



Route 16 Priority Corridor Study Chelsea-Everett, Massachusetts

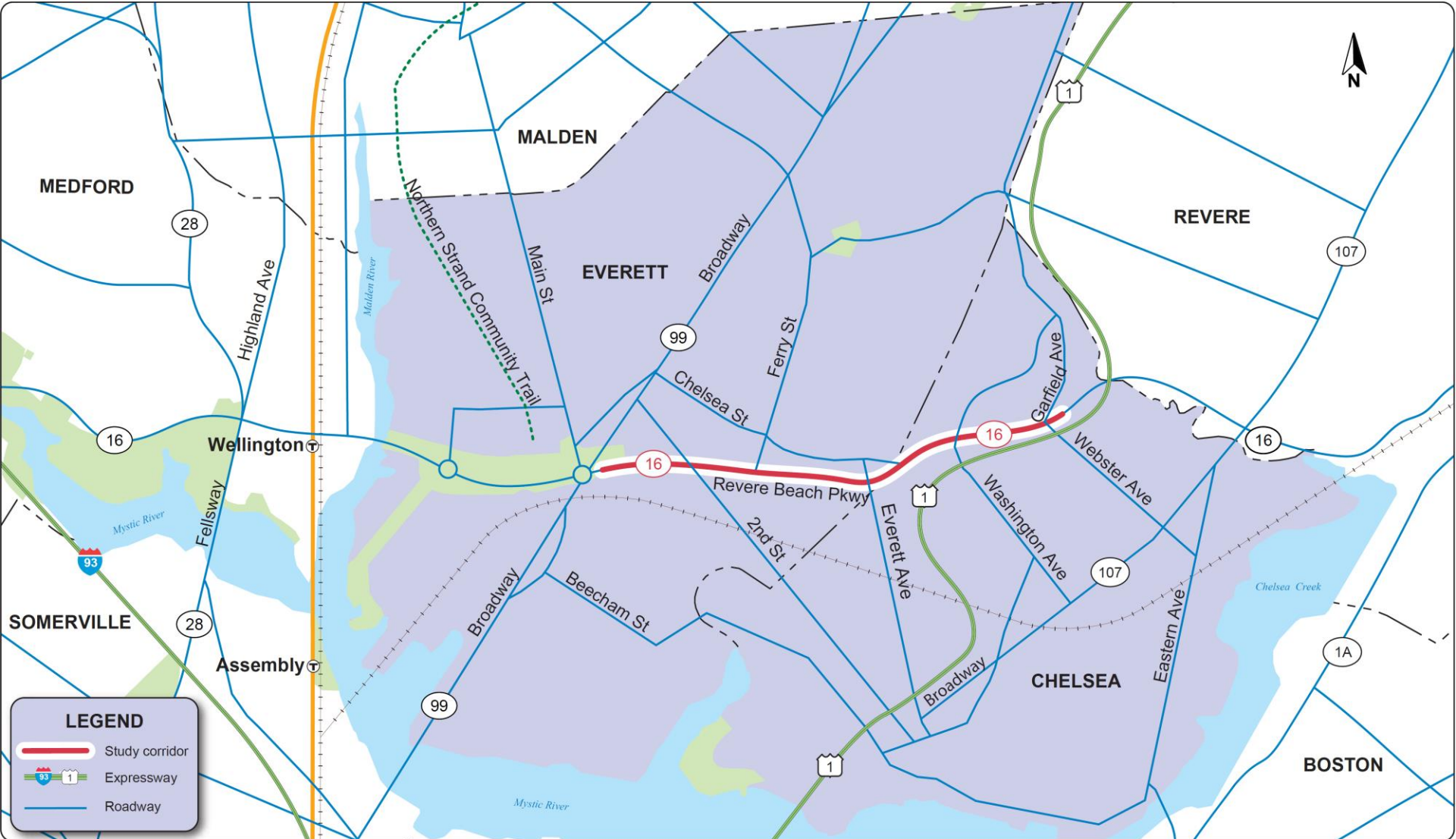
January 9, 2020

Seth Asante

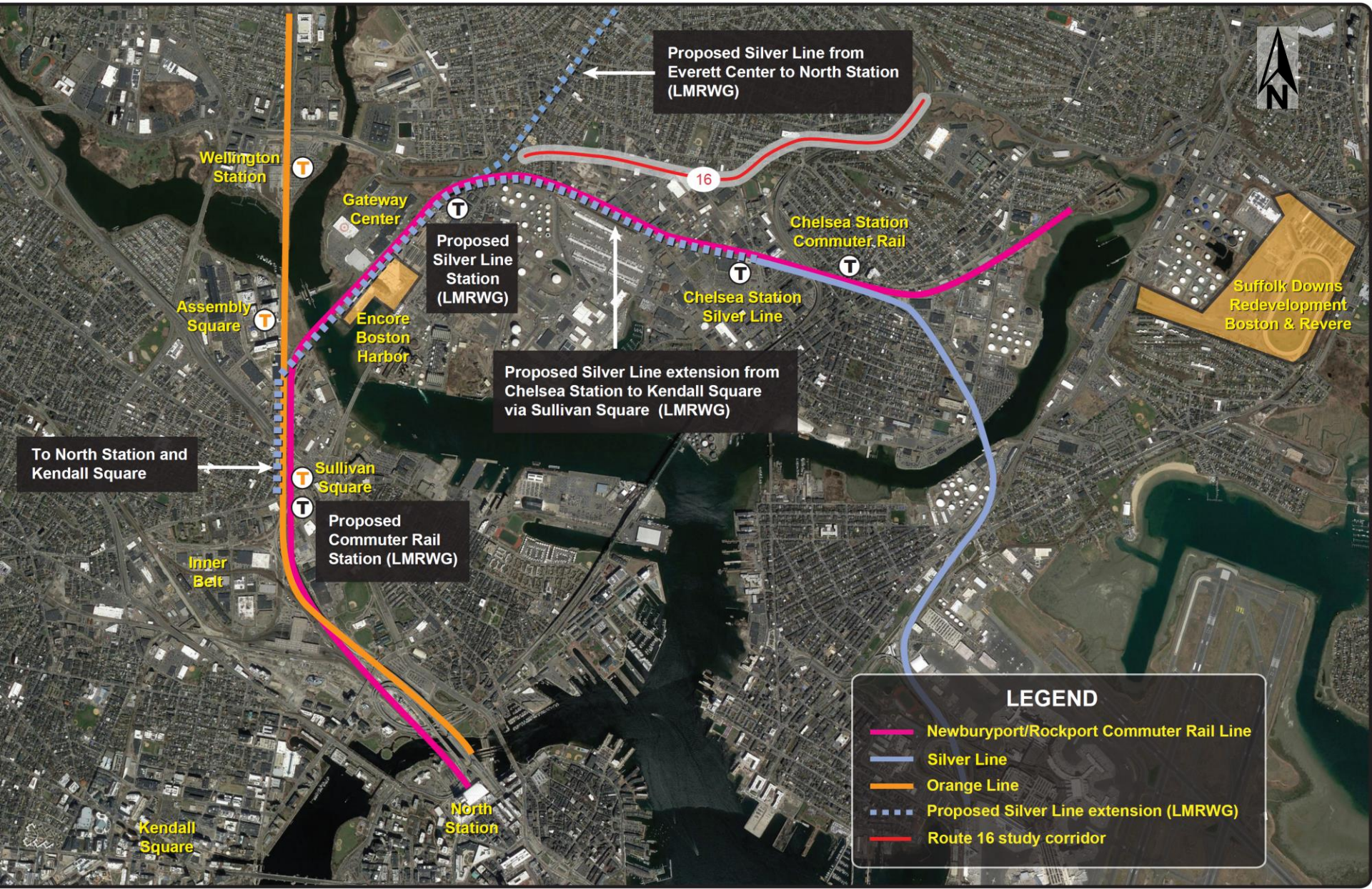
Study Process

- **Advisory task force**
- **Meetings**
- **Community survey**
- **Feedback and comments**

Study Area

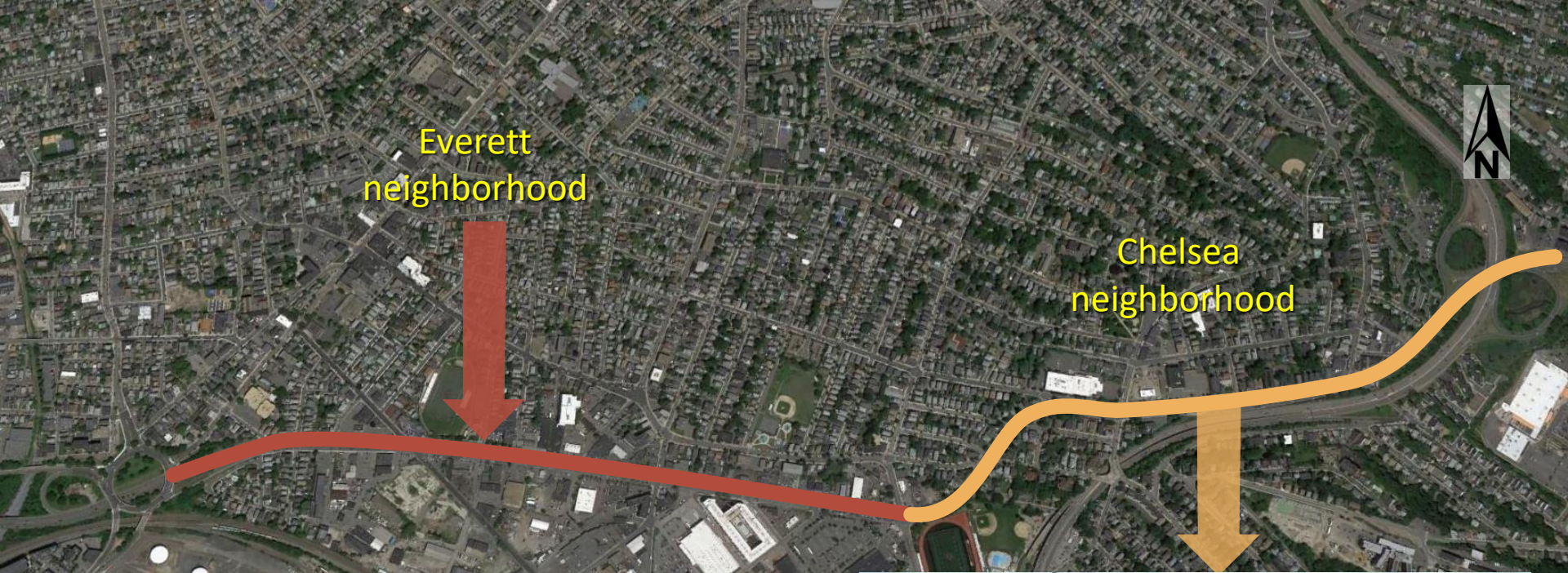


Studies and Ongoing Projects



Existing Conditions

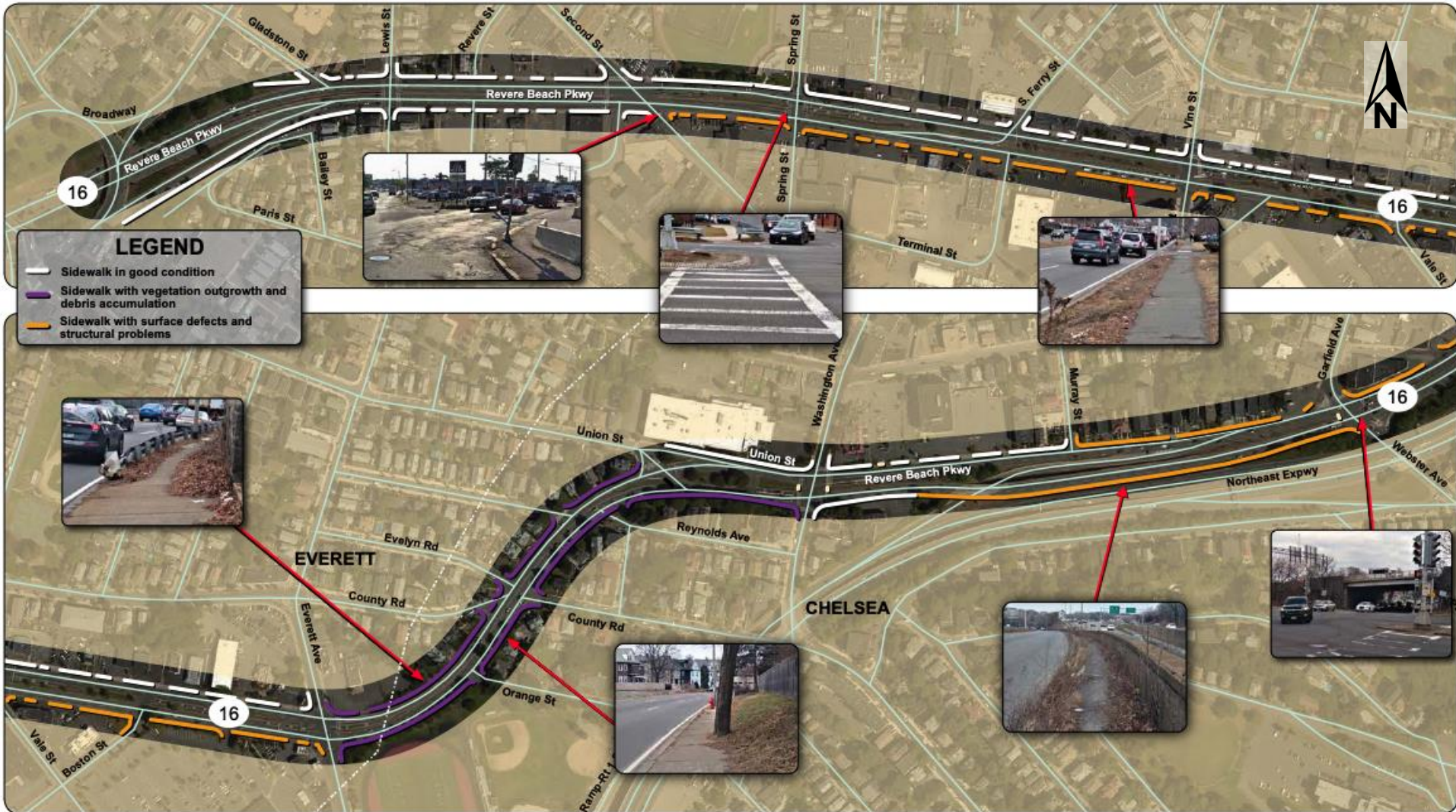
Land Uses



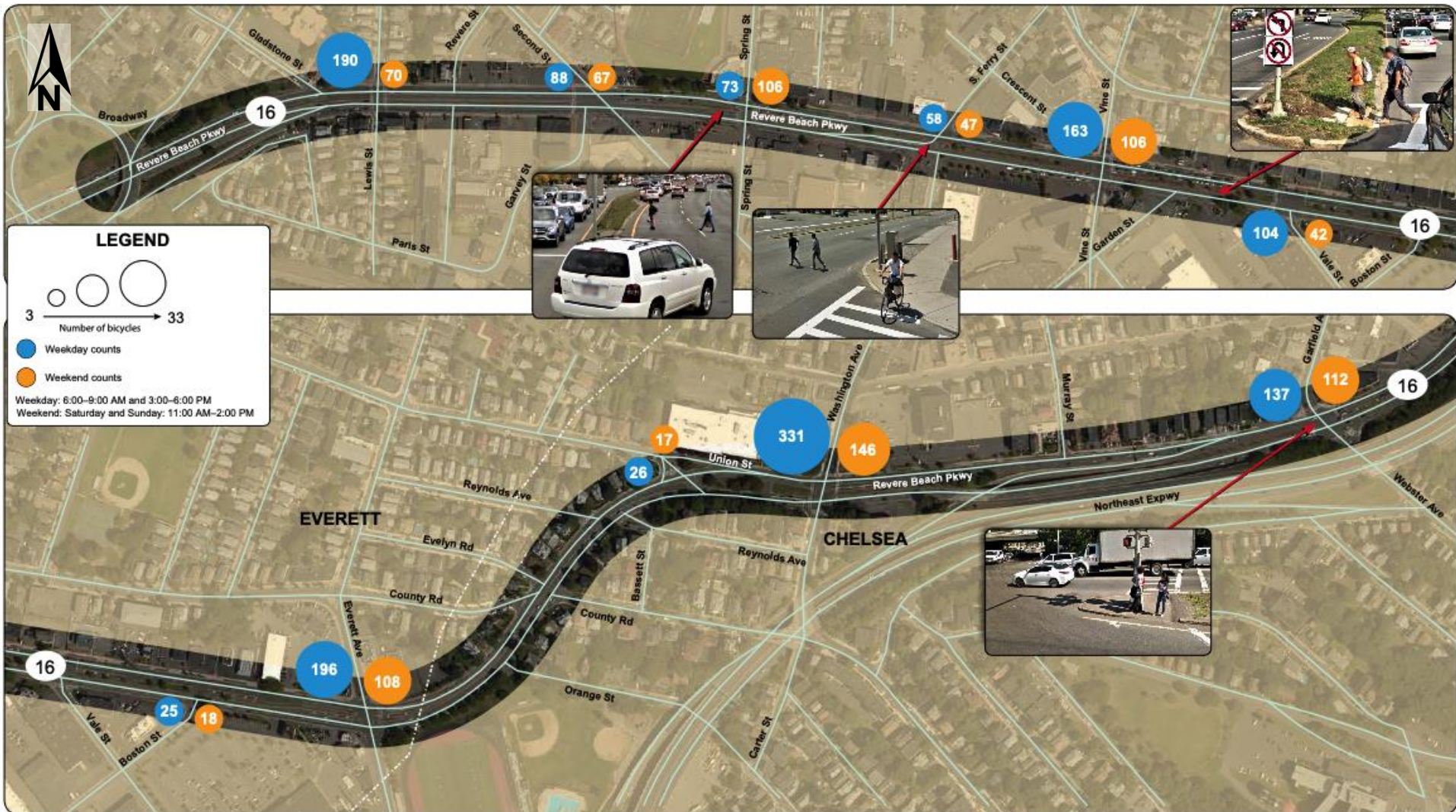
Average Weekday Traffic



Pedestrian Accommodation



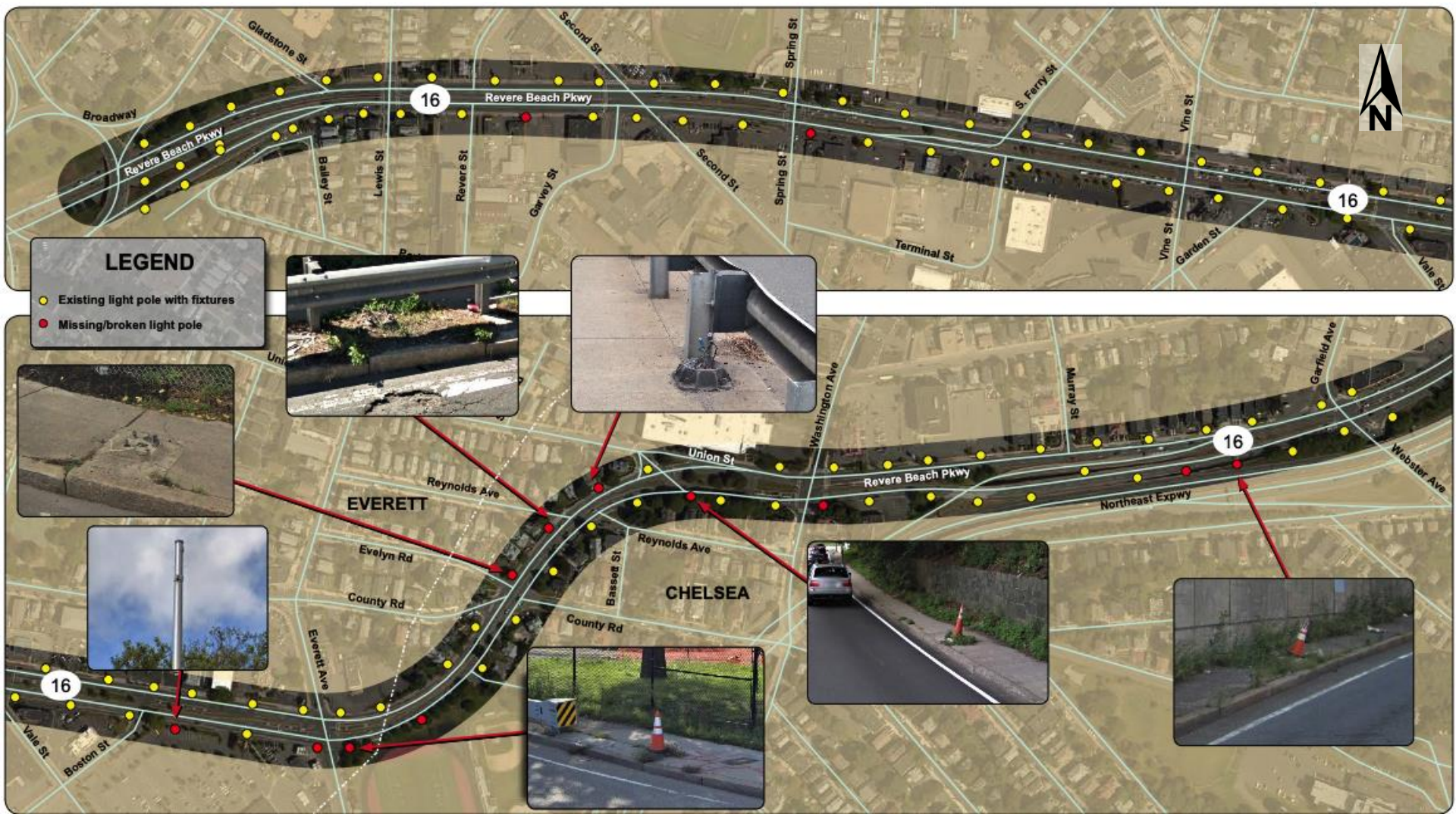
Peak-Period Pedestrian Volumes



Peak-Period Bicycle Volumes



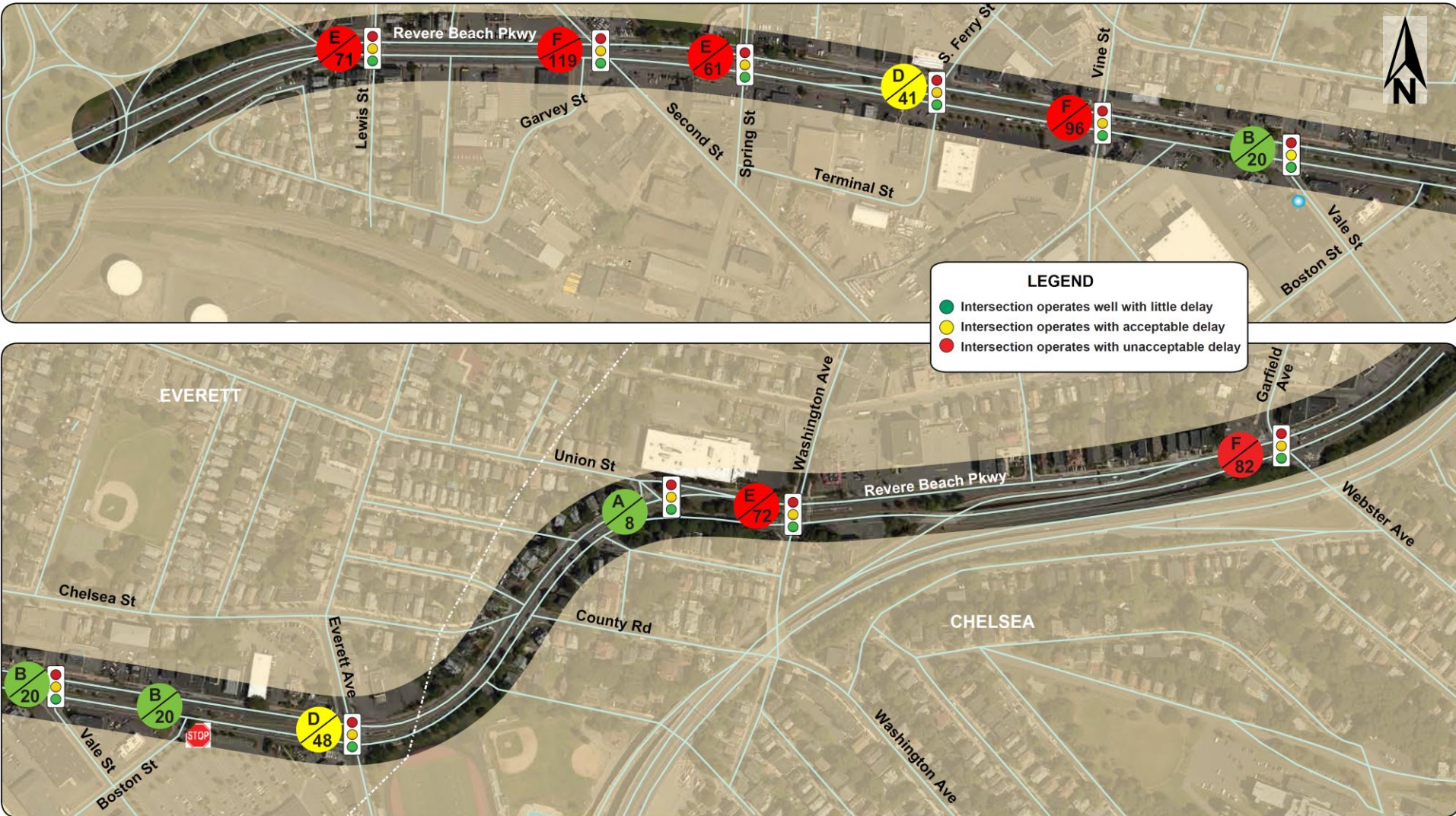
Street Lights



Highway Safety Improvement Program: Intersection Crash Clusters (2012–16)



Traffic Congestion



Community Survey

Problems that you encounter or that keep you from bicycling or walking along Route 16:

High volume of traffic 357

Difficulty crossing Route 16 264

High speeds of vehicles 247

Poor sidewalk conditions 187

Unwelcoming streetscape 179

Traffic congestion 443

Lack of bicycle lanes 374

Long delays at intersections 374

Difficulty turning into/out of side streets 215

Safety concerns and crashes 169

Poor street lighting 87

Problems that you encounter while driving on Route 16:

Improve traffic flow and circulation 460

More greener and friendly streetscape 275

Enhance safety at intersections 271

Increase safety for all users 261

Enhance walking and bicycling 227

Improvements you would like implemented in the Route 16 corridor:

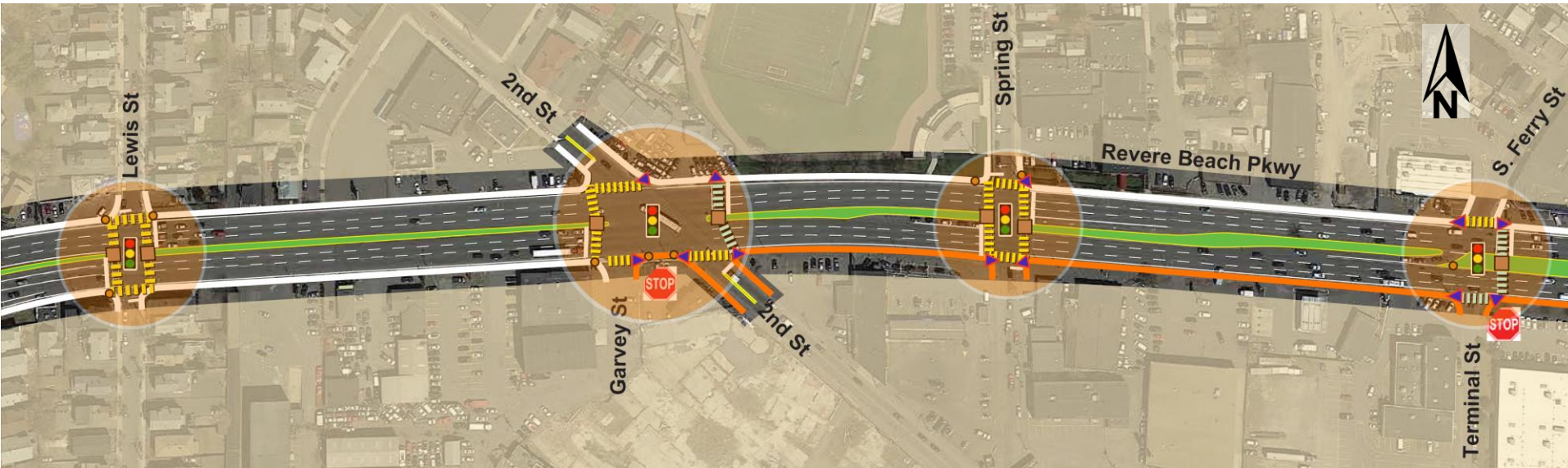
Community Survey

Safety and operations concerns that you would like addressed:

- **Lack of maintenance and trash along the roadway**
- **Blocked intersections and running red lights**
- **Outdated signal equipment (not MUTCD compliant)**
- **Poor drainage and flooding conditions**
- **Poor pavement conditions and markings that are worn out**

Improvements

Short- and Medium-Term Improvements



- Add pedestrian countdown timers to improve safety at crosswalks
- Make wheelchair ramps ADA-compliant
- Provide advance intersection lane control signs
- Install advance street name signs to improve wayfinding
- Retime and coordinate signals to reduce congestion
- Modify clearance intervals to MassDOT standards

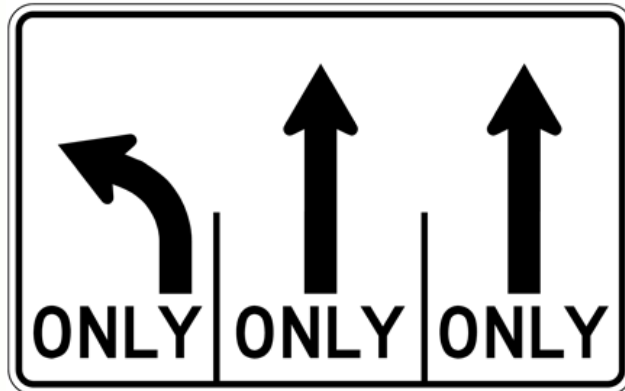
Examples of Advance Street Name and Lane Control Signs



Advance street name sign



Advance street name sign



Advance intersection lane control signs



Street name sign

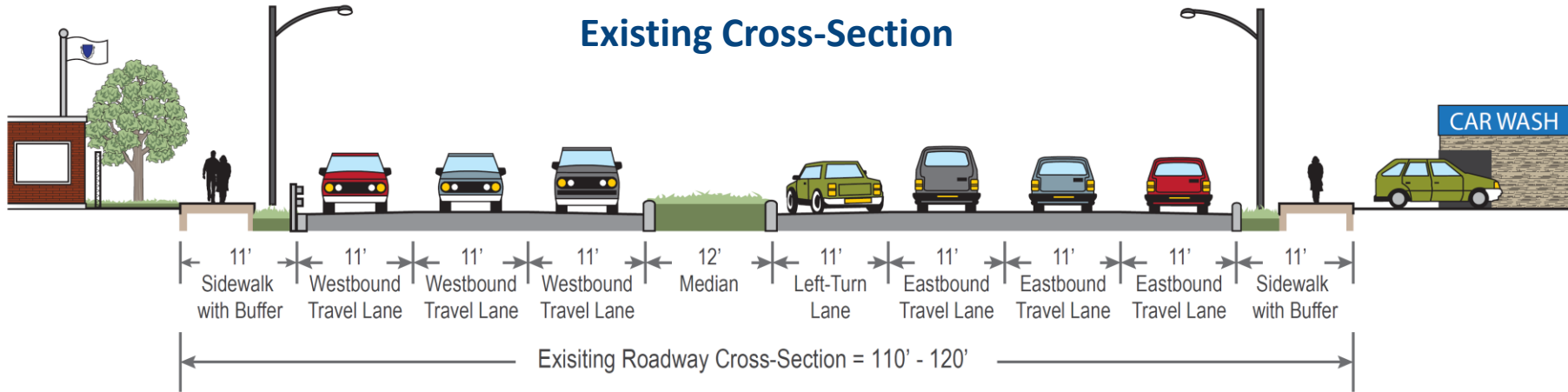
Short- and Medium-Term Improvements

- Routine maintenance and trash pickup
- More police patrol and enforcement
- Upgrade sidewalks to MassDOT standards
- Upgrade signal equipment (MUTCD compliant)
- Improve drainage systems to reduce flooding
- Resurface roadway and provide high-visibility markings

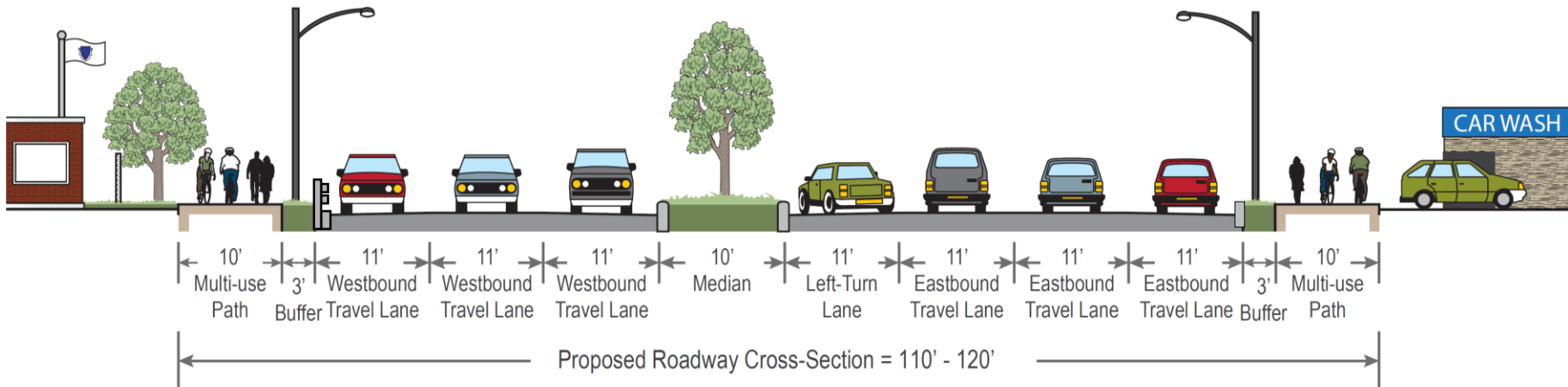


Long-Term Improvements: Pedestrian and Bicycle Accommodation

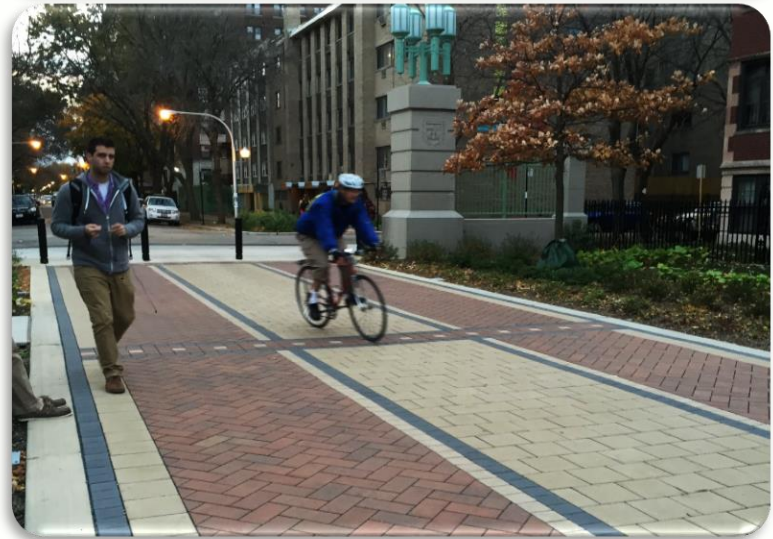
Existing Cross-Section



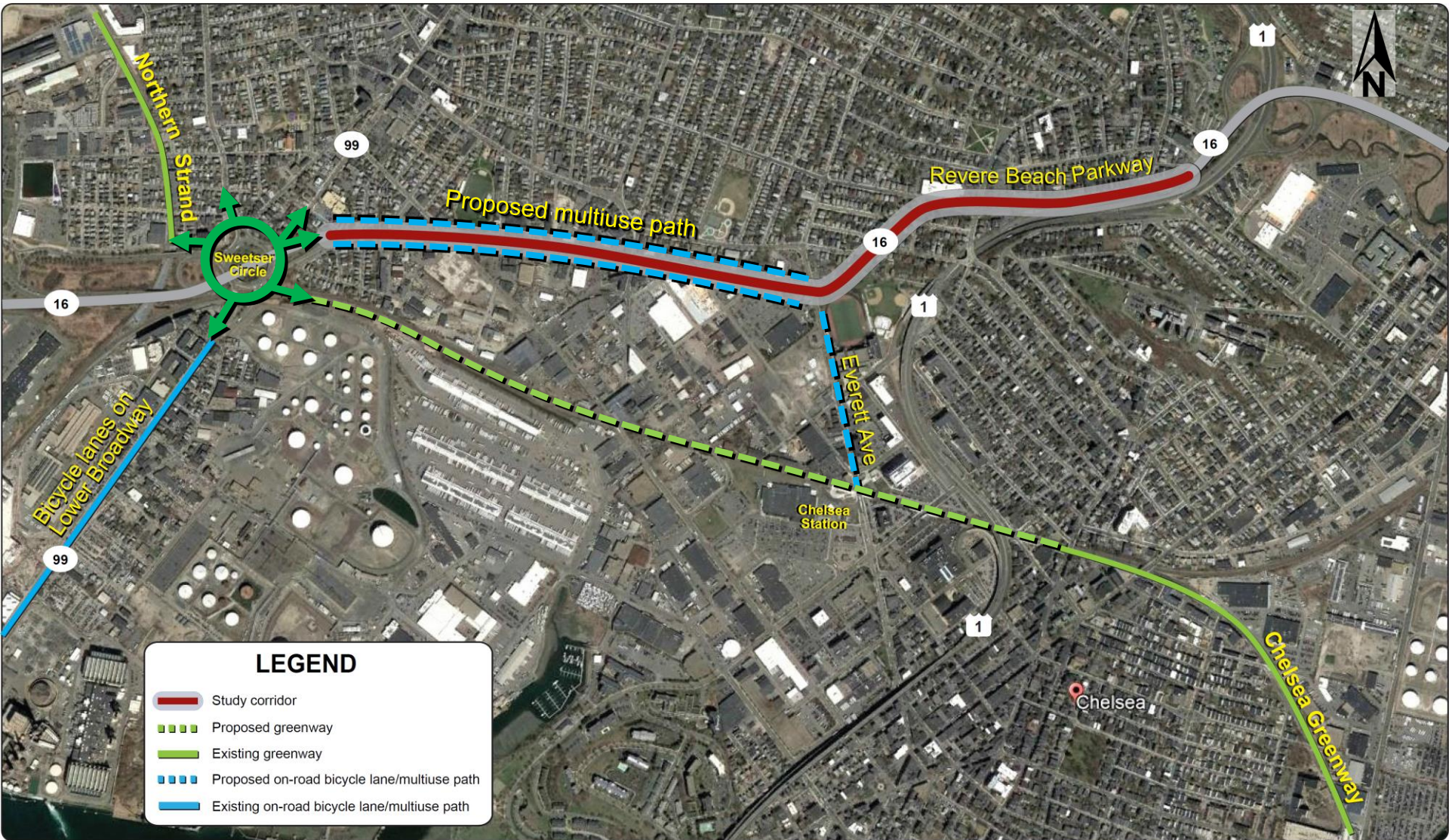
Proposed Cross-Section



Examples of Cycle Track



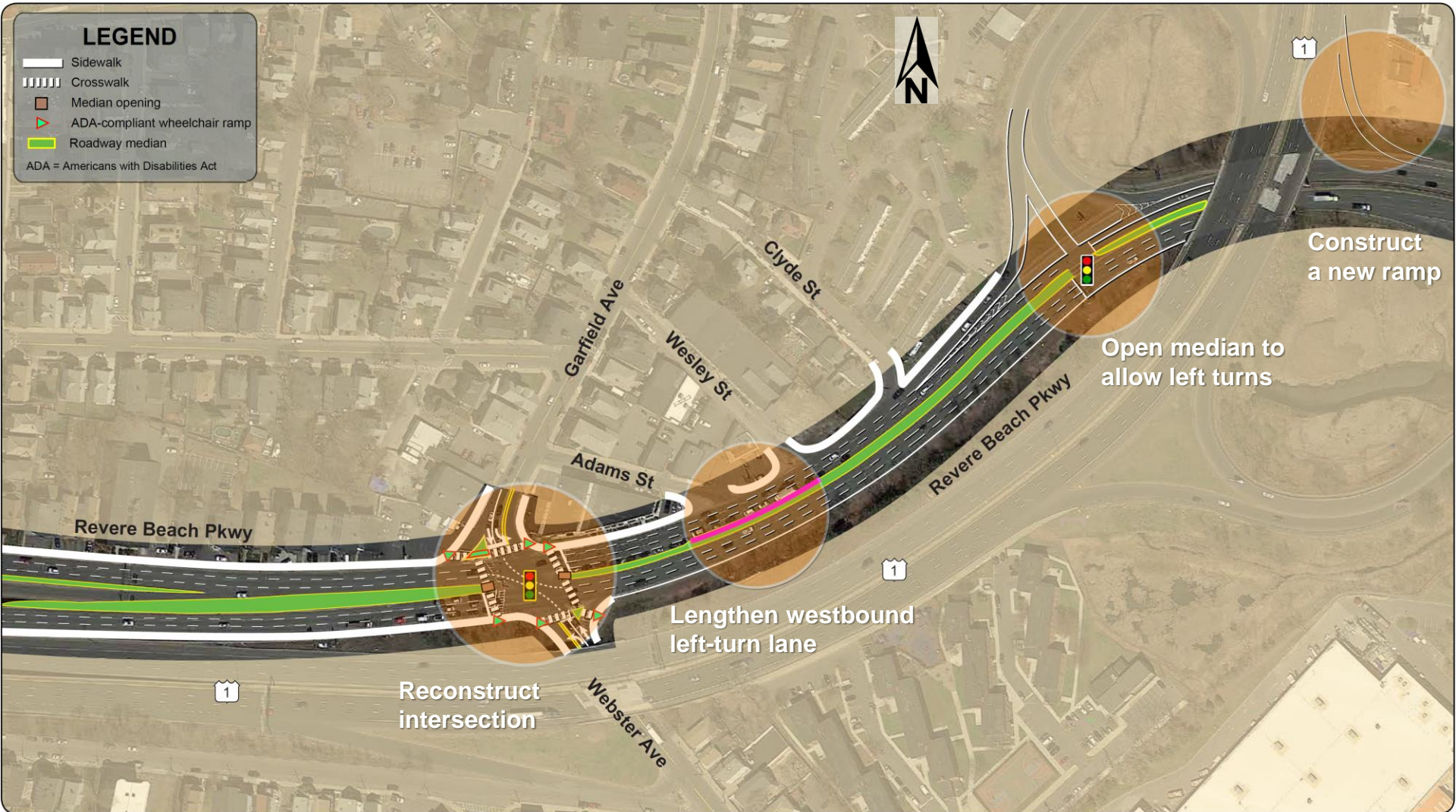
Long-Term Improvements: Bicycle Facilities Connectivity



Long-Term Improvements: Traffic Safety and Operations

- **Upgrade traffic signal equipment to overhead mast-arm mounted signal heads**
- **Implement Adaptive Traffic Signal Control Technology to optimize signal timings and coordination**
- **Install exclusive left-turn lanes on:**
 - **Second Street northbound**
 - **Everett Avenue, northbound and southbound**
 - **Washington Avenue, northbound and southbound**
 - **Garfield/Webster Avenue, northbound and southbound**

Long-Term Improvements Route 16 at Route 1 Interchange



Pedestrian Report Card Assessment

Grading Categories	Existing Conditions		Future Conditions	
	Score	Rating	Score	Rating
Safety	1.0	Poor	2.4	Good
System Preservation	1.0	Poor	3.0	Good
Capacity Management and Mobility	1.7	Poor	2.7	Good
Economic Vitality	1.5	Poor	2.5	Good



Bicycle Report Card Assessment

Grading Categories	Existing Conditions		Future Conditions	
	Score	Grade	Score	Grade
Safety	9	F	81	B
System Preservation	0	F	75	C
Capacity Management and Mobility	50	F	75	C
Economic Vitality	50	F	100	A



Benefits

- **Increases the efficiency of the transportation system**
- **Increases safety for all users**
- **Accommodates pedestrians and bicyclists**
- **Supports economic activities**

Conclusion and Next Steps

- **This study provides Chelsea, Everett, and MassDOT with improvement concepts**
- **These concepts align with the MPO's goals**
- **Implement short and medium-term improvements**

Thank You!

Questions and Comments