Milton – US 7 Corridor Study

Advisory Committee Meeting #3

December 8, 2014

Milton Municipal Building
Milton, Vermont

PARSONS BRINCKERHOFF

CHITTENDEN COUNTY RPC

Agenda

Welcome, Introductions, and Updates

Activity to Date

- Health Impact Assessment progress

Future Conditions Assessment

- Modeling
- LOS

Vision and Goals

- Vision and Goals Statement
- Strategies

Next Steps

Other Items

Study Background – Team

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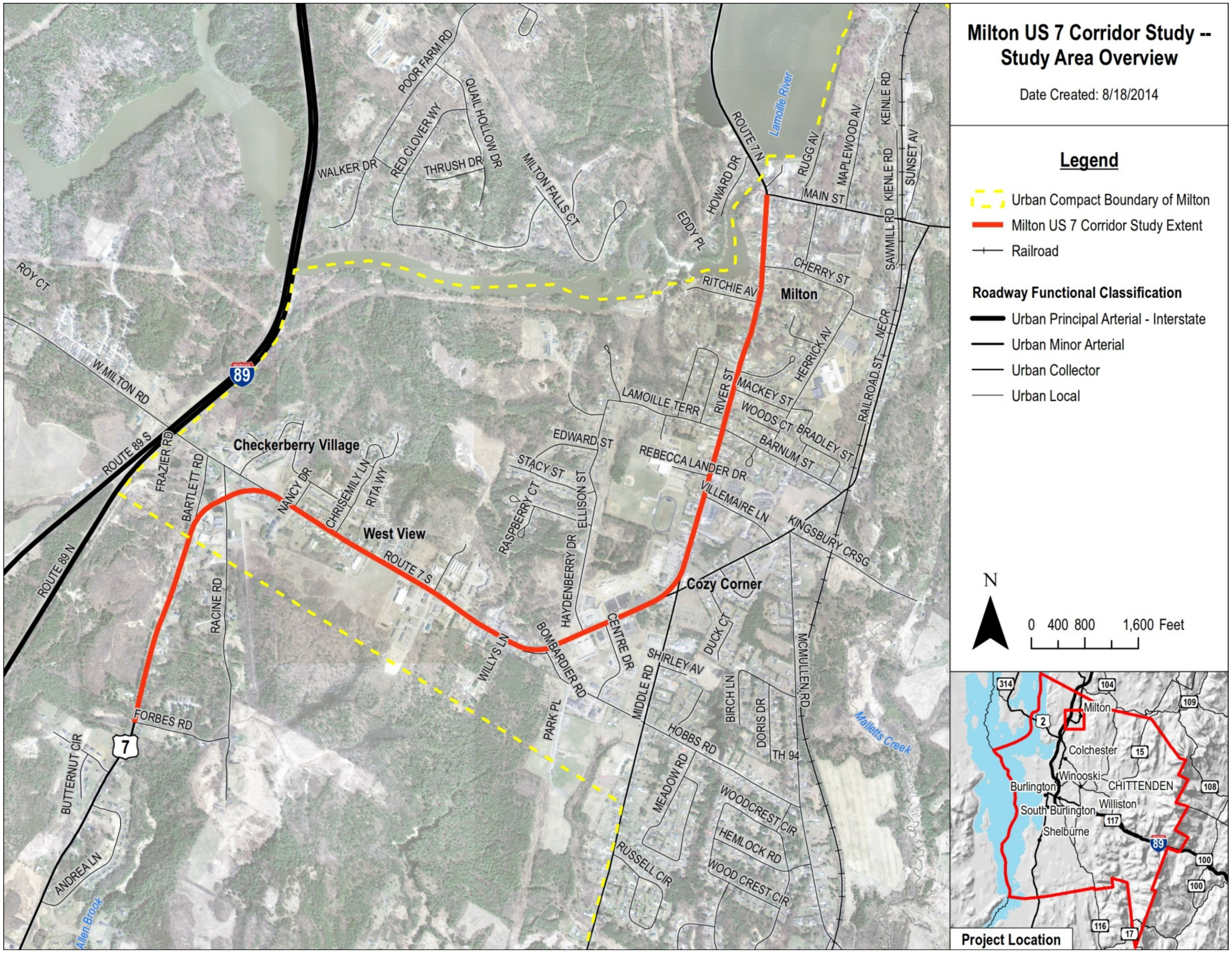
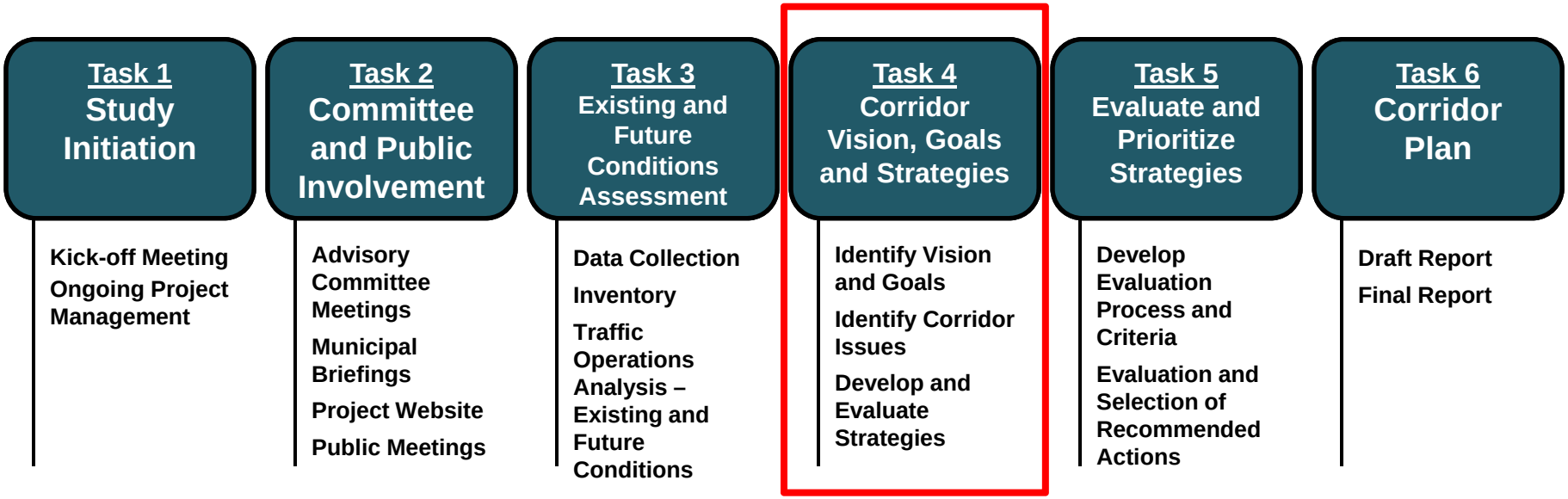
Study Area


Milton US 7 Corridor Study -- Study Area Overview
Date Created: 8/18/2014
Legend
Urban Compact Boundary of Milton
Milton US 7 Corridor Study Extent
Railroad
Roadway Functional Classification
Urban Principal Arterial - Interstate
Urban Minor Arterial
Urban Collector
Urban Local
N
0 400 800 1,600 Feet
Project Location
Milton
Checkerberry Village
West View
Cozy Corner
Lamoille River
Mallets Creek
Allen Brook
ROUTE 7 N
ROUTE 7 S
ROUTE 89 S
ROUTE 89 N
W MILTON RD
POOR FARM RD
QUAIL HOLLOW DR
RED CLOVER WY
WALKER DR
THRUSH DR
MILTON FALLS CT
HOWARD DR
EDDY PL
RUGG AV
MAPLEWOOD AV
KEINLE RD
KIENLE RD
SUNSET AV
SAWMILL RD
MAIN ST
CHERRY ST
RITCHIE AV
HERRICK AV
NECR
RAILROAD ST
RIVER ST
MACKEY ST
WOODS CT
BRADLEY ST
BARNUM ST
LAMOILLE TERR
EDWARD ST
STACY ST
REBECCA LANDER DR
VILLEMAIRE LN
KINGSBURY CRSG
ELLISON ST
RASPBERRY CT
HAYDENBERRY DR
CENTRE DR
BOMBARDIER RD
WILLYS LN
DUCK CT
SHIRLEY AV
MIDDLE RD
MCMULLEN RD
BIRCH LN
DORIS DR
TH 94
HOBBS RD
MEADOW RD
WOODCREST CIR
HEMLOCK RD
WOOD CREST CIR
RUSSELL CIR
PARK PL
ROY CT
FRAZIER RD
BARTLETT RD
NANCY DR
CHRISEMILY LN
RITA WY
RACINE RD
FORBES RD
BUTTERNUT CIR
ANDREA LN
89
7
Colchester
Winooski
Burlington
South Burlington
Shelburne
Williston
CHITTENDEN
314
2
104
109
15
108
117
100
116
17

Project Meetings to Date

- Kick-off meeting held in June
- Field visit and initial assessment conducted in August
- Second Advisory Committee meeting held in September
- First Public Concerns meeting held in early October

Study Background – Process



Health Impact Assessment progress

- Milton Community Youth Coalition Community Dinner
  - Demographics
- Walk/Bike Audit
  - 4 sections
  - Review results
- Next Steps

What have we learned?

- Bike/ped connectivity concerns with mobile home parks along the corridor and west of I-89
- US 7 Improvements Committee issued a report that articulates an aesthetic vision for the corridor
- The School season has a notable impact on auto, bus, and bike/ped traffic
  - Evidenced by recent traffic counts (11/19)
- Existing conditions do not meet warrants for additional traffic signals in the corridor

Future Traffic Volume Growth Highlights (CCRPC)

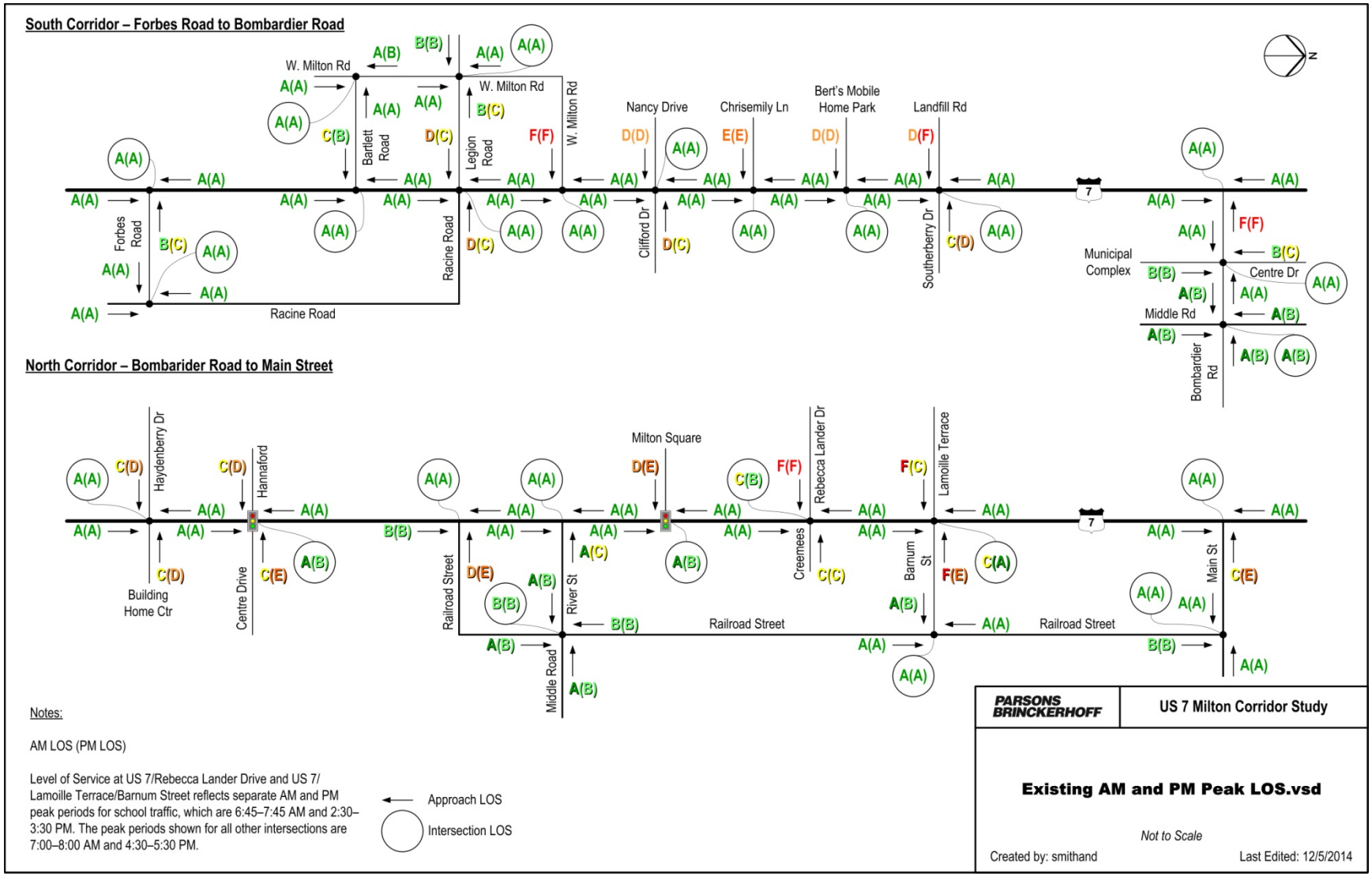
- Largest 2015-2035 *percent* increase in traffic volume occurring in northern part of corridor
  - 38% increase in overall daily traffic between Milton Sq. East and Main Street
- Largest 2015-2035 *absolute* increase in traffic volume occurring in southern part of the corridor between Forbes Rd. and W. Milton Rd.
  - Approximately 4,000 additional vehicles per day
- Smallest percent and absolute increase in volume occurring between Bombardier and Middle Streets (Hannaford plaza area)
  - 23% increase or 1,000 additional vehicles

Level of Service (LOS) Definitions

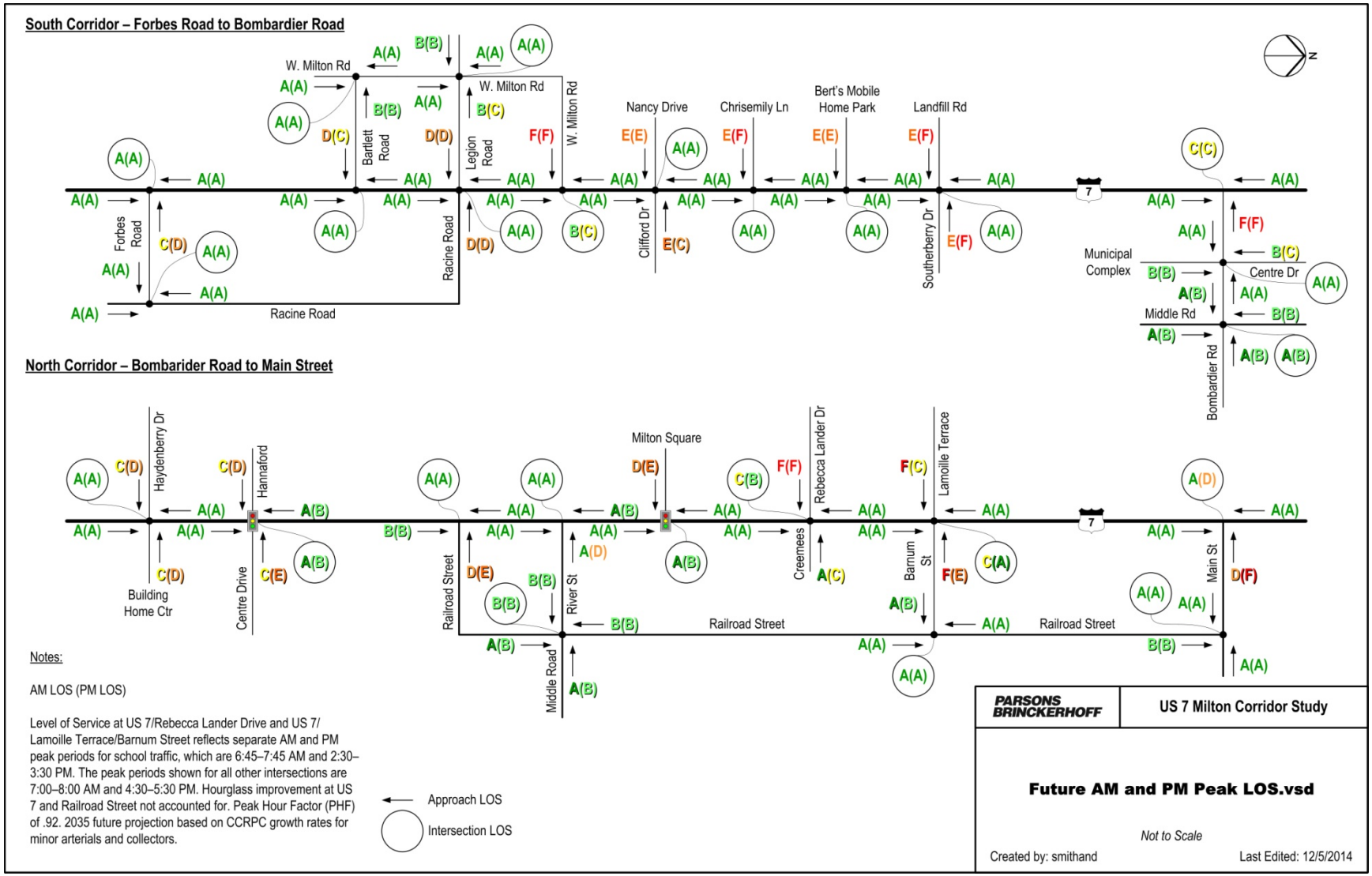
Level of Service (LOS)	Average Delay (seconds per vehicle)	Generalized Description (Signalized Intersection)
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable Flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delays)
F	>80	Forced flow (jammed)

Source: *Highway Capacity Manual*, 2000

Existing Level of Service



Future (2035) Level of Service



2035 Signal Warrants

- 2035 volumes have been graphed against signal warrant thresholds
- Signals should be considered for four (4) intersections that meet the peak hour warrant under 2035 traffic conditions, including:
  - W. Milton Road (PM Peak)
  - Bombardier Road (AM + PM Peak)
  - Rebecca Lander Drive (AM School Peak)

DRAFT Vision Statement

- The Town of Milton is expected to grow over the next couple decades. As this occurs, US 7 will adapt to changing demands yet continue to serve the function and necessary performance level of the main arterial route through town. US 7 will transform into an inviting, safe, and attractive street for travel by all users of any age and ability. The corridor will allow for multimodal transportation options including travel by walking, biking, transit and automobile. A combination of strategies that improve mobility, safety, access and visual character will support municipal plans, economic development, and enhance the quality of life for area residents.

DRAFT Goals

- **Goal 1: Maintain reasonable traffic flow on US 7**
  - Improve roadway geometry and traffic control
  - Reduce reliance on US 7 for short trips within the corridor
  - Improve circulation between adjacent land uses
- **Goal 2: Improve safety for all users**
  - Provide safe crossing opportunities for pedestrians and bicyclists
  - Manage access to and from the corridor to reduce turning conflicts
  - Design roadway to moderate travel speeds
- **Goal 3: Provide convenient multimodal transportation options**
  - Close gaps of existing pedestrian infrastructure and enhance attractiveness of facility
  - Establish continuous bicycle facilities
  - Improve transit accessibility and infrastructure
- **Goal 4: Enhance the quality of life along the corridor**
  - Encourage and support economic development consistent with municipal plans and zoning
  - Improve the visual character of the corridor
  - Create attractive and inviting public spaces

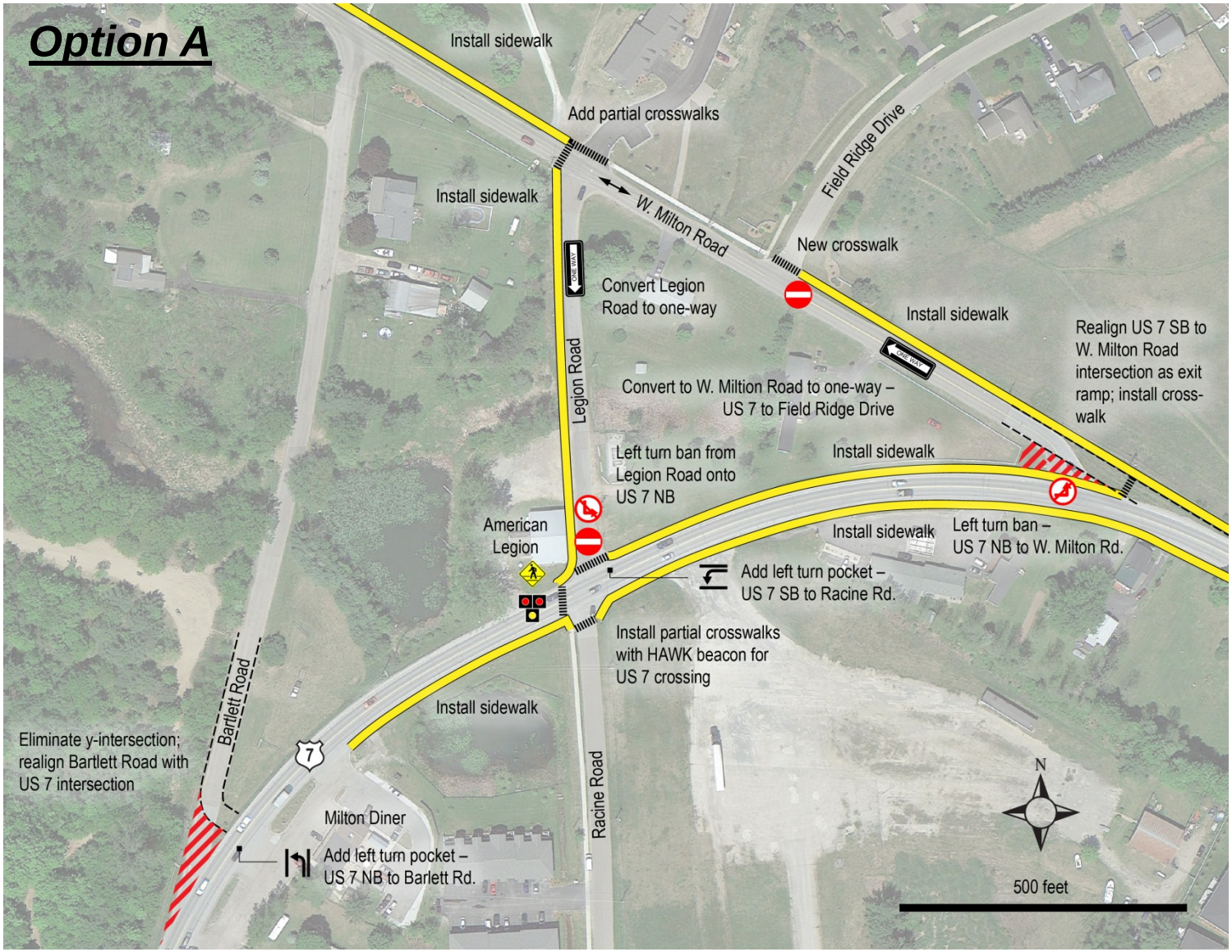
Issue #1.1 – US 7 at Legion Rd. Safety

- Intersection of Legion Road at US 7 has poor safety record
  - More than 5 crashes, with broadsides being the most common crash type
  - Limited sight distance from Legion Rd.
- No nearby crosswalks or sidewalks; poor ped connectivity to new multi-family housing and Milton Diner

Issue #1.2 – Failing LOS at W. Milton Approach to US 7

- LOS F at W. Milton approach to US 7 during AM and PM peaks
- Awkward design with sight distance issues
- No nearby crosswalks or sidewalks; poor pedestrian connectivity to Birchwood Mobile Home Park

Strategy #1 – Reconfigure Bartlett/Legion/W. Milton Intersections



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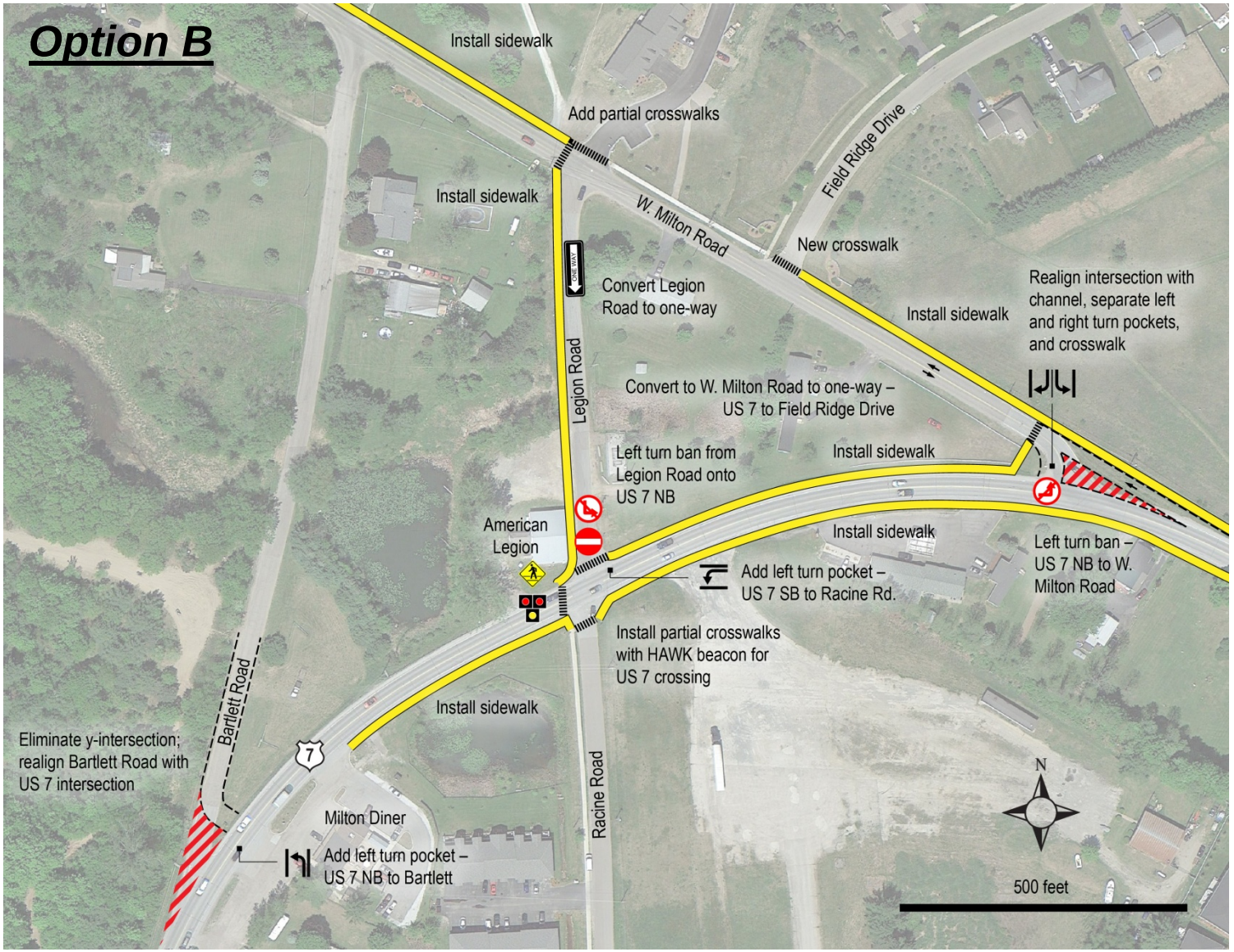
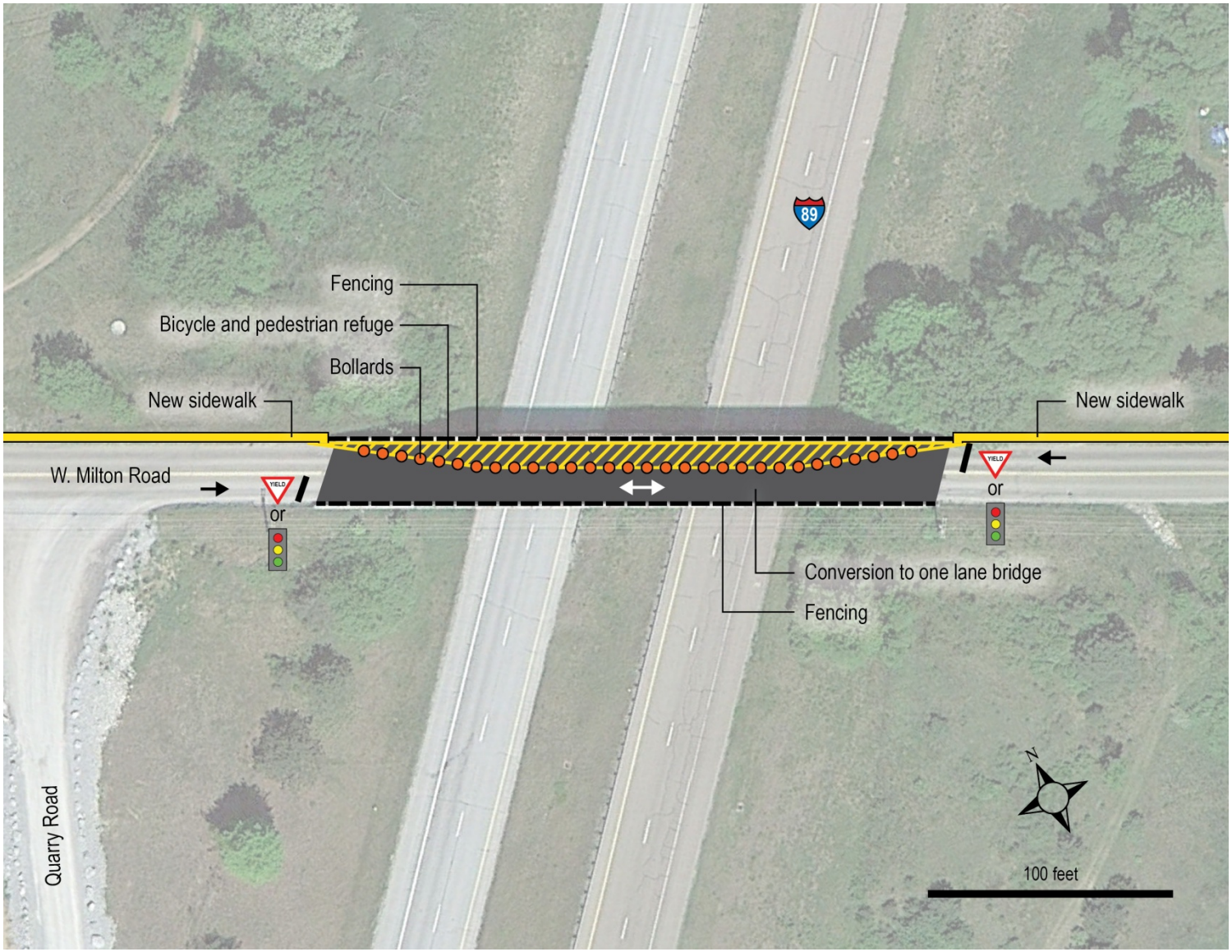


Issue #2 – Lack of Bike/Ped Accommodation on W. Milton Rd. over I-89 Bridge

- No shoulders
- Lanes too narrow to for sharing with bikes
- Essentially car and truck only
- Reportedly dangerous at night for walking and cycling
- Only bike/ped connection between Birchwood Mobile Home Park and the rest of the corridor
- Bridge itself is in good structural condition; sufficiency rating of 97

Source: Google Earth Pro Streetview

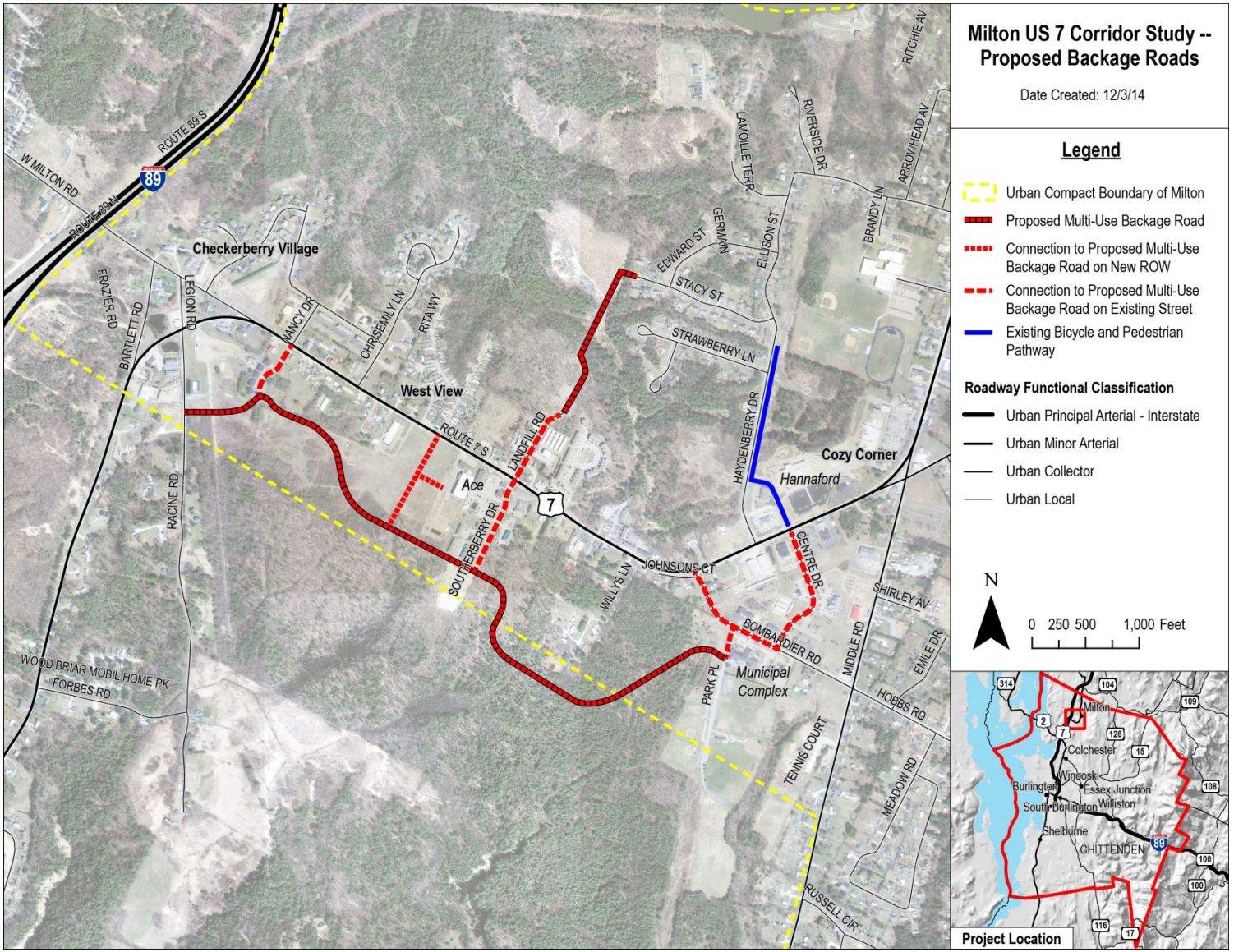
Strategy #2 – Convert Existing W. Milton Overpass to One Lane Bridge with Bike/Ped Refuge



Issue #3 –Alternatives Needed to US 7 for Short Trips to/from Growth Areas

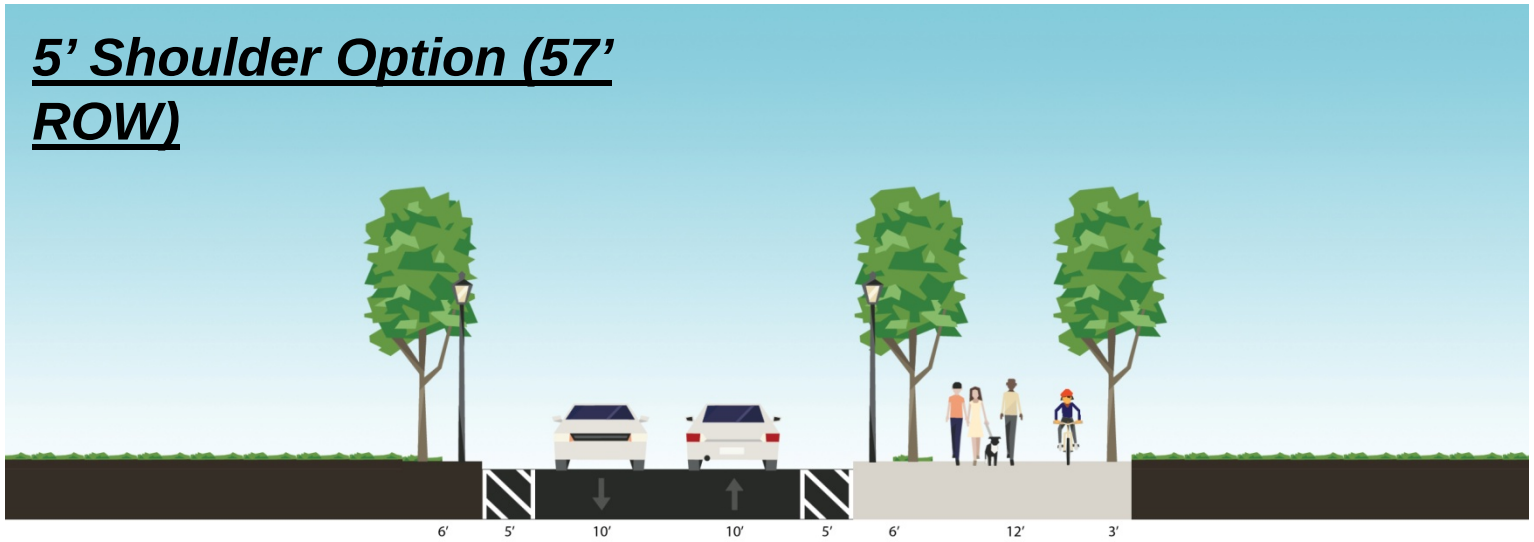
- Anticipated 31-35% increase in traffic on US 7 between Forbes Rd. and Bombardier Rd. by 2035
- Maximum volume of 16,000 veh/day occurring between W. Milton Rd. and Bartlett Rd.
- Potential for over-reliance on US 7 for short trips; some redundancy needed due to projected household growth along southern section of corridor

Strategy #3 – Multi-Use Backage Roads

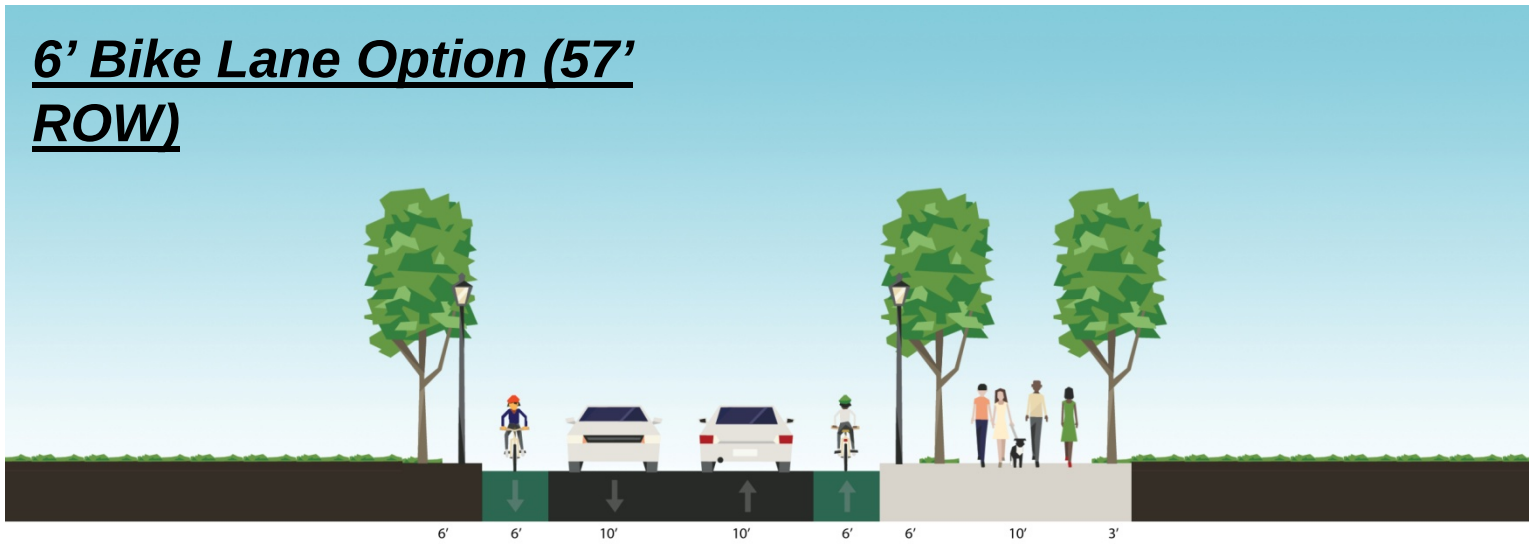


Strategy #3 – Multi-Use Backage Roads

5' Shoulder Option (57' ROW)



6' Bike Lane Option (57' ROW)



Issue #4 – US 7 between E. Milton Rd. and Willys Ln. Lacking Townscape Identity

- Limited sidewalks; no crosswalks
- Wide ROW not proportional to setbacks and building heights
- Excessive utility pole clutter
- Poor demarcation between street and private property
- Limited tree canopy
- Existing streetscape is ordinary; does not contribute to any sort of townscape identity

Strategy #4 – Three Lane Roadway between W. Milton Rd. and Willys Ln.

- Three lane roadway features:
  - Two lane through traffic
  - Center turn lane with dedicated turn lanes at major intersections
  - Planted median refuge, full or partial, with crosswalks
  - Bicycle lanes

Roadway with median refuge island and bike lanes

Source: Complete Streets

Strategy #4 – Three Lane Roadway between W. Milton Rd. and Willys Ln.

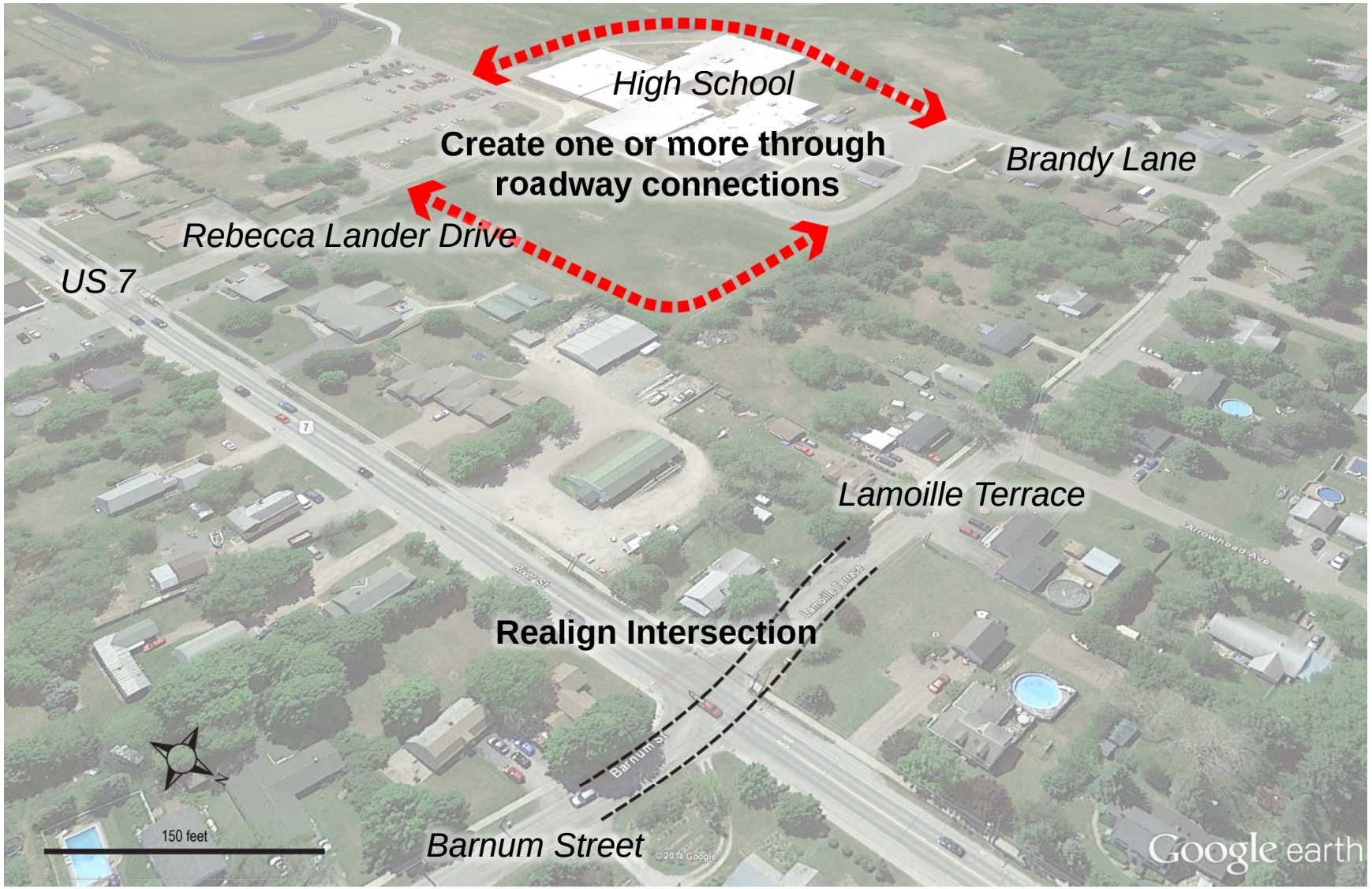
Cross Section with Median Refuge Islands and Center Turn Lane (view looking south)

Planted median refuge island alternates with turn lanes to enable access to/from side streets

Issue #5 – Temporary Congestion at High School Entrances

- Temporary congestion and poor circulation cited at high school entrances
- Rebecca Lander Dr. has no outlet aside from US 7
- Lamoille Terrace and Barnum Street have connections to larger street network

Strategy #5: Create Through Connections and Realign Lamoille/Barnum



Issue #6: Excess Street Width along US 7 near Main Street and Weak Bike/Ped Connections to Dam

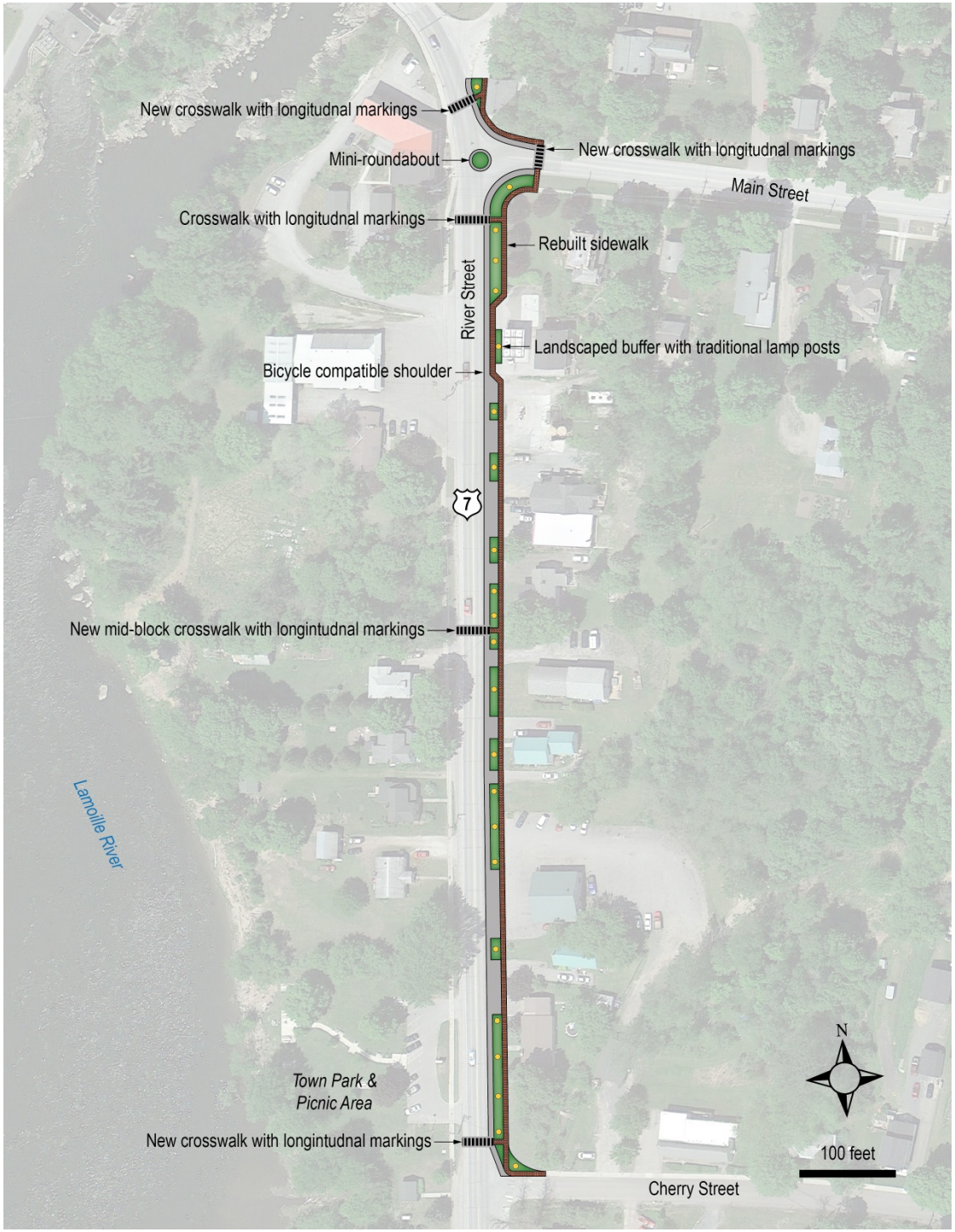
- Existing NB shoulder is 20’ wide; excessive for a minor arterial
- Sidewalks between Main and Cherry lack curbs in many locations
- Crosswalk(s) needed near town park/picnic area
- Various streetscape design and aesthetic issues on NB side detract from village atmosphere
- NB frontage dominated by parking
- Driveways run into each other
- Little distinction between driveways and sidewalks
- No lighting on NB side
- Aesthetics Improvements Committee has recommended burying utility lines and enhancing ped connections to Arrowhead Lake

Strategy #6: Streetscape Enhancements on US 7 between Main and Cherry Streets

- Northern “gateway” to Milton
- 1,000 feet long
- Greenbelts, tree canopy, greater ped buffering from traffic
- Distinctive sidewalks and bicycle compatible shoulders
- Mid-block crosswalks
- Mini-roundabout to better manage peak PM moves from Main Street WB
- Seven streetscape improvement projects in VTrans *FY 2015 Transportation Program*
  - *Total costs for design, ROW, and construction range from $150K to $800K*

Example of greenbelt buffering on US 4 in Woodstock
Source: Google Earth Pro Streetview

Concept for Mini-roundabout and US 7 Streetscape Enhancements – Main St. to Cherry St.

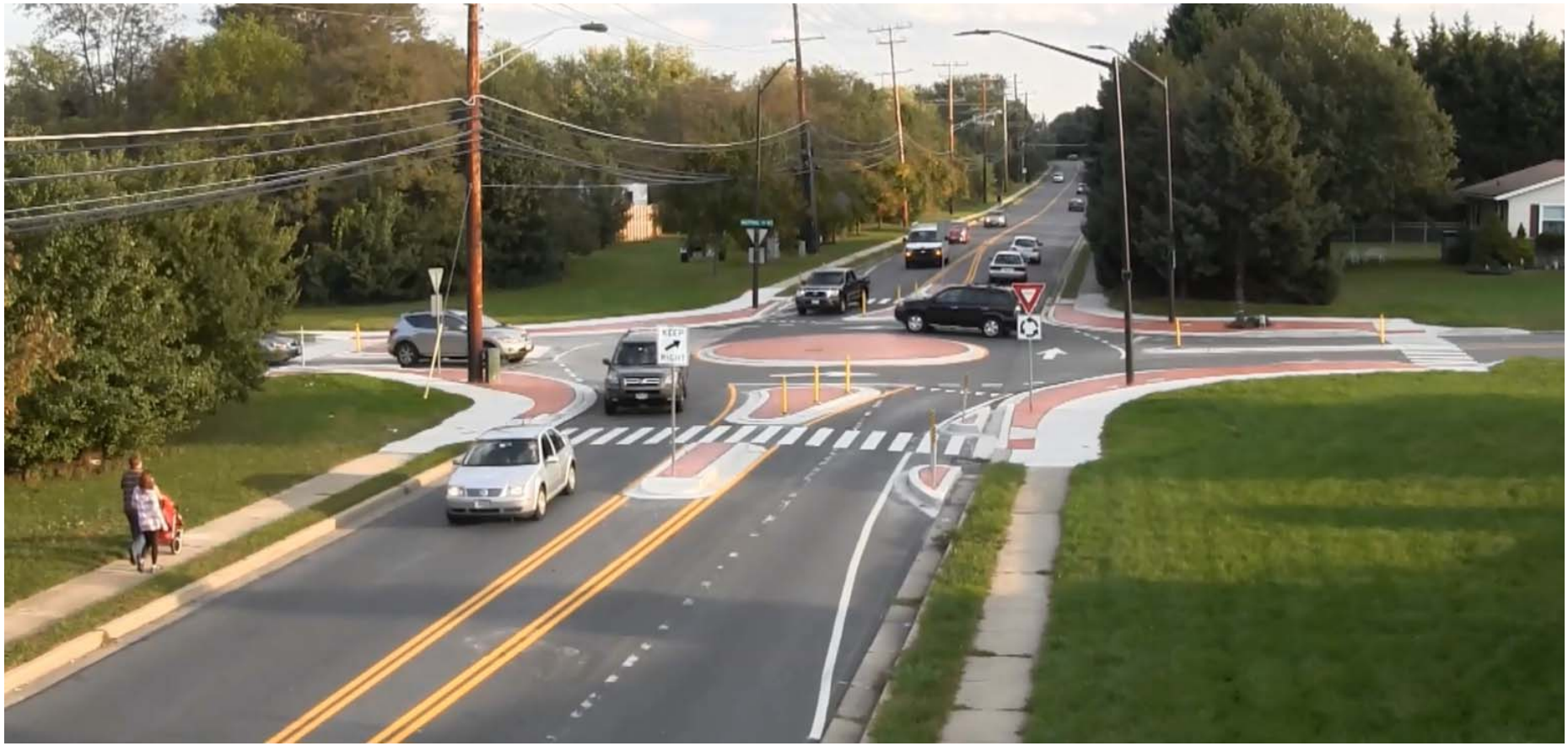


Strategy #6: Streetscape Enhancements on US 7 between Main and Cherry Streets

Reconfigured US 7 at Main with Planted Buffers and Lighting (view looking south)

Strategy #6: Streetscape Enhancements on US 7 between Main and Cherry Streets

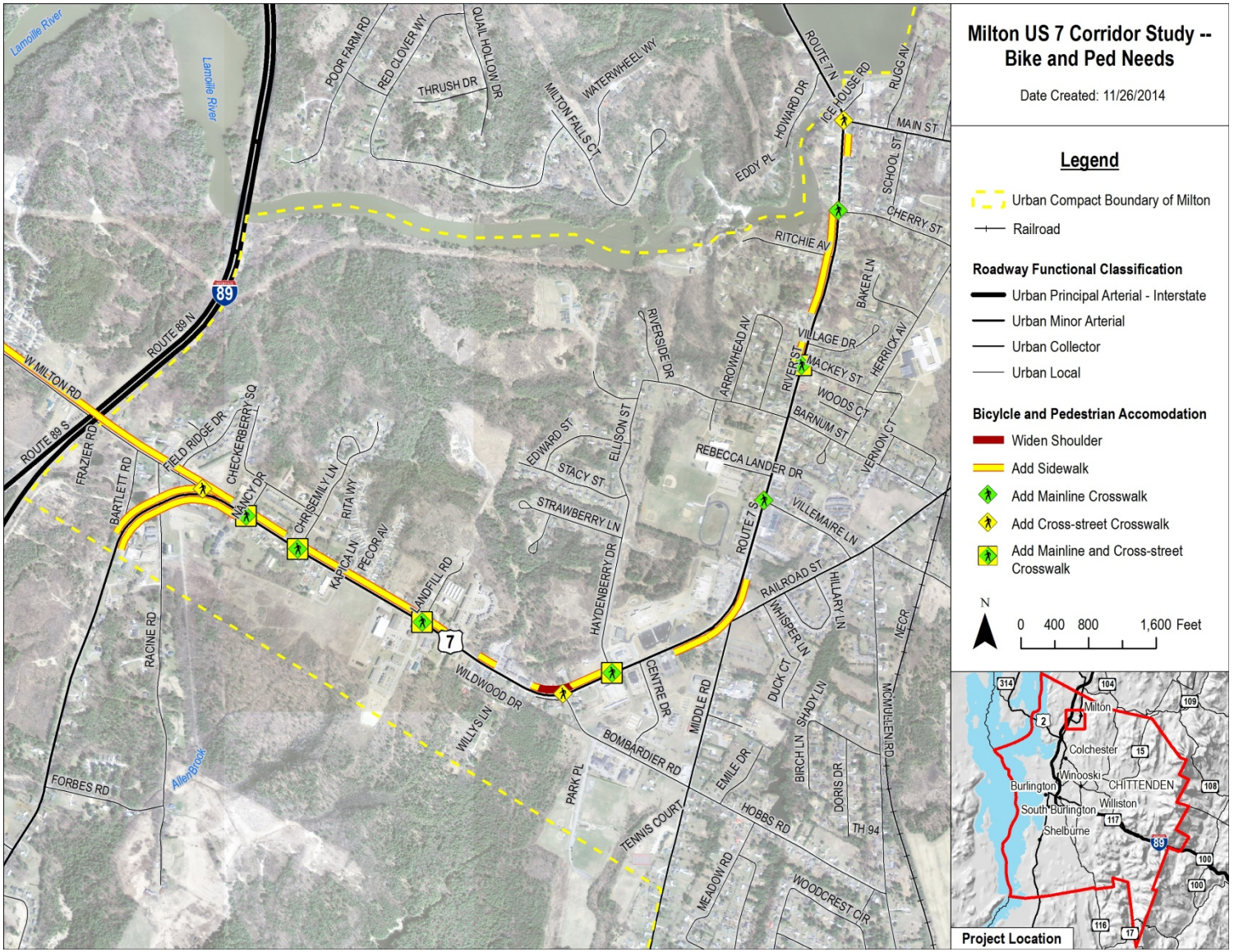
Mini-Roundabout Example



Strategy #7: Close Existing Walking and Cycling Gaps

- Seven (7) additional crosswalks recommended for US 7
- Eight (8) additional cross-street crosswalks recommended
- 4,566 linear feet of new sidewalk recommended
- 338 linear feet of expanded shoulder on US 7 SB at

Strategy #7: Close Existing Walking and Cycling Gaps



Your Thoughts

- Have we missed any important issues?
- Do you have any specific concerns about potential impacts?
- Options or improvement concepts to be explored?

Next Steps

- **January 2015**
  Second public meeting
- **April 2015**
  Third public meeting
- **June 2015**
  Final report