10
Commuter Rail

Introduction 10.1

Rail service has played a significant role in transportation throughout the history of the United States and southeastern Massachusetts. At its inception in the mid 1800s, railroads were the only transportation service to move a large number of goods and people throughout the region and the country. This continued until rail reached its peak in the early 20th century (see Figure 10-1, page 10-2) when coincidently, the automobile was introduced to society and started gaining popularity. Subsequently, railroads began to decline as a preferred method of travel with the construction and expansion of a network of roads throughout the country. The construction of the interstate highway system in the 1950s and 1960s essentially eliminated rail as the preferred means of travel in our region, the state and throughout the United States.

Railroad use continued to decline throughout the latter half of the 20th century and miles of track were abandoned due to growing maintenance costs, property taxes, and discontinued services. While overall rail service declined, specific corridors remained in operation from the suburban communities to the city of Boston and began to grow. This cumulated into the system that we have today with the Massachusetts Bay Commuter Railroad Company (MBCR) currently operating commuter rail service to Boston for the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA). The rising cost of gasoline over the last 40 years, coupled with peak period congestion on major highways leading to Boston, has demanded an alternative to the automobile commute. Commuter rail provides that alternative.

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Figure 10-1: New Haven Railroad System Eastern Massachusetts in 1936

Shore Line Service

The MBTA currently provides commuter rail service along two branches with stations in southeastern Massachusetts (See Figure 10-2). The first branch is the Boston - Providence line, or "Shore Line" which extends commuter rail service from Boston through Attleboro into Providence, Rhode Island. This branch line (which is double tracked within the region) also supports limited freight operations by CSX, Amtrak regional passenger trains and Acela (the high speed passenger service to New York and Washington, DC.) There are three stations along the line within the SMMPO region located in Mansfield, Downtown Attleboro, and South Attleboro. Historically, this line has the highest ridership numbers (over 15,062 inbound passengers per day in May of 2010) of any of the commuter rail lines operating out of Boston.

Figure 10-2: The MBTA currently provides commuter rail service along two branches with stations in southeastern Massachusetts .

Figure 10-2: Southeastern Massachusetts MBTA Commuter Rail Network

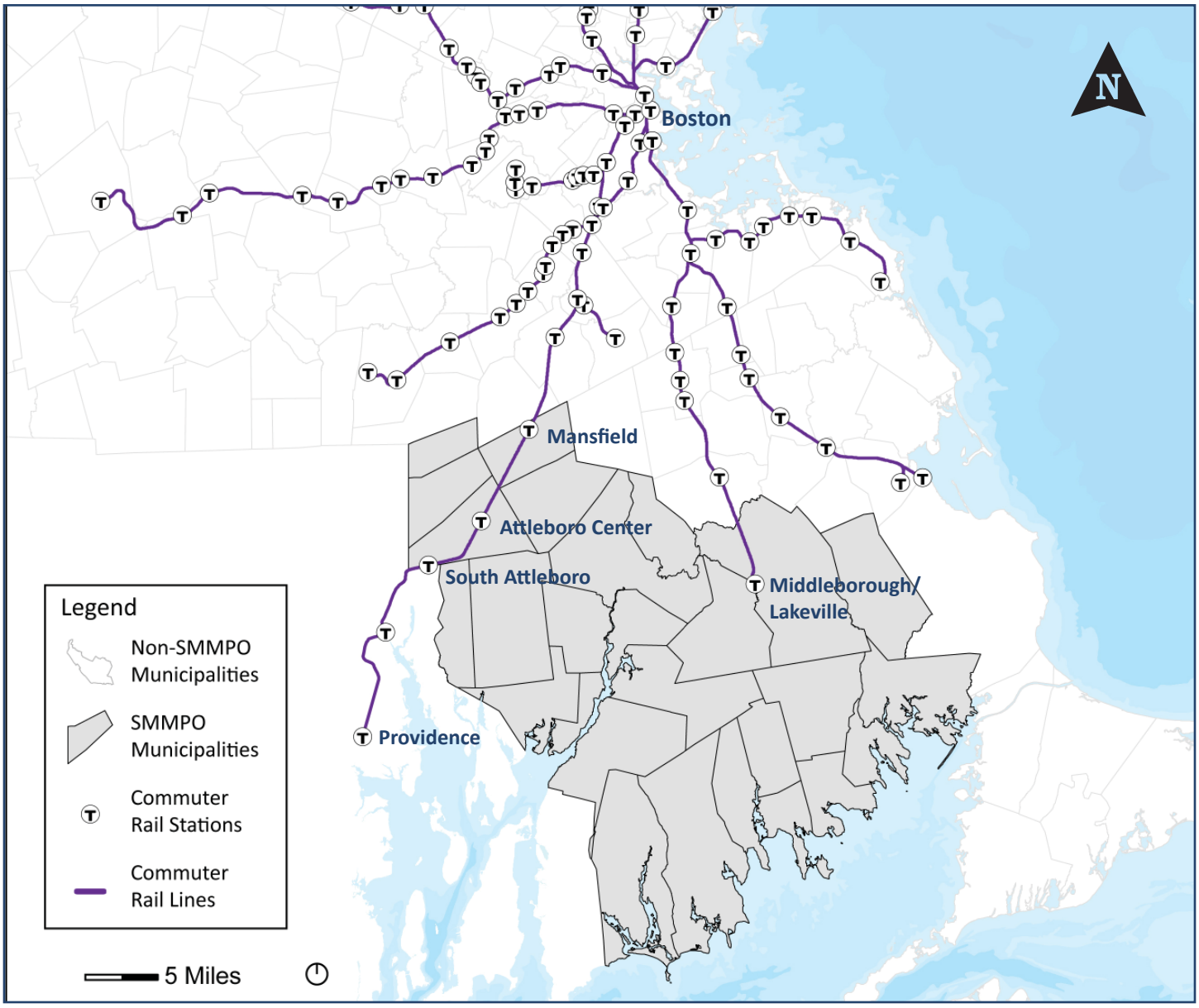

Figure 10-3:
T.F. Green Airport commuter rail station and connecting skyway

In the summer of 2006 the MBTA increased service to Providence from 11 to 15 weekday round trips, plus 9 Saturday and 7 Sunday trains covering the weekend. Ridership increased on the Shore Line to 19,900 inbound passengers a day (June 2008), but it has declined slightly since then, most likely due to the economy.

The MBTA recently extended service south of Providence on December 6, 2010 with the opening of the T.F. Green Airport station in Warwick (See Figure 10-3). Limited service providing three (3) AM trips to Boston and three PM trips from Boston will operate during the first year while signal upgrades are completed.

Attleboro Station

The renovation of the historic Attleboro train station was completed in 2010 with $700,000 of funds provided from the American Recovery and Reinvestment Act (ARRA). The exterior of the building was rehabilitated Interior improvements include a larger interior waiting area, bathrooms and vendor area. (See Figure 10-4). An additional ARRA grant for $200,000 will be used for the repair and replacement of all ornamental fencing at the station. This project will be advertised in the Spring of 2011.

Streetscape improvements are continuing, in conjunction with the City of Attleboro, in order to enhance pedestrian access to the bus shelter and rail station. Phase I streetscape improvements were completed along Park Street to Union Street and to the Attleboro bus shelter. The work included rebuilding long neglected sidewalks and crosswalks, installing decorative street lamps and planting trees, as well as refurbishing railroad embankments and Veterans Memorial Common. A new concrete pad was installed at the bus shelter along with new downtown area lighting. Phase II will include pedestrian and streetscape improvements on Union Street, Railroad Avenue, Mill Street, South Main Street and Capron Street.
Plans for the Attleboro Intermodal Transportation Center (ITC) continue to

Figure 10-4: Renovated Attleboro Station

The renovation of the historic Attleboro train station was completed in 2010 with $700,000 of funds provided from the American Recovery and Reinvestment Act (ARRA).

be refined with the Federal Transit Administration (FTA). Properties have been acquired and buildings have been demolished. A broad plan for joint development, including a parking garage, has been modified to expedite the construction of a transportation center that will connect bus routes and the train station. Phase I includes a new access road, busway and Wall Street reconstruction as well as the relocation of the City's DPW facility. Parking areas for the train station will be improved to allow abandonment of approximately 192 parking spaces that are located far from the railroad platforms, without a net loss in parking. Roadway improvements are planned to provide better sight distances and better accommodation of vehicle turning movements for buses and other vehicles. A new busway is planned with a bus loading area adjacent to the MBTA parking lot to accommodate current and anticipated future bus operations. Plans include parking fee collection and fare media equipment for transit passengers. These plans will improve access for buses, pedestrians and bicyclists and they will improve parking and safety around the ITC. Total project cost is currently estimated at $11M with approximately 45% paid from federal transportation funding sources. A future phase of the project includes restoration of the area around the Mill River and new development of areas formerly occupied by the City's DPW department.

South Attleboro Station

The South Attleboro MBTA station is in need of capital improvements and maintenance including ADA accessibility upgrades such as a tactile platform along the edge of the station boarding platforms (See Figure 10-5). The pedestrian stairways are in poor condition and the flight of stairs for the outbound side is presently closed. There is a need for pavement repairs and upgraded lighting on the pedestrian ramps. In some instances, the width of the curb cuts and walkways do not meet ADA requirements. Parking has been at capacity in better economic times, although it is not currently an issue. The main parking lot with extensive cracking and faded parking delineation requires resurfacing and restriping.

Mansfield Station

Design and construction of accessible pedestrian ramps to the inbound and outbound platforms of the commuter rail station is expected to occur in the next year, with the completion of the Route 106 underpass work. Plans to expand parking and redevelop available land around the Mansfield station are on hold, due to access issues that have yet to be resolved. The town is reluctant to increase parking or density without a plan for how improvements will be funded. Since the 2007 Transportation Plan, the EPA has completed removing hundreds of thousands of cubic yards of contaminants from the Hathaway-Patterson brownfield site with the help of stimulus funds. This site has redevelopment potential, but a CSX spur divides it and limits access to two thirds of the site. There is a possibility of transferring development rights from the limited access site and applying those additional development rights to the properties surrounding the train station. Plans for zoning changes to allow Transit Oriented Development (TOD) have been hindered by the lack of access in and out of the station parking lots and along Route 106. The Town is currently reviewing the entire downtown area and ways to increase access to the train station in its Master Plan process. They will hold a workshop in February 2011 to revisit planning around the station.

Figure 10-5: Several Views of South Attleboro Station

The neighboring town of Foxborough has built a 120-space satellite parking lot on the Mansfield line for residents only. GATRA will provide a shuttle from the Foxborough lot to the Mansfield commuter rail station via County Street. GATRA continues to provide a Route 140 shuttle from Wheaton College in Norton to the Mansfield station. The Town of Mansfield has recently allowed this shuttle to operate "open door" along its route to the rail station, allowing riders to get on and off the bus anywhere along the route.

10.3 Old Colony Line Service

The second branch of commuter rail service to the region is the Old Colony Line which connects Boston to the towns of Lakeville and Middleborough.

The second branch of commuter rail service to the region is the Old Colony Line which connects Boston to the towns of Lakeville and Middleborough (see Figure 10-2 on page 10-3). The station is located near the junction of I-495 and Route 105 at the Lakeville/ Middleborough town line. Two of the three branches (Middleborough and Plymouth) of the Old Colony lines opened in the fall of 1997.

The Old Colony branches are single tracked with passing sidings which also support CSX freight operations. CSX freight trains for the entire southeastern portion of the state come off the "Shore Line" in downtown Attleboro and head east through Taunton into Middleborough. The Middleborough CSX yard serves as the main freight yard for all of southeastern Massachusetts. Freight service radiates north to Braintree and Quincy, east to the Plymouth area, southwest to Fall River and New Bedford and southeast to Wareham and Cape Cod. Freight service to Fall River, New Bedford and Cape Cod is now operated by Mass Coastal through a lease with the State of Massachusetts.

Because the rail lines south and east of Attleboro are single tracked, freight operations place capacity and timing limitations on passenger operations. The single track section on the Old Colony line between Braintree and South Boston also creates a limitation for additional passenger service in the future. The reserve capacity of the entire Old Colony line (Greenbush, Plymouth and Lakeville) would be used by any proposed extension of commuter rail south from the Lakeville/Middleborough station to Wareham and Cape Cod. Any extension of Middleborough service would require one additional train set and additional coaches on existing trains. This additional train set was always built into the design of the system as it currently exists.

Lakeville/Middleborough Station

When this station first opened in 1997, there was a need to increase the parking supply from 400 spaces to 864 spaces. A decline in ridership after the completion of the Central Artery Project in Boston reduced the demand, and capacity was reduced to 735 spaces where it currently stands (See Figure 10-6, page 10-7). Recent surveys and observations revealed an increase in the number of people being dropped off, riding bikes and walking to the stations due in part to parking fee increases. A Chapter 40R development consisting of 204 apartment units adjacent to the MBTA station is under construction. It is expected that the number of commuters walking and biking to this station will increase as this development and others in the station area are completed.

Figure 10-6 Lakeville MBTA Commuter Rail Station

Planned highway improvements in the area around the station include the relocation of Route 79 (currently underway) and signalization of the I-495 northbound and southbound ramps at South Main Street (Route 105) which is planned for 2011 and is designed to reduce traffic congestion in the vicinity of the station.

Ridership Trends 10.4

Ridership on the commuter rail system serving southeastern Massachusetts has fluctuated in the last ten years (See Table 10-1, below, and Figure 10-7, page 10-8). Factors influencing these trends have included nationwide economic instability, gas prices, congestion, road construction projects, fare increases, parking fee increases, service changes, weather, etc. Ridership on the individual commuter rail routes has also fluctuated over the past ten years, due to route specific issues such as a rail tie replacement project, which requires the busing of commuters to and from Bridgewater and the Middleborough/Lakeville station for a continued and extended period of time.

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Table 10-1: MBTA Station Characteristics

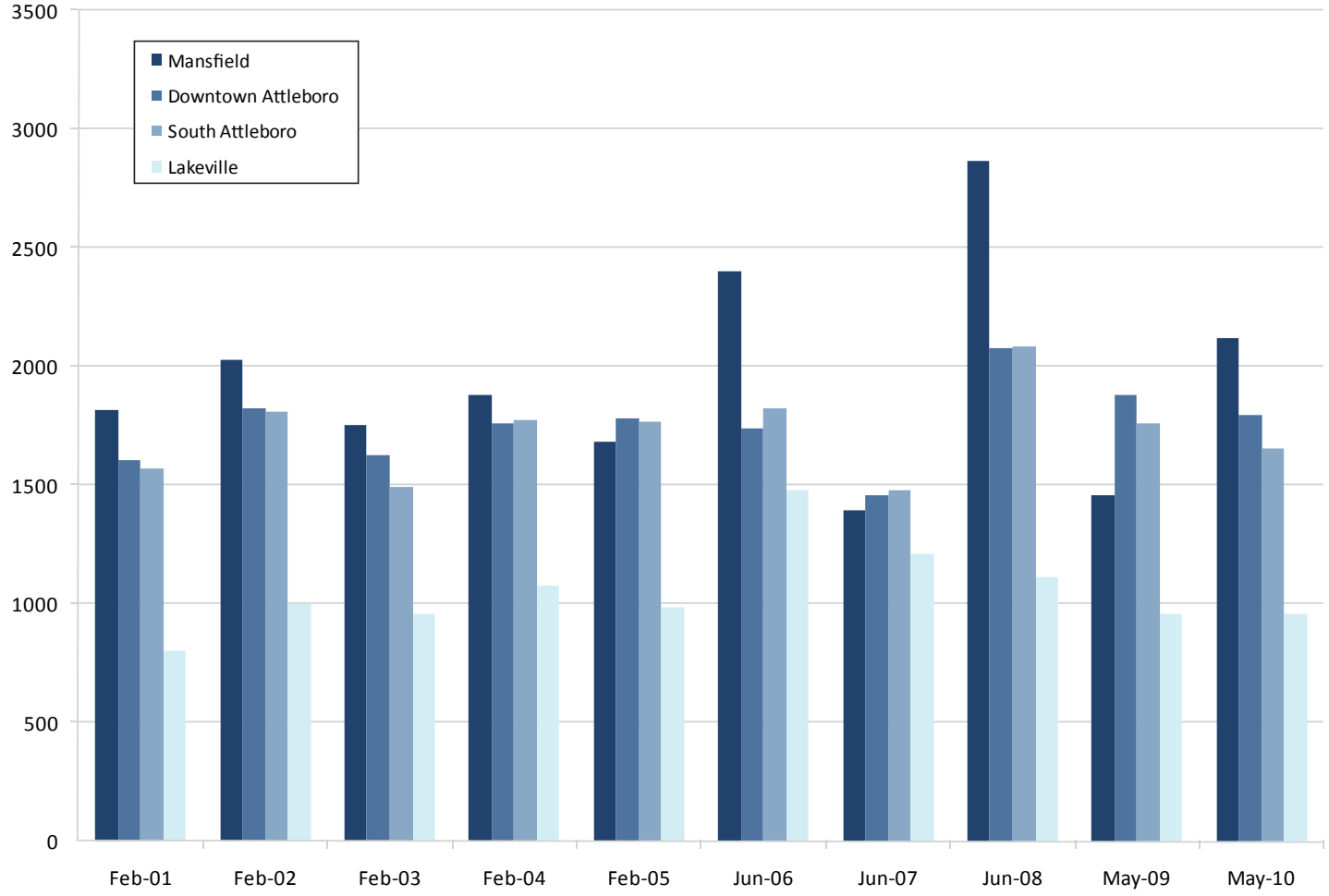
	Minutes to South Station	Daily IB/OB Trains	Peak IB/OB Trains	MBTA/Town Parking Spaces	% Usage*	Private Parking Spaces	% Usage*	Cost of Single Fare/ Mo. Pass**	2010 Daily Ridership
Lakeville/Midd.	56	12/12	4/4	735	50%	---	---	$7.75 /$250	**956*** **
Mansfield	42	17/17	7/5	708	75%	---	---	$6.75 /$223	**2,123**
Attleboro CBD	52	16/16	6/5	765	65%	197	82%	$7.25 /$235	**1,798**
So. Attleboro	62	15/15	6/5	565	67%	442	70%	$7.25 /$235	**1,656**

* SRPEDD 2010 Inventory

** 2010 daily (one way) fare/monthly pass

*** Statistics may be impacted from current rail improvements along the Old Colony Line at the time of this survey

Figure 10-7: SRPEDD Region Commuter Rail Daily "One-way Ridership" by Station



Overall ridership at the four stations within the SRPEDD region has increased by 13% from February 2001 (5,794 passengers) to May 2010 (6,533 passengers). Ridership from the SRPEDD region peaked in June of 2008 (8,143 passengers) during a period of high gasoline prices.

Overall ridership at the four stations within the SRPEDD region has increased by 13% from February 2001 (5,794 passengers) to May 2010 (6,533 passengers). Ridership from the SRPEDD region peaked in June of 2008 (8,143 passengers) during a period of high gasoline prices. Ridership dropped in 2009 after an increase in daily parking fees to $4.00 and a drop in gasoline prices. In 2010, ridership rebounded at the Mansfield station, remained stable at Lakeville, and dropped slightly at both of the Attleboro stations.

It is also interesting to note the accuracy of the ridership projections developed by the Central Transportation Planning Staff (CTPS) in 2002 (reported in the 2007 Regional Transportation Plan). CTPS projected 2010 daily ridership at the 4 regional stations in southeastern Massachusetts to be 6,645 passengers. Actual ridership in 2010 was 6,533 passengers, which is within 2% of the projected passengers.

A recent survey of passengers on the Old Colony Line revealed that the vast majority of trips made via commuter rail are commuters heading to work (92%). A significant portion of those responding to the survey (39%) did not make the trip prior to the Old Colony Line's opening. Another portion of commuters (37%) previously drove alone or carpooled directly into Boston or to an MBTA Red Line station.

Parking Trends 10.5

In the previous (2007) transportation plan it was noted that all four commuter rail parking lots in the SRPEDD region were at or near capacity (Mansfield and South Attleboro were full, Downtown Attleboro was at 95% capacity, and Lakeville was at 90% capacity.) The 2007 Transportation Plan expressed a concern that without expansion of commuter parking, ridership would not continue to grow. The Plan recommended that expansion of commuter rail parking lots be undertaken.

A number of factors have changed since the 2007 Transportation Plan was endorsed affecting usage of the parking lots. The principal factor has been the severe and prolonged downturn in the global, national, state and regional economies beginning in the fall of 2007. Unemployment rates increased to 10% for most of Massachusetts, and 15% for some cities including Fall River and New Bedford. The increase in unemployment affected all sectors of the economy.

In recent years a number of private parking lots have been created near some of the stations. Some of these private lots are charging less than the $4.00 MBTA parking fee, which appears to have influenced a shift in lot selection as well as travel mode to the stations. During recent passenger surveys conducted at the regional train stations over the past year, SRPEDD staff has noticed an increase in the number of people being dropped off, riding bikes and walking to the stations.

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In 2011, the MBTA gave consideration to lowering the parking fee back to $2.00 per day. Variations to this idea include lowering fees at under used parking lots and maintaining the current fee at high use parking. If the parking rates return to $2.00 per day, the MBTA should monitor usage and determine at that time if additional parking is necessary.

Other ideas include the elimination of the cash box system and replacing it with a monthly parking pass or the new pay-by-phone system allowing users to pay by mobile phone using a credit card. These new services are a clear indication that the antiquated cash box system is inefficient and that new and updated technologies are needed at these parking lots. New technologies will also eliminate the speculation that cash box collection agents are involved with any illegal activities regarding the cash boxes or are mistakenly issuing parking tickets to users for failing to pay to park.

Intermodal Connections 10.6

The Greater Attleboro Taunton Regional Transit Authority (GATRA) provides fixed bus route service connections to the two stations on the Boston - Providence branch (Mansfield and Downtown Attleboro). The Downtown Attleboro station has the most GATRA bus connections, but service is not necessarily timed to serve commuter trains and does not provide early morning or evening service to support connectivity for commuters. GATRA routes operate with a one-hour frequency, which does not provide a viable connection for rail commuters; nor, does it accommodate periodic changes to the MBTA rail schedule. Also, buses stop at the bottom of a steep stone staircase making full access difficult. Improved accessibility is expected to be addressed under the first phase of

GATRA provides fixed bus route service connections to the two stations on the Boston - Providence branch (Mansfield and Downtown Attleboro).

the proposed TOD redevelopment project. GATRA no longer serves the South Attleboro station located at Bristol Place due to low ridership.

The Mansfield station is served by a shuttle bus that starts at Wheaton College in Norton. This service is financed in part by the college and the Town of Norton. It was designed to make good connections with the MBTA trains for commuters and Wheaton students. The Mansfield Board of Selectmen voted to allow the GATRA bus to operate "open door" in Mansfield, as of June 2010, allowing people to get on and off the bus anywhere along the route in Mansfield.

An increase in transit services to provide better connections to stations will require an increase to local Regional Transit Authority's operating hours, a reduction in headway times and/or changes to some bus routes. An increased level of service for regional transit is necessary to allow a viable alternative to driving to the station and this will only be possible with an increase in the present levels of transit funding.

GATRA has looked into possible shuttle service from the towns of Plainville and North Attleborough to the Mansfield station. The main obstacle to creating this additional bus service to the commuter rail stations is finding available satellite parking locations. North Attleborough is currently working with GATRA and property owners on a zoning change which would provide satellite parking in the downtown area. GATRA also provides shuttle service to the Lakeville/ Middleborough station from Wareham. This service is designed to serve the commuter rail schedule.

GATRA also provides a shuttle bus connection from Wareham to the Lakeville/ Middleborough station. Service operates from 6:00AM to 7:05PM on weekdays only. Passengers may board the shuttle at 4 locations in Wareham and 1 location in south Middleborough. The shuttle travels Route 28 and takes approximately 40 to 45 minutes to complete. The connects to the MBTA train 4 times during the morning peak, arriving approximately 7 minutes before departure. During the afternoon peak, the shuttle is available upon four separate train arrivals. Fares are $2.00 per trip for adults with monthly passes available for $50.00.

The Southeastern Regional Transit Authority (SRTA) provides no service to existing commuter rail stations. Lakeville is the closest MBTA station to the SRTA area (approximately 20 miles).

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10.7 Extension of Commuter Rail to Wareham

Efforts to extend commuter rail service from Middleborough/Lakeville over the existing rail line to Wareham and possibly Cape Cod have been proposed for several years. This particular rail line is presently being used by freight trains. The on-Cape segment between Hyannis, to the Sagamore Bridge, is used by excursion trains during summer months. Thru service from Boston to Cape Cod was last operated in 1959. Service from Middleborough/Lakeville to Hyannis was used by Amtrak intercity Cape Codder trains on summer weekends from 1986 to 1996. These trains reached Middleborough by a connecting link from Attleboro, rather than the present Old Colony line from Boston. The track between Middleborough to Bourne was rebuilt prior to the start of the Amtrak service and would require limited rehabilitation to resume commuter service. A signal system was partially installed, but it would need to be updated.

In 2007, a study was prepared by the Central Transportation Planning Staff (CTPS) in response to a request from the Massachusetts Executive Office of Transportation (MassDOT) to examine the feasibility of re-establishing commuter rail service to Buzzards Bay. Ridership estimates based on year 2000 US Census journey-to-work data were calculated at 2,045 inbound boarding per day in year 2006, and 2,750 by year 2020. The study suggested that improvements to restore passenger service with competitive travel times require the replacement of worn-out cross-ties, installation of at least one new passing track, upgrading of an existing side track near Buzzards Bay, rebuilding of grade-crossings, and installation of signals. Installation of new full-length high-level platforms would be required at each station. Parking facilities would need to be provided at each station, with adequate capacity for the number of riders projected. Based on the 2007 CTPS study, capital costs for a Buzzards Bay extension would range from about $81.8 million to $103.5 million. Annual operating costs were estimated at $1.9 million for minimum weekday service to $5.7 million for maximum weekday service.

Currently, the Cape Cod Regional Transit Authority has begun a feasibility study to restore rail service to Cape Cod via the Old Colony Line. If the study reveals that restoration of rail service is warranted MassDOT should consider all options of restoring this service including the use of public or private transit and rail services.

The Mass Coastal Railroad has also proposed a plan for a Feeder Train to provide passenger rail connection from Buzzards Bay to the Middleborough/Lakeville station. Passengers would have to disembark from the Mass Coastal train at the Middleborough - Lakeville station and cross the platform to board the MBTA train to Boston. The trip from Buzzards Bay to Boston is expected to take 1 hour and 25 minutes. Mass Coastal proposes to connect with eight MBTA trains, including two AM and two PM peak period trains. Service to Cape Cod could be added to this proposal if train service can be coordinated with the operation of the Cape Cod Canal railroad bridge through the Army Corps of Engineers. MassDOT should consider this proposal as a pilot program to verify the need for commuter rail to the Cape Cod region if the current feasibility study by the Cape Cod Regional Transit Authority supports an extension.

This project would require one, or possibly two, station locations in Wareham. In a draft November 2005 Site Analysis for a Wareham Intermodal Transportation Center to accommodate local GATRA bus service, intercity bus service and passenger rail service, SRPEDD recommended a village station be built in the Downtown area. This site analysis also recommended a regional station in West Wareham at Tobey Road, which has good access to the highway for regional users and the potential for TOD, provided that the Town adopts appropriate zoning. With or without the connection to Cape Cod, stations in Wareham would need adequate parking in terms of quantity and location to the station to be effective.

If the Feeder Train proposal is not feasible, consideration to enhanced transit service or commuter bus should be considered as another option. These services would provide a less expensive alternative to train operation through the use of buses on the existing road network. This is presently being demonstrated with the GATRA Shuttle service from Wareham to the Lakeville Station. Expansion onto Cape Cod would be a cheaper alternative

with greater potential of implementation due to the fact that the feeder train onto Cape Cod needs to coordinate schedules with the Buzzards Bay Railroad bridge over the canal. Bus service would utilize the Bourne Bridge providing uninterrupted service from points such as Hyannis and Falmouth to the Lakeville/Middleborough Train Station. The state should also consider the enhancement or creation of new park and ride lots to serve as bus depots along the connecting roads between Cape Cod and the Lakeville/Middleborough station.

10.8 South Coast Rail Project

The restoration of commuter rail service to the South Coast has been proposed and extensively studied for over twenty years. The SMMPO has continuously supported the extension of commuter rail to southeastern Massachusetts within that time.

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In June 2009, MassDOT published the South Coast Rail Economic Development and Land Use Corridor Plan which is the basis for much of the material presented in this particular section of this chapter. Overall, the report discusses the restoration of passenger rail transportation to connect Boston to the greater Taunton, Fall River, and New Bedford areas. The report also discusses that the project would create nearly $500 million dollars in economic development every year by 2030. This activity would not occur without the train.

New Bedford, Fall River, and Taunton are the only cities within 50 miles of Boston that are not served by commuter rail.

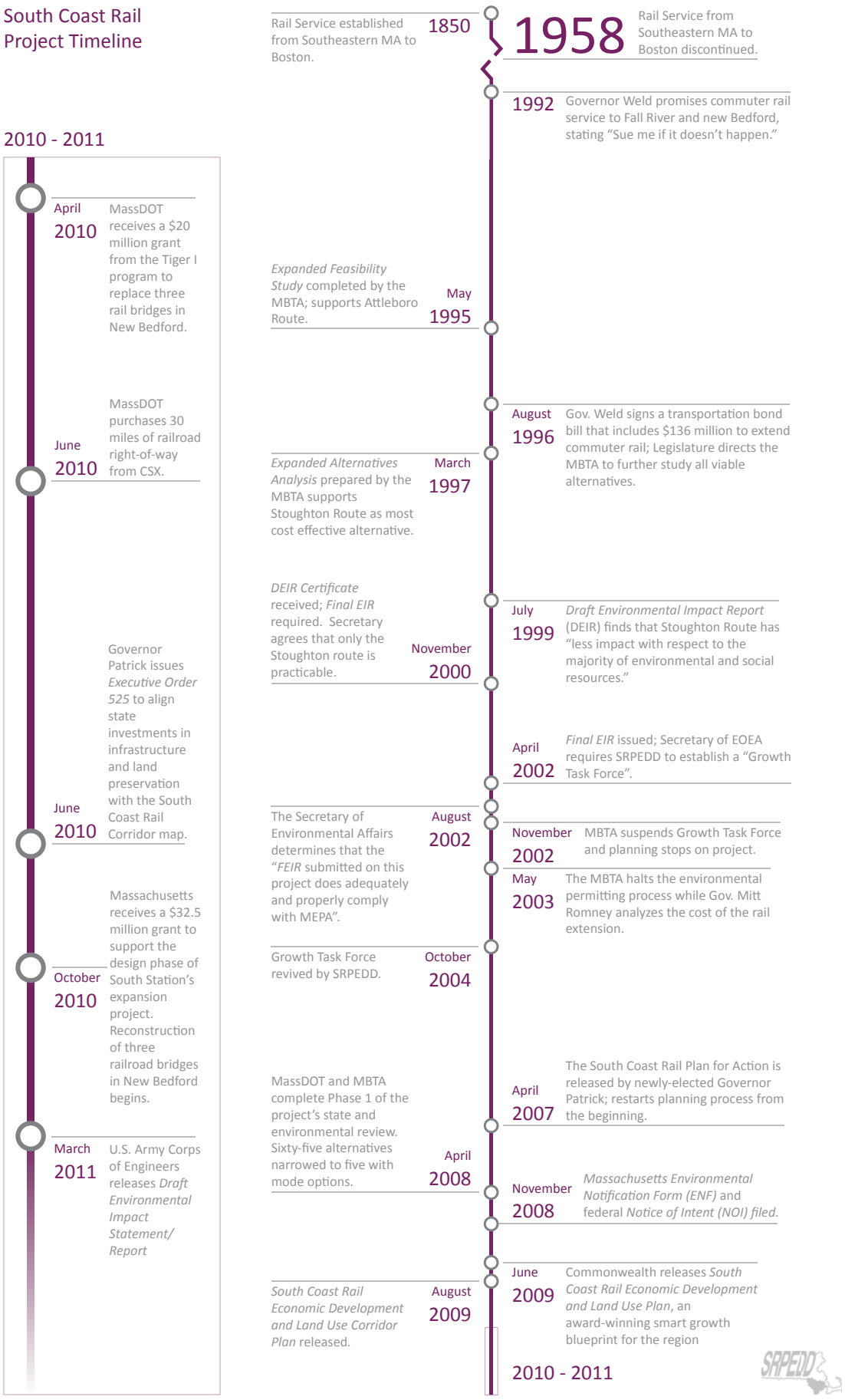
According to the report, New Bedford and Fall River are the 6th and 10th largest cities in Massachusetts, respectively, and, along with Taunton, are the only cities within 50 miles of Boston that are not served by commuter rail. South Coast Rail would provide a new, convenient travel option that will be safer and more reliable than driving on congested roads. It will provide a needed connection between the cities of Taunton, Fall River and New Bedford and it will connect these three cities with Boston. In addition, it will address transportation inequities by extending MBTA service to urban areas with large environmental justice populations that are disenfranchised due to being underserved by the existing transportation network.

The South Coast Rail project will also serve as a catalyst for economic development and job creation. It is projected to create between 3,500 and 3,800 net new jobs in Massachusetts by 2030, with two-thirds of those jobs here in southeastern Massachusetts. The project alone will stimulate immediate employment opportunities of nearly 7,000 to 8,000 jobs and business activity estimated at $1.4 to $1.8 billion during construction.

Extended service will attract private investment to urban areas as well as their surrounding communities and infuse new life into old industrial cities that for years have grappled with high unemployment and disinvestment. It will enable residents to access jobs and services in Boston, allow Boston-area workers to take advantage of affordable housing opportunities in the region and improve access to employment, education, and medical facilities.

It will slow the loss of natural resources that occurs with sprawling development by attracting growth around stations. The corridor plan establishes a priority map, which designates Priority Development Areas (PDAs) and Priority Protection Areas (PDAs) to shape the growth that is coming to southeastern Massachusetts in ways to curb sprawl, encourage downtown development and

Figure 10-8: Railroad Timeline for southeastern Massachusetts



protect and preserve farms, forests, and habitat areas from intrusion. These PDA's are targeted for growth through regulatory changes, infrastructure investments and discretionary state funding that encourages zoning and land use changes to support sustainable development and the South Coast Rail Plan. The added benefit of the project is that planning is currently underway with unprecedented changes in communities' perspective on growth by embracing Smart Growth principles throughout the region.

Additional benefits of the project listed in the Corridor Plan include:

- Advance climate solutions and greenhouse gas reductions by re moving cars from the road, and incorporating energy efficiency and renewable energy technologies into the project design;
- Encourage residents to decrease automobile use by reducing the need to maintain one car per driver in a household;
- Enhance tourism opportunities for the South Coast area, which is rich in cultural and historic resources; and
- Alleviate capacity constraints during peak periods on existing passenger rail service along the Shore Line and Old Colony Line.

This project has had a long history of starts and stops in the environmental review. Several route alternatives were evaluated by the MBTA during this lengthy environmental process. (See Figure 10-8 on page 10-13, for timeline of railroad history). Ultimately, the EIR focused on the three most viable alternatives to extend rail service using the existing MBTA Stoughton Line, Middleborough Line, or Attleboro Line.

In 2002, the MBTA concluded that an extension of the Stoughton Line was the most practicable and feasible of the alternatives, and received state-level approval from the Massachusetts Environmental Policy Act Office to proceed with planning for the South Coast Rail project as an extension of the existing Stoughton Line. However, the project had not pursued a federal environmental review process, which is necessary to obtain a Clean Water Act permit from the U.S. Army Corps of Engineers in order to proceed with design and construction.

After several years of inaction, the state revived the project as the South Coast Rail project. Massachusetts initiated the federal and state environmental review process concurrently, to allow a full vetting of the issues, providing the public the opportunity to comment on the alternatives and most recently in March 2011, resulting in the publication of the Draft Environmental Impact Statement/ Report. MassDOT has selected its preferred alternative, the Stoughton Alternative, and the Army Corps of Engineers will make its determination of the permittable route at a later stage in the environmental review process.

10.9 South Coast Rail Route Alternative Selection

MassDOT completed Phase 1 of the South Coast Rail project in April 2008. With significant public input, a list of 65 alternatives were analyzed, screened and narrowed to a list of five with different mode options. This list was expanded to six alternatives to include the No Build Scenario and encompassed four routes and three modes for further analysis. The resulting alternatives included:

- No-Build Alternative – Enhanced Bus
- Alternative 1 – Through Attleboro
- Alternative 2 – Through Middleborough
- Alternative 3 – Through Attleboro/Middleborough
- Alternative 4 – Through Stoughton
- Alternative 5 – Rapid Bus

After the submittal of the ENF, more detailed results assessed the feasibility offered by each alternative. The evaluation findings published in the South Coast Rail Travel Demand Analysis Results indicated the following:

- Alternative 2 – Through Middleborough was found to be impracticable due to its low projected ridership, high cost and significant construction-related disruption. MEPA ruled that it be eliminated from further review.

- Alternative 3 – Through Attleboro/Middleborough, service to be divided between these two routes was found to be impracticable because it requires the construction of a third track on the Northeast Corridor which would result in excessive costs and environmental impacts.

Although agreeing to eliminate Alternatives 2 and 3, EOEEA requested the addition of electrification of the routes with a variation on Alternative 4 – Through Stoughton to divert service through Whittenton Village in Taunton. Although the ENF indicated that the Whittenton variation is less favorable because of the additional run time, it did not consider the option of electrifying the route, which would reduce the alternative's run times.

Since two alternatives and their options were removed from consideration, future references to the alternatives were changed and referred to as follows:

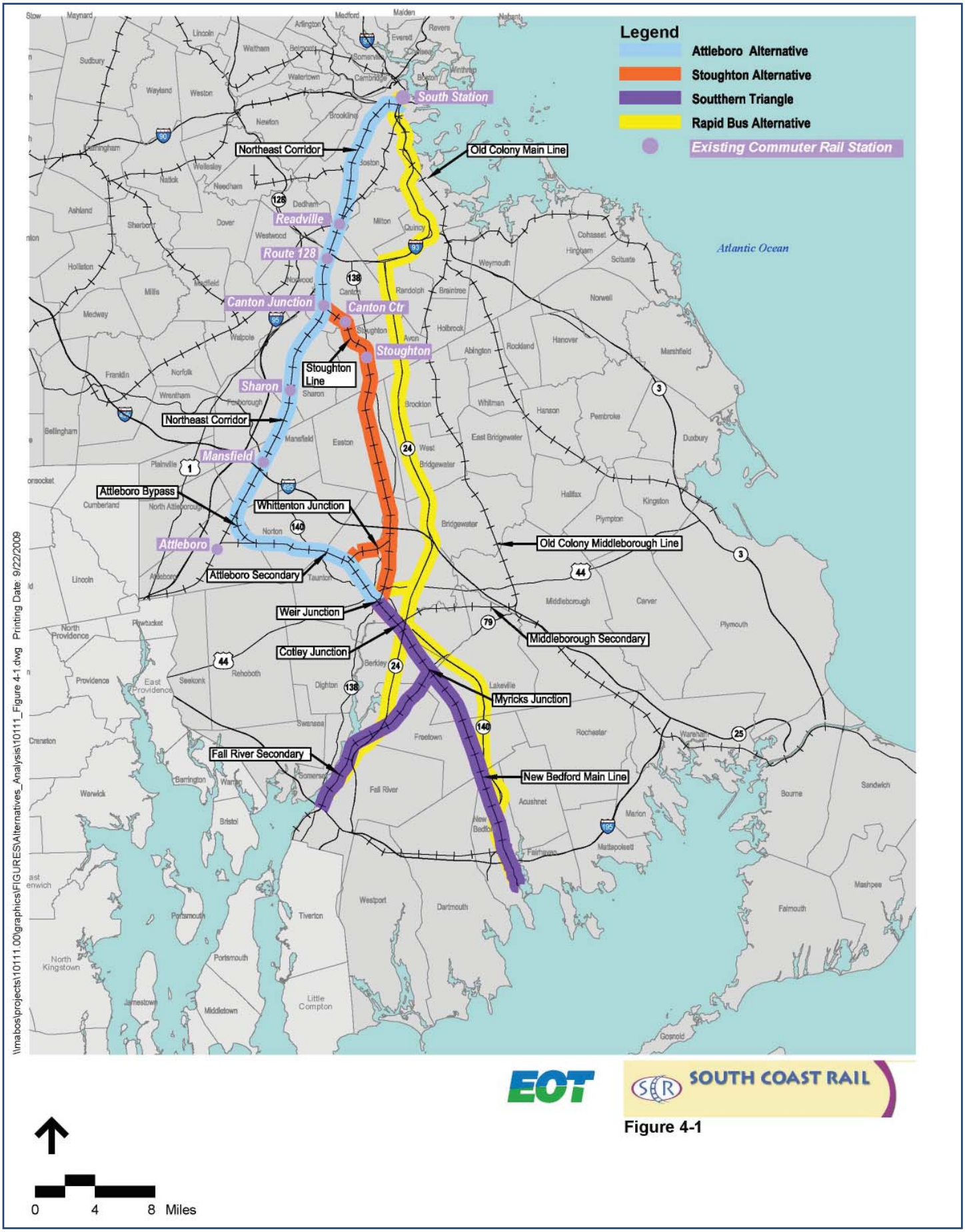
- No-Build Alternative
- Attleboro Electric/Diesel Alternatives
- Stoughton Electric/Diesel Alternatives
- Whittenton Electric/Diesel Alternatives
- Rapid Bus Alternative

A brief description of each alternative is provided on the following pages. This information was summarized from the 2009 South Coast Rail Economic Development and Land Use Corridor Plan. A map showing these routes can be found in Figure 10-9 (page 10-16).

No-Build Alternative

The No-Build Alternative does not extend commuter rail service, but attempts to improve existing transit service to Boston from New Bedford, Fall River and Taunton through bus schedule enhancements. Under this alternative, no new rail or bus service would be provided to Southeastern Massachusetts. Existing commuter bus service to Boston from New Bedford, Fall River, and Taunton is currently provided by three commuter bus carriers: DATTCO (Boston to New Bedford service); Peter Pan (Boston to Fall River Service); and Bloom (Boston to Taunton service). That service would continue, but with no improvement in

Figure 10-9: South Coast Rail Alternative Routes



the ongoing unreliable arrival times due to unexpected incidents (crashes and congestion) along Route 24.

The No-Build Alternative includes transportation demand management and transportation policy enhancements for commuter bus. In addition to these enhancements, incentives would enable private commuter bus service operators to acquire a new fleet of fuel efficient and clean emission buses. Ideally, these buses would provide rider comfort and amenities comparable to commuter rail service.

Attleboro Alternatives

The Attleboro Alternative would provide commuter rail service to South Station using the Northeast Corridor, proposed Attleboro Bypass, Attleboro Secondary, New Bedford Main Line, and Fall River Secondary. Both electric and diesel commuter rail options were evaluated for this alternative. The cost associated with these alternatives is listed in Table 10-2 (on page 10-19).

This option requires improvements to track infrastructure along the Northeast Corridor the Attleboro Bypass and the Attleboro Secondary. It includes eight new commuter rail stations, major reconstruction at three existing commuter rail stations and minor improvements to the existing station at Route 128. For the electrified option, the traction power system would include one main substation in Taunton, one switching station in Attleboro and six paralleling stations.

Stoughton Alternatives

The Stoughton Alternative would provide commuter rail service to South Station using the Northeast Corridor, Stoughton Line, New Bedford Main Line and Fall River Secondary. Both electric and diesel options were evaluated for this alternative. The cost associated with these alternatives is listed in Table 10-2 (on page 10-19).

This alternative requires improvements to track infrastructure along the Stoughton Line including reconstruction of existing tracks from Canton Junction to Stoughton, double track construction right-of-way from Stoughton to Winter Street in Taunton and reconstruction of existing tracks from Winter Street in Taunton to Weir Junction.

This alternative would have ten new commuter rail stations and major reconstruction at two existing stations. This alternative would include two overnight layover facilities, one on the New Bedford Main Line and one on the Fall River Secondary. For the electrified option, the traction power system would include two main substations, two switching stations and six paralleling stations.

Whittenton Alternatives

The Whittenton Alternative would provide commuter rail service to South Station through Stoughton using the Whittenton Branch in Taunton. Reconstructing of existing track and the construction of new tracks on from Stoughton to Raynham Junction would be necessary. This alternative includes ten new commuter rail stations and the reconstruction of two existing commuter

rail stations. This alternative would include two overnight layover facilities, one on the New Bedford Main Line and one on the Fall River Secondary. The electrified option's traction power system would include two main substations, two switching stations and six paralleling stations. The cost associated with these alternatives is listed in Table 10-2.

All rail alternatives listed above require the reconstruction of track on the Southern Triangle, including the New Bedford Main Line from Weir Junction in Taunton to the New Bedford terminus, and the Fall River Secondary from Myricks Junction in Taunton to the Fall River terminus. This includes construction of single track with three sidings in specific areas, infrastructure improvements that include constructing, reconstructing, or widening 44 bridges and constructing or reconstructing 39 railroad at-grade crossings.

All of the commuter rail alternatives require overnight layover facilities at the terminal locations along the Fall River Secondary and New Bedford Main Line. The preferred locations for these facilities are near the terminal stations to minimize non-revenue movements. Two alternative layover facilities have been identified for each of the terminal stations. The layover facility locations for the New Bedford terminal are adjacent to the Whale's Tooth terminal station near Wamsutta Street and approximately 3 miles north of the Whale's Tooth terminal station near Church Street. The Fall River facility alternatives are located north of the Fall River Station near the International Specialty Products Site, Weaver's Cove East and Weaver's Cove West.

Rapid Bus Alternative

The Rapid Bus Alternative would provide commuter bus service to South Station via I-93, Route 140 and Route 24. North of I-495, buses would use a combination of new bus zipper lanes, new reversible bus lanes, two-way bus lanes, existing HOV zipper lanes, and existing HOV lanes, along with a short section in mixed traffic. South of the I-495 interchange in Raynham, buses would travel in the general purpose lanes with mixed traffic. This alternative requires significant highway infrastructure improvements and expansion along Route 24 to:

- construct a third lane from Route 140 to I-495;
- widen Route 24 to accommodate movable barriers;
- construct a bus zipper lane from I-495 to Harrison Boulevard (Randolph);
- construct a reversible bus lane from Harrison Boulevard on Route 24 to Route 128;
- construct a reversible bus lane from on Route 128/I-93 to Logan Express Lot;
- construct a two-lane bus roadway from Logan Express Lot to existing HOV zipper lane on the Southeast Expressway; and
- infrastructure improvements include constructing, reconstructing, or widening 20 bridges and reconstructing 11 highway interchanges.

This alternative would include six new rapid bus stations located in downtown Taunton, Galleria Mall (Taunton), King's Highway (New Bedford), Whale's Tooth Station (New Bedford), Freetown and Fall River Depot. The expansion of South Station has been studied separately as part of a larger private development and would be constructed prior to being used by the Rapid Bus Alternative. The cost

Table 10-2: Summary of Costs for South Coast Rail Alternatives

Descriptions	Attleboro Electric	Attleboro Diesel	Stoughton Electric	Stoughton Diesel	Whittenton Electric	Whittenton Diesel	Rapid Bus
Total Infrastructure Cost	$979,059,000	$826,786,000	$944,904,000	$762,925,000	$905,202,000	$719,612,000	$449,777,000
Real Estate Cost	$64,004,000	$63,784,000	$65,226,000	$64,316,000	$62,984,000	$62,064,000	$12,770,000
Professional Services Cost	$132,662,000	$112,030,000	$128,034,000	$103,376,000	$122,655,000	$97,507,000	$60,945,000
Contingency	$310,362,000	$262,091,000	$299,535,000	$241,847,000	$286,949,000	$228,117,000	$142,579,000
Vehicle Cost	$180,970,000	$163,972,000	$180,970,000	$103,832,000	$180,970,000	$103,832,000	$348,000,000
Total	**$1,667,057,000**	**$1,428,663,000**	**$1,618,669,000**	**$1,276,297,000**	**$1,558,760,000**	**$1,211,132,000**	**$700,871,000**
Year-of-Expenditure	**$2,013,643,000**	**$1,722,471,000**	**$1,884,465,000**	**$1,484,652,000**	**$1,814,719,000**	**$1,408,751,000**	**$811,579,000**

associated with these alternatives is listed in Table 10-2 (opposite page). The Environmental Notification Form (ENF) and the federal Notice of Intent (NOI) – were filed in November 2008. A scope of work for both the ENF and NOI was issued in April 2009. In 2009, MassDOT completed its environmental and operational analyses and submitted technical reports to the U.S. Army Corps of Engineers, which is preparing the federal Draft Environmental Impact Statement (DEIS). The state Draft Environmental Impact Report (DEIR) will also be based on this data.

Table 10-2 Notes:

• Total infrastructure costs were estimated in 2009 dollars.

• Professional services are 13.55% of infrastructure costs without contingency. Professional services include Design, Permitting, Construction Phase Inspection & Project Management.

• Contingencies are 31.70% of infrastructure costs and include Indirect Soft Costs, Mitigation Contingency, and Construction Contingency.

• Escalation was calculated at 3.25% per year per FTA criteria.

Feeder Bus /Intermodal Connections

The feeder bus plan for the South Coast Rail project is envisioned to connect the communities in the study area to the stations. Feeder Bus would provide an alternative to driving to stations and would support development in the project area. The Feeder Bus network is envisioned to provide frequent, convenient service connections with trains.

Two regional transit authorities currently provide local bus service to the region: Southeastern Regional Transit Authority (SRTA) and Greater Attleboro Taunton Regional Transit Authority (GATRA). Current bus operators would provide enhanced Feeder Bus service to the proposed stations for the selected alternative.

The following guidelines are recommended for the feeder bus system:

- provide direct connections to nearby origins and destinations including downtowns, universities, government centers, hospitals and higher density residential developments;
- will reflect and incorporate the South Coast Rail service. This includes the use of private shuttles. Where a new private shuttle service could prove beneficial, the feeder bus plan would identify and characterize that opportunity;
- avoid duplications of service, minimize the need to transfer, and minimize total travel times for patrons;
- preference to rerouting existing services over providing new services where and whenever possible. When re-routing significantly inconveniences existing riders, alternatives to reduce or eliminate these inconveniences should be considered;
- provide safe and convenient pedestrian connections to nearby bus stops.

- designated stops provided for feeder buses within South Coast Rail stations; and
- service to meet or exceed scheduled rail service frequencies.

Freight Operations with the South Coast Rail Alternatives

The proposed South Coast Rail Project service would not negatively impact existing freight operations, but will upgrade infrastructure to support freight activities. Planned infrastructure improvements have been identified to support the current levels (with some modest expansion identified by existing freight operators) of freight in a mixed operations corridor. The Attleboro Alternatives would be designed to support high–and-wide freight operations and would not impose any additional restrictions that are not currently in place on the CSX freight operations for the Attleboro Secondary.

10.9 South Coast Rail Project Benefits

The work of local communities who are preparing for regional commuter rail is a significant aspect of this project. MassDOT and the Executive Office of Housing and Economic Development has worked and continues to work with communities to plan for Smart Growth around potential new station sites through a technical assistance program for the South Coast communities. The Project Manager has said that South Coast Rail is "a smart growth project with a train running through it". Communities are preparing the way because they recognize that the train is a catalyst for economic development and they want to maximize those benefits.

Following the release of the Economic Development and Land Use Corridor Plan in June 2009, MassDOT has provided Technical Assistance to the communities within the corridor through the Regional Planning Agencies. This technical assistance has covered a wide range of efforts including: the preparation for zoning change, housing development, open space preservation, and economic development. This also included train station area visualization workshops that provided conceptual renderings of the station areas if developed using the Smart Growth recommendations of the Corridor Plan (See Figure 10-10).

The Future of South Coast Rail

The completion of the South Coast Rail project is anticipated in 2016 with

Figure 10-10: King's Highway station area renderings

A significant aspect of this project is the efforts of local communities who are preparing for commuter rail to the region.

Figure 10-11: Example of Rail Bridge being replaced in New Bedford

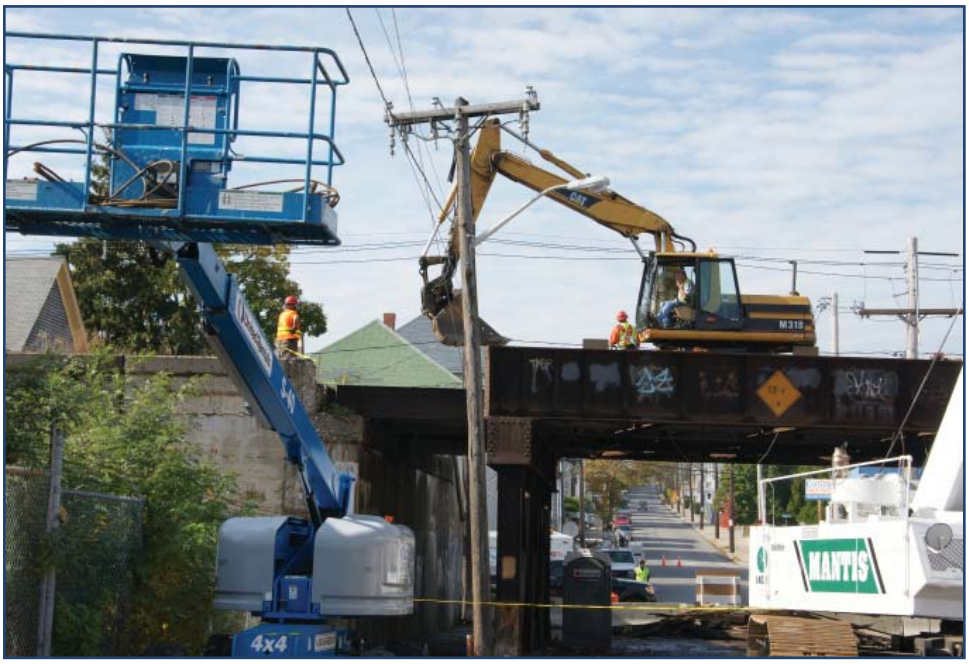


Figure 10-11: In anticipation of the South Coast Rail project, MassDOT submitted and received federal funding ($20 million under the Tiger I Program) in April 2010 to replace three rail bridges over streets in New Bedford.

the diesel alternatives or 2017 if the preferred route is to be electrified. In anticipation of this project, MassDOT submitted and received federal funding ($20 million under the Tiger I Program) in April 2010 to replace three rail bridges over streets in New Bedford (see Figure 10-11).

In June of 2010, the state purchased the railroad right-of-way from CSX. This track runs through Taunton south to Fall River and New Bedford. These measures are a major step for the project and removed limitations on access, which in the past, have hampered the construction and operation of the line.

Conclusions and Recommendations 10.10

Regardless of the implementation of new commuter rail services, efforts are still necessary to preserve the existing services to southeastern Massachusetts. This continued preservation and new service are just strategic parts to a sustainable transportation system.

Regardless of the implementation of new commuter rail services, efforts are still necessary to preserve the existing services to southeastern Massachusetts. This continued preservation and new service are just strategic parts to a sustainable transportation system.

As for the existing train stations, several recommendations are necessary to maintain and improve these stations. The following recommendations apply to the four stations within the SMMPO region:

- As previously recommended in Chapter 9 (Public Transportation) of this document, the implementation of automated payment methods for commuter rail service and parking. This includes expanded use of joint ticketing or a “Charlie Card” to provide convenient service to patrons of commuter rail, the subway system in Boston and local transit providers.

- Continued maintenance of train stations by repaving and restriping the parking lots, improving sidewalks and pedestrian access to the platforms that are ADA compliant, and maintain lighting and other security features at all stations.

- To enhance intermodal use, stations should provide additional adequate bicycle storage and drop off areas for passengers who choose not to park at these stations. In addition, GATRA should expand their hours of operation to connect to all existing MBTA stations during morning and evening peak hour service.

- Communities should continue to work at with SRPEDD and the MBTA to create TOD opportunities at existing stations.

As for new commuter rail service, the South Coast Rail project intends to restore passenger rail transportation to southeastern Massachusetts, spurring economic development as well as providing alternative transportation to Fall River, New Bedford, and Taunton. It will provide a needed link between these cities and Boston. It will attract private investment to the SMMPO region while preserving open space. The added benefit is that planning for this service is now underway with Smart Growth principles being embraced throughout the region. Communities are designating Priority Development Areas (PDAs) and Priority Protection Areas (PPAs) to encourage growth in appropriate areas while protecting and preserving farms, forests, and habitat areas from intrusion.

The station planning associated with the South Coast Rail project has also been an extensive undertaking. Public outreach and workshops with each community has resulted in conceptual plans for a multi-modal facility that does not rely on passenger cars to connect to these stations.

The SMMPO region has been assured that commuter rail will be extended. The cost to extend rail service to southeastern Massachusetts is estimated between $1.4 and $2 billion depending on the preferred route. To date, a source of funding for the entire project has yet to be identified. Therefore, the project cannot be listed within the financial constraints of this Regional Transportation Plan. The planning for this service will continue as Massachusetts pursues the funding mechanisms for this project.