



Bus Stop ADA Accessibility Evaluation for MART Fitchburg/Leominster Bus Routes



Prepared in cooperation with the Massachusetts Department of Transportation and the U.S. Department of Transportation. The views and opinions of the Montachusett Regional Planning Commission expressed herein do not necessarily state or reflect those of the Massachusetts Department of Transportation or the U.S. Department of Transportation.

The Montachusett MPO and the MRPC fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The Montachusett MPO operates without regard to race, color, national origin, English Proficiency, ancestry, creed, income, gender, age and/or disability. Any person who believes him/herself or any specific class of persons, to be subject to discrimination prohibited by Title VI may by him/herself or by representative file a written complaint with the MRPC or the MMPO. Complaints are to be filed no later than 180 days from the date of the alleged discrimination. Please contact Glenn Eaton at 978-345-7376 ext. 310 for more information.

September 2021

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September 2021

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Montachusett Metropolitan Planning Organization (MMPO) and Montachusett Regional Planning Commission (MRPC)

Title VI Coordinator
MRPC
464 Abbott Ave.
Leominster, MA 01453
(978) 345-7376
geaton@mrpc.org

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One Ashburton Place, 6th Floor
Boston, MA 02109
617-994-6000 ~ TTY: 617-994-6196

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MassDOT Highway Division Administrator	Jonathan L. Gulliver
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Montachusett Regional Transit Authority (MART) Chairman/Mayor City of Fitchburg	Mayor Stephen DiNatale
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Ashburnham Board of Selectmen <i>Subregion 2</i>	Rosemarie Meissner
Lunenburg Board of Selectmen <i>Subregion 3</i>	Michael-Ray Jeffreys
Lancaster Board of Selectmen <i>Subregion 4</i>	Jason Allison

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Arthur Frost, Project Development Engineer for Administrator Jonathan L. Gulliver
Glenn Eaton, Executive Director, MRPC, for Chairman Guy Corbosiero
Bruno Fisher, Administrator, MART, for Chairman Mayor Stephen DiNatale

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Peter Butler, Acting Administrator	Federal Transit Administration

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Christopher McDermott, Economic Development Manager	
Jason Stanton, GIS & IT Director	
Kayla Kress, GIS & IT Analyst	

2021-2022 APPOINTMENT LIST

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Peter Butler	Federal Transit Administration (FTA), Acting Administrator
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Paula Simmons	MassDOT Highway Division - District 2
Arthur Frost	MassDOT Highway Division - District 3
	Montachusett Regional Planning Commission (MRPC)
Bruno Fisher	Montachusett Regional Transit Authority (MART)

ORGANIZATION MEMBERS

Al Futterman	Nashua River Watershed Association (NRWA)
	Amalgamated Transit Union #690 (ATU 690)
Richard Liberatore	Fitchburg Airport Commission
Roy M. Nascimento	North Central MA Chamber of Commerce
Joan Goodwin	Fitchburg Council on Aging
Jessica Strunkin	Mass Development
Peter Lowitt	Devens Enterprise Commission (DEC)
	Montachusett Opportunity Council, Inc.
Joshua Preville	The ARC of Opportunity

1. INTRODUCTION - MART BUS STOP ADA SURVEY

Montachusett Regional Planning Commission (MRPC) has undertaken a survey of current bus stops on the Fitchburg/Leominster bus routes operated by the Montachusett Regional Transit Authority (MART). This survey and review are based upon requirements and standards of the American with Disability Act (ADA). Utilizing a process similar to that implemented by the Massachusetts Bay Transit Authority (MBTA), the existing bus stops were examined, analyzed, and prioritized for improvements based on a number of factors.

2. PROCESS

1. Identification and Location of Established Bus Stops
2. Field Survey of Stops
3. ADA Analysis of Stop Location and Function
4. Priority Ranking of Stops for Improvement/Upgrade

a. Identification and Location of Established Bus Stops

Currently, MART operates on a flag down system meaning riders can wave buses over to stop anywhere along their route. In addition, certain stops are identified along the bus routes with anticipated stop times. These are established bus stops which are the focus of this report.

MRPC staff utilized the current MART Bus Schedules for Fitchburg and Leominster to identify these established bus stops included on their route time schedule. The result is the following list of Established Bus Stops by bus route.

TABLE 1 - ESTABLISHED BUS STOP LOCATIONS

Route 1 & 3	Fitchburg ITC Whalom St/Summer St Kings Corner Main/Nashua Industrial Road N. Leominster Commuter Rail Station Market Basket - Whitney Field Food Court - Whitney Field LaPierre Bldg East Monument Square - West St Monument Square - Main St Twin City Plaza - Hannaford Twin City Plaza - Bob's South St/Pine St	Route 2	Fitchburg ITC Central Plaza - Water Street MART Garage Erdman Way - BJ's Water Tower Plaza - Corner Ocean State Leominster Hospital Monument Square - West St Monument Square - Main St Johnny Appleseed Plaza Jytek Industrial Park RMV Wal-Mart Plaza Rt 117
Route 4	Fitchburg ITC Fitchburg State Univ - Simonds Hall (E side of North St) Fitchburg State Univ - Recreation Center (W side of North St) Fitchburg State Univ - Aubuchon Hall (W side of North St) Fitchburg State Univ - Hammond Hall (E side of North St) Fitchburg State Univ - Dining Hall (E side of North St) Fitchburg State Univ - Herlihy Hall (W side of North St) Fitchburg State Univ - Weston Auditorium (E side of North St) Fitchburg State Univ - McKay School (W side of North St) Wallace Civic Center Parking Lot	Route 5	Fitchburg ITC Central Plaza - Market Basket Fitchburg Post Office Waites Corner Montachusett Industrial Park Joseph House - Daniels Street Parkhill Plaza Upper Common
Route 6	Fitchburg ITC Upper Common Burbank Hospital Fitchburg High School	Route 7	Fitchburg ITC Wallace Plaza (J Fitch Highway) - Market Basket Lunenburg Crossing - Walmart/Hannaford

Route 8	Monument Square Leominster Senior Center Market Basket - Whitney Field Food Court - Whitney Field Crossroads Office Park D'Ambrosio Eye Center Target - Orchard Hill Park Kohl's - Orchard Hill Park
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Route 9	Monument Square Johnny Appleseed Plaza Jytek Industrial Park RMV Reliant Medical Wal-Mart Plaza Rt 117
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Route 11	Fitchburg ITC Wachusett Station Great Wolf Lodge
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From the above bus stop locations, duplicate stops were removed resulting in a listing of 51 Established Bus Stop Locations.

TABLE 2 - ESTABLISHED BUS STOP LOCATIONS

Route No.	Stop Location	Stop ID No.
Route 6	Burbank Hospital	1
Route 5	Central Plaza - Market Basket	2
Route 2	Central Plaza - 130 Water Street	3
Route 2	Water Street Plaza - 141 Water Street	4
Route 8	Crossroads Office Park	5
Route 8	D'Ambrosio Eye Center	6
Route 2	Erdman Way - MWCC Leominster	7
Route 6	Fitchburg High School	8
Route 1 & 3	Fitchburg ITC (Intermodal Transportation Center)	9
Route 5	Fitchburg Post Office (Upper Common)	10
Route 4	Fitchburg State Univ - Simonds Hall (E side of North St)	11
Route 4	Fitchburg State Univ - Recreation Center (W side of North St)	12
Route 4	Fitchburg State Univ - Aubuchon Hall (W side of North St)	13
Route 4	Fitchburg State Univ - Hammond Hall (E side of North St)	14
Route 4	Fitchburg State Univ - Dining Hall (E side of North St)	15
Route 4	Fitchburg State Univ - Herlihy Hall (W side of North St)	16
Route 4	Fitchburg State Univ - Weston Auditorium (E side of North St)	17
Route 4	Fitchburg State Univ - McKay School (W side of North St)	18
Route 4	Wallace Civic Center Parking Lot	19
Route 1 & 3	Food Court - Whitney Field (West Side)	20
Route 11	Great Wolf Lodge	21
Route 5	Joseph House - Daniels Street	22
Route 2	Johnny Appleseed Plaza	23
Route 2	Jytek Industrial Park	24
Route 1 & 3	Kings Corner	25
Route 8	Kohl's - Orchard Hill Park	26
Route 1 & 3	LaPierre Building East - Senior Living Building	27
Route 2	Leominster Hospital	28
Route 8	Leominster Senior Center	29
Route 7	Lunenburg Crossing - Walmart/Hannaford	30
Route 1 & 3	Main/Nashua	31
Route 1 & 3	Industrial Road	32

TABLE 2 - ESTABLISHED BUS STOP LOCATIONS (cont.)

Route No.	Stop Location	Stop ID No.
Route 1 & 3	Market Basket - Whitney Field	33
Route 2	MART Garage	34
Route 5	Montachusett Industrial Park	35
Route 2	Monument Square - Main St	36
Route 1 & 3	Monument Square - West St	37
Route 1 & 3	N. Leominster Commuter Rail Station	38
Route 5	Parkhill Plaza	39
Route 9	Reliant Medical	40
Route 2	RMV	41
Route 1 & 3	South St/Pine St	42
Route 8	Target - Orchard Hill Park	43
Route 1 & 3	Twin City Plaza - Bob's	44
Route 1 & 3	Twin City Plaza - Hannaford	45
Route 11	Wachusett Station	46
Route 5	Waites Corner - 543 Westminster St (Rt 2A/31)	47
Route 7	Wallace Plaza (J Fitch Highway) - Market Basket	48
Route 9	Wal-Mart Plaza Rt 117	49
Route 2	Water Tower Plaza - Hamilton St Access Drive	50
Route 1 & 3	Whalom St/Summer St	51

Green Highlight Indicates Presence of a Bus Shelter

Of these 51, an initial review identified 13 locations with existing Bus Shelters.

TABLE 3 - ESTABLISHED BUS STOP LOCATIONS WITH BUS PASSENGER SHELTERS

Route No.	Stop Location	Stop ID No.
Route 2	Central Plaza - 130 Water Street	3
Route 2	Water Street Plaza - 141 Water Street	4
Route 2	Erdman Way - MWCC Leominster	7
Route 1 & 3	Fitchburg ITC (Bike Shelter) (Passenger – Concourse)	9
Route 4	Wallace Civic Center Parking Lot	19
Route 1 & 3	LaPierre Building East - Senior Living Building	27
Route 2	Leominster Hospital	28
Route 8	Leominster Senior Center	29
Route 2	Monument Square - Main St	36
Route 1 & 3	Monument Square - West St	37
Route 5	Parkhill Plaza	39
Route 11	Wachusett Station	46
Route 2	Water Tower Plaza - Hamilton St Access Drive	50

Of the remaining locations, 25 did not have any structures, signage or markings that would identify them as a bus stop location. These stops were therefore not part of the ADA survey. Rather, they are covered under the section that lists minimum requirements for an ADA compliant bus stop location later in this report.

TABLE 4 - ESTABLISHED BUS STOP LOCATIONS WITH NO INFRASTRUCTURE

Route No.	Stop Location	Stop ID No.
Route 6	Burbank Hospital	1
Route 5	Central Plaza - Market Basket	2
Route 8	Crossroads Office Park	5

TABLE 4 - ESTABLISHED BUS STOP LOCATIONS WITH NO INFRASTRUCTURE (cont.)

Route No.	Stop Location	Stop ID No.
Route 8	D'Ambrosio Eye Center	6
Route 6	Fitchburg High School	8
Route 1 & 3	Food Court - Whitney Field (West Side)	20
Route 11	Great Wolf Lodge	21
Route 2	Johnny Appleseed Plaza	23
Route 2	Jytek Industrial Park	24
Route 1 & 3	Kings Corner	25
Route 8	Kohl's - Orchard Hill Park	26
Route 7	Lunenburg Crossing - Walmart/Hannaford	30
Route 1 & 3	Main/Nashua	31
Route 1 & 3	Industrial Road	32
Route 2	MART Garage	34
Route 5	Montachusett Industrial Park	35
Route 9	Reliant Medical	40
Route 2	RMV	41
Route 1 & 3	South St/Pine St	42
Route 8	Target - Orchard Hill Park	43
Route 1 & 3	Twin City Plaza - Bob's	44
Route 1 & 3	Twin City Plaza - Hannaford	45
Route 5	Waites Corner - 543 Westminster St (Rt 2A/31)	47
Route 7	Wallace Plaza (J Fitch Highway) - Market Basket	48
Route 9	Wal-Mart Plaza Rt 117	49

The remaining 13 locations not listed in the last two tables (i.e., Tables 3 and 4), represent Established Bus Stop Locations that, while not clearly identified with appropriate signage, infrastructure, etc., have some recognition as a bus stop. Consequently, some type of improvement is needed to bring them up to ADA guidelines and are part of this survey.

TABLE 5 – OTHER ESTABLISHED BUS STOP LOCATIONS THAT REQUIRE ADA IMPROVEMENTS

Route No.	Stop Location	Stop ID No.
Route 5	Fitchburg Post Office (Upper Common)	10
Route 4	Fitchburg State Univ - Simonds Hall (E side of North St)	11
Route 4	Fitchburg State Univ - Recreation Center (W side of North St)	12
Route 4	Fitchburg State Univ - Aubuchon Hall (W side of North St)	13
Route 4	Fitchburg State Univ - Hammond Hall (E side of North St)	14
Route 4	Fitchburg State Univ - Dining Hall (E side of North St)	15
Route 4	Fitchburg State Univ - Herlihy Hall (W side of North St)	16
Route 4	Fitchburg State Univ - Weston Auditorium (E side of North St)	17
Route 4	Fitchburg State Univ - McKay School (W side of North St)	18
Route 5	Joseph House - Daniels Street	22
Route 1 & 3	Market Basket - Whitney Field	33
Route 1 & 3	N. Leominster Commuter Rail Station	38
Route 1 & 3	Whalom Street/Summer Street	51

b. Field Survey of Stops

In order to assist communities with an evaluation of their ADA compliance and issues within the Public Right of Way (PROW), the MRPC developed several applications (apps) for tablets and/or smart phones to aid in the collection of field data related to relevant ADA standards and requirements.

Four (4) are ADA PROW surveys for pedestrian facilities include sidewalks, curb ramps, crosswalks, and Accessible Pedestrian Signals. For each data set, a series of questions and measurements are asked of the data collector. Individual guides for each of the four data items has also been developed by the MRPC to guide and assist the user with the collection process. The MRPC also developed a bus stop app that was utilized for 10 of the 13 Table 3 bus stops, but no guide has been developed for this app. For further information on these applications, please contact the MRPC directly.

In addition to furthering ADA planning actions, the data collected can also support other activities such as roadway project development, a pavement management program, grant applications, walkability studies, development impact reports, senior center location studies, transit-oriented developments, bus route development, CDBG parking studies, public meeting accessibility and so on.

The following summarizes data and information collected for 10 of the 13 *Established Bus Stop Locations with Passenger Shelters*.

Stop Id No. 3 – Central Plaza, 130 Water Street

On Street; Bus Shelter; Marked Access from Parking Lot; No Ramp to Parking Lot; Ramps at Corners Over 100+ feet away; Not Marked w/Plates; Crosswalks Parallel to Water St, None Crossing Water to west side

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA
- Amenities: Two light poles;
- Crosswalks: None near stop; none exist perpendicular to stop; one non-compliant parallel crosswalk exists 100' south of Bus Stop & one non-compliant parallel crosswalk exists 135' north of Bus Stop;
- Curb Ramps: None near bus stop; two non-compliant ramps exist at south crosswalk & two non-compliant ramps exist at north crosswalk; no ramp to parking lot;
- Signal Push Button: None exist;
- Main Landing Pad: Does exist but has critical issue – non-compliant width & length;
- Bus Stop Markings: None exist; high traffic volume on street;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists; leaves exist that may cause slippage for wheelchairs;
- Bus Stop Sign: None exist;



Stop Id No. 4 – Water Street Plaza 141 Water Street

On Street; Bus Shelter; Ramp at Corner for Plaza Entrance: 25+ feet away; Marked w/Plate; No Crosswalks at Entrance; None Crossing Water to east side

Observations (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop not connected to a pedestrian route;
- Amenities: NA;
- Crosswalks: None exist;
- Curb Ramps: Two non-compliant ramps exist (due to location and curbing);
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist; high traffic volume on street;
- Shelter: Does exist; seating exist; shelter pad in poor condition;
- Sidewalk: Does exist; in good condition; 4'-0" clear path appears to exist;
- Bus Stop Sign: None exist;



Stop Id No. 7 – Erdman Way MWCC Leominster

Shelter; No Sidewalks; No Crosswalks; No Ramps; Storm Drain Grate at Stop Location

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop not connected to a pedestrian route;
- Amenities: None exist;
- Crosswalks: None exist;
- Curb Ramps: None exist;
- Signal Push Button: None exist;
- Main Landing Pad: Does exist but has critical issue – non-compliant length;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: None exist;
- Bus Stop Sign: None exist;



Stop Id No. 9 – Fitchburg Intermodal Transportation Center (ITC)

Bike Shelter; Shelter on Bus Loading side of Building;
Passenger Waiting Area in Concourse;

Observations (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop connected to pedestrian route through parking garage;
- Amenities: bike rack shelter; many amenities within MART ITC;
- Crosswalks: None exist;
- Curb Ramps: Ramps exist within garage;
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist; bays are marked by curbs;
- Shelter: Does exist; no seating exists; serves as a bicycle shelter;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exist;
- Bus Stop Sign: None exist;



Stop Id No. 19 – Wallace Civic Center Parking Lot

Shelter just inside Parking Lot norther Entrance/Exit;

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop not connected to a pedestrian route;
- Amenities: One trash can; one light pole; five trees; one non-operational emergency pole; one empty poster stand;
- Crosswalks: None exist;
- Curb Ramps: None exist;
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof; shelter pad in poor condition – concrete immediately in front of shelter completely crumbled; vehicles permitted to park within inches of back of shelter; existing barrier post are insufficient protection from a crash; shelter columns appear to be poorly mounted; moveable trash can reduces accessible wheelchair space;
- Sidewalk: None exist;
- Bus Stop Sign: None exist;



Stop Id No. 27 – LaPierre Building East, Senior Living Building

Corner of 4th St/Spruce St; Shelter on 4th St; Sidewalk at shelter; Approx. 20 - 30 ft from corner 4th/Spruce; ramp on corner; marked ramp; Crosswalk across 4th St

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop not fully connected to a pedestrian route;
- Amenities: One light pole, two trees; two utility poles;
- Crosswalks: One non-compliant crosswalk exist perpendicular to stop; none exist parallel to stop;
- Curb Ramps: Four non-compliant ramps exist;
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;



Stop Id No. 28 – Leominster Hospital

Shelter on Memorial Drive; Set back approx. 10 ft; Marked bus stop location on Memorial Dr approximately 40 ft x 9 ft; No sidewalk or crosswalk;

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop not connected to a pedestrian route;
- Amenities: One trash can, one light pole, one tree; moveable trash can reduces accessible wheelchair space;
- Crosswalks: None exist;
- Curb Ramps: One non-compliant ramp exists; ramp not accessible and can be easily blocked by parked vehicle;
- Signal Push Button: None exist;
- Main Landing Pad: Does exist but has critical issue – running slope over maximum;
- Bus Stop Markings: Does exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof; moveable trash can reduces accessible wheelchair space;
- Sidewalk: None exist;
- Bus Stop Sign: Sign Exists mounted on Shelter facing roadway;



Stop Id No. 29 – Leominster Senior Center

Shelter on West St approximately 45 - 50 ft from corner w/Pond St; Ramp on corner; marked ramp; Crosswalks on Pond St and West St at corner; Ramp approximately 110 ft north on West St w/ marked ramp and crosswalk;

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA
- Amenities: One trash can, two light poles, two trees, two utility poles; **moveable trash can reduces accessible wheelchair space;**
- Crosswalks: One exist perpendicular to stop; two exist parallel to stop;
- Curb Ramps: Five ramps exist;
- Signal Push Button: None exist;
- **Main Landing Pad: None exist;**
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof; **moveable trash can reduces accessible wheelchair space;**
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;



Stop Id No. 36 – Monument Square Main St

Monument Square serves as Main Transit Point within the City of Leominster; All bus routes begin/end at Monument Square either at Main Street or West Street shelter; Shelter approximately 30 feet north of Main Street/Park Street north corner; Several benches also exist along sidewalk around park; Sidewalk approximately 12 feet in width at Shelter; Although not specifically marked, an approximately 10 foot lane exists on Main Street between West Street and Park Street parallel to west sidewalk that is used for bus stoppage and storage;

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA;
- Amenities: Two trash cans, one hydrant, two light poles, one planter, two trees; two utility poles;
- Crosswalks: One exist parallel to stop; three additional crosswalks exist;
- **Curb Ramps: Eight ramps exist of which one is non-compliant;**
- **Signal Push Button: Eight non-compliant signal push buttons exist;**
- **Main Landing Pad: Does exist; light pole blocks full length;**
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;



Stop Id No. 37 – Monument Square West St

Along with Monument Square Main Street, this Shelter on West Street on Monument Square serves as the Main Transit Point within the City of Leominster; All bus routes begin/end at Monument Square either at Main Street or West Street shelter; Shelter approximately 30 feet west of Main Street/West Street south corner; Benches exist along sidewalk around park; Sidewalk approximately 4 to 6 feet in width at Shelter; West Street has 2 travel lanes for east/west bound traffic; Travel lane in front of shelter approximately 18 to 20 feet in width; Allows traffic to pass around stopped buses; On Street parking permitted on north side of West Street from Main Street intersection; On Street Parking begins approximately 60 feet west of shelter;



Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA;
- Amenities: one trash can, one light pole, one planter, one tree;
- Crosswalks: One exist perpendicular to stop; one exists parallel to stop; two additional crosswalks exist;
- Curb Ramps: Eight ramps exist;
- Signal Push Button: Eight non-compliant signal push buttons exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;

Stop Id No. 39 – Parkhill Plaza

Shelter on Electric Ave approx. 25 ft from Plaza Entrance/Exit; No curbing in front of Shelter; Inconsistent Sidewalk on north and south sides of Electric Ave; No crosswalks; Utility Pole less than 10 ft east of Shelter impacts sidewalk width and flow;



Non-survey Observations (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: Stop not connected to a pedestrian route;
- Amenities: NA;
- Crosswalks: None exist;
- Curb Ramps: One non-compliant ramp exists;
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist;
- Sidewalk: Does exist; 4'-0" clear path does not appear to exist;
- Bus Stop Sign: None exist;

Stop Id No. 46 – Wachusett Station



Shelter; Train Station; No ramps near Shelter; Ramps approximately 60 - 70 ft at Drop Off location; No Ramp markings; Posts spaced 5 ft apart for 65 ft; Buses signage near Shelter;

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA;
- Amenities: Two trash cans; two bicycle racks, seven light poles;
- Crosswalks: None exist;
- Curb Ramps: One non-compliant ramp exist;
- Signal Push Button: None exist;
- Main Landing Pad: Does exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists;
- Bus Stop Sign: Does exist

Stop Id No. 50 – Water Tower Plaza Hamilton Street Access Drive

Shelter at corner with Access Drive and Corner of Ocean State Job Lot Building; Ramps at corners of Access Drive and Parking Lot; No markings on ramps; Crosswalk across Access Drive; Sidewalk runs around corners to shops;

Survey Results (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA;
- Amenities: One trash can, one hydrant, one light pole; two trees;
- Crosswalks: One exists parallel (diagonally) to stop; none exist perpendicular to stop;
- Curb Ramps: Two non-compliant ramps exist;
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; accessible wheelchair space exists fully within the width of the roof;
- Sidewalk: Does exist; in good condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;



i. Flag Down Bus Stops Locations with Passenger Shelters

In addition to the *Established Bus Stop Locations with Passenger Shelters*, a review of existing infrastructure has identified three (3) additional locations in the Fitchburg/Leominster service area that have passenger shelters. These locations are not timed bus stop locations but rather serve as shelters for those passengers that flag down individual buses. All three locations are situated along Route 12 (Water Street/North Main Street/Main Street) in Fitchburg and Leominster as part of Transit Route 2 of the MART Fixed Route System. The following is a summary of data and information of these flag down locations.

TABLE 6 – FLAG DOWN BUS STOP LOCATIONS WITH PASSENGER SHELTERS

Route No.	Stop Location	Stop ID No.
Route 2	Fitchburg Green on Water St	FD – 1
Route 2	Fitchburg Water St at Bemis Rd	FD – 2
Route 2	Leominster Sunset Towers on Main St	FD – 3

Stop Id No. FD-1 Fitchburg Green, Water Street

Shelter located just off sidewalk; Located outside of Fitchburg Green housing complex; Bus pull out on Water Street for bus parking;

Observations (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA;
- Amenities: NA;
- Crosswalks: None exist;
- Curb Ramps: two non-compliant ramp exist approximately 570' north of Stop; two non-compliant ramp exist approximately 420' south of Stop;
- Signal Push Button: None exist;
- Main Landing Pad: None exist;
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist; not accessible – shelter pad threshold is significantly higher than the existing paved area; paved area not level;
- Sidewalk: Does exist; in fair condition; 4'-0" clear path exists;
- Bus Stop Sign: Does exist;
- Bus Pull Out On Street



Stop Id No. FD-2 Water Street at Bemis Road

Shelter located on Water Street abutting southbound travel lane; Approximately 100 feet south of Wanoosnoc Road intersection with Water Street;

Observations (red text = non-compliant / non-accessible status for Bus Stop)

- Location comment: NA;
- Amenities: NA;
- Crosswalks: One exist nearby parallel to stop; one exists nearby perpendicular to stop;
- **Curb Ramps: six non-compliant ramp exists at nearby crosswalks;**
- Signal Push Button: None exist;
- **Main Landing Pad: None exist;**
- Bus Stop Markings: None exist;
- Shelter: Does exist; seating exist;
- Sidewalk: Does exist; in fair condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;



Stop Id No. FD-3 Sunset Towers Main Street

Located perpendicular to southbound travel lane of Main Street in Leominster; Serves Sunset Towers senior living Apartments;

Observations (red text = non-compliant / non-accessible status for Bus Stop)

- **Location comment: Stop not connected to a pedestrian route;**
- Amenities: NA;
- Crosswalks: One exist exists nearby parallel to stop; one exists nearby perpendicular to stop;
- **Curb Ramps: None exist;**
- Signal Push Button: None exist;
- **Main Landing Pad: None exist;**
- Bus Stop Markings: None exist;
- **Shelter: Does exist; seating exist; not accessible – Curb blocks accessibility;**
- Sidewalk: Does exist; in fair condition; 4'-0" clear path exists;
- Bus Stop Sign: None exist;



c. ADA Survey Analysis of Stop Location and Function

i. Established Bus Stops Locations with Passenger Shelters

The ADA Non-Accessible Elements results are summarized in the following table. These locations were first listed in Table 3.

TABLE 7 – ADA SURVEY SUMMARY & RESULTS FOR ESTABLISHED BUS STOP LOCATIONS WITH PASSENGER SHELTERS

Stop ID No.	Stop Location	ADA Non-Accessible Elements	ADA Accessible Elements
3	Central Plaza - 130 Water Street	Crosswalks; Curb Ramps; Landing Pad	Light Poles; Shelter; Sidewalks;
4	Water Street Plaza - 141 Water Street	No connection to a pedestrian route; Crosswalks; Curb Ramps; Landing Pad	Shelter; Sidewalks
7	Erdman Way - MWCC Leominster	No connection to a pedestrian route; Crosswalks; Curb Ramps; Landing Pad; Sidewalks	Shelter
9	Fitchburg ITC		
19	Wallace Civic Center Parking Lot	No connection to a pedestrian route; Crosswalks; Curb Ramps; Landing Pad; Shelter; Sidewalks	Shelter
27	LaPierre Building	Not fully connected to a pedestrian route; Crosswalks; Curb Ramps; Landing Pad	Shelter; Sidewalk
28	Leominster Hospital	No connection to a pedestrian route; Shelter; Crosswalks; Curb Ramps; Landing Pad; Sidewalks	Bus Stop Markings; Shelter; Bus Stop Sign
29	Leominster Senior Center	Landing Pad; Bus Stop Sign	Crosswalks; Curb Ramps; Shelter; Sidewalks
36	Monument Square - Main St	Curb Ramps; Signal Push Buttons; Landing Pad; Bus Stop Sign	Crosswalks; Shelter; Sidewalks
37	Monument Square - West St	Signal Push Buttons; Landing Pad; Bus Stop Sign	Crosswalks; Shelter; Sidewalks
39	Parkhill Plaza	No connection to a pedestrian route; Crosswalks; Curb Ramps; Landing Pad; Sidewalks; Bus Stop Sign	Shelter
46	Wachusett Station	Crosswalks; Curb Ramps;	Landing Pad; Shelter; Sidewalks; Bus Stop Sign
50	Water Tower Plaza	Curb Ramps; Landing Pad; Bus Stop Sign	Shelter; Sidewalks

d. Priority Ranking of Stops with Infrastructure for Improvement/Upgrade

i. Average Number of Passengers Boarding & Alighting Per Day at Established Bus Stop Locations with Passenger Shelters

In order to prioritize those locations that should be addressed first in relation to ADA guidelines, a method was developed based upon past bus stop passenger counts and the predominate facility or activity at a bus stop. Prior passenger counts conducted by MART from 2013, 2014 and 2016 were reviewed. Since the collection of this data, there have been changes to the various bus routes but a correlation to the currently established bus stops was possible. Counts were taken for one day for each individual bus route. The following table provides the average number of passengers that either boarded or alighted per day at the particular stop location. The average number of passengers for Stop ID #s 4, 19, and 46 were not available for calculation.

TABLE 8 - AVERAGE PASSENGERS BOARDING & ALIGHTING PER LOCATION WITH A BUS SHELTER

Stop ID No.	Stop Location	Avg Passengers Per Stop Per Day
3	Central Plaza/Market Basket	3.5
7	Erdman Way	1.8
9	Intermodal Center	37.7

TABLE 8 - AVERAGE PASSENGERS BOARDING & ALIGHTING PER LOCATION WITH A BUS SHELTER (cont.)

Stop ID No.	Stop Location	Avg Passengers Per Stop Per Day
27	LaPierre Building	0.0
28	Leominster Hospital	6.8
29	Leominster Senior Center	0.0
36	Monument Square (Main St)	13.9
37	Monument Square (West St)	27.1
39	Parkhill Plaza	0.5
50	Water Tower Plaza	7.8

ii. Weight Estimate of Bus Stop Functions

Bus clientele typically utilize public transit to access basic service needs. This includes employment, medical visits, food shopping, commercial shopping, entertainment venues and senior citizen facilities. These six categories were utilized to classify the major function(s) or activities present for each of the established bus stops. Additionally, the six categories were assigned weighting factors based on a perceived importance to the customers. The weight factors ranged from 5 (greatest importance) to 1 (least important). The following table provides the weighting factors as described.

TABLE 9 – WEIGHT FACTORS FOR BUS STOP LOCATION ACTIVITY

Activity	Commercial	Food	Employment	Medical	Entertainment	Seniors
Weight Factor	1	5	3	5	1	3

iii. Bus Stop Location Scoring and Prioritization Rank

In order to prioritize the importance of the Established Bus Stop Locations with Passenger Shelters for upgrading or improvement, the figures derived from the Average Passengers Per Day count were added to the Weight Function of the Bus Stop Location. This resulted in the following table.

TABLE 10 – INITIAL PRIORITY RANKING OF BUS STOP LOCATIONS WITH PASSENGER SHELTERS

Stop ID No.	Established Bus Stop	Avg Passengers Per Stop	Commercial (1)	Food (5)	Employment (3)	Medical (5)	Entertainment (1)	Seniors (3)	Priority Score
3	Central Plaza/Market Basket	3.5	X	X	X				12.5
			1	5	3				
4	Water St Plaza - 141 Water St	0.0	X		X				4.0
			1		3				
7	Erdman Way	1.8			X	X			9.8
					3	5			
9	Intermodal Center	37.7	X	X	X	X	X	X	18.0
			1	5	3	5	1	3	
19	Wallace Civic Cntr Parking Lot	0.0							0.0
27	LaPierre Building	0.0						X	3.0
								3	
28	Leominster Hospital	6.8			X	X		X	17.8
					3	5		3	
29	Leominster Senior Center	0.0					X	X	4.0
							1	3	
36	Monument Square (Main St)	13.9	X	X	X	X	X	X	18.0
			1	5	3	5	1	3	

TABLE 10 – INITIAL PRIORITY RANKING OF BUS STOP LOCATIONS WITH PASSENGER SHELTERS (cont.)

Stop ID No.	Established Bus Stop	Avg Passengers Per Stop	Commercial (1)	Food (5)	Employment (3)	Medical (5)	Entertainment (1)	Seniors (3)	Priority Score
37	Monument Square (West St)	27.1	X	X	X	X	X	X	18.0
			1	5	3	5	1	3	
39	Parkhill Plaza	0.5	X		X				4.5
			1		3				
46	Wachusett Station	0.0			X	X	X		9.0
					3	5	1		
50	Water Tower Plaza	7.8	X	X	X				16.8
			1	5	3				

The transit hubs of the Fitchburg Intermodal Transportation Center (ITC) and Leominster Monument Square are obviously the most active bus stop locations since all of the fixed routes begin and end at these points. Re-sorting these bus stops by their priority score; we get the following priority ranking.

TABLE 11 – FINAL NUMERICAL PRIORITY RANKING OF BUS STOP LOCATIONS WITH PASSENGER SHELTERS

ID No.	Established Bus Stop	Avg Passengers Per Stop	Commercial (1)	Food (5)	Employment (3)	Medical (5)	Entertainment (1)	Seniors (3)	Priority Score
28	Leominster Hospital	6.8			X	X		X	17.8
					3	5		3	
50	Water Tower Plaza	7.8	X	X	X				16.8
			1	5	3				
3	Central Plaza/Market Basket	3.5	X	X	X				12.5
			1	5	3				
7	Erdman Way	1.8			X	X			9.8
					3	5			
46	Wachusett Station	0.0			X	X	X		9.0
					3	5	1		
39	Parkhill Plaza	0.5	X		X				4.5
			1		3				
29	Leominster Senior Center	0.0					X	X	4.0
							1	3	
4	Water St Plaza - 141 Water St	0.0	X		X				4.0
			1		3				
27	LaPierre Building	0.0						X	3.0
								3	
19	Wallace Civic Cntr Parking Lot	0.0							0.0

Fitchburg/Leominster Transit Centers/Hubs

9	Intermodal Center	37.7	X	X	X	X	X	X	18
			1	5	3	5	1	3	
36	Monument Square (Main St)	13.9	X	X	X	X	X	X	18
			1	5	3	5	1	3	
37	Monument Square (West St)	27.1	X	X	X	X	X	X	18
			1	5	3	5	1	3	

e. Priority Ranking of Stops with No Infrastructure for Improvement/Upgrade

The remaining 38 bus stop locations, as previously presented (i.e., Tables 4 and 5), lack some basic measures that would adequately identify them to regular and casual riders as the point of embarkation. These are stops identified on the fixed route schedules, but they lack clear identification as such. These stops require updating and/or enhancement to identify these places as bus stops as well as improvements to meet ADA requirements.

In order to prioritize the importance of the Established Bus Stop Locations with no infrastructure for upgrading or improvement, the Weight Function of the Bus Stop Locations was calculated. This resulted in the following table.

TABLE 12 – FINAL NUMERICAL PRIORITY RANKING OF ESTABLISHED BUS STOP LOCATIONS WITH NO INFRASTRUCTURE

Stop ID No.	Stop Location	Commercial (1)	Food (5)	Employment (3)	Medical (5)	Entertainment (1)	Seniors (3)	Priority Score
38	N. Leominster Commuter Rail Station	1		3	5		3	12.0
1	Burbank Hospital			3	5		3	11.0
2	Central Plaza - Market Basket		5	3			3	11.0
30	Lunenburg Crossing - Walmart/Hannaford	1	5	3				9.0
33	Market Basket - Whitney Field	1	5	3				9.0
48	Wallace Plaza (J Fitch Highway) - Market Basket	1	5	3				9.0
6	D'Ambrosio Eye Center				5		3	8.0
40	Reliant Medical				5		3	8.0
10	Fitchburg Post Office (Upper Common)			3			3	6.0
22	Joseph House - Daniels Street			3			3	6.0
15	Fitchburg State U - Dining Hall (E of North St)		5					5.0
20	Food Court - Whitney Field (West Side)	1		3		1		5.0
45	Twin City Plaza - Hannaford		5					5.0
8	Fitchburg High School			3		1		4.0
18	Fitchburg State U - McKay Sch (W North St)			3		1		4.0
12	Fitchburg State U - Recreatn Cnt (W North St)			3		1		4.0
17	Fitchburg State U - Weston Audit (E North St)			3		1		4.0
21	Great Wolf Lodge			3		1		4.0
26	Kohl's - Orchard Hill Park	1		3				4.0
43	Target - Orchard Hill Park	1		3				4.0
44	Twin City Plaza - Bob's	1		3				4.0
49	Wal-Mart Plaza Rt 117	1		3				4.0
5	Crossroads Office Park			3				3.0
32	Industrial Road			3				3.0
24	Jytek Industrial Park			3				3.0
31	Main Street/Nashua Street			3				3.0
34	MART Garage			3				3.0
35	Montachusett Industrial Park			3				3.0
41	RMV			3				3.0
51	Whalom Street/Summer Street			3				3.0
23	Johnny Appleseed Plaza	1				1		2.0
25	Kings Corner	1				1		2.0
47	Waites Corner - 543 Westminster St (Rt 2A/31)	1						1.0
11	Fitchburg State U - Simonds Hall (E North St)							0.0
13	Fitchburg State U - Aubuchon Hall (W North St)							0.0
14	Fitchburg State U - Hammond Hall (E North St)							0.0
16	Fitchburg State U - Herlihy Hall (W North St)							0.0
42	South Street/Pine Street							0.0

3. RECOMENDATIONS

From the review and analysis of the established bus stop locations with passenger shelters, and established bus stop locations with no Infrastructure within the Fitchburg/Leominster Fixed Route System, recommendations can be identified. MART runs as a flag down system, meaning would be passengers are free to signal to a moving bus anywhere along the route to pull over for pick up or drop off. However, all established bus stops along the system schedules should be clearly defined and are required to be accessible.

a. Bus Stop Types (PAAC)

The Port Authority of Allegheny County (PAAC) (Pennsylvania) categorizes bus stops into four (4) main types. The elements of each PAAC bus stop type needs to meet the minimum ADA design requirements (see bus stop elements in the following section). The types are Basic, Bench, Shelter, and Station. All accessible bus stops begin with a landing pad that is required to meet the ADA minimum required design dimensions for landing pads which is 60-inch-wide by 96-inch-long that must also be connected to a pedestrian accessible route.

Basic Bus Stop (MRPC description)

PAAC characterizes these stops by the presence of a bus stop sign. The minimum ADA requirement is a landing pad with required design dimensions of 60-inch-wide by 96-inch-long that is connected to a pedestrian accessible route. PAAC appears to require the presence of a bus stop sign which is NOT an ADA design requirement but if present, must meet minimum ADA requirements for bus signs.



Basic Stop at Stanhope Street and West Carson Street

Bench Bus Stop (MRPC description)

PAAC adds a bench and amenities to the landing pad and bus stop sign. The bench and amenities must not be placed within the landing pad ADA minimum required design dimensions.



Bench Stop on Brownsville Road opposite Dewalt Avenue

Shelter Bus Stop (MRPC description)

PAAC adds a passenger shelter to the landing pad, bus stop sign, bench, and amenities. The shelter must meet the ADA minimum required design dimensions for a shelter.



South Busway at Pioneer Avenue Ramp

Station Bus Stop (MRPC description)

In the MRPC region, station bus stops are associated with the MBTA Commuter Rail (Wachusett Commuter Rail Station, Leominster Commuter Rail Station, Fitchburg Commuter Rail Station at the Fitchburg ITC). In many ways, these bus stops should enhance and exceed the ADA minimum required design dimensions for the landing pad, stop sign, shelter, and amenities.

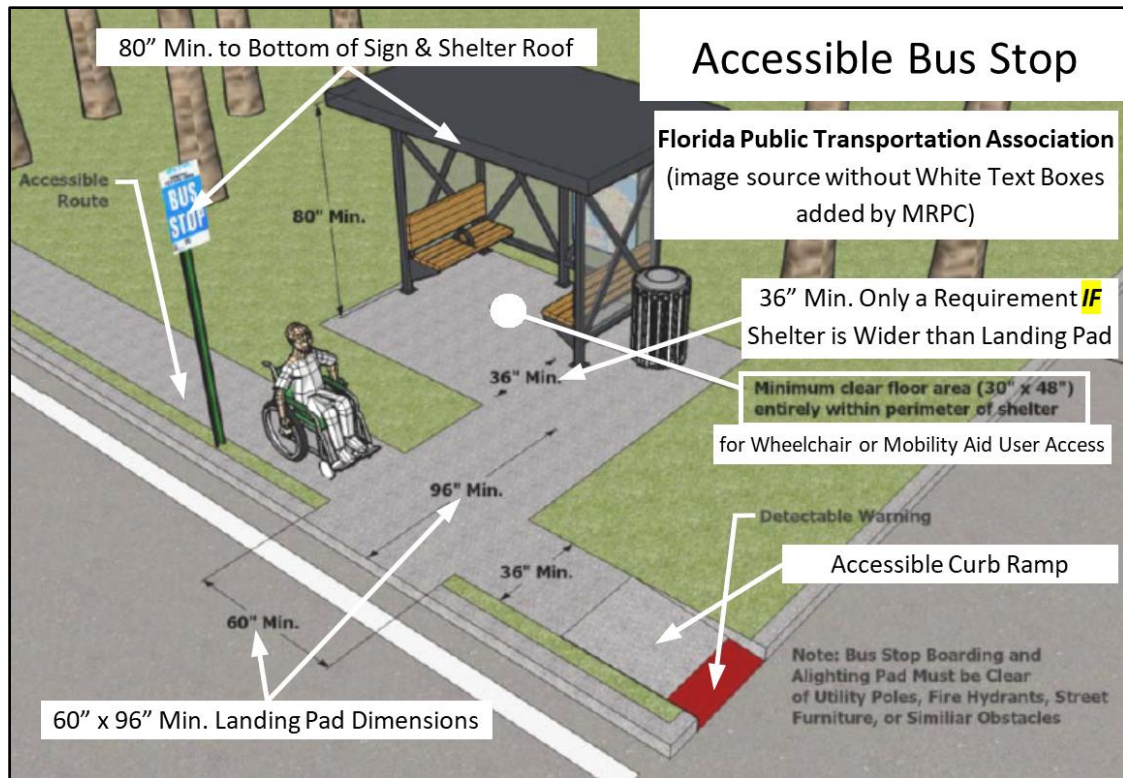


East Liberty Station

b. ADA Minimum Required Design Dimensions

ADA minimum required design elements with dimensions for an accessible bus stop are presented in the figure below. The figure provides the dimensions for the pedestrian accessible route (PAR) width (WD) which includes accessible curb ramps (ACRs), the landing pad (LP), if shelter exists - passenger shelter height and clear floor area (CFA) within the shelter, and if bus stop sign exists - sign height.

The figure also states that:



- The LP (Boarding and Alighting Pad) must be clear of all amenities including trash cans;
- The PAR must include crosswalks (CW) (not depicted) and ACRs which includes a detectable warning panel (DWP);
- Many shelters are/will be wider than the landing pad therefore there must be an accessible route into the shelter;

Other requirements not depicted on figure:

- LP slope parallel to the roadway may be the same as the roadway;
- LP slope perpendicular to the roadway must not exceed 2%;
- PAR slope parallel to the roadway may be the same as the roadway;
- PAR slope perpendicular to the roadway must not exceed 2%;
- Shelter pad slope parallel and perpendicular to the roadway must not exceed 2%;
- LP and PAR must have a firm, stable, and slip resistant surface;
- Entrance to the shelter must a minimum clear doorway width of 32 inches;
- Height where the shelter threshold meets the landing pad must not exceed 3/4 of an inch or a beveled slope must not exceed 1:2 (rise:run);

Non-required element not depicted on figure:

- Bus stop pavement markings;

c. Established & Flag Down Bus Stops Locations with Passenger Shelters

As indicated previously, 12 of the established bus stops and three (3) of the flag down (FD - #) bus stops on the Fitchburg/Leominster Fixed Route system have passenger shelters commonly associated with a bus stop. However, each of these locations have non-accessible bus stop elements that will require updating and/or enhancement to identify these bus stops as accessible bus stops that meet ADA requirements.

The following table lists improvements that should be implemented at all of the Established Bus Stops with Passenger Shelters. Recommendation prioritization order includes 1) connection to accessible route; 2) address landing pad; 3) shelter CFA requirements of shelter; 4) minimum bus stop sign height requirement if bus stop sign exist; 5) minimum amenity requirements if an amenity exist.

TABLE 13 – ADA RECOMMENDATIONS FOR PRIORITIZED ESTABLISHED & FLAG DOWN BUS STOP LOCATIONS WITH PASSENGER SHELTERS

Priority Rank	Stop ID No.	Bus Stop Location	Recommendations (Sidewalk (SW) = not accessible pedestrian route)
1	28	Leominster Hospital	Connect to a PAR using SW on Memorial Dr by adding CWs & ACRs; eliminate parking space abutting CR & LP; correct slope of LP to 2%; clear shelter CFA of trash can
2	50	Water Tower Plaza	Add ACRs to SW at CW; correct LP size
3	3	Central Plaza - 130 Water Street	Add accessible CWs & ACRs to SW; correct LP size; add ACR to parking lot
4	7	Erdman Way	Add PAR to shelter; correct LP size
5	46	Wachusett Station	Complete PAR by adding CWs where needed & DWPs to CR
6	39	Parkhill Plaza	Connect to a PAR by widening SW, adding CWs & ACRs; add LP
7	29	Leominster Senior Center	Add LP; clear shelter CFA of trash can
8	4	Water Street Plaza - 141 Water Street	Connect to a PAR by adding CWs & ACRs; add LP
9	27	LaPierre Building	Connect to a PAR by adding CWs & ACRs; add LP
10	19	Wallace Civic Center Parking Lot	Connect to a PAR by adding CWs & ACRs (or only DWPs) as needed; add LP; redesign shelter to address poor condition; clear shelter CFA of trash can
	9	ITC - Intermodal Center	
	36	Monument Square - Main St	Add one (1) ACR to complete PAR; add eight (8) accessible signal push buttons; alter LP so that light pole no longer falls within full length of LP
	37	Monument Square - West St	Add LP; add eight (8) accessible signal push buttons
	FD – 1	Fitchburg Green on Water St	Connect to a PAR by adding CWs & ACRs; add LP that will correct height where shelter threshold meets LP
	FD – 2	Fitchburg Water St at Bemis Rd	Add LP; add six (6) ACRs
	FD – 3	Leominster Sunset Towers on Main St	Connect to a PAR by adding CWs & ACRs; add LP that will remove curb from shelter threshold

d. Established Bus Stops Locations with No Infrastructure

As indicated previously, several of the established bus stops on the Fitchburg/Leominster Fixed Route system have little or no infrastructure commonly associated with a bus stop. Each of these locations would require updating and/or enhancement to identify these places as bus stops in addition to improvements to meet ADA requirements.

The following table lists improvements that should be implemented at all of the Established Bus Stops with No Infrastructure. These locations were first listed in Table 4.

TABLE 14 – RECOMMENDED ADA IMPROVEMENTS AT ESTABLISHED BUS STOP LOCATIONS WITH NO INFRASTRUCTURE

Stop ID No.	Stop Location	Recommended ADA Improvements
1	Burbank Hospital	These locations are identified stop locations that lack any identifying infrastructure that would make it clear to transit users that these are appropriate locations to wait and access the MART bus system. No ADA measurements were possible as the exact stop locations is not clearly defined.
2	Central Plaza - Market Basket	
5	Crossroads Office Park	
6	D'Ambrosio Eye Center	
8	Fitchburg High School	
20	Food Court - Whitney Field (West Side)	Each of the stops lack all or most of the following depicted on the Accessible Bus Stop figure above: 1. Accessible pedestrian route (includes accessible sidewalks, curb ramps & crosswalks); 2. Landing pads/areas; 3. Shelters and/or benches; 4. Bus Stop signage; 5. Pavement markings for buses; 6. Lighting & other amenities;
21	Great Wolf Lodge	
23	Johnny Appleseed Plaza	
24	Jytek Industrial Park	
25	Kings Corner	
26	Kohl's - Orchard Hill Park	
30	Lunenburg Crossing - Walmart/Hannaford	
31	Main Street/Nashua Street	
32	Industrial Road	
34	MART Garage	
35	Montachusett Industrial Park	In most instances the addition of appropriate infrastructure would need to be coordinated with the individual municipalities or the property owners. Pavement markings, sidewalks, ramps, crosswalks, etc. occur in the road right-of-way (ROW) which falls under the jurisdiction of the property owner or community. At a minimum, a clearly marked and located landing pad and Bus Stop sign should be installed.
40	Reliant Medical	
41	RMV	
42	South Street/Pine Street	
43	Target - Orchard Hill Park	
44	Twin City Plaza - Bob's	
45	Twin City Plaza - Hannaford	
47	Waites Corner - 543 Westminster St (Rt 2A/31)	
48	Wallace Plaza (J Fitch Highway) - Market Basket	
49	Wal-Mart Plaza Rt 117	

e. Other Established Bus Stops Locations That Require ADA Improvements

The last group of bus stop locations have been previously identified as Established Bus Stop Locations That Require Additional ADA Improvements. As indicated previously, while not always clearly identified with appropriate signage, infrastructure, etc., they are identified in some manner as a bus stop but are in need of some additional type of improvement to improve their ADA accessibility.

The following table lists improvements that should be implemented at all of the other Established Bus Stops with No Infrastructure. These locations were first listed in Table 5.

TABLE 15 – RECOMMENDED ADA IMPROVEMENTS AT OTHER ESTABLISHED BUS STOP LOCATIONS WITH NO INFRASTRUCTURE

Stop ID No.	Stop Location	Recommended ADA Improvements
10	Fitchburg Post Office (Upper Common)	As with the recommendations presented in Table 14, these stop locations lack any identifying infrastructure that would make it clear to transit users that these are appropriate locations to wait and access the MART bus system. Several of the stops do have at a minimum, a single Bus Stop sign. In some cases, these signs are mounted on the adjacent building and can be several feet back from the
11	Fitchburg State Univ - Simonds Hall (E side of North St)	
12	Fitchburg State Univ - Recreation Center (W side of North St)	
13	Fitchburg State Univ - Aubuchon Hall (W side of North St)	
14	Fitchburg State Univ - Hammond Hall (E side of North St)	
15	Fitchburg State Univ - Dining Hall (E side of North St)	
16	Fitchburg State Univ - Herlihy Hall (W side of North St)	
17	Fitchburg State Univ - Weston Auditorium (E side of North St)	
18	Fitchburg State Univ - McKay School (W side of North St)	

22	Joseph House - Daniels Street	road curb and actual stop location. Further upgrades (as listed in Table 14 should be considered to more clearly identify these locations in order to increase accessibility, safety, usage, and ease of identification.
33	Market Basket - Whitney Field	
38	N. Leominster Commuter Rail Station	
51	Whalom Street/Summer Street	

f. MART & Community Coordination for Improvements / Complete Streets

MART should work with the communities involved as some municipalities may be considering roadway improvements/rehabilitation projects that would potentially impact these stop locations. In particular, the Complete Streets program has provided communities with a funding program that directly relates to sidewalks and mobility issues. Projects under this program can be linked to these ADA types of improvement for these bus stop locations. Additional information on the Complete Streets program, as well as the status of member communities and their compliance, can be found online at: <https://www.mass.gov/complete-streets-funding-program>

TECHNICAL APPENDIX

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