MassDOT OTP

Quincy Route 3A/ Hancock Street Transportation Improvements Study

Final Report

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Acknowledgements

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1. Introduction

Route 3A/Hancock Street is a North-South principal arterial roadway connecting Quincy, Massachusetts to the Greater Boston area. This roadway facilitates the movement of vehicles, pedestrians, bicyclists, and transit trips. The study area consists of an approximately 2-mile segment of Route 3A/Hancock Street from the Neponset Bridge to Southern Artery; the study area does not include the Bridge. This study aims to identify conceptual level treatments that promote multi-modal travel and ease of movement for all road users along this corridor. This report documents the existing conditions of land use, transportation infrastructure, transportation services, and the environment. Existing conditions inform later stages of the full-length study: alternatives and recommendations analyses and reports cover each phase respectively.

Route 3A/Hancock Street is heavily used by drivers to reach Boston and by pedestrians and cyclists, who may be coming from nearby schools or visiting the corridor's numerous restaurants and retail businesses. Each road user faces distinct challenges – drivers experience congestion as they approach the Neponset Bridge, while there is a lack of high comfort infrastructure for cyclists and compliant infrastructure for pedestrians.

This report provides alternatives and treatments for safe, comfortable, and reliable multimodal travel in the Study Area that improves safety and comfort for all road users. There are three alternatives for each of the two subareas of the study area. Alternatives describe new lane configurations that are intended to be generalized throughout each subarea. Treatments consist of improvements outside of lane configuration, such as crosswalks, pedestrian cycle times, and bike facilities.

This study places emphasis on encouraging the use of non-single occupancy vehicle modes (e.g., transit, walking, and biking) while providing accommodations and strategies to mitigate congestion in the corridor.

1.1 Data Collection Process

Spatial and tabular data about land, environment, transportation, and physical assets were collected from public sources, including MassDOT and City of Quincy. Data is stored in a geodatabase and accompanied by a spreadsheet providing the description, source, data type, and naming convention of each dataset. Traffic data showing vehicle counts and turn movements was provided by MassDOT.

2. Land Use

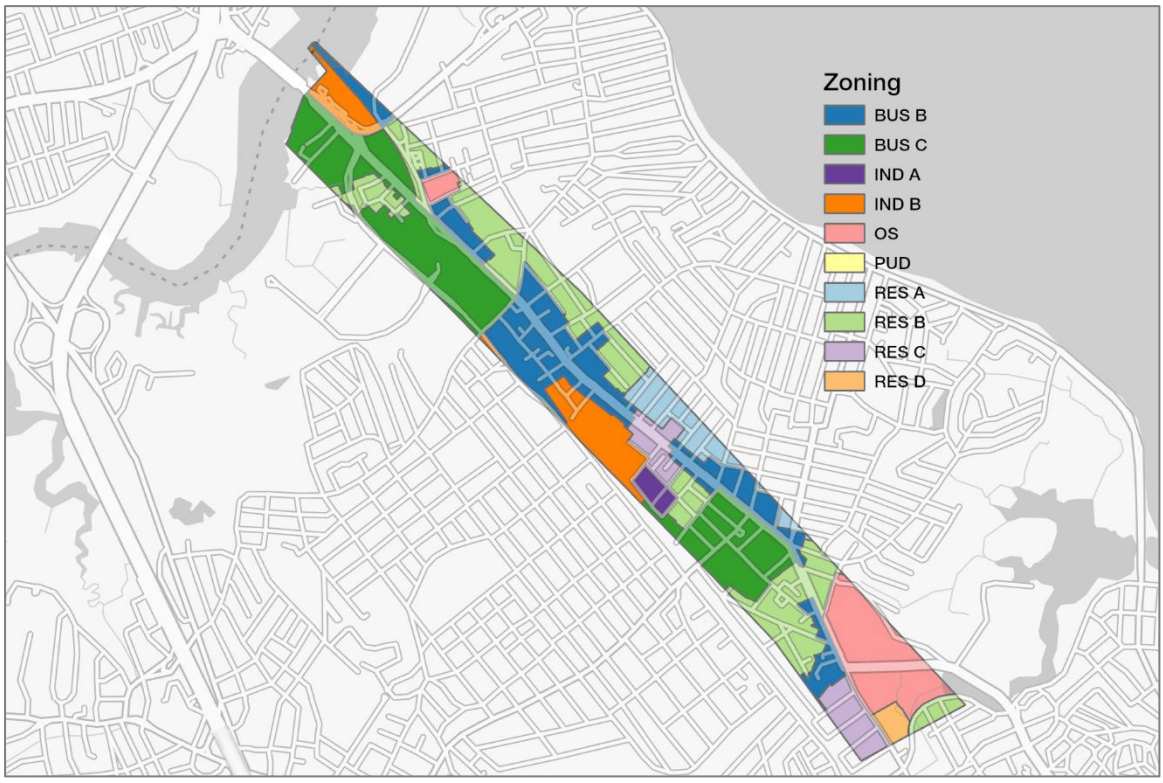


Figure 1 Corridor Land Use Map

2.1 Current Land Use

The majority of Route 3A/Hancock Street is categorized as commercial, residential, or urban public/institutional. High-activity destinations include restaurants, schools (North Quincy High School and other educational and childcare facilities), grocery stores (C-Mart, Stop & Shop, H Mart, and 99 Ranch), and rail stations serving MBTA rapid transit and Commuter Rail services (North Quincy Station and Wollaston Station). Transit is complemented by multifamily housing, including The Abby, 517 Hancock Street Apartments, and Skyline Terrace. Areas adjacent to the study area contrast with this higher density mix of uses, as surrounding neighborhoods are primarily single family residential.

There are locations along Route 3A and Hancock Street that are vulnerable to flooding. Several are listed as Category 2, 3, and 4 for Hurricane Inundation risk, and the northern part of Route 3A is listed as a 100-Year FEMA Flood zone.

2.2 Future Land Use

According to the Consolidated Action Plan (2020-2024) The Quincy HOME Consortium (City of Quincy, Towns of Braintree, Weymouth, Holbrook, Milton and Randolph) are currently working to implement zoning changes that will allow for greater housing choice. This includes strategies to implement more mixed-use zoning, allow for accessory dwelling units, and create a smart growth zoning overlay district that will provide incentives for housing production. At the time of this study, this Plan was not finalized and therefore could not be used to inform an analysis of future land use trends.

3. Existing Roadway Conditions

3.1 Jurisdiction

The full length of Route 3A is 97 miles connecting New Hampshire to Plymouth, Massachusetts. Route 3A is partly known as Hancock Street in the city of Quincy. At the southern termination of the study area, 3A branches off and is known as the Southern Artery.

Route 3A's jurisdiction is:

1. The Massachusetts Department of Conservation and Recreation's Roads and Trails maintains Quincy Shore Drive over the Neponset River Bridge and portions of the ramps onto the Neponset Bridge from Route 3A.
2. The City of Quincy from Quincy Shore Drive to Spruce Street and is classified as an urban principal roadway.[1]
3. MassDOT from Spruce Street to Sagamore Street (the corridor, which is a bridge deck, crosses the MBTA Red Line track) and is classified as an urban principal roadway.
4. The City of Quincy from Sagamore Street to the Southern Artery is classified as an urban principal roadway.
5. The City of Quincy for all cross streets along the corridor.

3.2 Geometry

3.2.1 Overview

Route 3A/Hancock Street has the following conditions:

1. Right of Way (ROW) width varies from 62-65 feet wide.
2. Speed limit for the study corridor is 35 miles per hour (mph).
3. Sidewalks on both sides of the roadway are 8-9 feet wide.
4. Crosswalks exist in varying conditions across the corridor at signalized and unsignalized intersections.
5. Bicycle lanes are not present in the study area.

Subarea 1

The Northern Segment of the study area, known as Subarea 1 (Figure 2), is approximately 0.8 miles long and extends from the Neponset River Bridge to East/West Squantum Street. As the corridor meets the bridge, the roadway sees grade separation. The corridor is a 44-foot-wide roadway with two 11-foot travel lanes in each direction. There are no defined shoulders, parking, or bicycle lanes present in this segment.

Subarea 2

The Southern Segment of the study area, known as Subarea 2, is approximately 1.3 miles long and extends from East/West Squantum Street to the Southern Artery. Route 3A/Hancock Street is a 44-foot-wide roadway with one 12.5-foot travel lane in each direction. There are either parking stalls or left turn lanes present.

[1] Source: https://geo-massdot.opendata.arcgis.com/datasets/MassDOT::functional-classification/about

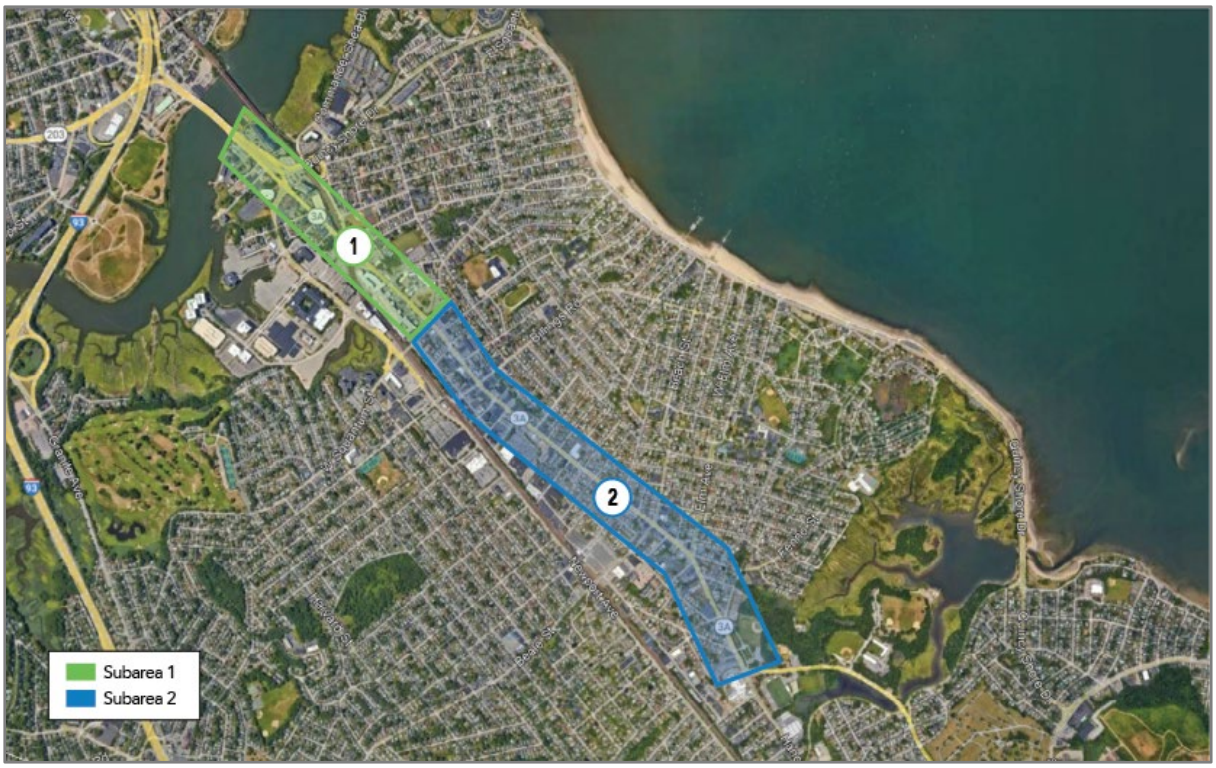


Figure 2 Study Area

3.2.2 Sidewalk

Within the city limits, approximately 79% of roads have a sidewalk on one or both sides. The Fore River Bridge project completed in 2016 provides ADA-compliant sidewalks and bicycle accommodating shoulders. The Neponset River Bridge was also reconstructed with multi-use sidewalks that accommodate bikes and pedestrians in 2017. However, the sidewalk along the northbound side of the bridge terminates upon merging with Route 3A and Hancock Street. The sidewalk continues on the southbound side of Route 3A for 580 feet, then abruptly stops at the Route 3A/Hancock Street/ Newbury Street intersection. Sidewalks reappear on the southbound and northbound side of Route 3A/Hancock Street at the Newport Avenue Extension intersection and continue for the rest of the corridor. Sidewalks range from 6 feet to 12 feet throughout Route 3A/ Hancock Street.

3.2.3 Bicycle

There are no bicycle lanes or bicycle infrastructure along Route 3A and Hancock Street in the study area. There is bicycle parking at the North Quincy and Wollaston stations primarily used by commuters and transit users. Quincy as a whole has sparse bicycle facilities, located on Washington Street southeast of the area of study and on Brook Road west of the area of study.

3.2.4 Vehicle

Route 3A/Hancock Street is a two-way, paved roadway, with a width ranging from 62 to 65 feet. Few sections offer on-street parking.

3.3 Signalized Intersections

There are 15 signalized intersections within the project area corridor:

- Newport Avenue Extension
- Myrtle Street
- Hunt Street

- 295-299R- Hancock Street
- East Squantum Street
- Glover Avenue
- Billings Road
- Hayward Street
- North Quincy Plaza
- Linden Street
- Woodbine Street and Willet Street
- Beale Street/Beach Street
- Elm Avenue, Wollaston Avenue, and Wentworth Road
- Merrymount Avenue
- Southern Artery

Route 3A/Hancock Street at Newport Avenue Extension

Route 3A/Hancock Streets forms a three-legged signalized intersection with Newport Avenue Extension, which is a City-owned urban minor arterial.

- Route 3A/Hancock Street northbound has two through lanes to continue over the Neponset Bridge.
- Route 3A/Hancock Street southbound approaching the intersection has four lanes: a protected left turn lane, two through lanes, and a protected right turn slip lane.
- Newport Avenue Extension is a two-way, two-lane road with a center-planted median. It has two turn lanes: a left turn onto Route 3A northbound and a right turn slip lane onto Route 3A southbound.
- The intersection has an entrance to the Harbor South Tower, accessible to Route 3A northbound only.
- The land use adjacent to the intersection is commercial.

Route 3A/Hancock Street at Myrtle Street

Myrtle Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.

- Myrtle Street is a two-way courtesy street.
- Route 3A/Hancock Street has two through lanes in each direction.
- The land use adjacent to the intersection is primarily residential.

Route 3A/Hancock Street at Hunt Street

Hunt Street is a City-owned local road intersecting Route 3A/Hancock Street to form a three-leg intersection.

- Hunt Street is a one-way northbound street that accesses North Quincy High School and Creedon Field.
- Route 3A/Hancock Street has two through lanes in each direction.
- There is a transit-oriented-development (TOD) mixed-use building across from Hunt Street along Route 3A/Hancock Street that provides direct access to MBTA North Quincy Red Line Station.

295-299R Route 3A/Hancock Street at Squantum Street

This is a signalized intersection at the entrance to 295-299R Hancock Street. It facilitates access to the mixed-use building stretching from Hunt Street to Squantum Street.

- Route 3A/Hancock Street has two through lanes in each direction.
- The driveway access has one shared left and right turn lane.

- The land use adjacent to the intersection is mixed-use with access to MBTA North Quincy Station, Target, McDonald's, and an apartment building.

Route 3A/Hancock Street at Squantum Street

Squantum Street is a City-owned urban minor arterial road that forms a four-legged intersection with Route 3A/Hancock Street.

- East Squantum Street is the northeast leg, and West Squantum Street is the southwest leg of the intersection.
- Northbound Route 3A/Hancock Street has a three-lane approach with one left-turn lane, one through lane, and one shared through/right-turn lane.
- Southbound Route 3A/Hancock Street has a three-lane approach with one shared through/left-turn lane, one through lane, and one right-turn lane.
- West Squantum Street has one left-turn lane and a shared through/right-turn lane.
- East Squantum Street has one left-turn lane, two through lanes, and one right-turn slip lane.
- The land use adjacent to the intersection is primarily residential, with direct access to North Quincy High School.

Route 3A/Hancock Street at Glover Avenue

Glover Avenue is a City-owned local road that intersects Route 3A to form a three-leg intersection.

- Route 3A/Hancock Street has one through lane in each direction with parking on both sides.
- Glover Avenue is a two-way street, with restricted access from 7:00 AM – 4:00 PM on school days to westbound only.
- There is a bus stop for Route 210 on the north side of the intersection for the northbound route and on the south side for the southbound route.
- Adjacent to the intersection are Quincy Catholic Academy, Sacred Heart Church, and commercial spaces.

Route 3A/Hancock Street at Billings Road

Billings Road is a City-owned urban collector that intersects Route 3A to form a four-leg intersection.

- Route 3A/Hancock Street has a through lane and right-turn lane northbound, a through lane and right-turn lane heading southbound, and parking offset from the intersection.
- Billings Road is a two-way street with parking on both sides.
- There is a bus stop for Route 210 on the far side of the intersection northbound and on the far side of the intersection southbound on Route 3A/Hancock Street.
- The land use adjacent to the intersection is primarily commercial with many restaurants.

Route 3A/Hancock Street at Hayward Street

Hayward Street is a City-owned local road that intersects Route 3A/Hancock Street to form a four-leg intersection, with the parking lot 440 Hancock Street acting as the fourth leg.

- Route 3A/Hancock Street has one through lane and one left-turn lane northbound, and one through lane southbound with parking.
- Hayward Street is a two-way street without parking. The land use adjacent to the intersection is primarily residential.

Route 3A/Hancock Street at North Quincy Plaza

The entrance and exit of North Quincy Plaza act as a three-leg intersection.

- Route 3A/Hancock Street northbound has one through lane and one left-turn lane and southbound one through lane and one right-turn lane heading into North Quincy Plaza.
- The exit of North Quincy Plaza has one left turn lane and one right turn lane.

- The land use adjacent to the intersection is commercial and residential.

Route 3A/Hancock Street at Linden Street

Linden Street is a City-owned local road intersecting Route 3A/Hancock Street to form a three-leg intersection.

- Route 3A/Hancock Street has one through lane in each direction with parking on both sides.
- Linden Street is a two-way street with parking on both sides.
- The land use adjacent to the intersection is primarily residential, with Saint Chrysostom's Episcopal Church on the corner.

Route 3A /Hancock Street at Woodbine Street and Willet Street

Woodbine Street/Willet Street is a City-owned local road intersecting Route 3A/Hancock Street to form a four-leg offset intersection.

- Route 3A/Hancock Street has one through lane in each direction with parking on both sides.
- Woodbine Street is a two-way street without parking slightly southwest of the intersection.
- Willet Street is a two-way street with parking on the east side slightly northeast of the intersection.
- There is a southbound bus stop for Route 210 located in the intersection.
- The land use adjacent to the intersection is primarily mixed-use.

Route 3A/Hancock Street at Beale Street/Beach Street

Beale Street/Beach Street is a City-owned urban collector that intersects Route 3A/Hancock Street to form a four-leg intersection.

- Route 3A/Hancock Street has one travel lane in each direction with parking on both sides.
- Beale Street/Beach Street has one through lane in each direction with parking on both sides.
- There is a bus stop for Route 210 on the far side of the intersection northbound and on the far side of the intersection southbound on Route 3A/Hancock Street.
- The land use adjacent to the intersection is commercial.

Route 3A /Hancock Street at Elm Avenue, Wollaston Avenue, and Wentworth Road

Elm Avenue is a City-owned urban collector, and Wollaston Avenue is a City-owned local road intersecting Route 3A/Hancock Street at an oblique angle. Elm and Wollaston Avenue approach Route 3A/Hancock Street from the east.

- Route 3A/Hancock Street northbound has one through lane and one right-turn lane, and southbound has one through lane and one left-turn lane.
- Elm Avenue is a two-way street with one through lane and parking lane northbound and one left-turn lane, one right-turn lane, and parking southbound.
- Wollaston Avenue is a two-way street without parking.
- Wentworth Road is located just south of the intersection off Route 3A/Hancock Street and is a two-way street with an unprotected left turn.
- The land use adjacent to the intersection is commercial.

754 Route 3A/Hancock Street near Merrymount Avenue

Merrymount Avenue is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection at an oblique angle, slightly north of the traffic signal.

- Route 3A has one through lane in each direction with parking, with the signal located at 754 Route 3A/Hancock Street.
- Merrymount Avenue is a two-way street with parking on the south side.
- The land use adjacent to the intersection is residential.

Route 3A/Hancock Street at Southern Artery

The Southern Artery is a City-owned urban principal roadway that intersects Route 3A/Hancock Street as a three-leg intersection.

- The Southern Artery becomes Route 3A/Hancock Street at this intersection and continues south along the coast of Massachusetts, as Hancock Street continues south through Quincy.
- The Southern Artery is a two-way, one-lane road with parking on either side past the intersection.
- Approaching the intersection, Southern Artery has one through/left-turn lane and one right-turn lane. Route 3A/Hancock Street northbound has one through lane and one right-turn lane, and southbound has one left-turn lane and one through lane southbound.
- The land use adjacent to the intersection is commercial/recreational, with Central Middle School, Veterans Memorial Stadium, and Mitchell McCoy Field.

3.4 Unsignalized Intersections

The eighteen unsignalized intersection locations are as follows:

- Walnut Street
- Spruce Street
- Kendall Street and Sagamore Street
- Commander Shea Boulevard
- Hollis Avenue
- Moscow Street and Hodges Court
- Burgess Street
- Albion Road
- Buckingham Road
- Cheriton Road
- Ellington Road and Hancock Terrace
- Chester Street and Ferndale Road
- Wayland Street
- Blake Street
- Chapman Street
- Bass Street
- Clay Street and Fenno Street
- Standish Avenue

Route 3A/Hancock Street at Walnut Street

- Walnut Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Walnut Street is a two-way street with parking on the eastbound side.
- Route 3A/Hancock Street has two through lanes in each direction. The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Spruce Street

- Spruce Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Spruce Street is a one-way southbound street with parking on one side.
- Route 3A/Hancock Street has two through lanes in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A /Hancock Street at Kendall Street/Sagamore Street

- Kendall Street and Sagamore Street are irregularly intersected with Route 3A/Hancock Street, as both intersect from the east. Kendall Street is a City-owned local two-way street with no parking.
- Sagamore Street is a one-way northbound street that connects to Commander Shea Boulevard; the jurisdiction is classified as "unaccepted by city or town."
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Commander Shea Boulevard

- Commander Shea Boulevard feeds into Route 3A/Hancock Street southbound.
- Commander Shea Boulevard is a one-way, one-lane southbound road, and its jurisdiction is classified as "unaccepted by city or town."
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Hollis Avenue

- Hollis Avenue is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Hollis Avenue is a two-way street with parking on one side.
- Directly across from Hollis Avenue is the TD Bank parking lot entrance/exit, and adjacent to Hollis Avenue is the Walgreens parking lot.
- Route 3A/Hancock Street narrows from two lanes to one lane southbound and widens from two lanes to three northbound.
- The land use adjacent to the intersection is commercial.

Route 3A /Hancock Street at Moscow Street and Hodges Court

- Moscow Street and Hodges Court intersect Route 3A/Hancock Street to form an offset four-leg intersection.
- Moscow Street is a City-owned local two-way street with parking on one side.
- Hodges Court is a two-way local courtesy street.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Burgess Street

- Burgess Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Burgess Street is a two-way street with parking on one side.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Albion Road

- Albion Road is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Albion Road is a two-way street with parking on one side.
- The parking lot to Rockland Trust Bank is directly opposite Albion Road.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Buckingham Road

- Buckingham Road is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Buckingham Road is a two-way courtesy street with parking on one side.

- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is residential.

Route 3A/Hancock Street at Cheriton Road

- Cheriton Road is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Cheriton Road is a two-way street with parking on one side.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is residential.

Route 3A /Hancock Street at Ellington Road/Hancock Terrace

- Ellington Road and Hancock Terrace are City-owned local roads that intersect Route 3A/Hancock Street to form a four-leg offset intersection.
- Ellington Road is a two-way street with parking on both sides northeast of the intersection. Hancock Terrace is a two-way street with parking on both sides southwest to the intersection. Route 3A has one through lane in each direction with parking on both sides.
- The land use adjacent to the intersection is mixed-use.

Route 3A /Hancock Street at Chester Street/Ferndale Road

- Chester Street and Ferndale Road intersect Route 3A/Hancock Street to form a four-leg intersection.
- Chester Street is a City-owned local two-way street with parking on one side.
- Ferndale Road is a City-owned two-way local street with parking on one side.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Wayland Street

- Wayland Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Walnut Street is a two-way street with parking on both sides.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Blake Street

- Blake Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection opposite the entrance of a private parking lot.
- Blake Street is a two-way street to access the Hamel-Lydon Chapel, and then it is a one-way southbound street with parking on both sides.
- Route 3A/Hancock Street has one lane in each direction. The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Chapman Street

- Chapman is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Chapman Street is a two-way street with parking on one side and direct access to the Prime Mart gas station exit.
- Route 3A/Hancock Street has one lane in each direction with parking.
- The land use adjacent to the intersection is commercial.

Route 3A/Hancock Street at Bass Street

- Bass Street is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Bass Street is directly opposite the parking lot of South Shore Bank.
- Bass Street is a one-way street with parking on both sides and direct access to the Dunkin Donuts and storefront parking lots.
- Route 3A/Hancock Street has one lane in each direction with parking.
- The land use adjacent to the intersection is commercial.

Route 3A /Hancock Street at Clay Street and Fenno Street

- Clay Street and Fenno Street intersect Route 3A/Hancock Street to form an irregular four-leg intersection.
- Clay Street is a City-owned local two-way street without parking.
- Fenno Street is a two-way local street without parking. Approaching the intersection, Fenno Street becomes perpendicular to Route 3A/Hancock Street westbound with one through/left-turn lane and one right-turn lane, and eastbound Fenno Street intersects Route 3A/Hancock Street at a 45-degree bias angle to southbound Route 3A with one through lane.
- Route 3A/Hancock Street has one lane in each direction.
- The land use adjacent to the intersection is mixed-use.

Route 3A/Hancock Street at Standish Avenue

- Standish Avenue is a City-owned local road that intersects Route 3A/Hancock Street to form a three-leg intersection.
- Standish Avenue is a two-way street with parking on both sides.
- Approaching the intersection, Standish Avenue intersects Route 3A/Hancock Street at a 45-degree bias angle to the southbound Route 3A/Hancock Street direction.
- Route 3A/Hancock Street has one lane southbound and a left/through lane northbound. The land use adjacent to the intersection is commercial.

4. Existing Travel Conditions

4.1 Overview

The Route 3A/Hancock Street existing travel conditions used average annual daily traffic (AADT), free-flow speed, mode split, origin-destination, travel pattern, and demographic data from Replica 2023 datasets[2]. The following sections describe the analysis and results of this assessment.

4.1.1 Demography

Demographic data of Route 3A/Hancock Street users was obtained from the Spring 2023 Replica datasets. The demographic data showed that:

- The roadway users were 60% White non-Hispanic/Latino, 23% Asian non-Hispanic/Latino, 7% Black non-Hispanic/Latino, 6% Hispanic/Latino, and 2% Two races non-Hispanic/Latino.
- The language spoken was 60% English, 20% Asian Pacific languages, 11% Indo-European languages, and 5% Spanish.
- The largest age group was 18-34 years old (33%), followed by users aged 50-64 (26%), 35-49 (24%), and over 65 (13%).
- Over 70% of users have at least some college education.
- The Replica datasets estimate that 60% of roadway users have a household income below $100,000, 75% are employed, and of those, 60% commute to a physical workplace while 40% work from home.Travel Mode Split

This section summarizes the results of the modes of transportation used on Route 3A/Hancock Street on Thursdays during the fourth quarter (October-December) of 2023 over a 12-week sample period. MassDOT's Replica dataset provided the travel mode split data that Table 1 includes.

The mode definitions provided by Replica are as follows:

- Private auto/driver: Trips made by drivers in private auto vehicles. This is equivalent to the number of private passenger vehicle movements. This category can also capture trips made by rental cars.
- Auto passenger/carpool: Trips made by passengers in private auto vehicles. Combine this number with the number of private auto trips to get the number of people who traveled in private autos.
- Public Transit: Trips that primarily used public transit, such as buses, light rail, ferries, and subways. This does not include trips made by paratransit or private shuttles.
- Walking: Trips made by people walking.
- Taxi/Transportation Network Company (TNC): Trips made by passengers in a Taxi or using a TNC such as Uber or Lyft. These are also known as For Hire Vehicles, On-demand Autos, Ride-Shares, or Transportation Network Providers (TNP).
- Commercial (freight): Trips made by medium and heavy trucks:
    - Medium-duty commercial vehicles (14,000 – 26,000 lbs.)
    - Heavy-duty commercial vehicles (> 26,000 lbs.)
- Other: Trips made in which the mode was not detected. Near airports, "Other" can also include trips made by airplanes coming to and from the airport.

[2] Replica is a data platform that provides detailed information on how people move through cities using large scale simulations and various third-party data sources (such as mobile location data, consumer/resident data, and built environment data). https://documentation.replicahq.com/docs/disaggregate-trip-tables

Table 1 Route 3A/Hancock Street Primary Modes, Thursdays Q4 2023

Trip Type	Count	Percent
Private auto	25,207,215	55%
Auto passenger/carpool	11,441,837	25%
Walking	5,813,416	13%
Commercial vehicle (freight)	1,662,917	4%
Other	630,153	1%
Public transit	534,640	1%
Biking	418,706	1%
Taxi/TNC	211,985	0%

When a trip involves multiple modes, the primary mode is determined using the following ranking: 1) Public transit, 2) Private auto/Auto passenger/Taxi/TNC, 3) Biking, 4) Walking. It should be noted that low mode share for biking can be attributed to a lack of safe cycling infrastructure in the area.

4.1.2 Origin-Destination Data

This section summarizes the typical weekday origins and destination trips taken on Route 3A/Hancock Street by trip origin and destination, origin-destination pairs, origin and destination land use, and origin and destination building use.

In general, the data showed that:

- For vehicle trips, most trips along the corridor were made within Quincy or between Quincy and Boston.
- For all trips of all modes, over 70% of roadway users start and end their trips in Quincy and Boston.
- For all trips of all modes, the majority of road users make trips to/from residences and retail centers (63-77%).

4.1.3 Travel Pattern Data

This section summarizes the results of the typical weekday trips taken on Route 3A/Hancock Street by trip purpose, starting hour, trip distance, and trip duration. The travel pattern data was obtained from Spring 2023 Replica datasets.

The travel pattern data showed the following:

- The most common trip purposes for people travelling along Route 3A/Hancock Street were people returning home (33% of trips), while 17% were trips to work, 15% were trips to the shop, and 11% were trips to eat.
- The busiest periods/periods with the highest traffic volumes on the roadway were 7:00 AM, 3:00 PM, and 7:00 PM.
    - This included traveling to/from Boston and Quincy's employment centers, retail centers, and eateries.
- Nearly 50% of all trips were 4-16 miles long, with an average distance of 9 miles.
- Over a third of all trips were 20-40 minutes long, with an average duration of 23 minutes.

4.2 Road Traffic

4.2.1 Average Annual Daily Traffic (AADT) Volume and Free-Flow Speed Data

MassDOT's Office of Transportation Planning (OTP) provided the Replica data sets used for AADT and speed data. This section summarizes the results by segment defined by the Boston Metropolitan Planning Organization Central Transportation Planning Staff (MPO CTPS) 2023 dataset. The analysis used northbound traffic due to the consistency of trip flows and the analysis of typical traffic patterns and volumes used Thursdays.

Table 2 includes the AADT volumes measured in 12-week weighted averages across all data points within each segment and the free-flow speeds, defined as the average speed in the absence of congestion or adverse conditions (e.g., weather), as averages across all data points within each segment.

Table 2 Route 3A/Hancock Street Segments, Northbound Thursday 2023

Municipality	Segment Begins	Segment Ends	Segment Length (miles)	Segment AADT	AADT Range	Free Flow Speed (mph)	Free Flow Speed Range (mph)
Quincy	Merrymount Parkway	Billings Road	1.08	6,700	6,300-6,900	23	19-24
	Billings Road	Commander Shea Boulevard	0.4	8,400	7,000-9,700	19	18-22
	Commander Shea Boulevard	Newport Avenue Extension / Quincy Shore Drive	0.24	8,000	7,900-8,000	26	25-26
Quincy / Boston	Newport Avenue Extension / Quincy Shore Drive	Neponset Avenue	0.46	12,000	9,100-2,1900	25	23-29

4.2.2 Traffic Count Data

Turning movement counts (TMCs) were collected at 7 study intersections for one 24-hour weekday period. TMCs were collected at signalized intersections using the City of Quincy's third party Miovision system[3]. They were collected in March 2024; however, the intersections of Route 3A/Hancock Street at McDonald's Driveway and Route 3A/Hancock Street at East/West Squantum Street were collected in June 2024. These counts included peak hour factors, heavy vehicle percentages, and pedestrian and bicyclist movements.

The AM and PM peak hours for each signalized intersection were determined based on the TMCs. For the study intersections in this analysis, the AM peak hour generally occurs between 7:00 AM and 8:00 AM, likely due to the proximity of the North Quincy High School. The PM peak hour generally occurs between 5:00 PM and 6:00 PM.

The seasonal adjustment factor for an urban principal arterial in March is 0.98 and in June 0.91 per MassDOT's published 2019 Seasonal Correction Factors. This indicates that traffic volumes in March are typically higher than in June. North Quincy High School is operational in March and June;

[3] Miovision is a traffic management platform that collects in-house and outsourced traffic data for advanced traffic signal operations.

seasonal adjustment factors were not applied to the turning movement counts to provide a conservative analysis. The network diagram of the traffic counts for the AM and PM peak periods can be found in Appendix A.

4.2.3 Signal Timing Data

The City of Quincy provided existing traffic signal timing and phasing data for key intersections. This information is used to calculate the corridor's capacity and Level of Service.

4.2.4 Capacity Analysis

The Highway Capacity Manual (HCM) provides guidance and analysis methodologies for calculating roadways and intersections' performance levels. Level of Service (LOS) defines different operating conditions that may occur under a given traffic volume load. LOS is a qualitative indication of driver discomfort, frustration, fuel consumption, and lost time. LOS is defined by an index from A through F, with LOS A describing free-flowing traffic with minimal delays and LOS F indicates severe congestion and stop-and-go conditions. The HCM lists the following definitions for each grade:

A = Free Flow
B = Reasonably Free Flow
C = Stable Flow
D = Approaching Unstable Flow
E = Unstable Flow
F = Forced Flow, volume is greater than capacity

The LOS for a signalized intersection is defined as a weighted average control delay for an entire intersection. The LOS assignments for signalized intersections, as compared to delay, are as follows:

LOS A: <= 10 seconds
LOS B: >10 seconds and ≤ 20 seconds
LOS C: >20 seconds and ≤ 35 seconds
LOS D: >35 seconds and ≤ 55 seconds
LOS E: >55 seconds and ≤ 80 seconds
LOS F: >80 seconds

The LOS for unsignalized intersections and roundabouts, as compared to delay, is as follows:

LOS A: <= 10 seconds
LOS B: >10 seconds and ≤ 15 seconds
LOS C: >15 seconds and ≤ 25 seconds
LOS D: >25 seconds and ≤ 35 seconds
LOS E: >35 seconds and ≤ 50 seconds
LOS F: >50 seconds

All intersection approaches were evaluated based on the peak 15 minutes of data collected during the peak hour. The Peak Hour Factor (PHF), which was captured in the Miovision counts, was applied on an approach-by-approach basis for each intersection in this analysis. Heavy vehicle percentages were also included in the Miovision accounts and were applied on a movement-by-movement basis for each intersection in the analysis.

4.2.5 Capacity Analysis Results – Signalized Intersections

Synchro 11 was the primary software used to analyze the study intersections. Table 3 and Table 4 summarize the Synchro 11 analysis results for signalized intersections. Acronyms are defined as the following:

- T: Through, R: Right and L: Left
- EB: Eastbound and WB: Westbound
- NB: Northbound and SB: Southbound

Table 3 Route 3A/Hancock Street Signalized Intersections, AM Peak Hour

Intersection	Approach	Movement	Delay (s)	LOS	95th Queue (ft)
Route 3A at Newport Avenue Extension	EB	T R	38.3	D	191
	NB	R	4.5	A	60
	SB	L	15.2	B	30
		T	7.7	A	41
		R	1.8	A	11
	Intersection		14.5	B	
Route 3A at Hunt Street	EB	L T R	42.6	D	60
	WB	LTR	3.9	A	0
	NB	L T R	13.4	B	185
	SB	L T R	11.4	B	101
	Intersection		14	B	
Route 3A at McDonalds/Target	EB	L R	21	C	6
	NB	L T	14.5	B	187
	SB	T R	9.8	A	83
	Intersection		13.3	B	
Route 3A at East/West Squantum Street	EB	L	54.5	D	242
		T R	26.5	C	213
	WB	L	83.3	F	#110
		T R	63.5	E	#189
	NB	L	38.7	D	154
		T R	31.8	C	214
	SB	L T R	73.1	E	#243
	Intersection		50.2	D	

Table 4 Route 3A/Hancock Street Signalized Intersections, PM Peak Hour

Intersection	Approach	Movement	Delay (s)	LOS	95th Queue (ft)
Route 3A at Newport Avenue Extension	EB	T R	29.6	C	243
	NB	R	0.5	A	0
	SB	L	14.8	B	48
		T	15.8	B	153
		R	4.3	A	59
	Intersection		15.2	B	
Route 3A at Hunt Street	EB	L T R	4.4	A	0
	WB	LTR	1.2	A	0
	NB	L T R	10.7	B	104
	SB	L T R	12.4	B	173
	Intersection		14	B	
Route 3A at McDonalds/Target	EB	L R	136	F	104
	NB	L T	53	D	307
	SB	T R	12.9	B	183
	Intersection		41.2	D	
Route 3A at East/West Squantum Street	EB	L	133.5	F	118
		T R	42.3	D	346
	WB	L	152.2	F	#145
		T R	43	D	163
	NB	L	24.6	C	34
		T R	28	C	191
	SB	L T R	111	F	#378
	Intersection		66	E	

4.2.6 Capacity Analysis Results – Unsignalized Intersections

Table 5 and Table 6 summarize the Synchro 11 analysis results for unsignalized intersections.

Table 5 Route 3A/Hancock Street Unsignalized Intersections, AM Peak Hour

Intersection	Approach	Movement	Delay (s)	LOS
Route 3A at Walnut Street	EB	L R	10.6	B
	NB	L T	0	A
	SB	T R	0	A
	Intersection		0.1	A
Route 3A at Myrtle Street	EB	L R	13.1	B
	NB	L T	0	A
	SB	T R	0	A
	Intersection		0.1	A
Route 3A at Kendall Street	WB	L R	12.6	B
	NB	T R	0	A
	SB	L	9.3	A
		T	0	A
	Intersection		1.7	A
Route 3A at Commander Shea Boulevard	EB	L R	9.8	A
	NB	L T	0	A
	SB	T R	0	A
	Intersection		1.7	A

Table 6 Route 3A/Hancock Street Unsignalized Intersections, PM Peak Hour

Intersection	Approach	Movement	Delay (s)	LOS
Route 3A at Walnut Street	EB	L R	12.5	B
	NB	L T	0.4	A
	SB	T R	0	A
	Intersection		0.3	A
Route 3A at Myrtle Street	EB	L R	15.6	C
	NB	L T	0.1	A
	SB	T R	0	A
	Intersection		0.5	A
Route 3A at Kendall Street	WB	L R	13.3	B
	NB	T R	0	A
	SB	L	8.6	A
		T	0.3	A
	Intersection		1.0	A
Route 3A at Commander Shea Boulevard	EB	L R	11.3	B
	NB	L T	0	A
	SB	T R	0	A
	Intersection		0.8	A

4.3 Transit

4.3.1 Trains

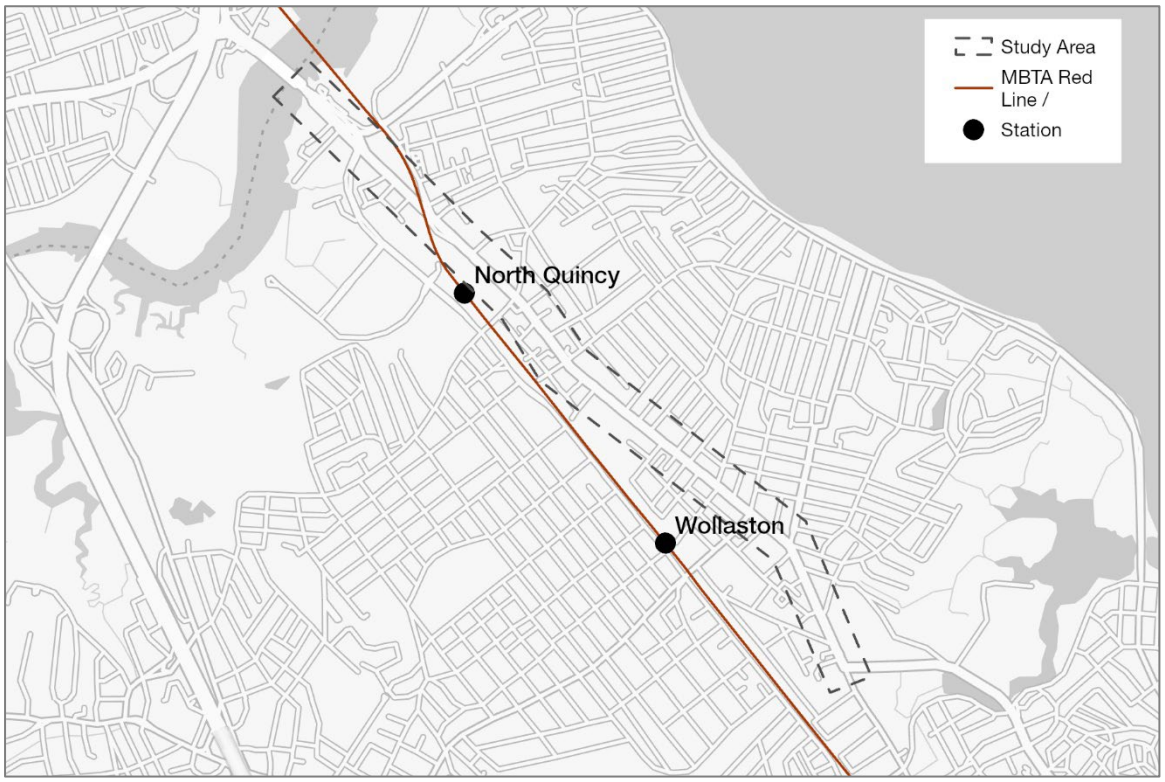


Figure 3 Map of Quincy train service

There are four rail services adjacent to the study area: the MBTA Red Line, Greenbush Line (commuter rail), Kingston Line (commuter rail), and Middleborough/Lakeville line (commuter rail). The Red Line stops in the North Quincy and Wollaston stations, which are in the study area. The commuter lines pass through the study area but stop at Quincy Center Station, which is outside the study area.

The North Quincy station has sheltered facilities, parking lot, covered bike racks, and accessibility features. Currently, the journey from North Quincy to Government Center takes approximately 34 minutes on the Red Line or 18 minutes by car under optimal traffic and weather conditions. Similarly, the Wollaston Red Line station offers a sheltered environment, parking facilities, covered bike racks, and accessibility features. Commuting from Wollaston to Government Center takes approximately 36 minutes on the Red Line or 19 minutes by car.

The MBTA is renovating the southern portion of the Red Line with improved safety features, accessibility, and parking. Included in these projects will be full upgrades to Wollaston Station, partially demolishing the Quincy Center Garage, and undertaking major overhauls to the parking facilities at Quincy Adams and Braintree Stations. Multi-family housing will be sited near the North Quincy and Quincy Center stations.

The MBTA is releasing weekly progress updates on the Red Line Transformation. As part of the MBTA Focus 40 Plan, the MBTA will be replacing the 218 Red Line cars that make up older rolling stock. The Red Line improvements include 50% more service and modernization at the Alewife track crossover. In October 2023, the Cabot Yard and Maintenance Facility upgrades were 32% complete, the Red Line Signal Upgrade was 55% complete, and the Codman Yard Expansion and Improvements project was 15% complete. The Alewife Crossover Improvements was completed in the Fall of 2024.

4.3.2 Buses

The area of study is directly served by several MBTA bus lines: 210, 211, and 217. Routes 215 and 245 also serve Quincy but are outside the study corridor.

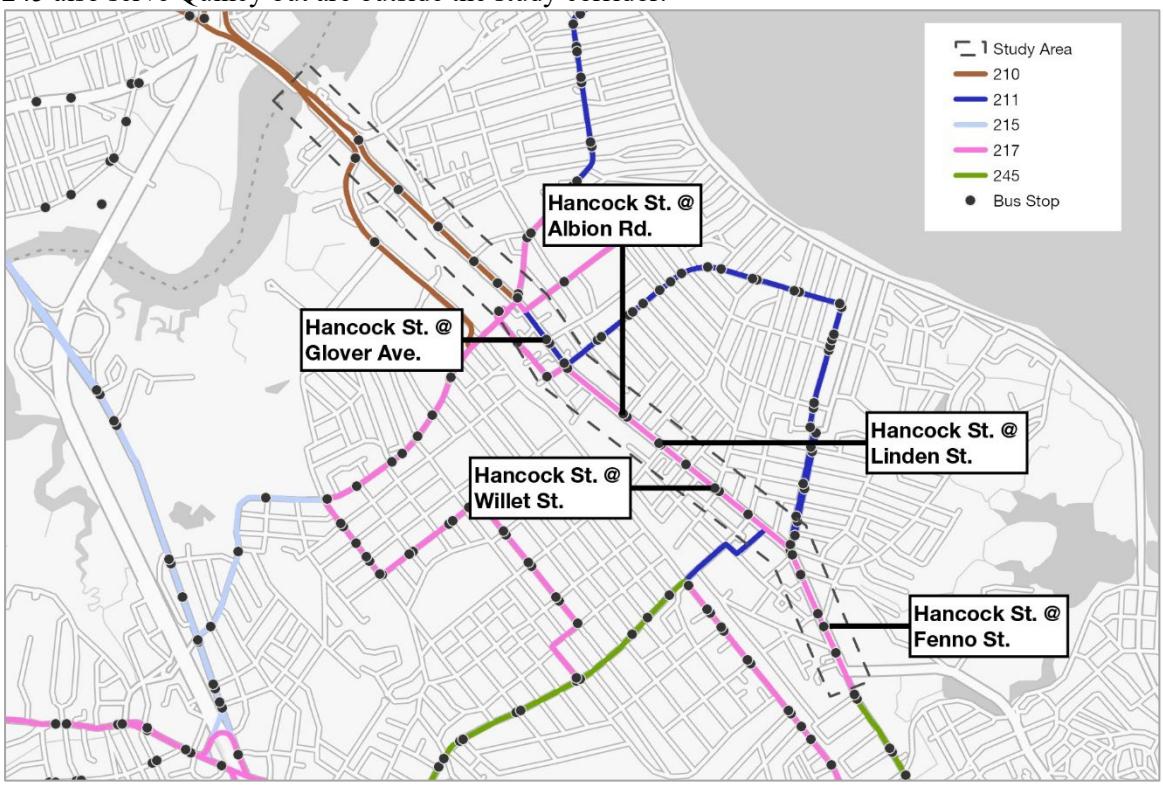


Figure 4 Map of bus routes

These bus stop locations show the following conditions:

- Hancock Street at Glover Avenue (northbound): landing pad/rear door clear zone is within a school driveway.
- Hancock Street at Albion Road (northbound): located near-side to the intersection with the stop directly next to the stop line.
- Hancock Street opposite Linden Street (northbound): the landing pad/rear door clear zone is within an existing driveway.
- Hancock Street at Willet and Woodbine (northbound and southbound): stops are located within the intersection.
- Hancock Street at Fenno Street (northbound): landing pad/rear door clear zone is located within a crosswalk.

Currently, Route 210 provides service Monday through Saturday from 5:00 AM to 1:30 AM, servicing each bus stop every 30 minutes. It has one late outbound trip on Sunday at 1:00 AM for the last Red Line train at Fields Corner. The MBTA Bus Network Redesign proposes Route 210 will have 60-minute headways 6:00 AM to 7:00 PM, 7-days-a-week. This route has stops along Route 3A/Hancock Street that are roughly 1000 feet apart and vary depending on the built environment and location of key destinations, such as grocery stores and schools. Bus Route 210 provides service to Quincy Center Station on the MBTA's Red Line, the Commuter Rail Greenbush Line, Kingston Line, Middleborough/Lakeville Line, Quincy College, Wollaston Red Line Station, North Quincy Red Line Station, and Fields Corner Red Line Station. This route connects Dorchester and Quincy from Fields Corner to Quincy Center.

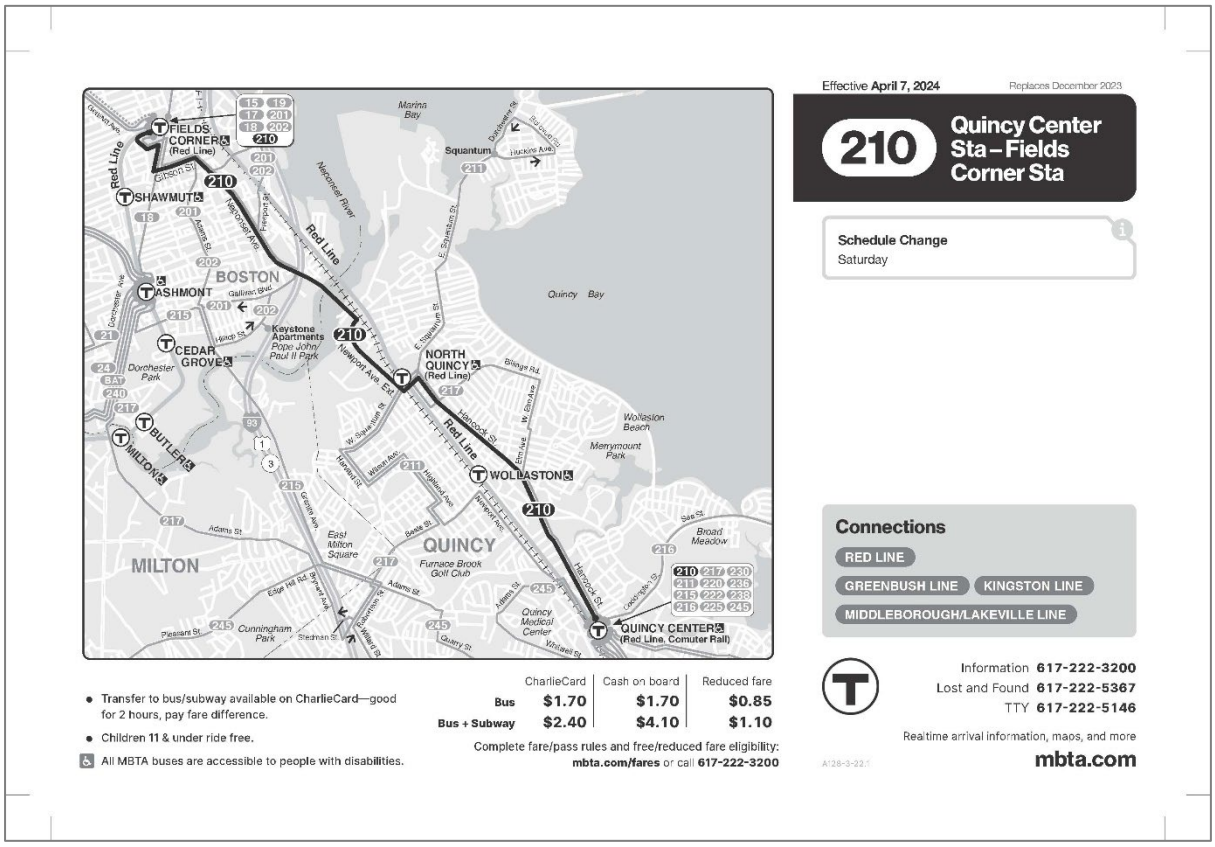


Figure 5 MBTA bus Route 210

The 211 has 60-minute headways, from 6:00 AM to 8:00 PM during weekdays, 7:00 AM to 7:00 PM on Saturdays, and 11:00 AM to 6:00 PM on Sundays. This route stops at North Quincy Station. Once the MBTA Bus Network Redesign is implemented, the 211 bus will have more consistent hours, with Service every 60 minutes or better, 6:00 AM to 7:00 PM, 7-days-a-week.

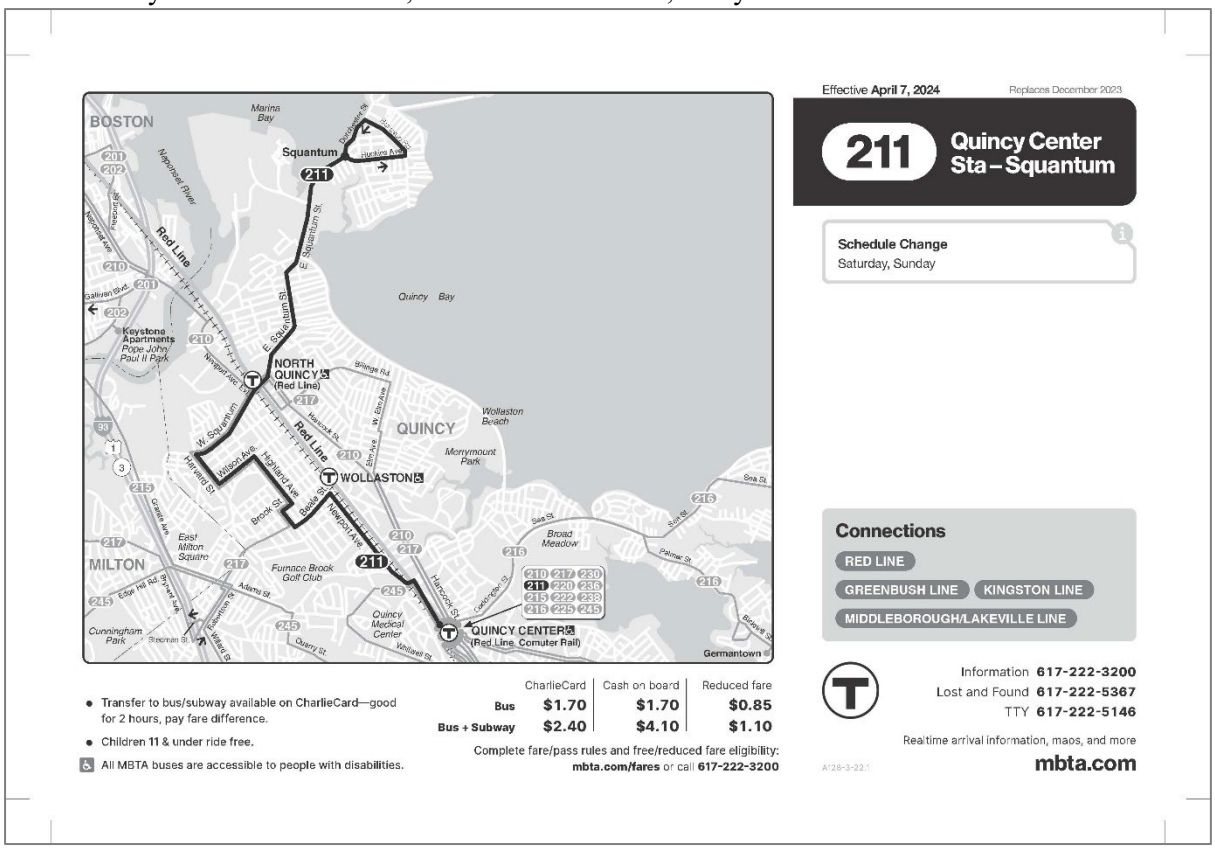


Figure 6 MBTA bus Route 211

Currently, Route 217 has four daily trips: inbound service at 5:55 AM, 6:20 AM, 2:40 PM, and 5:20 PM, and outbound service at 6:55 AM, 7:15 AM, 3:30 PM, and 6:15 PM. Once the MBTA Bus Network Redesign is implemented, the 217 will operate only on peak service. The route stops at North Quincy station 4 times a day and connects Quincy and Ashmont. Route 217 provides service to Quincy Center Station on the MBTA's Red Line, North Quincy Station, Adams Street Mattapan Trolley Station, Ashmont Station (connecting to the Ashmont Red Line branch), and the Mattapan Trolley (with limited service Monday through Friday).

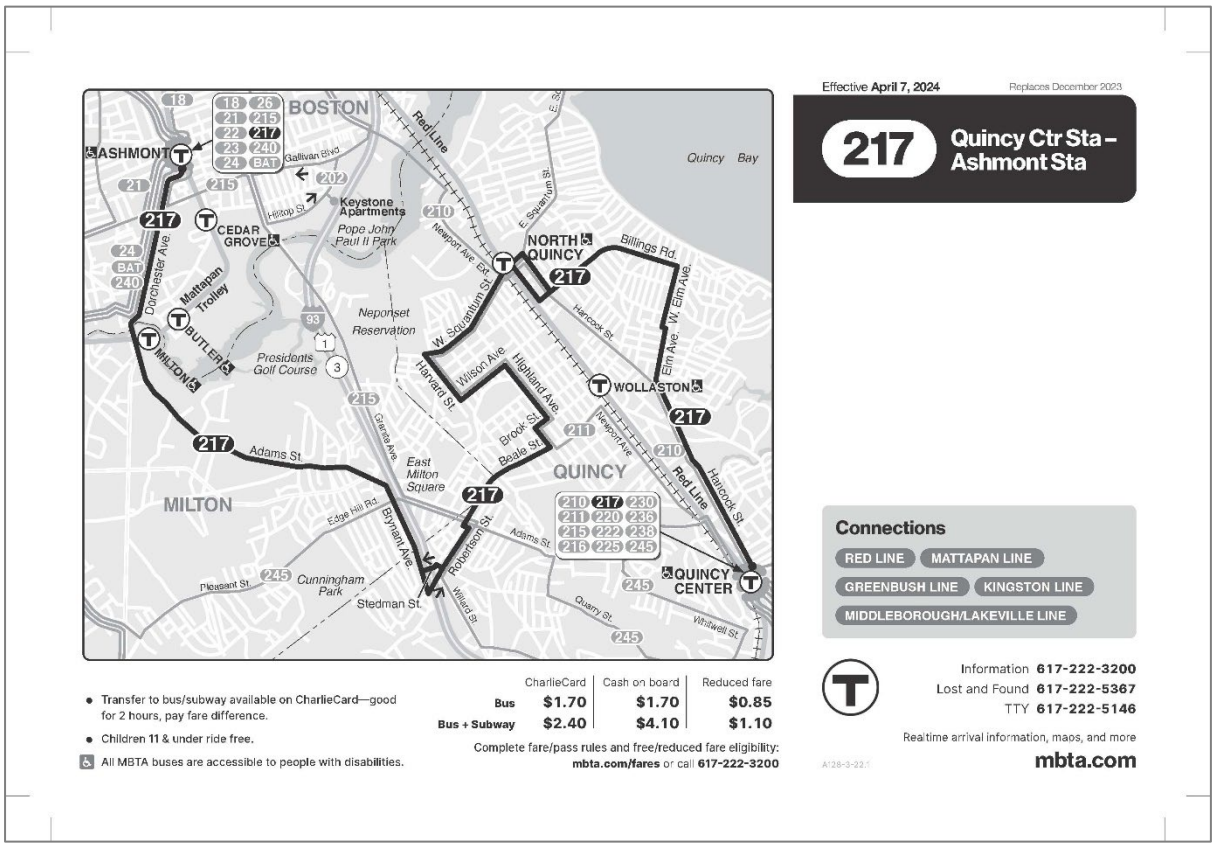


Figure 7 MBTA bus Route 217

5. Crashes

As part of the existing conditions analysis, evaluating crash data across a spectrum of locations over a 5-year period is necessary. The crash data from 2019-2023 was compiled from the MassDOT's Crash Data Portal on Route 3A/Hancock Street within the project limits. A total of seven hundred sixteen (716) crashes were recorded within the project limits, with two hundred sixty-one (261) in project area 1 and four hundred fifty-five (455) in project area 2. The crash data summary can be found in Appendix B.

The most frequent crash types along the corridor were 241 angle, 207 rear-end, and 137 sideswipe (vehicles traveling in the same direction) crashes. Project Area 1 had 95 angle, 76 rear-end, and 51 sideswipe crashes, and Project Area 2 had 146 angle, 131 rear-end, and 86 sideswipe crashes. The majority of the crashes were property damage only; 124 were non-fatal injuries, one fatal crash, and one crash with a fatality not caused by a crash.

Table 7 Corridor Crash Summary

Crash Type	Angle	Head-On	Rear-End	Rear-to-Rear	Sideswipe, Opposite Direction	Sideswipe, Same Direction	Single Vehicle Crash	Unknown	Total
Sec. 1	95	5	76	4	10	51	19	1	**261**
Sec. 2	146	22	131	9	13	86	45	3	**455**
Total	**241**	**27**	**207**	**13**	**23**	**137**	**64**	**4**	**716**

The corridor has seen a 5% increase in crashes overall. While Project Area 1 saw little change in the number of crashes, Project Area 2 had an 8% increase. The number of crashes in both sections has steadily increased after a drop during the COVID-19 pandemic in 2020.

The intersections with the highest occurrences of reported crashes are:

1. Hancock Street at East/West Squantum Streets
2. Hancock Street at Elm Avenue, Wollaston Avenue, and Wentworth Road
3. Hancock Street at Beale Street/Beach Street

The following sections describe the analysis and results of the safety assessment for these crash locations. It should be noted that all three of the above intersections form part of the top 5% of pedestrian crash clusters across Massachusetts between 2012 and 2021.

5.1 Hancock Street at West Squantum Street/East Squantum Street

Between 2019 to 2023, there were 128 total crashes (18%) reported in the vicinity of this intersection, with 59 crashes reported within the intersection. The crashes included 51 with another motor vehicle, 6 with parked vehicles, 1 with a pedestrian, and 1 with a cyclist. The manner of crashes was: 25 sideswipe - same direction, 16 angle, ten rear-end, four single-vehicle, two head-on, one sideswipe - opposite direction, and one rear-to-rear. Regarding the injuries reported: 54 had no injury/no apparent injury, and five had suspected minor injuries.

These crashes may be attributed to the wide intersection and pedestrian crossings from Quincy High School.

The crashes involving pedestrians and cyclists were reported as sideswipes in the same direction, and minor injury was suspected.

5.2 Hancock Street at Elm Avenue/Wollaston Avenue/Wentworth Road

Between 2019 to 2023, there were 64 total crashes (9%) reported within this intersection. The crashes included 51 with another motor vehicle, 9 with parked vehicles, 3 with pedestrians, and 1 with a cyclist. The manner of the crashes was: 20 angle, 19 rear-end, 11 single-vehicle crash, seven sideswipe - same direction, four head-on, two rear-to-rear, and one unknown. Regarding the injuries reported: 52 had no injury/no apparent injury, nine suspected minor injury, two suspected serious injury, and one was unknown.

These crashes may be due to the unique intersection design, which is wide where Elm Avenue and Wollaston Avenue both approach Hancock Street from the east. The unprotected left turn at Wentworth Road provides another point of conflict.

The single crash involving a cyclist was reported as a single-vehicle crash with a suspected minor injury. Of the three crashes involving pedestrians, two were suspected of serious injuries, and one was suspected of minor injury.

5.3 Hancock Street at Beale Street/Beach Street

Between 2019 to 2023, there were 47 total crashes (7%) reported within this intersection. The crashes included 36 with another motor vehicle, 9 with parked vehicles, one with a pedestrian, and one with a cyclist. The manner of the crashes was: 18 rear-end, 11 angle, ten sideswipe - same direction, five single-vehicle, two head-on, and one sideswipe - the opposite direction. In terms of the injuries reported: 37 had no injury/no apparent injury, seven suspected minor injury, two had possible injury, and one had suspected serious injury.

The crashes involving pedestrians and cyclists were both reported as single-vehicle crashes with suspected minor injuries.

6. Parking

6.1 Previous Parking Studies

The Wollaston Center Parking Analysis was released in 2014 by the Metropolitan Area Planning Council in collaboration with the City of Quincy. The report's study area encompasses an area within approximately a 5-minute walk from the main business district or one-quarter of a mile to account for on-street parking and private parking lots to determine general occupancy levels. The report aimed to create an inventory of on-street and off-street parking and provide recommendations for improvements. The report's findings indicated that there was adequate parking within the core business area along Hancock, Beale, and Beach Streets, with parking occupancy levels well below the target level of 85%. The report inventoried 258 on-street parking spaces and 1,046 total parking spaces, including nearby private parking lots. The report concluded that there was no need to build new parking spaces based on field observations in 2014 unless large-scale developments are built in the future.

6.2 MBTA Parking Garages

There are two MBTA parking lots within the study area: North Quincy Station and Wollaston Station. Wollaston offers 403 parking spots and secured bike parking; however, using the bike parking facility requires advance registration with a Charlie Card. The North Quincy lot provides 353 parking spots along with both uncovered and covered bike racks. Both MBTA lots allow $3 weekend parking, but overnight parking is not permitted.

6.3 Route 3A/ Hancock Street On-street parking

From the Neponset Bridge to Clay Street along Route 3A, there are approximately 218 on-street parking spaces. Parking time regulations vary from 15 minutes, 30 minutes, 1 hour, and 2 hours, with 2-hour parking being the most frequent. Time regulation signage is inconsistently placed throughout the study area, with more frequent and visible signage in areas with marked parking compared to areas with unmarked parking. The time frames are consistent, with 1 and 2-hour parking enforced from 8:00 AM to 6:00 PM, and 15-minute parking from 7:00 AM to 6:00 PM throughout the corridor. Throughout the study area, there is no cost for on-street parking.

Table 8 summarizes on-street parking throughout the study area. From the Neponset Bridge to East Squantum St, there is no on-street parking. From East Squantum Street to Buckingham Road, there are approximately 53 marked parking spaces available along Route 3A. Beginning at Buckingham Road and traveling southbound to the end of the study area at Southern Artery, there are approximately 164 parking spaces, the majority of which are unmarked. Additionally, there are approximately 7 designated accessible parking spaces: 3 facing northbound and 4 facing southbound.

Table 8 Corridor On-Street Parking Availability

Street Segment	Number of Parking Spots	Parking Regulations
Neponset Bridge to Walnut Street	-	No on-street parking
Walnut Street to Sagamore Street	-	No on-street parking
Sagamore Street to East Squantum Street	-	No on-street parking
East Squantum Street to Glover Street	5	2 hr parking except holidays and Sunday
Glover Avenue to Billings Road	21	1 hr parking except holidays and Sunday
Billings Road to Hayward Street	23	Mix of 1 hr parking, 2 hr parking, and 15 min parking
Hayward Street to Buckingham Road	4	2 hr parking except holidays and Sundays
Buckingham Road to Ellington Road	No defined spots, ~39	Mix of no parking allowed, 1 hr parking, and 2 hr parking except holidays and Sundays
Ellington Road to Willet Street	Mix of defined and undefined parking, ~30	1 hr parking and 2 hr parking except holidays and Sundays
Willet Street to Beach Street	19	2 hr parking except holidays and Sundays
Beach Street to Bass Street	19	Mix of no parking and 2 hr parking except holidays and Sundays
Bass Street to Elm Avenue	9	2 hr parking except holidays and Sundays
Elm Avenue to Clay Street	Mix accessible parking and undefined parking, ~40	Mix of no parking allowed, accessible parking, and 1 hr parking
Clay Street to Southern Artery	No defined spots, ~8	30 min parking

6.4 Route 3A/Hancock Street Off-street public parking

In addition to on-street parking, there is a public parking lot for North Quincy Business customers on Vane Street. To enter the lot from Route 3A, a customer must turn northbound on Billings Road and East on Vane Street. The only entry is via Vane Street, there is no direct path from Route 3A through neighboring parking lots. The parking lot holds approximately 65 cars with parking permitted up to 2 hours. There is no cost to park in this lot.

7. Environmental Conditions and Assets

A desktop study of the environmental conditions for the study area was completed. Data sources for the study included: MassMapper database layers, the Massachusetts Department of Environmental Protection (MassDEP) Waste Site and Reportable Releases online database, U.S. Environmental Protection Agency's (EPA) Superfund Site Information database, and EPA's Cleanups In My Community (CIMC) website. Maps were developed to illustrate the findings of environmental conditions present within the Study Area.

The desktop study included a review of the following environmental conditions: Federal and State listed hazardous waste sites, MassDEP major hazardous waste facilities, open space and Article 97 properties, NHESP habitats, water resources, wetlands, FEMA flood hazards, historical assets, DCR roads and trails, MassDOT roads and dams, and hiking trails. Findings associated with these conditions are described below.

7.1 Hazardous Waste Sites

Hazardous waste sites along Route 3A/Hancock Street, as well as intersecting roads, were reviewed. Only hazardous waste sites within the Study Area are included in this report.

The following state and federal databases were reviewed:

- State-Listed Waste Site & Reportable Releases Sites, including Institutional Controls (Activity and Use Limitations)
- Federal Brownfields
- Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List
- Federal National Priorities List (NPL)
- State Landfill and/or Solid Waste Disposal Site Lists

No NPL Sites or State Landfill/Solid Waste Disposal Sites were identified within the Study Area.

7.2 State Listed Hazardous Waste Release Sites

State listed hazardous waste release sites are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund or NPL) are identified along with sites where cleanup will be paid for by potentially responsible parties. The locations of these are shown in Figure 8.

Figure 8 State-Listed MCP Hazardous Waste Site Map

Thirty (30) state hazardous waste sites were identified within the Study Area. Many of these have overlapping addresses. These Sites are listed under the MassDEP Waste Site and Reportable Releases database with Release Tracking Numbers (RTNs).

Table 9 State hazardous waste sites identified within the Study Area

Name	ID	Address	Release Tracking Number	Regulatory Status	Activity and Use Limitation
Study Area 1					
MATHEWSON CORPORATION	1	2 HANCOCK STREET	RTN: 3-0000646	Closed	**Yes**
FMR MATHEWSON CORPORATION	2	2 HANCOCK STREET	RTN: 3-0025246	Closed	**Yes**
DENSMORE ST AND HANCOCK ST INTERSECTION	3	45 HANCOCK STREET	RTN: 3-0013891	Closed	No
INTERSECTION OF HANCOCK AND DENSMORE	4	45 HANCOCK STREET	RTN: 3-0017774	Closed	No
INTERSECTION OF HANCOCK AND DENSMORE	5	45 HANCOCK STREET	RTN: 3-0017860	Closed	No
INTERSECTION OF HANCOCK AND DENSMORE	6	45 HANCOCK STREET	RTN: 3-0017861	Closed	No
HARBOR SOUTH TOWER	7	100 HANCOCK STREET	RTN: 3-0022517	Closed	No
PAD-MOUNTED ELECTRICAL TRANSFORMER	8	100 HANCOCK STREET	RTN: 3-0028138	Closed	No
FMR PAD MOUNTED ELECTRICAL TRANSFORMER	9	100 HANCOCK STREET	RTN: 3-0029246	Closed	No
WALNUT ST	10	135 HANCOCK STREET	RTN: 3-0021035	Closed	No
PORTER REALTY TRUST	11	135 HANCOCK STREET	RTN: 3-0024747	Closed	No
PROPERTY	12	200 HANCOCK STREET	RTN: 3-0002907	Closed	**Yes**
SE INTERSECTION W/KENDALL ST	13	200 HANCOCK STREET	RTN: 3-0012492	Closed	No
INTERSECTION WITH KENDALL ST	14	200 HANCOCK STREET	RTN: 3-0020633	Closed	No
MERIT OIL	15	238 HANCOCK STREEET	RTN: 3-0002047	Closed	No
HESS STATION 21518	16	238 HANCOCK STREEET	RTN: 3-0025184	Closed	No
SHELL BRANDED GASOLINE STATION	17	315 HANCOCK STREET	RTN: 3-0027961	Closed	No
GASOLINE STATION	18	315 HANCOCK STREET	RTN: 3-0028161	Closed	No
QUINCY HIGH SCHOOL	19	316 HANCOCK STREET	RTN: 3-0022336	Closed	No

Study Area 2					
SUNOCO SERVICE STATION	20	325 HANCOCK STREET	RTN: 3-0028355	Closed	No
INDUSTRIAL PROPERTY	21	430 HANCOCK STREET	RTN: 3-002769	Closed	No
AMOCO STATION FMR 127	22	571 HANCOCK STREET	RTN: 3-0000723	Closed	No
NO LOCATION AID	23	596 HANCOCK STREET	RTN: 3-0017647	Closed	No
CUMBERLAND FARMS	24	610 HANCOCK STREET	RTN: 3-0002359	Closed	No
NO LOCATION AID	25	636 HANCOCK STREET	RTN: 3-0023367	Closed	No
NO LOCATION AID	26	636 HANCOCK STREET	RTN: 3-0023765	Closed	No
JOHNSON'S FILLING STATION	27	700 HANCOCK STREET	RTN: 3-0006023	Closed	No
7-ELEVEN #32451 FMR CHRISTYS MARKET	28	721 HANCOCK STREET	RTN: 3-0004808	Closed	No
EXXON STATION 3 3588 FMR	29	819 HANCOCK STREET	RTN: 3-0000881	Closed	No
BRITE CLEANERS	30	6-8 BEALE STREET	RTN 3-0029945	Open	No

- RTN = Release Tracking Number
- Closed = Achieved Permanent or Temporary Solution or Response Action Outcome
- Open = Has Not Yet Achieved Regulatory Closure
- URAM = Utility Related Abatement Measure
- Adequate Reg = Adequately Regulated through DEP or similar agency

As noted above, closed Sites have achieved regulatory closure through MassDEP but may still have a level of residual contamination left in place. Four of these Sites have a recorded Activity and Use Limitation (AUL) that limits activities and future use of the parcel. Sites with a URAM often involve soil and/or groundwater contamination in a public right-of-way, such as a road.

7.3 Federal Brownfields

Brownfields is a property, where the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. This data is provided by EPA in the Cleanups in My Community (CIMC) web application. There are no Brownfields sites located within the Study Area.

7.4 Federal CERCLIS List

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, commonly known as Superfund) is a federal law designed to provide Federal authority to respond directly for cleanup of releases or threatened releases of hazardous substances that may endanger public health or the environment. The law authorizes two kinds of response actions: Short-term removals, where prompt response is required; and Long-term remedial response actions, which are

associated with serious, but not immediately life-threatening conditions, and which are conducted only on sites listed on EPA's NPL.

There is one (1) CERCLIS site located within the Study Area:

Table 10 CERCLIS site identified within the Study Area

Name	Address	ID Number	Regulatory Status
ARCH GEAR/GRANITE CITY SELF-STORAGE	97-103 HOLMES ST., QUINCY	MAD001039403	NFRAP/Not on NPL

- NPL = National Priorities List
- NFRAP = No Further Remedial Action Planned

This site is located at 97-103 Holmes Street, approximately one block west southwest of Route 3A/Hancock Street. According to the EPA's online Superfund Site Information database, the site is listed on the Archived Site Inventory, and was archived on April 21, 2000.

7.5 Open Space and Article 97 Properties

Several open space areas are located along the edge of Route 3A/Hancock Street (per MassMapper), as shown in Figure 9 and described below:

- The Merrymount Park (owned by the City of Quincy) is adjacent to Route 3A/Hancock Street at the southern end of the Study Area.
- The Welcome Young Park (owned by the City of Quincy) is located in the northern portion of the Study Area, just off Route 3A/Hancock Street adjacent to Commander John Shea Boulevard.
- A small portion of Route 3A/Hancock Street on the northern portion of the Study Area is located within the open space adjacent to Quincy Shore Drive (this right of way is owned by Massachusetts Department of Conservation and Recreation (DCR)).

All of these open space areas are protected under Article 97, according to MassMapper.

Figure 9 Protected and Recreational Open Space Map

7.6 Endangered Species and Habitats

State Level

The northern tip of the study area at the Neponset River, is designated as an Area of Critical Environmental Concern (ACEC). There are no Natural Heritage and Endangered Species Program (NHESP) Estimated Habitats of Rare Wildlife, NHESP Priority Habitats of Rare Species, or Certified or Potential Vernal Pools in the Study Area (Figure 10).

Figure 10 Natural Heritage and Endangered Species Program Habitats and Certified and Potential Vernal Pools Map

Federal Level

According to an informal Endangered Species Act (ESA) review using the U.S. Fish & Wildlife Service's Information for Planning and Consultation (IPaC) website, the Study Area includes:

- Two Endangered species, the Northern Long-eared Bat (NLEB), Wherever found (Note: No NHESP NLEB locations are mapped in the Study Area, per the NHESP NLEB Locations mapper); the Roseate Tern; and
- One Candidate Endangered species, the Monarch Butterfly. (Note: Jurisdiction under the ESA does not include Candidate Endangered species.)

The IPaC review also indicated there are no Critical Habitats under the ESA in the Study Area.

7.7 Historic Assets

The Massachusetts Historical Commission (MHC) inventory includes several historic assets (including areas and points) in the Study Area, as shown in Figure 11. Two of the locations adjacent to Route 3A/Hancock Street are listed on the National Register of Historic Places (NRHP): 1-7 Moscow Street apartment house (QUI.15); and Wollaston Theatre, 14 Beale Street (QUI.487). The remainder of the identified historic assets are MHC-"Inventoried Property" only. None of the remaining historic assets are registered: 1) on the National Register of Historic Places, 2) with a Preservation Restriction, 3) as a Massachusetts Historic Landmark, or 4) as a Local Historic District.

Figure 11 Mass Historic Commission Inventory Map

7.8 Groundwater and Surface Water Resource Areas

No groundwater resource areas are located within the Study Area. No Medium or High Yield Aquifers, DEP Approved Zone I or Zone II areas, or Interim Wellhead Protection Areas are located in the Study Area.

No surface water resource areas are in the Study Area (Figure 12).

Figure 12 Groundwater and Surface Water Resource Areas Map

7.9 Wetlands and Outstanding Resource Water Areas

The following DEP Wetlands are mapped within the Study Area: Open Water (Neponset River) and Tidal Flats (Neponset River), per MassMapper.

The National Wetlands Inventory (NWI) (Figure 13) areas approximately overlap with similar DEP wetland areas, but the NWI uses different terminology than DEP:

- DEP calls the Neponset River "Open Water" and "Tidal Flat".
- NWI calls the Neponset River "Estuarine and Marine Deep Water" and "Estuarine and Marine Wetland".

There are no Outstanding Resource Waters in the Study Area.

Figure 13 Outstanding Resource Waters, DEP Wetlands and National Wetland Inventory

7.10 FEMA Flood Hazard

FEMA National Flood Hazard areas are located mainly in the northern portion of the Study Area in Project Area 1 located north of Squantum Street (Figure 14). Much of Route 3A/Hancock Street in Project Area 1 is located within either FEMA Flood Zone A – 1% Annual Chance of Flooding (100-year floodplain) or FEMA Flood Zone X – 0.2% Annual Chance of Flooding (500-year floodplain). In the southern portion (Project Area 2), some FEMA Flood Zone X – 0.2% Annual Chance of Flooding areas are located adjacent to Route 3A/Hancock Street.

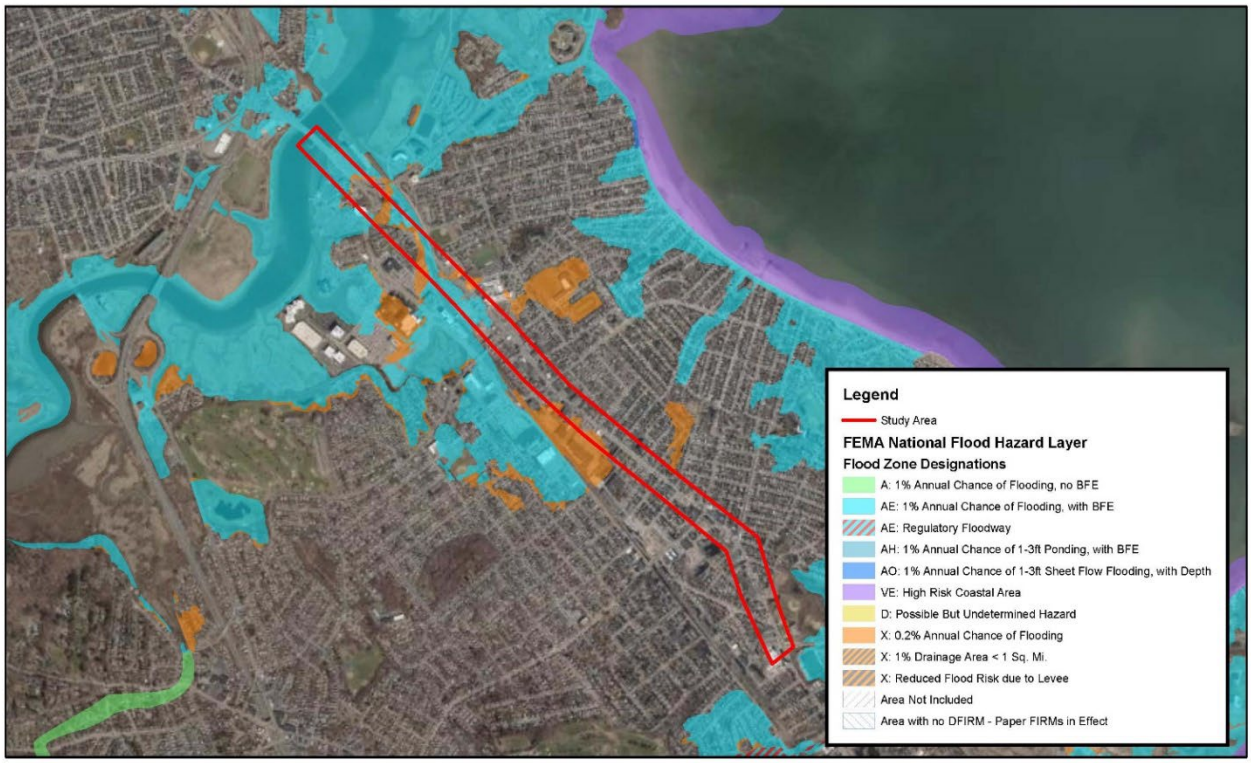


Figure 14 FEMA Flood Hazard Map

7.11 DCR Roads and Trails, DCR Points, and Bicycle and Other Hiking Trails

No DCR roads or trails are located within the Study Area. The nearest hiking trails are located in the adjacent Merrymount Park as shown on Figure 15.

Figure 15 DCR Roads and Trails, Hiking Trails Map

7.12 MassDOT Roads and Trails

Route 3A is a MassDOT Road (numbered highway). Neponset Trail (shared use path) crosses beneath Route 3A/Hancock Street along the Neponset River (Figure 15). The shared use path is approximately 14' near the study area and forms part of the Neponset River Greenway, a growing system of shared use paths that provide recreation and mobility opportunities and connect the various communities along the Neponset. There is a hiking trail network adjacent to the Study Area in Merrymount Park (Figure 15).

7.13 Permitting Considerations

The environmental conditions findings were evaluated with respect to potential permitting considerations for future potential construction work associated with the Study. Federal funding for a future construction project would trigger the need for applicable federal permitting, in addition to State and local permitting requirements. Federal, State and other potential permitting considerations are discussed below.

Hazardous Waste Sites – State and Federal Permitting Considerations

For any of the four closed state listed hazardous waste Sites that have a recorded Activity and Use Limitation (AUL), any proposed construction or use will be required to comply with the AUL's limits on activities and future use of the parcel. Typically, the services of a MA Licensed Site Professional (LSP) are required to oversee and/or approve work proposed at an AUL site, per the Massachusetts Contingency Plan (MCP) regulations at 310 CMR 40.00.

Coordination with EPA and/or other agencies would be required for any proposed construction at the two Brownfields Sites in the Study Area, regardless of whether the construction project is federally funded.

State Permitting Considerations

Massachusetts Environmental Policy Act (MEPA): It is anticipated that MEPA Threshold 11 – Areas of Critical Environmental Concern (ACEC) would be met or exceeded by the proposed construction project in the Study Area due to the presence of an ACEC within the Study Area. Due to the presence of Environmental Justice (EJ) communities within nearly the entire Study Area (per the online MA Environmental Justice Maps, Update 2022), an Expanded Environmental Notification Form (EENF) and a Rollover (or "Proposed") Environmental Impact Report (EIR) would be required for submittal to the MEPA Office. The MEPA process includes public meetings, review periods, and outreach to EJ communities; as a result, it is usually a lengthy process.

DCR Construction Access Permit: A DCR Construction Access Permit is required for any construction proposed on DCR property (including DCR roads and trails), as well as any construction access activities (e.g., transit of construction equipment and trucks) on DCR property. This includes transit over DCR property to access a construction site that is not on DCR property.

Article 97: Article 97 of the Amendments to the Constitution of the Commonwealth of Massachusetts, in part, provides for the dedication of public land to open space, conservation, natural resources, or other related purposes. Land or easements subject to Article 97 shall not be used for other purposes or disposed of without approval of the state legislature, pursuant to the Public Lands Protection Act. All of the open space land parcels in the Study Area are protected under Article 97 (per MassMapper), but potential activities related to this Study are not anticipated to change the public use of such properties and would not be subject to Article 97 review.

Massachusetts Endangered Species Act (MESA): A MESA Review by NHESP would not be required as no NHESP habitats are located in the Study Area.

Massachusetts Historical Commission (MHC): An MHC Project Notification Form (PNF) would be required for review by MHC and applicable tribes. The two NHRP-listed locations adjacent to Route 3A/Hancock Street are the most likely to be a consideration by MHC, rather than the nearby MHC-listed Inventoried Properties. A finding of No Effects or No Adverse Effects by MHC and tribes is anticipated. If that is not the case, coordination with MHC would be expected to result in a Memorandum of Understanding (MOU). (Note: In the event that a MEPA review is necessary, such review includes an MHC review and a PNF would not be needed.)

Massachusetts Wetlands Protection Act (WPA) and FEMA Flood Hazard: Wetland resource areas under the jurisdiction of the WPA, such as bordering vegetated wetlands, isolated vegetated wetlands, bordering land subject to flooding (FEMA Flood Zone A, or 100-year floodplain), land under water bodies and waterways, riverfront area (within 200 feet of perennial streams), and 100-foot buffer zone, appear to be located in close proximity to several key roadways and paths in the Study Area. The municipal Quincy Wetlands Protection Ordinance also provides for protection of wetland resource areas, as defined by the WPA.

A wetland delineation survey would determine whether a construction project falls under the jurisdiction of the WPA. If so, submission of a Wetlands Notice of Intent (NOI) to the Quincy Conservation Commission would be needed. In addition, a Request for Determination of Applicability (RDA) may first be filed for a conservation commission's determination as to whether a proposed project falls under WPA or local jurisdiction.

Vernal pools are protected under the WPA regulations, as well as other State and Federal acts or codes, to prevent direct impacts to certified vernal pools and to minimize indirect impacts. There are no certified vernal pools and two (2) potential vernal pools located in the Study Area.

Massachusetts Water Resources Authority (MWRA): An MWRA 8(m) Permit is needed to build, construct, excavate, or cross within an easement or other property interest held by the MWRA, such as sewer or water lines. If an inquiry to MWRA finds that any of these conditions are applicable to the project, an MWRA 8(m) Permit will be needed.

MassDOT Environmental Review Checklist: All MassDOT-funded projects require submittal of a MassDOT Environmental Review Checklist package with submission of the 25% Design.

Federal Permitting Considerations

In the event of federal funding or permitting of the project, the following federal permits are anticipated.

National Environmental Policy Act (NEPA): A NEPA review would be required, and it is anticipated that the project would qualify for a Categorical Exclusion (CE). Submittal of a Categorical Exclusion Checklist is needed if a project qualifies as a "d-list" CE; a CE Checklist is not required for projects that qualify as a "c-list" CE.

National Historic Preservation Act, Section 106: A Federal Section 106 historic review would be conducted and submitted to MHC by the federal lead agency. Concurrence by MHC with the federal lead agency's determination of effects contained in Section 106 submittal is anticipated.

U.S. Army Corps of Engineers (USACE) – Massachusetts General Permits (GPs): Authorization under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899 by the USACE under the MA GPs would be needed for proposed construction work within jurisdictional limits (e.g., below the Ordinary High Water Mark for inland waters). If any GP thresholds are met, a Self-Verification Notification Form (SVNF) (least impacts) or a Pre-Construction Notification (PCN) (more impacts) would be needed. If applicable, it is anticipated that a construction project associated with this Study would not need an Individual Permit (substantial impacts), which is outside of the GPs.

Endangered Species Act (ESA), Section 7: An online review using the U.S. Fish & Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) tool of Endangered/Threatened species, Proposed Endangered/Threatened species, and designated Critical Habitat within the project's limit of work would be required. If warranted by the Official Species List generated through IPaC, further consultation and review with the USFWS may be required. It is anticipated that only an online IPaC review would suffice for a proposed project in the Study Area.

7.14 Climate Change Projections

Climate change projections anticipate impacts given a projected rise in global temperatures. Different projection scenarios are typically analyzed, such as by the International Panel on Climate Change (IPCC), to determine the impacts varying levels of human activity have on the climate.

According to the Massachusetts Climate Change Assessment, Quincy's proximity to the Atlantic Ocean puts the city at high risk of projected flooding from raising sea levels and intense coastal storms. Rainstorms will become sporadic, with higher levels of rainfall than previously experienced, and the summers will bring higher temperatures, heat waves, and drought.

8. Adjacent Projects, and Studies, and Plans

8.1 City of Quincy Transportation Safety Action Plan

This plan outlines the city's transportation safety conditions. The plan is of consequence to this study as multiple locations within the area of study are identified as Highway Safety Improvement Program eligible areas, as well as crash areas. Route 3A is susceptible to both vehicle, pedestrian, and bicyclist accidents and injuries, necessitating the improvement of infrastructure for safety concerns along this route.

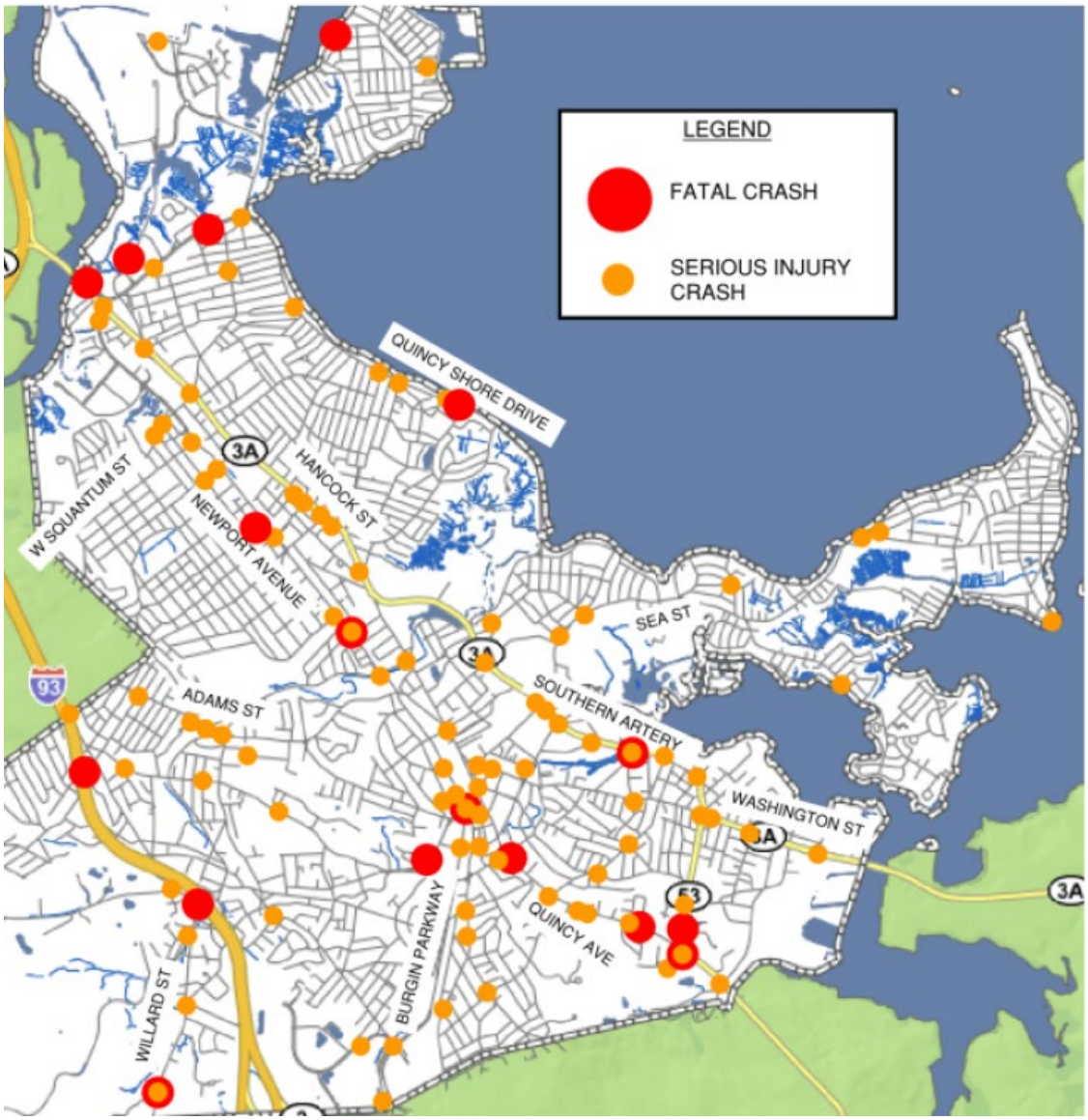


Figure 16 Map of crash locations in Quincy

As a part of this plan, the city is looking to further develop their Complete Streets Policy in accordance with the MassDOT Complete Streets Program. In accordance with this policy, the city Complete Streets committee meets regularly to plan projects and determine if the city is working to accommodate all modes of transportation within their streets. Projects and improvements identified around the area of study can be found in Table 11 and the paragraph below.

Table 11 Complete Streets Improvements identified within the Study Area

5	Hancock Street (Russell Park to Fenno Street)	3	0	Pedestrian Crossings	Reconfigure the Hancock/Adams intersection to a roundabout to provide slower speeds and improved crossings	High
					Provide a median division between Merrymount Parkway and St. Ann's Road to provide pedestrian refuge adjacent to Central Middle School	Medium
				Pedestrian Facilities	Ground overhead utility lines to widen the effective width of sidewalks	High
				Bicycle Facilities	Reduce parking to one side of the roadway and repurpose space to add bike lanes on both sides of the roadway	Medium

Further improvements include traffic and safety projects to the Southern Artery from Sea Street to Quincy Avenue, Burgin Parkway at Granite Street, Quincy Avenue Corridor from Scammell Street to Southern Artery, Newport Avenue at Holbrook Road/Wilson Road and the surrounding area, Fore River Rotary, and Common Street at Copeland Street. Improvement projects include reduced parking, reconfigured intersections for increased pedestrian safety, median improvements, reduced vehicle speeds and lanes, off street biking facilities, and more.

8.2 MAPC: Quincy Bicycle and Pedestrian Network Plan

The Metropolitan Area Planning Council (MAPC) produced a Bicycle and Pedestrian Network Plan for the City of Quincy in 2014. This plan was developed to improve the conditions of cycling and pedestrian movement within the city of Quincy. The solutions outlined in this report focus on near-term, implementation ready measures that are cost effective and do not necessitate curb relocation. The focus of the proposed improvements is to connect bikers to key transit stations, residential areas, parks and natural areas, as well as financial and business areas.

The Quincy Bicycle Network Plan proposes shared lane marking along Hancock Street Bridge to Furnace Brook. In the long term, the report recommends an overall lane reduction on Hancock Street to three lanes with a center turning lane and bicycle lanes on either side. Furthermore, the Quincy Spine Greenway is a proposed Greenway that starts at Hancock Street Bridge, running parallel to Route 3A providing a safer alternative for bikers. This greenway would connect all the major MBTA stations within the city.

Additional proposed bike lanes and shared lanes along Hancock Street are shown in Table 12.

Table 12 Proposed bike lanes along Hancock Street

Hancock Street	Newport Avenue to East Squantum Street	H	BL	2014 Bike Network
	East Squantum Street to Furnace Brook		SL	
	Furnace Brook to Dimmock/Adams		BL	

	Adam to Russell Park		SL	Adams Green Project
	Russell Park to Granite Street		BL	
	Granite Street to School Street		SL	2014 Bike Network

8.3 MassDOT and partners: Morrissey Boulevard Study

MassDOT, the Executive Office of Energy and Environmental Affairs (EEA)/DCR, and the City of Boston have been undertaking a joint conceptual planning study of William T. Morrissey Boulevard in Boston, alongside the legislative Morrissey Boulevard Commission, which was formed by §53 of Chapter 176 of the Acts of 2022. The purpose of the study is to develop and analyze alternatives for the Morrissey Boulevard Corridor that are intended to improve the public realm, mobility, connectivity, and flood vulnerability.

Morrissey Boulevard is a heavily travelled corridor between South Boston and Dorchester, and an important regional connection, which runs parallel to I-93. A draft report of the study, in support of the Morrissey Boulevard Commission, was released for public comment in March 2025. The study is anticipated to be completed in Summer 2025 and project partners will discuss the potential implementation of a project or projects recommended in the study report.

8.4 DCR: Parkways Master Plan

The Department of Conservation and Recreation (DCR) oversees the major parks and greenways within the greater Boston region. The DCR Parkways Master Plan aims to connect walkways and bikeways to bring people to these networks, providing individuals of all ages and abilities access to recreational opportunities. The plan was released in August of 2020 and aims to use short term improvements, long term investments, and policy and design guidance to implement comfortable use for all modes of travel. The roads in this study focus on connecting a group of parkways spanning the greater Boston metropolitan region.

Quincy Shore Drive starts as a residential connector, then transitions to an oceanside boulevard at East Squantum Street. This road has sidewalks on either side of the road. Bicycle and pedestrian traffic are mixed and can therefore become congested as a result. The following segment alternatives propose the addition of designated bike lanes and improved crosswalks, amongst other items.

The Quincy Shore Drive segment from Neponset Avenue to Squantum Street does not have a bike lane and the sidewalk is in degrading conditions. Improvements to this section are proposed with two alternatives. The first alternative proposes a two-way bike lane and 5 lanes as opposed to the original 6. The second alternative proposes 4 lanes (two in each direction) and a one-way bike lane on either side of the road. Both alternatives include a recommendation for reconstructed sidewalks and new crossings at Ditmar Street and Commander Shea Boulevard.

The Quincy Shore Drive segment east of Squantum Street to Fenno Street Quincy Shore Drive is a four-lane road with a shared use path on one side and a sidewalk on the other. One alternative includes a two-way separated bike lane is proposed along the eastern side of the parkway with new landscaped buffers to offset the roadway on both sides. The other alternative for this segment includes one-way separated bike lanes and a two-way left turn lane.

The Quincy Shore Drive segment from Fenno Street to Furnace Brook Parkway is a four-lane road with two lanes on either side separated by a 10-foot-wide buffer. Two alternatives are proposed, one of which proposes that the asphalt path is expanded to a 10–12-foot shared use path, and the other proposes that one-way separated bike lanes are installed in both directions on Quincy Shore Drive using striping and vertical separation. Both alternatives include a recommendation to modify the intersection of Quincy Shore Drive and Furnace Brook Parkway for improved pedestrian use as well

as constructing an accessible path of travel in the vicinity of the Caddy Memorial Park parking lot exit so pedestrians can travel between the seawall and Caddy Memorial Park.

The Quincy Shore Drive segment from the Furnace Brook Parkway to Sea Street is a two-lane undivided road. No alternatives were developed for this segment, but bike lane installation is suggested as well as a cross walk at Sea Street.

Construction on the intersection between Quincy Shore Drive and Sea Street began in spring of 2019. Public comments were held in 2016 to get the public's input on the proposed upgrades to this road. This is the extent of project progress to date.

8.5 City of Quincy: Housing Quincy Report

Quincy's Housing Report updates the old Housing Production Plan (HPP) from 2016 to identify strategies that will provide sustainable, accessible, and affordable housing to the residents of Quincy. The city of Quincy works together with the Metropolitan Area Planning Council (MAPC) to plan this process for a five-year housing production target, along with potential sites for affordable and mixed income development. Affordable housing supply falls short of supporting all of the communities that would qualify and benefit from it. One fifth of SHI Properties are at risk of flooding. To develop the actionable items outlined in this report, stakeholder engagement sessions were conducted where Quincy residents could weigh in on the importance of various strategies.

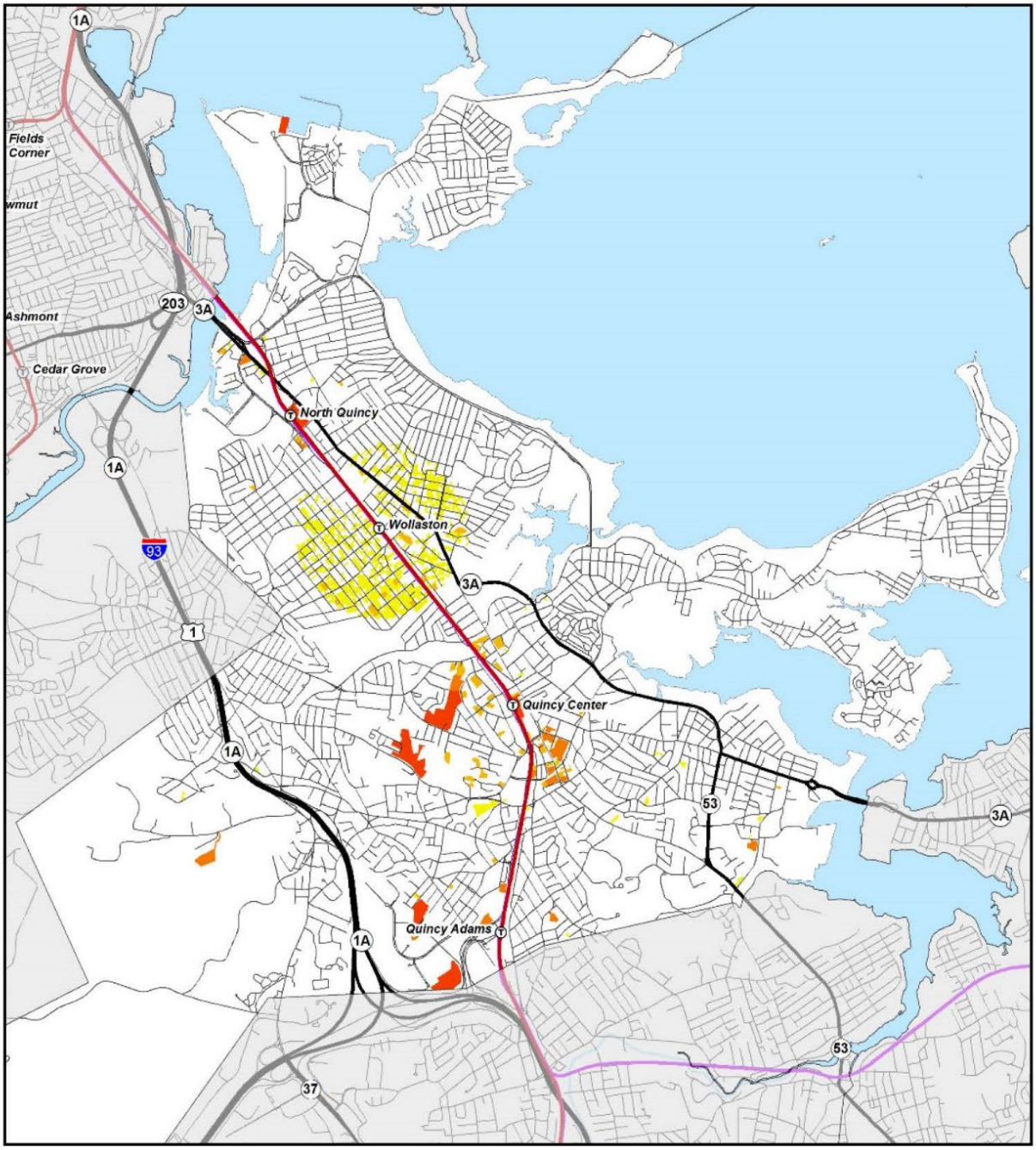


Figure 17 Map of development projects

112 residential projects will be under development from 2013-2022, including 6,124 residential units. Located near the area of study, there are sites including the following:

- 21-31 Beale Street
- 129 and 135 Old Colony Avenue (industrial warehouse to multifamily housing with 40 residential units)
- 1562-1570 Hancock Street (single-story commercial to multifamily housing with 215 residential units)

9. Public Outreach

To better understand the conditions and lived experiences of those who travel on Route 3A/Hancock Street, MassDOT held a public site walk on May 14, 2024, at 4:00 p.m. with a public workshop style meeting following the site walk at 6:00 p.m. at North Quincy High School. The study team also hosted a virtual public meeting on March 4, 2025, at 6:00 p.m. These public meetings provided participants with an opportunity to learn about the study background, purpose and provide feedback for locations along the corridor.

9.1 Stakeholder and Public Site Walk

A site walk was held prior to the public meeting and stakeholders, and the public were invited to participate. The walk began at North Quincy High School, progressing down the east side of Route 3A to Linden Street and returning back up the west side of Route 3A to return to North Quincy High School.

Upon leaving the high school the mismatch between the school fence and the crosswalk approximately 50 feet to the south was noted. The group spent a long time discussing the intersection of Route 3A, West Squantum Street, and East Squantum Street. Many pedestrians were observed crossing the street on the diagonal during the pedestrian crossing light sequence. Better signage and wayfinding for bikes, pedestrians, nearby public parking lots, and MBTA riders could improve the user experience in this section of the corridor.

There are high pedestrian volumes at Glover Avenue. Site walk participants provided feedback that additional pedestrian crossings and infrastructure and improvements such as benches and trees, could improve the quality of the pedestrian experience along the corridor.

Site walk participants feel that biking along the corridor can be unsafe, especially south of Albion Road, where it is perceived cars move at faster speeds due to the lack of roadway obstacles.

9.2 In-Person Public Meeting and Workshop

An in-person workshop style public meeting was held at North Quincy High School and advertised to the community. Attendees included Mayor Thomas Koch, planning staff from the City of Quincy, a representative from the Massachusetts Department of Conservation and Recreation, and members of the public, including members of Quincycles, a local Quincy Bicycle Advocacy group. The meeting had multiple stations to collect feedback from participants. The team was able to collect survey responses, engage participants in a mapping exercise, and understand priorities through a priority ranking activity. Children enjoyed the transit themed coloring table.

9.3 Survey Responses

18 surveys were completed during the course of the meeting. The following is a summary of survey responses received during the meeting. The number next to each response indicates how many participants circled that option.

1. How do you interact with Route 3A/Hancock Street? Circle all that apply.
    a. Passing through; trying to get to somewhere else. **12**
    b. Errands; shopping, filling up on gas, appointments, etc. **14**
    c. Leisure; restaurants, entertainment, visiting friends/family, etc.**17**
    d. Other (please specify): **All of the above, accessing the T**

2. What concerns you when traveling along 3A? Circle all that apply.
    a. High vehicle speeds **11**
    b. Unsafe or uncomfortable walking conditions **12**
    c. Unsafe or uncomfortable biking conditions **13**

d. Cars get stuck in traffic **8**
e. Difficulty parking **5**
f. Buses get stuck in traffic **6**
g. Other (please specify): **Need safer biking**

3. How did you get to this meeting?
    a. Car **8**
    b. Transit **1**
    c. Walking **3**
    d. Biking **6**

4. Tell us how you would like to see Route 3A/Hancock Street improved. Circle all that apply.
    a. Crosswalks and pedestrian signals **14**
    b. Benches, trees, and greenspace **11**
    c. Bike lanes and bike locking stations **9**
    d. On-street parking **6**
    e. Street improvements for transit **12**
    f. Other (please specify): **More turtle ponds, curb extensions, better pedestrian safety, parking garage/ access near restaurants**

5. Is there anything else about your experience on Route 3A/Hancock Street you would like us to know?
    - **Reduce vehicle speed**
    - **Better access to the Neponset River Trail**
    - **Traffic calming measures and green space**
    - **Make the roadway safer for painted turtles crossing**
    - **Improve the pedestrian experience along 3A**
    - **Hancock Street is a destination, rather than a through road.**

9.3.1 Mapping Exercise

The participants were provided two large maps of the study area on Route 3A (split between north and south) to write comments and feedback directly on the geographic location they were interested in. These maps are attached in Appendix C. Below is a summary of the comments received:

- Road is too wide, promotes heavy traffic and high speeds
- Desire for curb extensions
- Decrease car speeds
- Unused parking lots
- Morrisey Boulevard and Neponset Bridge area can be difficult to access from Quincy by bike
- Safer ways to get over [Neponset River] bridge for bikes and pedestrians
- Better lighting for walking at night and under the [Neponset River] bridge
- Overall improvements of bike infrastructure
- Less space for parking, more space for benches and parks
- More contrasting color crosswalks needed
- Make sure crosswalk signals work
- Widen sidewalks

- A lot of bus stops, most of them not at a crosswalk

9.3.2 Priority Ranking

Attendees were asked to place 4 tokens into jars representing 6 different priorities (New/Improved Crosswalks, New/Improved Pedestrian Signals, New/Improved Facilities for Resting or Waiting for Transit, New/Improved Bike Lanes and Bike Locking, More on Street Parking, and Less Transit Delay). Each of these tokens represented one vote for the area that the attendee would like to see prioritized.

Table 13 Summary of participant votes for an area they would prioritize

Priority	Total Number of Votes
New/Improved Crosswalks	15
New/Improved Pedestrian Signals	14
New/Improved Facilities for Resting/Waiting for Transit	8
New/Improved Bike Lanes and Bike Locking	11
More On Street Parking	2
Less Transit Delay	6

9.4 Virtual Public Meeting

A virtual public meeting was held on Zoom on March 4, 2025, at 6:00 p.m. and was advertised to the community. Approximately 35 attendees, including Senator John Keenan, State Representative Bruce Ayers, and community members, participated. The project team presented an overview of the project, its goals, existing conditions, design alternatives, and next steps. Following the presentation, a Q&A session was conducted to gather feedback from attendees. A summary of the feedback collected is provided below:

- **Multimodal Accommodations:** Bicycle and pedestrian traffic benefits businesses, but safety concerns currently push cyclists and walkers to indirect routes. Infrastructure improvements, including curb extensions, better barriers, and case studies from other cities, should be considered. Sharrows are not preferred.
- **Lane Widths / Congestion / Safety**: Adding lanes does not ease congestion and can increase speeding, creating safety concerns. Promoting alternative transportation and implementing curb extensions, clearer sightlines, and red-light restrictions may improve safety and reduce congestion.
- **Parking:** Parking removal in business districts is a sensitive issue, requiring a well-planned strategy to access parking needs and relocate spaces before bike lanes are introduced.
- **Other:** Concern that project may not be implemented in the near term. Parking removal in areas like Wollaston Village and Billings Road may not significantly benefit cyclists due to existing traffic conditions.

10. Goals and Evaluation Criteria

This study aims to address several synergistic and partially overlapping goals, including:

Minimizing disruption to drivers. Driving will remain a necessary form of travel within the study area. Congestion is a key issue in Subarea 1, some businesses are served by on-street parking, and approximately 80% of trips in Quincy involve a personal vehicle. While multimodal travel is critical and needs to be more robustly served, this goal acknowledges that some level of vehicle trips will continue to be necessary, and conditions for driving should not significantly deteriorate. Key performance criteria include avoiding level of service (LOS) reduction relative to that of the no-build scenario in 2050 and minimizing the reduction of parking adjacent to businesses.

Improving safety for all road users. Coexistence among pedestrians, cyclists, and drivers is premised on safer conditions for the most vulnerable travelers. Better safety for cyclists and pedestrians also benefits drivers, as systemic conditions that deter collisions lead to a better experience for everyone. Key performance criteria include reducing or mitigating conflict points between cars and cyclists/pedestrians; increasing the number of crosswalks; increasing pedestrian signal time; and increasing the number, length, and width of bike lanes.

Enhancing multimodal comfort. Increasing pedestrian and cyclist trips—some of which may be trips that switch from what would have otherwise been in a car—requires amenities that make journeys seamless and complete. Key performance indicators include increasing bike parking capacity and improving the transit waiting, boarding, and alighting experience.

11. General Assumptions

Traffic Model Area

The traffic model covers an approximately 0.8-mile segment of Route 3A/Hancock Street from the Neponset Bridge to East/West Squantum Street. The segment consists of two 11-foot lanes in each direction, four signalized intersections, and four unsignalized intersections. For the intersection of Squantum Street and 3A, the Synchro model included a left-turn lane, one through lane, and a right-turn lane for the northbound approach.

Traffic Model Data

The study team's Synchro model utilized 2024 turning movement counts from the City of Quincy's Miovision system for capacity analysis for the eight intersections within the specified Route 3A/Hancock Street segment in existing, future, and proposed conditions. This data was used to develop existing 2024 turning movement counts, as well as identify morning and afternoon peak hours. Signal timing was not changed in these models.

Traffic Model Future Scenario

The future scenario year is 2050 and includes a background growth rate for forecasting future traffic volumes. This growth rate of 0.2% per year was derived from the Boston Region's Travel Demand Model (TDM) 23[4] by averaging the AM and PM growth rates at each intersection. Negative annual changes in TDM 23 were treated as zero percent growth. Details of the TDM 23 annual change are shown in the table below. Future 2050 traffic volumes were then developed by applying the 0.2% annual growth factor to the existing 2024 peak-hour traffic volumes over a 26-year period. Heavy vehicle percentages from the traffic volume data were carried to 2050. Peak hour factors for 2050 conditions were determined to be 0.92 per MassDOT Guidelines.

Table 14 TDM 23 Traffic Volume Projections (2019-2050)

TDM 23 Highway Volume Worksheet	Time	2019 Base	2050 Plan	Change	Annual change
Quincy Route 3A/Hancock Street Subarea 1 (A) Newport Avenue - Myrtle	AM	4,748	4,586	-3.4%	-0.1%
	PM	5,072	5,406	6.6%	0.2%
Quincy Route 3A/Hancock Street Subarea 1 (B) Hunt Street-East Squantum	AM	5,317	5,176	-2.7%	-0.1%
	PM	5,984	6,302	5.3%	0.2%
Quincy Route 3A/Hancock Street Subarea 2 (A) Albion - Ellington Road	AM	3,019	2,872	-4.9%	-0.2%
	PM	4,227	4,401	4.1%	0.1%
Quincy Route 3A/Hancock Street Subarea 2 (B) Merrymount Avenue-Fenno	AM	2,253	2,640	17.2%	0.5%
	PM	2,910	3,359	15.4%	0.5%

Level of Service

Level of Service (LOS) is based on the Highway Capacity Manual (HCM), which provides guidance and analysis methodologies for calculating roadways and intersections' performance levels. Level of Service defines different operating conditions that may occur under a given traffic volume load and is a qualitative indication of driver discomfort, frustration, fuel consumption, and lost time. LOS is defined by an index from A through F, with A describing ideal conditions and F the worst. The HCM lists the following definitions for each grade:

[4] The Boston Region's Travel Demand Model has been built and managed by the Central Transportation Planning Staff to explore how transportation infrastructure decisions may influence the future. It is a trip-based aggregate model that simulates surface travel patterns on a typical weekday using a static highway and transit assignment.

A = Free Flow
B = Reasonably Free Flow
C = Stable Flow
D = Approaching Unstable Flow
E = Unstable Flow
F = Forced Flow, volume is greater than capacity

The LOS for a signalized intersection is defined as a weighted average control delay for an entire intersection. The LOS assignments for signalized intersections, as compared to delay, are as follows:

LOS A: <= 10 seconds
LOS B: >10 seconds and ≤ 20 seconds
LOS C: >20 seconds and ≤ 35 seconds
LOS D: >35 seconds and ≤ 55 seconds
LOS E: >55 seconds and ≤ 80 seconds
LOS F: >80 seconds

The LOS for unsignalized intersections and roundabouts, as compared to delay, is as follows:

LOS A: <= 10 seconds
LOS B: >10 seconds and ≤ 15 seconds
LOS C: >15 seconds and ≤ 25 seconds
LOS D: >25 seconds and ≤ 35 seconds
LOS E: >35 seconds and ≤ 50 seconds
LOS F: >50 seconds

12. Current Road Design and Traffic

12.1 Design

Subarea 1 is approximately 0.8 miles long and extends from the Neponset Bridge to Squantum Street. It is a 44-foot-wide roadway with two 11-foot travel lanes in each direction. There are no defined shoulders, parking, or separated bicycle lanes within the study area. Subarea 2 is approximately 1.3 miles and extends from Squantum Street to the Southern Artery. It is a 44-foot-wide roadway with one 12.5-foot travel lane in each direction. There are either parking stalls or left turn lanes along this segment, and no separated bike lanes. Exact widths vary at numerous points within the corridor. More detailed information can be found in Section 3 Existing Roadway Conditions.

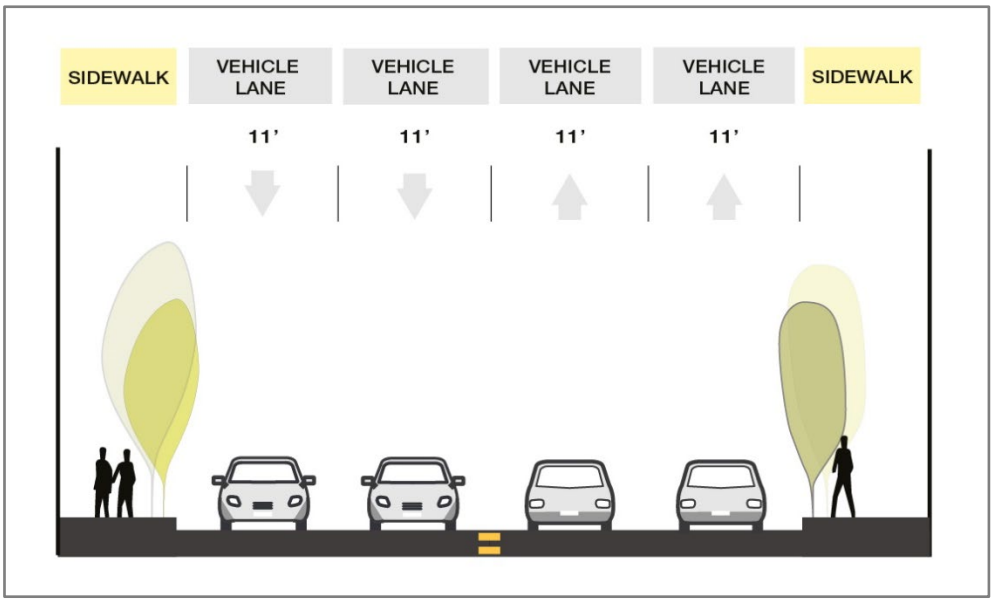


Figure 18 Subarea 1 Typical Roadway Configuration

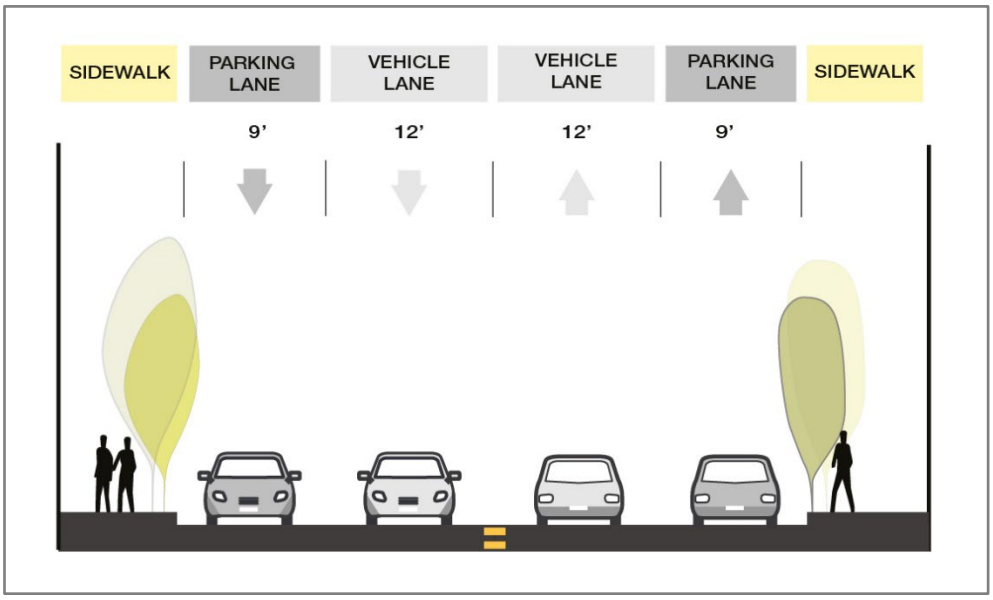


Figure 19 Subarea 2 Typical Roadway Configuration

12.2 Traffic

In Subarea 1, the traffic model shows current LOS and future LOS assuming a no-build scenario. Table 15 and Table 16 show the capacity analysis summaries for the signalized intersections in the existing 2024 and future 2050 years. Signal timing was optimized for each alternative scenario. The network diagram of the traffic counts for the AM and PM peak periods can be found in Appendix A.

Between 2024 and 2050, LOS does not significantly change for most intersections. However, Route 3A/Hancock Street at East and West Squantum Street and at McDonalds/Target shows the most significant decline. This is due to assuming higher volumes of vehicle traffic and similar peak patterns. Instances in which an alternative's LOS is E or worse are marked in red.

Table 15 AM Peak Analysis Results (2024 vs 2050)

			2024		2050	
Intersection	**Approach**	**Movement**	**Delay (s)**	**LOS**	**Delay (s)**	**LOS**
Route 3A @ Newport Avenue Extension	EB	T R	38.3	D	39.2	D
	NORTHBOUND	R	4.5	A	2.8	A
	SOUTHBOUND	L	15.2	B	15.3	B
		T	7.7	A	7.1	A
		R	1.8	A	1.7	A
	Intersection		14.5	**B**	14.3	**B**
Route 3A @ Hunt Street	EB	L T R	42.6	D	43.5	D
	WB	LTR	3.9	A	1.2	A
	NORTHBOUND	L T R	13.4	B	12.9	B
	SOUTHBOUND	L T R	11.4	B	11.3	B
	Intersection		14	**B**	13.7	**B**
Route 3A @ McDonalds/Target	EB	L R	21	C	22.5	C
	NORTHBOUND	L T	14.5	B	11.9	B
	SOUTHBOUND	T R	9.8	A	8.7	A
	Intersection		13.3	**B**	11.1	**B**
Route 3A @ East/West Squantum Street	EB	L	54.5	D	41.3	D
		T R	26.5	C	21.7	C
	WB	L	83.3	F	**66.3**	**E**
		T R	63.5	E	45.5	D
	NORTHBOUND	L	35.5	D	40.8	D
		T R	31.8	C	34.8	C
	SOUTHBOUND	L T	57.3	D	48.9	D
		R	4.1	A	1.8	A
	Intersection		44.4	**D**	37.6	**D**

Table 16 PM Peak Analysis Results (2024 vs 2050)

			2024		2050	
Intersection	**Approach**	**Movement**	**Delay (s)**	**LOS**	**Delay (s)**	**LOS**
Route 3A @ Newport Avenue Extension	EB	T R	29.6	C	33.4	D
	NORTHBOUND	R	0.5	A	0.4	A
	SOUTHBOUND	L	14.8	B	15.5	B
		T	15.8	B	12.5	B
		R	4.3	A	4.0	A
	Intersection		**15.2**	**B**	**14.2**	**B**
Route 3A @ Hunt Street	EB	L T R	4.4	A	3.4	A
	WB	LT R	1.2	A	.8	A
	NORTHBOUND	L T R	10.7	B	10.9	B
	SOUTHBOUND	L T R	12.4	B	12.6	B
	Intersection		**14**	**B**	**11.6**	**B**
Route 3A @ McDonalds/Target	EB	L R	131.2	F	**135.3**	**F**
	NORTHBOUND	L T	45.8	D	33.7	C
	SOUTHBOUND	T R	12.9	B	12.1	B
	Intersection		**37.6**	**D**	**32.3**	**C**
Route 3A @ East/West Squantum Street	EB	L	127	F	**79.7**	**E**
		T R	42.4	D	42.5	D
	WB	L	153.9	F	164	D
		T R	49	D	43.5	D
	NORTHBOUND	L	24.5	C	**79.7**	**E**
		T R	27.5	C	42.5	D
	SOUTHBOUND	L T	108.8	F	**61.2**	**E**
		R	0.1	A	0.1	A
	Intersection		**65.3**	**E**	**49.2**	**D**

13. Alternatives Road Design and Traffic

13.1 Design

13.1.1 Treatments

These treatments are compatible with all alternatives and are generally implemented at specific locations, such as intersections or key assets. The treatments address a variety of issues outside of lane configuration, including traffic delays, pedestrian safety, bus stop accessibility, and bicycle infrastructure. Examples of treatments include installing signage, providing crosswalks, adjusting bus stop locations, and enhancing bike lanes. These measures aim to improve safety, minimize disruption to drivers, and enhance multimodal comfort.

Table 17 Treatments

Subarea	ID	Location	Issue	Improvement Description	Goal
1	1	150 Hancock Street	Traffic delay beginning at ramps	Install signage on Route 3A/Hancock that alerts drivers of lane changes needed to reach different destinations e.g. Boston. This is meant to give drivers more advanced notice of the decision to change lanes so that this decision is not concentrated at the ramps and causing upstream congestion.	Minimize disruption to drivers
1	2	285 Hancock Street	N Quincy High School pedestrian access point has no crosswalk.	Provide a sidewalk to the new crosswalk location behind the fence on school grounds and closing the current opening. This will create a way to direct pedestrians to the crosswalk, which is a safer place to cross than at the current opening in the fence at the school. (Recommendation from public open house as well as internal stakeholder meeting.)	Improve safety for all road users.
1	3	Hancock Street @ West Squantum Street & East Squantum Street	High volume of pedestrians originating from the school.	Leading Pedestrian Interval, increase size of pedestrian island, increase pedestrian crossing time (“pedestrian scramble”). (Recommendation from public open house.)	Improve safety for all road users.
2	4	Northbound Hancock Street @ Glover Avenue	Bus stop has a school driveway halfway through it.	Shift bus stop to include parking spot in front of it.	Enhance multimodal comfort.
2	5	Southbound Hancock Street @ Glover Avenue	Bus stop has striped parking spot in front of it.	Remove parking spot and stripe the bus idling area.	Enhance multimodal comfort.
2	6	Billings Road @ Hancock Street	Fragmented bike lane network.	Connect bike lanes on Billings Road from Hancock Street to pedestrian bridge.	Enhance multimodal comfort.

2	7	Billings Road @ Hancock Street	Disconnected bike lane network.	Add bicycle lane dashes across intersection to connect to Billings planned bike lanes.	Improve safety for all road users.
2	8	Northbound Hancock Street @ Albion Road	Bus stop is located near-side to the intersection with stop directly next to the stop line.	Shift bus stop to far side of intersection, in front of 468 Hancock Street. Remove yellow median and use for travel lane to allow vehicles to pass.	Enhance multimodal comfort.
2	9	Hancock Street @ North Quincy Plaza sidewalk (opp. Albion Road)	Sidewalk from grocery store encourages jaywalking as there is no crosswalk for those heading southbound	Add pedestrian flashing beacon and crosswalk. (Recommendation from public open house.)	Improve safety for all road users.
2	10	Northbound Hancock Street opposite Linden Street	Northbound bus stop intersects with a private driveway.	Shift northbound bus stop closer to Cheriton Road to provide adequate space.	Enhance multimodal comfort.
2	11	Southbound Hancock Street opposite Linden Street	Southbound bus stop is located near-side.	Move southbound bus stop far side.	Enhance multimodal comfort.
2	12	Northbound & Southbound Hancock Street @ Willet and Woodbine Street	Both northbound and southbound bus stops are located within the intersection, which is a major safety concern.	Move northbound & southbound stops to far side of intersection.	Enhance multimodal comfort.
2	13	Hancock Street @ Beale Street & Beach Street	High crash intersection.	High visibility crosswalks and high visibility back plates on signals.	Improve safety for all road users.
2	14	Hancock Street @ Elm Avenue & Wollaston Avenue	High crash intersection.	Add protected left turns. (This is a comment from the internal stakeholder meeting.)	Minimize disruption to drivers.
2	15	Northbound Hancock Street @ Wentworth Road	Bus stop intersects with school driveway halfway.	Shift bus stop sign location southward to the front of 738 Hancock Street.	Enhance multimodal comfort.
2	16	Northbound Hancock Street @ Fenno Street	Bus stop is located within a crosswalk.	Shift bus stop 40 feet north.	Enhance multimodal comfort.

All	17	All	No infrastructure.	Add bicycle boxes at all signalized intersections for better visibility.	Improve safety for all road users.
All	18	All	The corridor has many crosswalks that have faded pavement markings and don't have a pedestrian RRFB or flashing pedestrian sign.	Crosswalk improvements - add pedestrian flashing beacons; restripe those locations with faded pavement markings.	Improve safety for all road users.
All	19	All	High number of curb cuts affecting accessibility.	Curb management - close unnecessary curb cuts. (Recommendation from internal stakeholder meeting.)	Improve safety for all road users.
All	20	All	Significant portion of walking environment is exposed to unfiltered sun and doesn’t offer bike storage.	Add trees, benches, and bike locking facilities when feasible. (Recommendation from internal stakeholder meeting.) Bike locking elements should be spaced least 3 feet apart, located in well-lit areas, and not block pedestrian movement.	Enhance multimodal comfort.

13.1.2 Design treatment locations

The following figures show the location of the proposed design treatments from Table 17. Each treatment is cross referenced against the study goals.

Figure 20 Design Treatment 1

Figure 21 Design Treatments 2-7

Figure 22 Design Treatments 8-13

Figure 23 Design Treatments 14-16

The following sections show alternatives that are specific to a subarea and affect lane configuration. Diagrams are intended to illustrate the overall concept of each alternative. The exact configuration at each intersection requires further study of the corridor's variety of intersection typologies. The striping between lanes and modes will vary for each alternative based on the street's individual width, which changes throughout the corridor. The comfort and safety of users will be taken into consideration when determining the size of buffers and striping as space allows for each lanes specified width. These variations will be determined by MassDOT in future phases of work as the design becomes more detailed.

13.1.3 Subarea 1, Alternative 1

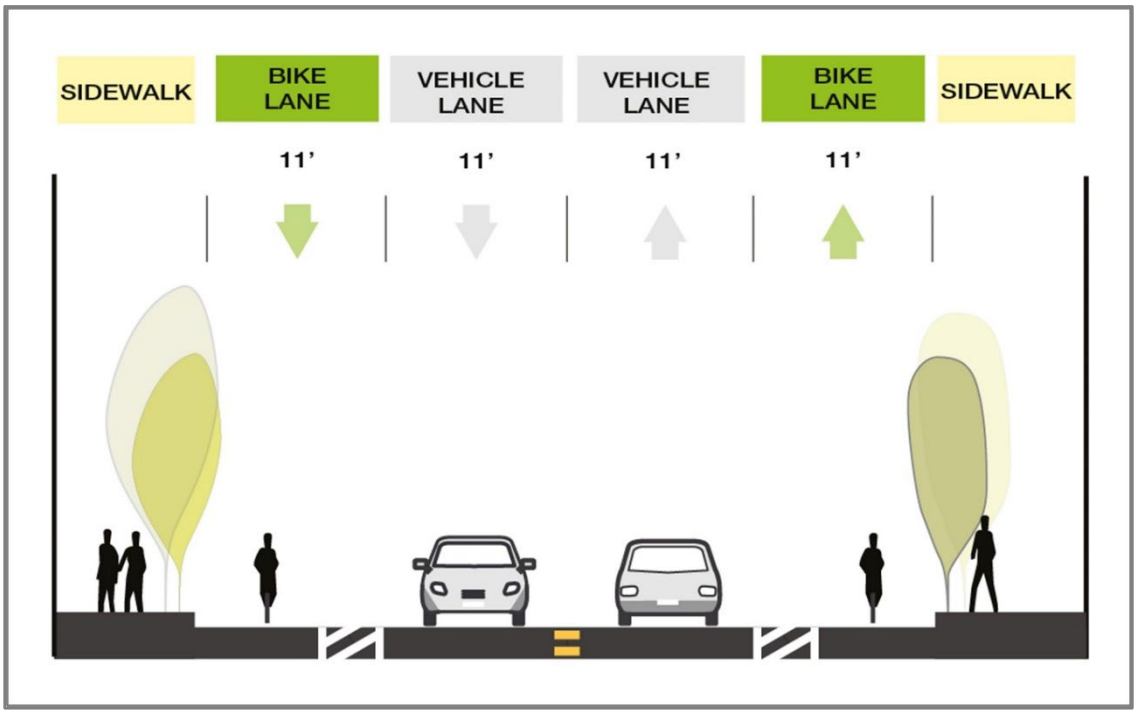


Figure 24 Subarea 1 Alternative 1 Cross Section Diagram

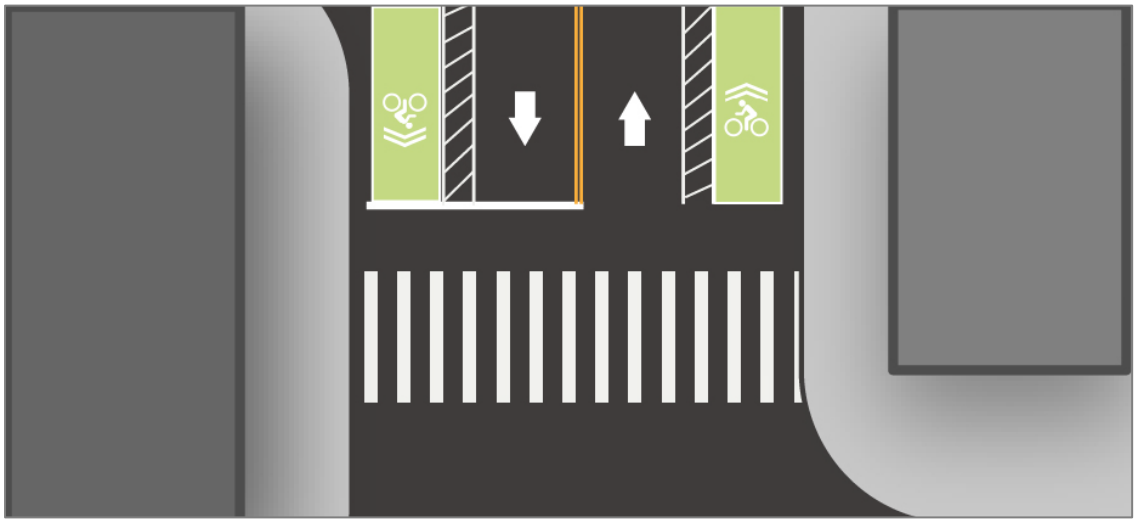


Figure 25 Subarea 1 Alternative 1 Overhead Diagram

Alternative 1 consists of one travel lane with a protected 7-foot bike lane and a 4-foot buffer in each direction. This alternative impacts the geometry of the northbound and southbound approaches of the intersections within the segment, most notably at the intersections of Route 3A/Hancock Street at McDonalds/Target Driveway and Route 3A/Hancock Street at East and West Squantum Street.

This alternative also includes increasing the exclusive pedestrian phase time at the intersection of Route 3A/Hancock Street at East and West Squantum Street from the existing 16 second clearance interval to 31 seconds. This extension would provide sufficient crossing time for pedestrians to cross the intersection diagonally (pedestrian scramble) using the longest measured distance from curb to the existing pedestrian island. Making only this modification, the new cycle length for this alternative is 134 seconds. Section 5.2.2 includes a discussion about alternate cycle lengths.

13.1.4 Subarea 1, Alternative 2

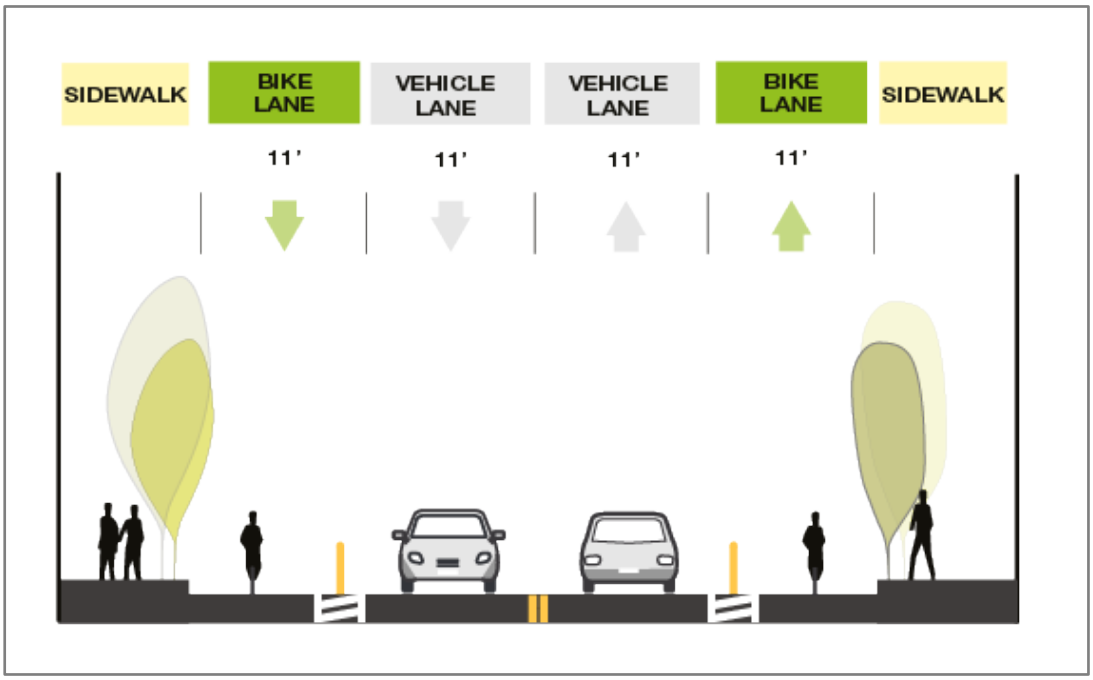


Figure 26 Subarea 1 Alternative 2 Cross Section Diagram

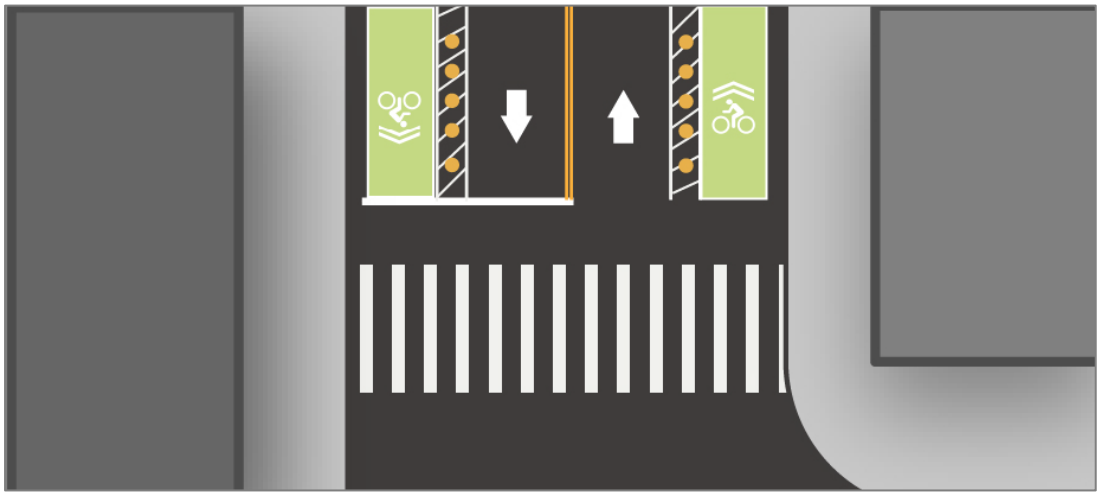


Figure 27 Subarea 1 Alternative 2 Overhead Diagram

Alternative 2 is similar to Alternative 1, with the key difference being flex posts installed at the 4-foot buffer between the travel lane and 7-foot bike lane. This alternative impacts the geometry of the northbound and southbound approaches of the intersections within the segment, most notably at the intersections of Route 3A/Hancock Street at McDonalds/Target Driveway and Route 3A/Hancock Street at East and West Squantum Street.

This alternative also includes increasing the exclusive pedestrian phase time at the intersection of Route 3A/Hancock Street at East and West Squantum Street from the existing 16 second clearance interval to 31 seconds. This extension would provide sufficient crossing time for pedestrians to cross the intersection diagonally (pedestrian scramble) using the longest measured distance from curb to the existing pedestrian island. Making only this modification, the new cycle length for this alternative is 134 seconds. Section 5.2.2 includes a discussion about alternate cycle lengths.

13.1.5 Subarea 1, Alternative 3

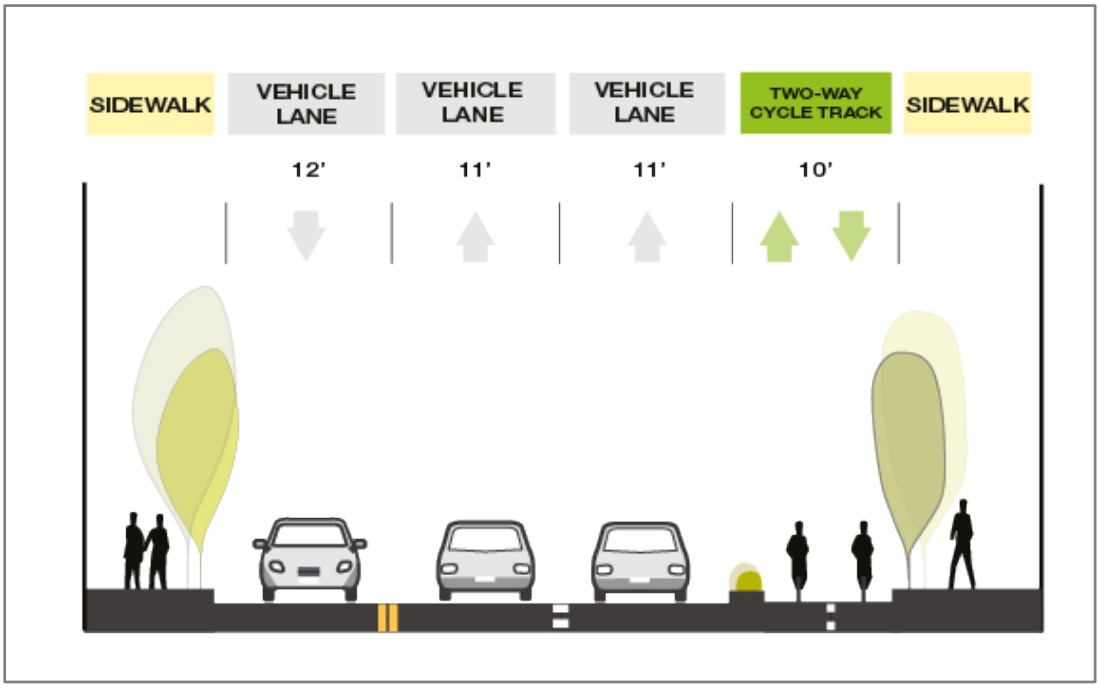


Figure 28 Subarea 1 Alternative 3 Cross Section Diagram

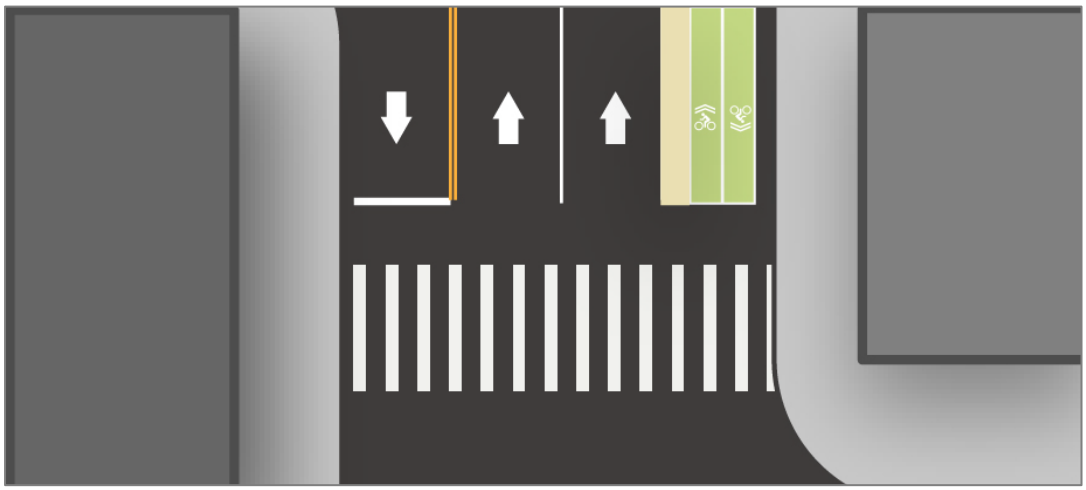


Figure 29 Subarea 1 Alternative 3 Overhead Diagram

Alternative 3 consists of two travel lanes in the northbound direction and one travel lane in the southbound direction. The second lane in the southbound direction is dropped, and a protected, 8-foot two-way cycle track with a 2-foot buffer is added. This alternative impacts the geometry of the northbound and southbound approaches of the intersections within the segment, most notably at the intersections of Route 3A/Hancock Street at McDonalds/Target Driveway and Route 3A/Hancock Street at East and West Squantum Street.

This alternative also includes increasing the exclusive pedestrian phase time at the intersection of Route 3A/Hancock Street at East and West Squantum Street from the existing 16-second clearance interval to 31 seconds. This extension would provide sufficient crossing time for pedestrians to cross the intersection diagonally (pedestrian scramble) using the longest measured distance from curb to the existing pedestrian island. Cyclists have a protected bike phase, with the time depending on the

distance from one side of the intersection to the other (northbound). Section 5.2.2 includes a discussion about alternate cycle lengths.

13.1.6 Subarea 2, Alternative 1

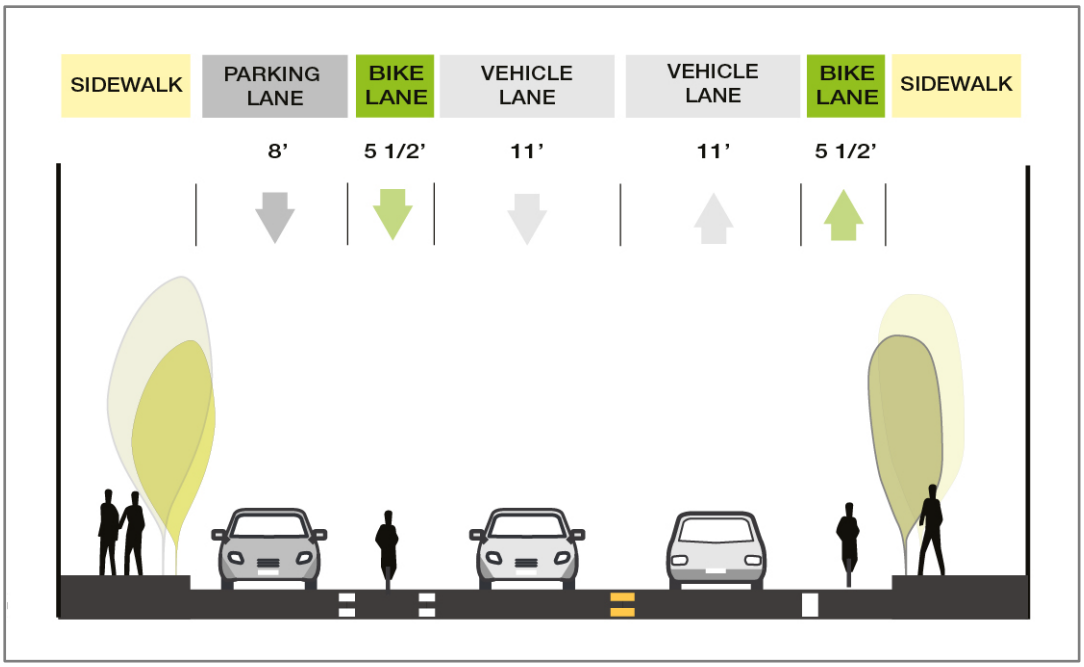


Figure 30 Subarea 2 Alternative 1 Cross Section Diagram

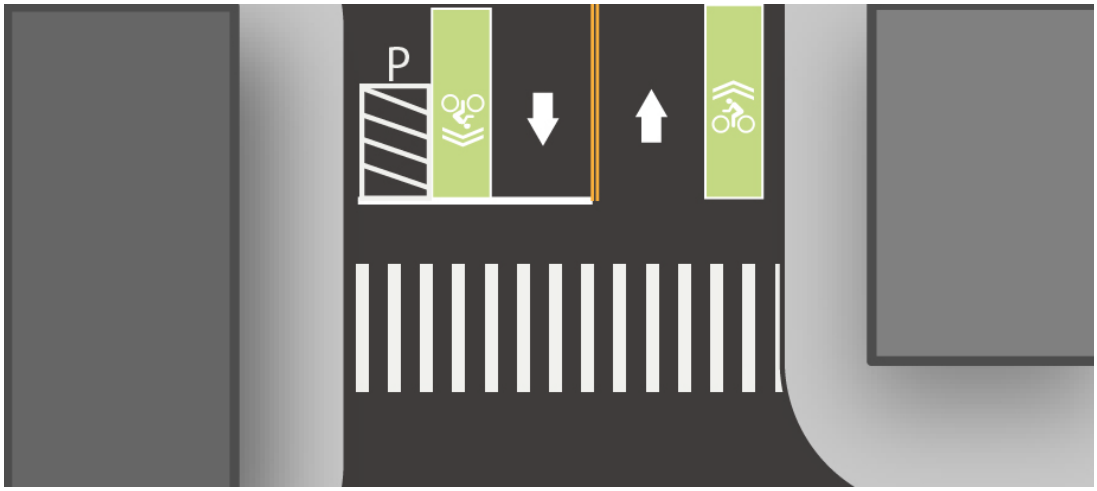


Figure 31 Subarea 2 Alternative 1 Overhead Diagram

Alternative 1 consists of two travel lanes in each direction and removes the northbound parking and reduces the vehicle travel lane width from 12 feet to 11 feet to allow space to add a 5 ½-foot buffered bike lane for both directions of travel respectively. This alternative retains the southbound street parking and removes the northbound parking. Bypass space will be limited and need to be carefully coordinated with the configuration of bike lanes.

The street parking remains adjacent to the curb and the bike lane runs between the parking and the vehicle travel lane. This alternative most closely aligns with the existing street configuration south of the study area beginning at Russell Park and Hancock Street. Hancock Street south of Russell Park features two travel lanes in both directions and a bike lane positioned directly adjacent to street parking.

13.1.7 Subarea 2, Alternative 2

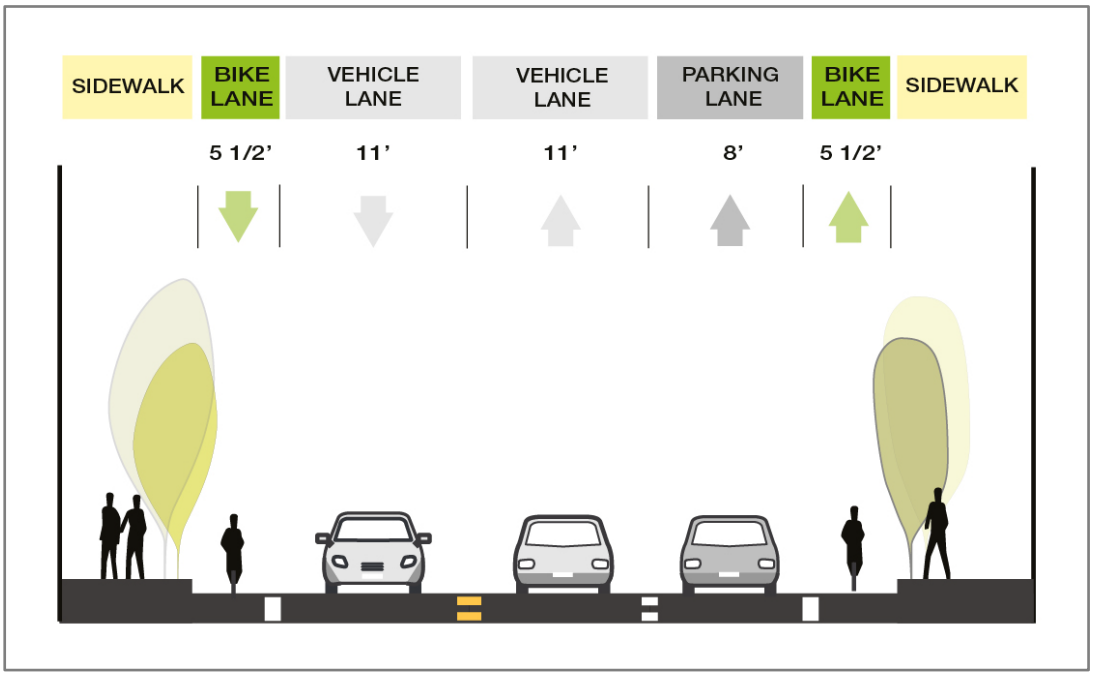


Figure 32 Subarea 2 Alternative 2 Cross Section Diagram

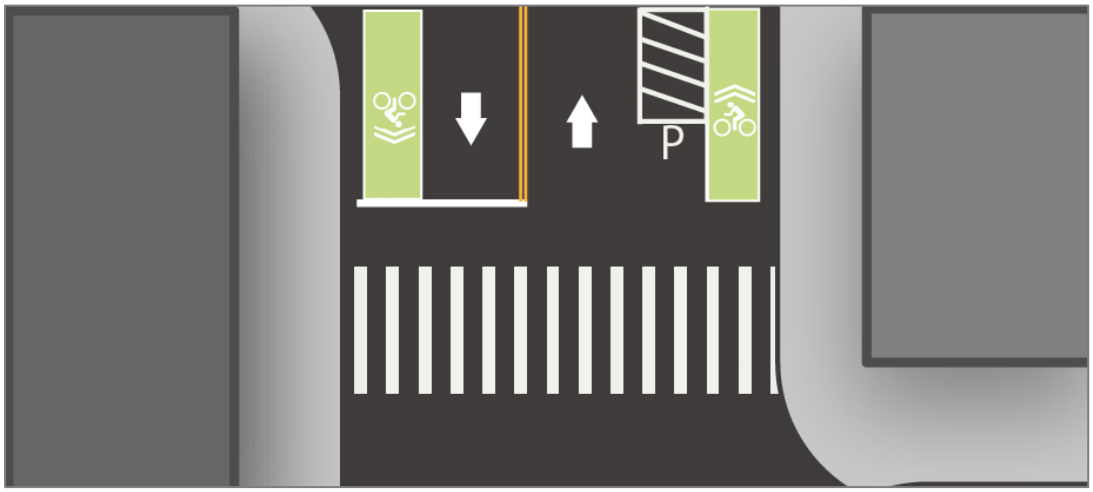


Figure 33 Subarea 2 Alternative 2 Overhead Diagram

Alternative 2 consists of two travel lanes in each direction, removes southbound parking, and adds two bike lanes in each direction respectively. This alternative similarly reduces the vehicle travel lane width from 12 feet to 11 feet to allow space to add a 5 ½-foot buffered bike lane for both directions of travel. Bypass space will be limited and need to be carefully coordinated with the configuration of bike lanes.

The northbound bike lane is between on-street parking and the sidewalk, which is generally safer and more comfortable for cyclists because of significant separation from moving traffic. However, this configuration also has drivers parallel parking in the direction of bicycle traffic, which poses risk of harm to cyclists.

13.1.8 Subarea 2, Alternative 3

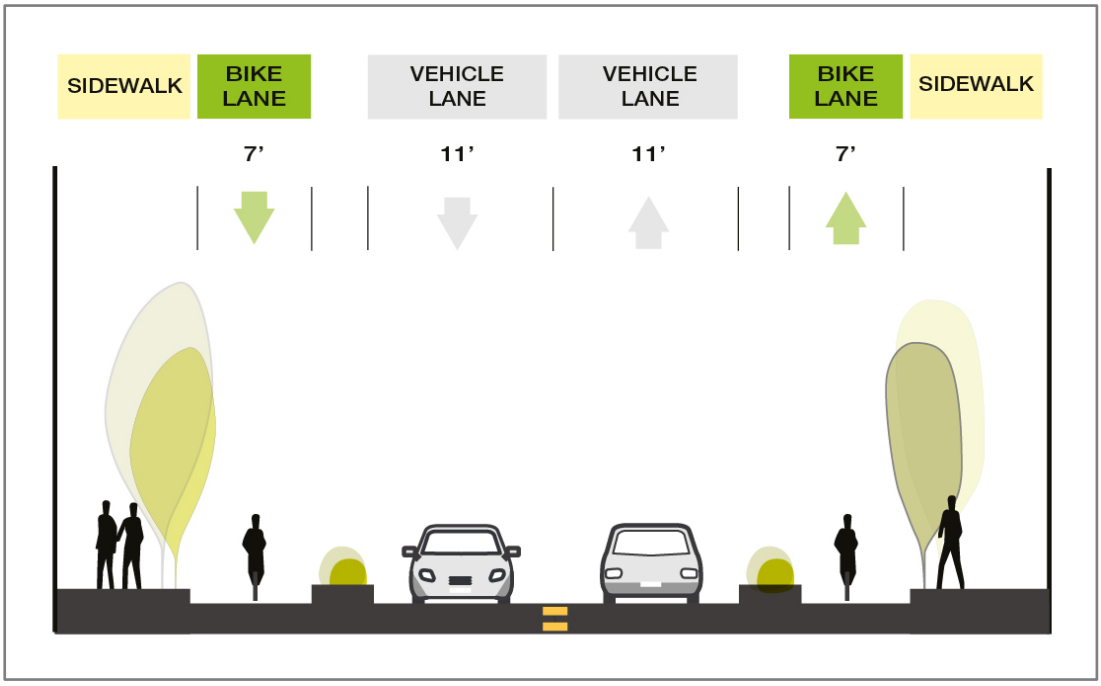


Figure 34 Subarea 2 Alternative 3 Cross Section Diagram

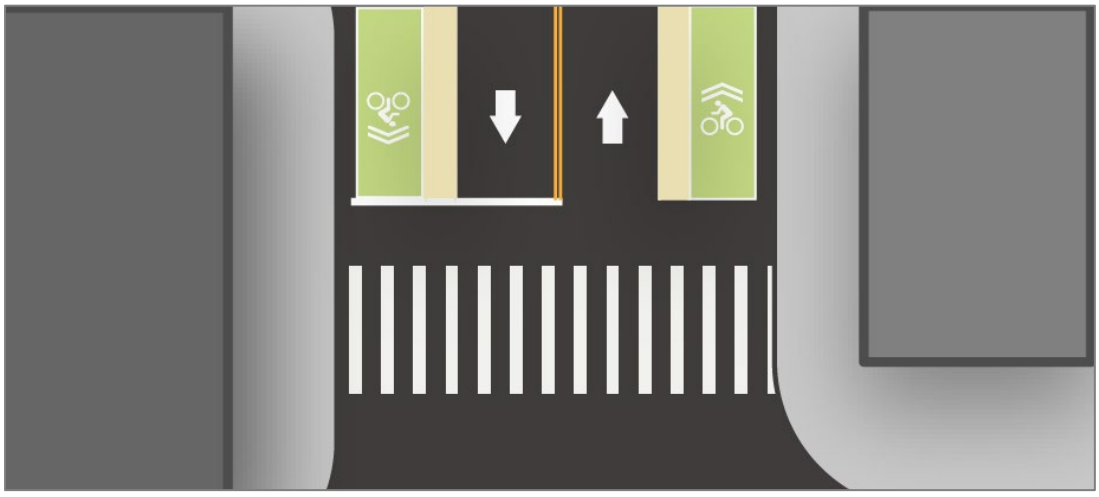


Figure 35 Subarea 2 Alternative 3 Overhead Diagram

Alternative 3 consists of two travel lanes in each direction, parking removed in both directions, and two bike lanes in each direction respectively. This alternative also reduces the vehicle travel lane width from 12 feet to 11 feet. Compared to the other alternatives, these bike lanes are the most protected. Bypass space will need to be carefully coordinated with the configuration of bike lanes. This alternative has the most significant impact on parking, while offering the greatest safety and comfort to cyclists.

13.2 Impacts to Road Users

13.2.1 Overview

This table compares each alternative according to the evaluation criteria and an order of magnitude assessment of complexity.

Complexity is intended to capture ease and speed of implementation and cost to construct and facilitate, with low complexity referring to greater ease and lower cost. Cost estimates based on the MassDOT Construction Project Estimator[5] are as follows:

Low complexity: < $0.5M
Moderate complexity: < $0.5M - $1M
High complexity: > $1M

Table 18 Alternative Comparison

Subarea	Alternative	Minimize disruption to drivers	Improve safety for all road users	Enhance multimodal comfort	Complexity
1	1	**Moderate.** Each direction drops to one travel lane, which may increase delay as queues form behind drivers waiting to turn.	**Moderate.** Cyclists are buffered against vehicle traffic.	**Moderate.** Vehicles are moving more slowly. Slower vehicles benefits cyclists and pedestrians.	**Low.** Restriping for both directions of travel.
1	2	**Moderate.** Each direction drops to one travel lane, which may increase delay as queues form behind drivers waiting to turn.	**High.** Cyclists are significantly buffered against vehicle traffic.	**Moderate.** Vehicles are moving more slowly. Slower vehicles benefits cyclists and pedestrians.	**Moderate.** Restriping for both directions of travel and installation of posts.
1	3	**Moderate.** Each direction drops to one travel lane, which may increase delay as queues form behind drivers waiting to turn.	**High.** Cyclists are significantly buffered against vehicle traffic.	**High.** Vehicles are moving more slowly. Slower vehicles benefits cyclists and pedestrians.	**High.** Restriping for both directions of travel, realignment of lanes, and installation of posts.
2	1	**Low.** Parking is removed on one side of the street. Note that by removing parking pointing northbound, more parking in front of businesses is preserved – this is less impactful than Alt. 2 for this subarea.	**Moderate.** Two new bike lanes, one in each direction add distance between cyclists and moving traffic.	**Moderate.** Cyclists have dedicated space and transit riders cross bike traffic, rather than car traffic.	**Moderate.** Restriping travel and bike lanes.

[5] https://hwy.massdot.state.ma.us/CPE/About_PrelimEstimate.aspx

2	2	**Low-moderate.** Parking is removed on one side of the street. Note that by removing parking pointing southbound, more parking in front of businesses is removed.	**Moderate-high.** Two new bike lanes, one in each direction. One adds distance between cyclists and moving traffic. The other, being in between parking and the sidewalk, affords a significant buffer between cyclists and traffic. However, cyclists are still in the path of opening car doors.	**High.** One lane better legitimizes cyclists in the ROW, and the other reduces exposure to moving traffic.	**Moderate-high.** Restriping travel, parking, and bike lanes.
2	3	**Moderate.** Parking is removed on both sides of the street.	**High.** Two new bike lanes in each direction. Each lane reduces exposure to moving traffic, and risk of collision with an opening door is very low.	**High.** Each bike lane reduces exposure to traffic.	**High.** Significant modification for each bike lane in both directions of travel.

13.2.2 Subarea 1

The following tables summarize outputs of the traffic model. Table 19 and Table 20 show LOS for AM and PM peaks respectively. Fields emphasize a comparison of outcomes between the no-build scenario and the alternative scenarios. Refer to Section 3 for definitions of LOS.

Vehicular Impacts

Signal timing was optimized to account for future demand operations.

Each table shows LOS and in parentheses, delay in seconds. Instances in which an alternative's LOS is E or worse are marked in red. For comparisons purposes, the peak hour factor was assumed 0.92 for both years 2040 and 2050.

Table 19 AM Peak

Year	Intersection	No-Build	Alt 1	Alt 2	Alt 3
2024	**Route 3A @ Newport Avenue Extension**	B (14.5)	B (14.1)	B (17.2)	B (17.3)
	Route 3A @ Hunt Street	B (13.0)	B (13.0)	C (22.6)	C (22.6)
	Route 3A @ McDonalds/Target	B (10.9)	B (10.9)	D (35.1)	D (35.1)
	Route 3A @ East/West Squantum Street	D (36.4)	D (36.4)	D (38.0)	D (41.3)
2050	**Route 3A @ Newport Avenue Extension**	B (14.3)	B (14.3)	B (17.5)	B (17.6)
	Route 3A @ Hunt Street	B (13.7)	B (13.7)	C (24.9)	C (25.7)
	Route 3A @ McDonalds/Target	B (11.1)	B (11.2)	D (42.8)	D (44.0)
	Route 3A @ East/West Squantum Street	D (37.6)	D (37.6)	D (39.8)	D (46.6)

Table 20 PM Peak

Year	Intersection	No-Build	Alt 1	Alt 2	Alt 3
2024	**Route 3A @ Newport Avenue Extension**	B (14.0)	B (14.0)	B (14.5)	B (15.7)
	Route 3A @ Hunt Street	B (11.4)	B (11.4)	B (13.5)	B (18.5)
	Route 3A @ McDonalds/Target	C (30.3)	C (31.3)	D (42.4)	E (55.2)
	Route 3A @ East/West Squantum Street	D (44.7)	D (45.4)	F (49.9)	E (66.9)
2050	**Route 3A @ Newport Avenue Extension**	B (14.2)	B (14.2)	B (14.8)	B (16.1)
	Route 3A @ Hunt Street	B (11.6)	B (11.6)	B (13.9)	B (19.8)
	Route 3A @ McDonalds/Target	C (32.3)	C (32.7)	D (48.6)	**E (56.0)**
	Route 3A @ East/West Squantum Street	D (49.2)	D (49.7)	**E (56.1)**	**E (70.7)**

The analysis of the three alternatives shows varying levels of delay. Alternative 1 displays similar analysis results compared to the existing conditions, as the added 2-foot median and lane width changes do not substantially impact capacity.

Alternative 2 sees slightly elevated delays at the intersection of Route 3A/Hancock Street at Newport Avenue Extension in the AM and PM peak periods due to the lane drop at the northbound approach. At the intersection of Route 3A/Hancock Street at Hunt Street, delays during the AM and PM peaks are higher than the existing conditions due to the northbound lane drop. At the intersection of Route 3A/Hancock Street at the McDonalds/Target Driveway, the delay is higher than the AM and PM existing conditions due to dropping one northbound lane, which forces through vehicles to queue behind a left-turning vehicle. At the intersection of Route 3A/Hancock Street at East and West Squantum Street, AM peak delays are similar to existing conditions. The PM peak sees higher delays due to the signal timing and the overall increased traffic at this intersection during the afternoon.

Alternative 3 sees higher delays at the intersection of Route 3A/Hancock Street at Newport Avenue Extension in the AM and PM peak periods due to the lane drops at the northbound and southbound approaches. At Hunt Street, delays during the AM and PM peaks are higher than the existing conditions, also due to the lane drops. At this intersection, the AM peak delay is identical to Alternative 2, and the PM peak delay is slightly higher than Alternative 2, suggesting that the intersection capacity does not change significantly when dropping one southbound through lane. At the intersection of Route 3A/Hancock Street at the McDonalds/Target Driveway, the delay is higher than existing conditions in the AM and PM peaks. Similar to Alternative 2, the lane drops at the northbound approach forces through vehicles to queue behind a left-turning vehicle. At the intersection of Route 3A/Hancock Street at East and West Squantum Street, the AM and PM peaks see the highest delays between the existing conditions and the three alternatives. The signal timing, increase in the exclusive pedestrian phase, and the lane drops in the northbound and southbound directions cause significant delays for all approaches.

Pedestrian and Cyclist Impacts

Sharrows reinforce the legitimacy of a cyclist's presence in the travel way and offer directional and wayfinding guidance to cyclists. However, NACTO states that the sharrow is "not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits". Compared to separated bike lanes, sharrows lead to cyclists being more exposed to moving car traffic and it is a key reason why the proposed alternatives rely on other bicycle facilities and not sharrows as space allows.

Bike lanes are the most beneficial to cyclists. These lanes allow cyclists to ride at their preferred speed without disruption and risk of harm posed by moving vehicle traffic. They establish predictable behavior between cyclists and drivers, which improves the overall ease of navigation for all road users. Where space is available, there are buffered bike lanes to increase the distance between motor vehicles and bicyclists and provide greater space for bicyclists to ride outside of the door zone when the bike lane is adjacent to parked cars. Types of bicycle buffers that could be included are bollards, planters, and concrete barriers, with the most permanent and protective option being chosen as space

and budget allow. Alternatives 2 and 3, with the latter being the most favorable, leverage bike lanes the most.

Transit Impacts
Improved pedestrian and cyclist experience along the corridor contributes to a safer and more comfortable journey to or leaving from North Quincy Station. However, the vehicular delay anticipated at East and West Squantum Street will impact MBTA bus routes 210 (Quincy to Fields Corner via North Quincy), 211 (211 - Squantum to Quincy via North Quincy), and 217 (Quincy to Ashmont via Milton). Transit Signal Priority (TSP) can be implemented at the signalized intersections to improve the operations of both vehicles and buses.

13.2.3 Subarea 2

Vehicular Impacts
For all three alternatives, impacts to traffic flow between intersections are not expected to be significant because the number of vehicular travel lanes will remain the same. Vehicle delay may be affected by a few factors. Removal of on-street parking may reduce delay caused by parallel parking – several participants of the in-person public meeting and site walk remarked that queues form when drivers are waiting for someone making multiple attempts to parallel park.

However, vehicle delay, though insignificant, may still result from other events. With the removal of on-street parking, traffic operations at intersections may be impacted. Under Existing Conditions, parking is prohibited near the intersections, which allows for space for dedicated turn lanes or bypass space for vehicles traveling straight to go around vehicles turning left. In each alternative where parking is removed, bypass space will be limited or precluded and need to be carefully coordinated with the configuration of bike lanes. Queuing may occur when drivers are waiting behind a bus that has stopped for boarding and alighting passengers. Queuing may also occur when a turning driver is waiting for a cyclist to cross an intersection on the driver's side.

Each alternative poses impacts to on-street parking. The current street parking along 3A consists of approximately 220 parking spaces, including 7 dedicated accessible parking spaces. General parking and designated accessible spaces are evenly split between the northbound and southbound sides of the street. Although there is retail on both sides throughout the study area, the southbound side has a higher concentration toward the southern half. Where on-street parking is removed, accommodation must be made for deliveries, so delivery vehicles do not block the bike lanes or travel lanes and disrupt the traffic flow or cause safety concerns for bicyclists.

There are alternative parking spaces nearby. Outside the study area, there are 65 parking spaces in a public parking lot located one block from Hancock Street on Vane Street. It should be noted that North Quincy High School and Fenno House assisted living facility are situated on the northbound side of the street. Given the demographics at these locations, removing parking on the northbound side may enhance visibility for more vulnerable users as they enter and exit these areas.

Pedestrian and Cyclist Impacts
For all three alternatives, reducing the travel lane width from 12 feet to 11 feet and adding dedicated bicycle lanes will improve the safety conditions along Subarea 2 as vehicle speeds will decrease and cyclists' visibility will increase.

For Alternative 2, the northbound curb adjacent parking will remain, and the bike lane will run between the parking lane and the curb which improves the level of comfort for cyclists by further separating them from traffic. With the extensive amount of driveway access points along Hancock Street, sight distance is a concern when accessing Hancock Street from said driveways and additional on-street parking may need to be removed to provide adequate sight distance.

For Alternative 3, bicycle safety will be greatly improved with 7-foot cycle tracks and 2½-foot raised buffered space between general traffic, providing a high level of comfort. However, turn lanes or bypass space will be limited or infeasible, which will impact traffic operations at the following intersections:

- Left and right turn Northbound Squantum (most likely include in Subarea 1 rather than Subarea 2)
- Right turn northbound at Billings Road
- Left turn northbound at Hayward Street
- Right turn southbound for North Quincy Plaza
- Left turn northbound for North Quincy Plaza
- Left turn southbound Elm Avenue
- Right turn northbound Elm Avenue & Wollaston Avenue
- Left turn northbound Standish Avenue

In addition to the new bike lanes in each alternative, there are several bicycle and pedestrian focused treatments in Subarea 2 (see section 5.1.1 for full detail). The potential safety and traffic operation improvements for Study Area 2 are as follows:

1. Providing protected left turn phase at signalized intersections as needed.
    a. The intersection of Hancock Street at Elm Avenue/Wollaston Avenue/Wentworth Road has an existing southbound left turn lane on Hancock Street that does not have a protected left turn phase and is a point of conflict with the northbound through traffic. A protected/permissive left turn phase for this movement would improve the safety and operations of this intersection by allowing these vehicles an opportunity to turn unopposed and reducing angle crashes.
2. Providing retroreflective backplates for all traffic signals that currently do not have one.
3. Rectangular Rapid Flashing Beacons at non-signalized pedestrian crossings.
4. High visibility crosswalks.
5. Bike lane markings.
    a. Items 2 through 5 are part of the Federal Highway Administration (FHWA) Safe System approach and are proven safety countermeasures. They will improve the safety of pedestrians and bicyclists, as well as the visibility of traffic signal faces throughout this study area. The following locations are of particular importance for the corridor:
        i. The intersection of Hancock Street at Beale Street/Beach Street is a high-crash location and will benefit from the addition of the retroreflective backplates, as there is only one mast arm with three traffic signal heads on it.
        ii. Adding bicycle lanes through the intersection of Hancock Street at Billings Road will connect to the Billings planned bike lanes, provide a defined space for cyclists, and indicate to vehicle drivers that there are other roadway users.
6. Bike boxes and signal detection.
    a. The bike boxes provide a visible space for a cyclist to wait during the red signal phase at a signalized intersection, per the National Association of City Transportation Officials (NACTO) guidance. This space is strategically designed to prevent right-

turning vehicle conflicts, give cyclists a lead on the green phase, and reduce vehicle encroachment on the crosswalk, thereby benefiting pedestrians and improving traffic flow. The bicycle detection will provide accurate detection of the bicycle and guidance for the cyclist on where to stand to be detected.

Transit Impacts

The removal of parking and the addition of bike lanes will impact transit operations. With all three alternatives, accommodations will have to be made at transit stops to limit interactions with cyclists, transit vehicles, and those accessing transit stops. In accordance with the 2018 MBTA Bus Stop Planning and Design Guide, "Where bicycle lanes are shared with or overlap with the bus stop zone, specific markings shall be provided. Where possible, move the bike lane to the outside of the stop so that it becomes a protected lane. Sharrows or dashed lines on the bicycle lanes are typically used to alert bicyclists of the shared roadway space." Where parking is retained and the bike lane is positioned between the parking lane and the travel lane, the 2018 MBTA Bus Stop Planning and Design Guide recommends for bus stops to remain curb side, and the bicycle lane markings will change to a sharrow to alert cyclists of buses crossing the bike lane. Boarding islands (or floating bus stops) can be used to direct bicyclists behind transit stops, reducing or eliminating most conflicts between transit vehicles and bicyclists, and expanding available sidewalk space. In constrained areas, shared cycle track stops can be used. With shared cycle track stops, the bike lane rises and runs along the boarding area, along the extended curb, rather than wrapping behind the boarding area. Bicyclists can ride through the boarding area when no transit vehicles are present but must yield the space to boarding and alighting passengers when a bus stops.

Where parking is removed, in-lane bus stops will likely be required. Based on the 2018 MBTA Bus Stop Planning and Design Guide, in-lane bus stops improve transit operations by eliminating the delay of having to pull out of traffic and provides a level of prioritization for bus travel. In-lane bus stops will have an impact on traffic flow as buses will block the travel lanes when stopped. Under current conditions, traffic delays are not expected to be significant due to the limited number of buses (30-minute headways) traveling through the study area.

14. Findings & Recommendations

14.1 Preferred Alternative

Subarea 1

Each alternative presents trade-offs between minimizing driver disruption, enhancing multimodal comfort, and improving safety. Alternative 1 offers moderate benefits, with separated bike lanes improving safety while keeping implementation simple with restriping alone. However, it leads to more congestion during peak hours at Newport Avenue Extension and Hunt Street.

Alternative 2 builds upon Alternative 1 by providing a buffered space for cyclists, improving safety and multimodal comfort without significantly increasing complexity. Traffic impacts remain similar to Alternative 1, and the addition of posts enhances separation between vehicle lanes and cyclists.

Alternative 3 delivers the highest level of safety and comfort for cyclists, significantly buffering them from vehicle traffic and encouraging group riding, but introduces more congestion at additional intersections, including East/West Squantum. Its increased complexity—requiring restriping, lane realignments, and flex posts—makes implementation more intensive. While Alternatives 2 and 3 introduce the greatest adjustments for drivers, these impacts can be effectively managed through modifications to left turns and pedestrian signal timing.

Table 21 Subarea 1 Alternatives Summary Comparison

Alternative	Minimize disruption to drivers	Improve safety for all road users	Enhance multimodal comfort	Complexity
1	**Moderate** **AM:** More congestion **at Newport Avenue Extension.** **PM:** More congestion **at Hunt Street.**	**Moderate** Cyclists are separated from vehicle traffic.	**Moderate** Vehicles are moving more slowly.	**Low** Restriping for both directions
2	**Moderate** **AM:** Same as Alternative 1. **PM:** Same as Alternative 1.	**Moderate** Cyclists are buffered against vehicle traffic.	**Moderate** Vehicles are moving more slowly.	**Moderate** Restriping, plus installation of posts.
3	**Moderate** **AM:** More congestion **at Newport Avenue Extension.** and **at East/West Squantum.** **PM:** more congestion **at Hunt Street** and **at East/West Squantum.**	**High** Cyclists are significantly buffered against vehicle traffic.	**High** Vehicles are moving more slowly, and cyclists are riding with each other.	**High** Restriping, plus realignment of lanes, and installation of flex posts.

Considering the need to balance safety, comfort, and feasibility—as well as the associated data collected and public input—**Alternative 2 is the preferred option**. It offers substantial safety improvements without exacerbating congestion beyond existing conditions, while keeping implementation manageable.

Subarea 2

Alternative 1 introduces two new bike lanes while removing parking on one side of the street. This maintains a simpler layout by preserving southbound parking and positioning bike lanes adjacent to vehicle lanes. This would provide moderate safety improvements by adding distance between cyclists and moving traffic but keeps complexity manageable with simple restriping. While some drivers may be concerned about the removal of on-street parking, nearby alternatives could effectively absorb demand. Additionally, fewer parallel parking maneuvers will contribute to steadier traffic flow and reduced congestion.

Alternative 2 builds on Alternative 1 by shifting one of the bike lanes between parking and the sidewalk, offering greater cyclist protection but introducing a moderate risk of collisions with opening car doors. This approach improves multimodal comfort and provides a higher level of safety for cyclists, but requires additional restriping and adjustments to parking layouts, increasing complexity.

Alternative 3 offers the most substantial benefits for cyclists by removing parking on both sides of the street, minimizing dooring risks, and significantly reducing cyclist exposure to traffic. With dedicated bike lanes and improved separation, transit riders also benefit from safer crossings. However, this alternative requires the most extensive modifications, including lane realignments, making implementation more involved.

Table 22 Subarea 2 Alternatives Summary Comparison

Alternative	Minimize disruption to drivers	Improve safety for all road users	Enhance multimodal comfort	Complexity
1	**Low** Parking removed on one side of the street.	**Moderate** Two new bike lanes, one in each direction add distance from moving traffic.	**Moderate** Cyclists have dedicated space. Transit riders cross bike traffic, rather than car traffic.	**Moderate** Restriping travel and bike lanes.
2	**Low-moderate** Parking is removed on one side of the street.	**Moderate-high** Two new bike lanes, one in each direction. One is between parking and the sidewalk - it offers protection but risks opening car doors.	**High** Cyclists have dedicated space. Transit riders cross bike traffic, rather than car traffic.	**Moderate-high** Restriping travel, parking, and bike lanes.
3	**Moderate** **Parking is removed on both sides of the street.**	**High** One new bike lane in each direction, and risk of collision with an opening door is low.	**High** Bike lanes reduce exposure to traffic. Transit riders cross bike traffic, rather than car traffic.	**High** Significant modification for each bike lane in both directions of travel.

Given its ability to maximize cyclist safety and comfort while balancing feasibility, **Alternative 3 is the preferred option**. Despite requiring more significant adjustments, its benefits for all road users would make it the strongest choice for long-term multimodal success.

Ultimately, each alternative improves conditions for cyclists, pedestrians, and drivers in different ways. Regardless of the chosen approach, all proposed alternatives enhance safety and accessibility beyond current conditions and would offer a better experience compared to the 2050 no-build scenario.

14.2 Recommended Next Steps

This study provides a technical assessment and analysis of the Route 3A corridor and serves as a preliminary planning tool for the City of Quincy. If the City of Quincy moves forward with any alternatives suggested within this study, the City should collaborate with MassDOT District 6 offices to develop a scope for the alternatives and recommendations they wish to move forward.

Doing roadway redesign as proposed in these alternatives will require substantial further design work and permitting before construction can begin. It is recommended that the MassDOT Project Development and Design Guide (PDDG) be used as a tool for the planning, development, and design process for transportation related projects.

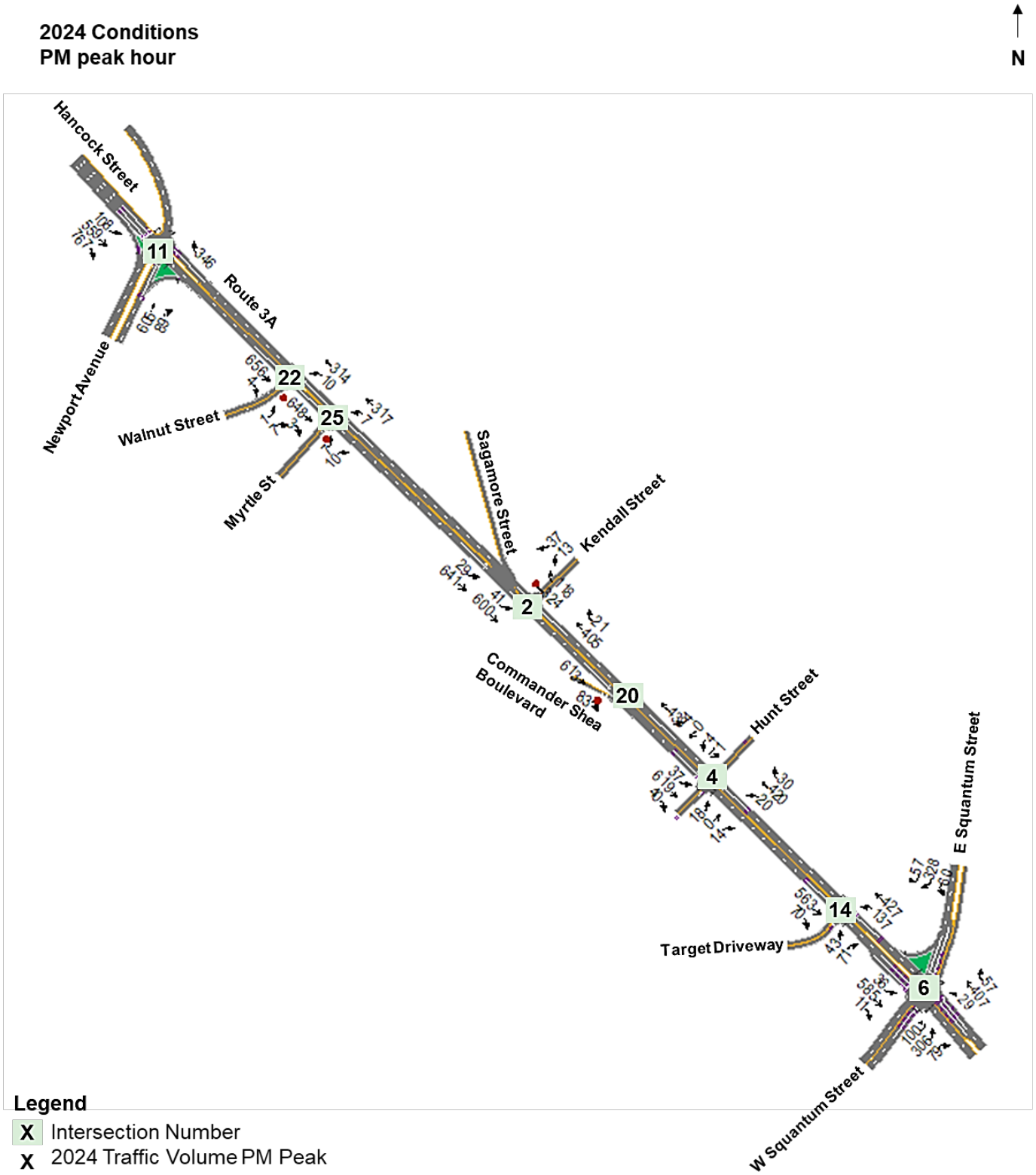
Additional steps are required before construction can move forward, including funding identification, budget development, land surveying, engineering design, utility coordination, public outreach, permitting, and procurement.

The selection of alternatives for further implementation should also take into account the Morrissey Boulevard Study. Aligning roadway redesign efforts with the recommendations from both studies could result in a more effective roadway. This approach could also alleviate traffic congestion at the Neponset River Bridge. Coordination with the City of Boston and utilizing recommendations from both studies will be helpful to improve multimodal infrastructure and traffic improvements.

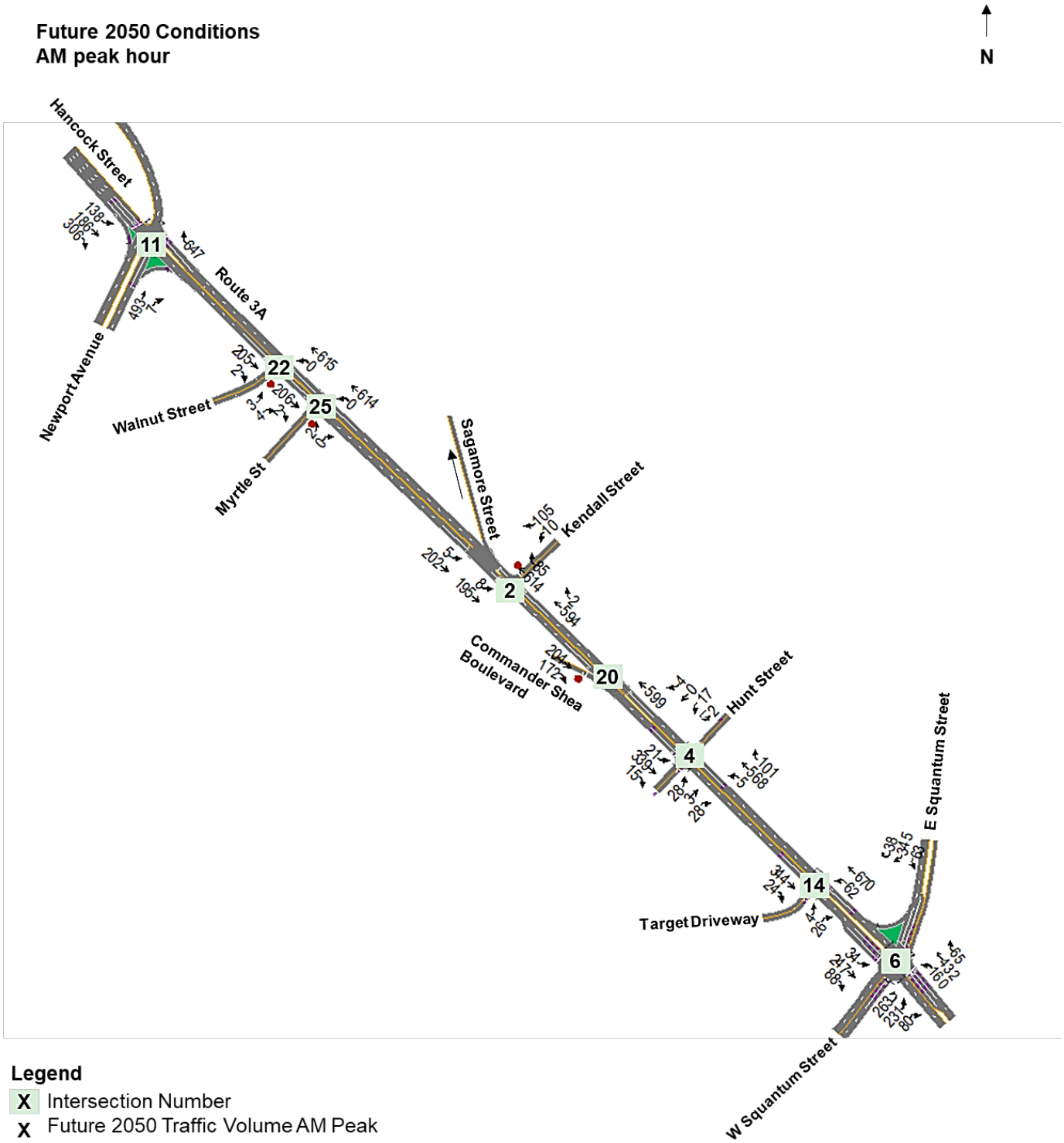
Appendix A

Traffic Volumes 2024 AM Peak Conditions

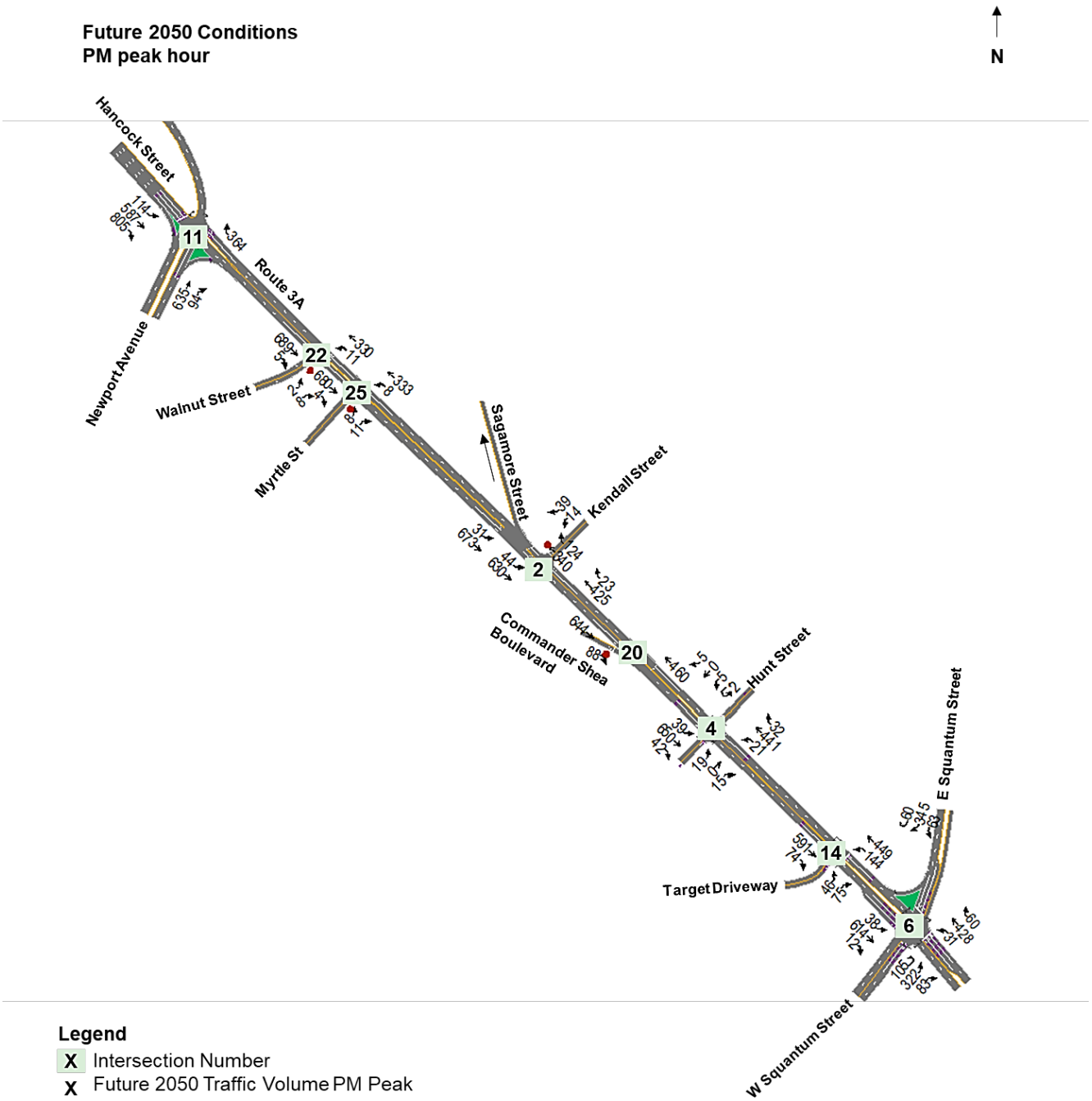
Traffic Volumes 2024 PM Peak Conditions



Traffic Volumes 2050 AM Peak Conditions



Traffic Volumes 2050 PM Peak Conditions

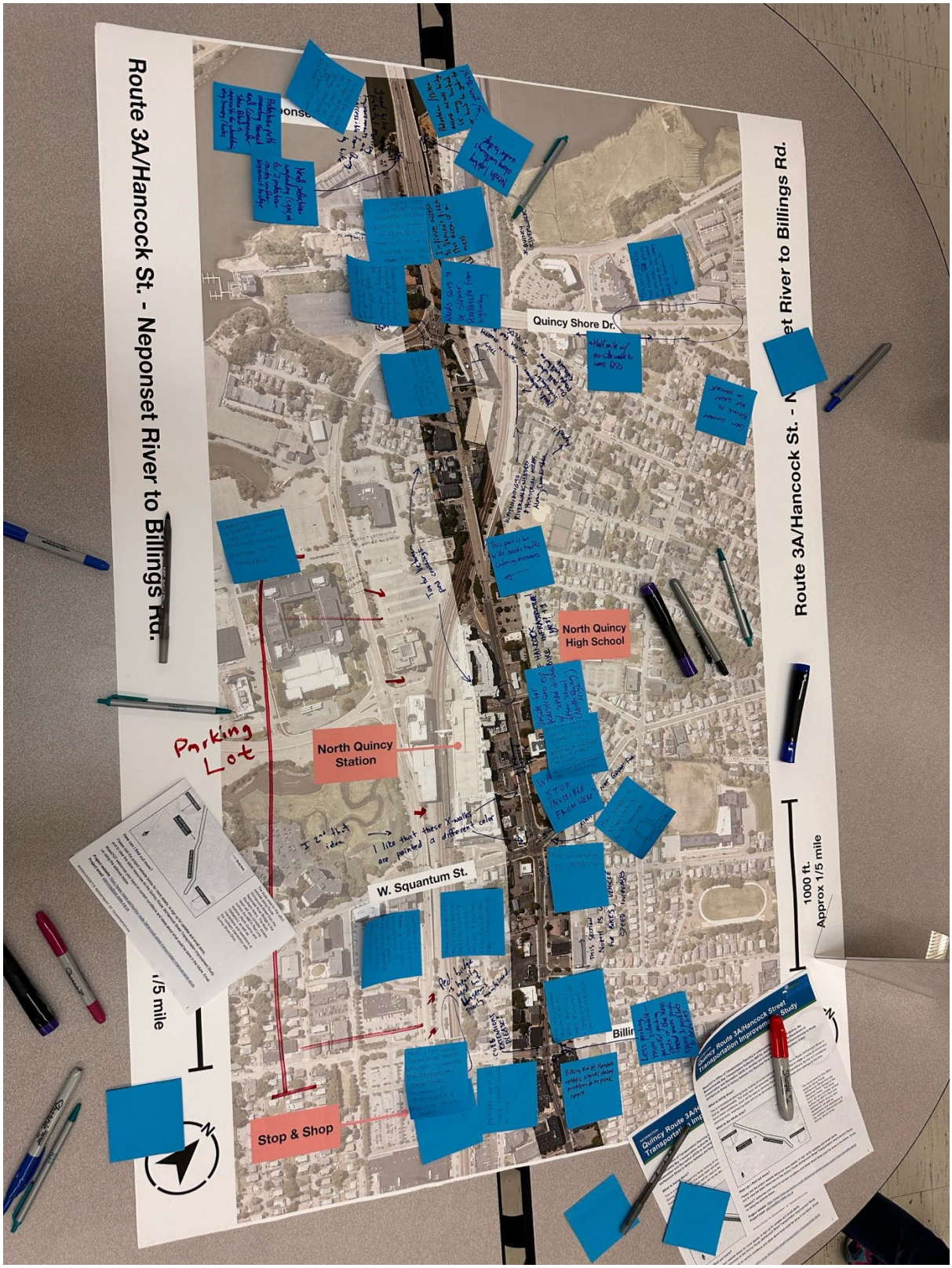


Appendix B

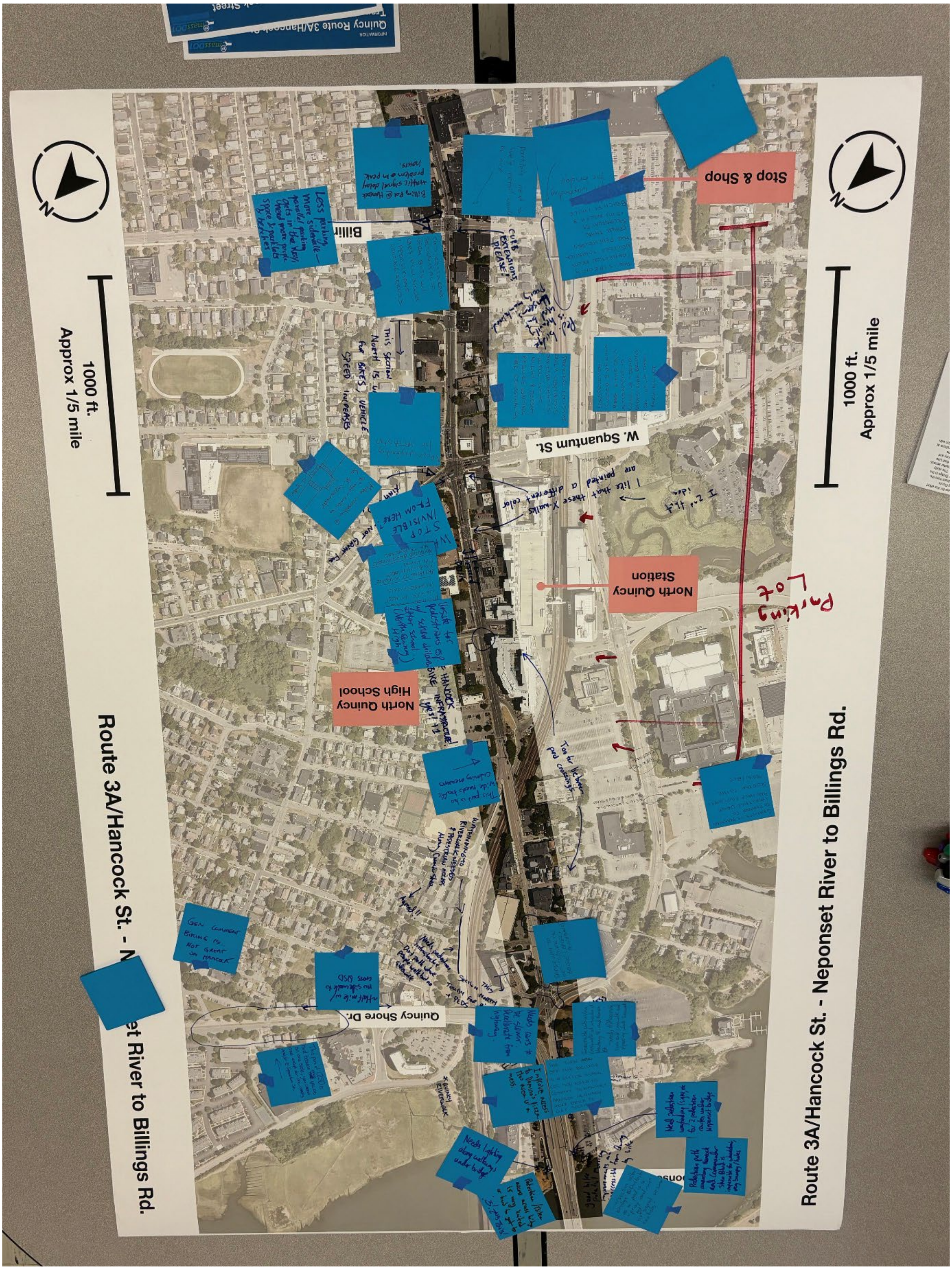
Location/ Type	High Crash Intersections			Project Area		
	Hancock Street at W & E Squantum	Hancock St at Elm/Wallaston/ Wentworth	Hancock Street at Beale/Beach	1	2	Total
Crash by Location						
2019	15	9	8	65	82	**147**
2020	9	14	11	21	69	**90**
2021	14	8	6	50	99	**149**
2022	9	13	13	59	108	**167**
2023	12	20	9	66	97	**163**
Total	*59*	*64*	*47*	*261*	*455*	**716**
Collision Type						
Angle	16	20	11	95	146	**241**
Head-On	2	4	2	5	22	**27**
Rear-End	10	19	18	76	131	**207**
Rear-to-Rear	1	2	0	4	9	**13**
Single Vehicle Crash	4	11	5	19	45	**64**
Sideswipe - Opp Direction	1	0	1	10	13	**23**
Sideswipe - Same Direction	25	7	10	51	86	**137**
Unknown	0	1	0	1	3	**4**
Crash Severity						
Non-Fatal Injury	5	63	47	43	84	**127**
Fatal Injury	0	0	0	0	1	**1**
Property Damage Only	54	0	0	212	364	**576**
Unkown/Not Reported	0	1	0	6	6	**12**

Appendix C

Public Engagement Maps




Route 3A/Hancock St. - Billings Rd. to Southern Artery
1000 ft.
Approx 1/5 mile
Albion Rd.
Beach St.
Beale St.
Southern Artery
C Mart
Wollaston Station
OFF STREET PARKING (SHARED ALLEY) REQUIRED ON ONE SIDE OF CROSS STREET
Route 3A/Hancock St. - Billings Rd. to Southern Artery
1000 ft.
Approx 1/5 mile


Route 3A/Hancock St. - Neponset River to Billings Rd.
1000 ft.
Approx 1/5 mile
Stop & Shop
W. Squantum St.
North Quincy Station
North Quincy High School
Quincy Shore Dr.
Parking Lot