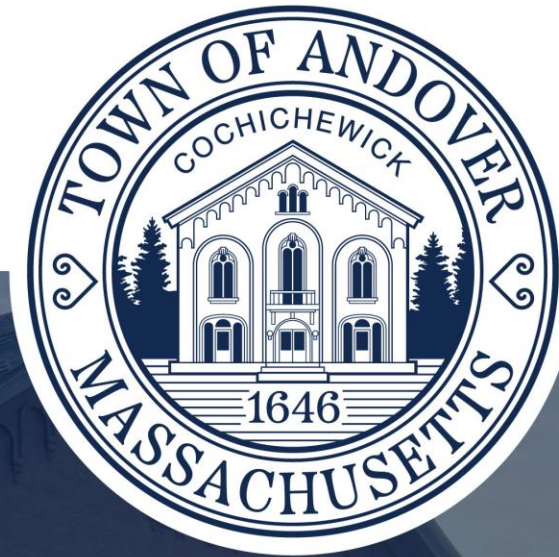


Lincoln Street Corridor

Proposed Safety Improvements



6/25/24 Public Information Session

ANDOVERMA.GOV

Agenda

- Introductions
- Current Conditions & History
- Connection to Complete Streets
- Recap of 4/10/24 Public Information Meeting
- Neighborhood Data and Alternatives Requests
- TEC Report and Analysis
- Recommendations

Current Conditions

- **What are the issues?**

- Heavily traveled roadway for students and pedestrians walking and biking
- Variable width of road makes an ADA accessible sidewalk challenging in sections
- Vehicle speed
- Cut-through traffic



History

- **What options have been evaluated by the Town?**
 - Installing a 5' sidewalk and keeping two 12' lanes of traffic on Lincoln from Marilyn Road to Lowell Street
 - Installing a 5' sidewalk from Marilyn Rd to Lowell St and converting this segment to one way permanently
 - Installing a sidewalk extension through the Marilyn neighborhood instead of down Lincoln Street
 - Turn the entirety of Lincoln St to a one way. This will allow the Town to install an 8'-10' shared use path along the entire road from Shawsheen to Lowell



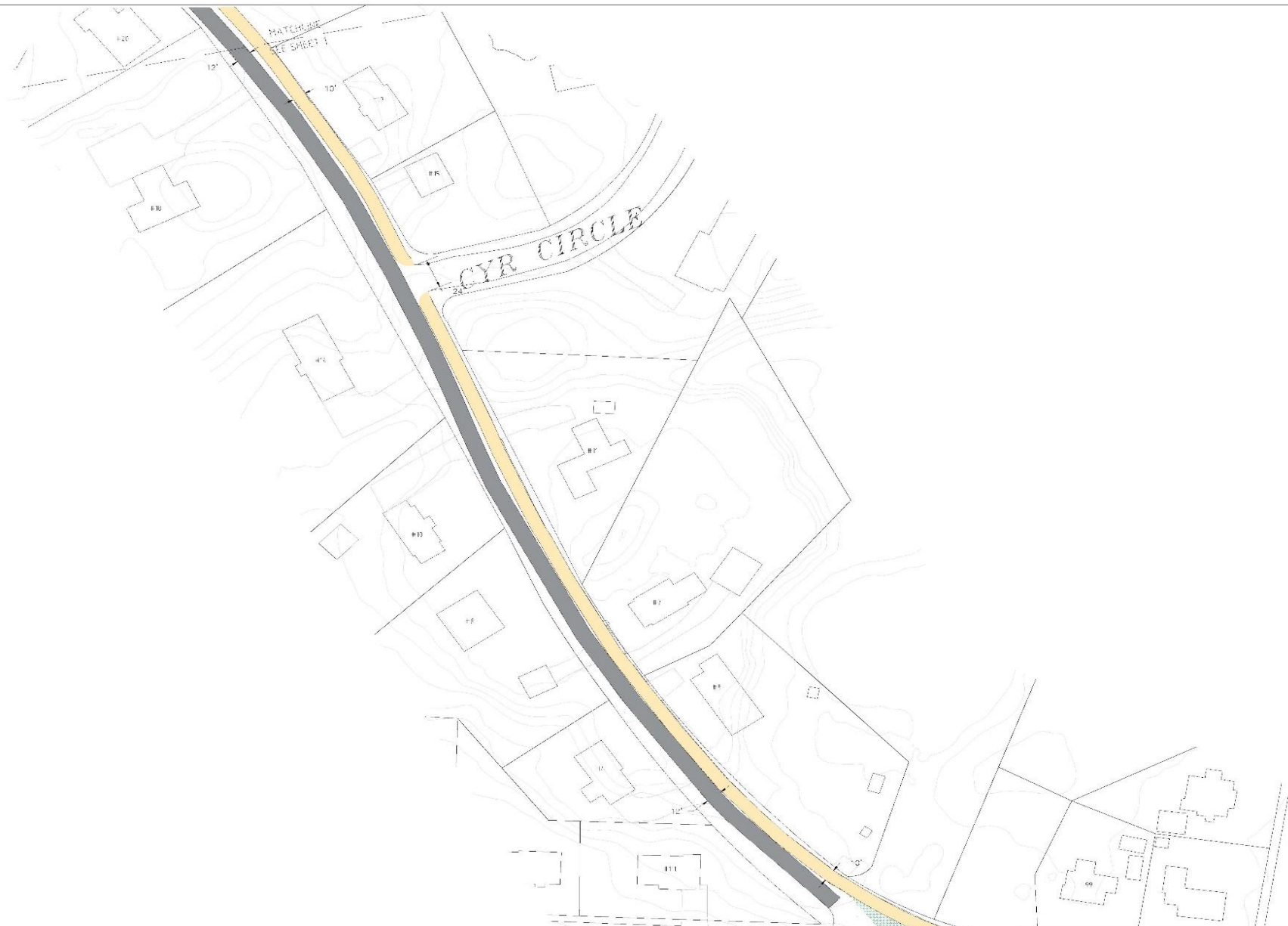
TOWN OF ANDOVER, MA

ANDOVER, MA 01810

SHARED USE PATH
LINCOLN STREET

REVISIONS		DESCRIPTION
DATE	CH. BY	





REVISIONS		
DATE	CHG BY	DESCRIPTION


DRAWN BY: JZA
PROFESSIONAL ENGINEER

TOWN OF ANDOVER, MA
ANDOVER, MA 01810

**SHARED USE PATH
LINCOLN STREET**

ARTHUR G. MARTINEAU II
TOWN ENGINEER

4/5/2024
SCALE: 1"=20'
SHEET 1 OF 2



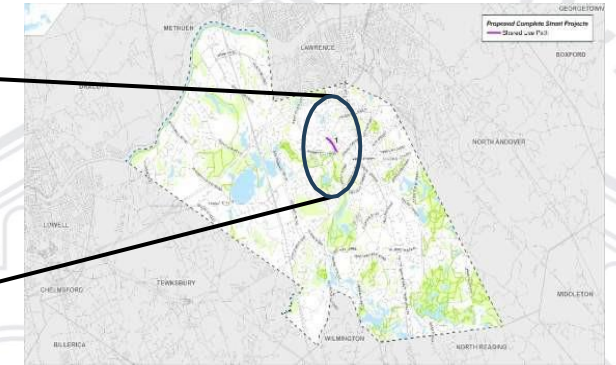
Complete Streets

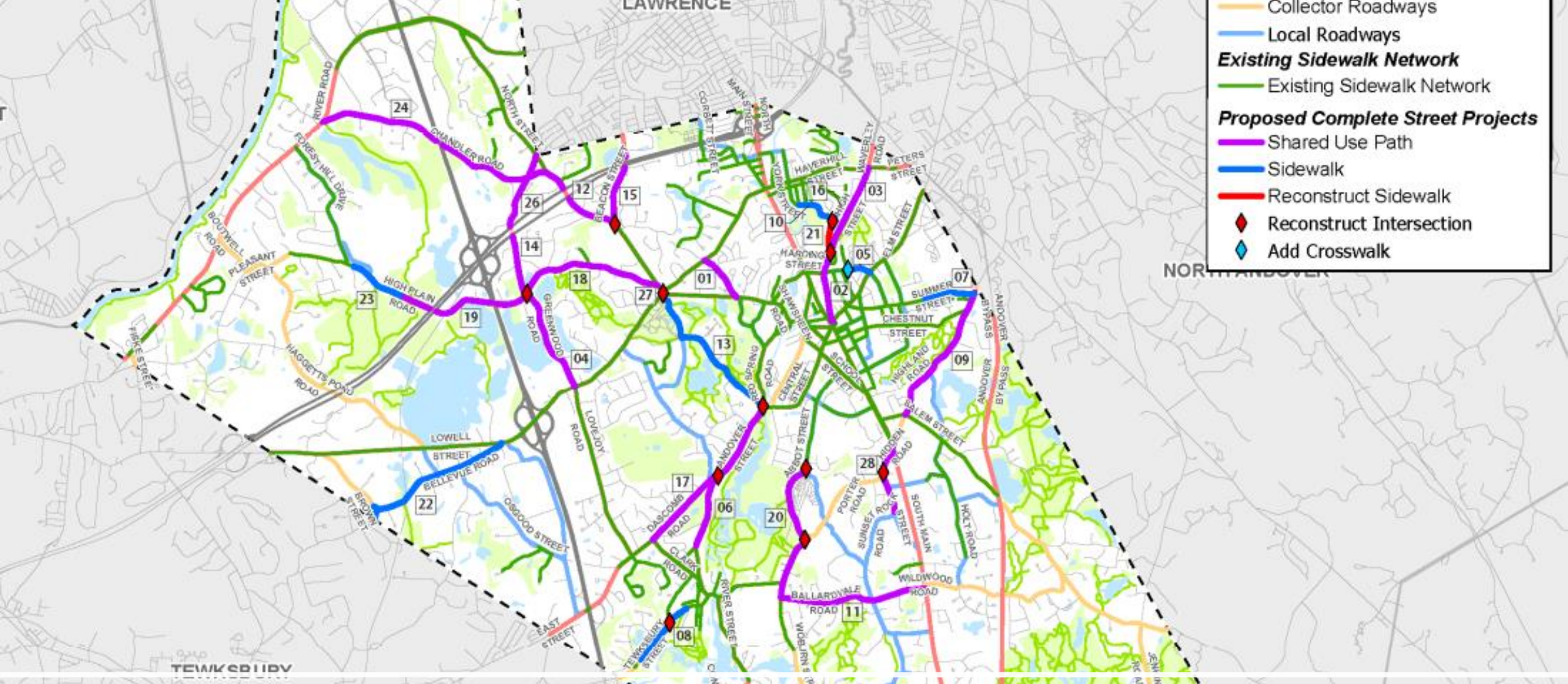
- **Town of Andover adopted a Complete Streets policy in 2022 and submitted a Prioritization Plan to the State in 2024. A shared use path on Lincoln Street scored the highest based on the following criteria:**
- Network Expansion (9 points out of 10) – proposed ped/bike facilities connect a principal arterial to a minor arterial (Lowell St to Shawsheen Rd)
- Safety (8 points out of 10) – project improves ADA accessibility, calms traffic (through the roadway narrowing), & addresses safety concerns
- Public Priority (7 points out of 10) – Moderate number of comments received
- Project Cost (7 points out of 10) – with an estimated cost of \$550k, this project is significantly less expensive than many other top-priority projects
- Multimodal (10 points out of 10) – project serves pedestrians, bicyclists, and motorists

Shared Use Path

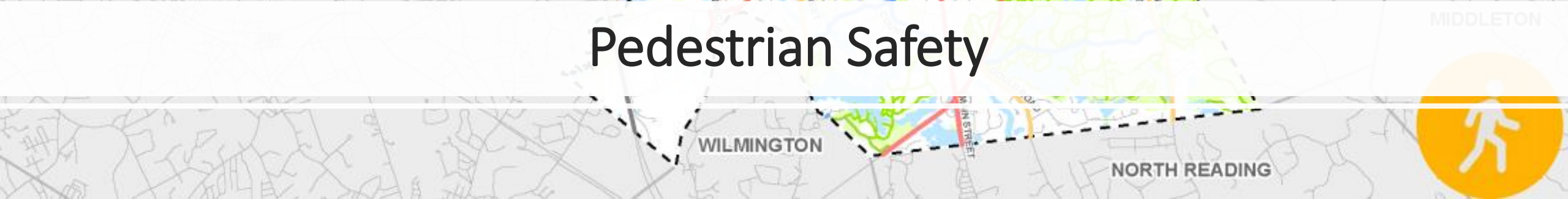


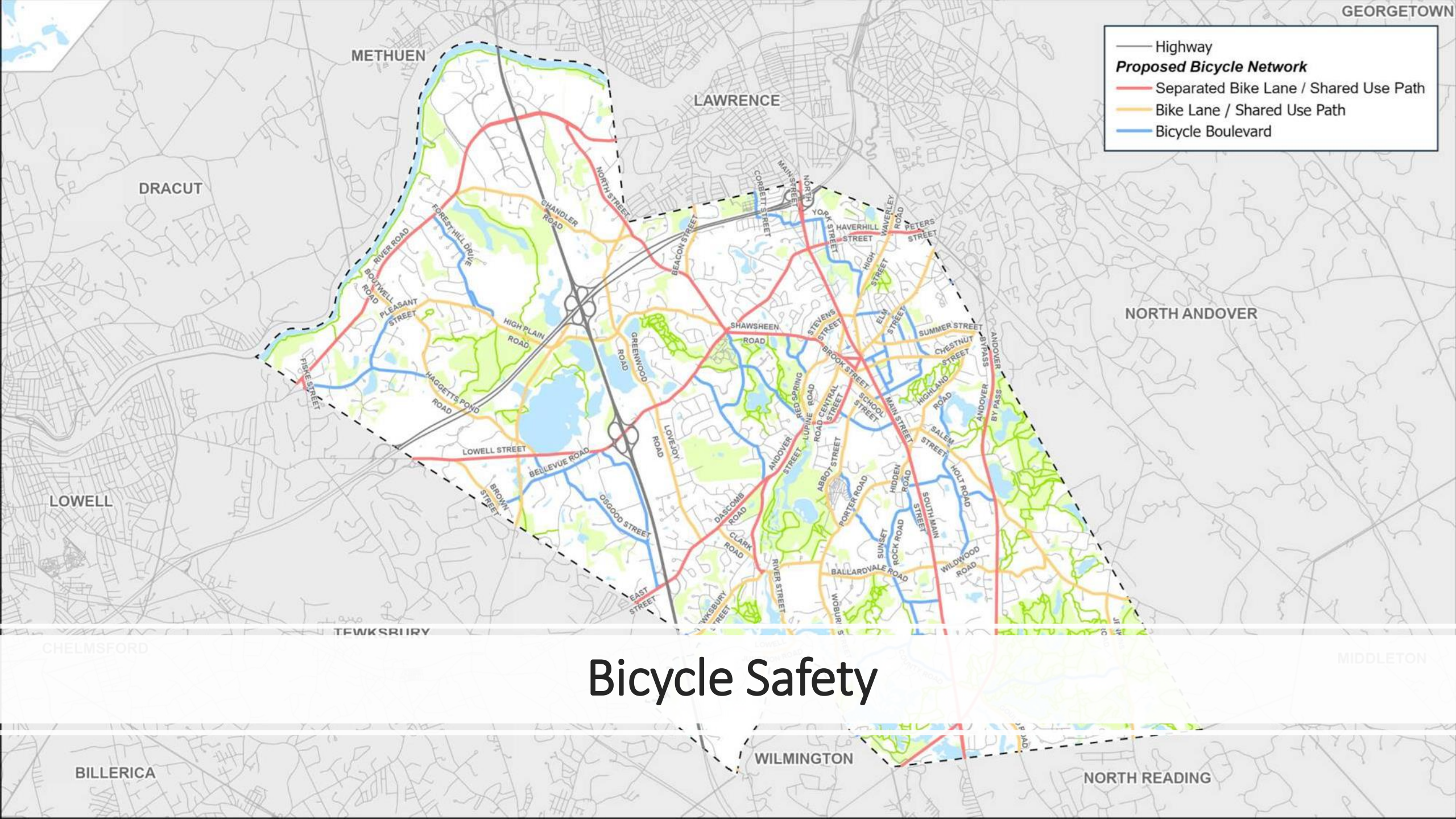
- Construction Cost: \$550,000
- Already under evaluation by DPW, highlighted during Complete Streets process
- Provides increased access to Andover High School & West Middle School
- Closes key network gap between Lowell Street and Shawsheen Road
- Potential impacts to trees, private properties, and drainage could increase residential impacts and costs significantly. To minimize these impacts, this proposal would reallocate some roadway width and convert Lincoln St to one way





Pedestrian Safety





— Highway

Proposed Bicycle Network

- Separated Bike Lane / Shared Use Path
- Bike Lane / Shared Use Path
- Bicycle Boulevard

Bicycle Safety

4/10/24 Meeting Recap

- Town presented a concept that would designate Lincoln Street a one-way (Shawsheen to Lowell) with an 8-10' shared use path for walkers and bikers
- Town committed to additional data gathering and traffic analysis to help the community better understand safety benefits as well as tradeoffs to any proposal aimed at increasing pedestrian safety in the area
- Town committed to doing due diligence as to what would be required as it relates to impacts to private properties, utility poles, cost, and time required to create room for a 5' sidewalk for the entire length of Lincoln Street that maintains the street as a two-way road

Alternatives

- Town explored opportunities and obstacles related to private property and utilities to create room for 5' sidewalk and maintain a two-way road
- Alternative not deemed feasible in terms of public procurement law as the betterment would be built on private property. Town could not bid this work or ensure prevailing wage
- Alternative not deemed financial best practice to make a straight payment to a homeowner for a betterment due to issues with liability and oversight of work completed using public funds
- Utilities could not commit to a cost or a general timeframe to consider the work required
- Moving from a grant funded project to public funded, eliminates or pushes off other important sidewalk construction throughout Town

Data Requests

- **After 4/10 public meeting, Town engaged TEC to evaluate traffic data in the Lincoln Street area including:**
 - Performing a turning movement count at both: Lincoln @Lowell and Lincoln @ Shawsheen Road
 - Performing field work to confirm general traffic operations and existing turn restrictions along adjacent streets (Cindy, Marilyn, Arthur, and others)
 - Providing an assessment of the level of additional traffic that may be diverted to neighboring streets based on both one-way options
 - Providing travel time runs to document approximate travel times associated with diverted traffic from both one-way options to areas such as Downtown, Shawsheen Square and Lowell/Beacon/Shawsheen intersection

Crash Data

- **At the 4/10 public meeting, Town was asked to provide crash data for Lincoln Street. The following data is from 6/1/14 to 6/1/24**

- Citations

- 123 citations (majority for bylaw violation of do not enter/restricted turn during school hours)

- Eight car accidents

- 10/3/20 car vs pole
- 8/3/20 car vs moving truck
- 7/3/19 car vs pole
- 6/8/14 rear end accident (operator cited for OUI)
- 2017 two documented crashes involving cars exiting Lincoln onto Shawsheen
- 2019 1 documented crash involving car turning from Lowell onto Lincoln
- 2020 1 documented crash involving car turning from Lowell onto Lincoln

TEC One-Way Flow & Cut Through Assessment



Lincoln Street Corridor Safety Improvements

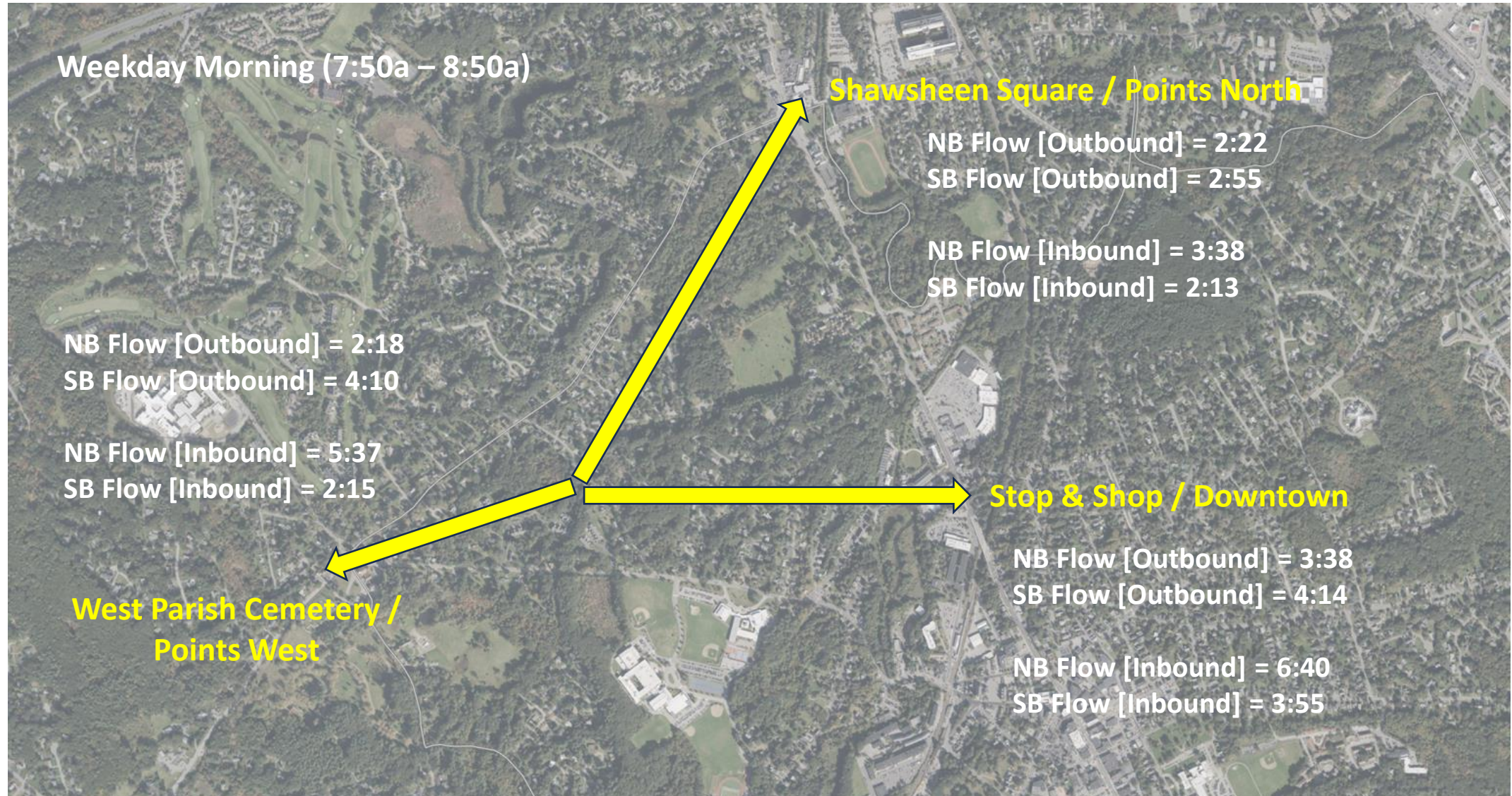
Corridor Peak Traffic Volumes [Tue, April 23, 2024]

Weekday Morning Peak Hour of Lincoln Street
(8:00a - 9:00a)

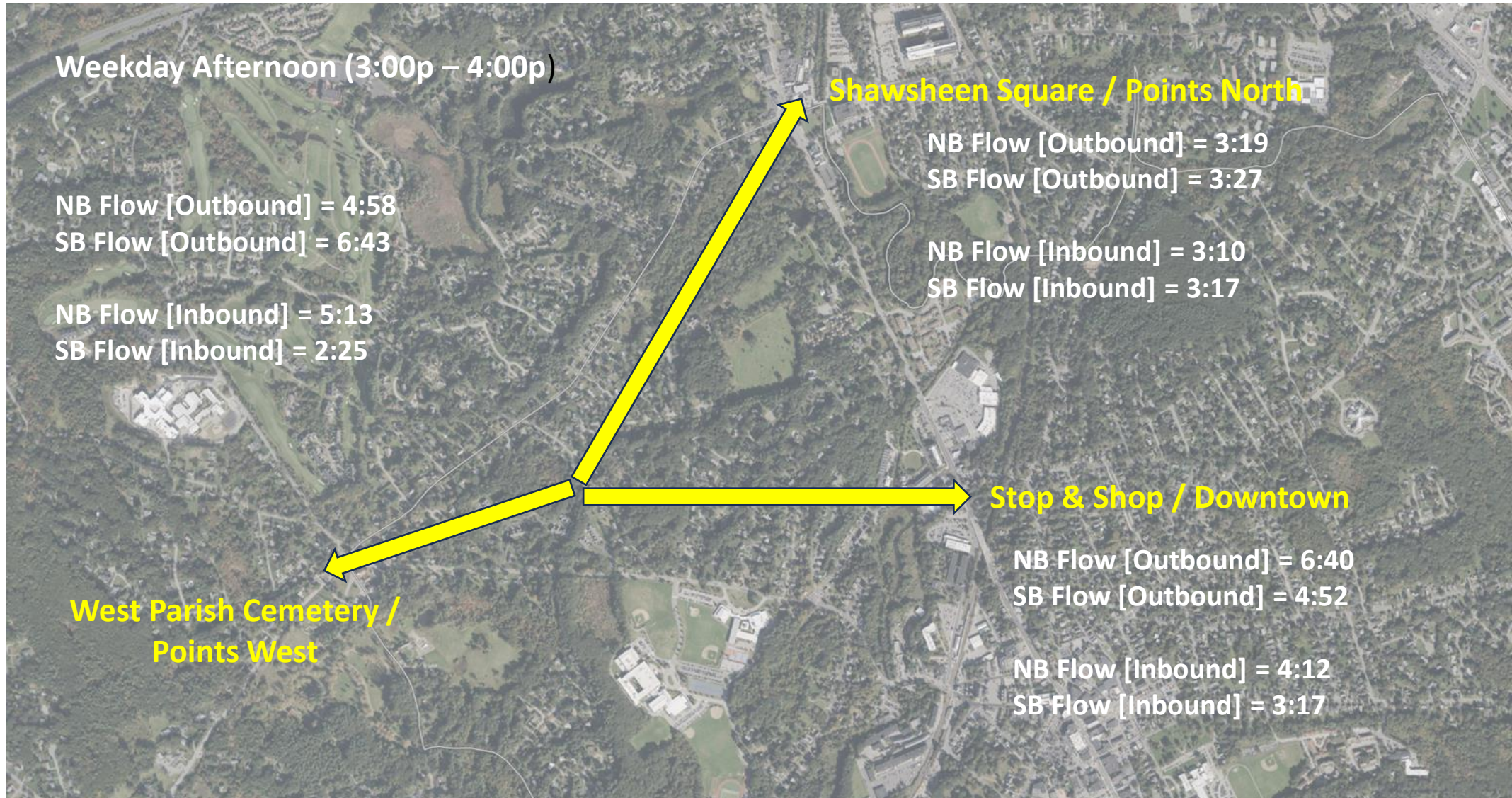
Weekday Afternoon Peak Hour of Lincoln Street
(2:15p - 3:15p)



Travel Time Runs [Wednesday, May 15 & Thursday, May 16, 2024]



Travel Time Runs [Wednesday, May 15 & Thursday, May 16, 2024]



Effects on Connecting Roadways

NB One-Way Flow Condition

- Turn restrictions removed from corridor (not needed)
- All Lincoln Street SB traffic volumes eliminated.
- Lincoln Street NB traffic volume increases only be neighborhood demand.
- Lincoln Street NB would generally utilize to corridor in same manner.
- Lowell Street NB would operate be LOS C (renders use of neighborhood streets ineffective).

SB One-Way Flow Condition

- Turn restrictions removed from corridor (retain flow)
- All Lincoln Street NB traffic volumes eliminated.
- Lincoln Street SB traffic volume increases only be neighborhood demand except for 7:30a-8:30a.
 - NOT “RECIPRICAL” – stop sign on Lincoln St SB
- Lincoln Street SB would generally utilize to corridor in same manner.



Effects on School Related Cut-Through Traffic

Lincoln Street northbound is beneficial as a cut-through as a driver can avoid the side-street condition of the traffic signal (less overall green time) located at the intersection of Lowell Street / Shawsheen Street / Beacon Street / Reservation Road if travelling to/from the west. This condition does somewhat exist for Lincoln Street southbound; however, a driver would have passed through the signal and most likely would still be sitting in a queue and a stop-sign approaching the schools at some point whether on Shawsheen Street or on Lincoln Street.

WHO IS OR WOULD USE
LINCOLN STREET??



Origin / Destination: West Parish Cemetery to Marilyn Street – AM School Arrival

WPC to Lincoln St [NB] via Lowell St to Shawsheen St =
WPC to Lincoln St [SB] via Lowell St =

3:38 - :30 = 3:08

2:13 + :30 = 2:43 + STOP SIGN

Lincoln Street northbound provides a low volume 'quick way out' once a driver leaves the main school driveway almost directly opposite Lincoln Street along Shawsheen Street. Similarly, Lincoln Street southbound driver is most likely sitting in a queue and a stop-sign regardless of which roadway they are taking to the school.

TEC Recommendation

- **TEC recommends a Lincoln Street southbound one-way flow condition as:**
 - a) There is not expected to be any substantial change in traffic along the connecting neighborhood streets (Cindy Lane, Marilyn Road, Arthur Road, and Theodore Avenue),**
 - b) The more applicable desire for non-resident Lincoln Street use appears to be northbound regardless of the existing posted restriction, and**
 - c) The general benefit, in most conditions, of resident travel time in the Lincoln Street southbound direction**

It can be expected that the overall Lincoln Street southbound traffic volumes would be retained as part of this condition in which the northbound traffic volumes are removed. In addition, it would be expected that the traffic volumes between 7:30 am and 8:30 am along Lincoln Street will slightly increase with the removal of the posted turn restriction; however, this slight increase should be limited to only this hour

REGARDLESS OF FLOW DIRECTION THE OVERALL TRAFFIC VOLUME ALONG LINCOLN STREET WILL BE REDUCED