

# Route 116 Corridor Study Hinesburg



Community Forum

February 11, 2014



DuBois  
& King  
INC.

# What is a corridor study?

- Comprehensive -- not just the highway right of way.
  - Land use/Zoning
  - Economic Development
  - Safety
  - Traffic
  - Bicycles
  - Pedestrians
  - Community Character
  - Environmental Resources
- Proactive –avoid future problems through planning.
- Visionary – responds to what the community wants to see in the future.
- Collaborative – involves a variety of stakeholders and interests.

# Project Team

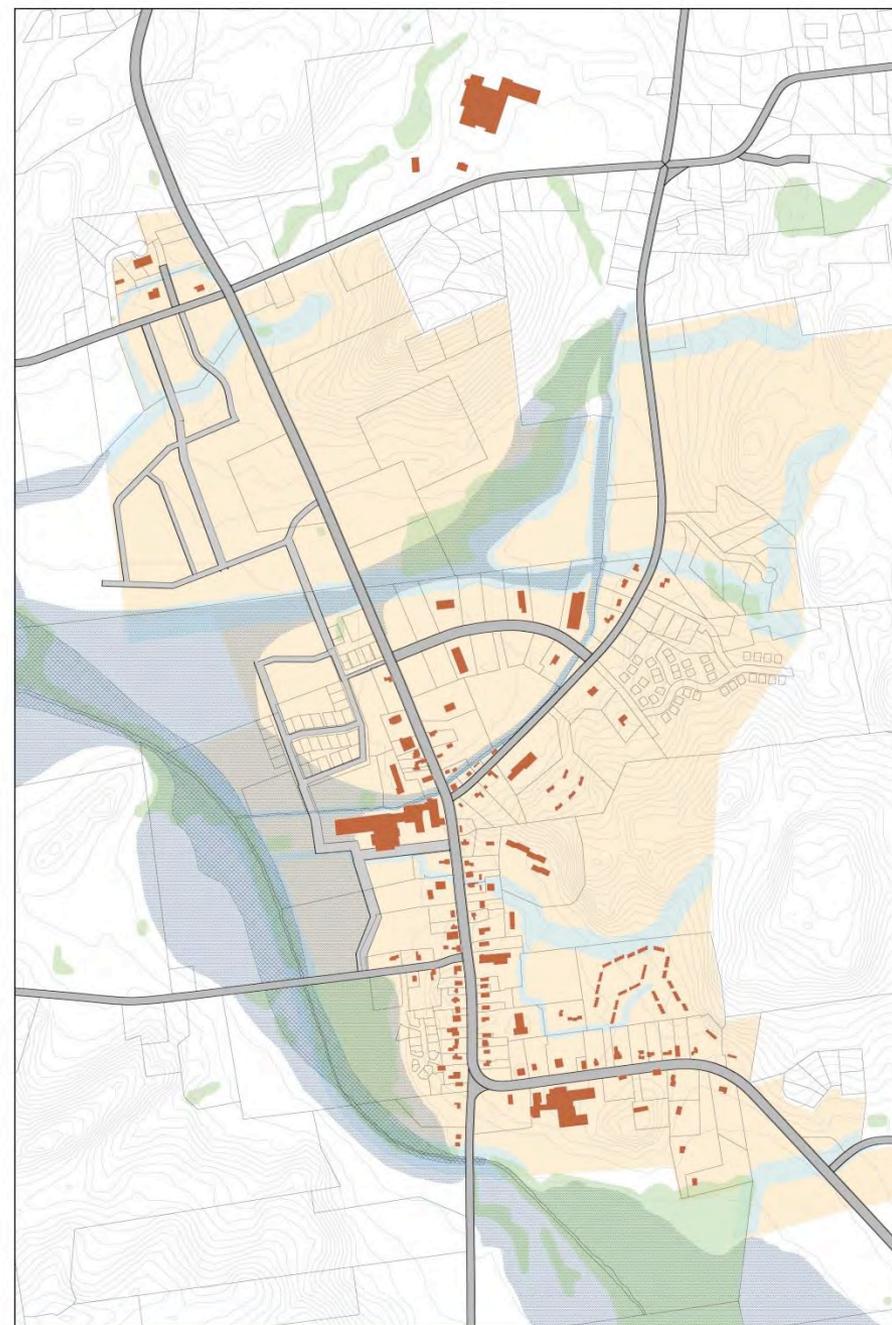
- CCRPC
  - Christine Forde
  - Sai Sarapelli
- Town of Hinesburg
  - Alex Weinhagen
- DuBois & King
  - Lucy Gibson
  - Paul Greilich
- Advisory Committee
  - Rob Bast
  - Tyler Billingsley
  - Schuyler Jackson
  - Rolf Kiehlman
  - Frank Koss
  - Andrea Morgante
  - Dennis Place
  - John Roos
  - Cathy Ryan

# Project Schedule

<b>Month</b>	<b>Activities</b>
<b>July-August</b>	Steering Committee Meeting, Data Collection
<b>September</b>	Public Meeting to gauge concerns and gather ideas
<b>October-December</b>	Develop Strategies to consider
<b>January</b>	Public Meeting to Review strategies and gather input
<b>February</b>	Refine strategies and develop recommendations
<b>March</b>	Present final recommendations and report

# Process

- Define existing conditions and goals
- Explore Strategies
- Evaluate and Select Strategies
  - Infrastructure
  - Street Network
  - Planning and Management
- Prioritize and Implementation Plan



# Goals and Objectives

- Safety
  - Slow steady flow with no surprises, avoid conflicts
- Efficiency
  - Maximize efficient use of existing infrastructure before expanding
- Livability
  - Streetscape designs for an attractive walkable village
  - Support compact, mixed use development for a vibrant village
- Environment
  - Minimize stormwater runoff with right-sized, efficient designs
  - Integrate stormwater management into public and private projects

# Tonight's Meeting

- Current Issues and Plans
- Project Goals
- Corridor Strategies
  - Infrastructure Projects
  - Non-Infrastructure
- Hands-on Input

# Big Issues

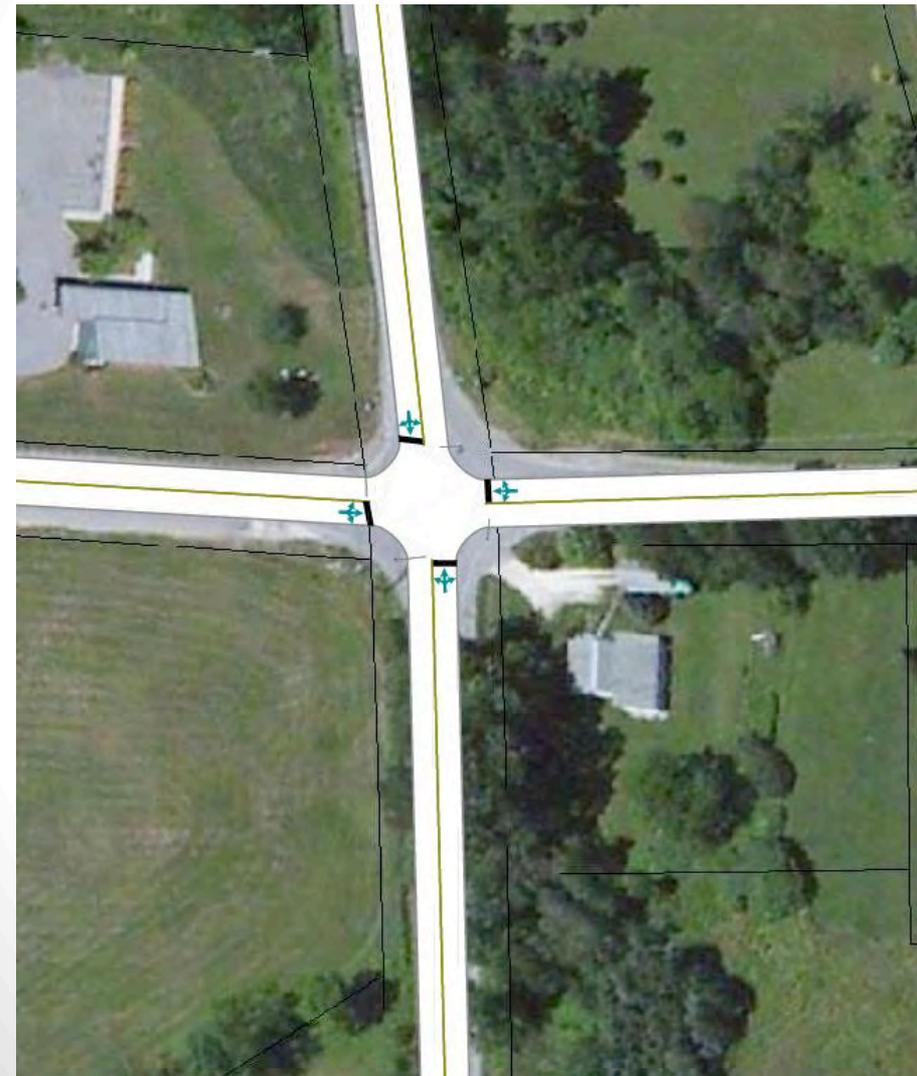
- Peak Hour Traffic Congestion (both directions)
- Incomplete Pedestrian and Bicycle Network
- Lack of Alternate Routes through Town
- Tension between Route 116's role as a Main Street and Commuter Route



# Planned Projects

- CVU Road intersection project (2015 or later)
- Lantman's/Charlotte Road signal phasing changes
- Sidewalks
  - Charlotte Road to School, west side of Route 116
  - Commerce Road to Riggs Road, east side of Route 116

# Route 116/CVU Road Project



# Route 116 Charlotte Rd/Lantman's Project

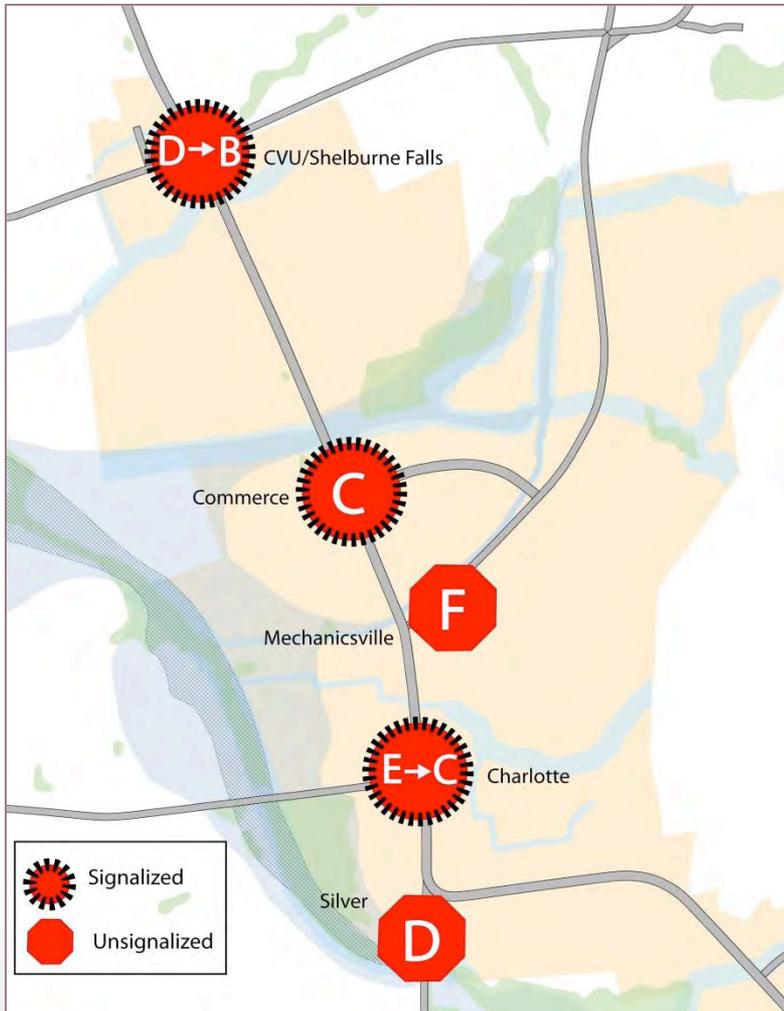
- Sidewalk relocation for improved visibility of Lantman's exit
- Change signal phasing to allow concurrent east/west movements



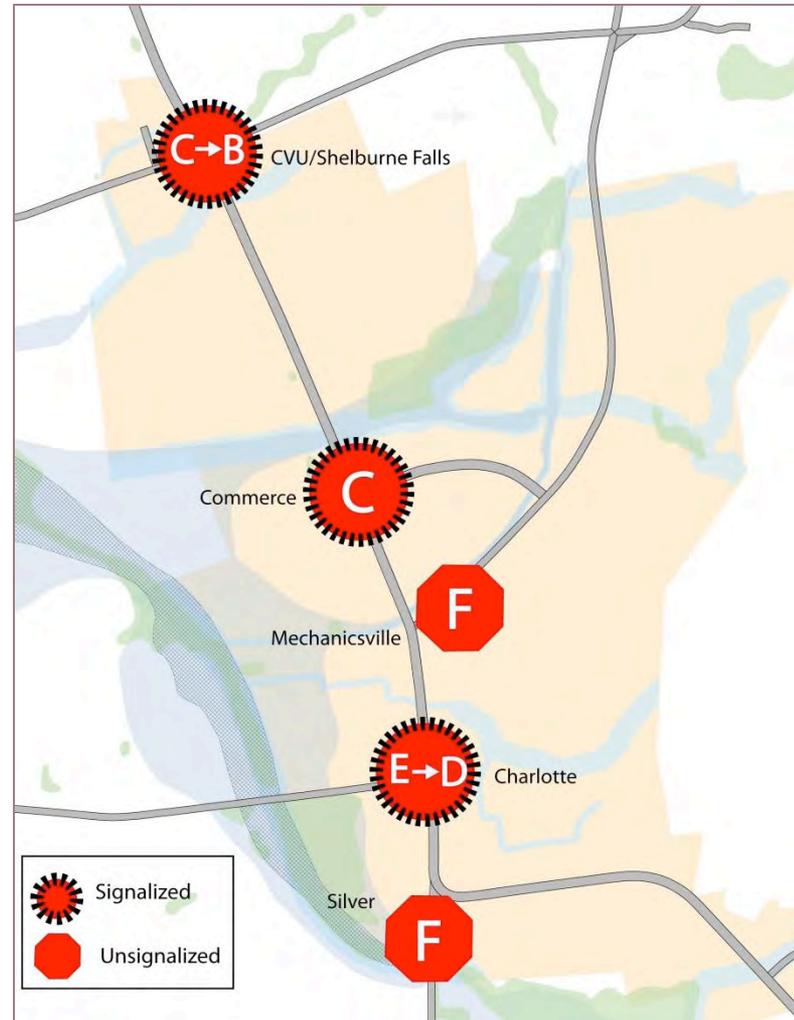
# Intersection Levels of Service (LOS)

Existing -> Planned Projects

AM Peak Hour

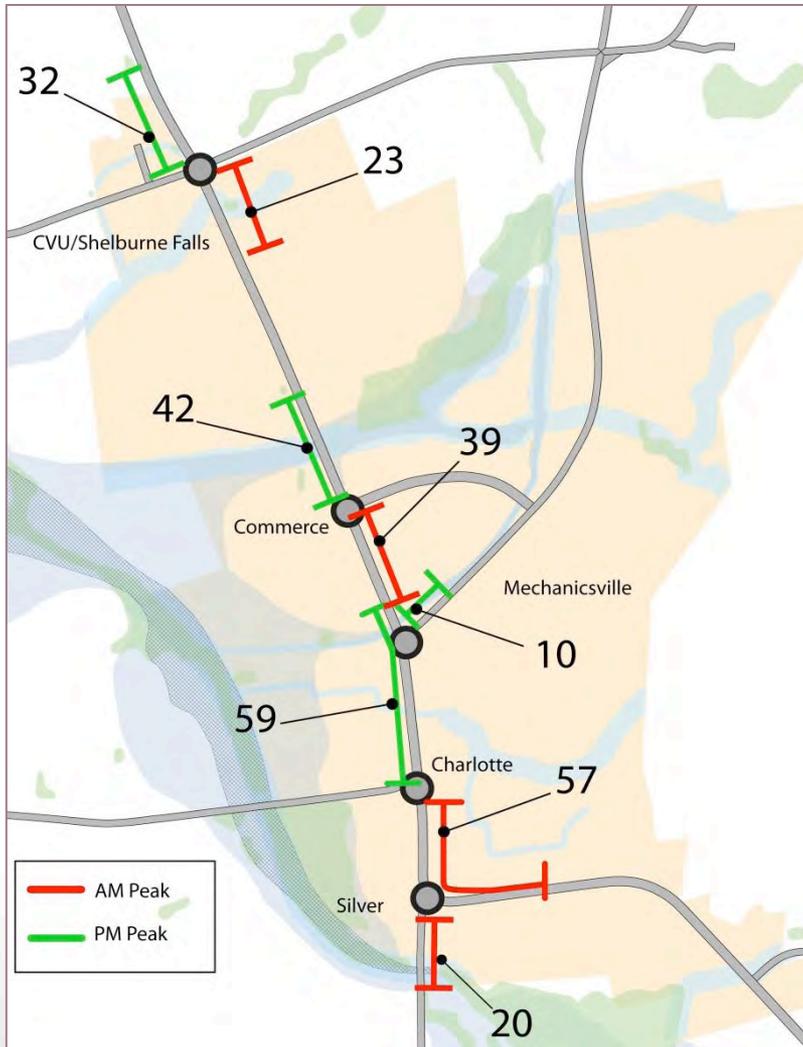


PM Peak Hour

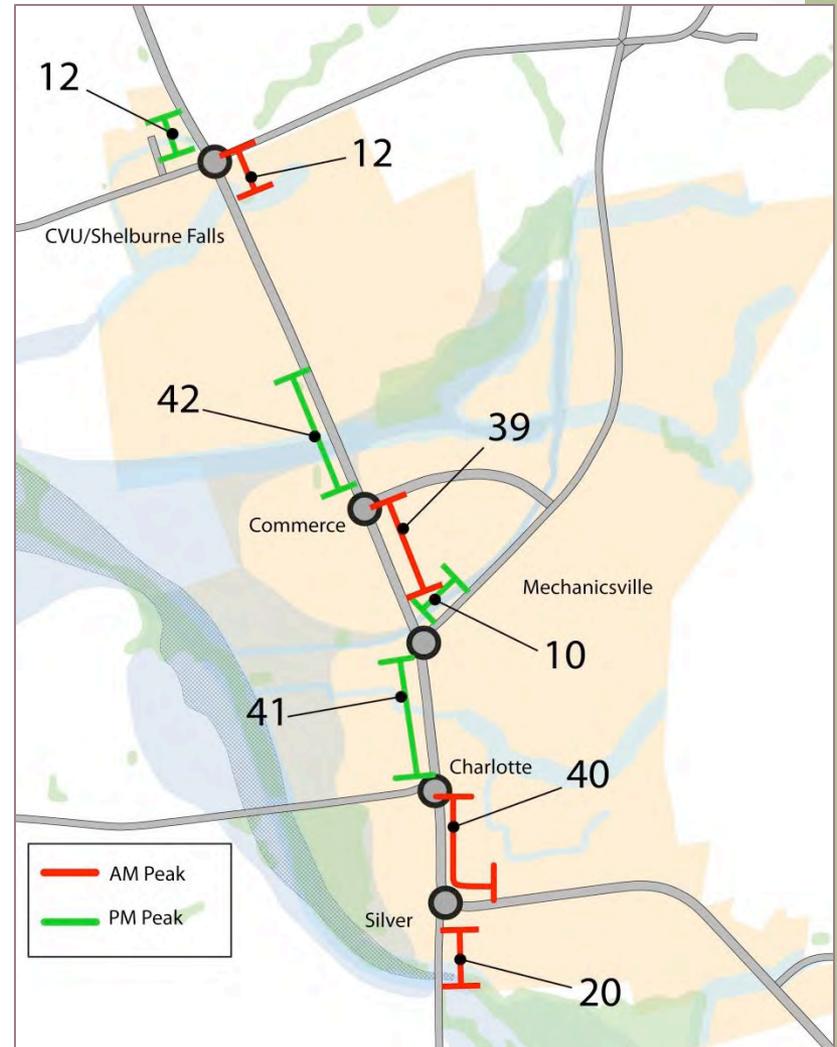


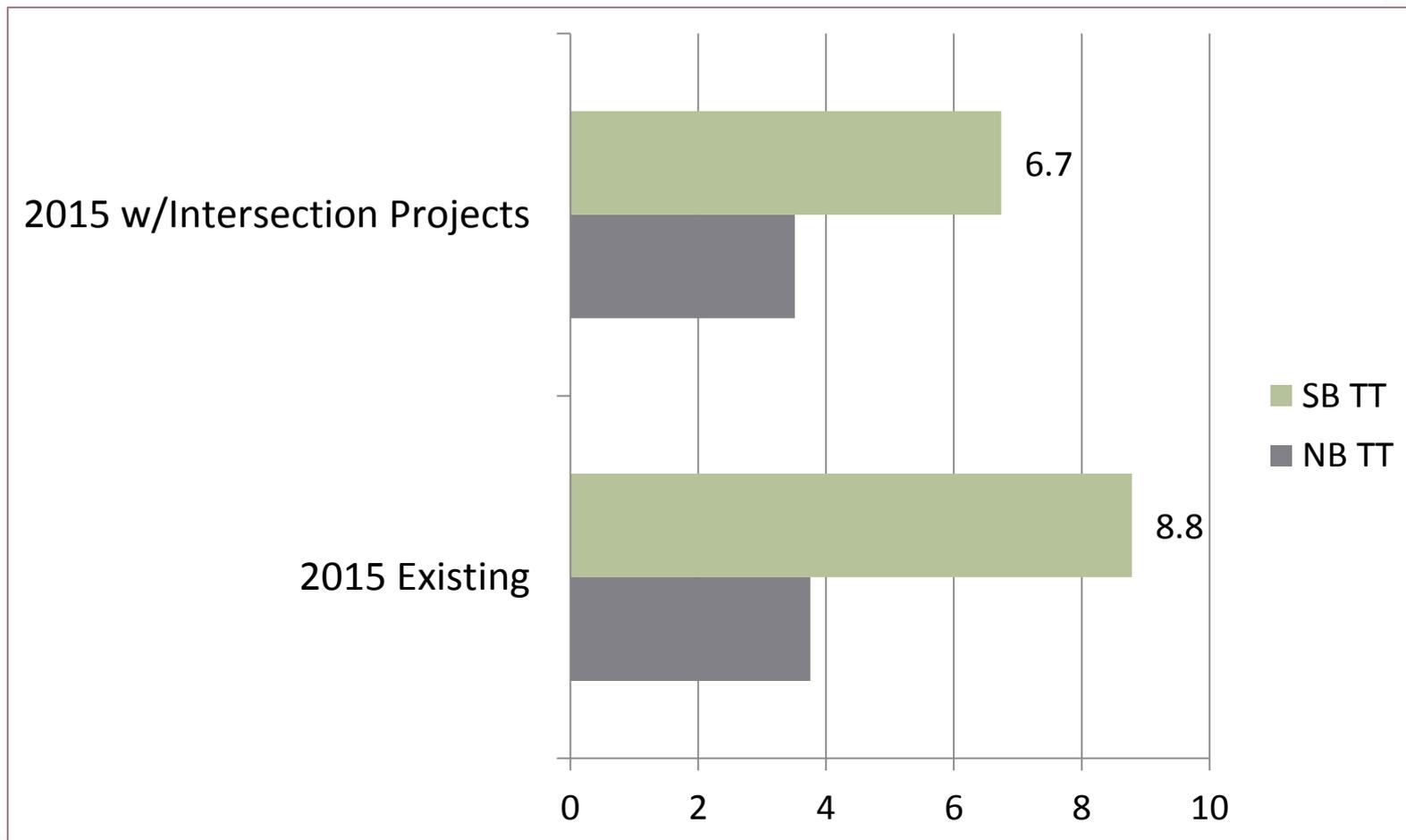
# Peak Hour Queue Lengths

## Existing Queue (car lengths)



## Queues with Planned Projects





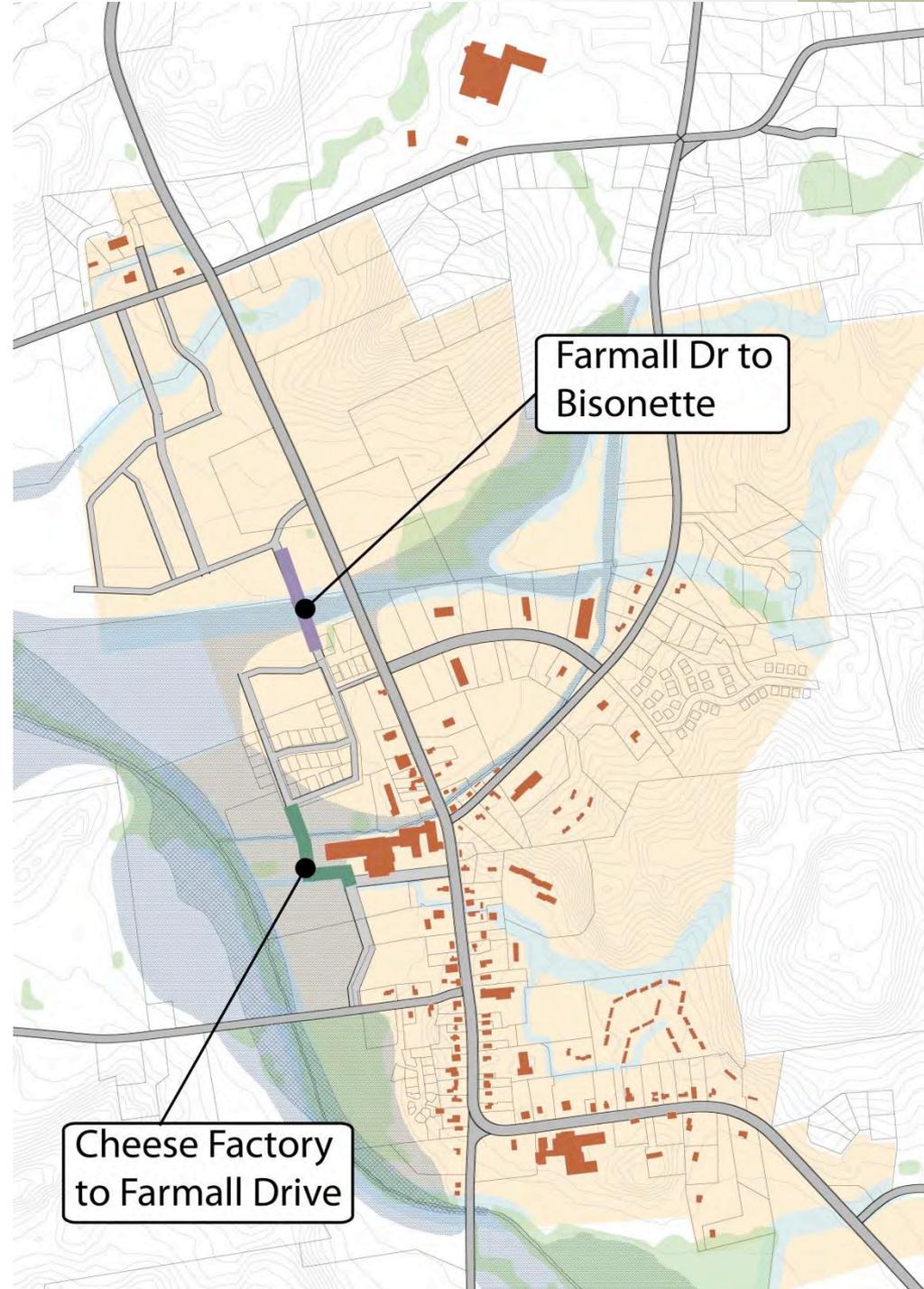
# REVIEW OF STRATEGIES

# Route 116 Corridor Strategies

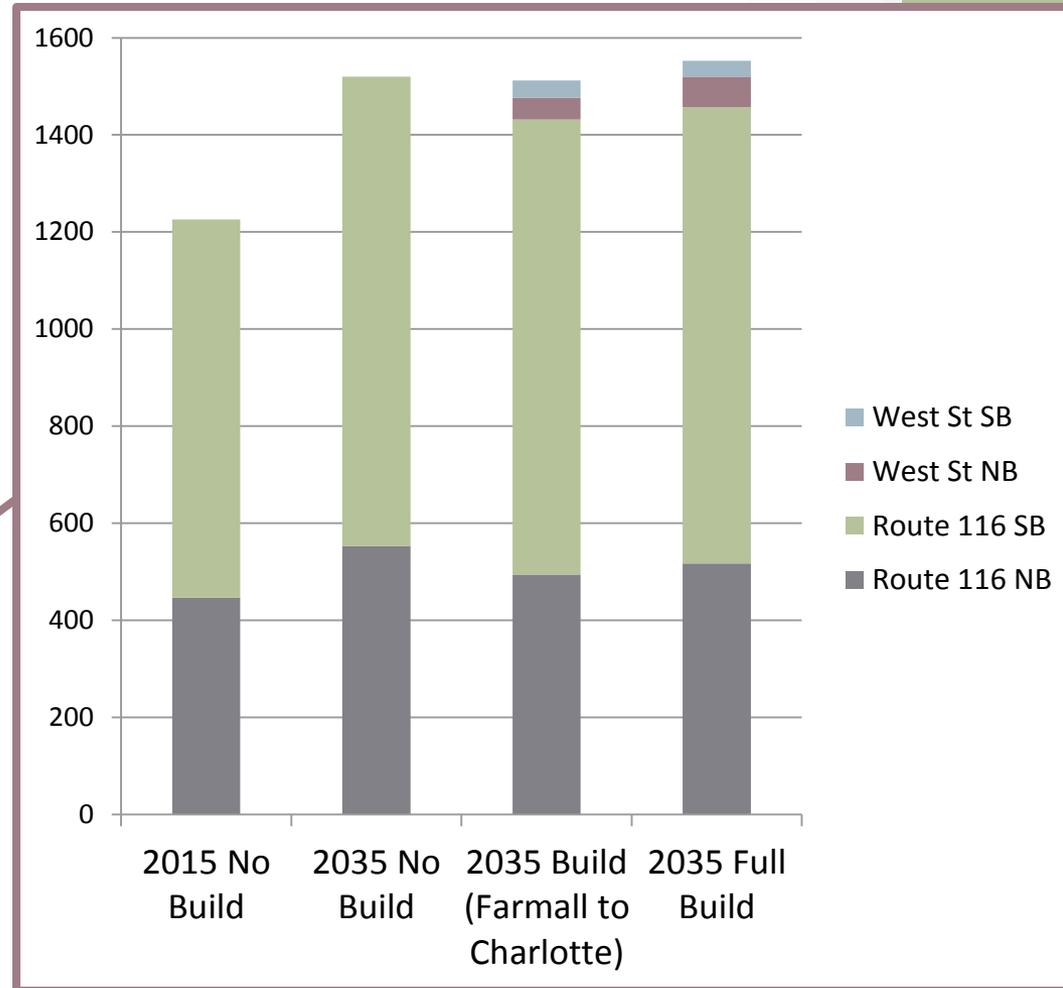
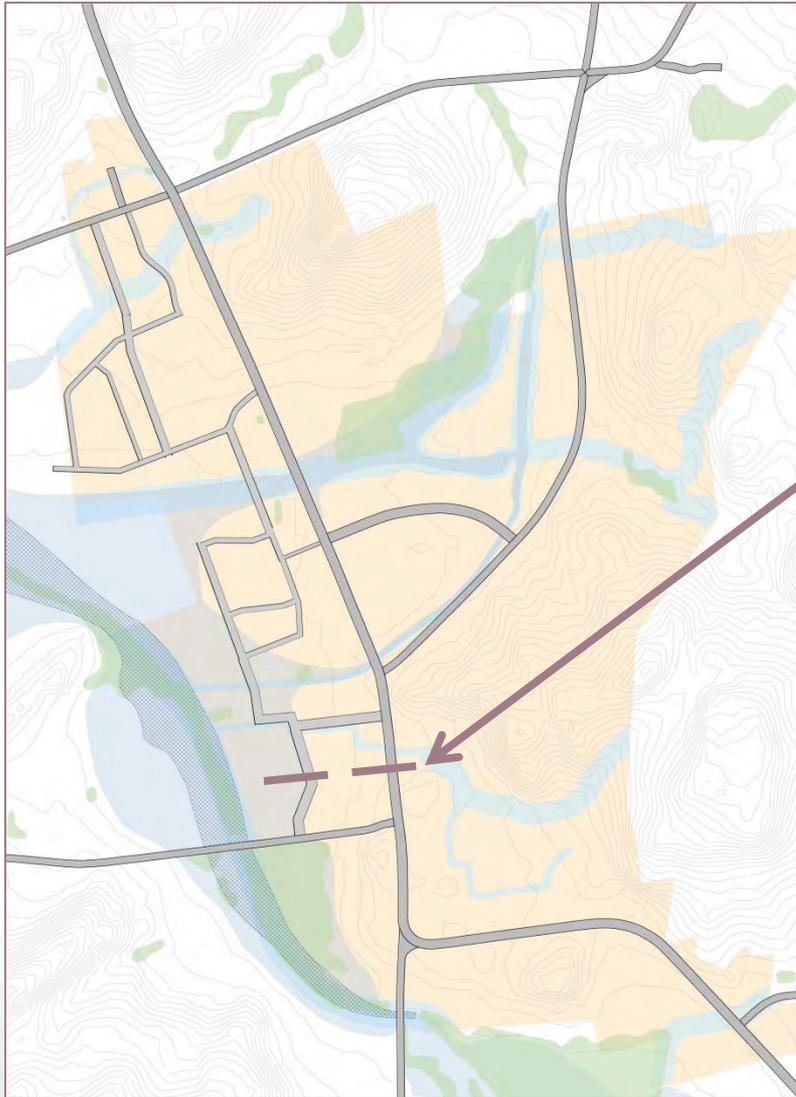


# Building a Street Network

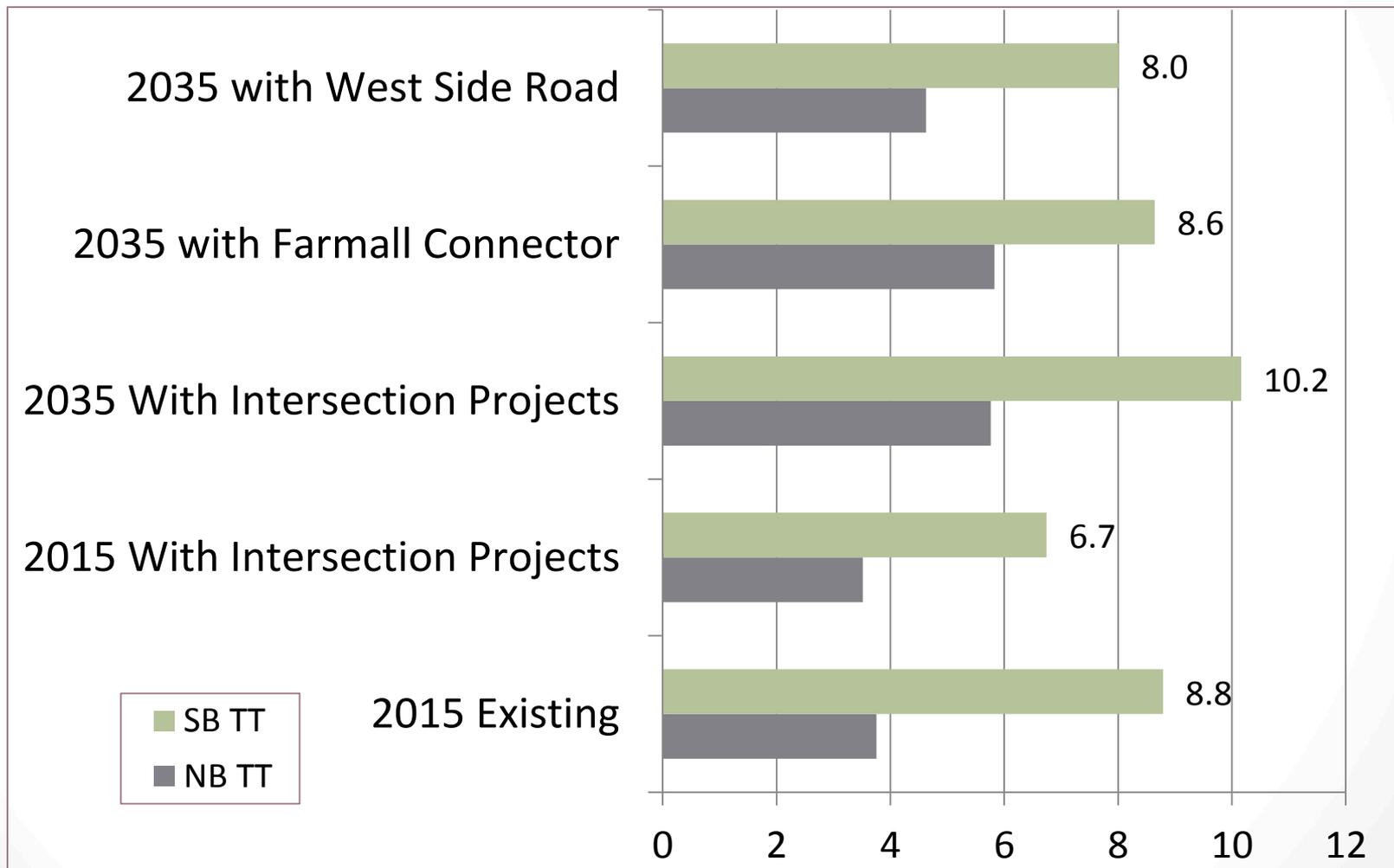
- Intended to support compact, walkable development in village
- Requires two bridge structures to complete
- Traffic modeling conducted to determine effects of network



# Network Modeling Results



# Travel Time Results: CVU Road to Silver Street

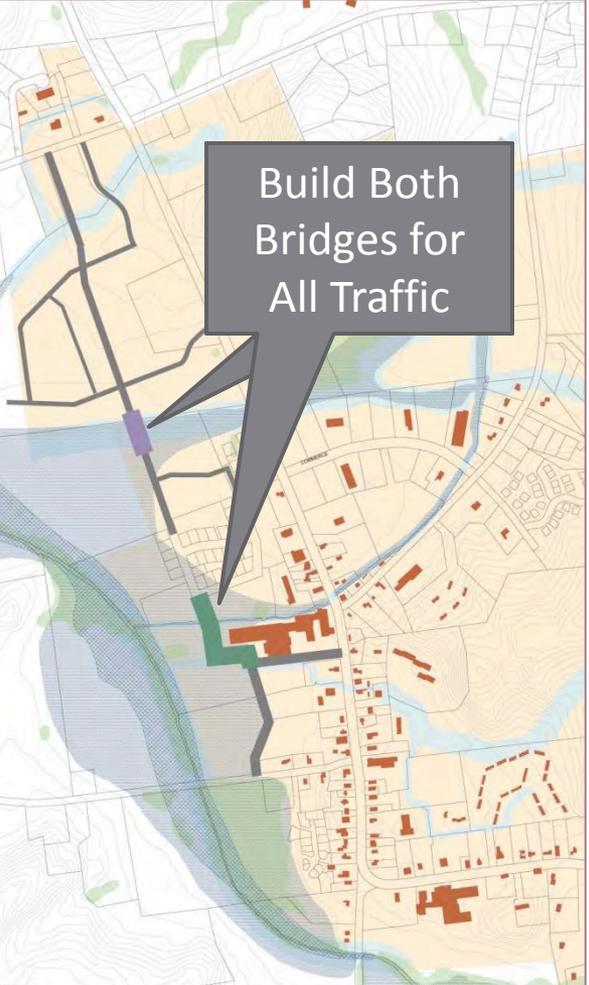


# Model Analysis Conclusions

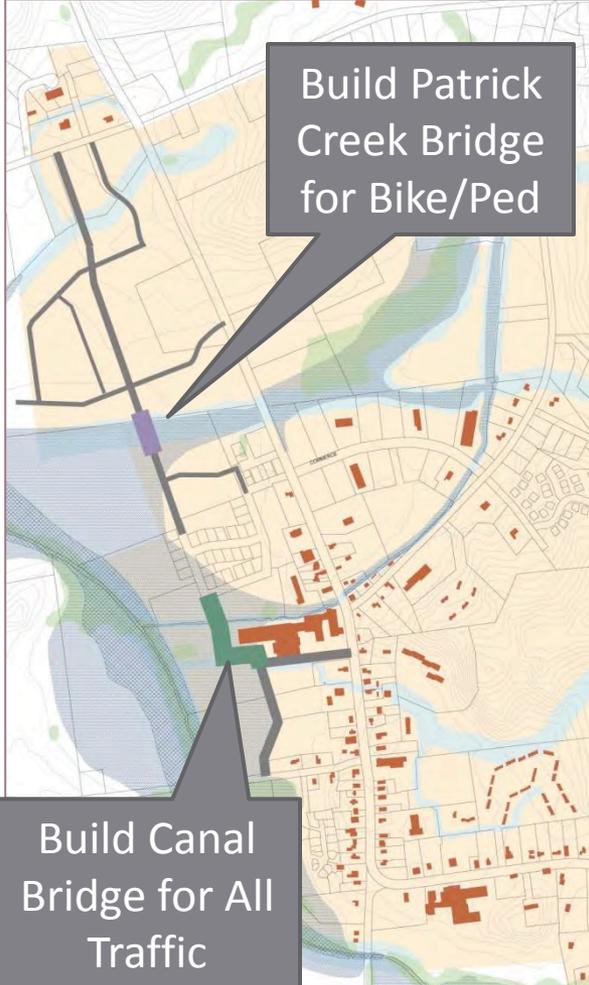
- Planned signal projects reduce peak hour travel times 23%
- Street network results in small reduction in Route 116 volume and travel time reduction:
  - 15% for Farmall to Charlotte Connector
  - 7% for Shelburne Falls to Charlotte Road Connector
- Little diversion onto the West Side street network

# Bridge Options

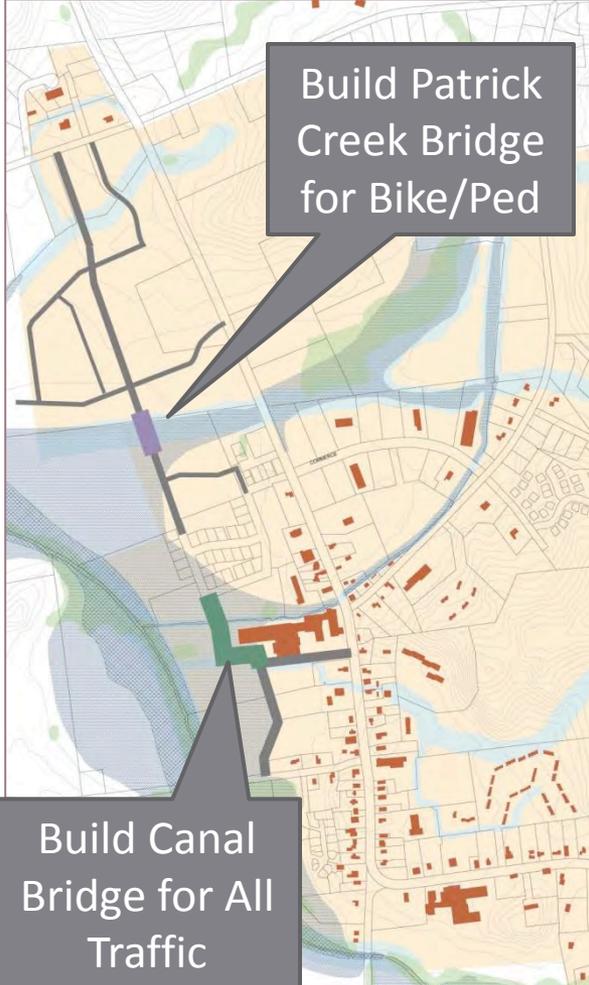
- All Traffic versus Bicycles and Pedestrians Only

A topographic map of a river valley with a town. A purple bridge is highlighted on the left side of the river, and a green bridge is highlighted on the right side. A callout box points to the purple bridge.

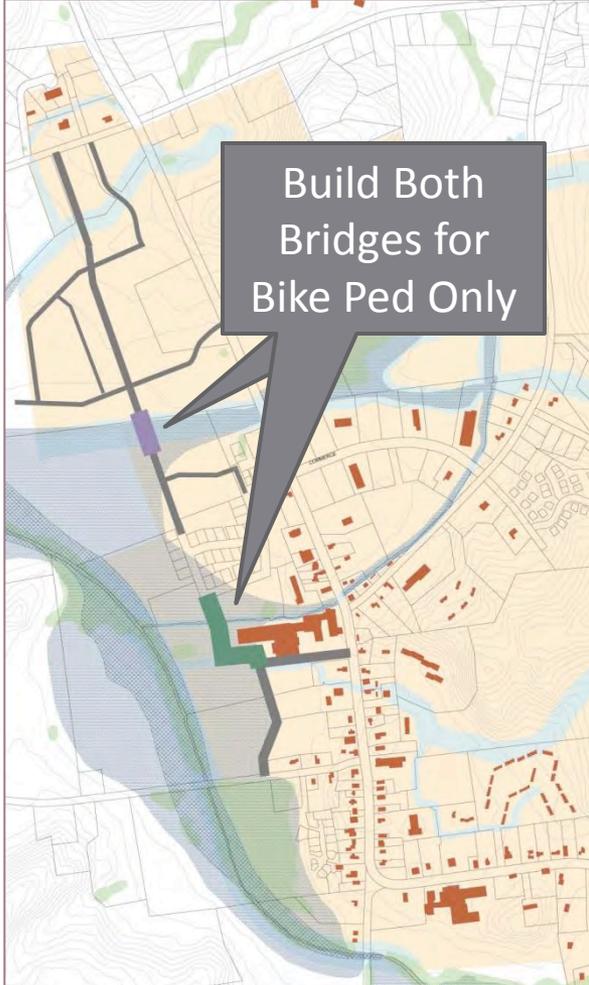
Build Both  
Bridges for  
All Traffic

A topographic map of a river valley with a town. A purple bridge is highlighted on the left side of the river, and a green bridge is highlighted on the right side. A callout box points to the purple bridge.

Build Patrick  
Creek Bridge  
for Bike/Ped

A topographic map of a river valley with a town. A purple bridge is highlighted on the left side of the river, and a green bridge is highlighted on the right side. A callout box points to the green bridge.

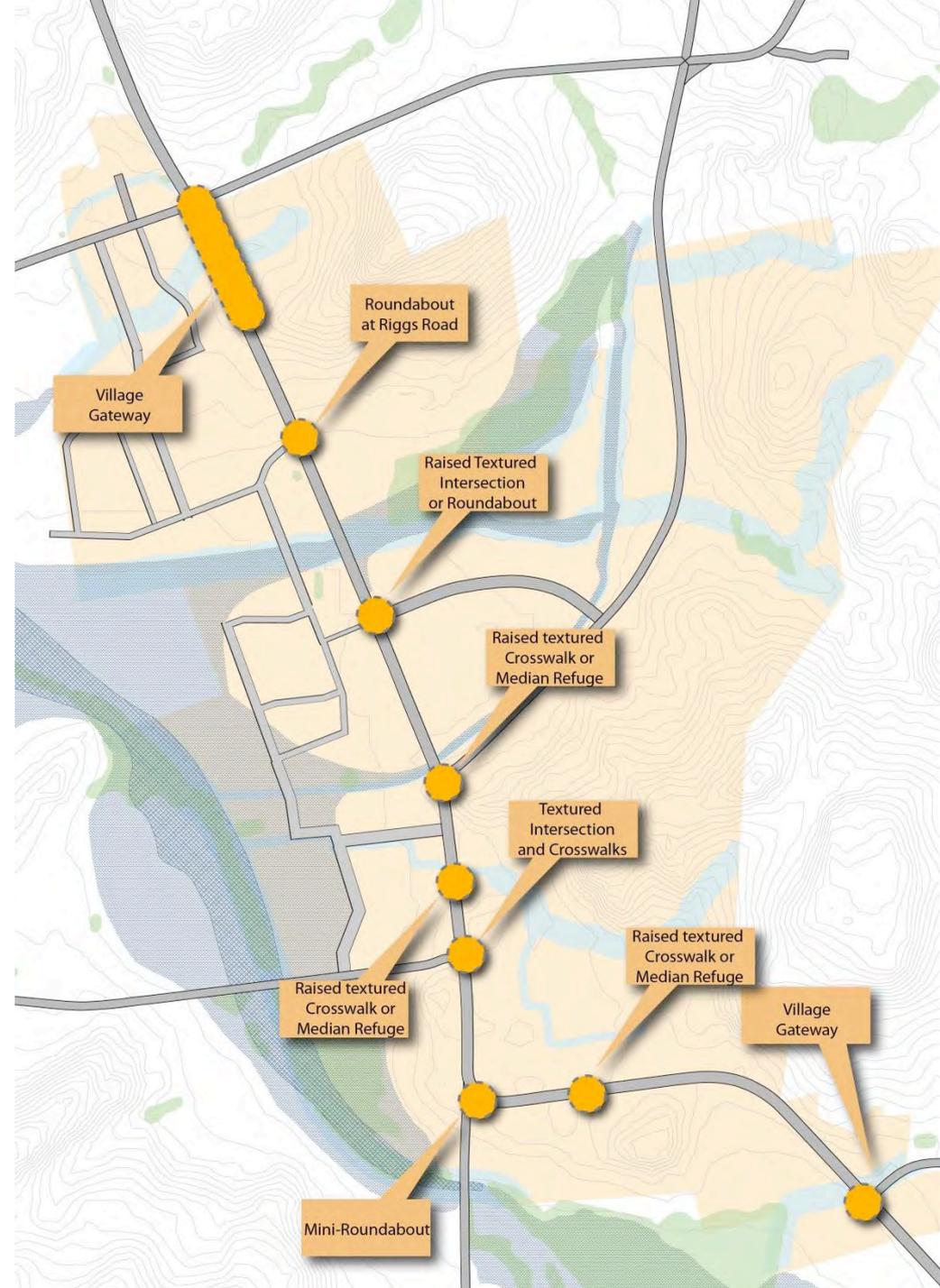
Build Canal  
Bridge for All  
Traffic

A topographic map of a river valley with a town. A purple bridge is highlighted on the left side of the river, and a green bridge is highlighted on the right side. A callout box points to the purple bridge.

Build Both  
Bridges for  
Bike Ped Only

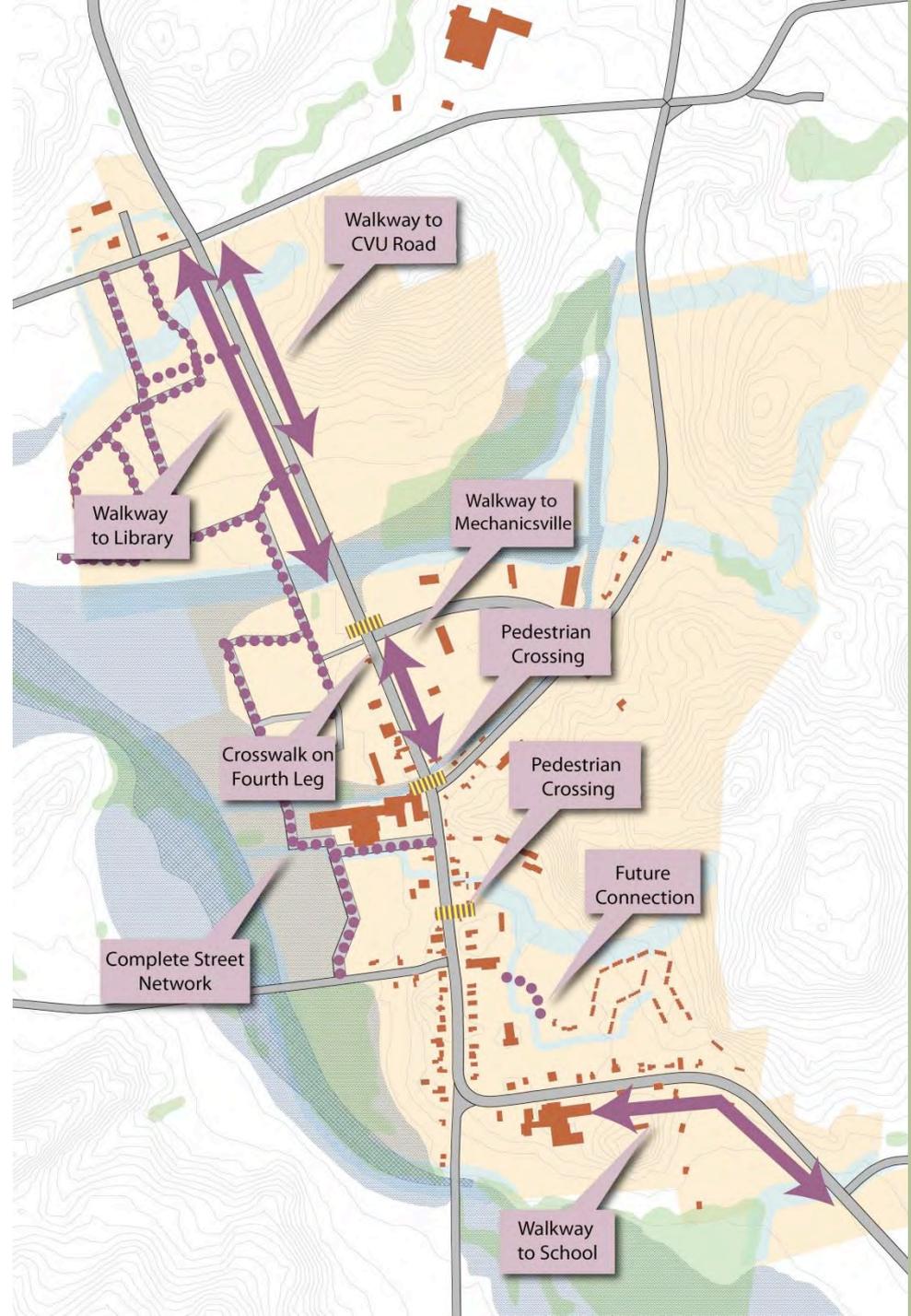
# Traffic Calming

- Supports Goals:
  - Reinforce Speeds of 25 mph
  - Safety for all users, particularly pedestrians



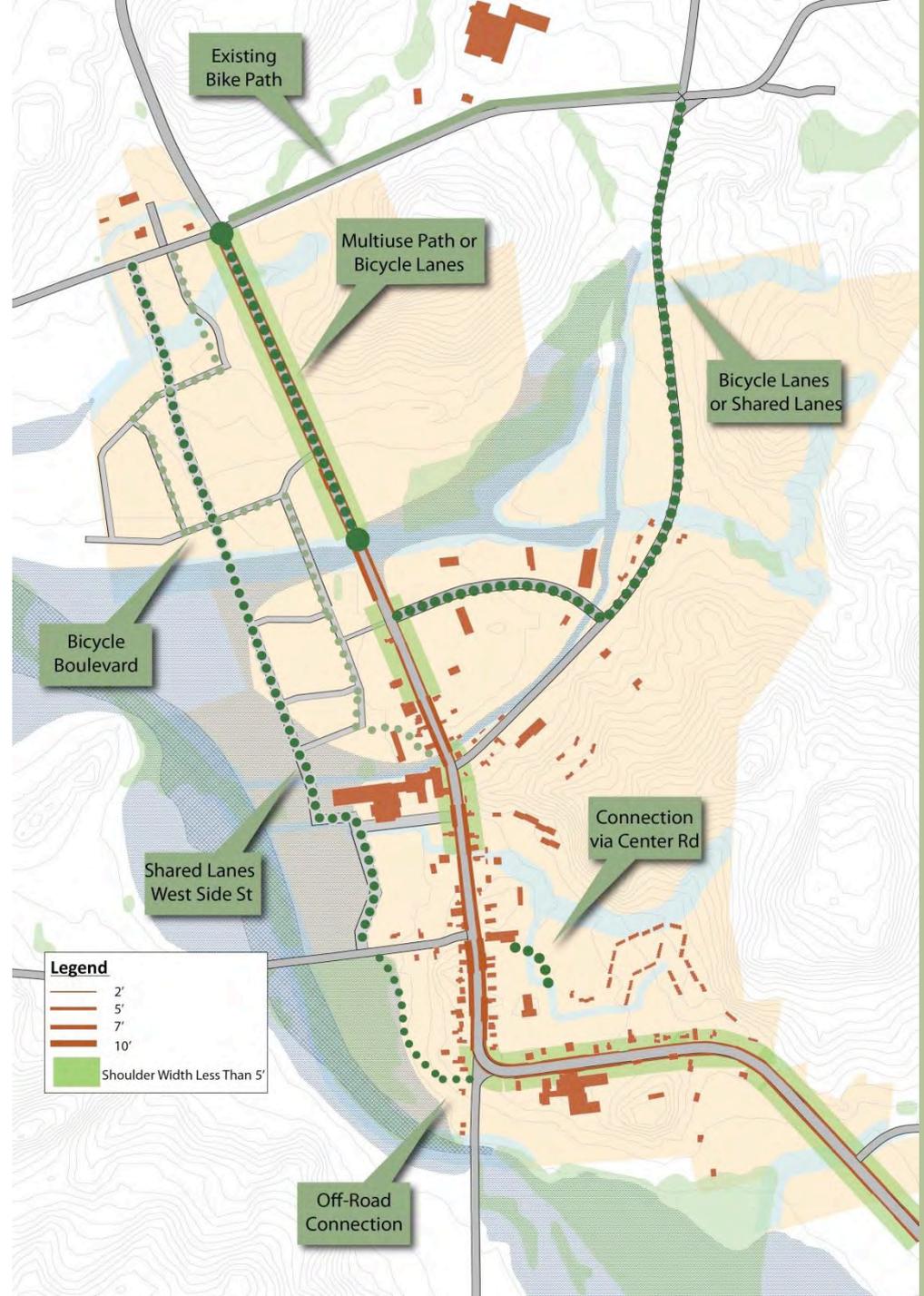
# Pedestrian Connections

- Supports Goals:
  - Reduce growth of traffic by encouraging other modes of travel
  - Support village vitality



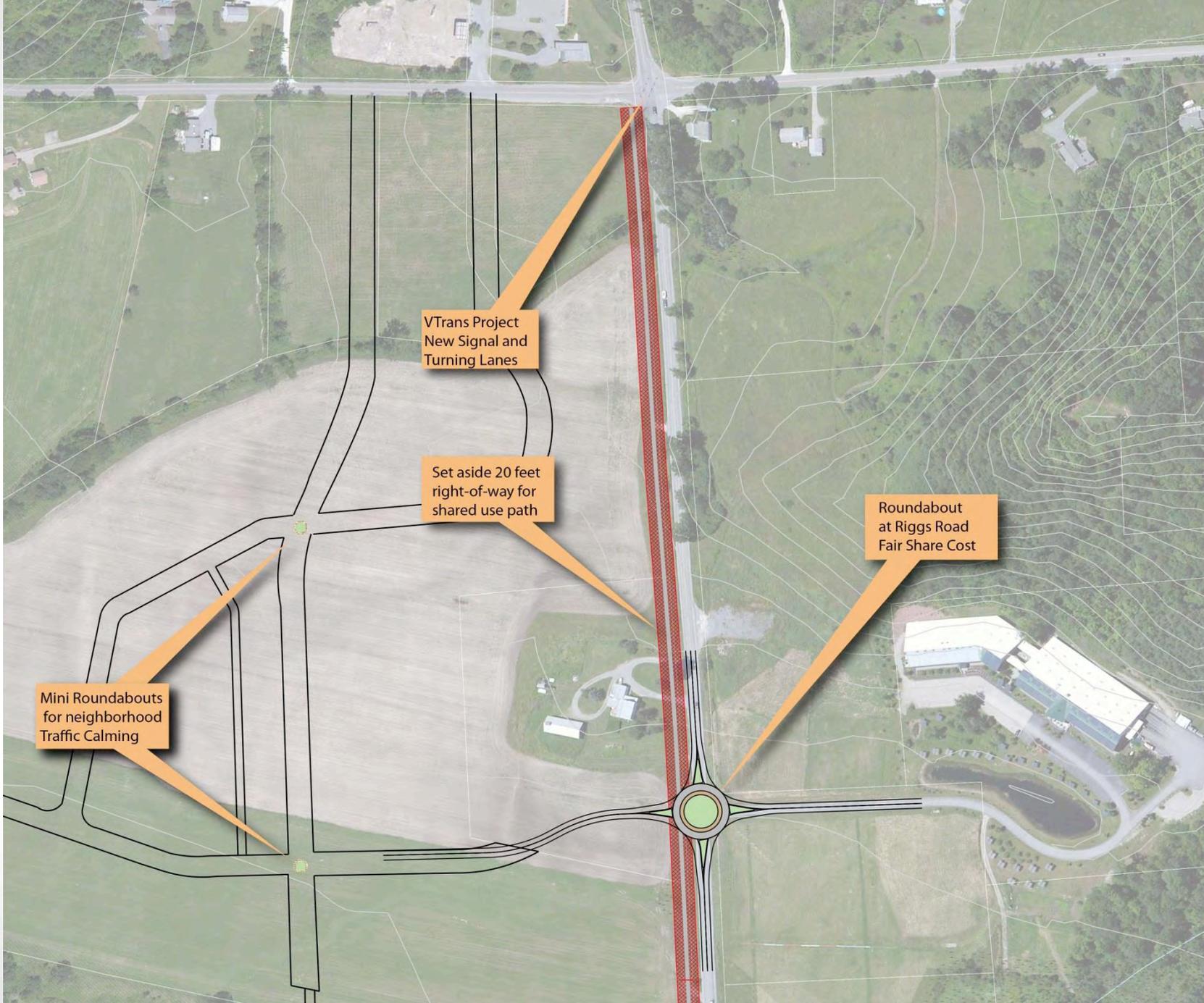
# Bicycle Network

- Supports Goals:
  - Reduce growth of traffic by encouraging other modes of travel
  - Support village vitality
  - Provide a range of facilities for different types of cyclists



# CORRIDOR PLAN





VTrans Project  
New Signal and  
Turning Lanes

Set aside 20 feet  
right-of-way for  
shared use path

Roundabout  
at Riggs Road  
Fair Share Cost

Mini Roundabouts  
for neighborhood  
Traffic Calming

# Insert

- Examples of roundabout, mini-roundabout, shared use path

# Neighborhood Traffic Calming

- Adopt Town design guidelines for new streets to keep them skinny and slow, pedestrian and bicycle friendly
- Implement traffic calming features proactively



Mini Roundabouts  
for neighborhood  
Traffic Calming

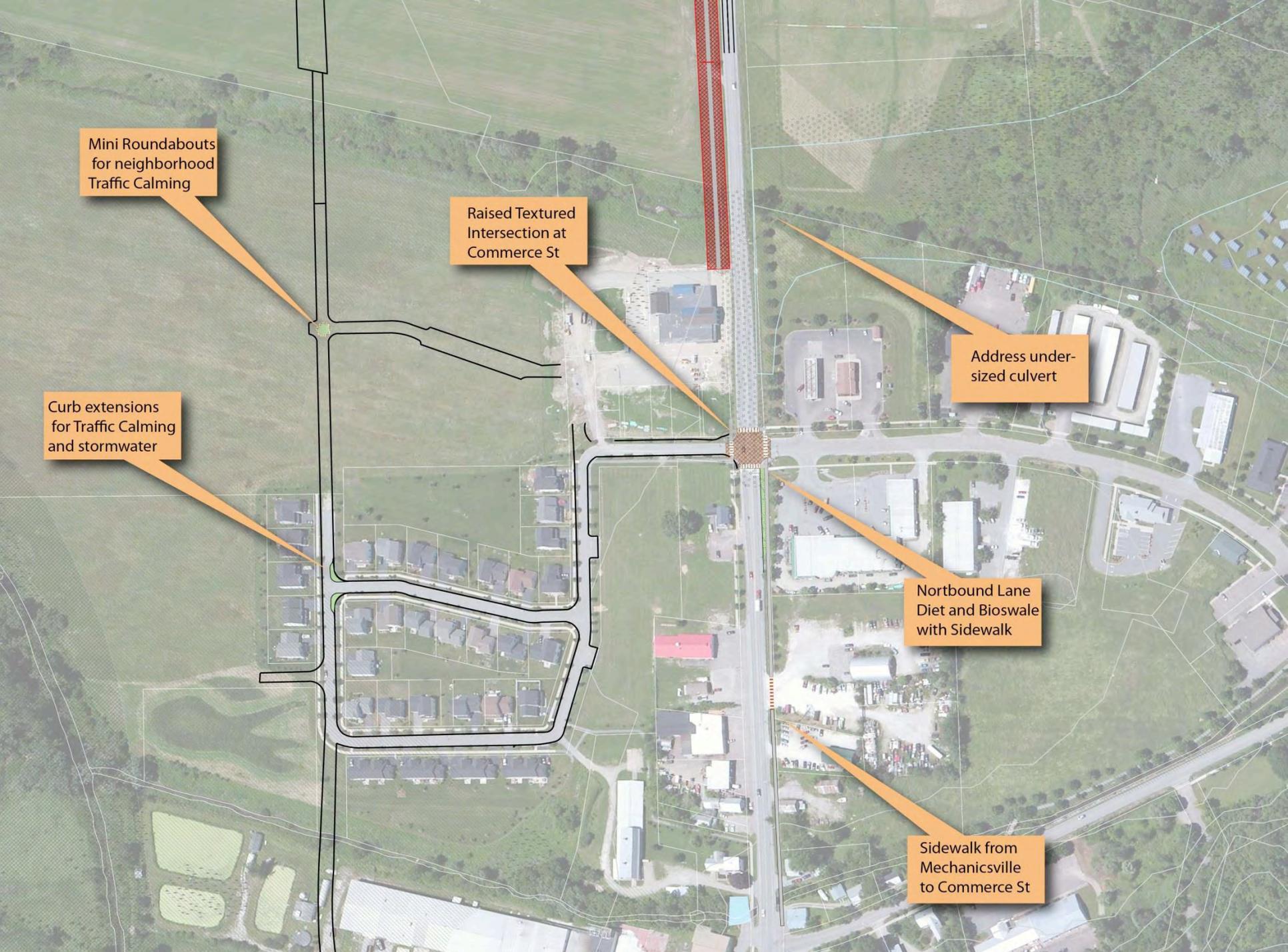
Raised Textured  
Intersection at  
Commerce St

Curb extensions  
for Traffic Calming  
and stormwater

Address under-  
sized culvert

Northbound Lane  
Diet and Bioswale  
with Sidewalk

Sidewalk from  
Mechanicsville  
to Commerce St

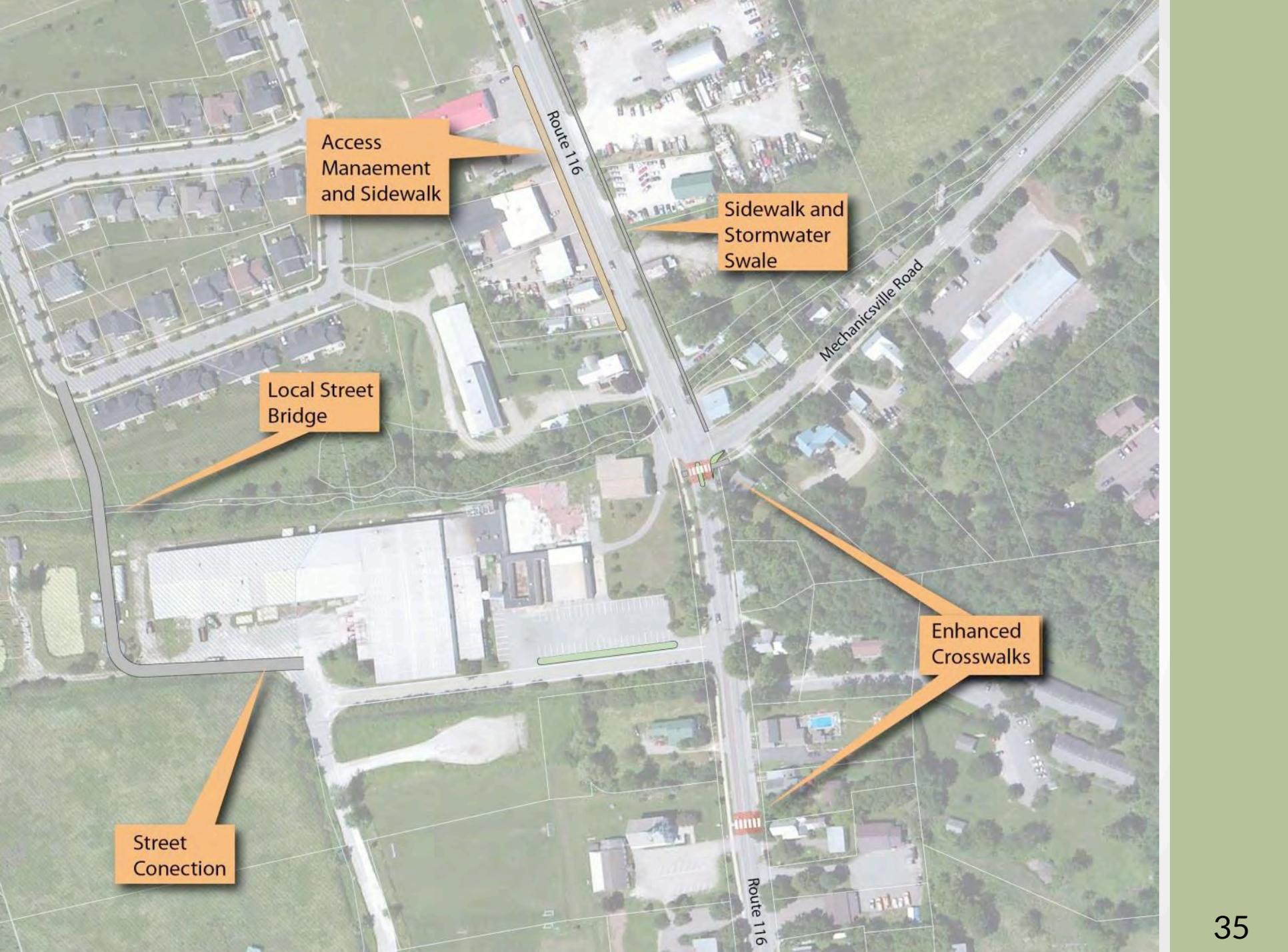


# Insert

- Textured intersection
- Close up of commerce lane diet
- FEMA map

# Green Stormwater





Access  
Managment  
and Sidewalk

Sidewalk and  
Stormwater  
Swale

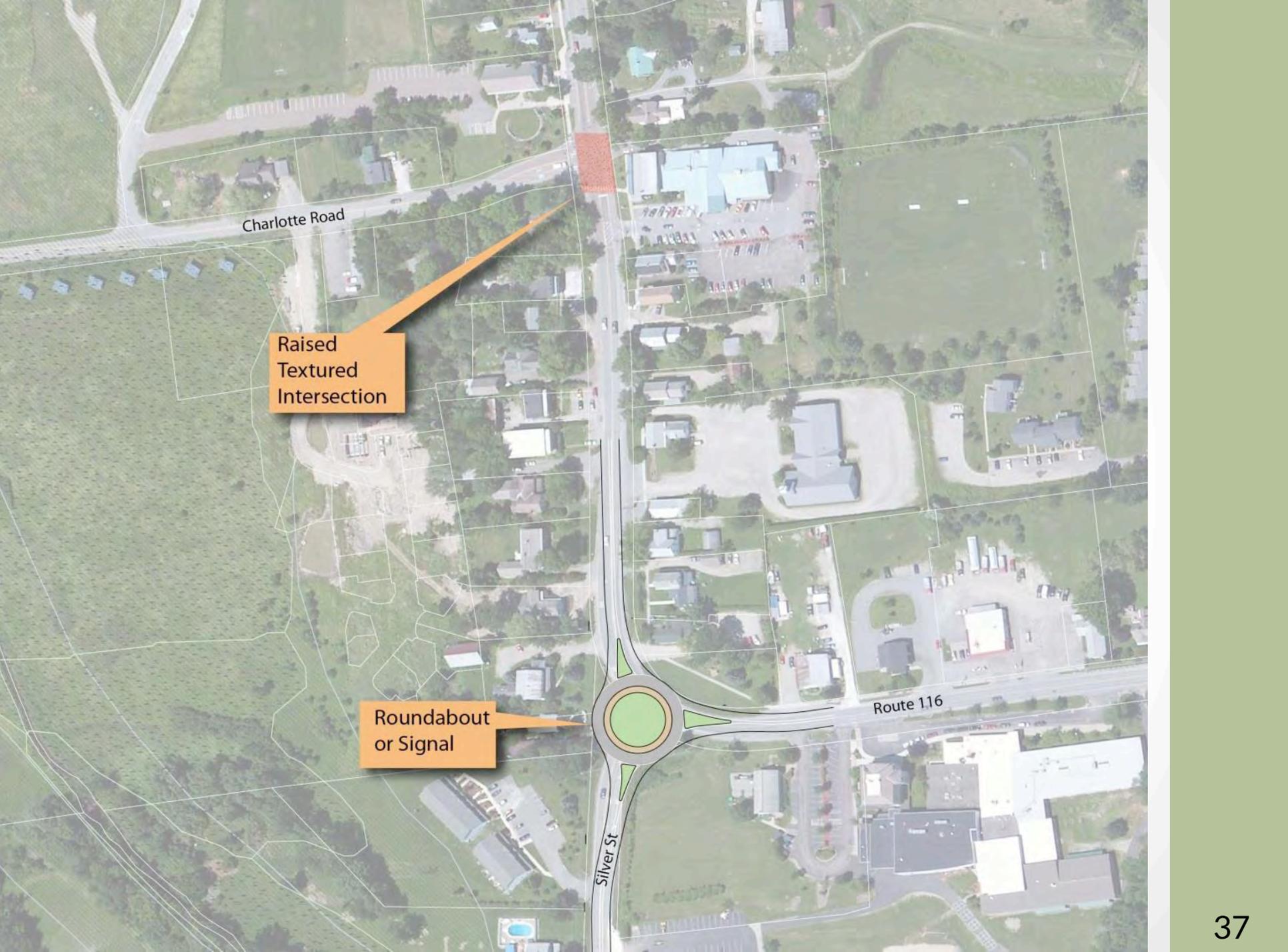
Local Street  
Bridge

Enhanced  
Crosswalks

Street  
Conection

# Insert

- Enhanced crosswalks



Charlotte Road

Raised  
Textured  
Intersection

Roundabout  
or Signal

Route 116

Silver St

Roundabout  
or Traffic Signal

Silver Street

Route 116

Lantman's

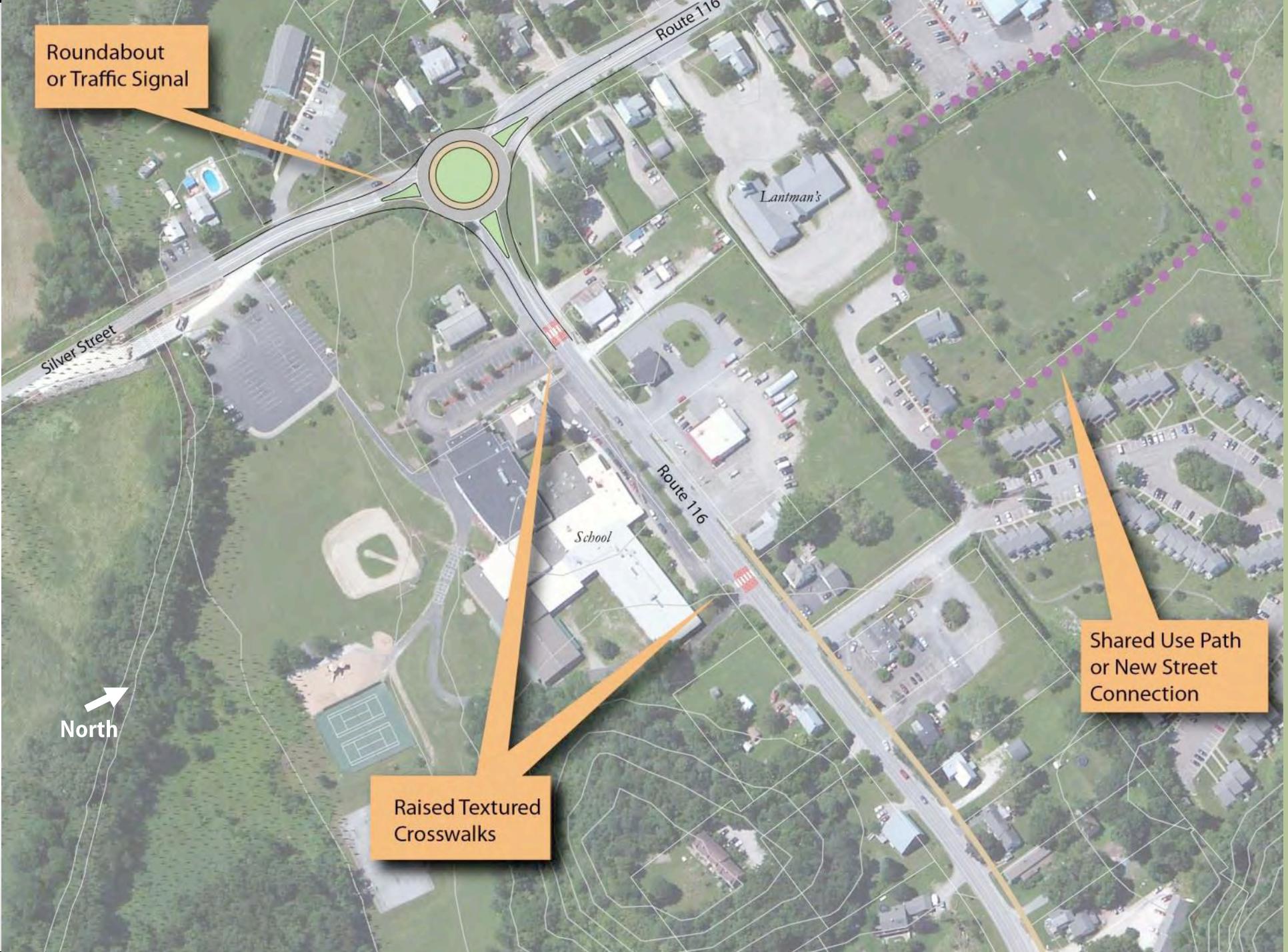
Route 116

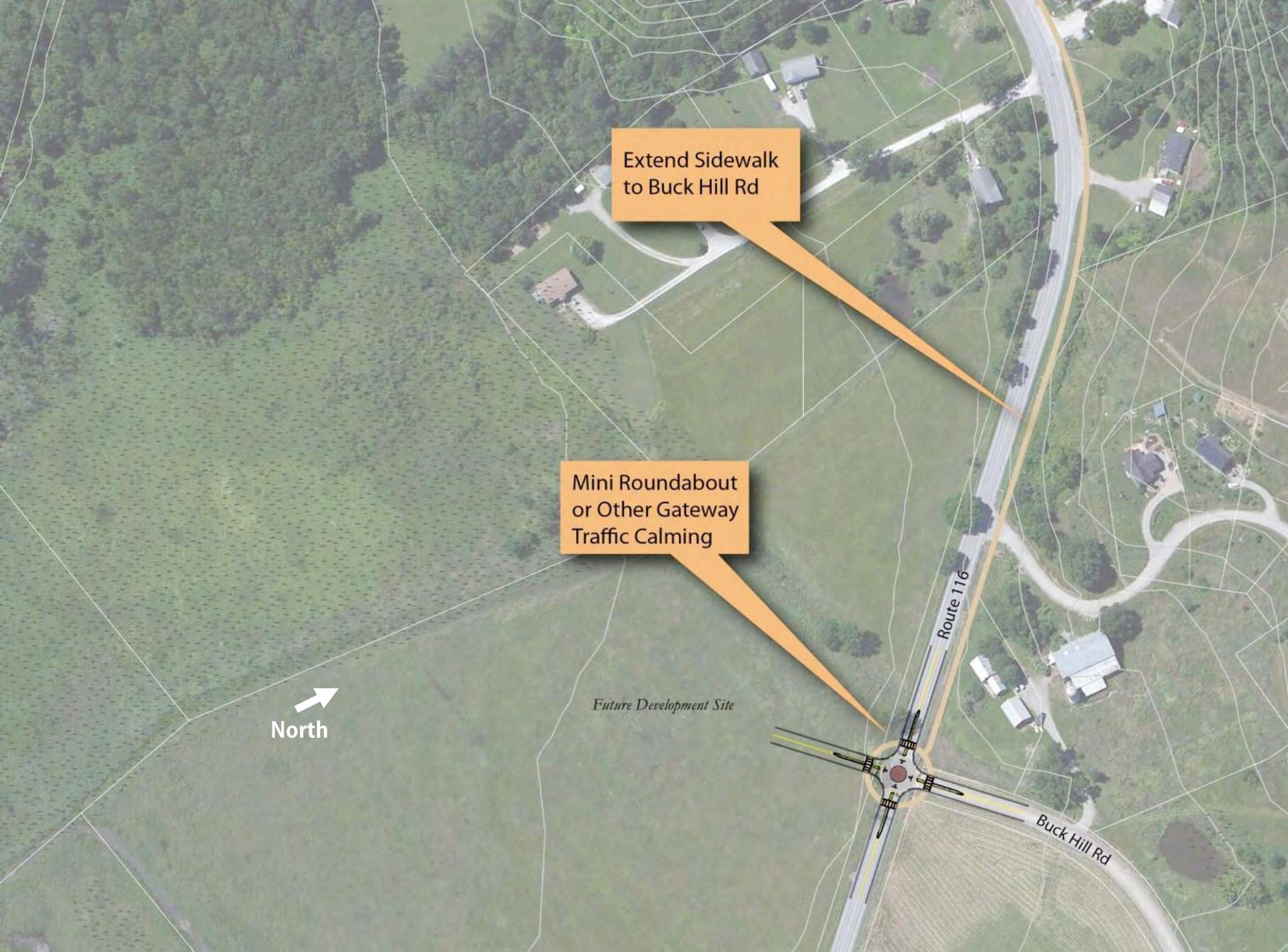
School

North

Raised Textured  
Crosswalks

Shared Use Path  
or New Street  
Connection





Extend Sidewalk  
to Buck Hill Rd

Mini Roundabout  
or Other Gateway  
Traffic Calming

North

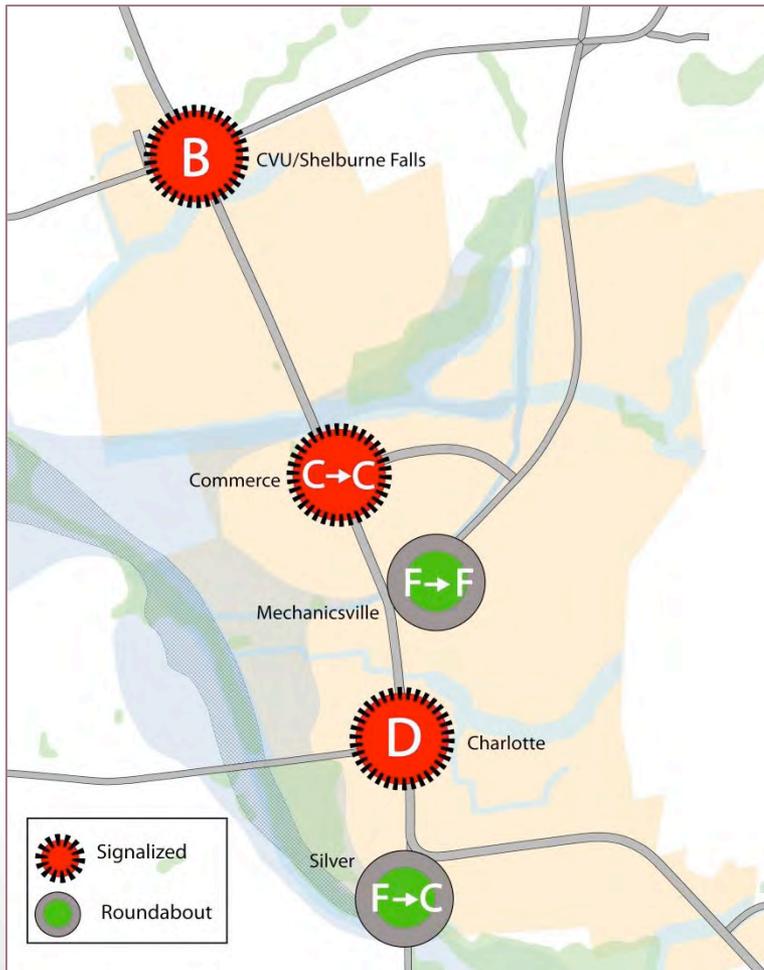
*Future Development Site*

Route 116

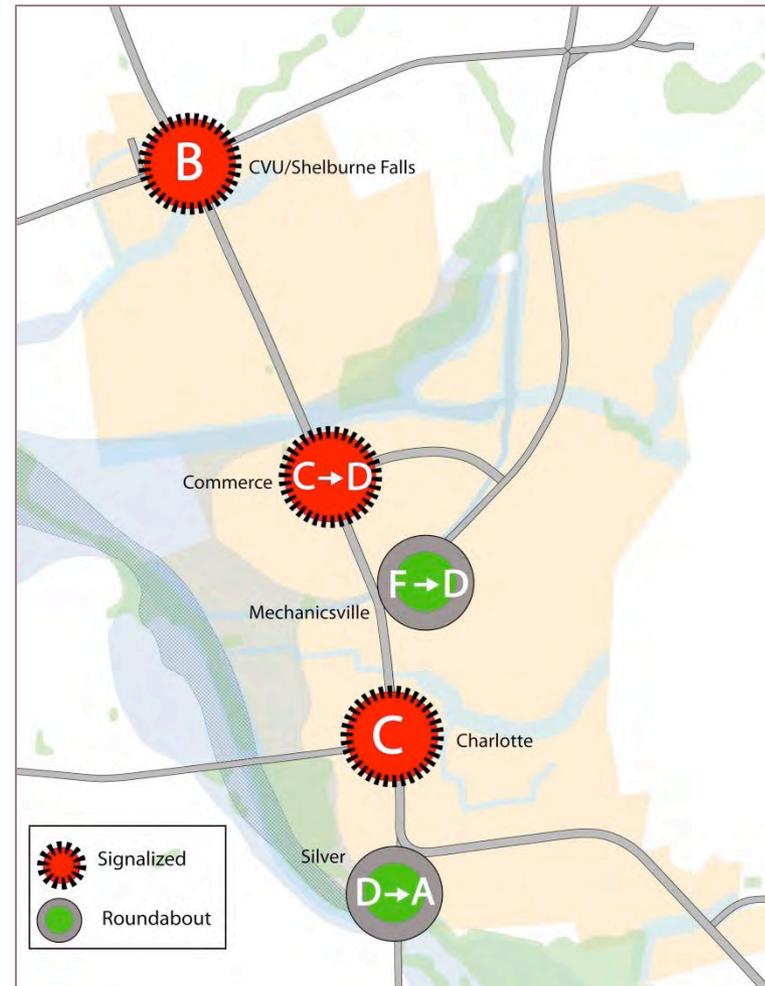
Buck Hill Rd

# LOS

## LOS with Planned Projects

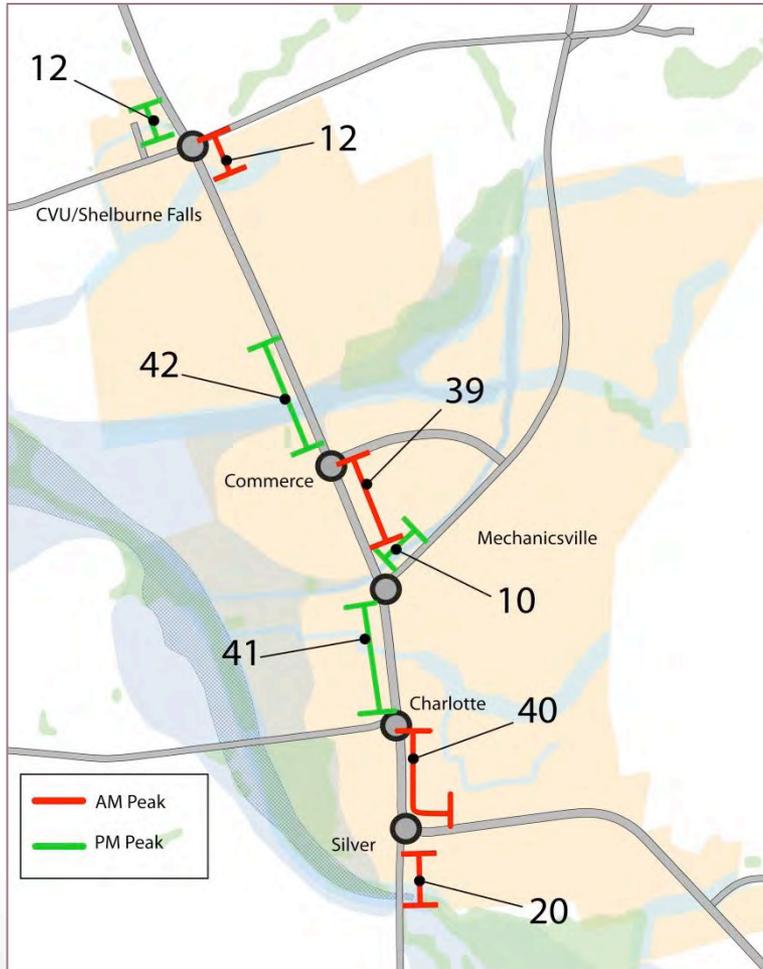


## LOS with Corridor Recommendations

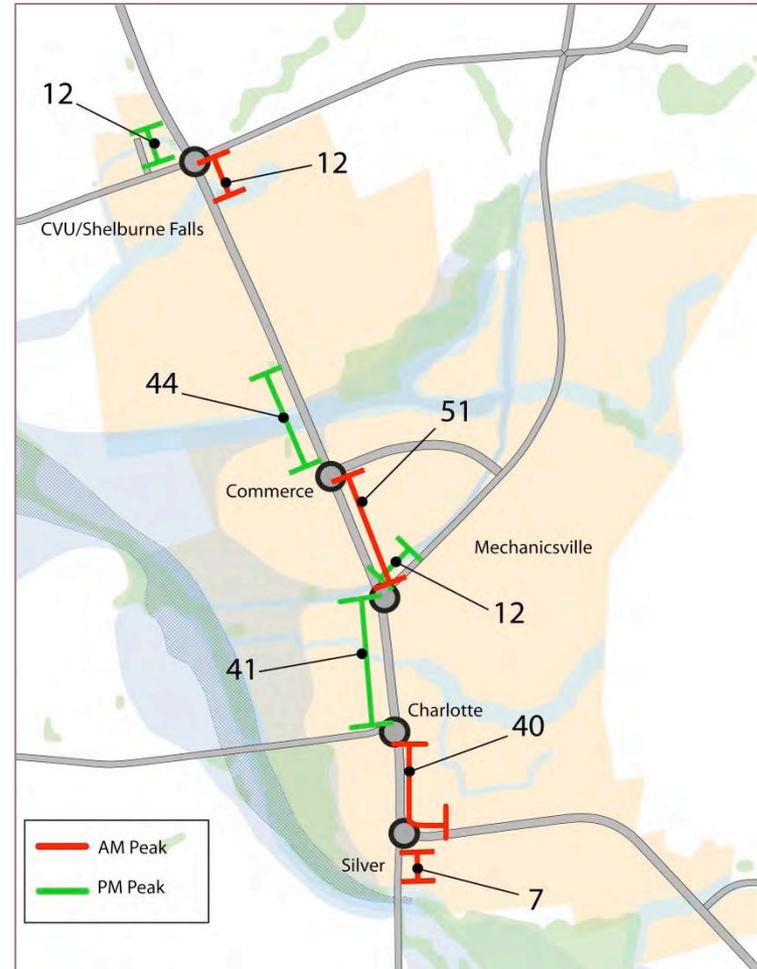


# Queue Lengths

## Q with Planned Projects



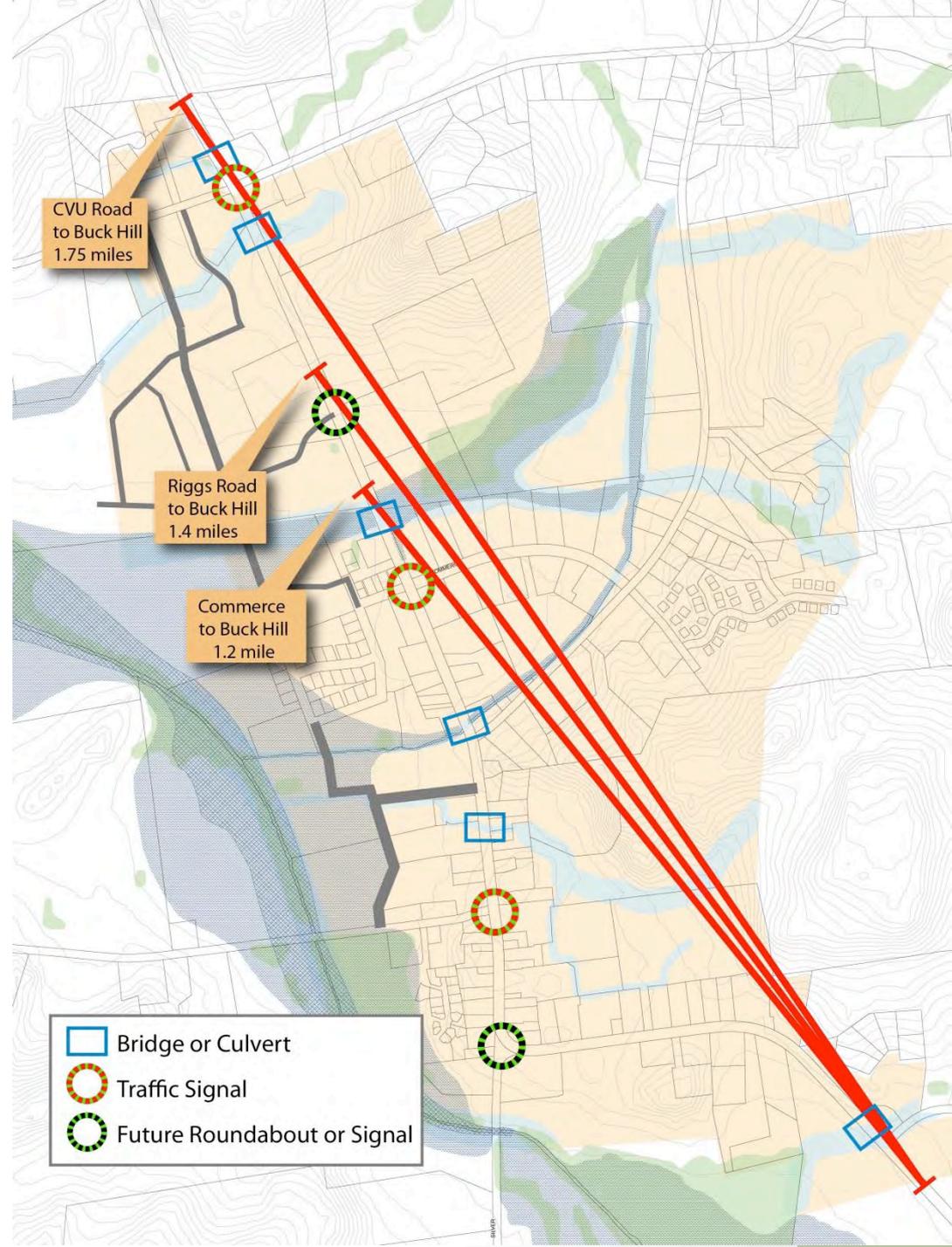
## Q with Corridor Recommendations



# RECLASSIFICATION

# Reclassification

- Revenue to Town should nearly offset additional annual expenses.
- More autonomy provided to Town for maintenance practices, priorities and design decisions.
- More responsibility for maintenance, traffic signals, bridges and culverts, pavement markings.



# VTrans Design Constraints

- VTrans Policies will make it very difficult for the following:
  - **Traffic calming measures** (no vertical changes allowed)
  - **Mid-block crosswalks** (require 20 pedestrians per hour)
  - **Lane and shoulder widths** (require 15 feet from centerline)
  - **On-street parking** (prefer none; require 15 feet clear)
  - **Posted speed limits** (set based on prevailing speed, not desired or target speed)

# Your Turn

- Did we get this right?
- Green = Like/High Priority
- Red = Don't Like

