



Town of Bedford

Pedestrian and Bicycle Master Plan
Community Meeting – May 2015



Tonight's Agenda



- 7:00 – Welcome – View stations
- 7:15 – Presentation
- 7:45 – Question & Answer
- 8:00 – Stations – Discussions with Staff
 - Infrastructure Recommendation
 - Facility Toolbox
 - Non-Infrastructure Recommendations
 - Wikimap Input

Benefits of Planning for Walking and Biking



- Flexible, convenient, affordable travel option
- Increases safety of all users
- Reduces congestion, emissions
- Supports economic development
- Improves public health
- Compatible with transit
- Low cost, high impact investment



Pedestrian and Bicycle Plan Overview



- Existing Conditions
 - Analyze needs and deficiencies
- Design Guidelines
 - Develop bicycle and pedestrian facilities toolbox
- Recommendations
 - Create plan for walking and bicycle network
 - Identify programs and policies
 - Develop implementation strategy



Interactive On-line Wikimap

Existing Conditions (Fall 2014)

- 195 users
- 446 comments received

Recommendations Phase (Spring 2015)

- XXX users
- XXX comments received



1. Draw your ideas on the map by clicking on "add route" or "add location."

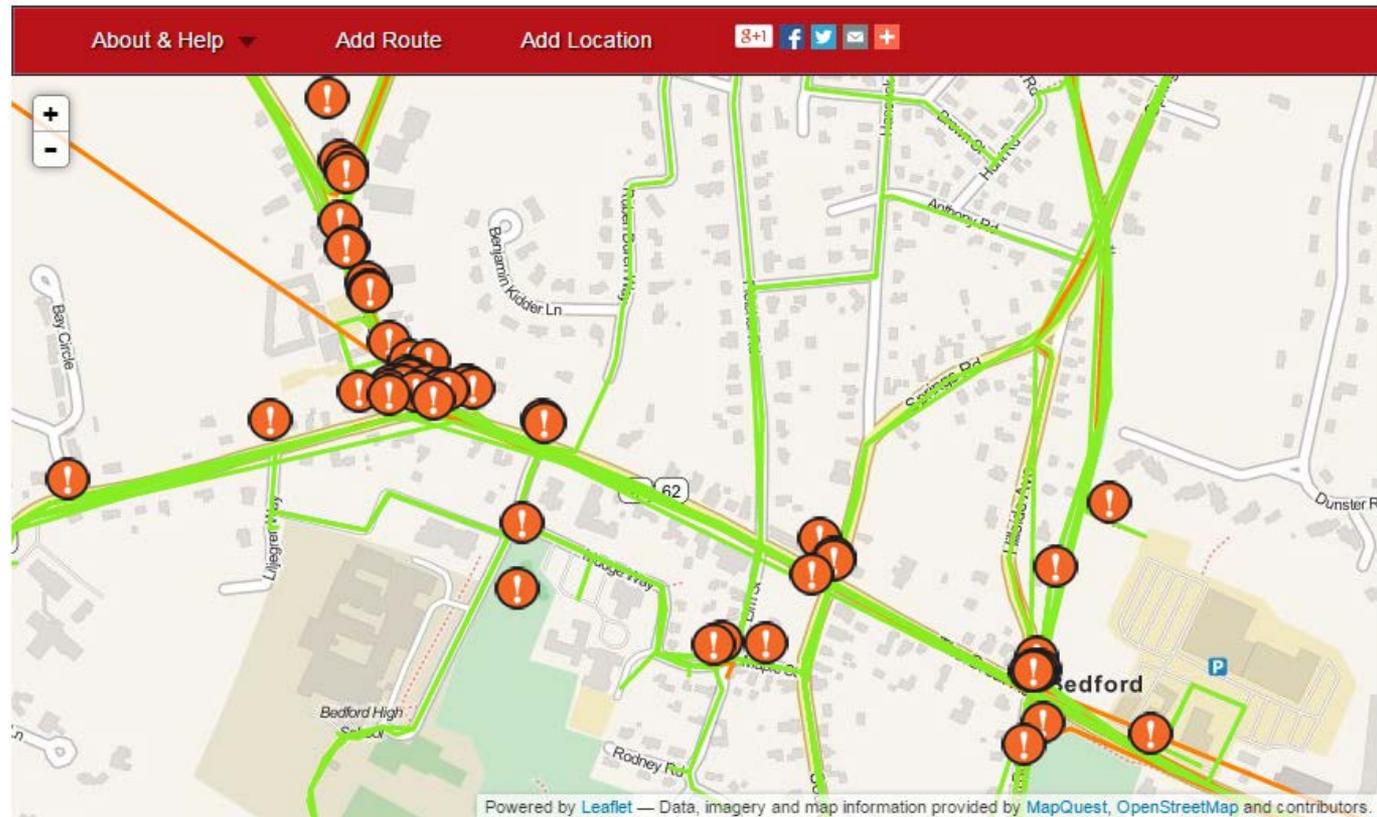
2. Describe your comment in the pop-up survey after drawing.

3. Upload photos in the pop-up survey.

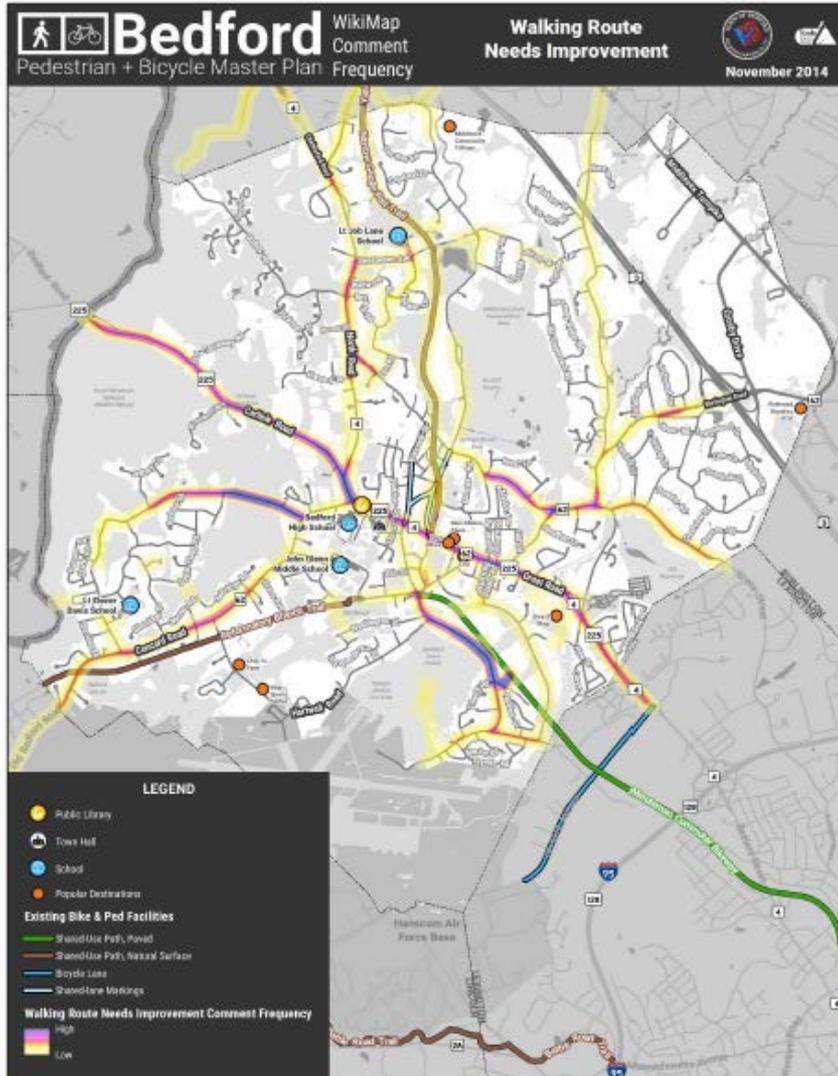


Legend

-  Route I Walk or Bike
-  Street/Path Needs Improvement
-  Location Needs Improvement



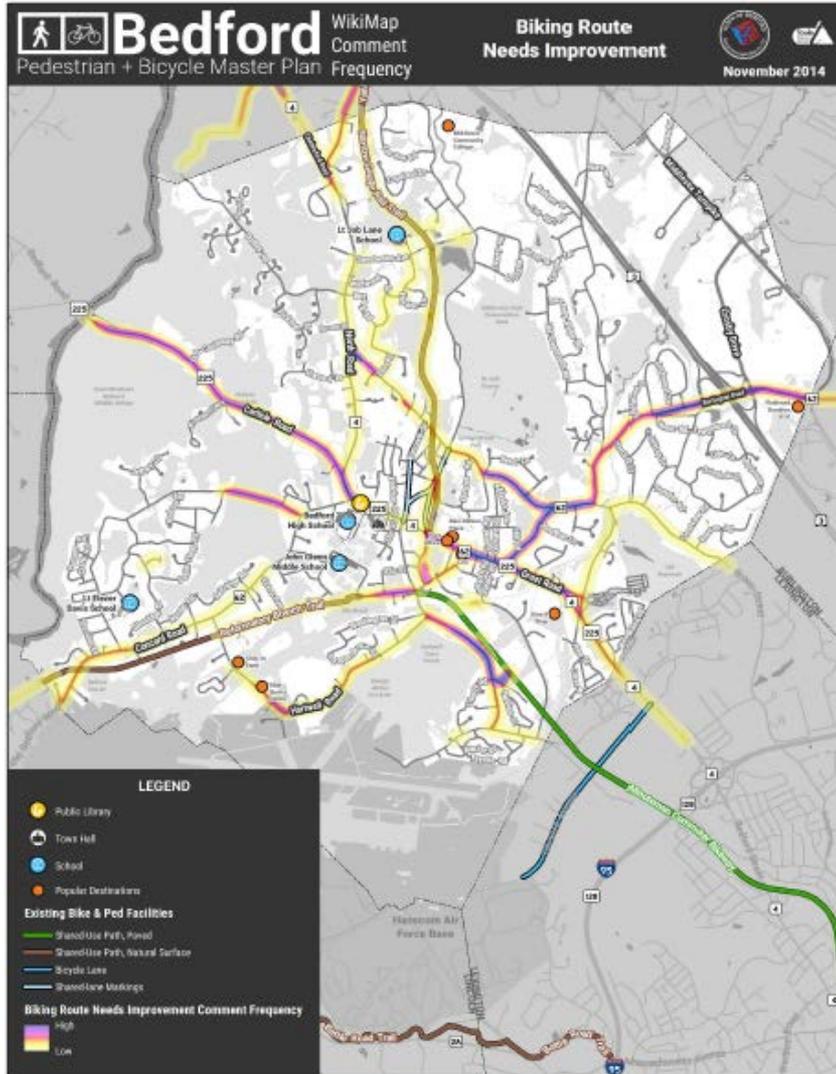
Wikimap – What we Heard



Walking Routes in Need of Improvement

- Locations without sidewalks or with significant gaps:
 - Davis Road
 - Page Road
 - Carlisle Road
 - South Road
 - Concord Road
 - North Road
- Spot Improvements Desired:
 - Great Road @ North Road (Wilson Park)
 - Concord Road crossings
 - Narrow Gauge Trail @ Great Road

Wikimap – What we Heard



Walking Routes in Need of Improvement

- Locations with high traffic volumes or speeds:
 - Davis Road
 - Page Road
 - Carlisle Road
 - South Road
 - Great Road
 - Brooksbie Road
 - Burlington Road
- Spot Improvements Desired:
 - Great Road @ North Road (Wilson Park)
 - Narrow Gauge Trail @ Great Road
 - Several challenging unsignalized intersections

Open House Meeting – November 2014



- Nearly 100 attendees!
- Existing Conditions Presentation and Table Sessions
- Residents drew their walking and biking routes; shared their ideas for Bedford.



- What we heard:
 - More crosswalks townwide
 - Maintenance is key
 - Install sidewalks on all major roads
 - Provide dedicated funding for ped/bike
 - Improved education and enforcement for all users
 - Lower speed limits
 - Separated bike facilities
 - Provide trail connections
 - Complex intersections need improvement

Pedestrian and Bicycle Plan Goals



- Increase the amount of walking & bicycling
- Make walking & bicycle safe and comfortable for all ages and abilities
 - Continuous network – close existing gaps
 - Separation between modes – low stress network
- Consider all 5 E's
 - Education
 - Encouragement
 - Enforcement
 - Engineering
 - Evaluation
- Connect Key Destinations:
 - Schools
 - Employment
 - Shopping
 - Residences

Bedford will be a well-connected community where walking and biking are convenient and attractive. Pedestrians and bicyclists will feel safe and respected on Bedford's streets and trails. The well-being and health of Bedford residents will improve from more walking and bicycling. Traffic congestion will be reduced as more people walk and bike to destinations rather than drive. The local economy will gain from the benefits associated with public investments in walking and bicycling.

Recommendations – Implementation



- Coordinate future projects with master plan
 - Town
 - MassDOT
 - Developers
- Ongoing public process
 - Each project provides opportunity for public comment on specifics.
- The plan is flexible
 - Recommendations may change through the implementation, so long as the goals of connectivity, safety, and comfort are achieved.
- Potential right-of-way impacts
 - Recommendations may require easements or additional property
 - Recommendations represent opportunities, not requirements



Infrastructure Toolbox – Facilities



	<p align="center">Bike Lane</p> <p>Designates exclusive space for bicyclists through pavement markings & signage</p>		<p align="center">Shared Street</p> <p>Provided on streets with low traffic volumes and speeds - designed to give non-motorized traffic priority</p>
	<p align="center">Sidepath</p> <p>A shared path for pedestrians and bicyclists along the side of an existing roadway</p>		<p align="center">Shared-Use Path</p> <p>A path providing equal access for pedestrians and bicyclists in a dedicated right-of-way</p>
	<p align="center">Separated Bike Lane</p> <p>Provides a protected on-road facility for bicyclists with vertical separation from traffic</p>		<p align="center">Improved Trail</p> <p>Natural surface trail provides access for pedestrians and bicyclists through conservation land and sensitive areas</p>

Infrastructure Toolbox – Intersections



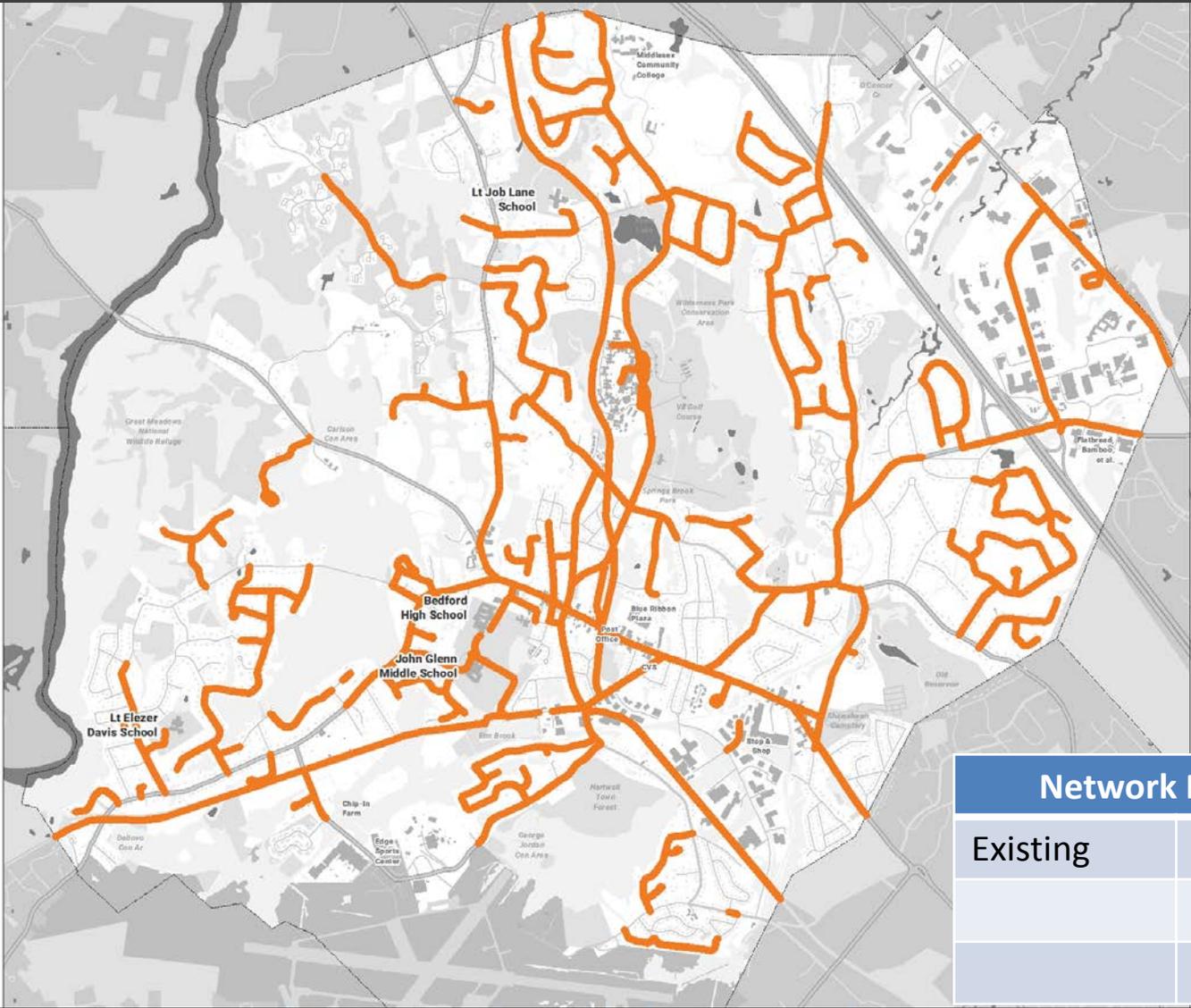
	<p>Traffic Signal</p> <p>New traffic signals provide safe and efficient crossings for locations where significant pedestrian and bicycle crossings conflict with high volume roadways</p>
--	--

	<p>Crossing Improvement</p> <p>Crossing improvements including crosswalks, raised intersections, and curb extensions provide improve safety for pedestrians and bicyclists</p>
--	---

	<p>Geometric Improvement</p> <p>Changes to intersection geometry normalize off-angle intersections, slow motor vehicle turning speeds, and reduce crossing distances for pedestrians</p>
--	---

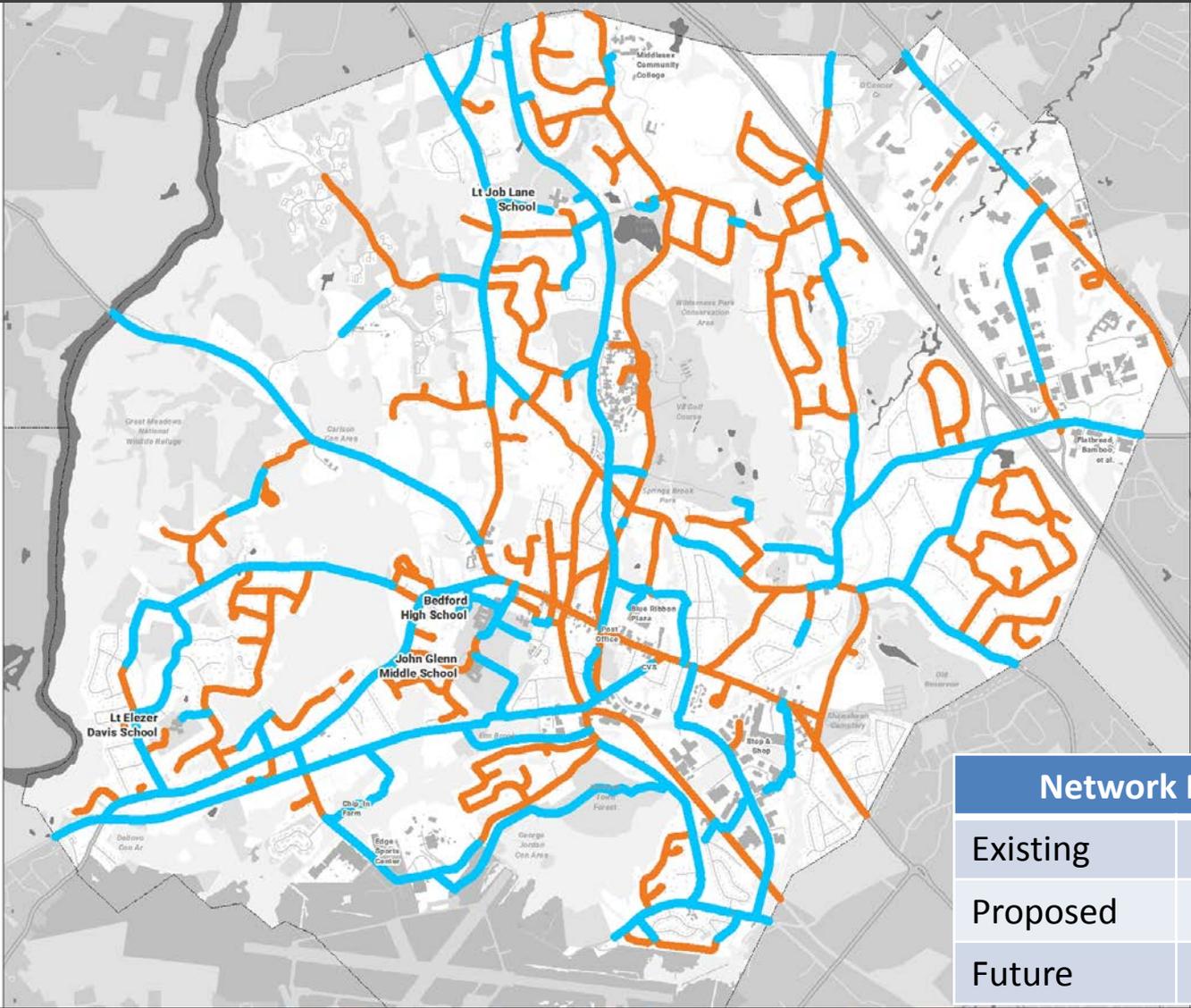
	<p>Modern Roundabout</p> <p>Modern roundabouts safely and efficiently control high volumes of vehicular, bicycle, and pedestrian traffic while calming traffic speeds and reducing crashes</p>
--	---

Existing Pedestrian Facilities



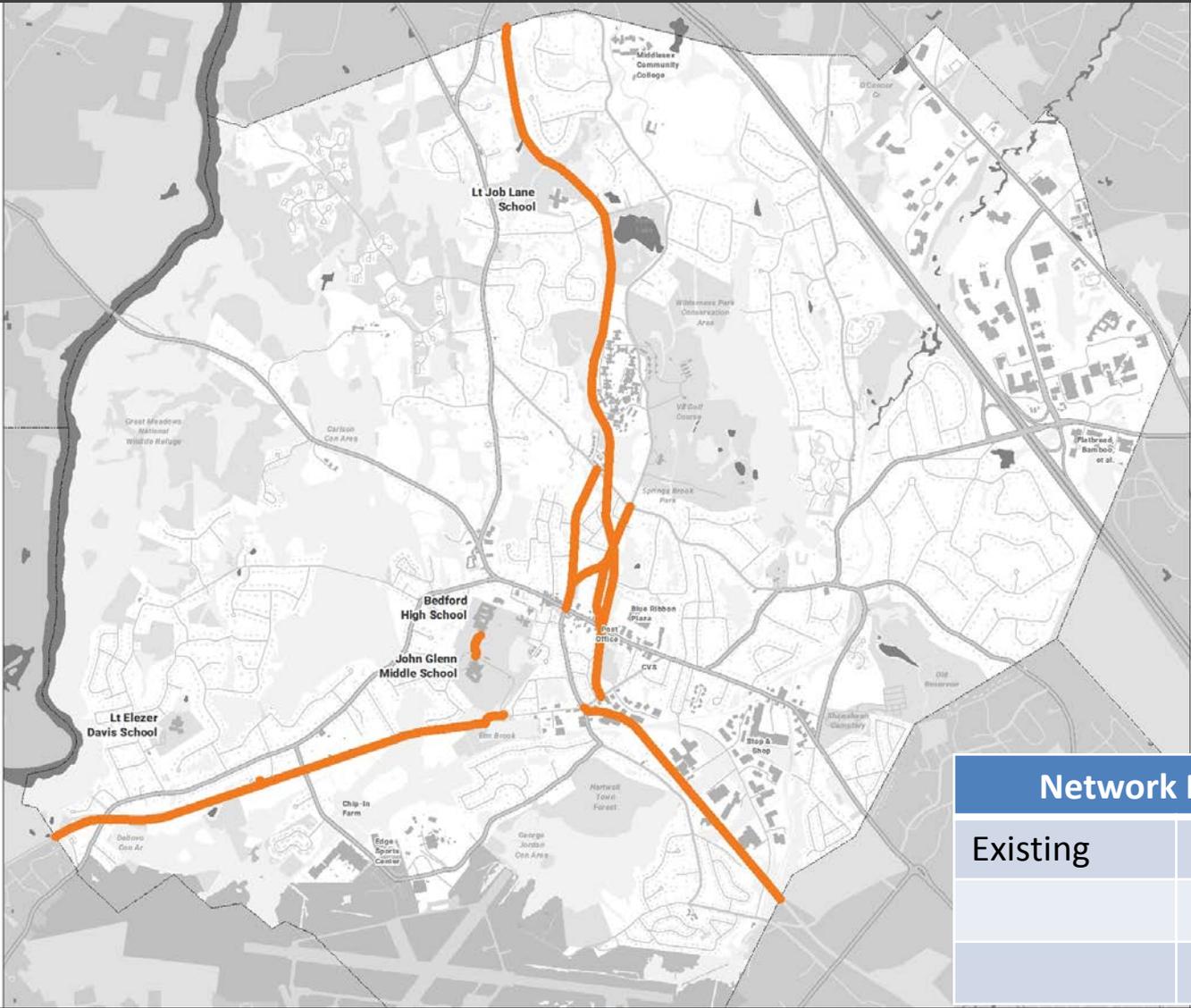
Network Mileage	
Existing	52.8 miles

Future Pedestrian Facilities



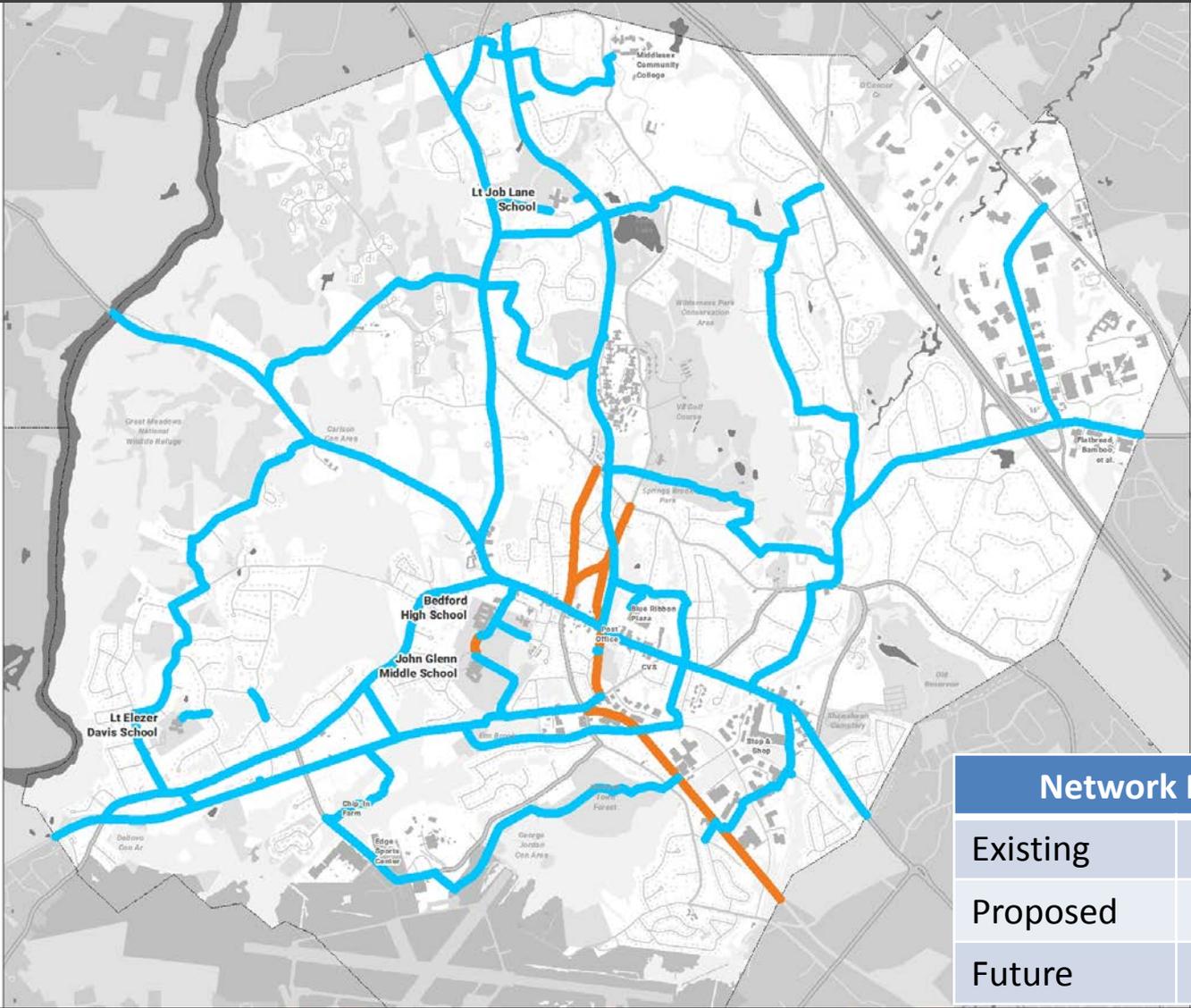
Network Mileage	
Existing	52.8 miles
Proposed	32.3 miles
Future	79.2 miles

Existing Bicycle Facilities



Network Mileage	
Existing	7.2 miles

Future Bicycle Facilities



Network Mileage	
Existing	7.2 miles
Proposed	31.4 miles
Future	34.2 miles

Priority Corridors and Nodes



- Plan recommendations are important – but what do they mean for Bedford?
- Five key locations in Bedford selected to show how challenging corridors can be improved using the recommendations from the plan:
 - Great Road
 - Burlington Road
 - Lane School – Sweetwater Avenue to Fawn Circle
 - Concord Road
 - Page Road @ Old Billerica Road
- Plans are conceptual in nature. Specific impacts to properties, driveway locations, roadway dimensions, and intersection treatments can and will change through the design process and public input.

Priority Corridor – Great Road



Priority Corridor – Burlington Road



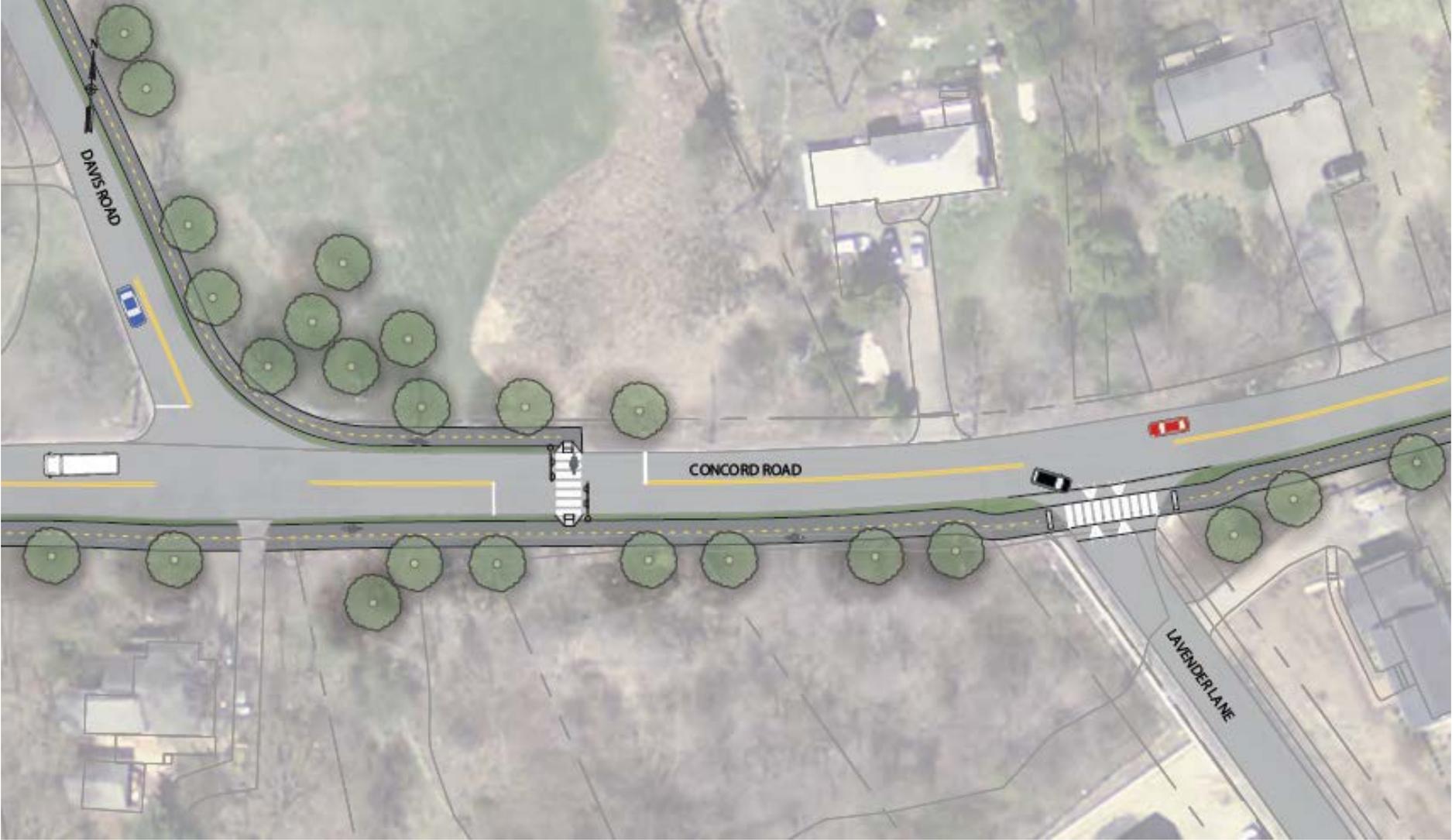
Priority Corridor – Lane School Area



Priority Corridor – Lane School Area



Priority Corridor – Concord Road



Priority Node - Page Rd @ Old Billerica Rd





Non-Infrastructure Recommendations

EDUCATION

Continue to provide bicycle safety classes for children.

Provide training to town staff on bicycle and pedestrian planning and engineering.

Install etiquette signs along sidepaths and shared use paths

ENCOURAGEMENT

Develop bike friendly business program.

Continue to organize special biking and walking events.

Hold a 2-mile challenge

ENFORCEMENT

Develop a community law enforcement/bicycling liaison relationship.

Continue progressive ticketing program aimed at drivers and bicyclists, include educational flyers as a follow-up mailer.

Increase police presence/ticketing at crosswalks.

Non-Infrastructure Recommendations



ENGINEERING

Update pedestrian and bicycle design standards for crossings.

Require installation of wheel guards on Town owned heavy vehicles.

Install public bike maintenance stations.

Coordinate roadway projects and paving with the master plan.

Continue to close gaps in the existing sidewalk network.

EVALUATION

Establish a standing pedestrian advisory committee.

Establish bicycle/pedestrian mode share goals.

Collect and analyze bike and walk counts.

What's Next?



- Wikimap closes next week
 - Get your comments in!
- Draft Report to Town Staff for Review – June
- Final Report – July
- Implementation!