

lynnfield

Lynnfield is a relatively dense suburban community located north of Boston, just outside the Route 128 belt. Lynnfield Center, once the commercial center of town, contains the components of a typical New England village, such as a town common, town offices, a church, cemetery, post office, library, several shops, and residences. The area just beyond the center is largely residential. Three schools, Lynnfield Middle School, Summer Street School, and Lynnfield High School, are within walking or biking distance of the town center. Center Village, a senior housing community, is located on Main Street in Lynnfield Center.

Lynnfield had 11,542 residents in 2000, representing a 2.4 percent increase from 1990.¹ The Metropolitan Area Planning Council (MAPC) projects that Lynnfield's population is likely to grow to 12,483 by 2030, representing an 8.2 percent increase from 2000. Lynnfield's employment, recorded at 4,794 jobs in 2000, is projected to increase by 16 percent by 2030.²

Lynnfield is served by Route 128 to the south and Route 1 to the east; both are a short driving distance from Lynnfield Center. Route 129 runs through South Lynnfield near Routes 1 and 128, but there are no state routes that traverse Lynnfield Center. The MBTA owns an unused railroad right-of-way in Lynnfield just south of Lynnfield Center; it extends to Wakefield and Peabody and beyond.

Lynnfield developed a master plan for the town in September 2002. The Lynnfield Master Plan addresses the issues of transportation; housing; economic development; land use, open space and recreation; and natural, historic, and cultural resources. It includes recommendations of potential transportation improvements and studies, including several in Lynnfield Center.

Between 1995 and 2001, there were 6 reported crashes involving pedestrians in Lynnfield, representing 0.26 percent of all Lynnfield crashes, and 10 reported crashes involving bicyclists, representing 0.43 percent of



Lynnfield's town common

all crashes. None of these crashes resulted in fatalities. The pedestrian and bicyclist crash rates in Lynnfield are lower than the region's average rates of 1.79 percent and 0.82 percent, respectively.³

STUDY AREA

The study area for Lynnfield (shown in Figure 23) includes:

- Main Street from Chestnut Street to Summer Street
- Main Street from Summer Street to Essex Street
- Summer Street from Main Street to Todd Lane
- South Common Street from Main Street to Summer Street

SIDEWALKS

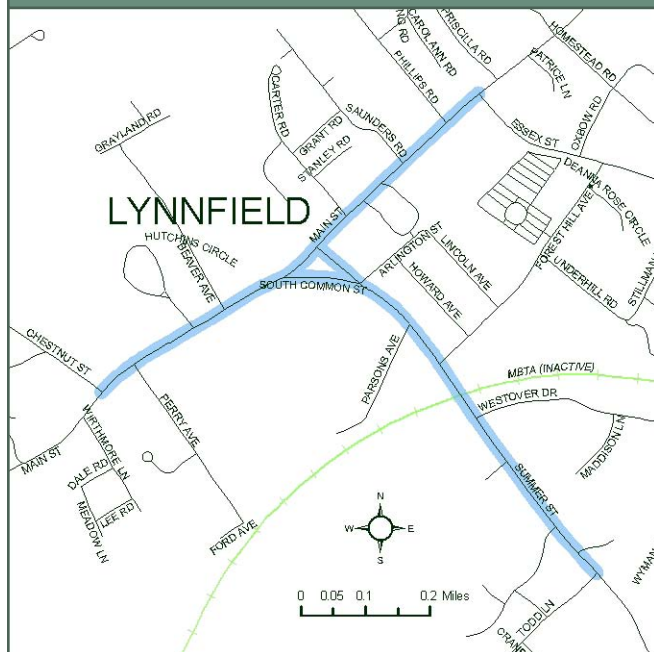
Lynnfield has a comprehensive sidewalk network in its town center. In the study area, Main Street has sidewalks on both sides for most of its length, and South Common and Summer streets have a sidewalk on one

¹ U.S. census

² MAPC population and employment projections, January 2006

³ Massachusetts Registry of Motor Vehicles crash data, 1995–2001

Figure 23
LYNNFIELD STUDY AREA



SIGNALIZED PEDESTRIAN CROSSWALKS

There are no signalized pedestrian crosswalks in Lynnfield Center. However, the 2003 Lynnfield Master Plan recommends a study of the intersection of Main Street and South Common Street to develop recommendations for safety improvements. A study may or may not result in recommendations for signalized crosswalks at this location.

MULTIUSE PATHS

Currently there are no multiuse paths in Lynnfield Center. The MBTA owns an unused railroad right-of-way, located just south of Lynnfield Center, that intersects Summer Street. The town is examining the possibility of converting the right-of-way into a multiuse trail, along with the adjoining Town of Wakefield and City of Peabody.

ON-STREET BICYCLING

Main Street and Summer Street are wide enough for bicyclists and motorists to safely share the road, but the roadway surfaces have some bumps and cracks that limit bicyclist safety. Staff observed several bicyclists riding against the traffic on the road, and also riding on the sidewalk. There is some debris along the edge of the roadway that might be hazardous to bicyclists on the road. Drainage grates are set back from the roadway, which improves bicyclist safety. See Figure 24 for a map of the bicycle network in Lynnfield Center.

side along most of their lengths. The sidewalks are made of asphalt and are generally smooth; however, there are several sections that have bumps, cracks, and patches that could significantly impact pedestrian safety. See Figure 24 for a map of the pedestrian network in Lynnfield Center.



Lynnfield Center has a comprehensive sidewalk network.



Crosswalks in Lynnfield Center have sufficiently visible pavement markings.

CROSSWALKS

The majority of crosswalks in Lynnfield Center are visible to motorists and pedestrians and connect sidewalks across roadways in logical places. Most have curb cut ramps connecting them to the sidewalks. There are several signs identifying the crosswalks to motorists, particularly near the schools. See Figure 24 for a map of the pedestrian network in Lynnfield Center.



Drainage grates are set back from the roadway.



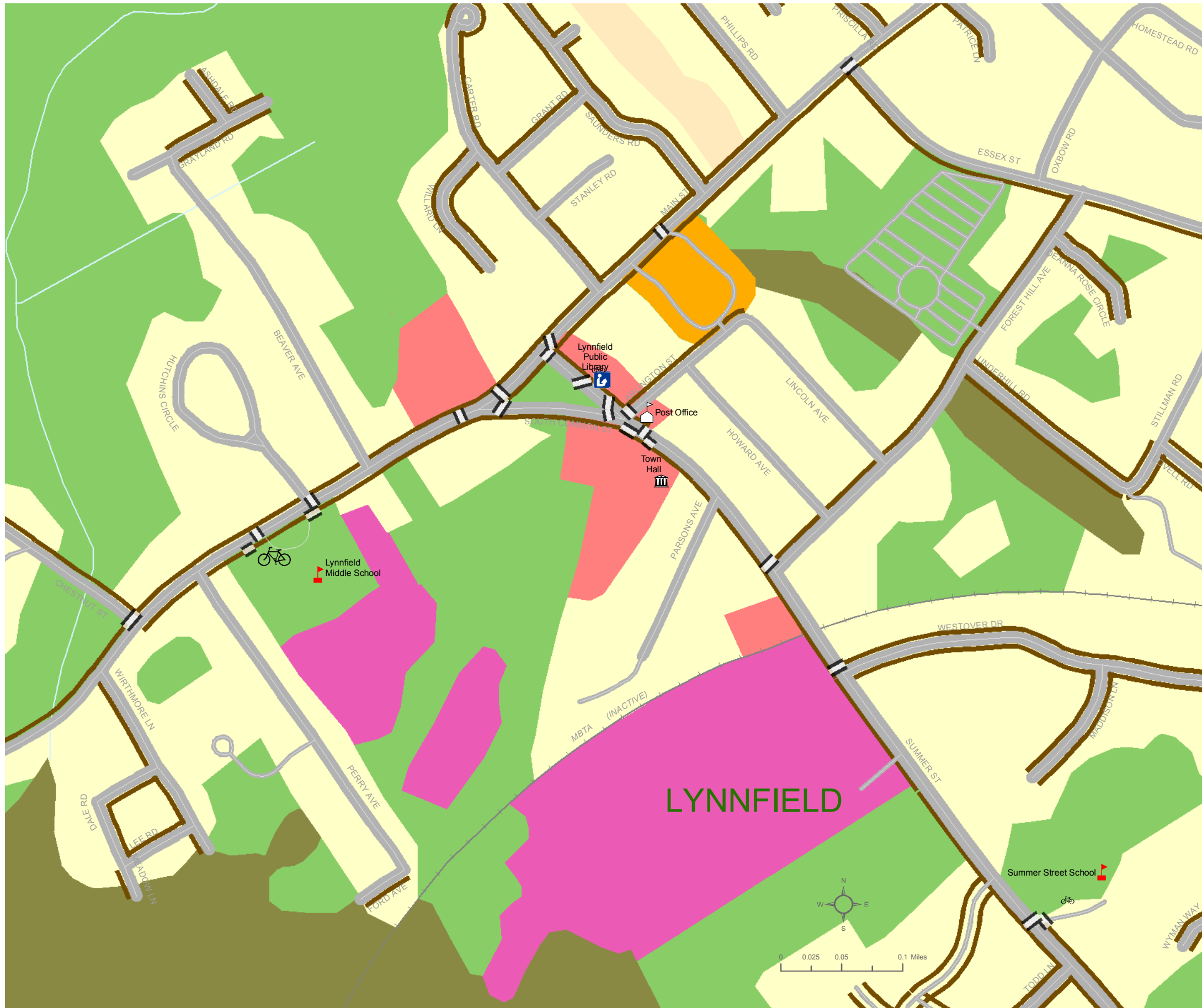
The Summer Street School has a bicycle rack.

BICYCLE PARKING





There are several bicycle racks located at important activity centers in Lynnfield Center:

- Bicycle racks with 34 spaces at Lynnfield Middle School



FIGURE 24
Pedestrian and Bicycle Network: Land Use and Activity Generators
Lynnfield





Activity Center

-  Post office
-  Town hall
-  Public school
-  Public library








Pedestrian Accommodations

-  Crosswalk
-  Sidewalk

Bicycle Racks:

-  One rack
-  Three racks

Land Use

-  Commercial
-  Multifamily residential
-  Single-family residential
-  Participation recreation
-  Agricultural
-  Forest, open land
-  Freshwater wetland

- A bicycle rack with 8 spaces at Summer Street School
- A bicycle rack with 6 spaces at the town library

TRANSIT SERVICE

THE RIDE, the MBTA's paratransit service, operates in Lynnfield, providing door-to-door transportation to people who are unable to use general public transportation (subways, buses and trains), all or some of the time, because of a physical, cognitive, or mental disability. THE RIDE, which is operated in compliance with the federal Americans with Disabilities Act (ADA), operates 365 days a year, from 6:00 AM to 1:00 AM.

Greater Lynn Senior Services (GLSS) provides Lynnfield's elderly residents with door-to-door transportation service for medical appointments in Lynn, Lynnfield, Salem, Saugus, and Swampscott. Rides are provided Monday–Friday from 6:00 AM to 6:00 PM. GLSS also transports customers to Peabody from 9:30 AM to 6:00 AM.

MAJOR CORRIDORS

MAIN STREET: CHESTNUT STREET TO SUMMER STREET

Corridor Length: 0.41 miles



Main Street, looking northeast

ROADWAY

The roadway's two travel lanes each range in width from 14 to 17 feet. The posted speed limit is 25 mph in both directions. The travel lanes are divided by a double solid yellow line. The roadway surface is smooth, with a few sections of small bumps, cracks, and patches. The edge of the roadway is relatively clear of obstructions, and most drainage grates are set back from the roadway. There are no marked bicycle lanes or shoulders. See Figure 25 for more details on bicycle conditions.

BICYCLE PARKING

There are four 6-space ribbon-style bicycle racks and one 10-space comb-style bicycle rack at Lynnfield Middle School. On a warm, sunny spring school day, staff observed 11 children's bicycles near the bicycle racks. None of the bicycles were locked to the racks.

SIDEWALKS

There are sidewalks on both sides of Main Street in this corridor. The sidewalks are made of asphalt and are generally smooth. At several locations, however, tree roots and sand make the sidewalk uneven (see Figure 25 for more details on sidewalk conditions). There are grass buffers between the sidewalk and roadway throughout much of the corridor, ranging in width from 2 feet to 9 feet. The asphalt sidewalk slopes down to the level of intersecting roadways. Driveways are raised to meet the level of the sidewalk, eliminating the need for curb cut ramps at these locations.

The sidewalk on the west side of the Lynnfield Middle School driveway could be extended to the entrance to the parking area in order to provide access to the bicycle racks and tennis courts. This would require curb cut ramps and a crosswalk across the parking area entrance.

CROSSWALKS

There are seven crosswalks along this corridor:

- Across Chestnut Street at Main Street
- Across the Lynnfield Middle School parking lot driveway at Main Street
- Across Main Street just east of the Lynnfield Middle School parking lot
- Across Main Street at the Lynnfield Middle School main driveway
- Across the Lynnfield Middle School main driveway at Main Street
- Across Main Street at The Centre at Lynnfield shopping plaza (near South Common Street)
- Across Main Street at South Common Street

Each of these crosswalks has sufficiently visible or moderately faded pavement markings (see Figure 25 for more details on crosswalk conditions). There are no crosswalks across the three driveways at The Centre at Lynnfield shopping plaza at Main Street and across Perry Avenue at Main Street. The existing crosswalk across Main Street just east of the Lynnfield Middle School parking lot lacks curb cut ramps connecting the sidewalk to the crosswalk. On the north end of the crosswalk, there is a grass buffer between the crosswalk

and sidewalk. The sidewalk could be widened here to connect the crosswalk to the sidewalk.

There is no curb cut ramp on the south side of the crosswalk that crosses Main Street at the main driveway to Lynnfield Middle School. The crosswalk that crosses South Common Street at Main Street also lacks a curb cut ramp on its east side.

The two crosswalks that cross the two Lynnfield Middle School driveways are set back 20 to 30 feet from Main Street. In order for pedestrians to continue walking along Main Street, they must either turn toward the school and use the sidewalks that parallel the two school driveways to access a crosswalk, or cross where there is no crosswalk. Only one of the four sidewalks that parallel the driveways continues to the school (the easternmost sidewalk, which is closest to the school); the others stop at the crosswalks. Pedestrians going to or from the school need to use that one sidewalk or walk on or alongside the driveways. The setback of the crosswalks poses two safety concerns: the stop signs for vehicles exiting the driveways at Main Street are located beyond the crosswalks, creating a potential hazard to pedestrians, and, because the crosswalks are set back so far from the road, pedestrians in the crosswalks are less visible to drivers entering from Main Street.

MAIN STREET: SUMMER STREET TO ESSEX STREET

Corridor Length: 0.35 miles

ROADWAY

The roadway's two travel lanes are each approximately 14 feet wide. The posted speed limit is 30 mph heading east from the town center, and 25 mph westbound. The travel lanes are divided by a double solid yellow line. The roadway surface is smooth, with a few sections of small bumps, cracks, and patches, mostly at the edge of the roadway. Many of the drainage grates are set back from the roadway. There are no marked bicycle lanes or shoulders. See Figure 25 for more information on bicycle conditions.

BICYCLE PARKING

There is no bicycle parking in this corridor.

SIDEWALKS

There are sidewalks on both sides of the street along this section of Main Street. The sidewalk along the north side of Main Street continues from the town center and ends at Phillips Road, connecting to a sidewalk along that street. The sidewalk along the south side of Main

Street continues from the town center to beyond Essex Street. The sidewalks are made of asphalt and have impediments that could significantly impact the safety of pedestrians. At several locations, large tree roots and sand make the sidewalk very uneven (see Figure 25 for more details on sidewalk conditions). The sidewalks have grass buffers ranging in width from 2 feet to 7 feet. The asphalt sidewalk slopes down to the level of intersecting roadways. Driveways are raised to meet the level of the sidewalk, eliminating the need for curb cut ramps at these locations.



Main Street, looking northwest

CROSSWALKS

There are three crosswalks along this corridor:



- Across Main Street at Summer Street
- Across Main Street at Center Village
- Across Essex Street at Main Street

Each of these crosswalks has sufficiently visible or moderately faded pavement markings (see Figure 25 for more details on crosswalk conditions). There are two sidewalks in the Center Village development that meet Main Street. Crosswalks could be installed across Main Street to connect to these sidewalks. Doing so would eliminate the need for the existing crosswalk across Main Street at Center Village. The sidewalk that crosses Main Street at Summer Streets lacks a curb cut ramp on its south side.



FIGURE 25
Pedestrian and Bicycle
Network: Conditions
Lynnfield









Bicycle Racks

-  One rack
-  Three racks

Crosswalk Markings

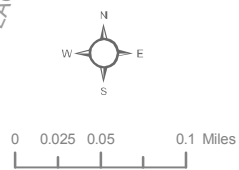
-  Highly visible
-  Sufficiently visible
-  Moderately faded
-  Very faded

Sidewalk Surface

-  Smooth
-  Some small bumps and/or cracks
-  Some medium-sized bumps and/or cracks
-  Significant bumps and/or cracks
-  In serious disrepair
-  Sidewalk not evaluated



LYNNFIELD



SUMMER STREET: MAIN STREET TO TODD LANE

Corridor Length: 0.67 miles



Summer Street, looking southwest

ROADWAY

The roadway's two travel lanes are each approximately 15 feet wide. There are on-street parking spaces along the east side of Summer Street from the post office to Main Street and on the west side of the street opposite the post office. None of these parking spaces have pavement markings. The posted speed limit is 35 mph heading south from the town center and 20 mph as you approach Lynnfield Center from the south. The travel lanes are divided by a double solid yellow line. The roadway surface is smooth, with sections of bumps, cracks, and patches, mostly at the edge of the roadway. Many of the drainage grates are set back from the roadway so as not to obstruct the roadway. There are no marked bicycle lanes or shoulders. The roadway's edge is relatively clear of debris that could be hazardous to bicyclists. See Figure 25 for more details on bicycle conditions.

BICYCLE PARKING

There is a toast-style bicycle rack in front of the library that holds six bicycles. There is also an eight-space ribbon-style bicycle rack at Summer Street School.

SIDEWALKS

There is a sidewalk on the east side of Summer Street from Main Street to opposite the town hall. The sidewalk resumes on the east side of the road at Summer Street School. On the west side of the street, the sidewalk begins at South Common Street and continues south to beyond the study area. The sidewalks are all made of asphalt and range in width from 4.5 feet to 5.5 feet. The sidewalks are smooth in some locations and in other locations have impediments that could pose a significant safety threat to pedestrians (see Figure 25 for

more details on sidewalk conditions). The asphalt sidewalks slope down to the level of intersecting roadways. Driveways are raised to meet the level of the sidewalk, eliminating the need for curb cut ramps at these locations. There are buffers between the sidewalks and the roadway in all locations except on the east side of Summer Street between Arlington Street and the end of the sidewalk across from the town hall. The sidewalks dip to meet the level of roadway intersections. At most driveways, the sidewalk level and material are maintained.

There is a short section of sidewalk across from the post office that has no buffer and is at the level of the roadway. It is also used for on-street parking, which can obstruct the path of a pedestrian.

CROSSWALKS

There are eleven crosswalks along this corridor:

- Across Summer Street at Main Street
- Across Summer Street at Centre Congregational Church
- Across Summer Street at South Common Street
- Across Arlington Street at Summer Street
- Across the additional town hall parking lot at Summer Street
- Across Summer Street at the post office
- Across the town hall driveway at Summer Street
- Across Summer Street at Forest Hill Avenue
- Across Summer Street at the south side of Westover Drive
- Across Summer Street at Summer Street School
- Across the Summer Street School driveway at Summer Street

Each of these crosswalks has sufficiently visible pavement markings (see Figure 25 for more details on crosswalk conditions). There is no crosswalk across the wide driveway at the fire station. The crosswalk across Summer Street at the south side of Westover Drive lacks curb cut ramps on both sides. A crosswalk could be installed across Summer Street at the north side of Westover Drive to connect to the sidewalk on the north side of Westover Drive. The crosswalk across Arlington Street at Summer Street is positioned at an angle to the roadway and sidewalk. The crosswalk across Summer Street at South Common Street is positioned before the stop sign. In this case, it is not possible to relocate the crosswalk after the stop sign, but a sign warning drivers about the crosswalk could improve pedestrian safety. There are no stop signs at the driveways to Town Hall where they meet the crosswalks at Summer Street.

SOUTH COMMON STREET: MAIN STREET TO SUMMER STREET

Corridor Length: 0.11 miles



South Common Street, looking east

ROADWAY

The roadway's two travel lanes are each approximately 11.5 feet wide. The speed limit is not posted along this corridor. The travel lanes are divided by a single solid yellow line. The roadway surface is smooth, with a few cracks that do not pose a safety threat to bicyclists. The drainage grates are set back from the roadway so as not to obstruct the shoulder. There are no marked bicycle lanes or shoulders. The roadway edge is relatively clear of debris and other obstructions. See Figure 25 for more details on bicycle conditions.

BICYCLE PARKING

There is no bicycle parking along South Common Street.

SIDEWALKS

There is a sidewalk on the west side of the street for the entire length of the roadway. The sidewalk ranges in width from 4.5 feet to 5.5 feet. It is made of asphalt and contains some impediments that may decrease pedestrian safety (see Figure 25 for more details on sidewalk conditions). There is a grass buffer between the sidewalk and the roadway. The sidewalk connects to the sidewalks along the south side of Main Street and the west side of Summer Street, but does not cross any driveways or roadways.

CROSSWALKS

There are two crosswalks along this corridor:

- Across South Common Street at Main Street
- Across South Common Street at Summer Street

These crosswalks have sufficiently visible pavement markings (see Figure 25 for more details on crosswalk

conditions). The stop sign on South Common Street at Main Street is positioned after the crosswalk that crosses South Common Street.

RECOMMENDATIONS

Below is a set of recommendations for improvements to the pedestrian and bicycle environments in Lynnfield Center. See Figure 26 for a map of these recommendations.

PEDESTRIAN ENVIRONMENT

CONSTRUCT SIDEWALKS

- Along the west side of the main driveway to Lynnfield Middle School from Main Street to the bicycle parking area
- Along the west side of Summer Street between the two driveways at the town hall; separate the sidewalk from on-street parking

RESURFACE SIDEWALKS

- Along the south side of Main Street for a short segment between Summer Street and Center Village
- Along the south side of Main Street from Phillips Road to Essex Street
- Along the north side of Main Street from the eastern edge of Center Village to Saunders Road
- Along the south side of South Common Street for a short segment near Main Street
- Along the east side of Summer Street in front of the post office
- Along the west side of Summer Street from Forest Hill Avenue to St. Paul's Episcopal Church
- Along the west side of Summer Street for the short segment between Westover Drive and Elizabeth Way

INSTALL CROSSWALKS

- Across the parking lot driveway at Lynnfield Middle School (connecting the recommended sidewalk along the west side of the driveway to the bicycle parking area)
- Across the three driveways at The Centre at Lynnfield shopping plaza at Main Street
- Across Perry Avenue at Main Street
- Across Main Street at the sidewalk that leads to Center Village
- Across Summer Street at the south side of Westover Drive

- Across the fire department driveway at Summer Street

RELOCATE CROSSWALKS

- Across the main driveway at Lynnfield Middle School; relocate it 30 feet closer to Main Street and install curb cut ramps
- Across the driveway of the Lynnfield Middle School parking lot; relocate it 20 feet closer to Main Street and install curb cut ramps
- Across Main Street at Center Village; relocate so it will connect with the sidewalk that leads to Center Village
- Across Arlington Street at Summer Street; reposition it so that it meets the sidewalk on the south side of the crosswalk

INSTALL CURB CUT RAMPS

- At the south end of the crosswalk that crosses Main Street at the main driveway to Lynnfield Middle School
- On both sides of the crosswalk that crosses Main Street just east of the Lynnfield Middle School parking lot
- At the south end of the crosswalk that crosses Main Street at Summer Street
- On the east side of the crosswalk that crosses South Common Street at Main Street
- On both sides of the crosswalk that crosses Main Street at Westover Drive

IMPROVE SIGNAGE

- Relocate the stop sign at the main driveway to Lynnfield Middle School; place it before the crosswalk
- Relocate stop sign at the driveway to the Lynnfield Middle School parking lot; place it before the crosswalk
- Relocate stop sign on South Common Street at Main Street; place it before the crosswalk
- Install a sign to alert motorists to the crosswalk across Summer Street at South Common Street
- Install stop signs at the town hall driveways

BICYCLE ENVIRONMENT

MANAGE ON-STREET PARKING

- Stripe on-street parking spaces on the east side of Summer Street in front of the post office

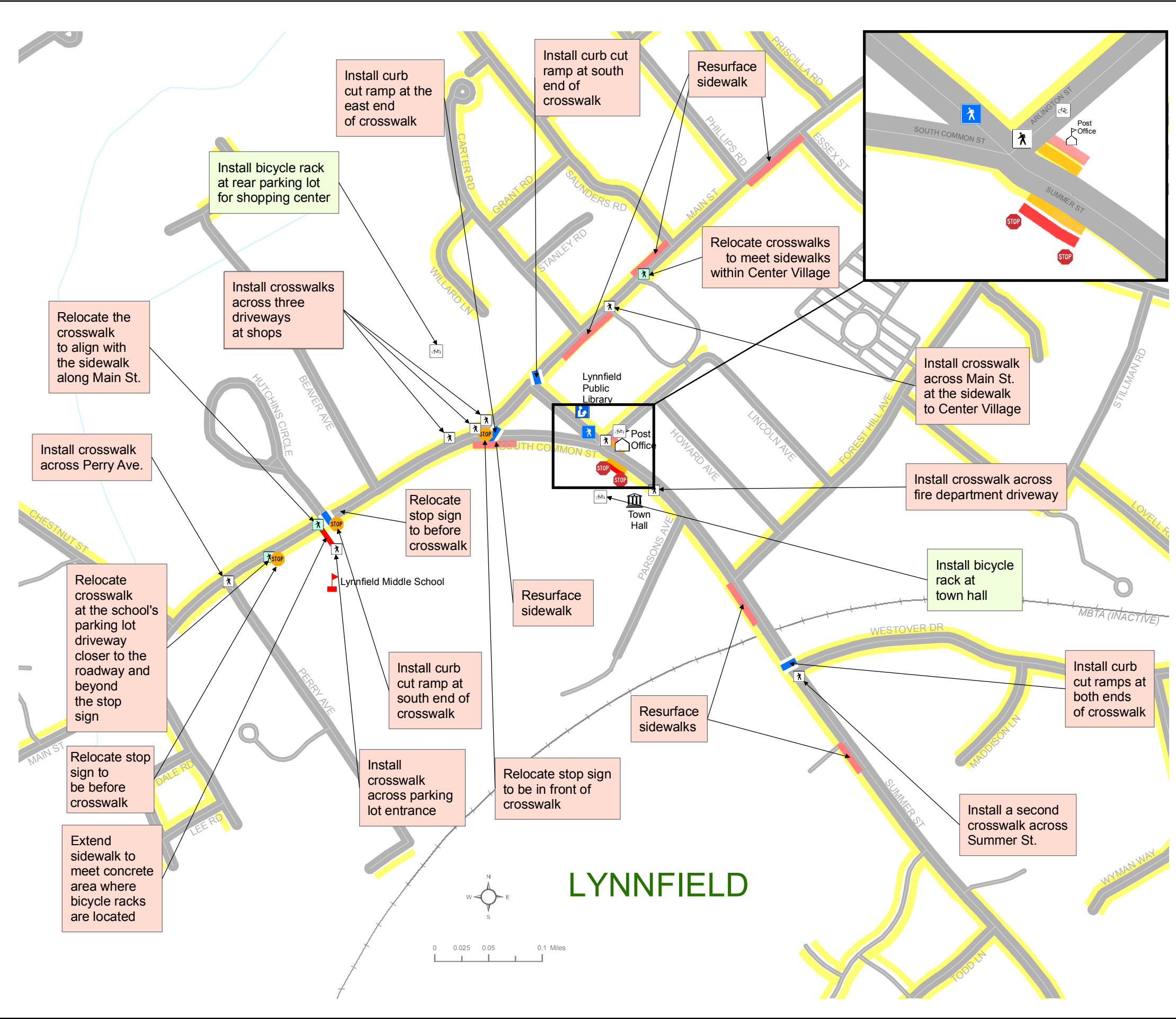
- Stripe on-street parking spaces on the west side of Summer Street between the two town hall driveways to separate the parking spaces from the sidewalk














INSTALL BICYCLE RACKS

- Near the entrance to the post office
- At The Centre at Lynnfield shopping plaza in the rear parking lot
- At Town Hall

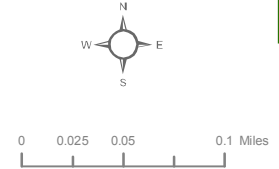


FIGURE 26
Recommendations
Lynnfield



-  Relocate stop sign
-  Install stop sign
-  Relocate crosswalk
-  Install crosswalk
-  Install crosswalk sign
-  Install bicycle rack
-  Install sidewalk
-  Resurface sidewalk
-  Install curb cut ramps
-  Stripe parking
-  Existing sidewalk
-  Pedestrian recommendation
-  Bicycle recommendation

LYNNFIELD



norfolk

Norfolk is a growing suburban town that is located 20 miles southwest of Boston. Its town center has had many improvements in the last few years. The town constructed a new town hall, and the town's library was renovated and expanded. Additionally, two four-way intersections were converted to roundabouts, and several roads were reconstructed, with high-quality pedestrian accommodations included in the design. A condominium development called Norfolk Town Center is under construction on a hill near the town center, and will increase the density of the growing town center. Norfolk Station, on the MBTA's Franklin commuter rail line, is located in the town center.

The growing town center consists primarily of town offices and small businesses. A supermarket is proposed for land adjacent to the town hall. Just beyond the town center, still within the study area, the land use is largely residential. An extensive sidewalk network connects residents to the town center and the commuter rail station. The town is in the process of implementing a 10-year, phased pedestrian walkway plan for installing additional sidewalks that will connect to the existing sidewalks in the town center.

Norfolk had 10,460 residents in 2000, representing a 12.8 percent increase from 1990.¹ MAPC projects that Norfolk's population is likely to grow to 12,439 by 2030, representing an 18.9 percent increase from 2000. Norfolk's employment, recorded at 3,246 jobs in 2000, is projected to increase by 22.3 percent by 2030.²

Norfolk is indirectly served by Route 1 to the east (in Foxborough). Route 115 traverses Norfolk center as North Street, Union Street, and Rockwood Road, connecting to Millis to the north and Wrentham and Foxborough to the south. Route 1A cuts through the southeastern corner of Norfolk, connecting to Walpole to the north and Wrentham to the south.

Between 1995 and 2001, there were five reported crashes involving pedestrians in Norfolk, representing



Sidewalk in Norfolk's town center

0.88 percent of all crashes, and two reported crashes involving bicyclists, representing 0.35 percent of all crashes. None of these crashes resulted in fatalities. The pedestrian and bicyclist crash rates in Norfolk are lower than the region's average of 1.79 percent and 0.82 percent, respectively.³

STUDY AREA

The study area for Norfolk (shown in Figure 27) includes:

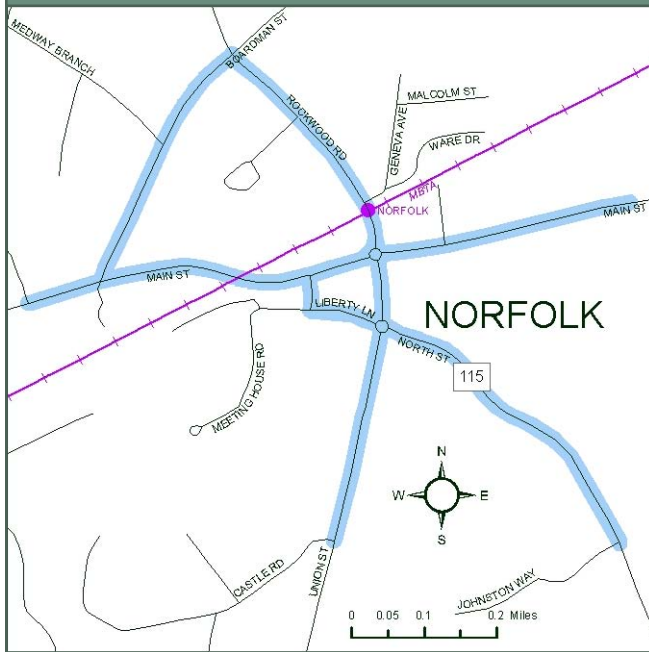
- Main Street from H. Olive Day School to 100 Main Street
- Rockwood Road from Main Street to Boardman Street
- Union Street from Main Street to Castle Road
- North Street from Union Street to Johnston Way
- Boardman Street from Main Street to Rockwood Road
- Liberty Lane and Independence Drive

¹ U.S. census

² MAPC population and employment projections, January 2006

³ Massachusetts Registry of Motor Vehicles crash data, 1995–2001

Figure 27
NORFOLK STUDY AREA



have brick surfaces with inlaid granite borders that are outlined with white paint. The crosswalks connect sidewalks across roadways with curb cut ramps in logical places. There are signs warning motorists about these crosswalks. Other crosswalks (along Rockwood Road and Boardman Street, for example) are marked only with paint and some have faded. (See Figure 28 for a map of the pedestrian network in Norfolk's town center.)



Two roundabouts were recently installed in the town center.

ROUNDBABOUTS

There is a roundabout at the intersection of Main Street, Rockwood Road, and Union Street. It was recently installed as part of the town-center roadway reconstruction project. There is a raised center island surrounded by a 10-foot brick buffer, allowing large trucks to traverse the roundabout safely, while

guiding cars into the single travel lane at its perimeter. The posted speed limit is 15 mph at each approach to the roundabout. There are crosswalks with median islands at each approach. Staff observed that motorists yielded for pedestrians in the crosswalks at the roundabout.

There is also a roundabout at the intersection of Liberty Lane/North Street and Union Street, which was also recently installed as part of the town center roadway reconstruction project. There is a raised center island surrounded by a 10-foot brick buffer, allowing large trucks to traverse the roundabout safely, while guiding cars into the single travel lane at its perimeter. The posted speed limit is 15 mph at each approach to the roundabout. There are crosswalks with median islands at the Liberty Lane and Union Street approaches to the roundabout. Staff observed that motorists yielded for pedestrians in the crosswalks at the roundabout.

ON-STREET BICYCLING

Main Street (from Boardman Street to 100 Main Street, continuing further east) and Union Street (between Main Street and North Street) have wide shoulders that can fully accommodate bicyclists. These roadways are smooth, with few impediments to bicyclists. North Street, Boardman Street, Rockwood Road, and the section of Union Street south of North Street have narrow shoulders or no shoulders. However, the roadways

SIDEWALKS

Norfolk has a comprehensive sidewalk network in its town center. There are wide concrete sidewalks along Main Street, Liberty Lane, Independence Drive, and Union Street (between Main Street and North Street). These sidewalks were constructed as part



Most of the sidewalks in the town center have smooth surfaces.

of the town center roadway reconstruction project mentioned earlier. Rockwood Road, Boardman Street, and North Street have sidewalks on only one side. These sidewalks are made of asphalt and have only a few bumps and cracks that are not likely to affect pedestrian safety. See Figure 28 for a map of the pedestrian network in Norfolk's town center.

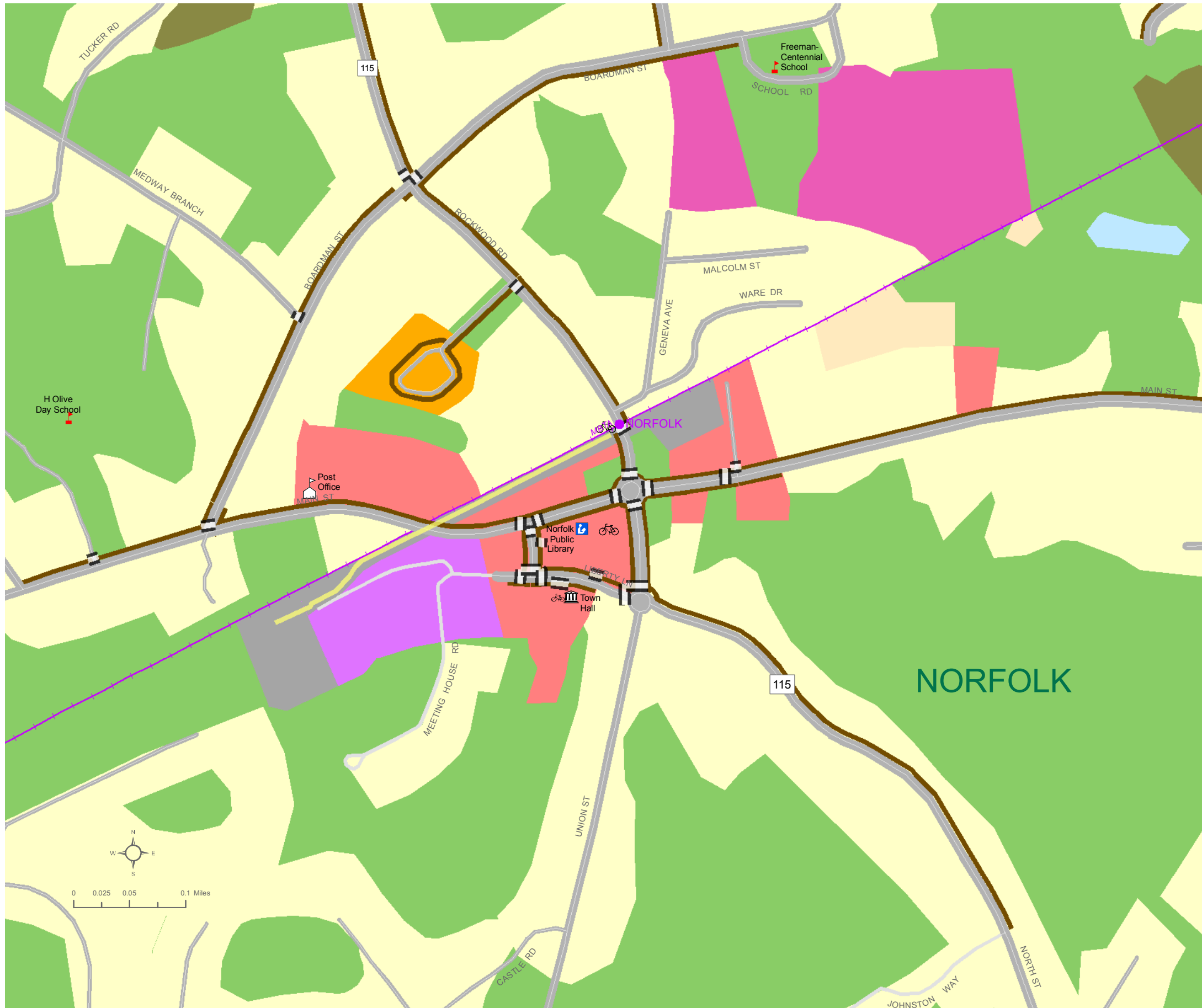
CROSSWALKS

Norfolk's town center has an extensive crosswalk network connecting its sidewalks. Most of the crosswalks in the town center were reconstructed as part of the town center roadway reconstruction project. These crosswalks







Norfolk's town center has brick crosswalks that are highly visible.


FIGURE 28
Pedestrian and Bicycle Network: Land Use and Activity Generators
Norfolk





Activity Center

-  Town hall
-  Post office
-  Public school
-  Public library

Pedestrian Accommodations

-  Crosswalk
-  Pedestrian walkway
-  Sidewalk


Bicycle Racks:

-  One rack
-  Two racks

Transit

-  Commuter rail

Land Use

-  Commercial
-  Multifamily residential
-  Single-family residential
-  Participation recreation
-  Industrial
-  Agricultural
-  Forest, open land
-  Transportation
-  Freshwater wetland
-  Water

are wide enough for bicyclists and motorists to safely share the road. These roadways are relatively smooth, with some small cracks and bumps. There are on-street parking spaces on Union Street (between Main Street and North Street, and on Liberty Lane). See Figure 28 for a map of the bicycle network in Norfolk Center.



The shoulders along Main Street are wide enough to fully accommodate bicyclists.



There are bicycle racks at the town hall, library, and commuter rail station.

BICYCLE PARKING

There are several bicycle racks located at important activity centers in Norfolk's town center:

- A bicycle rack with 6 spaces at the town hall
- A bicycle rack with 12 spaces at the Norfolk Public Library
- Three bicycle racks with 11 spaces at the Norfolk commuter rail station



Norfolk commuter rail station

TRANSIT SERVICE

Norfolk Station, located on the MBTA's Franklin commuter rail line, is located in Norfolk's town center, on Rockwood Road. There are 14 round-trips to and from Boston on weekdays and 7 to 9 round-trips on weekends.

The station has 530 parking spaces for cars in three parking lots, and it provides bicycle parking that can accommodate 11 bicycles.

MAJOR CORRIDORS

MAIN STREET: H. OLIVE DAY SCHOOL TO 100 MAIN STREET

Corridor Length: 0.86 miles



Main Street, looking east

ROADWAY

The roadway's travel lanes are each approximately 16 feet wide. The shoulders range in width from 0.5 feet at the H. Olive Day School to 8 feet across from the post office. The shoulders are 5 feet wide from the bridge over the railroad tracks to 100 Main Street, which are wide enough to fully accommodate bicyclists. Heading east, the posted speed limit is 25 mph approaching the roundabout and is reduced to 15 mph at the roundabout. East of that, the posted speed limit is 35 mph. Heading west, the posted speed limit is 15 mph at the roundabout, and is 20 mph approaching H. Olive Day School. The travel lanes, both east and west of the town center, are divided by a double solid yellow line, and solid white lines delineate the shoulders. The roadway surface is very smooth from Boardman Street to 100 Main Street. Between Boardman Street and the H. Olive Day School, the roadway surface contains some bumps and cracks, but they do not significantly impact bicyclist safety (see Figure 29 for more details on bicycling conditions). The narrow shoulders west of Boardman Street do not accommodate bicyclists, but the wide shoulders from Boardman Street to 100 Main Street and further east do easily accommodate bicyclists. The roadway's edges are free of obstructions that would impact the safety of bicyclists.

BICYCLE PARKING

There is no bicycle parking along this corridor.

SIDEWALKS

There is a concrete sidewalk along the south side of Main Street from Independence Drive to the police station. It is 5 feet wide, with a grass buffer that ranges in width from 2.25 feet to 5 feet. The sidewalk surface is smooth, with no impediments (see Figure 29 for more details on sidewalk conditions).

There is also a concrete sidewalk along the north side of Main Street, from Boardman Street to 100 Main Street. It ranges in width from 4.75 feet to 5.25 feet and has a smooth surface, with no impediments to pedestrians. There is a 2.5-foot-wide grass buffer between the sidewalk and the roadway in all places, except at the bridge over the railroad tracks and in front of the parking lot at the Wayside Building, where there are no buffers. There is a 1.5-foot-wide brick buffer at the level of the sidewalk between the parking lot in front of the Wayside Building and the sidewalk.

West of Boardman Street, the sidewalk is made of asphalt, with a few bumps and cracks that are not likely to pose a safety threat to pedestrians. The sidewalk is 5.25 feet wide and the grass buffer between the sidewalk and the roadway is 4.5 feet wide.

CROSSWALKS

There are eight crosswalks along this corridor:

- Across the H. Olive Day School driveway at Main Street
- Across Boardman Street at Main Street
- Across Main Street at Independence Drive at the west side of the intersection
- Across Main Street at Independence Drive at the east side of the intersection
- Across Main Street at Union Street at the west side of the intersection
- Across Main Street at Union Street at the east side of the intersection
- Across Main Street at Dunkin' Donuts
- Across the driveway for the commuter rail parking lot at Main Street

Each of these crosswalks has highly visible pavement markings (see Figure 29 for more details on crosswalk conditions). There is no stop sign on the commuter rail parking lot's exit-only driveway at the crosswalk along Main Street.

ROCKWOOD ROAD: MAIN STREET TO BOARDMAN STREET

Corridor Length: 0.35 miles



Rockwood Road, looking north

ROADWAY

The roadway's two travel lanes are each approximately 12 feet wide. The shoulders are up to 2 feet wide. There is a yellow sign indicating a 30 mph speed limit at a curve in the roadway near Hillcrest Village, a residential community for the elderly and people with disabilities. The travel lanes are divided by a double solid yellow line, and white solid lines delineate the shoulders. From Main Street to just before Boardman Street, the roadway surface has cracks, bumps, and patches, some of which may make the roadway unsafe for bicyclists (see Figure 29 for more details on bicycling conditions). At the intersection with Boardman Road, the roadway surface is smooth, with no impediments, due to a recent repaving.

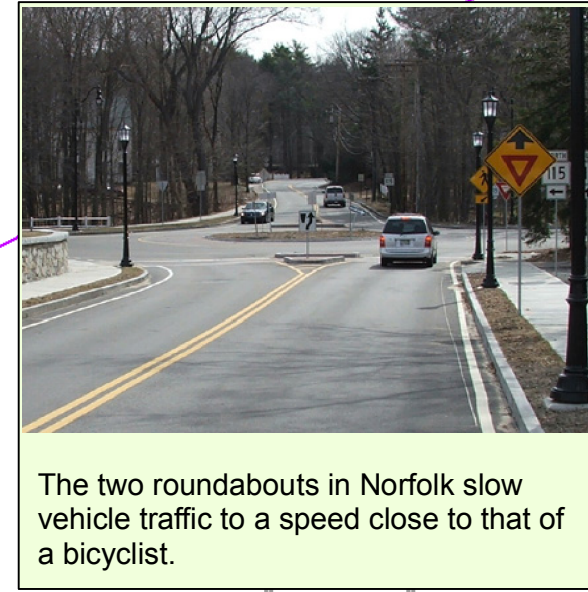
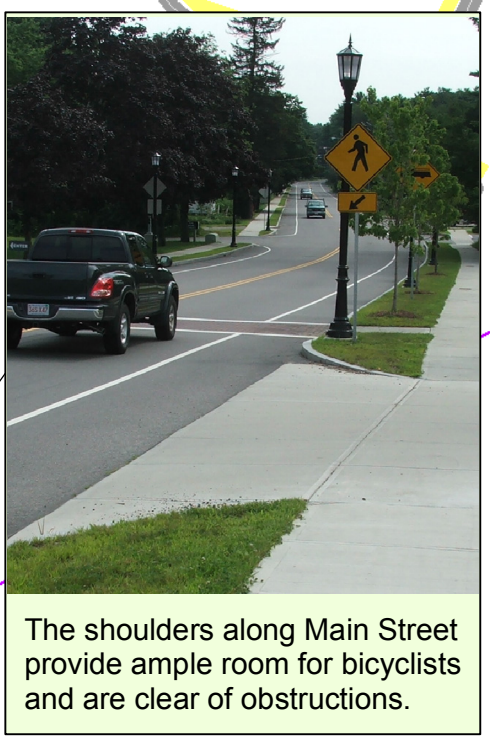
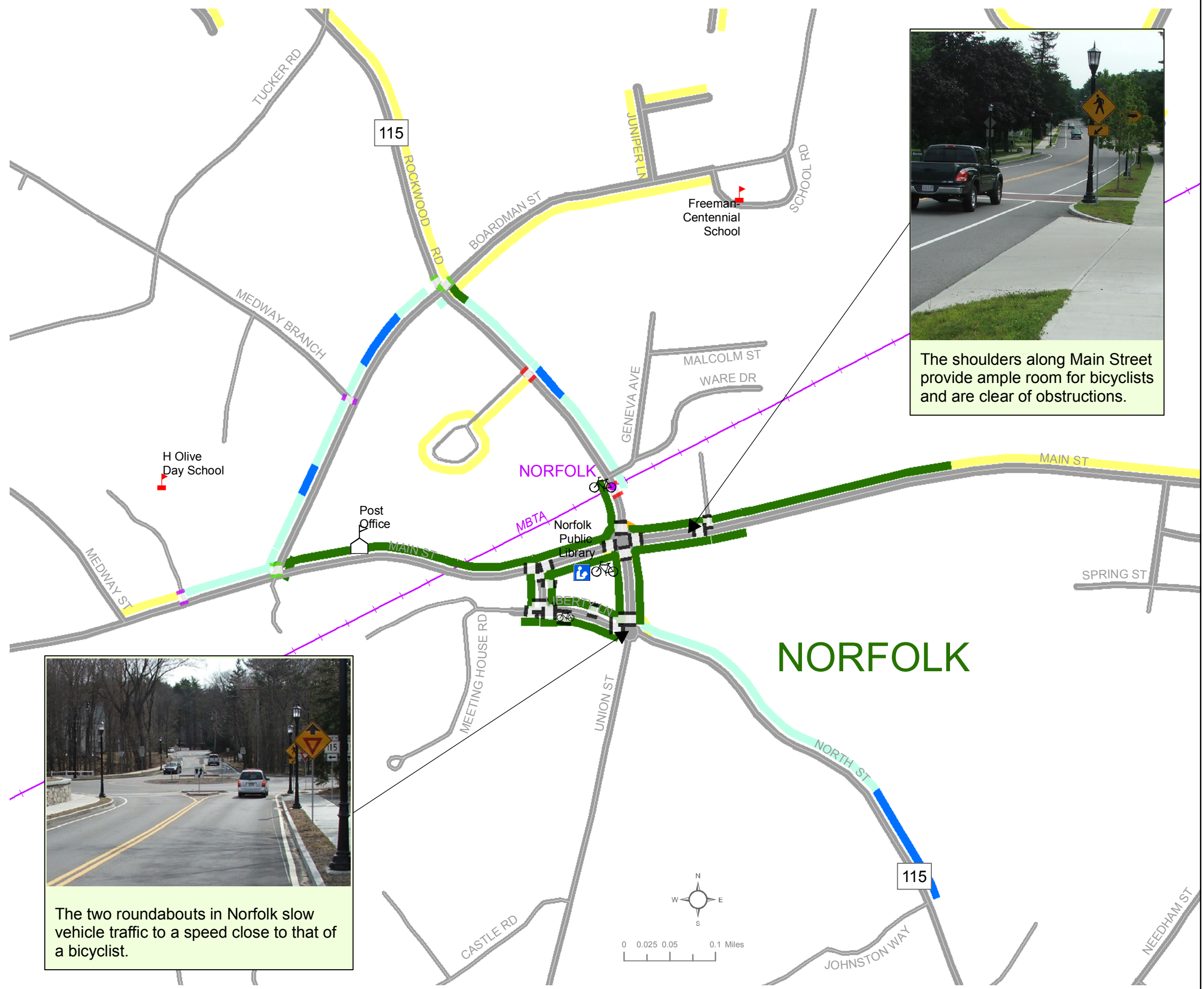
BICYCLE PARKING

There are four inverted-U-style bicycle racks and one six-space ribbon-style bicycle rack at the commuter rail station.

SIDEWALKS

There is an asphalt sidewalk on the east side of the street that begins at Ware Drive and continues beyond the study area. For most of the length of the sidewalk, there are bumps and cracks that could be dangerous to pedestrians. However, near Boardman Street, the sidewalk was recently repaved and has a smooth surface (see Figure 29 for more details on sidewalk conditions). The sidewalk ranges in width from 4.5 feet to 5.25 feet, and the grass buffer between the roadway and the sidewalk ranges from 4 feet to 8 feet wide. Driveways are raised to meet the level of the sidewalk, eliminating the need for curb cut ramps at these locations. There is also a sidewalk directly in front of the storefronts that

FIGURE 29
Pedestrian and Bicycle Network: Conditions
Norfolk



Bicycle Racks

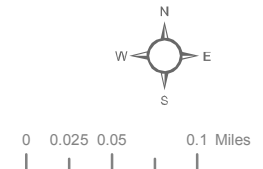
- One rack
- Two racks

Crosswalk Markings

- Highly visible
- Sufficiently visible
- Moderately faded
- Very faded

Sidewalk Surface

- Smooth
- Some small bumps and/or cracks
- Some medium-sized bumps and/or cracks
- Significant bumps and/or cracks
- In serious disrepair
- Sidewalk not evaluated



are located across from the commuter rail station. It does not connect to any crosswalks or other sidewalks. Pedestrians wishing to walk to the shops from the town center must either cross Rockwood Road or walk on grass and across a wide driveway.

CROSSWALKS

There are five crosswalks along this corridor:

- Across Rockwood Road at Main Street
- Across Rockwood Road at the commuter rail station
- Across Rockwood Road at Hillcrest Village
- Across Boardman Street at Rockwood Road
- Across Rockwood Road at Boardman Street

Each of these crosswalks has either sufficiently visible or very faded pavement markings (see Figure 29 for more details on crosswalk conditions). There are no crosswalks across Ware Drive, the gas station driveway, or the driveway at the commuter rail parking lot at Rockwood Road. The very faded crosswalk across Rockwood Road at the commuter rail station is striped at a sharp angle to the roadway. Installing signs warning drivers about the crosswalks across Rockwood Road at Hillcrest Village and the Norfolk commuter rail station could improve pedestrian safety.

UNION STREET: MAIN STREET TO CASTLE ROAD

Corridor Length: 0.40 miles



Union Street, looking south

ROADWAY

Between Main Street and North Street/Liberty Lane, the roadway's two travel lanes are each 12 feet wide. There are 5-foot wide shoulders on each side of the roadway, wide enough to fully accommodate bicyclists. The posted speed limit is 15 mph approaching each roundabout. The travel lanes are divided by a double solid yellow

line, and solid white lines delineate the shoulders. The roadway surface is very smooth (see Figure 29 for more details on bicycle conditions). The shoulders are wide enough to safely accommodate bicyclists, although they have some loose dirt and some drainage grates that could pose a safety threat to bicyclists.

South of North Street/Liberty Lane, there are 0.5-foot shoulders that end just beyond the roundabout, where the travel lanes are each approximately 11 feet wide. The posted speed limit is 25 mph heading south from the roundabout. The travel lanes are divided by a double solid yellow line. There are some surface cracks and loose dirt at the edge of the roadway that would not significantly affect the safety of bicyclists.

BICYCLE PARKING

There is no bicycle parking in this corridor.

SIDEWALKS

There are sidewalks on both sides of the street along Union Street between Main Street and North Street/Liberty Lane. The sidewalks are 5 feet wide; they are made of concrete and are smooth, with no impediments to pedestrians (see Figure 29 for more details on sidewalk conditions). There are 2-foot-wide grass buffers on each side of the road, except in front of the church, where on-street parking spaces replace the grass buffer. The concrete sidewalks continue across driveways and dip slightly. There are curb cut ramps where the sidewalk meets intersecting roadways or driveways. Driveways are slightly raised to reduce the slope of the curb cut ramps. There are no sidewalks along Union Street south of North Street/Liberty Lane.

CROSSWALKS

There are two crosswalks along this corridor:

- Across Union Street at Main Street
- Across Union Street at North Street

These crosswalks have highly visible pavement markings (see Figure 29 for more details on crosswalk conditions).

NORTH STREET: UNION STREET TO JOHNSTON WAY

Corridor Length: 0.38 miles

ROADWAY

The two travel lanes along North Street are each 13 feet wide. The posted speed limit is 25 mph heading southeast from the roundabout. At 33 North Street, the speed limit increases to 35 mph. Heading northwest toward the roundabout, the posted speed limit is 15 mph. The

travel lanes are divided by a double solid yellow line. One-foot-wide shoulders marked by solid white lines end just east the roundabout. The roadway surface is smooth, with some cracks that would not make the roadway unsafe for bicyclists (see Figure 29 for more details on bicycle conditions). There are no marked bicycle lanes, and the shoulders near the roundabout are too narrow to fully accommodate bicyclists. There are some surface cracks and loose dirt at the edge of the roadway that do not make the roadway unsafe for bicyclists.



North Street, looking southeast

BICYCLE PARKING

There is no bicycle parking along North Street.

SIDEWALKS

There is a smooth concrete sidewalk on the north side of the street from Union Street to just east of the roundabout. The sidewalk is 4.5 feet wide and the grass buffer ranges in width from 3 to 11 feet. Heading east, the sidewalk surface changes to asphalt and is at the roadway grade; it has bumps and cracks that might pose a safety threat to pedestrians (see Figure 29 for more details on sidewalk conditions). This sidewalk segment ranges in width from 4 feet to 5.75 feet with no buffer and there is no delineation between the asphalt roadway and the asphalt sidewalk. Beginning at 41 North Street, a grass buffer separates the asphalt sidewalk from the roadway. The sidewalk ranges in width from 4 to 5 feet, with a 2-foot-wide buffer. The sidewalk meanders around trees and utility poles near Johnston Way. Where the sidewalk is raised above the grade of the roadway, the asphalt surface slopes down to the level of driveways.

CROSSWALKS

There are no crosswalks along this corridor.

BOARDMAN STREET: MAIN STREET TO ROCKWOOD ROAD

Corridor Length: 0.36 miles



Boardman Street, looking southwest

ROADWAY

The roadway's two travel lanes are each approximately 11 feet wide. There are 1-foot-wide shoulders on both sides of the roadway. The speed limit is not posted in either direction. The travel lanes are divided by a double solid yellow line, and solid white lines delineate the shoulders. The roadway surface is smooth, with only a few cracks, which are unlikely to affect the safety of bicyclists. The shoulder is not wide enough to fully accommodate bicyclists. The shoulder has some obstructions, such as drainage grates and small amounts of debris, which are not likely to significantly impact bicyclist safety (see Figure 29 for more details on bicycle conditions).

BICYCLE PARKING

There is no bicycle parking along this corridor.

SIDEWALKS

There is an asphalt sidewalk on the west side of the street. Its surface is smooth, with only a few cracks and bumps, which are not likely to affect the safety of pedestrians (see Figure 29 for more details on sidewalk conditions). The sidewalk ranges in width from 4.5 feet to 5 feet. There is a grass buffer between the sidewalk and the roadway, ranging in width from 2 to 3 feet. The asphalt sidewalk slopes down to the level of driveways.

CROSSWALKS

There is one crosswalk along this corridor:

- Across Medway Branch Road at Boardman Road

This crosswalk has very faded pavement markings (see Figure 29 for more details on crosswalk conditions).

LIBERTY LANE AND INDEPENDENCE DRIVE

Corridor Length: 0.14 miles



Liberty Lane, looking East

ROADWAY

Liberty Lane has 13-foot-wide travel lanes, with 0.5-foot-wide shoulders, and has a smooth surface (see Figure 29 for more details on bicycling conditions). There is space for an on-street parking area that could accommodate 10 parallel-parked cars on the north side of Liberty Lane in front of the library. The parking spaces have no pavement markings, but the distance between the shoulder line and the edge of the roadway is 11 feet at this location. The speed limit is 15 mph approaching the roundabout. The travel lanes are divided by a double solid yellow line, and solid white lines delineate the shoulders. An access road to the auxiliary commuter rail parking lot and the Norfolk Town Center development continues west past Liberty Lane. This portion of the roadway was not evaluated.

Independence Drive has two travel lanes in each direction and is divided in the middle by a median strip. Each side of the roadway is 28 feet wide, with two 14-foot travel lanes. There are 1-foot-wide shoulders at the edges of the roadway. There is no posted speed limit. The roadway surface is smooth. The travel lanes are divided by a solid white line on each side of the median strip. Solid white lines delineate the shoulders.

The shoulders along Liberty Lane and Independence Drive, while not wide enough to fully accommodate bicyclists, are clear of any obstructions that would inhibit the safety of a bicyclist.

BICYCLE PARKING

There are two 6-space ribbon bicycle racks at the library and one at the town hall.

SIDEWALKS

There is a concrete sidewalk with a smooth surface along the north side of Liberty Lane from the roundabout at Union Street to just beyond Independence Drive (see Figure 29 for more details on sidewalk conditions). There is a 1.75-foot-wide grass buffer between the sidewalk and the roadway. Adjacent to the on-street parallel parking area, there is a 2.5-foot-wide brick buffer in lieu of the grass buffer. On the south side of Liberty Lane, there is also a concrete sidewalk with a smooth surface. It too has a 1.75-foot-wide grass buffer. There is a break in the sidewalk after crossing the exit-only driveway at the town hall; beyond the driveway, the sidewalk continues until it ends at the roundabout.

The sidewalks on both sides of Independence Drive have smooth surfaces and are 5 feet wide, and the buffers are 3 feet wide. There is a crosswalk that is raised to the level of the sidewalk and the level of the exit-only driveway at the library.

CROSSWALKS

There are eight crosswalks along this corridor:

- Across Liberty Lane at Union Street
- Across the main driveway at the library at Liberty Lane
- Across the exit-only town hall driveway at Main Street
- Across the main entry-only driveway at the town hall at Main Street
- Across Liberty Lane at Independence Drive (at the east side of the intersection)
- Across Liberty Lane at Independence Drive (at the west side of the intersection)
- Across the exit-only driveway to the library
- Across Independence Drive at Main Street

These crosswalks all have highly visible pavement markings (see Figure 29 for more details on crosswalk conditions).

RECOMMENDATIONS

Below is a set of recommendations for improvements to the pedestrian and bicycle environments in Norfolk's town center.⁴ See Figure 30 for a map that illustrates these recommendations.

PEDESTRIAN ENVIRONMENT

CONSTRUCT SIDEWALKS

- Extend the sidewalk along the south side of Liberty Lane from the exit-only town hall driveway to connect with the sidewalk leading to the roundabout
- Extend the sidewalk along the east side of Rockwood Road in front of the gas station to the gas station driveway

IMPROVE SIDEWALKS

- Resurface the sidewalk along the east side of North Street from 25 North Street to 41 North Street and install a curb to separate the sidewalk from the roadway
- Resurface the sidewalk at the east corner of the intersection of Main Street and Rockwood Road (in front of the gas station)

INSTALL CROSSWALKS

- Across Ware Drive at Rockwood Road
- Across the gas station driveway at Rockwood Road
- Across the driveway at the commuter rail parking lot at Rockwood Road

RELOCATE CROSSWALK

- Across Rockwood Road at the Norfolk commuter rail station and reposition it so that it is perpendicular to the roadway

RESTRIPE CROSSWALKS

- Across Medway Branch Road at Boardman Street
- Across Rockwood Road at Hillcrest Village

IMPROVE SIGNAGE

- Install a stop sign at both of the town hall driveways

- Install a stop sign at the commuter rail parking lot's exit-only driveway at Main Street
- Replace the faded stop sign on Independence Drive to Main Street
- Install signs warning motorists of the crosswalk across Rockwood Road at Hillcrest Village
- Install signs warning motorists of the crosswalk across Rockwood Road at the Norfolk commuter rail station

BICYCLE ENVIRONMENT

STRIPE BICYCLE LANES

- Stripe the shoulders on Main Street east of Union Street as bicycle lanes
- Stripe the shoulders on Main Street between Boardman Street and Union Street as bicycle lanes
- Stripe the shoulders on Union Street between Main Street and North Street as bicycle lanes

IMPROVE SIGNAGE

- Post the speed limit on Boardman Street
- Install share-the-road signs on Main Street east of Union Street
- Install share-the-road signs on Main Street from Boardman Street to Union Street
- Install share-the-road signs on Union Street from Main Street and North Street

INSTALL BICYCLE RACKS

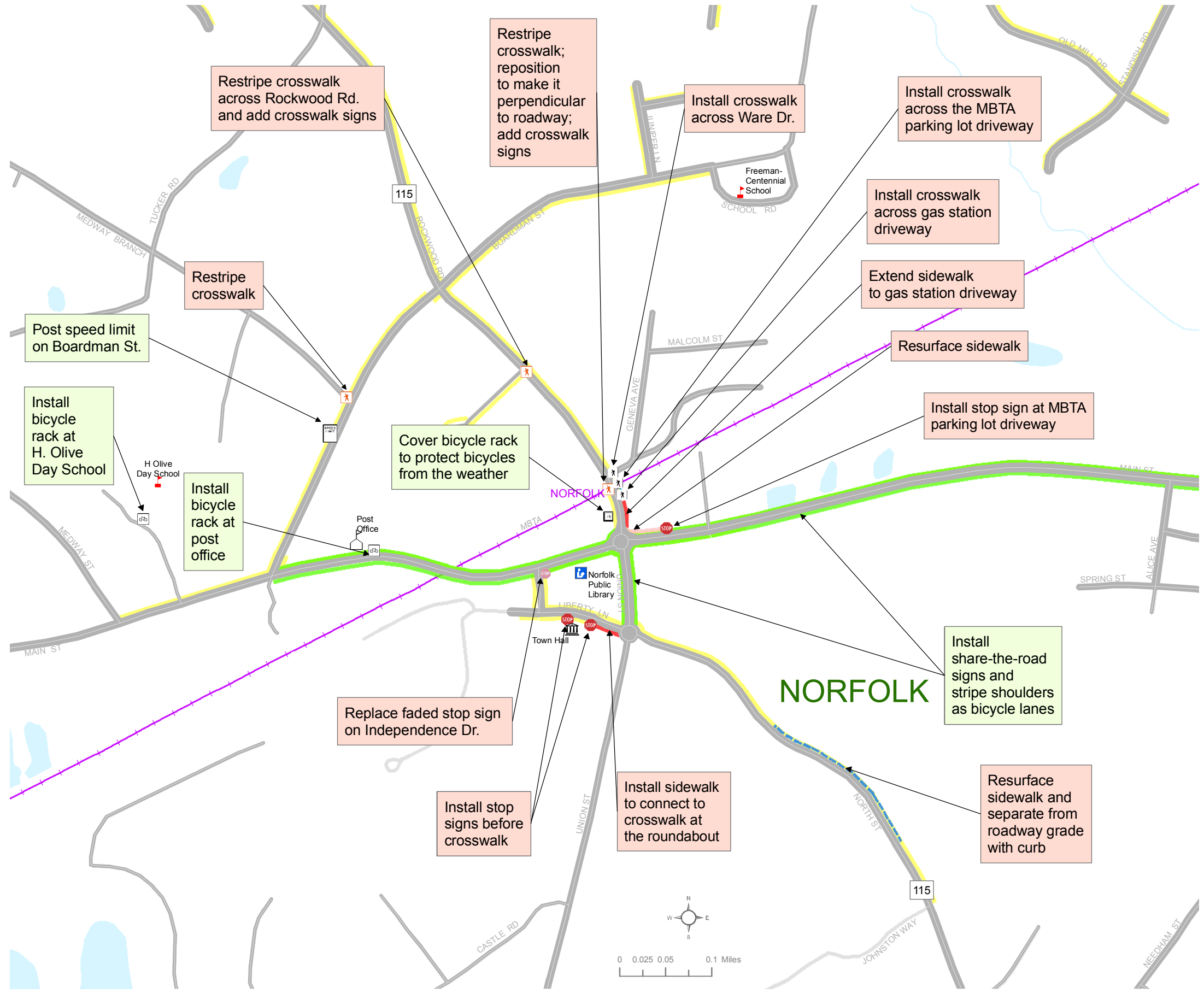
- At the H. Olive Day School
- At the post office















COVER BICYCLE RACK

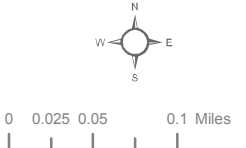
- Cover the existing bicycle parking at the Norfolk commuter rail station to protect bicycles from the weather

⁴ All new developments in Norfolk's town center should include pedestrian accommodations, such as sidewalks, crosswalks, signage, and bicycle parking.

FIGURE 30
Recommendations
Norfolk



-  Replace stop sign
-  Install stop sign
-  Install speed limit sign
-  Install bicycle rack
-  Install cover over bicycle rack
-  Restripe crosswalk
-  Install crosswalk
-  Install sidewalk
-  Resurface sidewalk
-  Resurface sidewalk and add curbs
-  Stripe bicycle lanes
-  Existing sidewalk
-  Pedestrian recommendation
-  Bicycle recommendation



southborough

Southborough is a small suburban town with a rural atmosphere at the western edge of the MPO region. The town has managed to maintain many of its rural characteristics, such as narrow scenic roads and stone walls. The town center includes the town common, town offices, the senior center, several churches and cemeteries, the library, several shops, and residences. The area just beyond the center is largely residential, with significant areas of open space. Three schools—Fay School, Saint Mark’s School, and Woodward Memorial School—are within walking distance of Southborough’s town center. Southborough has many recreational assets, including the walking trails, the Sudbury Reservoir Trail and the Bay Circuit Trail. The Sudbury Reservoir and the Sudbury Reservoir Trail lie just to the south of the town center.

The Town has recently completed a draft Open Space and Recreation Plan and is currently preparing a master plan for the town, which was last done in 1986. Southborough has been constructing new sidewalks in accordance with a 1992 sidewalk plan.

Southborough had 8,781 residents in 2000, representing a 32.5 percent increase from 1990.¹ MAPC projects that Southborough’s population is likely to grow to 10,933 by 2030, representing a 24.5 percent increase from 2000. Southborough’s employment, recorded at 5,666 jobs in 2000, is projected to increase by 21 percent by 2030.²

Southborough is served by Route 9, located to the south of the town center. I-495, which travels through the western part of Southborough, is accessed by an interchange at Route 9 in Westborough, just beyond the Southborough-Westborough line. State routes 85 and 30 intersect at Southborough Center.

Between 1995 and 2001, there were 11 reported crashes involving pedestrians in Southborough, representing 0.47 percent of all crashes, and 16 reported crashes involving bicyclists, representing 0.69 percent

¹ U.S. census. The Town of Southborough indicates that Southborough had 9,762 residents as of January 1, 2007.

² MAPC population and employment projections, January 2006



Sudbury Reservoir Trail

of all crashes. There were two fatalities resulting from reported crashes involving bicyclists. The pedestrian and bicyclist crash rates in Southborough are lower than the region’s average of 1.79 percent and 0.82 percent, respectively.³

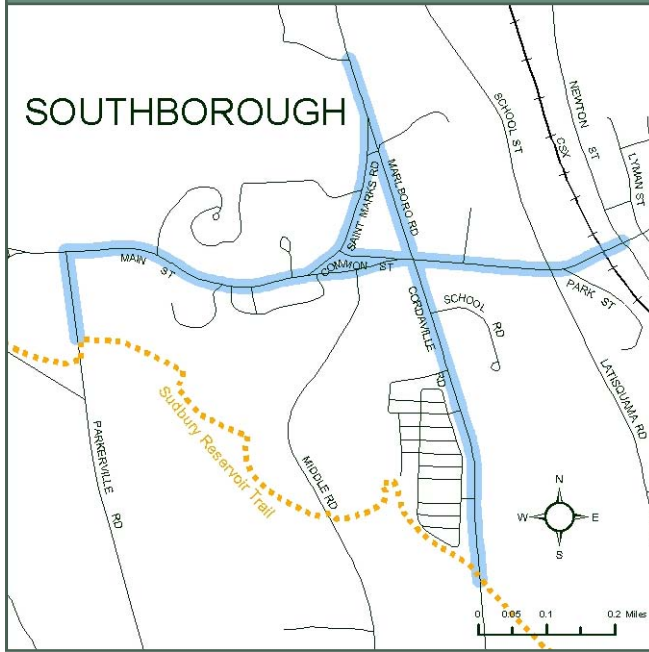
STUDY AREA

The study area for Southborough (shown in Figure 31) includes:

- Main Street from Parkerville Road to Marlboro Road
- Main Street from Marlboro Road to Boston Road
- Marlboro Road from the entrance to the West Campus of Saint Mark’s School to Main Street
- Cordaville Road from Main Street to the Sudbury Reservoir Trail
- Common Street
- Saint Mark’s Street
- Parkerville Road from Main Street to the Sudbury Reservoir Trail

³ Massachusetts Registry of Motor Vehicles crash data, 1995–2001

Figure 31
SOUTHBOROUGH STUDY AREA



There are several warning signs identifying the crosswalks to motorists. See Figure 32 for a map of the pedestrian network in Southborough Center.



Several signs alert motorists to this crosswalk across Main Street.



Signalized pedestrian crosswalk across Marlboro Road

SIGNALIZED PEDESTRIAN CROSSWALKS

The intersection of Main Street and Marlboro/Cordaville Road has a four-way stop light with pedestrian-activated crossing signals. There are three crosswalks at the intersection, crossing Main Street (on the west side of the intersection), Marlboro Road, and Cordaville Road. Staff observed that pedestrian-activated signals were not operational at the time of observation.

There is a pedestrian-activated signal on Marlboro Road at the driveway to the West Campus of Saint Mark's School. The crosswalk and signal provide a safe pedestrian link between the east campus and west campus of the school. The signal has an exclusive pedestrian phase consisting of a 7-second walk signal and a 7-second don't-walk signal for a 27-foot crosswalk. Using a 3.5-foot-per-second standard for crossing a roadway, the pedestrian phase is adequate for the length of the crossing.

WALKING PATHS

There is a walking path connecting the Woodward Memorial School to Main Street. Also, the Sudbury Reservoir Trail, one of many recreational assets in Southborough, lies just south of Southborough Center.

ON-STREET BICYCLING

In most places, the edges of the roadway and the shoulders have cracks and debris that might be hazardous to bicyclists. In other places, the roadway's edges and shoulders are free of obstructions. There are some drainage grates, but they are set back from the roadway and do not affect bicyclist safety. Staff observed sev-



Some sidewalks are narrow and uneven.

SIDEWALKS

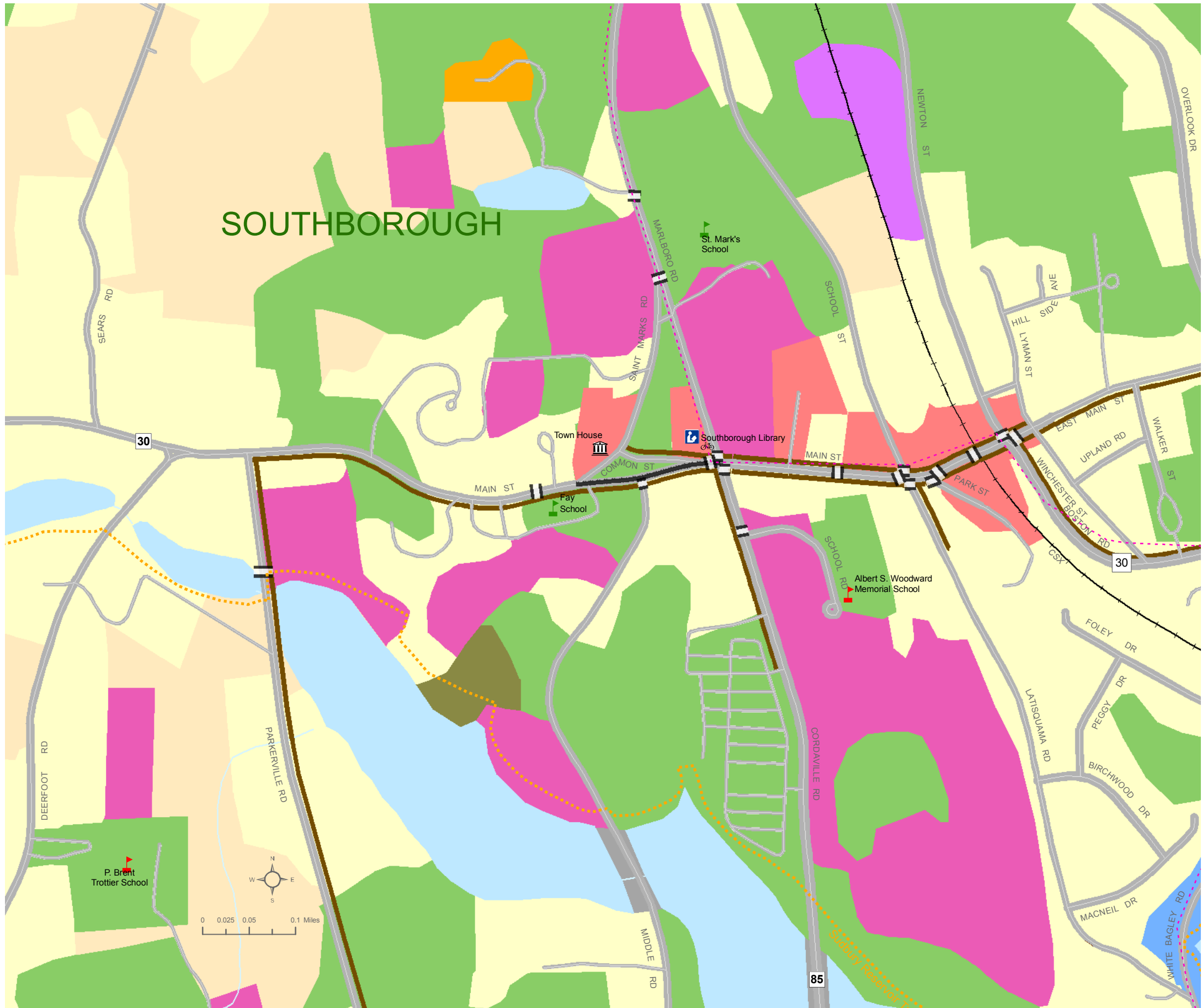
The existing sidewalks in Southborough's town center are in need of repair, and areas without sidewalks limit pedestrian mobility. Main and Common streets have sidewalks on one or both sides within the study area, but Saint

Mark's street, Cordaville Road, and Marlboro Road lack sidewalks. The sidewalks in the study area are made of asphalt or concrete, and some sections may be impassable to some pedestrians, as the surface is very uneven. In addition, there are some segments of sidewalk that are too narrow to accommodate two pedestrians walking past one another. See Figure 32 for a map of the pedestrian network in Southborough Center.

CROSSWALKS

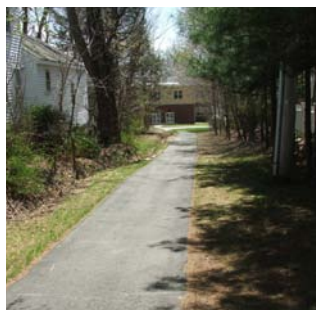
Southborough Center has a comprehensive crosswalk network. Some crosswalks in the town center are faded, but are visible to motorists and pedestrians, and others have recently been repainted, making them highly visible. The existing crosswalks connect sidewalks across roadways in logical places. Some crosswalks lack curb cut ramps to connect the crosswalks to the sidewalks.

FIGURE 32
Pedestrian and Bicycle Network: Land Use and Activity Generators
Southborough



- Activity Center**
 - Town House
 - Public school
 - Private school
 - Public library
- Pedestrian Accommodations**
 - Crosswalk
 - Pedestrian walkway
 - Sidewalk
- Bicycle Racks:**
 - One rack
- Transit**
 - LIFT 7 route
- Land Use**
 - Commercial
 - Multifamily residential
 - Single-family residential
 - Participation recreation
 - Water-based recreation
 - Industrial, waste disposal
 - Agricultural
 - Forest, open land
 - Freshwater wetland
 - Water

eral vehicles parked on sidewalks and on the shoulders along Main Street, creating dangerous conditions for bicyclists. See Figure 32 for more details on bicycling conditions in Southborough Center.



Walking path to Woodward Memorial School



Car parked on the sidewalk and on the shoulder along Main Street

BICYCLE PARKING

There is one five-space, comb-style bicycle rack in Southborough center. It is located beneath a tree about 30 feet from the rear entrance of the library. Staff observed no bicycles utilizing the rack on a warm, sunny summer day.

TRANSIT SERVICE

Local Inter-Framingham Transit (LIFT) operates the LIFT 7 bus route through Southborough Center along Marlboro Road and Main Street and provides connections to commercial and business centers in Marlborough and Framingham. The bus utilizes the “flag down” system, which allows passengers to board the bus at any point along the route, as well as at designated stops. There are 11 weekday Framingham-bound trips and 11 weekday Marlborough-bound trips from Southborough. There is no weekend service.

The Local Connection (TLC) is a curb-to-curb, demand-response transit service that is operated by the Worcester Regional Transit Authority (WRTA). Funding for TLC is provided by the Boston Region MPO, the City of Marlborough, and the Town of Southborough. TLC provides local transportation for residents of Marlborough and Southborough, as well as commuters, with direct service to and from their destinations within both communities. Passengers are picked up at any location within Marlborough and Southborough and may be dropped off at any location within the TLC service area, which includes Southborough Center, Route 85, the Southborough commuter rail station, and locations in Marlborough. TLC is meant to complement MBTA commuter rail service, as well as LIFT 7 bus service.

Southborough Station, located on the Worcester commuter rail line, lies 2.75 miles south of Southborough Center. The station has 10 round-trips to Boston and Worcester on weekdays and 5 round-trips on weekends. The station has 364 parking spaces for cars and has no bicycle parking.

MAJOR CORRIDORS

MAIN STREET: PARKERVILLE ROAD TO MARLBORO/CORDAVILLE ROAD

Corridor Length: 0.52 miles



Main Street, looking west

ROADWAY

The roadway’s two travel lanes are each approximately 12 feet wide. The marked shoulder ranges in width from less than 1 foot to 3.75 feet. The posted speed limit is 25 mph in both directions on this portion of the road. The travel lanes are divided by a double solid yellow line, and white solid lines delineate the shoulders. There are no marked bicycle lanes. The roadway surface has cracks, bumps, and patches that make the edge of the roadway potentially unsafe for bicyclists. See Figure 33 for more details on bicycling conditions.

SIDEWALKS

There is an asphalt sidewalk on the south side of the road from Marlboro/Cordaville Road to Parkerville Road. For most of its length, the sidewalk’s surface has small bumps and cracks that are not likely to pose a serious threat to pedestrian safety. However, near the intersection with Marlboro/Cordaville Road, the sidewalk surface is broken and very uneven, creating a very dangerous situation for pedestrians (see Figure 33 for more details on sidewalk conditions). There is no buffer or curb between the sidewalk and the roadway on the segment between Marlboro/Cordaville Road and 54 Main Street; however, there is a grass buffer ranging in width from 2

to 7 feet between 54 Main Street and Parkerville Road. The asphalt sidewalk slopes down to the level of intersecting roadways and driveways.

There is a short asphalt sidewalk on the north side of Main Street that begins at Marlboro/Cordaville Road and, instead of continuing west along Main Street, continues up Common Street. The surface is smooth, with some small bumps and cracks that do not pose a safety threat for pedestrians.

CROSSWALKS

There are three crosswalks along this corridor:

- Across Main Street at Fay School
- Across Middle Road at Main Street
- Across Main Street at Marlboro/Cordaville Road

Each of these crosswalks has highly or sufficiently visible pavement markings (see Figure 33 for more details on crosswalk conditions).

MAIN STREET: MARLBORO/CORDAVILLE ROAD TO BOSTON ROAD

Corridor Length: 0.32 miles



Main Street, looking east

ROADWAY

The two travel lanes along this section of Main Street are each approximately 12.5 feet wide, and the shoulders are 1.5 feet wide. The posted speed limit is 20 mph heading east from Southborough Center and 30 mph heading west toward Southborough Center. The travel lanes are divided by a double solid yellow line, and solid white lines delineate the shoulders. The roadway surface has crack, bumps, and patches, some of which may impact bicyclist safety. The shoulders have obstructions, including parked cars, that might also impact bicyclist safety. However, most of the drainage grates are set back from the shoulder, so they do not have an impact

on bicyclists. See Figure 33 for more details on bicycling conditions.

SIDEWALKS

There is a sidewalk on both sides of the street along this section of Main Street. The sidewalks are made of asphalt and have many bumps and cracks, some of which are significant impediments to pedestrians (see Figure 33 for more details on sidewalk conditions). Along the north side of Main Street, the sidewalk is made of asphalt, with a grass buffer from Marlboro/Cordaville Road to Park Street, where it becomes a concrete sidewalk with no buffer in front of Firehouse Plaza. After the Plaza, it reverts back to an asphalt surface with no buffer. Along the south side of Main Street, the sidewalk is made of asphalt, with no buffer or curb from Marlboro/Cordaville Road to 10 Main Street. There is a 4-foot-wide grass buffer at 10 Main Street, and beyond there the sidewalk has an asphalt curb with no buffer. The asphalt sidewalk slopes down to the level of intersecting roadways and driveways.

CROSSWALKS

There are nine crosswalks along this corridor:

- Across Main Street at the path to Woodward Memorial School
- Across Main Street at Latisquama Road/School Street
- Across Latisquama Road at Main Street
- Across School Street at Main Street
- Across Park Street at Main Street
- Across Main Street at Park Street
- Across Main Street just west of the train tracks
- Across Newton Street at Main Street
- Across Main Street at Boston Road

Each of these crosswalks has sufficiently visible pavement markings (see Figure 33 for more details on crosswalk conditions). There are no crosswalks across the driveways to the police and fire stations.

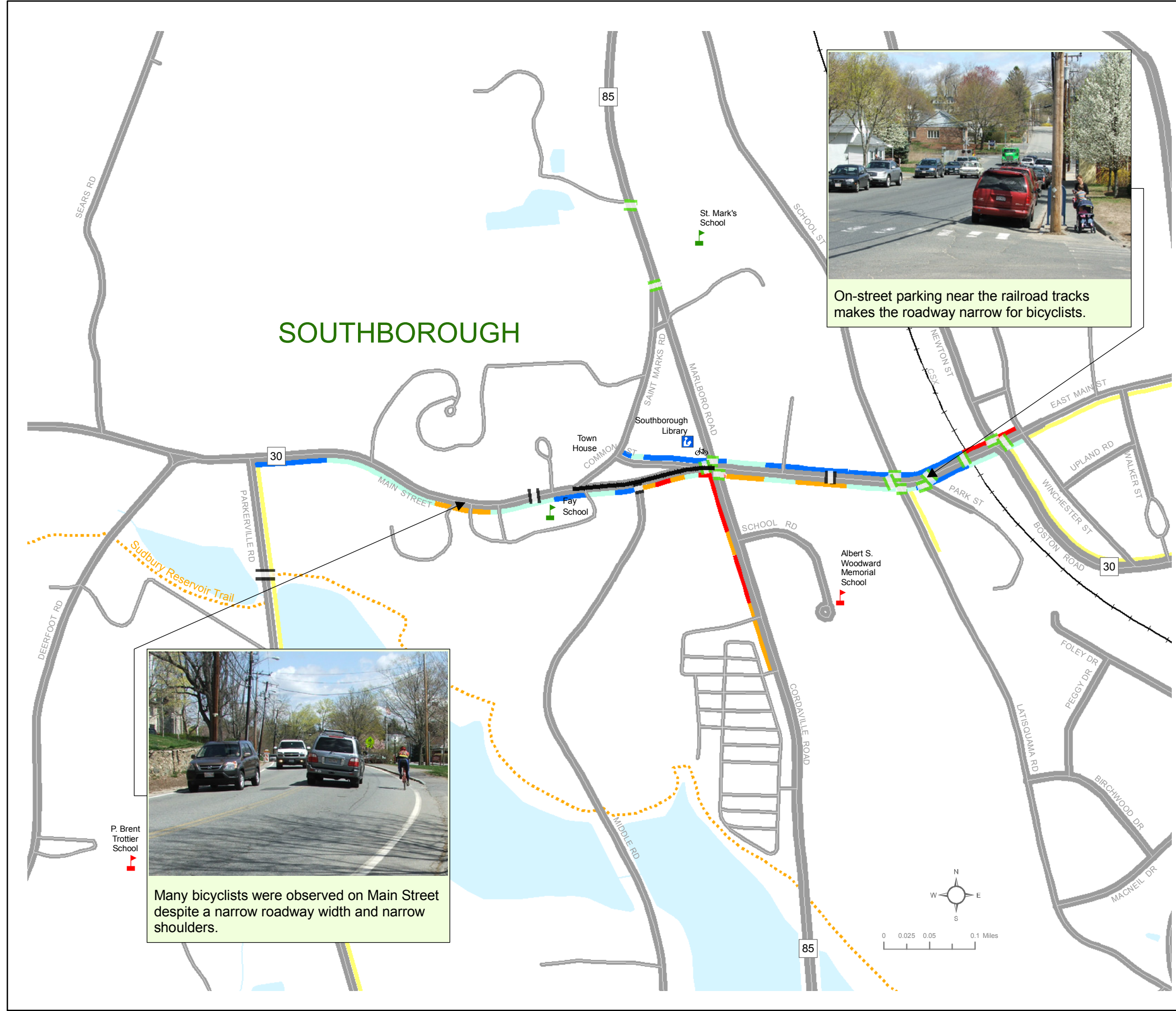
MARLBORO ROAD: MAIN STREET TO THE DRIVEWAY OF THE WEST CAMPUS OF SAINT MARK'S SCHOOL

Corridor Length: 0.30 miles

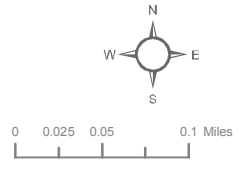
ROADWAY

The roadway's two travel lanes are each approximately 11.5 feet wide, and the shoulders range in width from 0.5 feet to 2 feet wide. The posted speed limit is 25 mph heading south toward Southborough Center. Heading north, there is a yellow sign marking a 30 mph speed

FIGURE 33
Pedestrian and Bicycle Network: Conditions
Southborough



- Bicycle Racks**
- Bicycle rack
- Crosswalk Markings**
- Highly visible
 - Sufficiently visible
 - Moderately faded
 - Very faded
- Sidewalk Surface**
- Smooth
 - Some small bumps and/or cracks
 - Some medium-sized bumps and/or cracks
 - Significant bumps and/or cracks
 - In serious disrepair
 - Sidewalk not evaluated
- Roadway Surface**
- Rough roadway surface





Marlboro Road, looking south



Cordaville Road, looking south

limit. The travel lanes are divided by a double solid yellow line, and solid white lines delineate the shoulders. The roadway surface is smooth, with some minor cracks that do not significantly affect bicyclist safety. The edge of the roadway is clear of obstructions that would impact bicyclist safety. There is a comb-style bicycle rack at the library that can accommodate five bicycles. See Figure 33 for more details on bicycling conditions.

SIDEWALKS

There are no sidewalks along this portion of Marlboro Road. In most places there is ample room for a sidewalk with a buffer. There are desire lines (worn paths) in certain sections of this corridor, indicating potential demand for sidewalks.

CROSSWALKS

There are two crosswalks along this corridor:

- Across Marlboro Road at the driveway to the West Campus of Saint Mark's School
- Across Marlboro Road at Saint Mark's Street

Each of these crosswalks has sufficiently visible pavement markings (see Figure 33 for more details on crosswalk conditions).

CORDAVILLE ROAD: MAIN STREET TO THE SUDBURY RESERVOIR TRAIL

Corridor Length: 0.50 miles

ROADWAY

The roadway's two travel lanes are each approximately 12.5 feet wide, and the shoulders are 3 feet wide. The posted speed limit is 25 mph heading north toward Southborough Center from the south. Heading south, away from the town center, the speed limit is 40 mph. The travel lanes are divided by double solid yellow lines, and the shoulders are delineated by solid white lines.

The roadway surface is smooth, with some cracks that do not affect bicyclist safety. The shoulders contain sand and drainage grates, which may detract from bicyclist safety. There is no bicycle parking along Cordaville Road. See Figure 33 for more details on bicycling conditions.

SIDEWALKS

There is a sidewalk on the west side of the street from Main Street to the northern end of the Southborough Cemetery. The sidewalk ranges in width from 2.75 feet to 5.5 feet. In some places, the sidewalk is completely obstructed by overgrown vegetation, forcing pedestrians to walk in the grass buffer, close to traffic. The buffer ranges in width from 6.5 to 9 feet. The sidewalk is made of asphalt and has bumps and cracks that, in some places, make the sidewalk impassable to some pedestrians (see Figure 33 for more details on sidewalk conditions). The sidewalk is at the same level of the driveways that it crosses. There is room to extend the sidewalk along the west side of Cordaville Road to the Sudbury Reservoir Trail. There is no sidewalk that leads to Woodward Memorial School from Main Street, despite a crosswalk across Cordaville Road connecting to the sidewalk along the west side of Cordaville Road.

CROSSWALKS

There is one crosswalk along this corridor:

- Across Cordaville Road at Woodward Memorial School

This crosswalk has sufficiently visible pavement markings (see Figure 33 for more details on crosswalk conditions). There is no crosswalk across the Southborough Cemetery driveway at Cordaville Road.

COMMON STREET AND SAINT MARK'S STREET: MARLBORO ROAD TO MAIN STREET

Corridor Length: 0.33 miles



Common Street, looking southeast

ROADWAY

The two travel lanes on Common Street and Saint Mark's Street are each approximately 10.5 feet wide, and there are no shoulders or lane markings. The roadway surface is smooth, with some cracks that do not detract from bicyclist safety. The edges of the roadways do not contain any significant impediments to bicyclists. There is no bicycle parking along Common Street or Saint Mark's Street (see Figure 33 for more details on bicycling conditions).

SIDEWALKS

There is a sidewalk on the north side of Common Street from Main Street to Saint Mark's Street. It ranges in width from 4.25 feet to 5.5 feet. The sidewalk is made of asphalt and contains only small bumps and cracks, which are not likely to pose a safety threat to pedestrians (see Figure 33 for more details on sidewalk conditions). There is a 2.25-foot-wide grass buffer between the sidewalk and the roadway for most of its length, ending just before Saint Mark's Street. The sidewalk connects to a sidewalk along the north side of Main Street in front of the library. The sidewalk does not cross any roadways or driveways.

There are also two short sidewalk segments in this area: one in front of the Pilgrim Congregational Church and one leading to the front entrance of the Town House, both on Common Street. These are not considered part of the sidewalk network for the purposes of this study. However, they could be connected to the sidewalk along Common Street if the sidewalk in front of the church were extended to the Town House driveway and

crosswalks were added across Saint Mark's Street at Common Street and across the driveway to the Town House at Saint Mark's Street.

CROSSWALKS

There are no crosswalks along this corridor.

RECOMMENDATIONS

Below is a set of recommendations for improvements to the pedestrian and bicycle environments in Southborough Center. See Figure 40 for a map of these recommendations.

PEDESTRIAN ENVIRONMENT

CONSTRUCT SIDEWALKS

- Along the east side of Marlboro Road from the driveway to the West Campus of Saint Mark's School to Main Street
- Along the west side of Cordaville Road from Southborough Cemetery to the Sudbury Reservoir Trail
- Along the north side of the driveway to Woodward Memorial School
- Along Common Street from Pilgrim Congregational Episcopal Church to the town hall

INSTALL CROSSWALKS

- Across the Southborough Cemetery driveway
- Across the police and fire station driveways
- Across the Town House driveway at Saint Mark's Street
- Across Saint Mark's Street at Common Street

IMPROVE SIDEWALKS

- Resurface the sidewalk along the west side of Cordaville Road from Main Street to Southborough Cemetery, and widen it to at least 5 feet
- Resurface the sidewalk along the south side of Main Street from just west of Middle Road to Latisquama Road, and install a curb to separate the sidewalk from the shoulder
- Resurface the sidewalk along the north side of Main Street from the train tracks to Newton Street

IMPROVE SIGNAGE

- Install a sign identifying the Sudbury Reservoir Trail at the access point on Parkerville Road
- Install a stop sign before the crosswalk on Middle

Road at Main Street

PEDESTRIAN SIGNAL

- Fix or replace the pedestrian signal at the intersection of Main Street and Marlboro/Cordaville Road

BICYCLE ENVIRONMENT

RESURFACE ROADWAY

- Resurface Main Street from Common Street to Marlboro/Cordaville Road

IMPROVE SIGNAGE

- Install no-parking signs along Main Street where there is insufficient room for on-street parking

INSTALL BICYCLE RACKS

- At the Town House
- At Woodward Memorial School
- At the access points to the Sudbury Reservoir Trail on Parkerville, Middle, and Cordaville roads

RELOCATE BICYCLE RACK

- Relocate bicycle rack at the library closer to the library's side entrance



