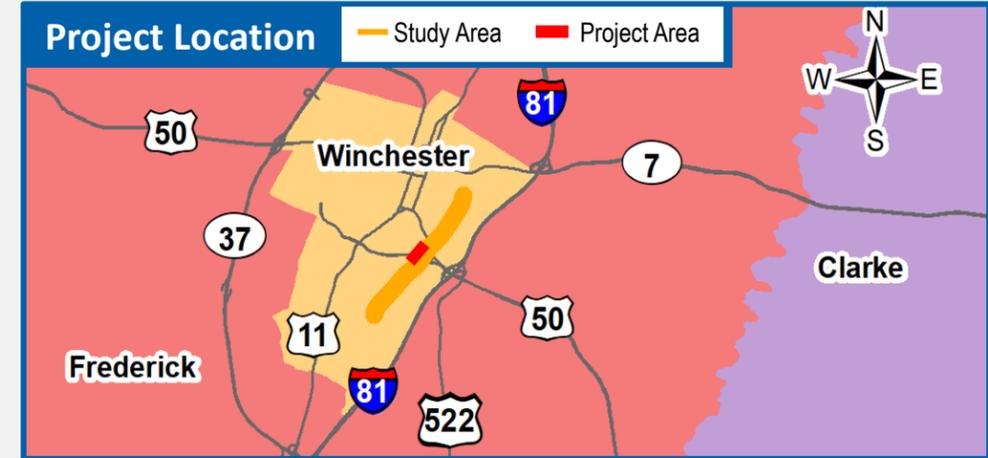


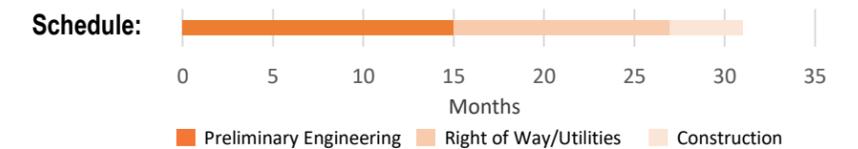
Improvement #5: Pleasant Valley Road Access Management

- (5A) Close Southbound Commercial Driveway Access Between Ruby Tuesday and Taco Bell and Extend Concrete Median
- (5B) Remove Northbound Crosswalk at Spring Street



Project Schedule & Preliminary Cost

Project schedules and cost estimate were developed based on information available at the time of study and should be reassessed prior to submitting funding applications.



Phase	Cost Estimate (2020 Dollars)
Preliminary Engineering	\$240,000
ROW and Utility Relocation	\$110,000
Construction	\$410,000
Total Cost	\$760,000

Operations and Safety Improvements

The following recommendations are projected to improve operations and/or safety along Pleasant Valley Road. Southbound queue lengths can block driveway access and cause merging conflicts under congested conditions.

Spring Street and Pleasant Valley Road

- Improvements 5A: Close Southbound Commercial Driveway Access and Extend Concrete Median
 - Five-year EPDO crashes reduced by 10
 - Nineteen intersection conflict points removed
 - Intersection spacing adjusted to meet VDOT recommended spacing
- Improvement 5B: Remove Northern Crosswalk at Spring Street
 - Eliminates redundant crossing and simplifies the intersection

Safety Results

Crash modification factors (CMFs) were chosen to project the reduction in all severity crashes weighted to equivalent property damage only (EPDO) crashes.

2014-2019* EPDO	CMF	EPDO Reduction
34	Reduce Driveway Density – Eliminate/Close (0.70)	10

* 2019 VDOT crash data was available through July 30, 2019

Conflict points count the relative risk associated with vehicle interactions. Conflict point reduction is a metric used by VDOT to quantify safety improvements. Crossing conflict points are weighted twice as much as diverging and merging conflict points.

Conflict Point	Existing	Future
● Diverging (x1):	5	2
⊙ Merging (x1):	5	1
○ Crossing (x2):	6	0
Count Total:	16	3
Weight Total:	22	3
Weighted Conflict Point Reduction:		19

Existing Conflict Points:

Future Conflict Points:

Access Management

Recommended VDOT spacing between partial access entrance and any entrance, intersection or median crossover is 305 ft.

Existing entrance/intersection spacing:

- Jubal Early Drive and Ruby Tuesday/Taco Bell Entrance: 280* ft
- Starbucks Entrance and Ruby Tuesday Entrance: 150* ft
- Ruby Tuesday/Taco Bell Entrance and Spring Street: 215* ft

* Existing spacing does not meet VDOT guideline recommendations