

**Transit**







## **TRANSIT**

### **Introduction**

Montachusett Regional Transit Authority (MART) provides a variety of transportation services for residents of the Montachusett Region and other areas throughout the Commonwealth. Twenty-one communities in the region utilize MART services. Member communities are Fitchburg, Leominster, Gardner, Ashburnham, Shirley, Ayer, Lancaster, Sterling, Hubbardston, Royalston, Littleton, Winchendon, Ashby, Templeton, Westminster, Hardwick, Lunenburg, Harvard, Bolton, Boxborough and Stow. Fixed route bus services, paratransit and subscription services are operated by a private management company, namely, Management of Transportation Services, Inc. All other transportation is operated by a variety of private vendors in Massachusetts. The Massachusetts Bay Transportation Authority (MBTA) is responsible for commuter rail services from Fitchburg to Boston.

### **Transit Service**

#### **Fixed Route**

The backbone of the region's public transportation system is the local transit bus service. Local fixed route bus service operates along set routes and follows set schedules. Local Bus service is available in the three cities of Fitchburg, Leominster and Gardner and limited sections of Lunenburg and Lancaster. Fifteen (15) bus routes are provided by MART; ten in Fitchburg and Leominster and five in Gardner. Service operates Monday through Saturday (except for the Link and Intercity routes which run Monday to Friday). Five (5) peak services routes also run Monday thru Friday during the school year; three in Fitchburg and two in Gardner. Bus services are not offered on Sundays and most holidays.

The cost for adults to ride a fixed route local city bus is one dollar; students, elderly and the disabled (with proper identification) are 50 cents. Intercity bus routes are \$1.50 (effective 9/19/11) for adults; elderly, students and the disabled are half price. Children under five ride free with an accompanying adult. Fixed route bus service in Fitchburg and Leominster is currently available every 20 to 90 minutes depending on the route. In the City of Gardner bus service is available every 60 minutes.

2011 will bring a new change to MART's fixed route service with the implementation of a new automatic fare collection (AFC) system. MART is part of a ten member Regional Transit Authority (RTA) Consortium in the Commonwealth to implement a new regional smart fare-card using the "Charlie Card" technology. MART will begin distributing monthly passes and other fare ticket items via the "Charlie Card" in the winter of 2011/2012. This will require fare and policy changes to fixed route services which MART believes will be beneficial to its consumers and the system state-wide.

Tables 1 and 2, below illustrate the current hours of operation for MART's fixed route services in Fitchburg, Leominster and Gardner. System route maps for Fitchburg/Leominster, Gardner and the G-Link can be found at the end of this chapter (pages 7-39, 7-40, 7-41, 7-43, and 7-45).



**Table 1**  
**MART Bus Routes and Hours of Operation - Fitchburg and Leominster**

Route	Route Traveled	Weekday Hours	Saturday Hours
Route 1	Intermodal Transit Center (ITC) ---KMART--- Monument Square---The Mall at Whitney Field--- Kings Corner	6:05 a.m. to 6:25 p.m.	9:40 a.m. to 5:30 p.m.
Route 2	ITC --- via Route 12 --- Monument Square	5:15 a.m. to 6:20 p.m.	9:15 a.m. to 6:20 p.m.
Route 3	ITC---Kings Corner---The Mall at Whitney Field--- Monument Square --- KMART	6:00 a.m. to 6:25 p.m.	9:45 a.m. to 5:40 p.m.
Route 4	ITC ---Fitchburg State University	7:00 a.m. to 6:30 p.m.	No Service
Route 5-5A	ITC---Montachusett Industrial Park--- Central Plaza	5:20 a.m. to 6:40 p.m.	9:15 a.m. to 5:15 p.m.
Route 6	ITC---Burbank Hospital	7:00 a.m. to 5:25 p.m.	9:25 a.m. to 4:25 p.m.
Route 7	ITC---John Fitch Plaza ---Lunenburg Crossing	6:30 a.m. to 6:00 p.m.	9:25 a.m. to 5:00 p.m.
Route 8	Monument Square---The Mall at Whitney Field – Orchard Hill Park	7:00 a.m. to 6:00 p.m.	9:45 a.m. to 6:00 p.m.
Route 9	Monument Square---Jytek Industrial Park--Wal-Mart	6:25 a.m. to 6:30 p.m.	9:00 a.m. to 5:00 p.m.
Route 10	Monument Square---Leominster Hospital---Water Tower Plaza	8:00 a.m. to 5:15 p.m.	9:30 a.m. to 5:15 p.m.
MWCC Express	Fitchburg-Leominster-Gardner (Labor day through Memorial day only)	6:15 a.m. to 7:30 a.m.	No service

**Table 2**  
**MART Bus Routes and Hours of Operation - Gardner**

Route	Route Traveled	Week Day Hours	Saturday Hours
Route 1	Mt Wachusett Community University ---Hospital --- Gardner Highrise ---City Hall ---Wal-Mart Plaza --- Gardner Plaza	6:22 a.m. to 5:14p.m.	8:45 a.m. to 3:45 p.m.
Route 2	Mt. Wachusett Community University ---Gardner Plaza---Wal-Mart Plaza ---City Hall---Gardner Highrise ---Hospital	6:30 a.m. to 5:10 p.m.	9:33 a.m. to 4:33 p.m.
G-Link Route 2 West	Gardner to Orange thru Templeton	5:15 am. To 6:00 p.m.	No service
G-Link Route 2 East	Orange to Gardner thru Templeton	6:00 a.m. to 7:00 p.m.	No service
G-Link Route 3 North	Gardner to Winchendon thru Baldwinville	6:00 a.m. to 4:00 p.m.	No service
G-Link Route 3 South	Winchendon to Gardner thru Baldwinville	6:15 a.m. to 4:30 p.m.	No service
MWCC Commuter Rail	Gardner---Fitchburg---Leominster (Labor day through Memorial day only)	6:15 a.m. to 7:30 p.m.	No service



MART's prime service area is composed of a small urbanized area which extends from Leominster all the way out to Templeton. The total population, according to 2010 Census Data, of MART's overall service area is 217,194. The population that lives within a quarter mile of MART's bus routes totals 115,965. Table 3 breaks down that population by bus route group.

Table 3

Bus Route	Population Estimate
Fitchburg/Leominster Fixed Route Quarter Mile Buffer	50,412
Gardner Fixed Route Quarter Mile Buffer	10,314
G-Link Quarter Mile Buffer Population Estimate	11,069
Inter-City Route Quarter Mile Buffer Population Estimate	44,170
<b>Total Population Along Routes</b>	<b>115,965</b>

Based upon 2011 ridership data, MART averages 2,005 riders per day in the three cities (1,297 in Fitchburg, 393 in Leominster and 315 in Gardner). The following charts highlight the 2011 ridership data. The first graph (Figure 1) shows the daily average per city, the second (Figure 2) shows the daily average per route.

Figure 1

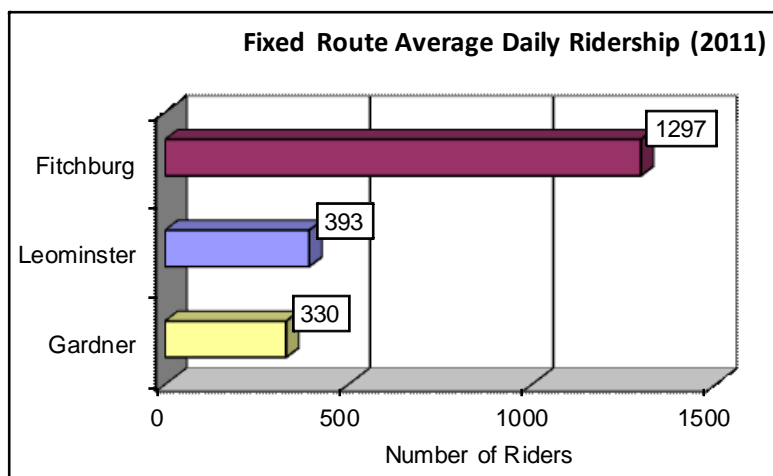
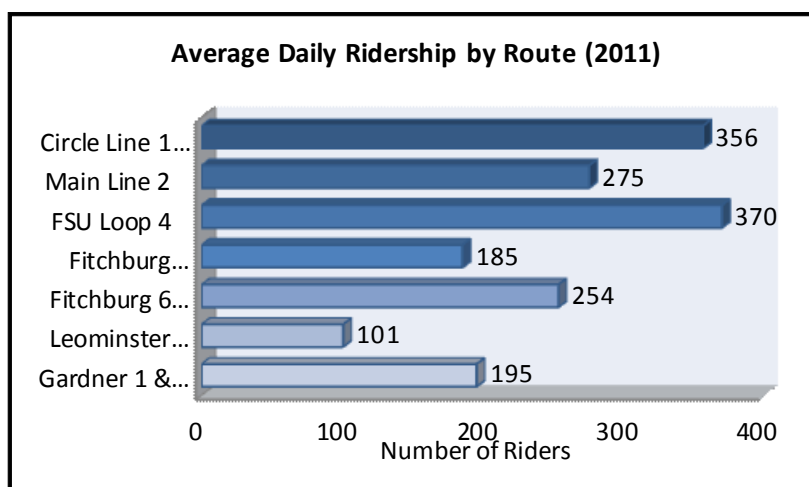




Figure 2



Source: Montachusett Regional Transit Authority 2011 Data

\* Note: The above daily average is calculated by taking the yearly total and dividing by 302 service days. Saturday numbers are less than weekday numbers since the buses run less hours on Saturday, and there are less “commuters.” Therefore an average weekday would actually be higher than the route average shown above, and a Saturday average would be much less. For example, an average weekday in the most average month (November) for MART Circle Line (Rtes 1 & 3), would serve 396 riders. An average Saturday in November had 292 riders. These numbers compare closely that to the 356 riders shown above.

A review of data from FY 2010 and FY 2011 shows an approximate 6.8% increase in the average daily ridership for the communities, but there was only a 3.81% increase overall in fixed route service (see Table 4, below).

Table 4

Fixed Route Average Daily Ridership				
Community	FY 2010	FY 2011	Increase/Decrease	Percent Change
Fitchburg	1193	1297	104	8.72%
Leominster	365	393	28	7.67%
Gardner	334	330	-4	-1.19%
Total	1892	2020	128	6.76%

The bus routes allow passengers to access most major employers, all three hospitals in the Montachusett region and other medical centers, almost all educational facilities at all levels including public libraries, elderly care and housing facilities, shopping centers and industrial parks. The bus service provides an inexpensive way to travel to meet the basic needs of the population. An average adult pays just \$1 a trip, and with a bus pass can ride unlimited for just \$20 a month. The average cost for a tank of gas in an automobile is \$50; most commuters spend that once a week. Public transit is more economical for those who live and work within reach of the fixed route bus system. Maps showing the different types and locations of



facilities attainable by MART's fixed route bus system are provided at the end of this chapter (see pages 7-43, 7-44 and 7-45).

MART's population has segments around its fixed route services, particularly in the areas near the downtown locations of the three cities of Fitchburg, Leominster and Gardner, which fall between 16 and 35% below the poverty level. These cities also happen to contain a high minority population – 25% throughout Fitchburg, 19% in Leominster and 9% in Gardner (2000 Census Data statistics). It is especially important that MART provides fair and equitable service that does not cause a burden on the populations of its region. MART continuously seeks input from the members of its communities, including advocate groups, to improve upon its service to meet the needs of these populations. Additional data on the elderly and disabled populations, primarily serviced by MART's paratransit services, can be found in MRPC's "Coordinated Public Transit – Human Services Plan" report published in April 2008. Maps of the low-income and minority populations in relation to its fixed route system are included at the end of this chapter (see pages 7-46 and 7-47).

### Link Bus Service

Bus service is available along Route 2/2A between Greenfield and Gardner with stops in the towns of Athol, Orange, Gardner, Phillipston, Templeton, and along Routes 68/202 between Gardner and Winchendon. There are four routes. Times vary on routes with service starting at 5:15 a.m. and ending at 7:00 p.m. on weekdays only. Link is operated by the Montachusett Regional Transit Authority (MART) and connects to the Athol/Orange bus routes operated by the Franklin Regional Transit Authority. Table 5, below, identifies the routes and hours of service.

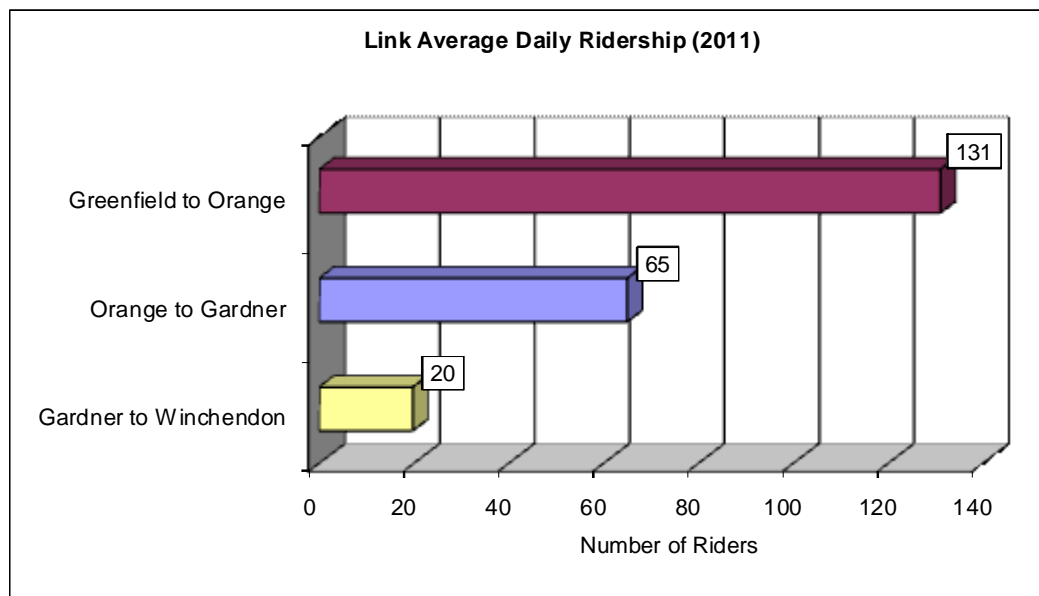
**Table 5**  
**MART Bus Routes and Hours of Operation – Link Service**

Route	Route Traveled	Week Day Hours	Saturday Hours
Route 2 West	Gardner--- Orange	5:15 am. To 6:00 p.m.	No service
Route 2 East	Orange ---Gardner	6:00 a.m. to 7:00 p.m.	No service
Route 3 North	Gardner ---Winchendon	6:00 a.m. to 4:00 p.m.*	No service
Route 3 South	Winchendon--- Gardner	6:15 a.m. to 4:30 p.m.	No service

Average daily ridership on the Link service ranges by route from 131 on the Greenfield to Orange segment, to 65 on the Orange to Gardner line, and to 20 on the Gardner to Winchendon route. The following chart (Figure 3, below) illustrates the average daily ridership figures for the Link service.



Figure 3



Within the Link routes, average daily ridership has increased. MART's Link Routes grew over ten percent each. The Greenfield to Orange figure below is a conservative estimate since final numbers will not be released by FRTA until October 2011. This segment actually had significant growth in FY10 due to a restructuring of the route by FRTA. Table 6, below, summarizes Link routes and ridership increases in raw numbers and by percent.

Table 6

Link Average Daily Ridership				
Route/Connection	FY 2010	FY 2011	Increase/Decrease	Percent Change
Greenfield to Orange	131	135*	4	3.05%
Orange to Gardner	57	65	8	14.04%
Gardner to Winchendon	18	20	2	11.11%
Total	206	220	14	6.80%

### **Commuter Rail/Mount Wachusett Community College (MWCC) Express Bus Service**

MART provides a Commuter Rail Connector bus service from Gardner (in which Mount Wachusett Community College [MWCC] is located) to the Fitchburg Intermodal Center, and once a day in Leominster. Primary stops in Gardner are Mount Wachusett Community College (MWCC) and the City Hall. Service operates from 6:15 a.m. to 7:30 p.m. on weekdays only. Peak service routes are run between the Fitchburg Intermodal (connecting to Fitchburg State University) and MWCC in Gardner during the college school year.

Individual route schedules and maps are available online at MART's website at [www.mrta.us](http://www.mrta.us).





### **Fixed Route Challenges**

Concerns have been raised by members of the community, specifically from the Cleghorn Neighborhood of Fitchburg and customers in Leominster, regarding MART's rate of frequency and timings for connections to the routes that service these areas. Due to an increased geographic footprint MART decreased the frequency on the Leominster In-town Loop (Routes 8, 9 & 10). In the first two years since this change MART saw a drop in ridership, but an increase in 2011. MART is revising its schedules to accommodate the concerns of consumers in Fitchburg and Leominster. The changes should be implemented in September 2011. MART's Link Service, although ridership is on the increase, has concerns due to the inconsistency of available funds. MART is examining alternatives proposed by private transit companies to form a partnership that will reduce costs and improve services.

Demands for fixed route services have increased from towns such as Westminster, Lunenburg, and the working community on Devens. The towns of Littleton and Boxborough would also like to see shuttle services to the commuter rail stations in Littleton and Acton. The problem remains of where to obtain the funds to increase and maintain these services. Adding fixed route services to these towns would be increasing their local assessments, which the towns cannot afford in the current economy.

What limits MART from making these service changes is the ability to receive adequate operational funding now and in future years. Many grants are available thru US Department of Transportation (USDOT), but these opportunities only allow MART to access capital funds and not operating funds. The level funding, or only minor increases, in State Contract Assistance from the Commonwealth only goes further in reducing, not increasing, service.

### **Paratransit Service**

Paratransit service includes curb to curb transportation for those persons with disabilities determined to be Americans with Disabilities Act (ADA) eligible. Service is demand responsive and available in conjunction with fixed route bus service in Fitchburg, Leominster and Gardner and limited areas of Lunenburg and Lancaster. Paratransit services are available Monday to Friday from 5:00 a.m. to 7:00 p.m. and Saturdays from 9:00 a.m. to 5:45 p.m., but is not offered on Sundays or most holidays. MART recently increased the fares of its ADA service to offset growing costs. Cost to the disabled is \$1.50 for rides within Fitchburg, Leominster and Gardner. A \$3.00 fare is charged to go between Gardner and Fitchburg/Leominster. Along with complimentary ADA service, the following services are also available to the general public thru MART:

#### **Subscription Service**

Subscription service provides monthly transportation to work and school and is available in Fitchburg, Leominster and Gardner. Service is provided on a curb to curb basis. In order to utilize this service, an individual must make a monthly commitment. For an additional fee, MART will drop a subscriber's child off at daycare along the way to their workplace. Cost of the service ranges from \$40.00 to \$112.50 per month with stepped thresholds dependent on destination, city of origin, number of trips per week and number of legs. Average daily trips provided by MART are around 208.



### Job Access Reverse Commute (JARC)

Evening transportation is provided in Fitchburg, Leominster and Gardner to industrial, retail and medical facilities. The service is offered Monday through Saturday; there is no Job Access Reverse Commute (JARC) service available on Sunday. The service is primarily for employment purposes. The cost of JARC is \$1.25 one way. Users need to call MART 24 hours in advance to utilize this service. The hours of service in the Fitchburg/Leominster area is Monday-Saturday from 10:00 p.m. to 11:30 p.m. The service hours for Gardner are the same Monday-Friday with no service on Saturday. MART services approximately 23 JARC rides per day, 18 of which are performed by a private contractor (taxi).

### Shuttle Van Service

MART provides transportation to Veterans and various medical facilities, and other major attractions in Worcester and Boston. The shuttle leaves from the Intermodal Center (Fitchburg), and picks up clients at the Water Street (Fitchburg) MART Bus Garage and the Leominster Senior Center. (If all three stops produce no riders, and there are no pickups in Boston or Worcester, the shuttle will not run.) The fare to Worcester is \$20.00 round trip and to Boston \$24.00 round trip. Through an agreement between MART and the cities of Fitchburg and Leominster, Veterans from these communities ride at no charge to the individuals. Average riders per day are around 19.

During 2011, paratransit services provided by MART's operating companies decreased from FY 2010 due to a decline in Subscriptions. This decline was mainly due to the availability of alternate modes such as restored school bus service in Gardner. MART also had a decline in contracted Dial-A-Mart services with the loss of a daycare agency client. Tables 7, 8 and 9, and corresponding chart (see Figure 4), below highlight average daily paratransit ridership across the different services and cities.

**Table 7**

Paratransit Average Daily Ridership				
FY 2010				
Community	ADA/DAR	Subscription/JARC	Dial-A-Mart*	Total
Fitchburg/Leominster	184	185	181	550
Gardner	27	88	45	160
Total	211	273	226	710

**Table 8**

FY 2011				
Community	ADA/DAR	Subscription/JARC	Dial-A-Mart*	Total
Fitchburg/Leominster	178	167	165	510
Gardner	40	68	66	174
Total	218	234	231	684

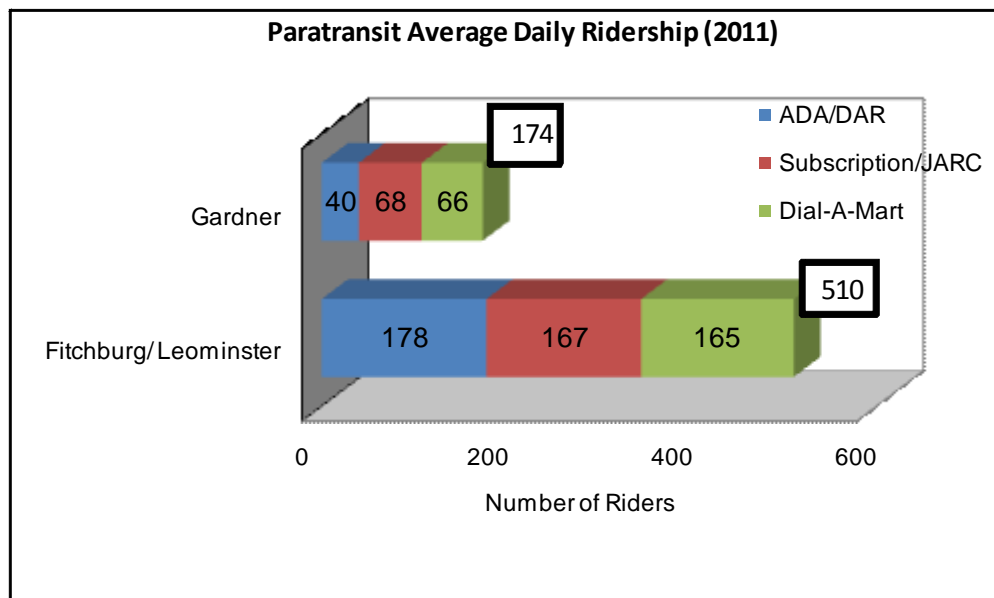
**Table 9**

Increase/Decrease					
Community	ADA/DAR	Subscription/JARC	Dial-A-Mart*	Total	% Change
Fitchburg/Leominster	-6	-18	-16	-40	-7.27%
Gardner	13	-20	21	14	8.75%
Total	7	-39	5	-27	-3.66%



\* Dial-A-MART service is contracted transportation between MART and various human service organizations – see page 7-8 for more details.

Figure 4



Source: Montachusett Regional Transit Authority 2011 Data

### Council On Aging Service

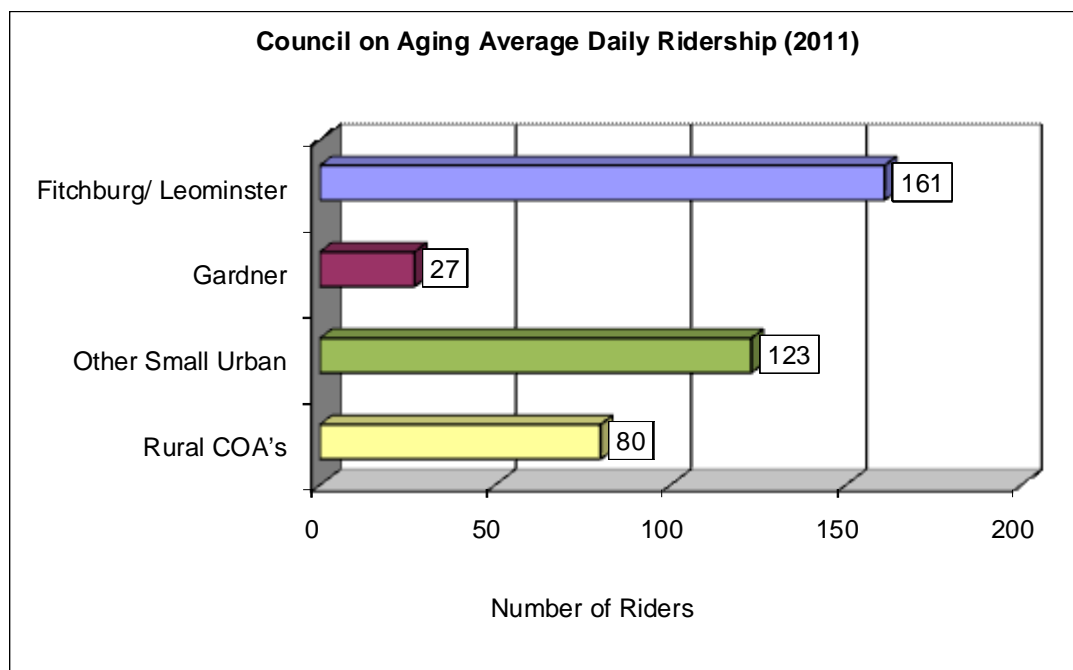
In communities throughout the region, twenty (20) Councils on Aging (COA) agencies provide service for their senior and disabled residents utilizing MART, and some town owned, vehicles. The COA services allow senior and disabled residents to have paratransit services in towns where there are no fixed route services. Prices and times of operation vary by community with an average cost of seventy cents (\$0.70).

The COA's can be broken down into four segments. Service in Fitchburg and Leominster is provided directly by MART while the Gardner COA uses a MART van and the Gardner Community Action Council (CAC) to perform rides in the city of Gardner. The other COA communities perform their own rides, with the exception of Ashby. These communities can be broken down into Small Urban (part of the Leominster-Fitchburg urbanized area) and Rural COA's (outside the UZA).

Average daily ridership on COA services decreased almost 2% overall, but some COA communities had increases as Table 10 and Figure 5 illustrate, below. The Small Urban communities had an increase in ridership with towns like Templeton (up 48%) leading the way.

**Table 10**

Council on Aging Average Daily Ridership				
Community	FY 2010	FY2011	Increase/Decrease	Percent Change
Fitchburg/Leominster	168	161	-7	-4.17%
Gardner	29	27	-2	-6.90%
Other Small Urban	118	123	5	4.24%
Rural COA's	83	80	-3	-3.61%
Total	398	391	-7	-1.76%

**Figure 5**

Source: Montachusett Regional Transit Authority 2011 Data

### Dial-A-MART Van Service

Transportation is available to various social service agencies for their clients. Service is provided Monday through Friday from 5:00 a.m. - 7:00 p.m. and is provided on a negotiated cost basis with the agencies. MART also utilizes the Dial-A-Mart Services to allow its operating company to act as a private vendor to the Brokerage Services Division of MART. This allows for cost savings to the brokerage program and increased revenue to support paratransit operations. The following tables (11, 12, and 13, below) and chart (Figure 6) highlight average daily ridership figures for the Dial-A-Mart services and the Department of Developmental Services (DDS) routes brokered by MART. Overall, average daily ridership has decreased by less than 1% percent.



Table 11

Community	FY 2010		
	Dial-A-Mart	DDS	Total
Devens	0	59	59
Fitchburg/Leominster	181	285	466
Gardner	45	61	106
Total	226	405	631

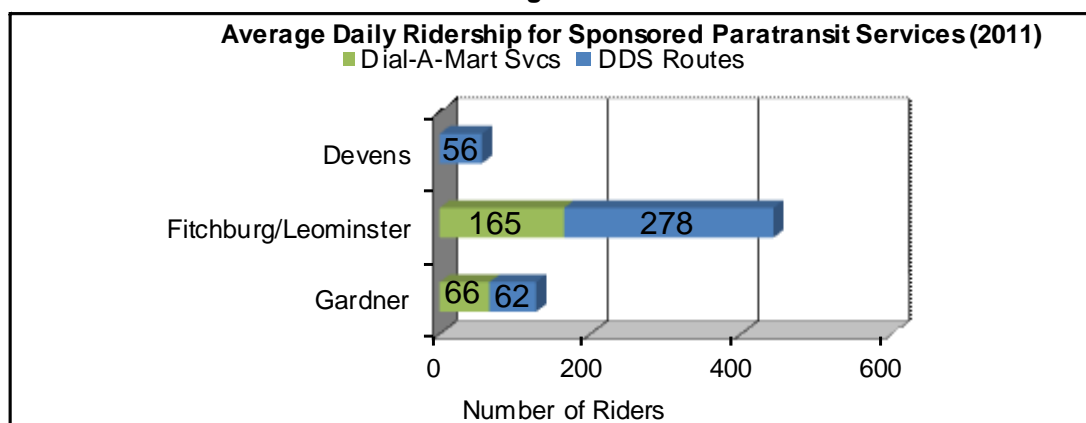
Table 12

Community	FY 2011		
	Dial-A-Mart	DDS	Total
Devens	0	56	56
Fitchburg/Leominster	165	278	443
Gardner	66	62	128
Total	231	396	627

Table 13

Community	Increase/Decrease			Percent Change
	Dial-A-Mart	DDS	Total	
Devens	0	-3	-3	-5.08%
Fitchburg/Leominster	-16	-7	-23	-4.94%
Gardner	21	1	22	20.75%
Total	5	-9	-4	-0.63%

Figure 6



Source: Montachusett Regional Transit Authority 2011 Data

### Paratransit Challenges

A 1990 survey indicated that transportation systems operated by councils-on-aging (COA's) are among the greatest potential resources in the area. However, except in a few cases, few disabled individuals were being served even though all COA's that utilize MART-owned vehicles are mandated to transport disabled individuals. Few towns coordinate or share



services between each other in any way. A noticeable improvement over the years has been the willingness of Councils-On-Aging to expand their transportation services beyond just medical and nutritional trips; COA's are now servicing the disabled in their communities. MART would like to see more COA's change their policies to expand their services to meet other needs of their community – while still staying within the regulations promulgated by the Mobility Assistance Program (MAP) which often funds the vans that MART supplies to the member COA's. Currently most COA's do not run van service on weekends or at night. Some communities would like to see these resources shared for commuter rail shuttles and job access.

MART would also like to better utilize the vans which are used for sponsored trips within its member communities for paratransit services. However the biggest challenge in meeting these needs remains finding the resources to fund and maintain operations and interagency approval.

A growing need in all communities is the increasing population of Veterans and the variety of support services needed for them. MART is the only Regional Transit Authority (RTA) in Massachusetts that provides transit service to Veterans facilities outside of its service region. Veterans' needs are experiencing a growing gap between the young veterans returning from Iraq and Afghanistan and the elderly veterans from older wars such as WWII, Korea and Vietnam. Both groups need transit services but want to receive them in varying ways. The young veterans would rather car-pool to facilities but not with the older ones. The older vets don't think of utilizing COA services because they think of themselves as veterans first and not elderly. The biggest challenge is a lack of information dissemination about the veterans' services available. The challenges are great and will require increased coordination amongst public transit agencies to find a solution. FTA announced a Veterans Transportation and Community Livability Initiative (VTCLI) capital grant program in late July 2011. MART is collaborating with five other RTA's and MassDOT, and has risen to the challenge of developing a capital project that can hopefully utilize these funds to make this coordination a reality.

## **Brokerage Services**

MART coordinates transportation for Massachusetts' human service agencies, namely, the Department of Developmental Services (DDS), Mass Health, and the Department of Public Health (DPH). Transportation is provided by private transportation operators. Travel is funded by these state agencies. MART also coordinates Special Education transportation for local school districts. Special education departments of the participating districts fund this transportation.

### **Department of Developmental Services (DDS)**

MART continues to provide broker transportation services for the Department of Developmental Services. MART provides services in the Central/West Massachusetts region which includes North and South Central MA areas, the Pioneer Valley area, and the entire Metro Boston region including the North and South Shore areas. A map showing the regional breakout is included at the end of the chapter (p. 7-48).



Based upon 2010 information:

- In the Pioneer Valley region, identified by DDS as Region 1 Human Services Transportation (HST) Area 03, MART utilizes 6 contractors to transport approximately 850 clients daily to 16 day programs.
- In the North and South Central regions, identified by DDS as Region 2 HST Areas 04 and 05, MART utilizes 17 contractors to transport approximately 1,420 clients daily to 45 day programs.
- In the Northeast region, identified by DDS as Region 3 HST Areas 04 and 09, MART utilizes 26 contractors to transport approximately 1,625 clients daily to 45 day programs.
- In the Southeast region, identified by DDS as Region 5 HST Area 09, MART utilizes 8 contractors to transport approximately 485 clients daily to 16 day programs.
- For the Metro Boston region, identified by DDS as Region VI HST Area 09, MART utilizes 17 contractors to transport approximately 1,665 clients daily to 52 day programs.

MART currently provides transportation brokerage services for the DDS for approximately \$51 million, (\$40.5M funded thru the Mass Health Day Habilitation), over all of the above mentioned areas. In 2010, approximately 6,000 individuals were transported daily to 174 various programs across the state. This is up from 2007 figures of 4,500 individuals transported to 157 programs. MART is currently subcontracted with 74 private vendors to provide these services.

### **Mass Health Transportation Program**

MART provides brokerage services for Mass Health transportation for the Greater Metro Boston Area, which includes Woburn and Cambridge/Somerville (HST 09 Area), Pioneer Valley Area (HST 03), North Central Area, which includes Fitchburg and Lowell (HST 04), and the South Central Area which includes Worcester (HST 05).

MART currently services the transportation needs of the Mass Health consumers in two hundred and twenty-three (223) cities and towns with an approximate budget of \$26 million annually. Transportation averages approximately 5,450 one-way trips per day with the highest volume in the Metro Boston area with approximately 3,050 one-way trips per day. MART currently has one hundred and sixty-seven (167) vendors contracted to provide the transportation for the above mentioned areas via a low cost bid system. Average trip cost is \$9.52 per one way

### **Early Intervention Program**

MART continues to manage transportation services for the DPH Early Intervention Program (EIP) for approximately \$2.9 million for transportation in the Pioneer Valley (HST 03), North (HST 04) and South (HST 05) Central, and the Greater Boston (HST 09) areas. MART accomplishes this through a quoting process and broker services with fifteen (15) private transportation companies and five (5) Mass Health vendors.



MART is managing transportation for 993 children from birth to age three, to 81 active Early Intervention Programs within four (4) regions with a majority of the services in the HST 09 Greater Boston Area.

### **Special Education Transportation**

MART continues to manage FY2011 special needs transportation for seven (7) school districts: Ashburnham-Westminster Regional School District; Fitchburg (McKinney-Vento); Gardner; Leominster; Lunenburg; Shirley; and Worcester. This is accomplished through a quoting process and brokerage with eight (8) private transportation operators while providing cost-shared routes whenever possible.

MART provided in FY2010, summer transportation to 158 Special Education students to various in-district and out-of-district schools. The FY2010 summer budget was \$244,903 which also included management fees. MART is currently providing FY2011 fall transport to 181 special education students to various in-district and out-of-district schools. The current FY2011 fall budget is \$2,329,530 which also includes management fees.

### **Other Transit Challenges**

Fixed route bus service is limited with the Montachusett Regional Transit Authority operating in only five out of twenty-one member communities (includes two communities on the Link Routes). Commuter rail service from the region to Metro Boston is limited to thirteen inbound and outbound trips on weekdays and six round trips on both Saturdays and Sundays. Interstate bus service is limited to two companies providing minimal service to the region. Taxi service is provided in six Montachusett communities; however fares may be a deterrent to use.

The greatest single need in the region is for out of town transportation to medical appointments and work sites for the disabled and low income. The major medical and rehabilitation centers are located in cities like Worcester and Boston. In 1995, MART implemented daily shuttle service between Fitchburg and the Worcester and Boston areas for medical appointments for veterans and COA clients. However the demand from the general public for a guaranteed shuttle schedule is on the rise – especially for access to Boston. The shuttle to Worcester often doesn't run more than once a day due to the lack of pre-schedule trips. MART will begin a test pilot in September 2011 to see whether running a set schedule would bring in greater general public ridership on this shuttle. This test will help MART to determine if the investment in the service is in the best interest of the public – or if the cost is just too prohibitive to maintain.

A serious deterrent to cooperative planning and the development of coordinated service in the region relates to policies prohibiting inter-agency ridesharing agreements. The following is an examination of alternatives that could be considered when developing a coordinated transportation service:

- Do Nothing - To do nothing would only perpetuate the unmet needs already identified.





- **Ridesharing** - Ridesharing is the result of formal or informal agreements made to provide transportation to be shared by more than one person. As previously stated, agency policies preventing such arrangements have been in place for years. Also, many government programs restrict trip purposes and client use making it illegal to transport clients of unaffiliated agencies. However, cooperative van sharing could work effectively for councils on aging. Although they fear that sharing would result in loss of control over their vehicles, such obstacles need not be insurmountable. Contracts ensuring all parties their proper rights and financial responsibilities can be written.
- **Join an RTA** – Towns, located not more than one town away from existing Montachusett Regional Transit Authority communities, are eligible to join MART. Since Transit Authorities are conduits for state and federal transportation funds, several benefits accrue to RTA member towns. Membership establishes a town's eligibility to receive both capital and operating assistance.
- **Brokerage** - Brokerage arrangements are uniquely tailored to accommodate each situation. Basically, brokerage involves the use of a broker or "middleman" to coordinate persons or agencies needing service with providers of that service. Responsibility for management, administration, establishing policy, contracting with operators, funding, bookkeeping, and scheduling/dispatching and vehicle maintenance can be delegated in a variety of ways.

### **Transit Facilities**

#### **Safety and Security**

Precautions have been undertaken by the transit authority to ensure safety of passengers and employees since September 11, 2001.

Video cameras have been installed in all of MART's transit facilities and commuter rail parking amenities. Video is recorded to digital video recorders (DVR) and any security incidents are burned to a permanent DVD for records. Several monitoring screens, in different locations, are observed by MART employees. Cameras are able to view happenings inside and outside of all facilities and commuter rail platforms. Use of lockers at the Intermodal Center is no longer permitted. Signs have been posted that "luggage, backpacks, etc. are subject to search".

A security guard is also on duty at the Intermodal Center and Commuter Rail Parking Garage from very early morning until after midnight.

Identification badges and parking stickers have been issued to all employees of the transit authority and the operating companies, as well as their in-house tenants.

#### **Fitchburg – MART Intermodal Transportation Center**

The MART Intermodal Transportation Center (ITC), located in downtown Fitchburg at 100-150 Main Street, provides passengers with links to a variety of modes of travel (see Figure 7, below for an exterior view of the ITC). Commuters are able to access:

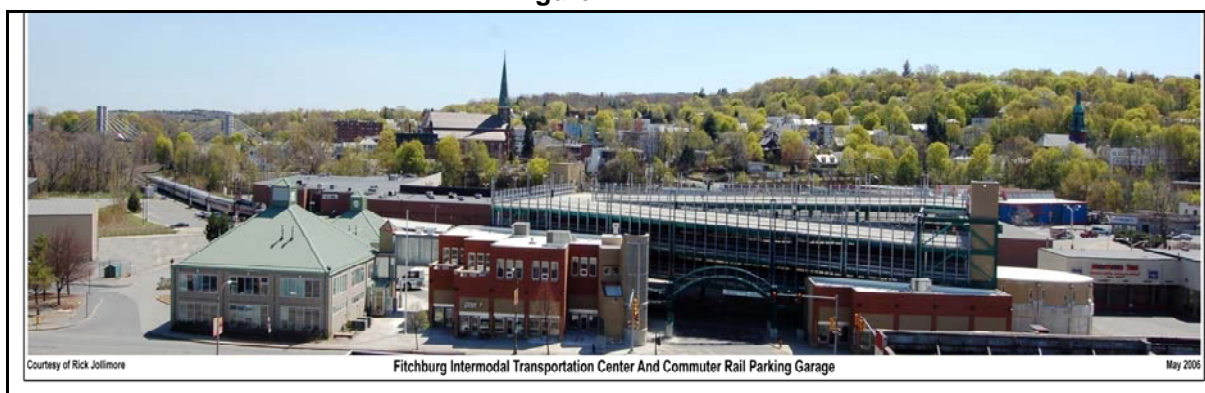


- Commuter rail from the Montachusett Region to Boston;
- Local bus service connecting the cities of Fitchburg, Leominster and Gardner;
- Bus service connecting Gardner, Templeton, Winchendon, Phillipston, Athol, Orange and Greenfield;
- Van services for seniors and disabled;
- Taxi's

As a benefit of the ITC's centralized location in downtown Fitchburg opportunities are available for bicycle and pedestrian travel. Located at the Intermodal Center are a coffee shop, ticket agency, taxi stand, retail space for restaurants and other area businesses, as well as MART offices. Fitchburg State University (FSU) also utilizes space at the ITC for various activities.

Future long-range plans for the ITC are to obtain funding for a safe, secure and reliable bicycle parking facility. Currently bicycle users of the Fitchburg Commuter Rail line or the MART intercity buses have limited areas to lock their bicycles. In addition, these areas are not designed for bicycles. Leaving bikes exposed to the elements as well as in unsecured locations does not entice riders to bike to the transit station.

**Figure 7**



Fitchburg Intermodal Center

**Fitchburg – MART Maintenance and Storage Facility**

The transit authority's Maintenance Facility is located at 1427R Water Street in Fitchburg (see Figure 8, below) for an exterior view from Nichols Street, Leominster). The facility houses MART's administrative offices, dispatch and driving staff. Maintenance for its fleet is undertaken at this building which includes maintenance bays, a parts room, a fueling station and a bus wash. Buses and vans are also stored at the facility. Constructed in 1986-7, the facility is now over 25 years old. FTA's State of Good Repair Initiative, MART received funding to rehabilitate this facility to bring it into a state of high efficiency; some of this funding will also go to rehabilitate the ITC at 100 Main Street, Fitchburg.

**Figure 8**

Fitchburg Headquarters &amp; Maintenance Facility

**Leominster – MART Storage Facility**

MART's Leominster Storage Facility at 840 N. Main Street, Leominster is located across Nichols Street, Leominster from the MART Maintenance and Storage Facility (see Figure 9, below for an exterior view from North Main Street/Rt. 12, Leominster). The building is used for paratransit vehicle storage and offices for MART and MTS Administrative staff. MART received Federal Funds such as American Recovery and Reinvestment Act (ARRA) of 2009 stimulus funding, to rehabilitate and add an addition onto this facility so that 100 vehicles would be out of the elements improving operational efficiencies. An additional bus-wash was added as part of this expansion project. The new facility opened in March 2011.

**Figure 9**

Leominster Storage and Administrative Facility



### **Gardner – MART Maintenance and Storage Facility**

MART received earmark funding to build a brand new maintenance facility and dispatch center for the fixed route and paratransit operations in Gardner at 555 Main Street (see Figure 10, below for an exterior view from Main Street, Gardner). The facility consists of storage for six (6) buses and 26 vans, maintenance bays, a bus wash, a ticket agency, dispatch office, and fueling station. The facility was opened in 2009 in conjunction with a celebration of MART's 30<sup>th</sup> Anniversary of transit operations.

**Figure 10**



Gardner Maintenance and Dispatch Facility

### **Commuter Rail Lot Parking Spaces – Current and Future Potential**

Based upon prior journey to work data from the 2000 Census Data, approximately 2,045 Montachusett residents traveled to the Boston region. With an overall total population increase of 4.7% throughout the Montachusett region, according to 2010 Census data, this journey to work data may have significantly increased as well (census tract/block data specific to Massachusetts for the 2010 collection has yet to be released). The current parking capacity at the five commuter rail stations examined on the Fitchburg line is 780 spaces representing accommodations for approximately 38 percent of the of the potential commuter demand (i.e. the 2,045 residents). Planned and anticipated expansion of these five lots (shown in Table 14, below) could result in a total of 1,575 commuter rail parking spaces, enough to address 77 percent of potential commuter demand.

**Table 14**

Community	Commuter Rail Station	Current # of Parking Spaces	Potential/Planned Parking Spaces	Estimated Year of Completion
Fitchburg	Wachusett Station	-	300	2013
	Main Street	425	425	N/A
Leominster	North Leominster	140	380	2013
Shirley	Front Street	70	70	N/A
Ayer	Main Street/Park Street	65	200	2013
Littleton	Foster Street	80	200	2011
<b>Total</b>		<b>780</b>	<b>1575</b>	

Multiple projects are in the design phase and are being proposed to accommodate this demand. They are explained in following sections.

### Summary of Transit Improvements since 2007 RTP

MART has been striving to accomplish many of the goals that were set established in the 2007 RTP. Below are some bullets points on the many changes and growth experienced – or perhaps not experienced over the last four years.

- MART revised its bus schedules for all local routes in Fitchburg/Leominster and Gardner effective October 5, 2009.
  - Routes 1 & 3 were extended an hour each.
  - Route 4 is separated from bus 5/5A during University semesters and offered for free to Fitchburg State University students and the general public and extended by two (2) hours.
  - Route 8/9/10 was extended from a 60 minute loop to a 90 minute loop due to an increase in the physical size of the route to include the new Super Walmart on Route 117 and the Orchard Hill Park in Leominster. To compensate for the lower frequency service was also extended by almost two hours. However the result of this lowered frequency was a reduced ridership in FY09 & FY10. As a result MART is currently revising these routes again, to be implemented in September 2011. Route 9 will be separated from Routes 8 & 10. The Leominster In-town bus service (#8 – Orchard Park/Whitney Field Malls and #10 Water Tower Plaza/Leominster Hospital) will increase its headway from 90 minutes to every 60 minutes. This route will be extended to include the Senior Center/Veterans Center at Pond Street in Leominster. Route 9 (Jytek Park/Wal-Mart) will be combined with the Route 2 bus (Intermodal/Monument Square) with an increased headway of 45 minutes. To accomplish this it will require two buses travelling in opposite directions.
  - Gardner routes 1 & 2 were extended slightly but also the route was revised by a street to accommodate the location of the new Gardner Maintenance Facility.
- The ridership numbers for fixed routes may appear to be lower when compared side by side, however MART revised what routes were actually described as “Fixed Route” to better reflect the Federal Transit Administration (FTA’s) National Transit Database definitions of transit mode type. Some of the routes previously included were deemed





to be “Demand Response” (paratransit) and not “Motor Bus” (MB) (fixed route). New charts have been included under the Paratransit Services section to reflect this ‘missing’ ridership.

- Fixed route ridership has doubled since 2007 on valid MB routes. The restructuring of Route 4 has increased ridership noticeably. The Circle Line routes are also on the rise. However the lengthened Route 8/9/10 has driven down ridership on the Leominster Loop.
- The Athol/Orange to Gardner Link route is up half a percentage point in FY10 over FY07. However it peaked at a daily average of 20 riders in 2008.
- Paratransit ridership is up over 2007 models; however the peak was in 2009. The Councils-On-Aging overall increased their ridership as they expand their services to more of the disabled in their communities. Pressure from MART on the COA's to charge their clientele a fare has doubled the revenue and average trip cost.
- Brokerage services continue to increase in volume every year. Services have grown from a \$50 million contract in 2007 to \$80 million in 2010.
- Two of the facilities which were in the planning stages under the last RTP are now finished and operational.

## **Green Initiatives in Transit**

MART applied for a Transit Investments for Greenhouse Gas & Energy Reduction (TIGGER II) grant in August 2010, and was pre-awarded \$1,687,500 to complete its proposed Phase I in November 2010 (with final award on February 17, 2011). MART's project is for a solar energy production and total energy management system named EP3: Energy Production, Proliferation, and Preservation. The bids for design services have been received and work will begin in the spring of 2011 with installation completion by late spring 2012. This project hopes to be the first of many green initiatives at MART. MART has completed one energy audit and is replacing inefficient lighting in its Fitchburg Maintenance Facility. Under this solar project, energy audits at MART's other facilities will be conducted.

As part of MART's rehabilitation of the Fitchburg Maintenance Facility and the Intermodal Center building at 100 Main Street (the two oldest facilities), MART is revamping its HVAC systems to be more efficient and save energy – with possible ties to the solar project. MART is also making improvements to the windows and current power scheme.

MART will also be looking into other ways to make the services MART provides more energy efficient. One possible scenario would be to retrofit commuter parking facilities with electric car recharging stations and solar powered lighting. Another scenario is to build secure bicycle parking facilities at the commuter rail stations to promote increased pedestrian/bicycle access and decrease reliance on carbon emitting automobiles.

MART will also be doing a cost benefit analysis on replacing its existing aging diesel motor bus and van fleet with new hybrid and alternative fuel buses and vans. MART recently acquired three hybrid International buses. MART has seen a significant savings on diesel fuel by utilizing these vehicles, however maintenance of these vehicles have proven to be more costly than expected. A preliminary survey of MART's fixed route diesel and hybrid fueled buses indicated that the hybrid fleet consumed 50 percent less fuel than the traditional buses.



On average the diesel exclusive buses get 4 miles per gallon while the hybrid buses get 6 miles per gallon. All these factors and varying degrees of efficiency in each “green” vehicle type will be evaluated.

## **Transit Recommendations and Needs**

In order to provide increased mobility for Montachusett area residents, which do not own automobiles or choose to be less dependent on the automobile, and increase their transportation options, MART will need to continue to refine and implement appropriate and innovative public transit programs designed to increase ridership and build sustainable communities. The continuous examination of routes and schedules to determine the most efficient and effective service will be necessary. MART is open to expanding services wherever possible to fill service gaps, meet unmet regional needs, and increase accessibility to health facilities and social services. Where the need for additional services is identified, MART should continue to work with those institutions to examine needs, organizational involvement and find ways to help defray the cost of the additional services. Continued participation of local industries, businesses, major shopping centers and schools in developing appropriate schedules, routes and promotional programs must be encouraged.

Special service provided to the elderly and the disabled will need to be monitored to ensure continuation of appropriate levels of service in light of MART's complementary ADA plan. Continued brokerage programs with the Department of Public Health, Department of Developmental Services, and Special Education departments of local school districts are planned.

In addition to increased and improved routing and scheduling, it will be necessary for MART to maintain and improve the operating condition of its vehicle fleet. The present vehicle fleet is constantly being replaced with new lift equipped ADA compliant equipment. The Montachusett Transportation Improvement Program (TIP) process should continue to be utilized to upgrade and replace aging buses and vans.

In order to ensure continued service levels a fare increase was initiated in March 2007. MART had not previously increased fares in ten years. Due to the increasing demand and the freeze on Commonwealth funding, this fare increase was an important part of the overall financing of MART. As MART prepares for a new Automatic Fare Collection system implementation in the winter of 2011/2012, and increasing demand for shuttle service to Boston, the fare policy has been thoroughly reviewed and MART will be restructuring some fares to establish a fair and equitable fare structure amongst all services.

Most of the above actions are designed to improve efficiency and lower overall demand on the highway system at a relatively low cost. In summary, the main recommendations to improve the MART transit system include:

- Continued monitoring of routes and schedules so that any beneficial changes can be identified and implemented;
- Alternative sources of funding for continued transit operations must be developed and instituted;



- The marketing effort must be upgraded and increased to inform the public of transit availability and efficiency;
- Additional equipment such as ITS equipment, lift equipped buses, lift equipped vans, etc., should be acquired;
- Driver safety, CPR, first aid, and sensitivity courses should be maintained;
- Transit services for the elderly and disabled should continue to be upgraded as necessary to insure both availability and accessibility in compliance with MART's ADA complementary paratransit plan;
- Paratransit services provided by MART to social service agency clients should continue to be monitored for coordination of effort;
- Brokerage programs thru the Executive Office of Health & Human Services' (EOHHS) Human Service Transportation (HST) Office, and local school districts, should be monitored for greater coordination and continued use of private enterprises.

## Intercity Connections

### Bus (Private Provider)

Peter Pan Transit Line also provides bus service that stops at 526 North Main Street in Leominster (see Figure 11, below). Peter Pan has a bus that leaves daily traveling from Leominster to Worcester with connections to Logan Airport, Springfield MA, and Hartford, CT to New York City, or to the Foxwoods Casino (CT). The bus leaves Leominster at 7:35 AM – arrival time for Worcester is 8:25 AM, Springfield at 10:10 AM, Logan Airport at 10:50 AM and New York City at 12:30 PM, or 9:30 AM for Foxwoods Casino. Return trips from New York City leave at 1:30 p.m. and arrive at Leominster at 6:15 p.m. Return trips from Foxwoods Casino depart at 4:45 p.m. and arrive in Leominster at 6:15 p.m.

Figure 11



Location of Private (Peter Pan) Bus Stop in Leominster





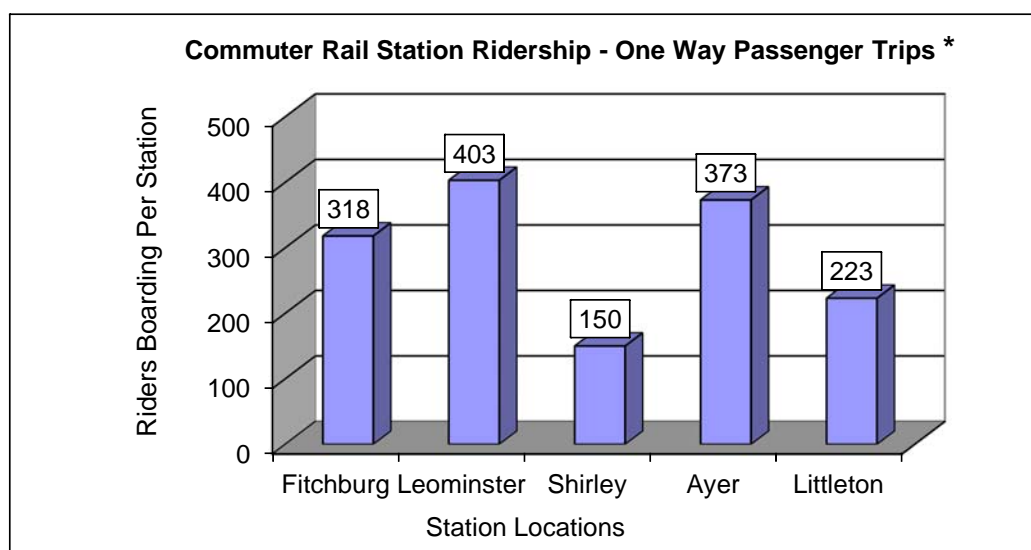
## Commuter Rail

Commuter rail (CR) service is provided by the Massachusetts Bay Transportation Authority (MBTA). Commuter rail service operates from Fitchburg to Boston. The train stops in the Montachusett Region include Fitchburg, Leominster, Shirley, Ayer and Littleton. MART provides a transit service from Gardner to Fitchburg for those commuters that wish to travel to Boston by train as there is no train service available from Gardner. The local city bus also stops at the North Leominster Train Station throughout the day. MART's Intermodal Center, through which most of its bus routes run, is the location of the Fitchburg CR station. As of June 2011, the fare from Fitchburg to Boston is \$7.75 one way or \$250 for a monthly pass which includes unlimited subway and bus transfers on the MBTA system in Metro Boston.

On weekdays, MBTA provides thirteen (13) trips leaving from Fitchburg to Boston (inbound) and thirteen (13) trips from Boston back to Fitchburg (outbound). Inbound service starts at 5:15 a.m. and ends at 10:25 p.m. (in Boston at 11:48 p.m.). Outbound service (Boston to Fitchburg) starts at 8:55 a.m. and finishes with its last trip leaving Boston at 12:10 a.m. and arriving in Fitchburg at 1:42 a.m. Saturday and Sunday service has six (6) inbound trips to Boston and six (6) outbound trips to Fitchburg.

The Fitchburg Line performs nearly 10,000 trips (inbound and outbound) on a typical weekday (FY2008 Annual Average). The stations within member communities provide about 3,000 of those trips. The graph below (Figure 12) shows the average number of riders that board the Commuter Rail train at each station within the region going inbound (one-way) to Boston.

**Figure 12**



\* Source: MBTA Railroad Operations Audit: Average of 4 Typical Weekdays from 6/26/08 to 5/14/09.

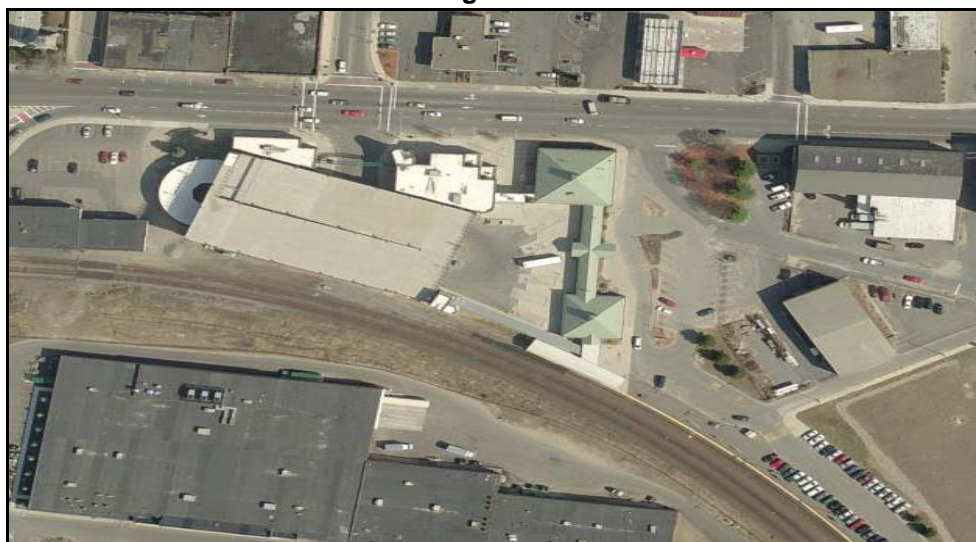


## Commuter Train Stations and Parking in MART's Communities

### Fitchburg – Commuter Parking Garage

The Fitchburg Commuter Parking Garage was completed in 2006 (see aerial view, below, Figure 14). Located adjacent to the Intermodal Transportation Center, it provides parking for 425 commuters. There is also an external parking lot next to the tracks. Parking cost to commuters is \$3.00 per day. The garage also provides parking for MART staff and the retail shops. The front of the parking garage contains retail space which currently houses a restaurant, the Fitchburg State University Center for Professional Studies, and MART offices. The garage is usually filled to 60% capacity and provides access to the train for local residents and some commuters from nearby communities over the border in New Hampshire. Local residents can also access the train station through MART's local city buses which use the Intermodal Center as a terminal.

Figure 13



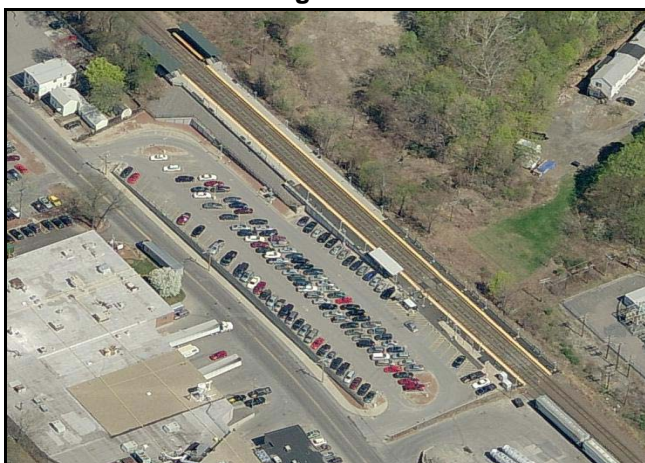
Intermodal Transportation Center & Commuter Parking Garage – Main Street, Fitchburg

### North Leominster – Commuter Train Station

North Leominster Commuter Train Station relocated in 2005 to Nashua Street in Leominster has parking provided by MART for 140 cars (see Figure 15, below, for an aerial view). Parking for commuters has almost tripled since construction of this new station from 30 to 140 spaces. The current cost to park at the station is \$3.00 per day. On an average day, this lot is filled to 90 percent capacity of its 140 spaces (including 5 handicapped spaces). Most weekdays experience capacity rates exceeding 95 percent, with 100% at some point during the day. MART bus routes 1 & 3 travel to this station throughout the day, providing access to those not utilizing a car.



Figure 15



Current North Leominster Commuter Rail Parking Lot – Nashua Street, Leominster

Plans are under development to transition this lot to a parking garage with approximately 380 spaces (see Figure 15, below, for an architect's rendering of the proposed facility). Funding has been obtained for design and construction and is anticipated to be completed in 2013. The increased parking capacity is anticipated to maintain its high capacity rate bringing new riders from the neighboring towns of Lancaster and Lunenburg. The new facility will continue to provide access to the local buses, as well as a “kiss & ride” drop off and taxi access.

Figure 15



Sketch of Proposed North Leominster Commuter Rail Garage

### Shirley Commuter Train Station

The Commuter Rail Station is located in close proximity to the town center on Front Street (see aerial view, below, in Figure 16). Limited parking is available for approximately 70



vehicles. Based upon MBTA commuter rail ridership audit figures previously presented, average ridership is 150 one way passenger trips from the Shirley station. This is more than twice the number of available parking spaces.

Bicycle and pedestrian connections are poor or non-existent. No bicycle routing is present along the street network leading to the station and facilities do not exist at the station to secure a bicycle. Pedestrian connections consist of partial sidewalks. However, at the station parking areas, no sidewalks or designated pedestrian areas are present for commuters walking to and from their vehicles.

**Figure 16**



Commuter Rail Parking Lot – Front Street, Shirley

### **Ayer Commuter Train Station**

The Ayer Commuter Rail Station has approximately 375-400 daily one way riders but has limited parking with only 65 spaces currently available at the Rail Trail parking lot (see Figure 17, below, for an aerial view of the Rail Trail Parking Lot and Ayer Commuter Rail Station). The commuters that don't get a space on the station lot are forced to overflow onto the municipal streets. This is creating an economic hardship for the local merchants since these on-street spots would otherwise be occupied by consumers. MART and the Town of Ayer plan to improve the parking for commuters of the Ayer Commuter Rail Station which will include improved pedestrian access with designated crosswalks, paths and sidewalks between the station and the parking lot, as well as the main commercial areas and the Ayer-Dunstable Rail Trail itself. In addition, the parking expansion will provide secure accessible parking for the commuter rail patrons including the physically challenged.

The existing parking lot is filled to capacity Monday through Friday. The need for commuter parking exceeds the available spaces. The proposed improvements will expand the parking lot from 65 spaces to 200 parking spaces to accommodate commuters travelling to Boston and points along the way. As part of this project, MART is contemplating the purchase of several properties abutting the existing parking lot to allow for the expansion. Acquisition of these abutting properties and subsequent demolition of the existing buildings would allow for increased parking capacity and better circulation into the Ayer Commuter Rail Station.





Figure 17



Commuter Rail Train Station and detached Parking expansion area – Main Street, Ayer

### Littleton Commuter Train Station

The town of Littleton is not one of the MRPC member communities, but it is one of MART's member communities. Based upon MBTA commuter rail ridership audit figures, average ridership is 223 one way passenger trips from Littleton inbound to Boston. Until very recently parking was a serious concern at Littleton Station (an aerial view has been provided in Figure 19, below). The area below circled in red shows the past parking conditions. The blue area was a private pay lot, while the red was no charge. There are no clear walkways between the old parking areas and the train loading area. Crosswalks are not present. The current location of this station does not encourage pedestrian or bicycle activity. Access to the station does not lend itself to safe pedestrian and bicycle traffic due to roadway geometrics. In October 2011 construction will begin on a new station with high level platform.

A \$2 million state funded grant has been used by MBTA to acquire the private lot, and the parcel next to it (blue area), to be used by rail commuters at Littleton Station for parking. This area will provide 200 parking spaces on the same side of Foster Street at the station, and will be owned and operated by the MBTA (see Figure 18, below, for an architect's rendering of the new station). The construction of the expanded parking lot was completed on July 1, 2011 and is available for to commuters at \$4 per day. Customers will be able to pay in a cash honor box, use pay-by-phone, or purchase a monthly parking pass. Information for pay-by-phone can be found at [www.parkmobile.com](http://www.parkmobile.com), and the monthly program is through Central Parking at [www.parking.com](http://www.parking.com). These websites have not yet been updated to reflect these recent changes.



Figure 18



Current Commuter Rail Station & Parking Lot – Foster Street, Littleton

Figure 19



Rendering of Proposed Commuter Rail Station – Littleton



## Commuter Rail Line Improvements Project (Small Starts)

### History Leading to the Project

A feasibility study was conducted by McMahon Associates for the Wachusett Station after the 2007 RTP was published. According to the *Fitchburg Commuter Rail Line Corridor Alternatives Analysis Report* conducted by McMahon Associates in January 2007:

Currently, citizens of the "...Montachusett area..." communities have few options for commuting to and from the Boston metropolitan area. These modes of travel are very unreliable, particularly for a daily commute. Ridership levels on the Fitchburg Commuter Rail Line is adversely affected by poor reliability, infrequent service, and excessive travel times, the longest in the MBTA Commuter Rail system. Yet, although the Fitchburg Commuter Rail Line is the poorest performing line in the system, it has the potential to attract new riders if quality service were provided.

Results from the *Fitchburg Commuter Rail Line Service Expansion Study* and public meetings indicate that improved speeds would have the greatest effect on reducing travel times and, therefore, would provide the greatest benefit to the Montachusett area's commuters. Actions to achieve travel time savings were presented in the subsequent *Fitchburg Line Improvement Implementation Plan*, which was published in the fall of 2005 by a private consultant. The overriding objective of the Implementation Plan was to reduce trip times between Fitchburg and Porter Square in Cambridge from the current one hour and twenty minutes to approximately one hour.

The primary goal of the Fitchburg Commuter Rail Improvement Project is to increase ridership by offering reduced travel times and improved service reliability between Fitchburg and Porter Square. The secondary goal of the Fitchburg Commuter Rail Line Improvement Program is to increase frequency of service. One physical constraint which currently hampers service frequency and reliability is the single tracked section of the line between South Acton and Ayer. Installing double track along this segment will enhance operating flexibility and improve on-time reliability. Double tracking will also create additional scheduling opportunities and could lead to more frequent service. Other infrastructure constraints and deficiencies include:

- Track conditions
- Speed restrictions
- Alignment deficiencies and a lack of super-elevation
- Poor drainage
- Antiquated signals and crossover/interlocking systems
- A large number of at-grade crossings

Improved service on the Fitchburg Line should entice a number of drivers to switch from highway to rail for their commute to Boston. The resulting reduction in personal automobiles will decrease traffic congestion and delays on Route 2 during peak commute times.



This report and feasibility study project lead to MART's application for TIGER Stimulus funds which was approved and has become the Wachusett Station Project (discussed in more detail later).

### **Commuter Rail Line Improvements Alternatives Analysis**

The formation and selection of the *Locally Preferred Alternative* was a collaborative process built on solid analysis and interagency coordination. The selection was further informed by the long history of public input, the recognition of the need for system wide improvements and the reality of present State and Federal funding availability. The analysis began with the modeling process, the first step of which was to build and simulate the existing Fitchburg Line network. Each alternative (including the baseline) was then built and modeled using the software. The benefits, in the form of travel time savings for each set of improvements, were compared to the "Existing/No Build" and "Baseline" scenarios.

This information was then shared with operating and funding agencies and elected officials to develop a recommended "Locally Preferred Alternative" to present to the public. Representatives from the MBTA (including the Railroad Operations and Planning Departments), the Executive Office of Transportation and Public Works, Montachusett Regional Transit Authority and Massachusetts Bay Commuter Railroad were all present and contributed to the development of the recommended Locally Preferred Alternative. Three build alternatives were identified and evaluated.

The cost of each of the alternative was analyzed and weighed against the travel time saved for the existing riders on the Fitchburg Commuter Rail Line. However, through the Alternatives Analysis process, the importance of completing system wide upgrades to the entire Fitchburg Line was reiterated. With \$75 million of state funding anticipated, and \$75 million of federal funds sought, additional elements of Alternatives 2 and 3 were reconsidered for their inclusion as part of the \$150 million recommended project.

Alternative 1, as analyzed, cost \$149.8 million, but did not include the signal upgrade between Ayer and Fitchburg. In order to include this upgrade in Alternative 1, several items were reevaluated. The Route 62 bridge replacement was removed because it was already included in the MBTA's capital budget. The Master Drainage program and Willows Freight Yard improvements were also reevaluated. It was determined that similar operational and reliability benefits for these elements could be achieved for less than the original total cost predicted. At Willows Yard, for example, both a flyover and an additional track were evaluated to separate freight and passenger service, but the alternatives always carried the cost of the flyover track. The added track at Willows Freight Yard could yield the same level of travel time and reliability benefits, at almost half the cost.

The project team then prepared a recommended Locally Preferred Alternative (LPA) to present during the community process. The specifics of the LPA are included in the details following this section.

A series of public meetings were hosted in different communities along the Line to determine the Locally Preferred Alternative (LPA). These meetings occurred on the following dates/locations:





- Wednesday August 15, 2007 (Waltham)
- Tuesday August 21, 2007 (Fitchburg)
- Thursday August 23, 2007 (West Concord)

In each meeting, the project team presented an overview of the history of the Fitchburg Commuter Rail Line Improvements project, including the history of the project, the existing conditions, the need for improvements, and an outline of potential improvements to the line. Study methods and resulting travel time savings accrued from the implementation of the recommended LPA were presented. An existing public comment and question and answer session was part of each public meeting.

Public comments at each of the three meetings were overwhelmingly positive. Many of the attendees also had suggestions for additional improvements or items to be examined further, such as providing added parking or exploring potential station consolidation. Several comments also referred to specific constraints, problems, or desires for improvements at a particular station. All specific questions and comments were recorded, and either were forwarded to the appropriate agency or will be considered during the design of the project. The public comments will continue to inform future improvements along the Fitchburg Commuter Rail Line.

There was a general consensus throughout the public process to proceed expeditiously with the recommended Locally Preferred Alternative. The Locally Preferred Alternative is shown on the project map (see Figure 21). The LPA represents the most appropriate set of improvements for the Fitchburg Commuter Rail Line given the results of the technical analysis and public process as well as the proposed budget, as determined by the project team. The MART Advisory Board then adopted the Locally Preferred Alternative at its September 2007 Board meeting. The total cost for the Locally Preferred Alternative in year expenditure dollars (i.e. 2007) would be \$149.8 million.

### **Commuter Rail Line Improvements Project**

This Small Starts project is actually broken down into four sub-projects, most of which have been funded through the American Recovery and Reinvestment Act (ARRA). A description of each project is outlined below. The following is a summary of the funding received:

\$159 M	FTA Small Starts funding (includes state & federal bridge funds)
\$10 M	CPF 43 (ARRA funding)
\$42 M	Double tracking (ARRA / EOHED funding)
\$59 M	<u>Wachusett Extension (TIGER Award + \$3.7M Earmark)</u>
\$270 M	Total Investment

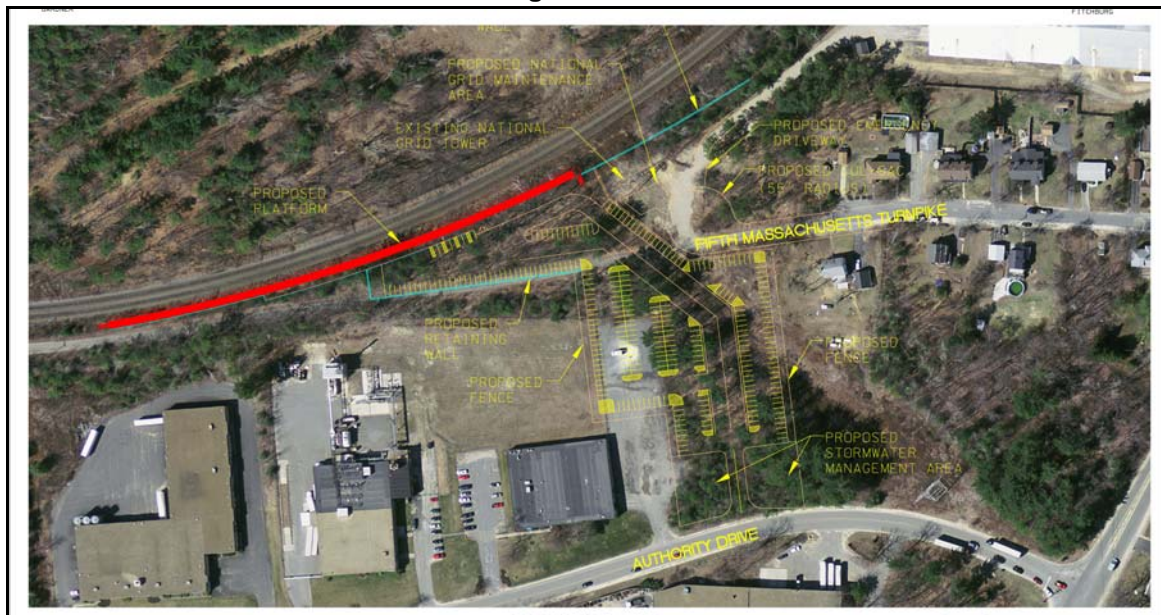
### **Wachusett Train Station**

The purpose of the project is to satisfy the region's current transit needs between the North Central Region of Massachusetts (Montachusett Region) and Boston, while reducing overall commute time and facilitating economic development. MART received an award of \$55.5 Million through the US Department of Transportation's (USDOT) Transportation Investment



Generating Economic Recovery (TIGER) ARRA program in February 2010 which approved the proposed project to build a commuter rail station and 300 space parking lot in West Fitchburg called Wachusett Station (see Figure 20, below). Part of this project will be a new layover facility for the MBTA and commercial freight train engines. Track Improvements will be made between the existing Fitchburg Station at 100 Main Street and the layover facility in Westminster (approximately six miles of track). The final design and construction for all facets of this project will be handled by MBTA with MART handling local coordination and purchase of any required land. The project is expected to result in a variety of environmental and economic benefits including improving public transportation for residents west of Fitchburg, reducing congestion on Route 2, enhancing economic development, and creating new jobs. Projections are that it will service over 400 new commuter rail passengers in 2013, divert 824 vehicle trips from Route 2, create an estimated 306 construction jobs in the short-term, and create at least 855 new jobs in the long-term. The project will benefit both passenger rail service and freight operations in the Montachusett Region. The project is under way and is scheduled for completion by October of 2013.

Figure 20



Proposed Layout of Wachusett Station - Fitchburg

### Rail Line Improvements

\$150M project funded through FTA Small Starts - \$75M State/\$75M Federal + Rt. 62 Bridge - \$9 M

Project Construction Start: October 28, 2010; Project Construction Complete: December 2014  
Construction to be completed by combination Contractor and Force Account (MBCR)

Design Status: Contract Design Work 90% Complete; Force Account Design Work 95% Complete

The project goals include reducing travel time up to 10 minutes (varies by train) and increase reliability (on-time performance). Scope of work includes:

- Signal system improvements including double directional running between Acton and North Station (25 miles) with the existing control center being relocated from Waltham



to Somerville. The signal equipment currently in this section of the line dates from the early 20<sup>th</sup> Century.

The balance of the signal equipment is being upgraded from 1970s vintage equipment.

- Upgrade horizontal and vertical alignments to achieve 80 mph track speeds to Fitchburg
- Install fiber optic cable Cambridge to Acton
- Double track 1.7 miles in Acton; Construct High Level Platforms at South Acton Station
- Upgrade 13 at-grade crossings
- Repair/Replace Six Bridges; Replace a bridge in Concord carrying the railroad over Route 62.
- Transfer Waltham Tower Operations to MBTA Control Center
- Nine (9) New/Updated Interlockings
- Reconfigure Track Willows Freight Yard
- Drainage and Right of Way Improvements

#### **ARRA CPF-43 Project**

\$10.2M project funded 100% through FTA ARRA funds

Project Construction Start: October 2009; Project Construction Complete: December 2011

Provide commuter rail operational flexibility and to minimize conflicts with freight in the Ayer segment of the FML. The scope of work includes:

- Installation of a new #20 universal interlocking
- Installation of a new #10 crossover to a new 1,000' freight switching lead service two existing freight consignees and new 1,000' maintenance of way track

#### **ARRA Double Track Project – Ayer to Acton**

\$39.81M project funded 100% through FTA ARRA funds + \$2M EOHED funds for station parking

Project Construction Start: April 2010

Project Construction Complete: December Spring 2013

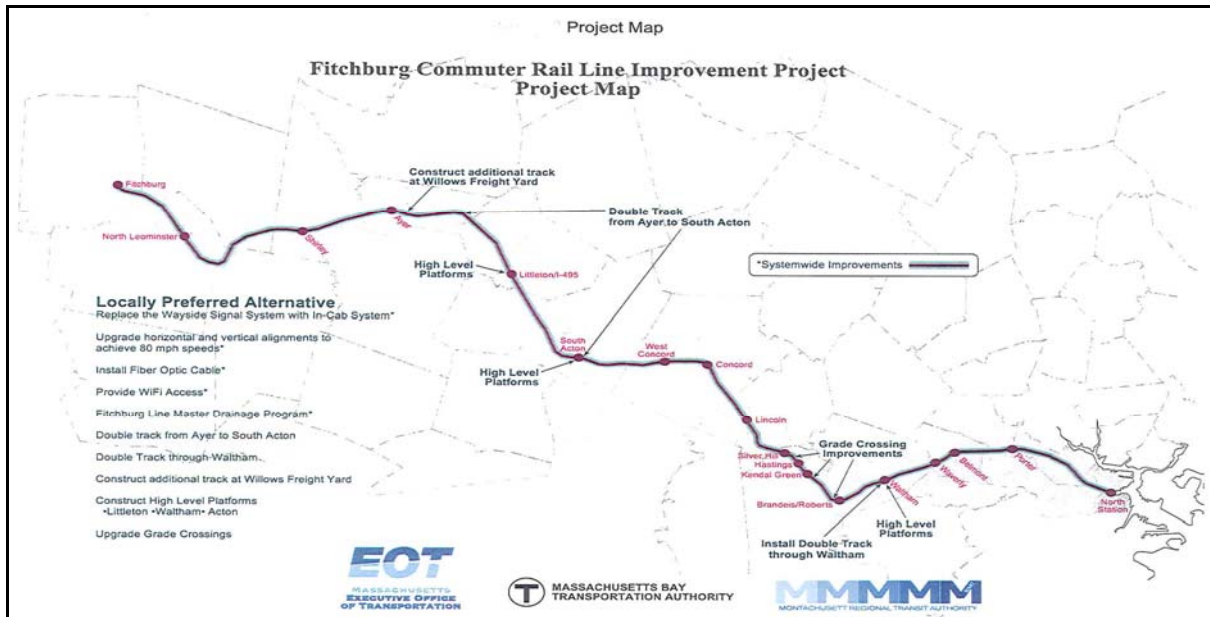
Design Status: Complete

The installation of double track will improve on-time performance and increase reliability for the commuter rail service. The scope of work includes:

- Reinstall 8 miles of double track in the communities of Ayer, Littleton, Boxborough and Acton.
- Reconstruct 8 at-grade crossings
- Replace Littleton Station with High Level Platform, and coordinate with state funded parking lot expansion. Contract is out to bid – construction expected to commence in Fall 2011, with an 18 month construction schedule.
- Add 1 new Universal Interlocking
- Upgrades to road crossings to commence Fall 2011 – target completion is Summer 2012
- Acquisition of Nordblom parking lots at Littleton Station – completed June 2011



In addition, certain improvements and maintenance items will be accomplished by the operating railroad, Massachusetts Bay Commuter Railroad Company (MBCR), under their yearly capital work program in order to meet the project goals. The project completion date is December 31, 2014.



Fitchburg Commuter Rail Line Project Map

## Commuter Rail Recommendations

The principal existing need for the region's commuter rail service at a minimum is the maintenance of its operation at current levels. This includes maintaining adequate funding levels from fares and local/ state sources. Enhancements to the commuter rail that need to be examined in the future include:

- Shirley Train Station - Improve bicycle facilities, i.e. racks, lockers, guide signs and pavement markings. Improve pedestrian walkways with designated crosswalks, paths or sidewalks both to the main commercial areas and the parking lots.
- Ayer Train Station - Improve bicycle facilities, i.e. racks, lockers, guide signs and pavement markings. Directions and clearly defined routes to the Ayer-Dunstable Rail Trail should be developed. In addition, MBTA officials need to consider how potential trail users will transport their bikes on the train. This rail trail can be a significant attraction for the Region and as such appropriate accommodations should be implemented.
- Littleton Train Station - Due to the station's current configuration and location, it is not recommended that the use of alternative modes of bicycle and pedestrian transportation be encouraged. Redesign of the station should be considered in order to allow for safer access for pedestrians and bicyclists.
- Lighting and safety should be improved and upgraded at the various stations.
- Installation of an Intelligent Transportation System (ITS) type solution. A screen or monitor that shows the passengers the estimated time of arrival and status of the train



can be placed at each station. Consideration should also be given to installing a phone on the platform that is linked to a toll free information line. Perhaps a dedicated radio station which cars can tune into so they know when the train is going to arrive. These actions would assist the rider in reducing out of vehicle wait time.

- Extend train service to Gardner. Local public officials, such as the Mayor of Gardner, continue to express the need to re-establish direct service by rail to the city. The cost to re-implement service has in the past proven to be prohibitive. In April 2009, a feasibility screening was done in Phase I of the Wachusett Station Study, which included at that time the extension of the Fitchburg Line to Gardner. The conclusion of this screening showed that “Due to the length of the extension, service to Gardner presents greater physical challenges to overcome, and thus substantially increases the cost of these options.” (p.53 *Wachusett-Gardner Extension Phase I Feasibility Screening*)
- Improve quality of amenities on train to enhance passenger comfort.

Through workshops and public meetings, input from locally elected officials and the general public has resulted in system wide recommendations regarding bicycle and pedestrian connections to the stations. These include:

- Appropriate warning signs and/or signals of pedestrian and bicycle crossings and pathways.
- Installation of racks and/or lockers at rail stations to secure bicycles.
- Identification of commuter rail stations on pedestrian and bicycle maps and guides as a destination and/or point of interest.
- Improve handicapped accessibility at Shirley, Ayer and Littleton train stations.
- Train service from Boston to Fitchburg between 1:20 p.m. and 4:40 p.m.
- Reverse commute train from Boston arriving in Fitchburg by 8:00 a.m.

### Public Input Needing Further Study

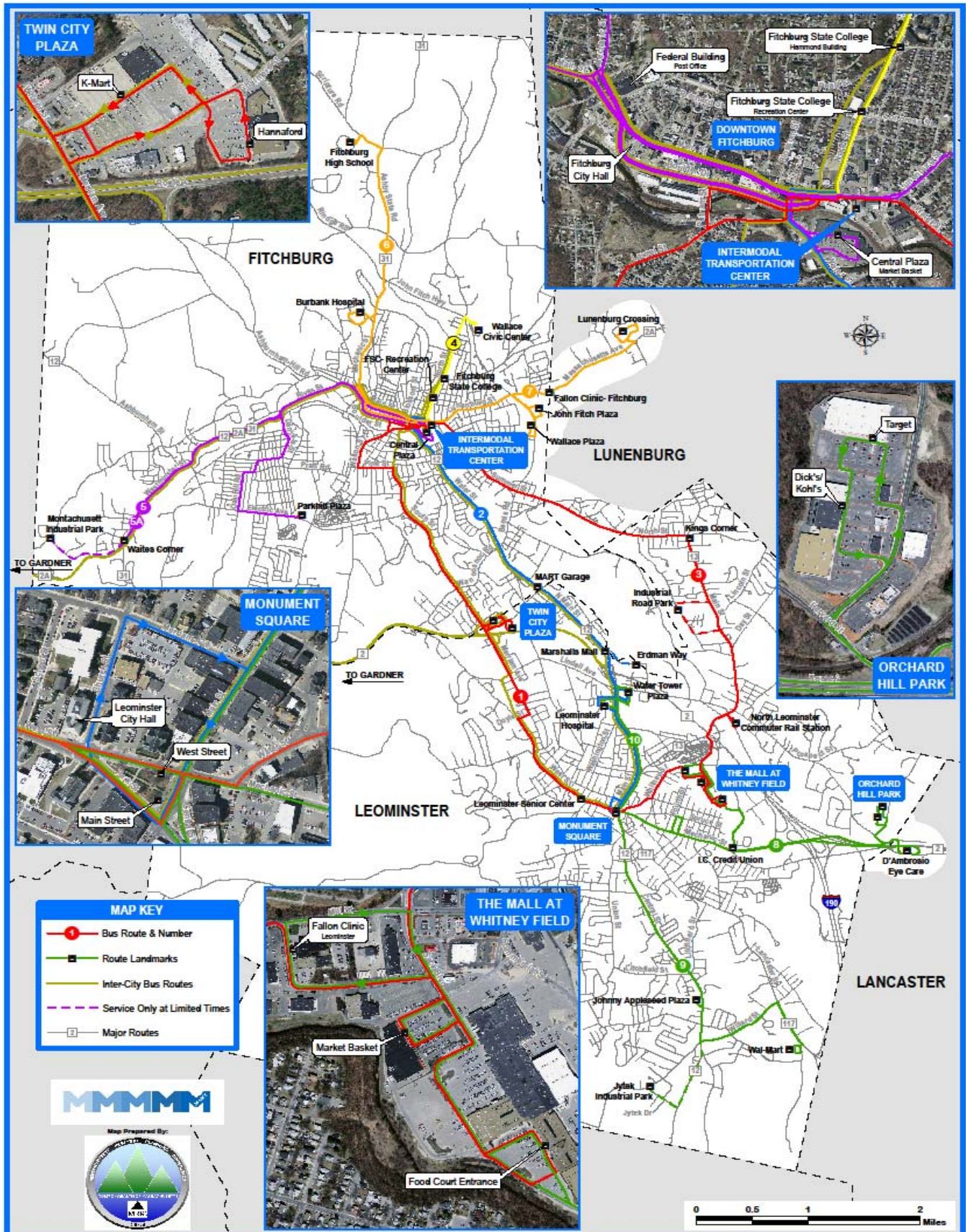
The following recommendations/issues were raised as part of the RTP Public Input meetings held in late 2006 that warrant further study before any action items can be recommended.

Community	Recommendation/Issue	Comments
Ayer	Additional Bus Stations and Connections	Further Study
Ayer/Devens/Shirley	Regional Commuter Rail Station to address needs.	Study in Progress
Ayer/Devens/Shirley	Potential Maintenance Facility to serve regional stations/routes	Further Study
Regionwide	Examination of a Bus Rapid Transit (BRT) System – to address possible Commuter Rail expansion issues to Gardner and points west of Fitchburg	Not Feasible at this time.
Regionwide	Bus connections/ extension to Lowell, Nashua and Worcester	Further Study
Regionwide	Light Rail extension from Littleton to Athol and Fitchburg to Worcester and Fitchburg to Lowell to Nashua and Fitchburg to Framingham and	Further Study



	Worcester to Ayer	
Regionwide	Light Rail attachment to Statewide High Speed Rail Line	Further Study

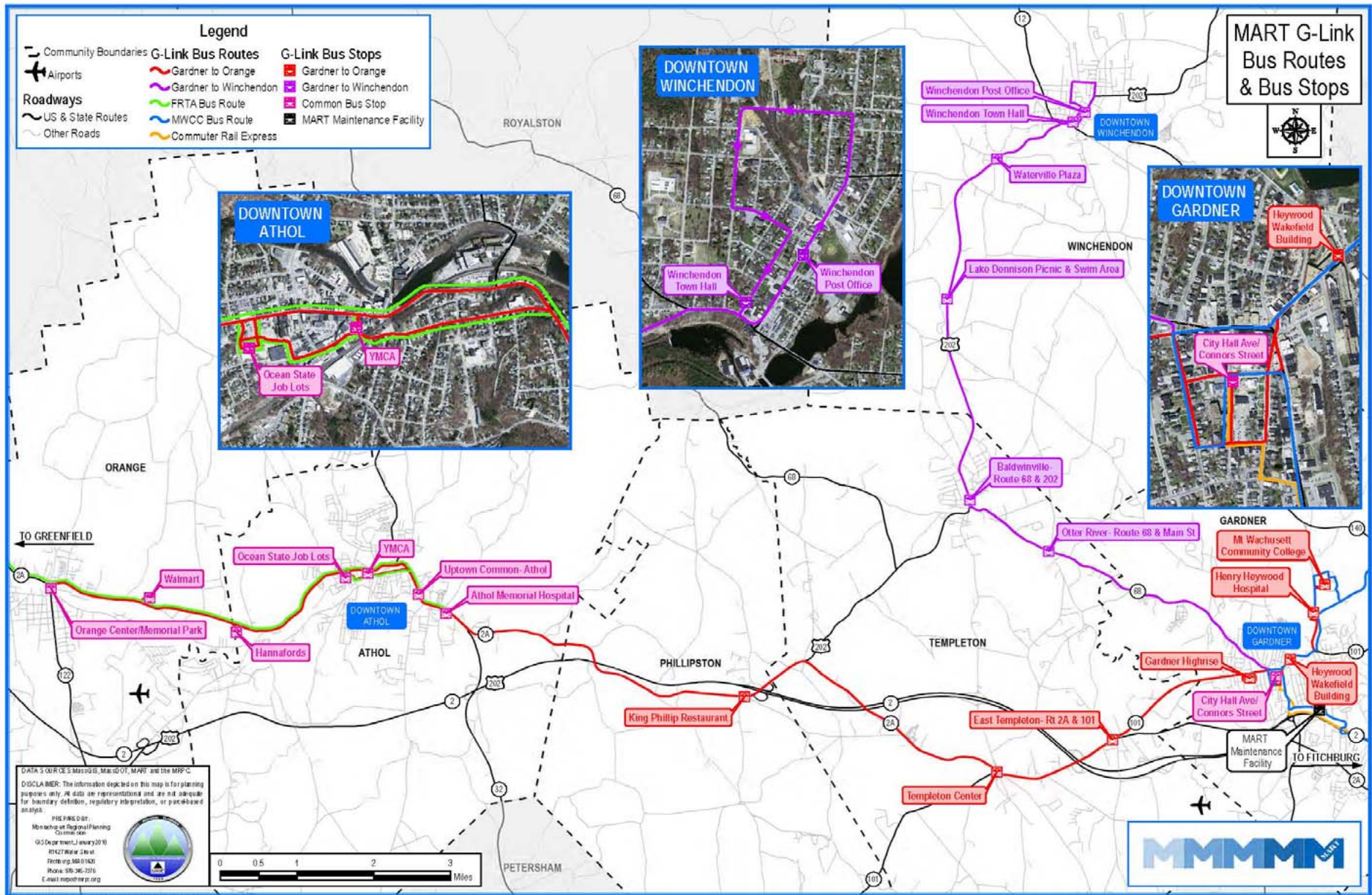


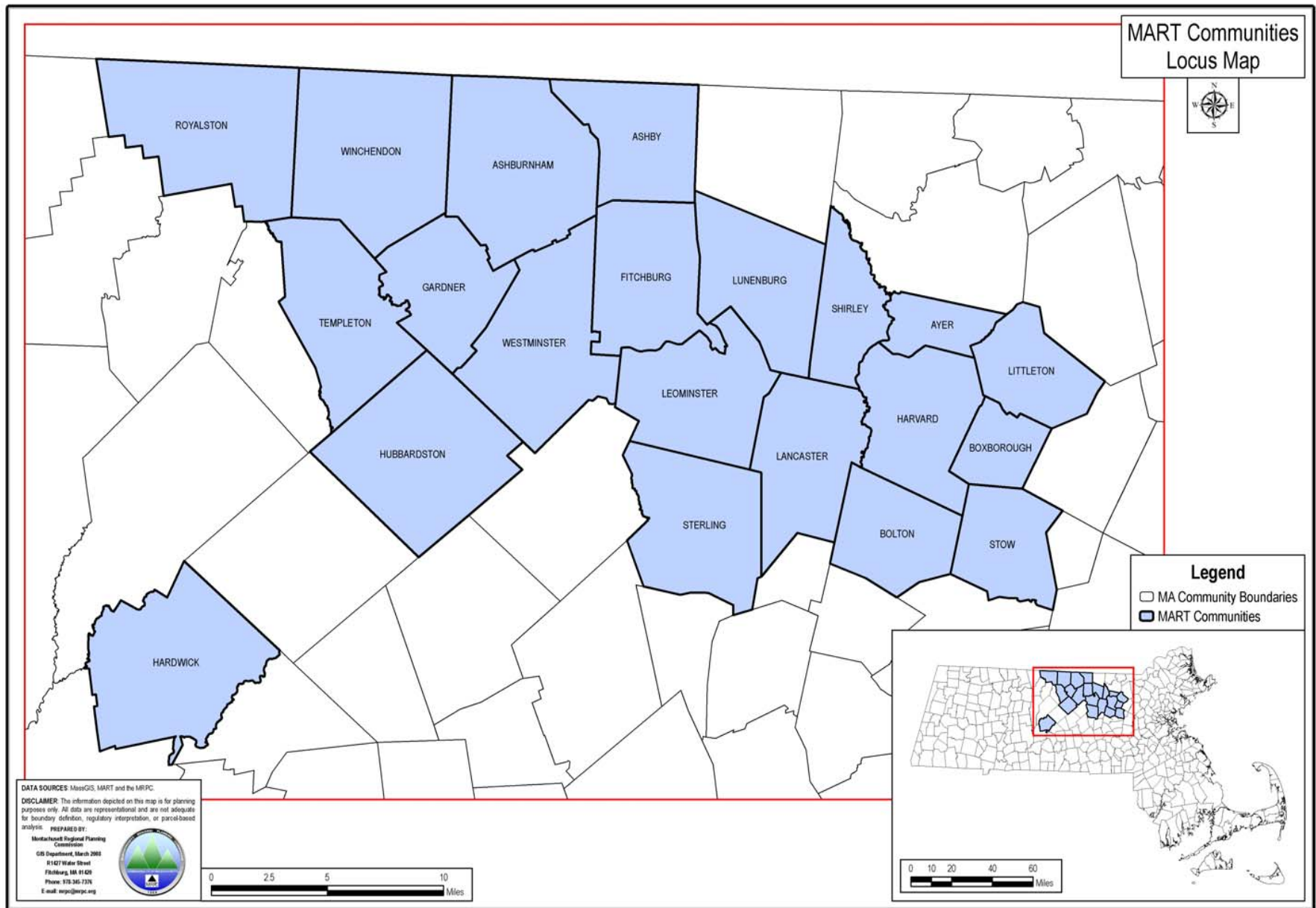








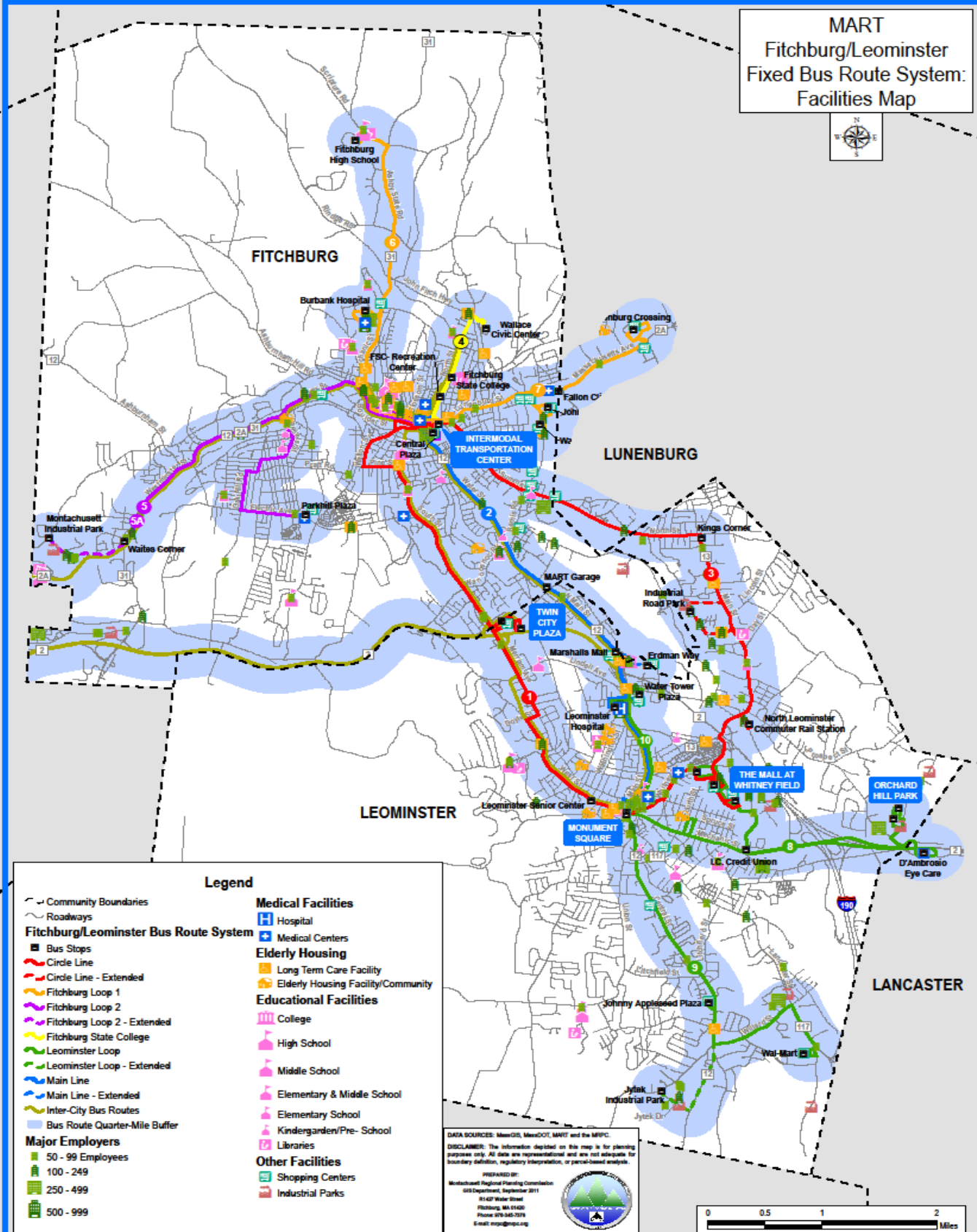








**MART  
Fitchburg/Leominster  
Fixed Bus Route System:  
Facilities Map**

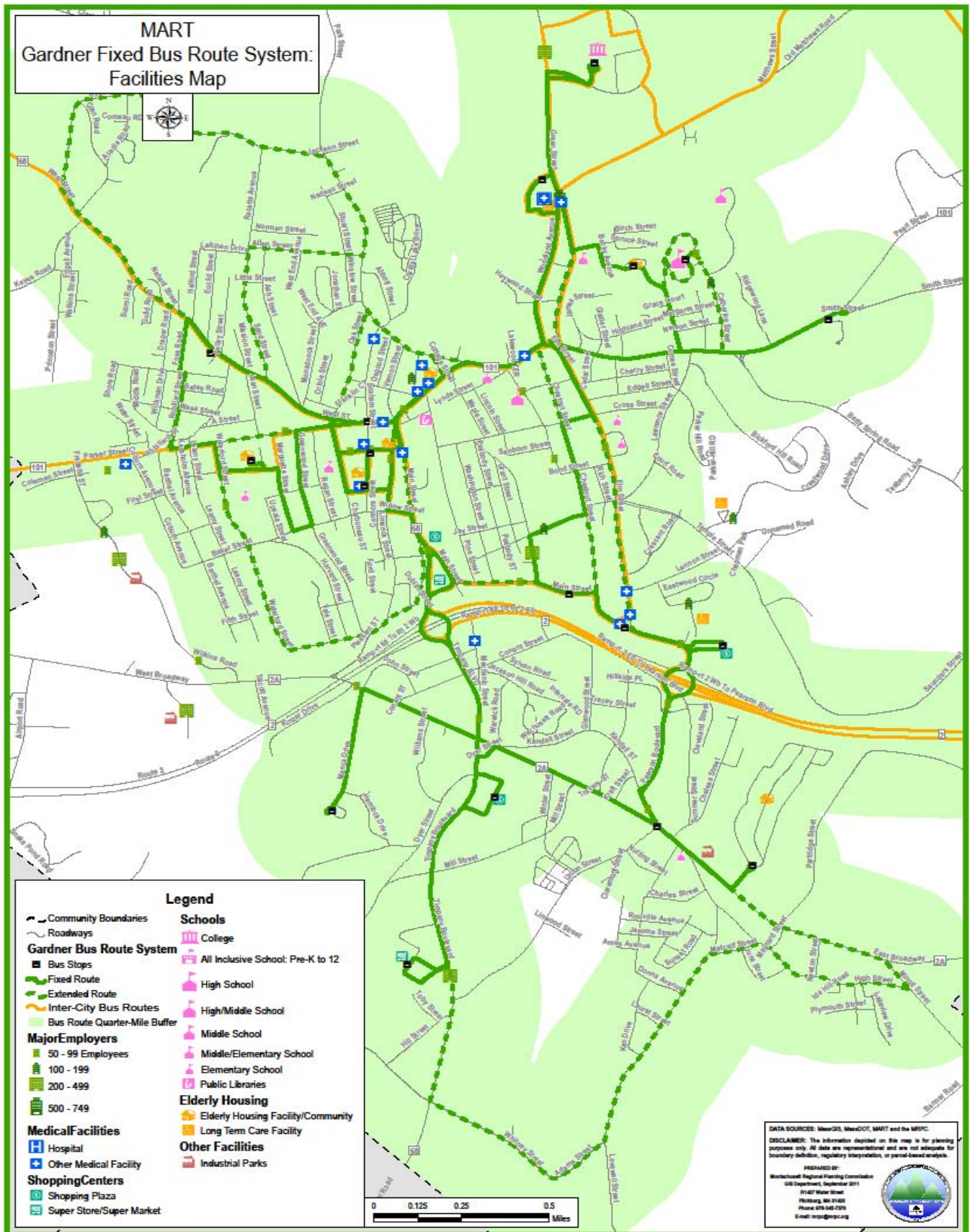


**Legend**

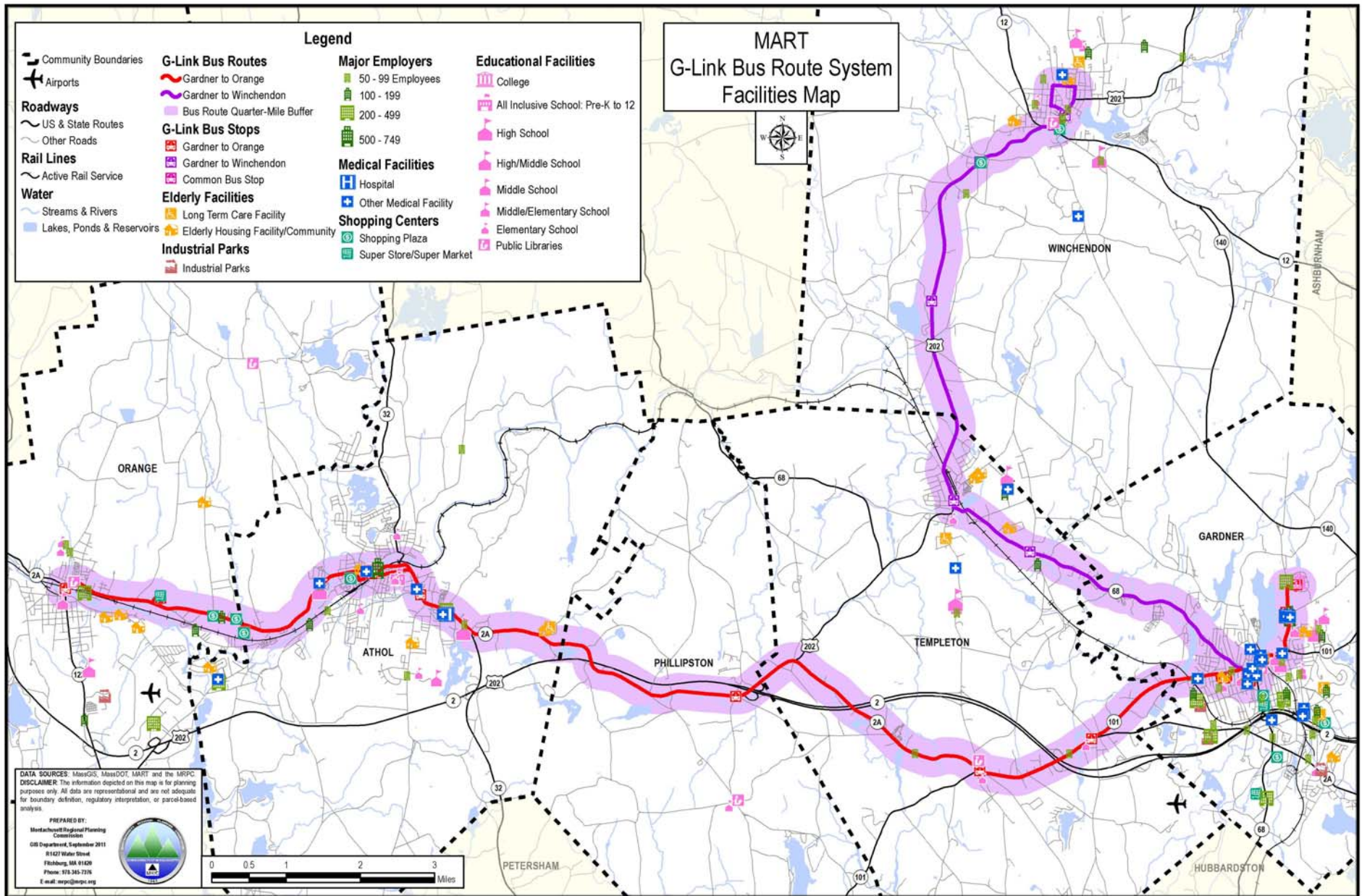
- Community Boundaries
- Roadways
- Fitchburg/Leominster Bus Route System**
  - Bus Stops
  - Circle Line
  - Circle Line - Extended
  - Fitchburg Loop 1
  - Fitchburg Loop 2
  - Fitchburg State College
  - Leominster Loop
  - Leominster Loop - Extended
  - Main Line
  - Main Line - Extended
  - Inter-City Bus Routes
  - Bus Route Quarter-Mile Buffer
- Major Employers**
  - 50 - 99 Employees
  - 100 - 249
  - 250 - 499
  - 500 - 999
- Medical Facilities**
  - Hospital
  - Medical Centers
- Elderly Housing**
  - Long Term Care Facility
  - Elderly Housing Facility/Community
- Educational Facilities**
  - College
  - High School
  - Middle School
  - Elementary & Middle School
  - Elementary School
  - Kindergarten/Pre-School
  - Libraries
- Other Facilities**
  - Shopping Centers
  - Industrial Parks

DATA SOURCES: MassGIS, MassDOT, MVRT and the MPOC.  
DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.  
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610 Department, September 2011  
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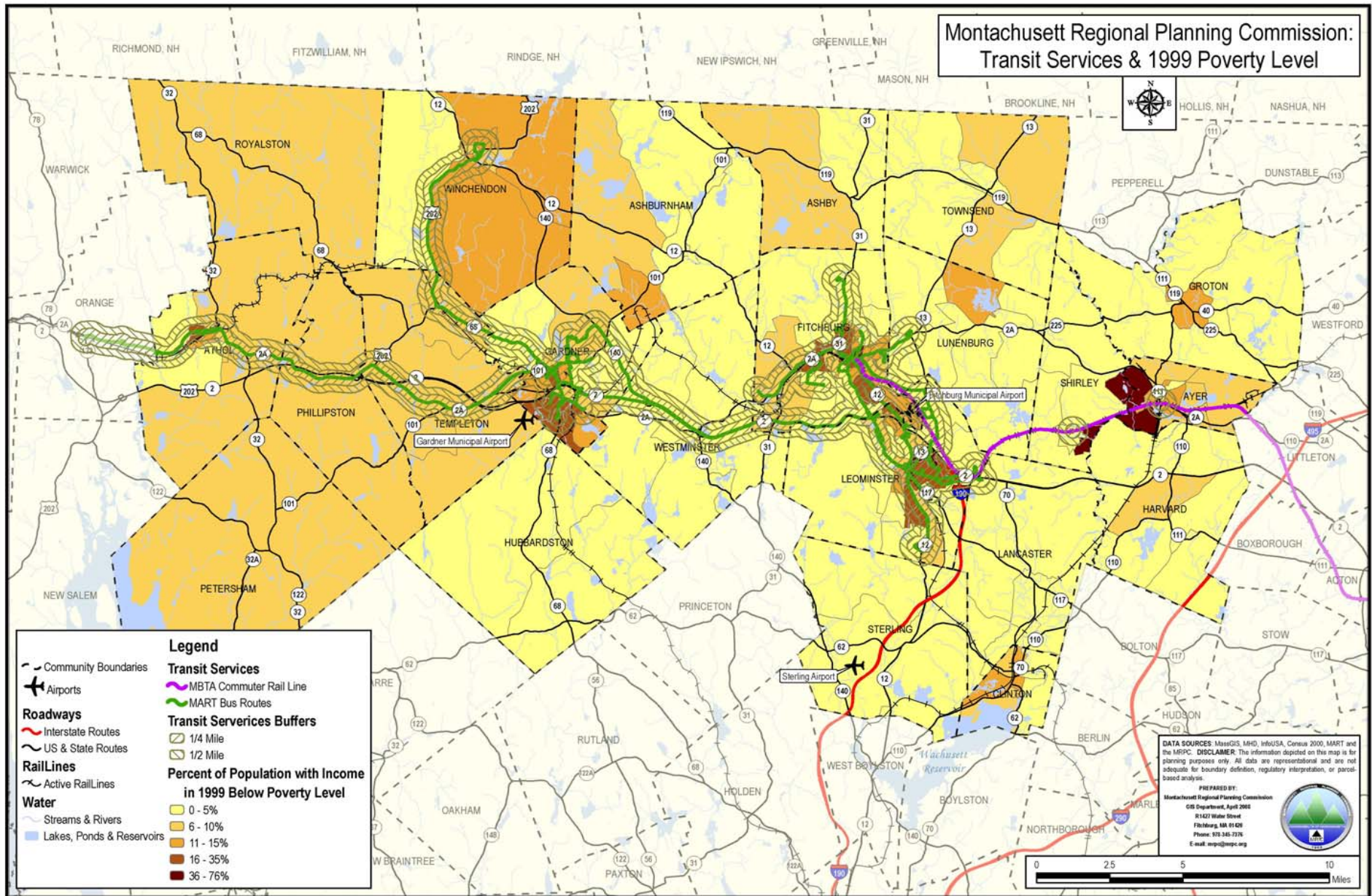




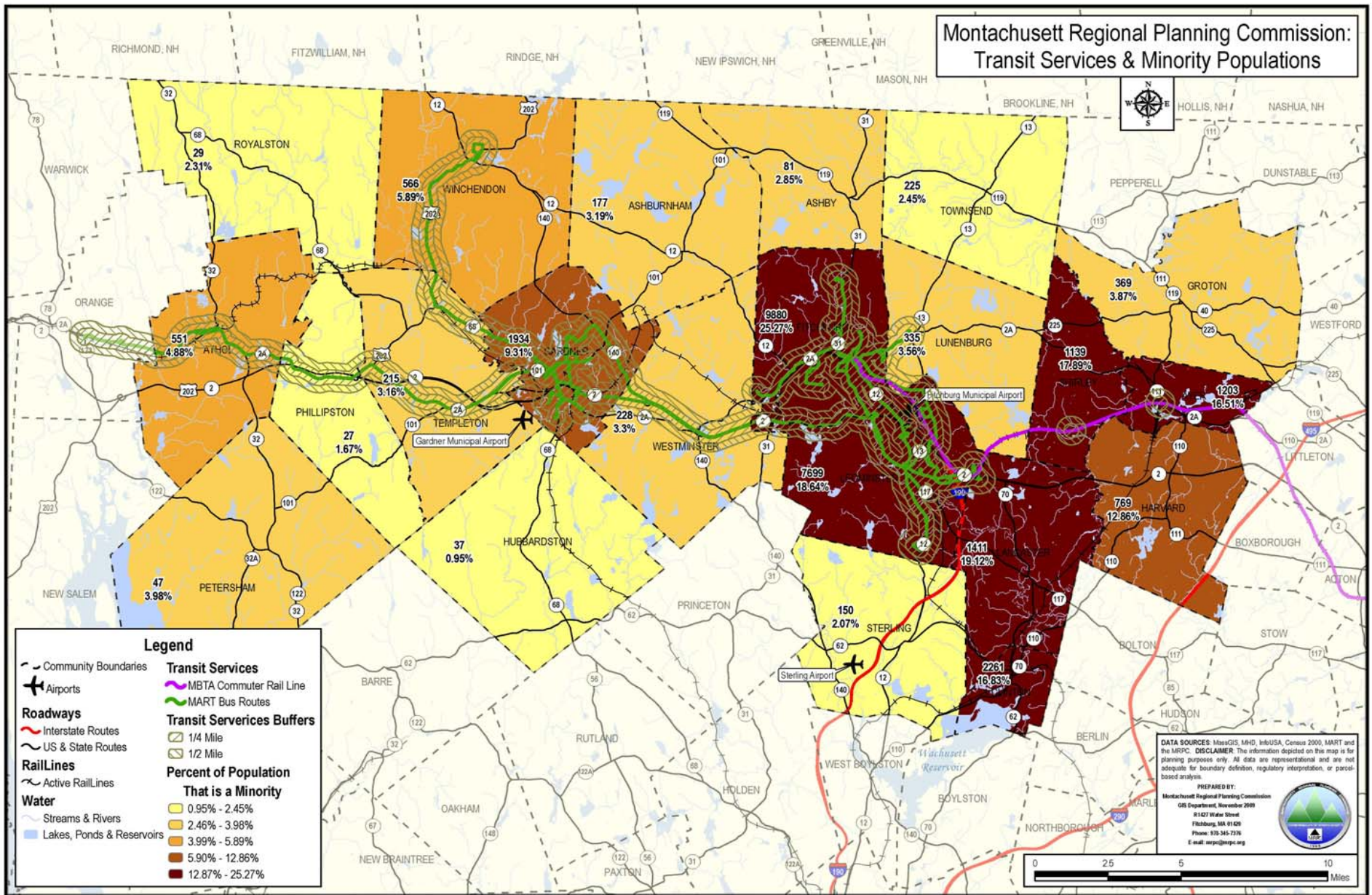












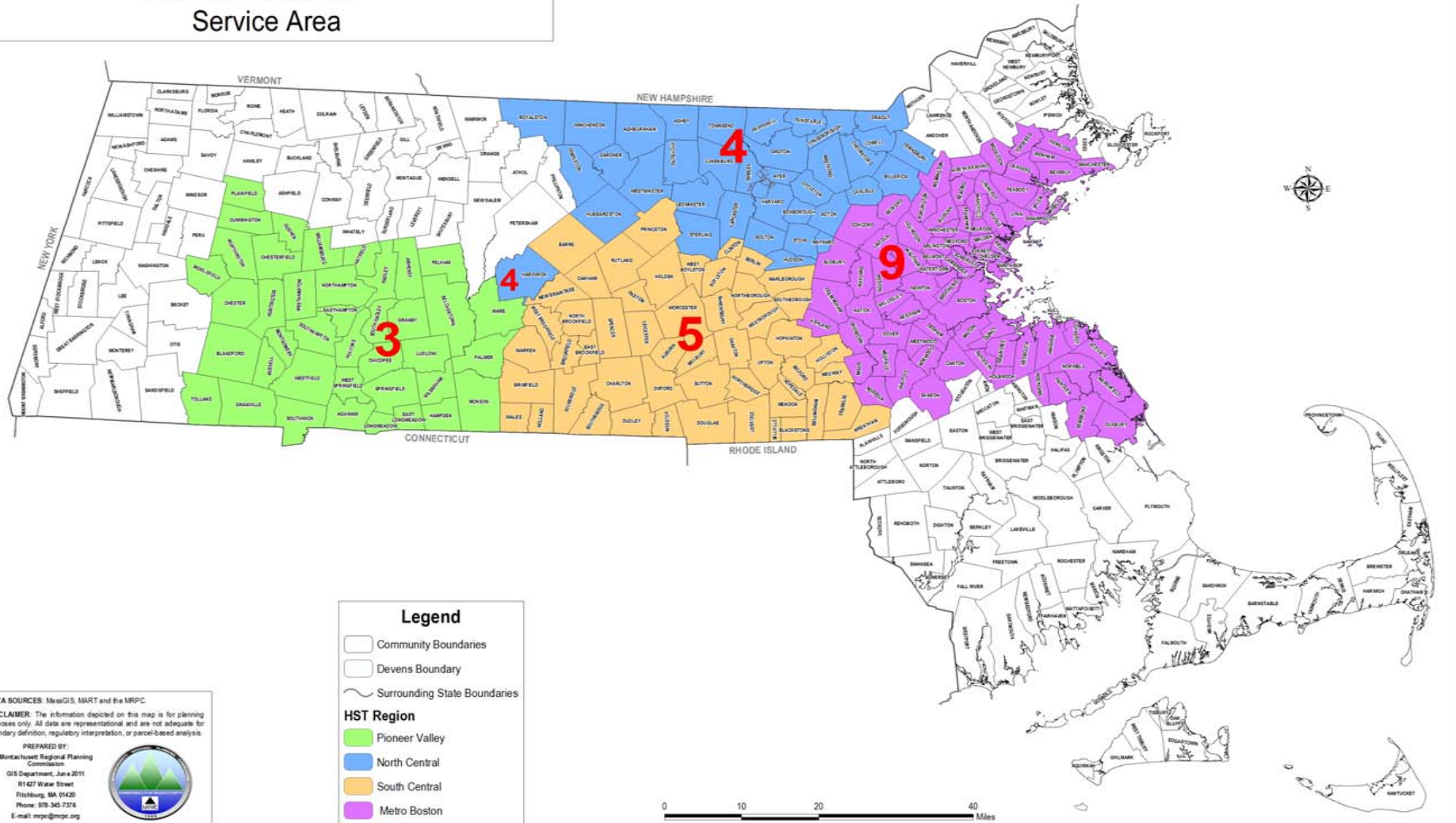




## Montachusett Regional Transit Authority (MART) Human Service Transportation (HST)

- MassHealth (MH)
- Department of Developmental Services (DDS)
- Department of Public Health (DPH)
- Mass. Rehabilitation Commission (MRC)
- Mass. Commission for the Blind (MCB)

### Service Area





# Montachusett Regional Transit Authority (MART) Human Service Transportation (HST) Brokerage Area

