

ROUTE 236 PLANNING STUDY

Town Council Meeting

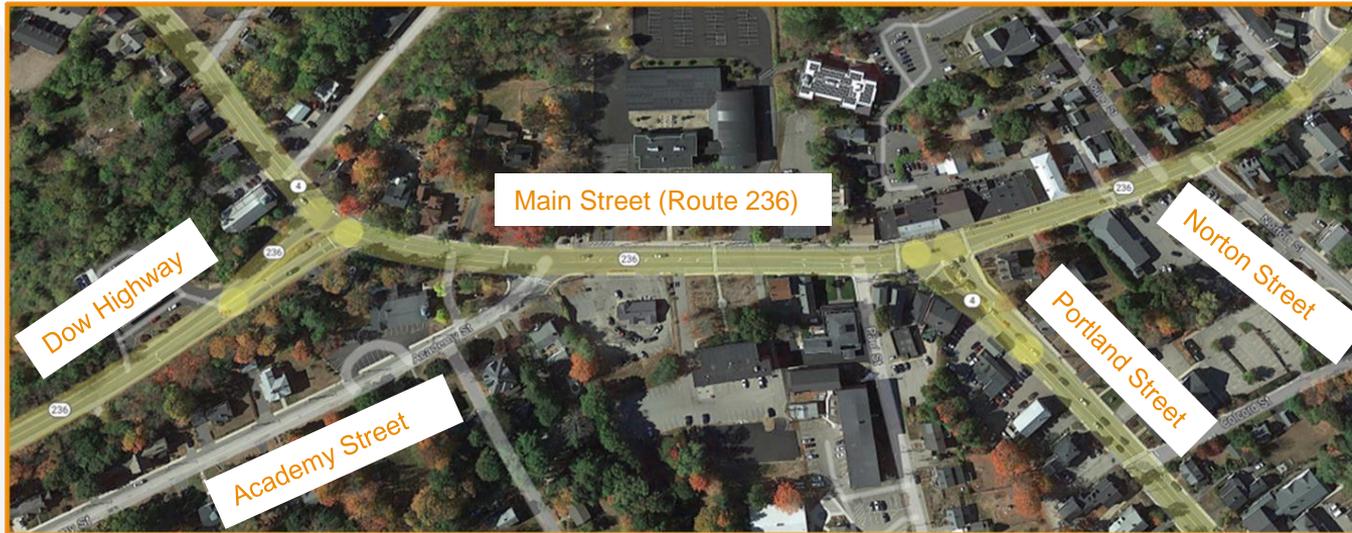
April 11, 2023



AGENDA

- Introductions
 - *Nikki Conant, P.E. Senior Transportation Engineer / Project Manager*
 - *Brad Lyon, P.E., PTOE, Vice President of Transportation Engineering*
- Study Area and Project Background
- Study Overview

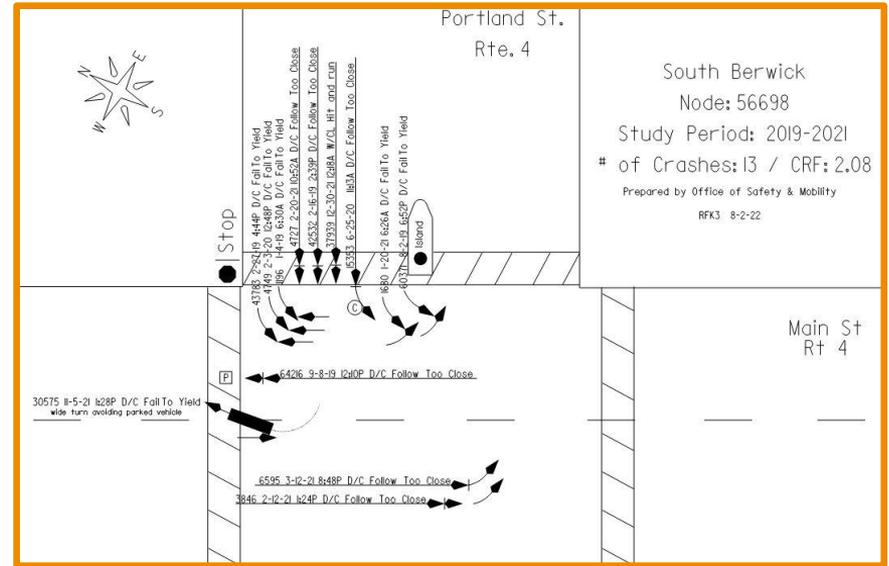
STUDY AREA AND PROJECT BACKGROUND



- August – Kick-Off Meeting with Town Staff and Present Project to Council
- October – Held Public Meeting
- January – Submitted Technical Memorandum to Town to gather feedback on analysis to date
- March – Draft Planning Study to Town
- April – Final Planning Study, Review with Council, and Presentation to the Public.

STUDY OVERVIEW – EXISTING CONDITIONS

- Completed traffic counts (vehicular, bicycle, pedestrian, and heavy vehicle volumes).
- Obtained historical crash data.
- Completed a site walk to inventory existing facilities.
- Modeled existing traffic flows in Synchro/SimTraffic
- Completed traffic signal warrant evaluations



STUDY OVERVIEW – EXISTING CONDITIONS

Takeaways

- Intersections of Portland Street, Dow Highway, Academy Street are high crash locations, as designated by MaineDOT. Between Academy Street and Portland Street and Portland Street and Young Street have historically been high crash locations.
- Models showed extreme congestion throughout the study area with side street movements having inadequate gaps to make turns onto Main Street.
- Both Portland Street and Main Street warrant traffic signalization for eight-hour volumes. *Academy Street and Norton Street also warrant signalization**

STUDY OVERVIEW – PROPOSED CONDITIONS

Reviewed over 10 options for solutions for the corridor and narrowed it down to three major options:

Traffic Signal Option 1: signalizing Portland Street and Dow Highway with the current lane configuration

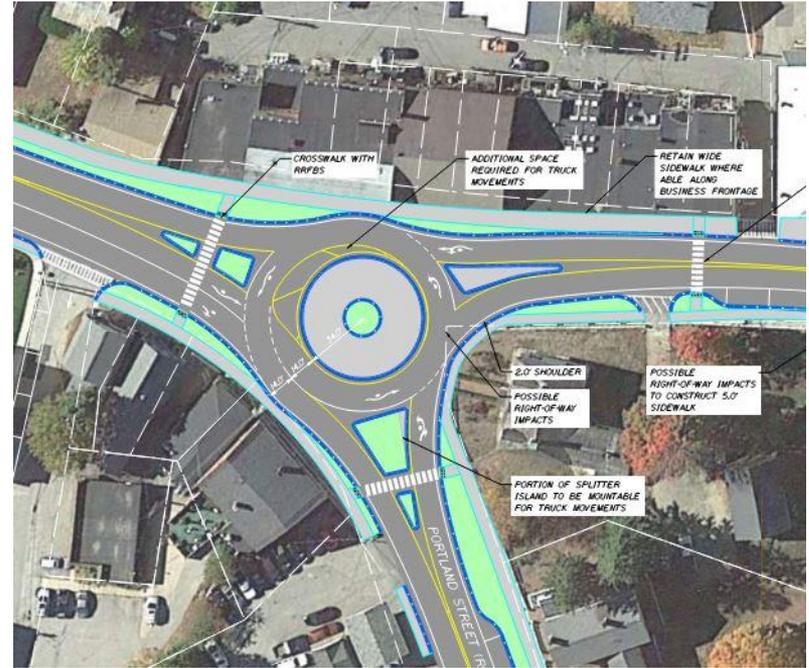
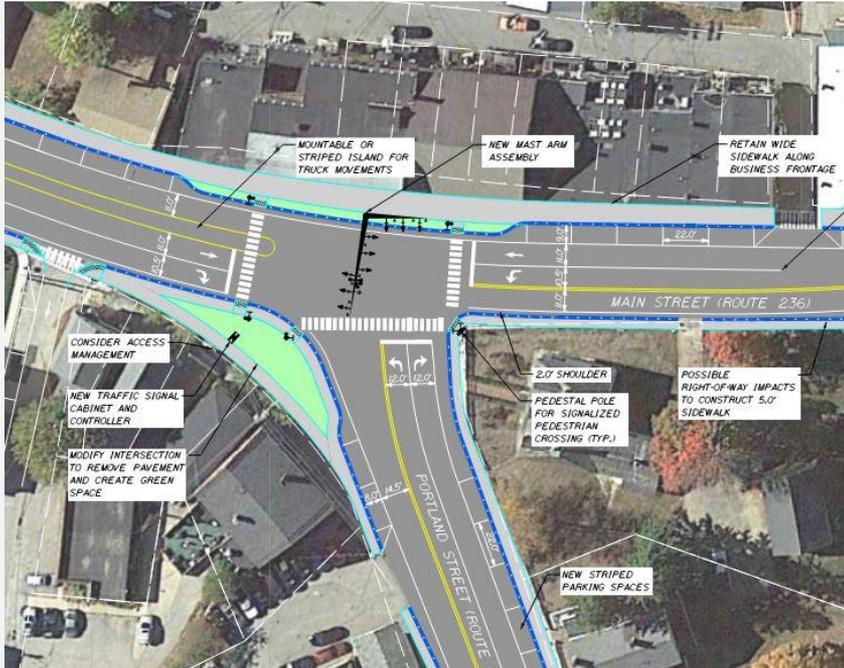
Traffic Signal Option 2: signalizing Portland Street and Dow Highway with new turn lanes

Roundabouts

Signalization with the existing lane configuration still did not solve long-term congestion issues, so signal option 2 was pursued conceptually.

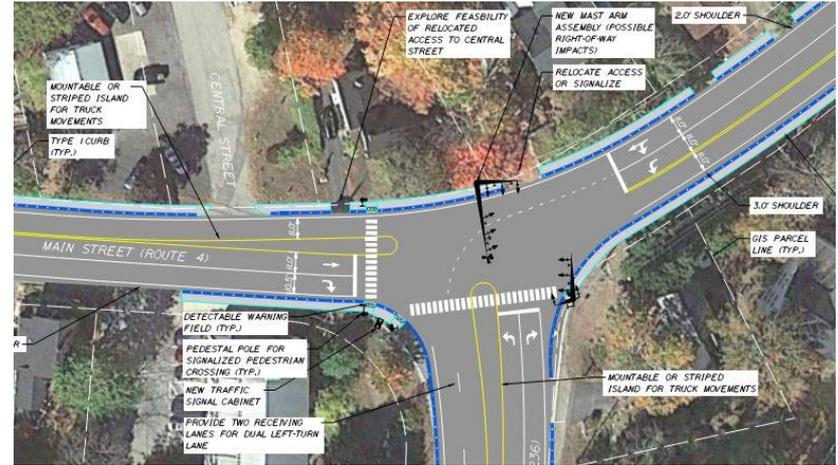
STUDY OVERVIEW – PROPOSED CONDITIONS

Main Street at Portland Street



STUDY OVERVIEW – PROPOSED CONDITIONS

Main Street at Dow Highway



STUDY OVERVIEW – PROPOSED CONDITIONS

Recommended Alternative: Signalization at both Portland Street and Dow Highway

1. Provides longer term capacity under future volumes. Two lane roundabouts likely required in the future and there is not space to build them.
2. Signals can be retimed in the future depending on changing volumes and patterns. They can also be coordinated to optimize the traffic flow through the corridor.
3. Pedestrian phasing is signalized.
4. Signalized option allows retainage of parking in front of the businesses for southbound Main Street.
5. Signals can provide emergency preemption technology to provide priority for emergency vehicles.
6. Reduction of queues due to the signals likely to have positive implications on diverted traffic.



STUDY OVERVIEW – PROPOSED CONDITIONS

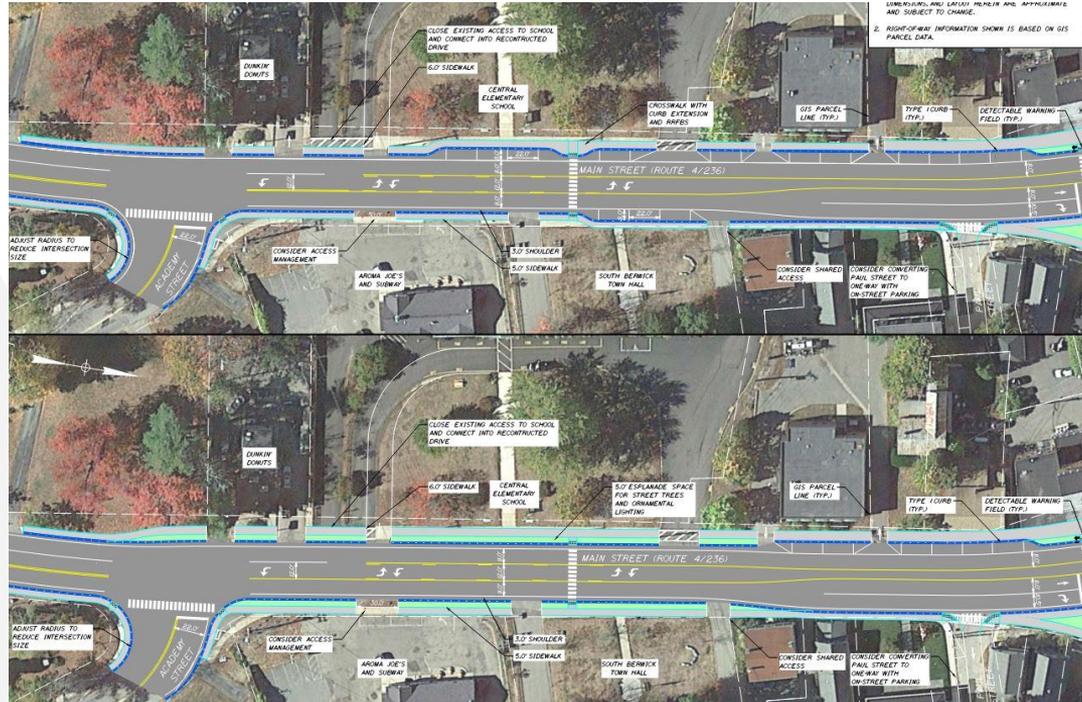
Corridor Recommendations:

1. Provide access management to minimize conflict points by reducing number of driveways or size, sharing access points, providing proper corner clearance from intersections, or altering access to the lower volume roadway.
2. Provide traffic calming and additional pedestrian visibility in the form of curb extensions.
3. Strategically place crosswalks through the corridor and outfit them with Rectangular Rapid Flashing Beacons (RRFBs).
4. Reconstruct existing sidewalks for Americans with Disabilities Act (ADA) compliance. Install new sidewalk from Dow Highway to Academy Street.



STUDY OVERVIEW – PROPOSED CONDITIONS

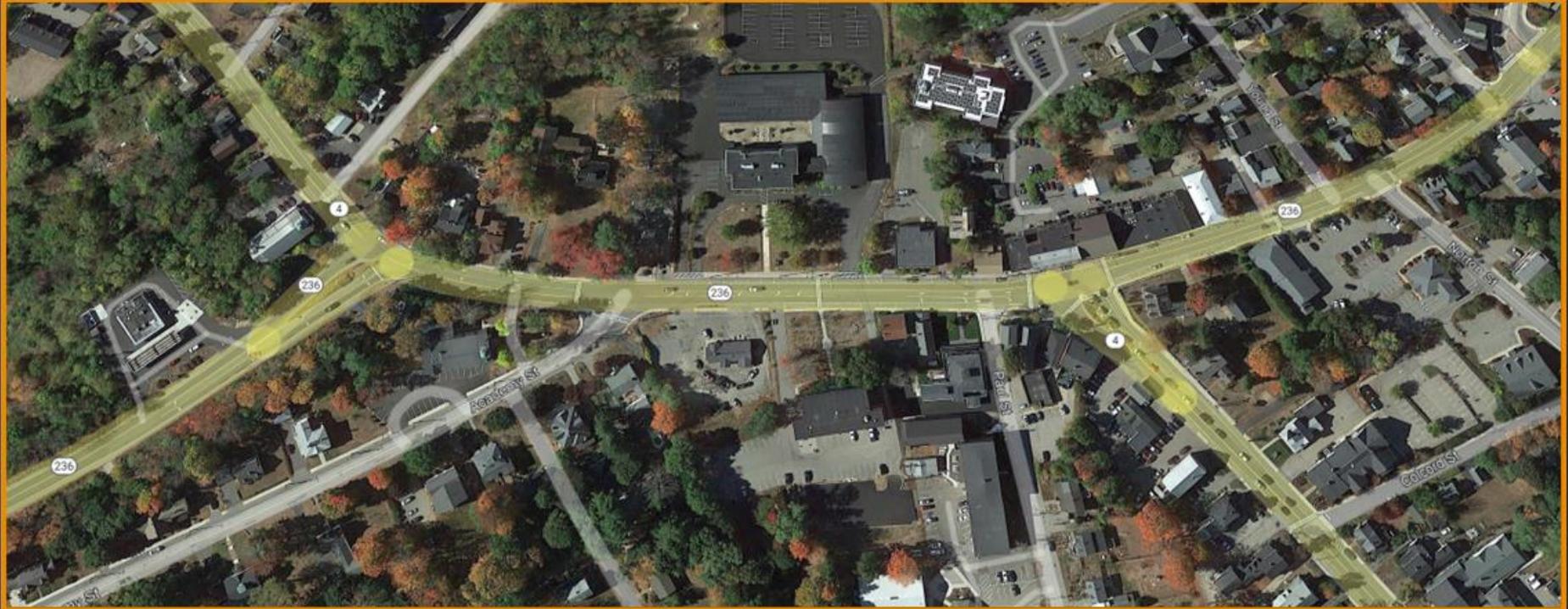
Between Academy Street and Portland Street



STUDY OVERVIEW – PROPOSED CONDITIONS

Preliminary Opinion of Cost

	Alternative	Cost Estimate (2023 Dollars)
A	Intersection of Main Street and Dow Highway	\$1,200,000.00
B	Intersection of Main Street and Portland Street	\$1,300,000.00
C	Between Academy Street and Portland Street – Option 1	\$625,000.00
D	Between Academy Street and Portland Street – Option 2	\$750,000.00
	Approximate Preliminary Cost (A + B + C)	\$3,125,000.00
	Approximate Preliminary Cost (A + B + D)	\$3,250,000.00



QUESTIONS/COMMENTS