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Long Range Element





LONG RANGE ELEMENT

The Long Range Element of the Regional Transportation Plan attempts to identify projects anticipated to occur between 2012 and 2035. These projects have been identified through the various chapters of this RTP and are the result of public input, existing studies from the MRPC and member communities, and state initiatives. Projects range from intersection improvements to address safety issues to continued maintenance of the road network through paving rehabilitation and resurfacing work. Transit projects seek to continue services throughout the fixed route systems as well as the demand responsive programs. Capital projects are also identified to maintain the vehicle fleet as well as improve facilities along the commuter rail system. These projects and recommendations follow the themes and issues outlined with the regions goals, policies and strategies as defined in Chapter One but also support many of the state identified initiatives, i.e. GreenDOT. All projects are expected to improve the overall transportation network of the Montachusett Region.

Project cost estimates are based on information and data provided by MassDOT or known projects in the Montachusett Region. All estimates are provided in current year costs (i.e. 2012) as well as Year of Expenditure (YOE) costs adjusted for inflation. Please refer to the Financial Element for a more detailed discussion on inflation, its calculation and effect on the RTP.

Projects identified in the Short Range Element that have not been initiated are assumed to carry over to the Long Range Element.

Projects/Recommendations

Highway

MONTACHUSETT MPO - 2012 RTP HIGHWAY PROJECTS/RECOMMENDATIONS BY COMMUNITY - Long Range

Community	Project/ Recommendation	2012 Est. Cost	Est. YOE Cost	Element	Est. YOE
Ashburnham	Route 101 at South St. - Geometric Improvements	\$675,000	\$1,161,000	Major Studies	2026-2030
	Route 101 at Willard Rd. - Geometric Improvements	\$675,000	\$1,161,000	Major Studies	2026-2030
	Route 101 at Cashman Hill Rd.	\$675,000	\$1,161,000	Major Studies	2026-2030
	Route 101 at South Main St. - Geometric Improvements	\$675,000	\$1,161,000	Major Studies	2026-2030
	Route 101 at Corey Hill/Williams Rd. - Geometric Improvements	\$675,000	\$1,161,000	Major Studies; Safety	2026-2030
	Route 101 (Water St.) at Main St. - Traffic Signal/Geometric Improvements	\$900,000	\$1,548,000	Major Studies	2026-2030
	Route 101 (Central St.) at Main St. - Traffic Signal/Geometric Improvements	\$900,000	\$1,548,000	Major Studies	2026-2030
	Route 101 - Resurfacing and Related Work	\$2,160,000	\$3,283,200	Major Studies	2021-2025
	Ashburnham Rail Trail - Trail Development	\$1,716,000	\$2,951,520	Major Studies	2026-2030
Athol	South Main St. (Rte. 2A) at Daniel Shays HWY - Intersection Improvements	Further Study		Safety	
	Main St. (Rte. 2A) at Exchange St. - Intersection Improvements	Further Study		Safety	
	Rte. 2 (Exit 17) at Rte. 31 - Interchange Improvements	Further Study		Safety	
	Route 2 at South Athol Road - New Interchange	\$2,900,00	\$4,408,000	Major Studies	2021-2025
	Millers River Greenway - Trail Development	Further Study		Bike & Ped Transportation	



Community	Project/ Recommendation	2012 Est. Cost	Est. YOE Cost	Element	Est. YOE
Ayer	Intersection of Main St./Park St. - Parking Facility Construction	\$3,468,080	\$4,577,866	Major Studies	2016-2020
	Park St. at Bishop Rd. - Intersection Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Park St. at Main St. - Intersection Improvements	\$1,000,000	\$1,720,000	Major Studies; Congestion	2026-2030
	Bishop Rd./Macpherson Rd. - Corridor/Intersection Upgrades	Further Study		Major Studies	
	Snake Hill Rd. - Roadway Improvements	Further Study		Major Studies	
	Sandy Pond Rd./Westford St./Willow Rd. - Truck Route Improvements/Upgrades	Further Study		Major Studies	
	Carlton Circle (Rte. 2A,110) - Safety Improvements	Further Study		Safety; Congestion; Major Studies	
	Main St./ Park St. to Littleton TL - Corridor Congestion Improvements	Further Study		Congestion	
Clinton	Water St. at Bolton Rd. - Resurfacing and Related Work	\$4,067,320	\$6,182,326	Major Studies	2021-2025
	Route 110 (High Street) - Resurfacing and Related Work	\$1,500,000	\$1,980,000	Major Studies	2016-2020
	Sterling St. at Brook St. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Sterling St. at Greeley St. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Union St. at Chestnut St. - Geometric Improvements	\$875,000	\$1,155,000	Major Studies	2016-2020
	Union St. at Mechanic St. - Geometric Improvements	\$875,000	\$1,330,000	Major Studies	2021-2025
	Main St. (Rte. 70;Rte. 62;Rte110) at Union St. (Rte. 62) - Intersection Improvements	Further Study		Safety	
Fitchburg	Route 2A at John Fitch Highway - Intersection improvements	\$250,000	\$380,000	Major Studies; Safety	2021-2025
	Summer St. at Rte 2A (Moran Square) - Intersection Improvements	\$250,000	\$380,000	Major Studies; Safety	2021-2025
	Rte. 2 at Mount Elam Rd. - Safety Improvements	Further Study		Safety	
	South St./ Electric Ave./ Old South St. - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025
	South St./ Wanoosnoc Rd./ Whalon St. - Intersection Improvements	\$875,000	\$1,330,000	Safety; Congestion	2021-2025
	Bemis Rd. at Airport Rd. - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025
	Kimble St. (Rte. 12)/Laurel St./ Cross St./ Putnam St. - Geometric/Safety Improvements	\$875,000	\$1,330,000	Safety	2021-2025
	Main St. (Rte. 2A)/ Rollstone St./ Academy St. - Intersection Improvements	\$875,000	\$1,505,000	Safety; Congestion	2026-2030
	Water St. (Rte. 12)/ Main St. (Rte. 2A)/ Day St. - Intersection Improvements	Further Study		Safety; Congestion	
	Westminster St. (2A) at Princeton Rd. (Rte. 12) - Intersection/Safety Improvements	\$875,000	\$1,505,000	Safety	2026-2030
	Bemis Rd. at Intervale Rd. - Intersection Improvements	\$875,000	\$1,505,000	Safety	2026-2030
	Lunenburg St. (Rte. 2A) at Klondike Ave. - Intersection Improvements	Further Study		Safety	
	Main St. (Rte. 2A)/ Central St./ Boulder Dr. - Intersection/Signal Improvements	Further Study		Safety; Congestion	
	Main St. (Rte. 2A)/ Oliver St. - Intersection Improvements	Further Study		Safety; Congestion	
	Lunenburg St. (Rte. 2A)/ Townsend St./ Boutelle St. - Intersection Improvements	Further Study		Safety	
	River St. (Rte. 2A;Rte 31) at Main St. (Rte. 2A) - Intersection Improvements	\$875,000	\$1,505,000	Safety	2026-2030
	Electric Ave. at Rollstone Rd. - Intersection Improvements	\$875,000	\$1,505,000	Safety	2026-2030
	Electric Ave. at Mt. Elam Rd. - Intersection Improvements	\$875,000	\$1,680,000	Safety	2031-2035



Community	Project/ Recommendation	2012 Est. Cost	Est. YOE Cost	Element	Est. YOE
Fitchburg	Clarendon St. at Pratt St. - Intersection Improvements	Further Study		Safety	
	John Fitch HGW/ Bemis Rd. - Corridor Improvements	Further Study		Major Studies	
	River St. (Rte. 2A; Rte 31) at Ashburnham St. (Rte. 31) - Intersection Improvements	\$875,000	\$1,680,000	Congestion	2031-2035
Fitchburg/ Leominster/ Westminster	Rte. 2 - Oak Hill Rd. to Vicinity of Damon Rd. - Reconstruction	\$20,000,000	\$38,400,000	Major Studies	2031-2035
Fitchburg/ Leominster/ Lunenburg	Summer St. and North St. - Reconstruction	\$6,000,000	\$10,320,000	Major Studies	2026-2030
Fitchburg/ Leominster	Twin City Rail Trail - Trail Developments	\$5,940,000	\$11,404,800	Major Studies	2031-2035
	Rte. 2 (Exit 30)/Merriam Ave./Whalon St. - Improvements Recommended	\$1,250,000	\$2,400,000	Major Studies; Safety; Congestion	2031-2035
Gardner	Elm St. at Howe St. - Low Cost Intersection Improvements	\$250,000	\$380,000	Major Studies	2021-2025
	Union Sq. at Howe St. - Low Cost Intersection Improvements	\$250,000	\$380,000	Major Studies	2021-2025
	Elm St./Union Sq. at Pearson Blvd. - Traffic Signal Upgrade/Geometric Improvements	\$1,000,000	\$1,720,000	Major Studies	2026-2030
	Elm St./Central St. (Rte. 101)/Pearl St. (Rte. 101)/Green St. - Intersection Improvements	\$875,000	\$1,680,000	Safety	2031-2035
	West Broadway (Rte. 2A) at Timpany BLVD. (Rte. 68)	\$875,000	\$1,680,000	Safety	2031-2035
	Elm St. at Temple St. - Safety Improvements	Further Study		Safety	
	Parker St. (Rte. 101) at Nichols St. - Safety Improvements	Further Study		Safety	
	Timpany BLVD. at American Legion Circle - Intersection Improvements	Further Study		Safety	
	Central St./ Parker St. (Rte 101) at Main St. (Rte 68) - Intersection Improvements	\$875,000	\$1,680,000	Congestion	2031-2035
	Rte. 2 (Exit 23) at Pearson Blvd. - Intersection Improvements	\$875,000	\$1,155,000	Congestion	2016-2020
Groton	Fitch's Bridge Rd. - Restoration and Rehabilitation of Fitch's Bridge for non-motorized use	\$562,000	\$741,840	Major Studies	2016-2020
	Main St. (Rte. 119, Rte. 225)/Lowell Rd. (Rte. 40)/Broadmeadow Rd. - Intersection Improvements	\$675,000	\$1,296,000	Safety	2031-2035
	Main St. (Rte. 119, Rte. 225) at Fitch's Bridge Rd. - Intersection Improvements	\$675,000	\$1,296,000	Safety	2031-2035
Groton/ Townsend	Squannacook River Rail Trail - Trail Development	\$5,640,000	\$9,700,800	Bike & Ped Trans; Major Studies	2026-2030
Groton/ Pepperell/ Townsend	Route 119 - Resurfacing and Related Work	\$5,000,000	\$8,600,000	Major Studies; Congestion	2026-2030
Harvard	Rte 2 (Exit 38) Route 110/ 111/ Ayer Rd. - Safety Improvements	Further Study		Safety	
	Route 110 (Still River Rd.) from Bolton T.L. to Route 110/11 Intersection - Resurfacing and Related work	\$2,500,000	\$3,800,000	Major Studies	2021-2025
	Ayer Rd. Corridor Improvements	Further Study		Major Studies; Safety	
Harvard/ Lancaster	Route 2 Ramps @ 35, 36, & 38 - Reconstruction and Widening	\$2,080,000	\$3,577,600	Major Studies	2026-2030
Lancaster	Rte. 2 (Exit 36)/ Shirley Rd./ Fort Pond Rd./ Old Union TPK. - EB & WB Ramp Improvements	Further Study		Safety	
	High St. at Mill St. - Intersection Improvements	Further Study		Major Studies	
	Main St. at Mill St. - Traffic Signal/Geometric Improvements	\$1,000,000	\$1,920,000	Major Studies	2031-2035



Community	Project/ Recommendation	2012 Est. Cost	Est. YOE Cost	Element	Est. YOE
Lancaster	Rte. 117 at Rte 70 North - Traffic Signal/Geometric Improvements	\$1,000,000	\$1,920,000	Major Studies	2031-2035
	Rte. 117 at Rte 70 South - Traffic Signal	\$225,000	\$297,000	Major Studies	2016-2020
	Rte. 110 (High St. Ext.) at Mill St. - Intersection Improvements	Further Study		Major Studies	
	Rte. 70, Sterling Rd., Mill St. - Intersection Improvements	Further Study		Major Studies	
	Deershorn Rd., South Meadow Rd., Ice House Rd., Chace Hill Rd. and Sterling St. area Improvements	Further Study		Major Studies	
	Lunenburg Rd. at Fort Pond Rd. - Low cost intersection improvements	\$250,000	\$380,000	Major Studies	2021-2025
	Nashua River Bikeway	Further Study		Major Studies	
Leominster	Route 13 from Hawes St. to Prospect St. - Reconstruction	\$6,330,987	\$6,837,466	Major Studies ; Congestion	2012-2015
	Mechanic St. from Laurel St. to Leominster Connector - Reconstruction	\$2,400,000	\$3,648,000	Major Studies	2021-2025
	Nashua Trail at Searstown - Enhancement	\$317,040	\$481,901	Major Studies	2021-2025
	Rte 2 at Rte 190 - Safety Improvements	\$1,250,000	\$1,900,000	Safety; Congestion	2021-2025
	N. Main St. (Rte. 12)/Nelson St./Water Tower Pl./Fruit St. - Safety Improvements	Further Study		Safety; Congestion	
	N. Main St. (Rte. 12)/Lindell Ave./Hamilton St. - Safety Improvements	Further Study		Safety; Congestion	
	Central St. (Rte. 12) at Litchfield St. - Safety Improvements	Further Study		Safety	
	Mechanic St. at Water St. (Depot Sq.) - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025
	Central St. (Rte. 12)/ Grant St./ Beth Ave. - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025
	Mill St./ Haws St./ Sack Blvd. - Intersection Improvements	Further Study		Safety	
	Merriam Ave. at Washington St. - Intersection Improvements	Further Study		Safety	
	Main St. (Rte. 13)/ N. Main St. (Rte. 12)/ High St./ Mill St. - Geometric/Intersection Improvements	\$875,000	\$1,330,000	Safety; Congestion	2021-2025
	Lancaster St. (Rte. 117) at Elm Hill Ave. - Intersection Improvements	Further Study		Safety	
	Merriam Ave. at Blossom St. - Intersection Improvements	Further Study		Safety	
	Mechanic St./ Third St./ Walker St. - Intersection Improvements	Further Study		Safety	
	Mechanic St. at Fifth St. - Intersection Improvements	Further Study		Safety	
	Main St. (Rte. 13)/ Day St. - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025
	Mechanic St./ Leominster Connector/ Commercial Rd. - Intersection Improvements	Further Study		Safety	
	Central St. (Rte. 12)/ Union St./ Adams St. - Intersection Improvements	Further Study		Safety	
	N. Main St. (Rte. 12) at Hospital Rd. - Intersection Improvements	Further Study		Safety; Congestion	
	N. Main St. (Rte. 12)/ Washington St./ Grove Ave. - Improvements Recommended	Further Study		Safety; Congestion	
Lunenburg	Massachusetts Ave. (Rte. 2A;Rte. 13)/Electric Ave. (Rte. 13) - Safety Improvements	Further Study		Safety	
	Massachusetts Ave. (Rte. 2A;Rte. 13)/Chase Rd. (Rte. 13) - Safety Improvements	Further Study		Safety	
	Massachusetts Ave. (Rte. 2A) at White St. - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025



Community	Project/ Recommendation	2012 Est. Cost	Est. YOE Cost	Element	Est. YOE
Lunenburg	Chase Rd. (Rte. 13) at West Townsend Rd. - Intersection Improvements	\$875,000	\$1,505,000	Safety	2026-2030
Phillipston	Rte 2A/Highland Ave./Athol Rd. - Traffic Signal/Geometric Improvement	\$900,000	\$1,548,000	Major Studies	2026-2030
	Rte. 2 (Exit 19)/Rte. 2A/Rte 202 - Safety Improvements	Further Study		Safety	
Shirley	Leominster Rd. at Catacunemaug Rd. - Intersection Improvements	\$875,000	\$1,505,000	Major Studies	2026-2030
	Main St. at Harvard Rd. - Intersection Improvements	\$875,000	\$1,505,000	Major Studies	2026-2030
	Harvard Rd. at Shaker Rd. - Intersection Improvements	Further Study		Major Studies	
	Lancaster Rd./Main St./Leominster Rd./Center Rd. - Intersection Improvements	\$875,000	\$1,505,000	Major Studies	2026-2030
	Leominster Rd. at Main St. - Intersection Improvement	\$875,000	\$1,505,000	Major Studies	2026-2030
	Walker Rd./Front St./Patterson Rd. - Intersection Improvements	Further Study		Major Studies	
	Catacunemaug Rd. - Roadway Improvements	Further Study		Major Studies	
	Center Rd. - Roadway Improvements	Further Study		Major Studies	
	Davis St./Front St. - Railway Crossing Improvements	Further Study		Major Studies; Freight/Rail	
	Leominster Rd. - Roadway Improvements	Further Study		Major Studies	
	Main St. - Roadway Curb Cut Analysis	Further Study		Major Studies	
Sterling	Various improvements along Rte 140 recommended in Corridor Profile	\$7,900,000	\$12,008,000	Major Studies	2021-2025
	Route 12 and Chocksett Rd. - Intersection Improvements	\$1,500,000	\$2,880,000	Major Studies	2031-2035
	Rte. 62 at Chocksett Rd. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Rte. 62 at Leominster Rd. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Rte. 62 at Rte 12 North. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Rte. 12/North Row Rd./Pratts Junction Rd. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies	2031-2035
	Rte. 190 (Exit 6)/Leominster Rd. (Rte. 12) - Safety Improvements	\$2,000,000	\$3,840,000	Safety; Congestion	2031-2035
	Rte. 190 (Exit 5)/Redemption Rock Tr. (Rte. 140) - Safety Improvements	\$2,000,000	\$3,040,000	Safety; Congestion	2031-2035
Templeton	Rte 101/Rte 2A/N. Main St./S. Main St. - Geometric Improvements	\$875,000	\$1,680,000	Major Studies; Safety; Congestion	2031-2035
	Ware River Rail Trail - Trail Development	Further Study		Major Studies	
	Rte. 2 (Exit 21)/Patriots Rd. (Rte 2A) - Intersection/Ramp Improvements	Further Study		Safety	
Townsend	Route 13 - Resurfacing and Related Work	\$4,000,000	\$6,080,000	Major Studies	2021-2025
	Rte 13 at Rte 119 - Geometric Improvements	\$875,000	\$1,155,000	Major Studies	2016-2020
	Rte 13/Highland St./School St. - Geometric Improvements	\$875,000	\$1,330,000	Major Studies	2021-2025
	Rte 13/Highland St./Brookline St. - Geometric Improvements	\$875,000	\$1,330,000	Major Studies	2021-2025
	Main St. (Rte. 119)/ West Elm St./ Canal St. - Intersection Improvements	\$875,000	\$1,330,000	Safety	2021-2025
Westminster	Various improvements along Rte. 140 recommended in Corridor Profile	\$13,500,000	\$23,220,000	Major Studies	2026-2030
	Rte. 2 at Rte. 140 (Exit 25)/State Rd. East (Rte. 2A)/Hagar Park Rd. - Safety Improvements	\$1,250,000	\$2,150,000	Safety; Congestion	2026-2030
	Rte. 2 (Exit 27)/Depot Rd./Narrows Rd. - Safety Improvements	Further Study		Safety	



Community	Project/ Recommendation	2012 Est. Cost	Est. YOE Cost	Element	Est. YOE
Westminster	Rte. 2 (Exit 26) at Village Inn Rd. - Safety Improvements	Further Study		Safety	
	State Rd. East (Rte. 2A)/ Depot Rd./ Bartherick Rd. - Intersection Improvements	Further Study		Safety	
	Main St. (Rte. 2A)/ South St./ Leominster St. - Intersection Improvements	\$875,000	\$1,330,000	Safety; Congestion	2021-2025
Winchendon	Rte. 12/Central St./Front St. (Blair Sq.) - Geometric Improvements	\$875,000	\$1,330,000	Major Studies	2021-2025
	Rte. 12/River St./School St./Front St. (Tannery Sq.) - Traffic Signal/Geometric Improvements	\$1,000,000	\$1,920,000	Major Studies; Safety	2031-2035
	Glenallen St. (Route 202) from Maple St. Intersection to Rindge, N.H. State Line - Reconstruction	\$5,825,582	\$10,020,001	Major Studies	2026-2030
	Spring St. (Rte. 12)/ Glenallan St. - Intersection Improvements	Further Study		Safety	
Regionwide	Installation of Gates at 12 locations	\$2,700,000	\$5,184,000	Freight & Rail	2031-2035
	Installation of advanced warning signs/Pavement markings at 8 locations	\$180,000	\$2,188,800	Freight & Rail	2021-2025
	Improvements to 60 Functionally Obsolete Bridges	\$104,040,000		Infrastructure	
	Restructuring/Rehabilitation of 31 Structurally Deficient Bridges	\$89,590,000		Infrastructure	
	Improvements to 384 mi. of Local Jurisdiction Federal Aid eligible roadways	\$356,319,517		Infrastructure	
	ITS Recommendations - Project by project	Further Study		Security/ITS	
	Improvements to 259 mi. of State Jurisdiction Federal Aid Eligible roadways	\$132,893,451		Infrastructure	

**Transit****MONTACHUSETT MPO- Long Range Transit Projects, Needs**

Funding Category	Project Description	Funding Sub Category	FFY 2016 TO FFY2036 Est. Costs
5307	Urban Assistance Formula (5307) - Urban Operating Assistance & Capital Purchase/Improvements	Operating & Capital	\$84,263,394
5311	Non-Urbanized Area Formula (5311&5340) - Operating Assistance Rural	Operating	\$6,455,130
5310	Elderly & Disabled (5310) - MAP Purchases (Elderly & Disabled)	Capital	\$15,306,721
5316	JARC (5316) - Operating Assistance & Capital - Small Urban & Rural Only (Supports Link Service)	JARC	\$5,841,345
5317	New Freedoms (5317) - New Freedoms - Small Urban & Rural Only	Capital	\$2,331,250
5309	Bus Park & Ride Gardner	Capital	\$500,000
	Wind/Solar Power System at Commuter Parking Facilities	Capital	\$3,500,000
	Parking Facility Shirley/ Devens	Capital	\$10,000,000
5307/5309	Bus and Van Procurement	Capital	\$18,560,000
	Electrical Vehicle Recharging Stations at Commuter Parking Facilities	Capital	\$2,500,000
	Secure Bicycle Parking at Commuter Rail Stations	Capital	\$440,000
	Asset Management	Capital	\$1,000,000

Cost estimates are based upon expected RTA formula funding and Competitive Statewide Federal funding estimates provided by MassDOT.