

APPENDIX A

PROJECT PRIORITIZATION AND SCORING

INTRODUCTION

As described in Chapter 2, the Transportation Improvement Program (TIP) development and project prioritization and funding process consists of numerous phases and is supported by several different funding sources. This appendix includes information about transportation construction projects that the Boston Region Metropolitan Planning Organization (MPO) considered for funding through the Highway Discretionary ("Regional Target") Program in the federal fiscal years (FFYs) 2020-24 TIP. In order to be considered for funding by the MPO, a project must fulfill certain basic criteria:

- The Massachusetts Department of Transportation's Project Review Committee must have approved the project or have plans to review it.
- The project should fall into one of the investment categories established in the Boston Region MPO's Long-Range Transportation Plan (LRTP): Complete Streets, Intersection Improvements, Bicycle Network and Pedestrian Connections, Major Infrastructure, or Community Transportation/Parking/Clean Air and Mobility.¹

If a project meets the above criteria, it is presented to the MPO board in the Universe of Unprogrammed Projects (Table A-I) to be considered for funding.

Once a project in that list nears the 25 percent design stage, the required information is available for evaluation and scoring by MPO staff. The evaluation criteria used to score projects are based on the MPO's goals and objectives (Table A-2). After the projects are scored, the scores are shared with project proponents, posted on the MPO's website, and presented to the MPO board for review and discussion. The scores for projects evaluated during development of the FFYs 2020-24 TIP are summarized in Table A-3.

The next step in project prioritization is development of the First-Tier List of Projects (Table A-4). In addition to summarizing the project scores, the First-Tier List of Projects presents geographic, cost, readiness, and other information about each project that the MPO board can use to inform decisions about how to prioritize projects for funding in the TIP.

Appendix A A-3

I These are the investment categories established in the LRTP, Charting Progress to 2040. An updated LRTP, Destination 2040, will be adopted in July 2019 and may have updated or new investment categories.

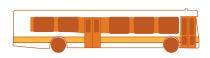


Table A-I Universe of Unprogrammed Projects
(as presented to the Boston Region MPO board on February 7, 2019)

Municipality	Project Proponent	Project Name	PROJIS/ TIP ID	Design Status	Cost Estimate	MAPC Subregion	MassDOT Highway District	Evaluate in 2018/2019	MPO Investment Program
Inner Core									
Newton	Newton	Reconstruction and Signal Improvements on Walnut St, from Homer St to Route 9	601704	25% design	\$ 4,648,360	ICC	6		Complete Streets
Boston	Boston	Neponset River Greenway (Phase 3)	608943	PRC-approved	\$ 4,972,500	ICC	6	Х	Bicycle and Pedestrian
Everett	Everett	Reconstruction of Beacham St from Broadway to the Chelsea City Line	609257	Pre-PRC; PRC-approval expected Dec. 2018	\$ 9,180,000	ICC	4	Х	Complete Streets
Lynn	Lynn	Traffic and Safety Improvements at Two Locations on Broadway	609254	Pre-PRC; PRC-approval expected Dec. 2018	\$ 5,870,300	ICC	4	Х	Intersection Improvements
Lynn	Lynn	Rehabilitation of Essex St	609252	Pre-PRC; PRC-approval expected Dec. 2018	\$ 16,925,000	ICC	4	X	Complete Streets
Belmont	Belmont	Community Path, Belmont Component of the MCRT (Phase 1)	609204	PRC approved	\$ 16,703,600	ICC	4		Bicycle and Pedestrian
Boston	Boston	Reconstruction of Tremont St, from Court St to Boylston St	601274	25% design	\$ 2,681,260	ICC	6		Complete Streets
Boston, Brookline	Boston, Brookline	Mountfort St and Commonwealth Ave Connection	608956	PRC approved (2017)	\$ 916,883	ICC	6		Intersection Improvements
Boston	Boston	Reconstruction of Tremont St, from Stuart St to Marginal Rd (1,830 ft.)	601507	PRC approved (1996)	\$ 4,400,000	ICC	6		Complete Streets
Boston	Boston	Traffic Signal Improvements at Eight Locations	606556	PRC approved	\$ 3,603,960	ICC	6		Intersection Improvements
Boston	MassDOT	Leverett Circle Pedestrian Bridge over Route 28, I-93 Ramps and Storrow Dr	606703	PRC approved	\$ 11,040,000	ICC	6		Bicycle and Pedestrian
Boston	Boston	Reconstruction on (Route 203) Gallivan Boulevard, from Neponset Cir to East of Morton St Intersection	606896	PRC approved	\$ 11,500,000	ICC	6		Complete Streets
Boston	Boston	Improvements on (Route 203) Morton St, from West of Gallivan Blvd to Shea Cir	606897	PRC approved	\$ 11,500,000	ICC	6		Complete Streets
Cambridge	Cambridge	Innovation Boulevard Streetscape and Pedestrian Improvements, between Main St and Binney St (Phase I)	604993	25% design	\$ 992,163	ICC	6		Complete Streets
Chelsea	Chelsea	Beacham and Williams St Reconstruction	609083	PRC approved	\$ 8,281,525	ICC	6		Complete Streets
Chelsea	Chelsea	Reconstruction of Beacham St, from Spruce St to the Everett City Line	na	Pre-PRC	-	ICC	6		Complete Streets
Newton	Newton	Reconstruction on Route 30 (Commonwealth Ave), from Weston Town Line to Auburn St	600932	PRC approved (1996)	\$ 2,208,000	ICC	6		Complete Streets
Newton	Newton	Improvements of Route 128/I-95 and Grove St	607940	PRC approved (2014)	\$ 10,000,055	ICC	6		Complete Streets
Newton, Brookline	MassDOT	Resurfacing and Related Work on Route 9, from Dearborn St to Natick Town Line	608821	PRC approved	\$ 7,337,000	ICC	6		Complete Streets

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Table A-I
Universe of Unprogrammed Projects
(as presented to the Boston Region MPO board on February 7, 2019) (cont. 2)

Municipality	Project Proponent	Project Name	PROJIS/ TIP ID	Design Status	Cost Estimate	MAPC Subregion	MassDOT Highway District	Evaluate in 2018/2019	MPO Investment Program
Minuteman Advi	sory Group o	on Interlocal Coordination							
Littleton	Littleton	Reconstruction of Foster St	609054	PRC approved	\$ 3,600,000	MAGIC	3	X	Complete Streets
MetroWest Regi	onal Collabor	rative rative							
Framingham	MassDOT	Pedestrian Hybrid Beacon Installation at Route 9 and Maynard Rd	608006	25% design	\$ 886,228	MWRC	3		Bicycle and Pedestrian
Marlborough	MassDOT	Intersection and Signal Improvements on Route 20 (East Main St/Boston Post Rd) at Concord Rd	604231	25% design	\$ 1,706,600	MWRC	3		Intersection Improvements
Ashland	Ashland	Rehabilitation and Rail Crossing Improvements on Cherry St	608436	PRC approved	\$ 990,000	MWRC	3	X	Bicycle and Pedestrian
Framingham	Framingham	Traffic Signal Installation at Edgell Rd at Central St	608889	PRC approved	\$ 1,680,000	MWRC	3	Х	Intersection Improvements
Wellesley	MassDOT	Resurfacing and Related Work on Route 9, from Dearborn St to Natick Town Line	607340	PRC approved	\$ 16,462,400	MWRC	6		Complete Streets
Weston	Weston	Intersection Improvements - Boston Post Rd (Route 20) at Wellesley St	608940	PRC approved	\$ 1,219,250	MWRC	6		Intersection Improvements
Weston	MassDOT	Reconstruction on Route 30	608954	PRC approved	\$ 8,117,562	MWRC	6		Complete Streets
North Suburbar	Planning Co	uncil							
Wilmington	Wilmington	Reconstruction on Route 38 (Main St), from Route 62 to the Woburn City Line	608051	25% design	\$ 10,802,316	NSPC	4	X	Complete Streets
Wilmington	Wilmington	Intersection Improvements at Lowell St and Woburn St	609253	Pre-PRC; PRC-approval expected Dec. 2018	\$ 3,400,000	NSPC	4	Х	Intersection Improvements
Woburn	Woburn	Middlesex Canal Park Improvements, from Alfred St to School St (Phase II - Segment 5)	606304	PRC approved (2010)	\$ 799,820	NSPC	4		Bicycle and Pedestrian
Woburn	MassDOT	Intersection Reconstruction at Route 3 (Cambridge Rd) and Bedford Rd and South Bedford St	608067	PRC approved (2014)	\$ 1,440,000	NSPC	4		Intersection Improvements
North Shore	Task Force								
Danvers	Danvers	Reconstruction on Collins St, from Sylvan St to Centre and Holten Sts	602310	75% design	\$ 5,183,121	NSTF	4		Complete Streets
Peabody	MassDOT	Independence Greenway Extension	609211	PRC approved	\$ 1,921,075	NSTF	4	Х	Bicycle and Pedestrian
Beverly, Manchester-by- the-Sea	MassDOT	Resurfacing and Related Work on Route 127	607707	PRC approved	\$ 2,300,000	NSTF	4		Complete Streets
Manchester-by- the-Sea	Manchester- by-the-Sea	Pine Street - Central St (Route 127) to Rockwood Heights Rd	na	Pre-PRC; PNF submitted 12/27/16	-	NSTF	4		Complete Streets

Table A-I
Universe of Unprogrammed Projects
(as presented to the Boston Region MPO board on February 7, 2019) (cont. 3)

Municipality	Project Proponent	Project Name	PROJIS/ TIP ID	Design Status	Cost Estimate	MAPC Subregion	MassDOT Highway District	Evaluate in 2018/2019	MPO Investment Program
South Shore	Coalition								
Hingham	Hingham	Improvements on Route 3A from Otis St/Cole Rd, including Summer St and Rotary; Rockland St to George Washington Blvd	605168	PRC approved (2009)	\$ 7,500,001	SSC	5		Complete Streets
Holbrook	Holbrook	Corridor Improvements and Related Work on South Franklin St (Route 37) from Snell St to King Rd		PRC approved	\$ 4,000,200	SSC	5		Complete Streets
Hull	Hull	Corridor Improvements along Nantasket Ave from Moutford Rd to A St	na	Pre-PRC; PNF submitted 6/30/16		SSC	5		Complete Streets
Weymouth	Weymouth	Reconstruction on Route 3A, including Pedestrian and Traffic Signal Improvements	608231	PRC approved	\$ 10,780,100	SSC	6		Complete Streets
Weymouth	MassDOT	Resurfacing and Related Work on Route 3A	608483	PRC approved	\$ 2,400,000	SCC	6		Complete Streets
South West Adv	isory Plannin	g Committee							
Milford	MassDOT	Rehabilitation on Route 16, from Route 109 to Beaver St	608045	PRC approved (2014)	\$ 2,700,000	SWAP	3		Complete Streets
Bellingham	Bellingham	South Main St (Route 126) - Elm St to Douglas Dr Reconstruction	na	Pre-PRC; PNF submitted 3/13/17	-	SWAP	3		Complete Streets
Franklin	MassDOT	Resurfacing and Intersection Improvements on Route 140, from Beaver St to I-495 Ramps	607774	PRC approved	\$ 4,025,000	SWAP	3		Complete Streets
Three Rivers In	terlocal Cour	ncil							
Westwood	Westwood	Reconstruction of Canton St and Everett St	608158	PRC approved (2015)	\$ 2,880,000	TRIC	6		Complete Streets
Westwood	MassDOT	Traffic Signal Improvements on Route 109	608947	PRC approved	\$ 453,600	TRIC	6		Intersection Improvement
Multiple Su	bregions								
Newton, Weston	MassDOT	Multi-use Trail Connection, from Recreation Road to Upper Charles River Greenway including Reconstruction of Pedestrian Bridge N-12- 078=W-29-062	609066	PRC approved	\$ 2,661,498	ICC, MWRC	6	X	Bicycle and Pedestrian
Milton	Milton	Intersection Improvements - Squantum St at Adams St	608955	PRC approved (2017)	\$ 979,763	ICC,TRIC	6		Intersection Improvements
Milton	MassDOT	Reconstruction on Granite Ave, from Neponset River to Squantum St	608406	25% design	\$ 3,665,146	ICC,TRIC	6		Complete Streets

Already evaluated; reconsider for programming

Evaluate for the first time this year

Not evaluated; no data for evaluation

MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. PNF = Project Need Form. PRC = MassDOT Project Review Committee. PROJIS=MassDOT project information system.

MAPC subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = South West Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.

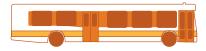


Table A-2 **TIP Project Evaluation Criteria**

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
SAFETY: Transportation by all modes will be safe.		
Reduce the number and severity of crashes, for all modes	Crash Severity Value: EPDO index (0–5 points)	+5 EPDO value of 300 or more +4 EPDO value between 200 and 299
Reduce serious injuries and fatalities from transportation	, ,	+3 EPDO value between 100 and 199 +2 EPDO value between 50 and 99
Protect transportation customers and employees from safety and security threats		+1 EPDO value less than 50 +0 No EPDO value
	Crash Rate (either intersection or corridor): (0–5 points)	Intersection: Evaluation Score Signalized Unsignalized Signalized Unsignalized Signalized Sign
	Improves truck-related safety issue (0–5 points)	 +3 High total effectiveness of truck safety countermeasures +2 Medium total effectiveness of truck safety countermeasures +1 Low total effectiveness of truck safety countermeasures +0 Does not implement truck safety countermeasures
		If project scores points above, then it is eligible for additional points below: +2 Improves truck safety at HSIP Cluster

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Table A-2
TIP Project Evaluation Criteria (cont. 2)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
	Improves bicycle safety (0–5 points)	 +3 High total effectiveness of bicycle safety countermeasures +2 Medium total effectiveness of bicycle safety countermeasures +1 Low total effectiveness of bicycle safety countermeasures +0 Does not implement bicycle safety countermeasures
		If project scores points above, then it is eligible for additional points below: +2 Improves bicycle safety at HSIP Bicycle Cluster +1 Improves bicycle safety at HSIP Cluster
	Improves pedestrian safety (0–5 points)	 +3 High total effectiveness of pedestrian safety countermeasures +2 Medium total effectiveness of pedestrian safety countermeasures +1 Low total effectiveness of pedestrian safety countermeasures +0 Does not implement pedestrian safety countermeasures
		If project scores points above, then it is eligible for additional points below: +2 Improves pedestrian safety at HSIP Pedestrian Cluster +1 Improves pedestrian safety at HSIP Cluster
	Improves safety or removes an atgrade railroad crossing (0–5 points)	+5 Removes an at-grade railroad crossing +3 Significantly improves safety at an at-grade railroad crossing +1 Improves safety at an at-grade railroad crossing +0 Does not include a railroad crossing
SAFETY (30 possible points)		

EPDO = Equivalent Property Damage Only; HSIP = Highway Safety Improvement Program

Table A-2
TIP Project Evaluation Criteria (cont. 3)

овјестіче	CRITERIA	SUBCRITERIA/SCORING
SYSTEM PRESERVATION: Maintain the transportation system.		
Improve the condition of on- and off-system bridges Improve pavement condition on the MassDOT-monitored roadway system	Improves substandard roadway bridge(s) (0–3 points)	+3 Condition is structurally deficient and improvements are included in the project +1 Condition is functionally obsolete and improvements are included in the project +0 Does not improve substandard bridge or does not include a bridge
Maintain and modernize capital assets throughout the system	Improves substandard pavement (up to 6 points)	+6 IRI rating greater than 320: Poor condition and pavement improvements are included in the project +4 IRI rating between 320 and 191: Fair condition and pavement improvements are included in the project +0 IRI rating less than 190: Good or better condition
Maintain and modernize capital assets throughout the system (surface condition of sidewalks) Prioritize projects that support planned response capability to existing or future extreme conditions (sea level rise, flooding, and other natural and security-related	Improves substandard traffic signal equipment (0–6 points)	+6 Poor condition — improvements are included in the project +4 Fair condition — improvements are included in the project +0 Does not meet or address criteria
man-made hazards) Protect freight network elements, such as port facilities, that are vulnerable to climate-change impacts	Improves transit asset(s) (0–3 points)	+2 Brings transit asset into state of good repair +1 Meets an identified need in an Asset Management Plan +0 Does not meet or address criteria
cimate change impacts	Improves substandard sidewalk(s) (0–3 points)	+3 Poor condition and sidewalk improvements are included in the project +2 Fair condition and sidewalk improvements are included in the project +0 Sidewalk condition is good or better
	Improves emergency response	+1 Project improves an evacuation route, diversion route, or alternate diversion route
	(0–2 points)	+1 Project improves an access route to or in proximity to an emergency support location
	Improves ability to respond to	+2 Addresses flooding problem and/or sea level rise and enables facility to function in such a condition
	extreme conditions	+1 Brings facility up to current seismic design standards
	(0–6 points)	+I Addresses critical transportation infrastructure
		+I Protects freight network elements
		+1 Implements hazard mitigation or climate adaptation plans

SYSTEM PRESERVATION (29 possible points)

IRI = International Roughness Index

Table A-2
TIP Project Evaluation Criteria (cont. 4)

ОВЈЕСТІVЕ	CRITERIA	SUBCRITERIA/SCORING
CAPACITY MANAGEMENT/MOBILITY: Use existing facility capacity more efficiently and increase healthy transportation options.		
Improve reliability of transit Implement roadway management and operations strategies, constructing improvements to the bicycle and pedestrian network, and supporting community-based transportation	Reduces transit vehicle delay (0–4 points)	+3 5 hours or more of daily transit vehicle delay reduced +2 I-5 hours of daily transit vehicle delay reduced +1 Less than one hour of daily transit vehicle delay reduced +0 Does not reduce transit delay If project scores points above, then it is eligible for additional points below: +1 Improves one or more key bus route(s)
Create connected network of bicycle and accessible sidewalk facilities (at both regional and neighborhood scale) by expanding existing facilities and closing gaps	Improves pedestrian network and	+2 Adds new sidewalk(s) (including shared-use paths)
Increase automobile and bicycle parking capacity and usage at transit stations	ADA accessibility (0–5 points)	+2 Improves ADA accessibility +1 Closes a gap in the pedestrian network
Increase the percentage of population and places of employment within one-quarter mile of transit stations and stops		+0 Does not improve pedestrian network +3 Adds new physically separated bicycle facility (including shared-use paths)
Increase the percentage of population and employment with access to bicycle facilities	Improves bicycle network (0–4 points)	+2 Adds new buffered bicycle facility +1 Adds new standard bicycle facility
Improve access to and accessibility of transit and active modes		+1 Closes a gap in the bicycle network +0 Does not improve bicycle network
Enhance intermodal connections Support community-based and private-initiative services and programs to meet last-mile, reverse-commute and other non-traditional transit and transportation needs, including those of the elderly and persons with disabilities	Improves intermodal accommodations/connections to transit (0–6 points)	+6 Meets or addresses criteria to a high degree +4 Meets or addresses criteria to a medium degree +2 Meets or addresses criteria to a low degree +0 Does not meet or address criteria
Eliminate bottlenecks on the freight network	Improves truck movement (0–4 points)	 +3 Meets or addresses criteria to a high degree +2 Meets or addresses criteria to a medium degree +1 Meets or addresses criteria to a low degree +0 Does not meet or address criteria
		If project scores points above, then it is eligible for additional points below: +I Addresses MPO-identified bottleneck location
	Reduces vehicle congestion (0–6 points)	+6 400 hours or more of daily vehicle delay reduced +4 100-400 hours of daily vehicle delay reduced +2 Less than 100 hours of daily vehicle delay reduced +0 Does not meet or address criteria
CAPACITY MANAGEMENT/MOBILITY (29 possible points)		

ADA = Americans with Disabilities Act

Table A-2 TIP Project Evaluation Criteria (cont. 5)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
CLEAN AIR/CLEAN COMMUNITIES: Create an environmentally friendly transportation system.		
Reduce GHGs generated in the Boston region by all transportation modes as outlined in the Global Warming Solutions Act Reduce other transportation-related pollutants Minimize negative environmental impacts of the transportation system, when possible Support land-use policies consistent with smart and healthy growth	Reduces CO ₂ (-5–5 points)	+5 I,000 or more annual tons of CO ₂ reduced +4 500-999 annual tons of CO ₂ reduced +3 250-499 annual tons of CO ₂ reduced +2 I00-249 annual tons of CO ₂ reduced +1 Less than I00 annual tons of CO ₂ reduced 0 No impact -1 Less than I00 annual tons of CO ₂ increased -2 I00-249 annual tons of CO ₂ increased -3 250-499 annual tons of CO ₂ increased -4 500-999 annual tons of CO ₂ increased -5 I,000 or more annual tons of CO ₂ increased
	Reduces other transportation-related emissions (VOC, NOx, CO) (-5–5 points)	+5 2,000 or more total kilograms of VOC, NOx, CO reduced +4 1,000-1,999 total kilograms of VOC, NOx, CO reduced +3 500-999 total kilograms of VOC, NOx, CO reduced +2 250-499 total kilograms of VOC, NOx, CO reduced +1 Less than 250 total kilograms of VOC, NOx, CO reduced 0 No impact -1 Less than 250 total kilograms of VOC, NOx, CO increased -2 250-499 total kilograms of VOC, NOx, CO increased -3 500-999 total kilograms of VOC, NOx, CO increased -4 1,000-1,999 total kilograms of VOC, NOx, CO increased -5 2,000 or more total kilograms of VOC, NOx, CO increased
	Addresses environmental impacts (0–4 points)	+I Addresses water quality +I Addresses cultural resources or open space +I Addresses wetlands or resource areas +I Addresses wildlife preservation or protected habitats +0 Does not meet or address criteria
CLEAN AIR/CLEAN COMMUNITIES (16 possible points)	Is in an EOEEA-certified "Green Community" (0–2 points)	+2 Project is located in a "Green Community" +0 Project is not located in a "Green Community"

CO = carbon monoxide; CO₂ = carbon dioxide; EOEEA = Executive Office of Energy and Environmental Affairs; GHG = greenhouse gas; NOx = nitrogen oxides; VOCs = volatile organic compounds.

Table A-2
TIP Project Evaluation Criteria (cont. 6)

ОВЈЕСТІУЕ	CRITERIA	SUBCRITERIA/SCORING
TRANSPORTATION EQUITY: Provide comparable access and service quality among communities, regardless of income level or minority population.		
Target investments to areas that benefit a high percentage of low-income and minority populations Minimize any burdens associated with MPO-funded projects in low income and minority areas Break down barriers to participation in MPO-decision making	Serves Title VI/non-discrimination populations (-10–12 points) Regional Thresholds: - Elderly: 6.7% - Minority: 28.2% - People with a disability: 10.0% - Limited-English proficiency population: 10.6% - Low-income households: 32.2% - Zero-vehicle households: 16.1%	+2 Serves minority (high concentration) population (> 2,000 people) +1 Serves minority (low concentration) population (≤ 2,000 people) +2 Serves low-income (high concentration) population (> 2,000 people) +1 Serves low-income (low concentration) population (≤ 2,000 people) +2 Serves limited-English proficiency (high concentration) population (> 1,000 people) +1 Serves limited-English proficiency (low concentration) population (≤ 1,000 people) +2 Serves elderly (high concentration) population (> 2,000 people) +1 Serves elderly (low concentration) population (≤ 2,000 people) +2 Serves zero-vehicle households (high concentration) population (> 1,000 people) +1 Serves zero-vehicle households (low concentration) population (≤ 1,000 people) +2 Serves persons with disabilities (high concentration) population (≤ 1,000 people) +2 Serves persons with disabilities (low concentration) population (≤ 1,000 people) +3 Serves persons with disabilities (low concentration) population (≤ 1,000 people)
		-10 Creates a burden for Title VI or non-discrimination populations
TRANSPORTATION EQUITY (12 possible points) ECONOMIC VITALITY: Ensure our transportation network provides a strong		
foundation for economic vitality.		
Prioritize transportation investments that serve targeted development sites Prioritize transportation investments that support development consistent with the compact growth strategies of MetroFuture Minimize the burden of housing and transportation costs for residents in the region	Serves targeted development site (0–6 points)	+2 Provides new transit access to or within site +1 Improves transit access to or within site +1 Provides for bicycle access to or within site +1 Provides for pedestrian access to or within site +1 Provides for improved road access to or within site +0 Does not provide any of the above measures
	Provides for development consistent with the compact growth strategies of MetroFuture (0–5 points)	 +2 Mostly serves an existing area of concentrated development +1 Partly serves an existing area of concentrated development +1 Supports local zoning or other regulations that are supportive of smart growth development +2 Complements other local financial or regulatory support that fosters economic revitalization in a manner consistent with smart growth development principles +0 Does not provide any of the above measures

Table A-2
TIP Project Evaluation Criteria (cont. 7)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
	Provides multimodal access to an	+I Provides transit access (within a quarter mile) to an activity center
	activity center	+I Provides truck access to an activity center
	(0–4 points)	+ I Provides bicycle access to an activity center
		+1 Provides pedestrian access to an activity center
		+0 Does not provide multimodal access
	Leverages other investments (non- TIP funding) (0–3 points)	+3 Meets or addresses criteria to a high degree (>30% of the project cost) +2 Meets or addresses criteria to a medium degree (10-30% of the project cost) +1 Meets or addresses criteria to a low degree (<10% of the project cost) +0 Does not meet or address criteria
ECONOMIC VITALITY (18 possible points)		
TOTAL SCORE (134 possible points)		

Appendix A

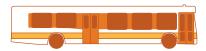


Table A-3
TIP Project Evaluation Results

TIP ID	Municipality grouped by Mi	•	Project Name	Project Cost	Initial Total Score (134 possible points)	d Total	Safety Score (30 possible points)	Crash Severity Value: EPDO Index (0–5 points)	e (0–5 points)	Improves truck safety (0–5 points)	Improves pedestrian safety (0–5 points)	railroad crossing safet	eservation Score (29 possibl		substandard pavement (0–6 po	Improves substandard traffic signals (0-6 points) Improves transit asset(s) (0-3 points)	substar	emergency response (0-2	Improves ability to respond to extreme conditions (0-6 points)	Capacity Management/Mobility Score (29 possible points)	Reduces transit vehicle delay (0–4 points)	Improves pedestrian network and ADA accessibility (0-5 points)	Improves bicycle network (0–4 points)	Improves intermodal connections to transit (0-6 points)	Improves truck movement (0–4 points)	Reduces vehicle congestion (0–6 points)	Clean Air/Sustainable Communities Score (16 possible points)	is (-5–5 points)	Reduces other transportation-related emissions (-5-5 points)	s environmental impacts (0–4 points)	een (nic Vitality Score (18 possible	rgeted development site (0–6 points)	Frovides for development consistent with the compact growth strategies of MetroFuture (0–5 points)	Provides intermodal access to activity center (0–4 points)
			3 37																																	
Bicycle/Pe	destrian																																			
Bicycle/Pe 608943*	edestrian Boston	DCR	Neponset River Greenway (Phase 3)	\$4,972,500	42	42	П	3	0	0 4	4	0	4	0	0	0 0	3	I	0	9	0	5	4	0	0	0	10	3	4	1	2	7	1	0	I	0 (
		DCR Peabody	Neponset River Greenway	\$4,972,500 \$1,921,075					0 2	0 4	4		4	0 0				1		9		5	4	0					4	1 2		7	1		1 2	
608943*	Boston		Neponset River Greenway (Phase 3) Independence Greenway		31	34	9	I		0 4 0 3		0	4 4 6		0 (3				0	5 5 2			0	0		I			0					
608943*	Boston Peabody	Peabody	Neponset River Greenway (Phase 3) Independence Greenway Extension Pedestrian Hybrid Beacon Installation at Route 9 and	\$1,921,075	31	26	9	2	4		4	0	6	0	0 (0 0	3		0	2	0	2	0	0	0	0	2	0	0	0	0		4	0		2 (
608943* 609211* 608006	Boston Peabody Framingham Weston	Peabody MassDOT	Neponset River Greenway (Phase 3) Independence Greenway Extension Pedestrian Hybrid Beacon Installation at Route 9 and Maynard Rd Multi-Use Trail Connection (Recreation Rod to Upper Charles River Greenway, including Reconstruction of	\$1,921,075	31	26	9	2	4	0 0	4	0	6	0	0 (0 0	3	1	0	2	0	2	0	0	0	0	2	0	0	0	0	1	4	0	2	2 (

Appendix A

Table A-3
TIP Project Evaluation Results (cont. 2)

TIP ID	Municipality	Proponent	Project Name	Project Cost	Initial Total Score (134 possible points)	Revised Total Score (134 possible points)	Safety Score (30 possible points)	Severity Va	Crash Rate (0-5 points) Improves truck safety (0-5 points)	bicycle safety (0-	pedestrian safety	Improves railroad crossing safety (0–5 points)	System Preservation Score (29 possible points)	s substandard	traffic signals (transit asset(s) (0-3 points)	substandard sidewa	se (0–2 poin	Improves ability to respond to extreme conditions (0–6 points)	transit vehicle delay (0–4 points)	pedestrian network and	bicycle network (0–4 points)	Improves intermodal connections to transit (0-6 points)	Improves truck movement (0–4 points)	es vehicle congestion (0–6 points)		CO ₂ emissions (-5–5 points)	Reduces other transportation-related emissions (-5–5 points)	environmental milipacts (0—4 points)	Transportation Equity Score (12 possible points)	re (18 possible poin	urgeted development site (0–6 points)	Provides for development consistent with the compact growth strategies of MetroFuture (0–5 points)	ntermodal access to activity center (0–4 p	Leverages other investments (non-TIP funding) (0–3 points)
608051*	Wilmington	Wilmington	Reconstruction of Route 38 (Main St), from Route 62 to the Woburn City Line	\$10,802,316	51	59	15	4	2 3	2	4	0	12	0 2	4	0	3	1	2 1	3 0	5	2	4	0	2	10	4	3 3	3 (1	8	3	I	2	2
605168	Hingham	Hingham	Intersection Improvements at Route 3A/Summer St Rotary	\$7,500,001	55	55	10	3	I 0	3	3	0	16	0 4	4	0	3	I	4 1	7 2	4	4	I	0	6	10	3	2 3	3 2	2 0	2	0	0	2	0
609257*	Everett	Everett	Rehabilitation of Beacham St, from Route 99 to Chelsea City Line	\$9,180,000	54	54	19	1 !	5 4	4	4	I	10	0 6	0	0	3	I	0 1	3 0	5	4	0	4	0	4	I	1 () 2	. 7	,	0	1	0	0
601704	Newton	Newton	Reconstruction and Signal Improvements on Walnut St, from Homer St to Route 9	\$4,648,360	45	45	14	4	3 3	2	2	0	12	0 6	4	0	2	0	0 7	0	0	I	6	0	0	4	-1	1 2	2 2	2 0	8	3	2	3	0
602310	Danvers	Danvers	Reconstruction of Collins St, from Sylvan St to Centre and Holten Sts	\$5,183,121	44	44	8	1 :	2 I	2	2	0	12	0 6	6	0	0	0	0 1	2 0	4	I	2	I	4	5	2	1 2	2 (2	5	I	2	2	0
608045	Milford	MassDOT	Rehabilitation on Route 16, from Route 109 to Beaver St	\$2,700,000	43	43	20	5 !	5 4	2	4	0	7	0 0	4	0	2	I	0 9	I	5	I	0	2	0	-1	-1	-1 1	C	3	5	3	ı	I	0
609054*	Littleton	Littleton	Reconstruction of Foster St	\$3,522,546	37	38	12	1 :	2 0	3	3	3	3	0 0	0	0	3	0	0 1	0	5	4	2	0	0	5	I	1 1	2	. 1	6	4	2	0	0

Table A-3 TIP Project Evaluation Results (cont. 3)

TIP ID	Municipality on Improvement	•	Project Name	Project Cost	Initial Total Score (134 possible points)	Il Score (134 possibl	Safety Score (30 possible points)	Severity Va	Crash Rate (0–5 points) Improves truck safety (0–5 points)	bicycle safety (0-	Improves pedestrian safety (0–5 points)	railroad crossing safety	System Preservation Score (29 possible points)	substandard pavement (0-6 points)	Improves substandard traffic signals (0-6 points)	Improves transit asset(s) (0-3 points)	substandard sidewalk(s) (emergency response (0–2 poin	extreme conditions	Reduces transit vehicle delay (0–4 points)	trian network and	4 points)	intermodal connectio	truck movement (0-4 points)	ehicle congestion (0–6	Clean Air/Sustainable Communities Score (16 possible points)	is (-5–5 points)	other transportation	Addresses environmental impacts (0–4 points)	n an EOEEA-certified "Green (c Vitality Score (18 possible	rgeted development site (0–6 points)	Provides for development consistent with the compact growth strategies of MetroFuture (0-5 points)	Provides intermodal access to activity center (0-4 points)	٩
Intersective	on improvement	•																				1														
609253*	Wilmington	Wilmington	Intersection Improvements at Lowell St (Route 129) and Woburn St	\$3,400,000	49	53	13	2	3 I	3	4	0	12 0	2	6	0	3	0 1	1	6 0	5	2	0	3	6	9	4	3	2	0	1	2	0	2	0	0
609253*	Wilmington Framingham	Wilmington Framingham	at Lowell St (Route 129) and	\$3,400,000 \$1,680,000	49		13	2 I	3 I 2 I	2	3	4	12 0	2	6	0	3	0 I	3 7	6 0 7 0		2	0		6		4	3	2	0	2	2	0	2	0	3
		J	at Lowell St (Route 129) and Woburn St Traffic Signal Installation at Edgell		26	41	9	I	3 I 2 I 4 0	2		0	12 0 10 0		6 0	0			3 7) 7	7 0		I	0 0 2	I	2	9			2 2	2		4		2 I 3		3
608889*	Framingham	Framingham	at Lowell St (Route 129) and Woburn St Traffic Signal Installation at Edgell Rd and Central St Traffic and Safety Improvements	\$1,680,000	26	41 39	9	3	3 I 2 I 4 0 4 0	2	4	0		4		0		0 0) 7	7 0	3	I	2	0	2	9		I	0	2	1	4	0	I	0	3
608889*	Framingham	Framingham Lynn	at Lowell St (Route 129) and Woburn St Traffic Signal Installation at Edgell Rd and Central St Traffic and Safety Improvements at Two Locations on Broadway Rehabilitation and Rail Crossing	\$1,680,000 \$5,870,300	26 34 38	41 39 38	9 13 12	1 3 1	4 0	2 2 1	3	0 0 3	13 0	4		0 0 0	3	0 0) 7	7 0	3 2 5	1	0	0	2 2	9 2 2	I	0	0	0 2	1	4	0 0 2	3	0	3
608889* 609254* 608436* 604231	Framingham Lynn Ashland	Framingham Lynn Ashland	at Lowell St (Route 129) and Woburn St Traffic Signal Installation at Edgell Rd and Central St Traffic and Safety Improvements at Two Locations on Broadway Rehabilitation and Rail Crossing Improvements on Cherry St Intersection and Signal Improvements on Route 20 (East Main St/Boston Post Rd) at	\$1,680,000 \$5,870,300 \$990,000	26 34 38 35	41 39 38 35	9 13 12 5	1 3 1	4 0	2 2 1	3 2	0 0 3	13 0	4 4	0	0 0 0	3 3 2	0 C) 5	7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 2 5	I I O O	2 0 0	0 0	2 2 0	9 2 2	0 2	0	0	2 0 2	1 3	4 3 8 7	0 0 2 3	3 3	0 0	3 0 3

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Table A-3
TIP Project Evaluation Results (cont. 4)

TIP ID	Municipality	Proponent	Project Name	Project Cost	Initial Total Score (134 possible points)	Revised Total Score (134 possible points)	Safety Score (30 possible points)	Crash Severity Value: EPDO Index (0–5 points)	e (0–5 points)	Improves truck safety (0–5 points)	Improves pedestrian safety (0–5 points)	railroad crossing safet)	reservation Score (29 possible	s substandard roadway bi	Improves substandard pavement (0-6 points)		Improves transit asset(s) (0–3 points)	substandard sidewalk(s) (Improves emergency response (0–2 points)	Management/Mobility Score (7)	Reduces transit vehicle delay (0–4 points)	s pedestrian network and	bicycle network (0–4 points)	Improves intermodal connections to transit (0-6 points)	Improves truck movement (0–4 points)	Reduces vehicle congestion (0–6 points)	Clean Air/Sustainable Communities Score (16 possible points)	Reduces CO ₂ emissions (-5–5 points)	other transportation-related e	9	in an EUEEA-certified Gree	Iransportation Equity Score (12 possible points) Economic Vitality Score (18 possible points)	Serves targeted development site (0-6 points)	Provides for development consistent with the compact growth strategies of MetroFuture (0-5 points)	ntermodal access to	Leverages other investments (non-TIP funding) (0-3 points)
609246*	Lynn	Lynn	Reconstruction of Western Ave (Route 107)	\$36,205,000	64	70	17	5	5 (0 2	5	0	16	0	4	6	I	3	2 0	4	4 2	2	I	2	I	6	9	4	5	0 (0 1	0 4	0	3	I	0
608449	Boston	Boston	Improvements along Commonwealth Ave (Route 30), from Alcorn St to Warren/ Kelton Sts (Phases 3 and 4)	\$31,036,006	64	64	14	2	1 (0 5	3	3	12	0	4	4	0	2	2 0	ı	0	0	4	6	I	0	8	2	3	1 2	2 8	8 11	4	4	3	0
605313	Natick	Natick	Bridge Replacement, Route 27 (North Main St) over Route 9 (Worcester St) and Interchange Improvements	\$25,897,370	60	60	20	5	5	3 3	4	0	19	3	6	6	0	3	0 1	10	0 0	4	I	4	I	0	4	-1	I	2 2	2	I 6	0	3	3	0
87790	Canton, Westwood	MassDOT	Interchange Improvements at I-95 / I-93 / University Ave / I-95 Widening	#######################################	48	48	18	5	0 !	5 4	4	0	6	3	0	0	0	0	0 3	17	7 0	5	4	4	4	0	-1	-2	-5	4	2	1 7	3	I	3	0
601513	Saugus	Saugus	Interchange Reconstruction at Walnut St and Route I (Phase II)	\$19,581,123	43	43	П	3	3	0 2	3	0	11	0	4	6	0	0	I 0	9	ı	4	I	0	I	2	6	ı	ı	2 2	2 2	2 4	0	I	3	0
604638	Danvers, Peabody	MassDOT	Mainline Improvements on Route 128 (Phase II)	\$24,031,419	36	36	14	5	4	5 0	0	0	8	3	4	0	0	0	I 0	5	I	0	0	0	2	2	3	I	I	1 (0	3 3	I	I	I	0

^{*} Projects evaluated for the first time in FFY 2019. All other projects were re-evaluated in FFY 2019 with updated data and project information, where available.

Abbreviations: ADA = Americans with Disabilities Act. DCR = Department of Conservation and Recreation. EOEEA = Executive Office of Energy and Environmental Affairs. EPDO = Equivalent Property Damage Only. MassDOT = Massachusetts Department of Transportation.

Table A-4 Final Project Evaluation Results and First-Tier List

	Municipality			Project Cost	Design Status	Year of PRC Approval	Earliest FFY of Advertising for Construction Contract ^a	MAPC Subregion ^b	MAPC Community Type ^c	MassDOT Highway District	Location-Specific LRTP-Identified Need	Relationship to National Highway System	Initial Total Score (134 possible points)	Revised Total Score (134 possible points)	Safety Score (30 possible points)	System Preservation Score (29 possible points)	Capacity Management/Mobility Score (29 possible points)	Clean Air/Sustainable Communities Score (16 possible points)	Transportation Equity Score (12 possible points)	Economic Vitality Score (18 possible points)
Bicycle/Pe		o investment	Category)																	
608943*	Boston	DCR	Neponset River Greenway (Phase 3)	\$4,972,500	PRC Approved	2017	2024	ICC	IC	6			42	42	11	4	9	10	7	
609211*	Peabody	Peabody	Independence Greenway Extension	\$1,921,075	PRC Approved	2018	2024	NSTF	RUC	4			31	34	9	4	9	4	4	4
608006	Framingham	MassDOT	Pedestrian Hybrid Beacon Installation at Route 9 and Maynard Rd	\$886,228	25% Submitted	2014	2024	MWRC	RUC	3		On NHS	26	26	Ш	6	2	2		4
609066*	Weston	MassDOT	Multi-Use Trail Connection (Recreation Rd to Upper Charles River Greenway, including Reconstruction of Pedestrian Bridge)	\$2,661,498	25% Submitted	2018	2024	MWRC	MS	6			24	24	6	3	9	4	2	0
Complete	Streets																			
609252*	Lynn	Lynn	Rehabilitation of Essex Street	\$16,952,000	PRC Approved	2018	2024	ICC	RUC	4	Safety	Partially on NHS	61	66	19	17	9	8	10	3
608051*	Wilmington	Wilmington	Reconstruction of Route 38 (Main St), from Route 62 to the Woburn City Line	\$10,802,316	25% Submitted	2014	2023	NSPC	MS	4	CMM	On NHS	51	59	15	12	13	10	1	8
605168	Hingham	Hingham	Intersection Improvements at Route 3A/Summer St Rotary	\$7,500,001	PRC Approved	2009	2024	SSC	MS	5 ×		Partially on NHS	55	55	10	16	17	10	0	2
609257*	Everett	Everett	Rehabilitation of Beacham Street, from Route 99 to Chelsea City Line	\$9,180,000	PRC Approved	2018	2024	ICC	IC	4			54	54	19	10	13	4	7	1
			Reconstruction and Signal Improvements on Walnut St, from																	

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Table A-4
Final Project Evaluation Results and First-Tier List (cont. 2)

TIP ID	Municipality	Proponent	Project Name ^a	Project Cost	Design Status	Year of PRC Approval	Earliest FFY of Advertising for Construction Contract ^a	MAPC Subregion ^b	MAPC Community Type ^c	MassDOT Highway District	CTPS Study	Location-Specific LRTP-Identified Need ^d	Relationship to National Highway System	Initial Total Score (134 possible points)	Revised Total Score (134 possible points)	Safety Score (30 possible points)	System Preservation Score (29 possible points)	Capacity Management/Mobility Score (29 possible points)	Clean Air/Sustainable Communities Score (16 possible points)	Transportation Equity Score (12 possible points)	Economic Vitality Score (18 possible points)
602310	Danvers	Danvers	Reconstruction of Collins St, from Sylvan St to Centre and Holten Sts	\$5,183,121	75% Approved	1997	2024	NSTF	MS	4			D	44	44	8	12	12	5	2	5
608045	Milford	MassDOT	Rehabilitation on Route 16, from Route 109 to Beaver St	\$2,700,000	PRC Approved	2014	2024	SWAP	RUC	3			Partially on NHS	43	43	20	7	9	-1	3	5
609054*	Littleton	Littleton	Reconstruction of Foster St	\$3,522,546	PRC Approved		2024	MAGIC	DS	3				37	38	12	3	11	5	1	6
Intersection	on Improvemen	ts																			
609253*	Wilmington	Wilmington	Intersection Improvements at Lowell St (Route 129) and Woburn St	\$3,400,000	PRC Approved	2018	2024	NSPC	MS	4	Х	CMM	On NHS	49	53	13	12	16	9	1	2
608889*	Framingham	Framingham	Traffic Signal Installation at Edgell Road and Central St	\$1,680,000	25% Submitted	2017	2022	MWRC	RUC	3				26	41	9	10	7	9	2	4
609254*	Lynn	Lynn	Traffic and Safety Improvements at Two Locations on Broadway	\$5,870,300	PRC Approved	2018	2024	ICC	RUC	4				34	39	13	13	7	2	1	3
608436*	Ashland	Ashland	Rehabilitation and Rail Crossing Improvements on Cherry St	\$990,000	PRC Approved	2017	2024	MWRC	MS	3				38	38	12	10	5	2	1	8
													Partially								
604231	Marlborough	MassDOT	Intersection and Signal Improvements on Route 20 (East Main St/Boston Post Rd) at Concord Rd	\$1,706,600	25% Submitted	2007	2024	MWRC	RUC	3	X		on NHS	35	35	5	6	8	6	3	7
Major Infr	rastructure		Main St/Boston Post Rd) at Concord Rd							3	X		on NHS		35			8	6	3	7
		MassDOT Somerville	`	\$1,706,600 \$82,500,000					RUC	3 4	X				35 74	5		19	6	3	7

Table A-4 Final Project Evaluation Results and First-Tier List (cont. 3)

TIP ID	Municipality	Proponent	Project Name ^a	Project Cost	Design Status	Year of PRC Approval	Earliest FFY of Advertising for Construction Contract ^a	MAPC Subregion ^b	MAPC Community Type ^c	MassDOT Highway District	CTPS Study	Location-Specific LRTP-Identified Need	Relationship to National Highway System	Initial Total Score (134 possible points)	Revised Total Score (134 possible points)	Safety Score (30 possible points)	System Preservation Score (29 possible points)	Capacity Management/Mobility Score (29 possible points)	Clean Air/Sustainable Communities Score (16 possible points)	Transportation Equity Score (12 possible points)	Economic Vitality Score (18 possible points)
608449	Boston	Boston	Improvements along Commonwealth Ave (Route 30), from Alcorn St to Warren/Kelton Sts (Phases 3 and 4)	\$31,036,006	25% Submitted	2016	n/a	ICC	IC	6			On NHS	64	64	14	12	11	8	8	Ш
605313	Natick	Natick	Bridge Replacement, Route 27 (North Main St) over Route 9 (Worcester St) and Interchange Improvements	\$25,897,370	25% Submitted	2011	2024	MWRC	MS	3			On NHS	60	60	20	19	10	4	1	6
87790	Canton, Westwood	MassDOT	Interchange Improvements at I-95 / I-93 / University Ave / I-95 Widening	\$202,205,994	25% Submitted	2011	n/a	TRIC	MS	6		CMM	On NHS	48	48	18	6	17	-1	1	7
601513	Saugus	Saugus	Interchange Reconstruction at Walnut St and Route I (Phase II)	\$19,581,123	75% Submitted	1995	n/a	ICC	MS	4			On NHS	43	43	П	П	9	6	2	4
604638	Danvers, Peabody	MassDOT	Mainline Improvements on Route 128 (Phase II)	\$24,031,419	100% Submitted	2005	n/a	NSTF	RUC	4			On NHS	36	36	14	8	5	3	3	3

^{*} Projects evaluated for the first time in FFY 2019. All other projects were re-evaluated in FFY 2019 with updated data and project information, where available.

Other abbreviations: CTPS = Central Transportation Planning Staff. DCR = Department of Conservation Planning Staff. DCR = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. PRC = MassDOT Project Review Committee.

^aThe major infrastructure projects in bold are programmed in the Long-Range Transportation Plan, Charting Progress to 2040. The other major infrastructure projects would have to be programmed in the LRTP before being programmed in the TIP.

b MAPC subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = South West Advisory Planning Committee.TRIC = Three Rivers Interlocal Council.

^c MAPC community types: DS = developing suburb. IC = inner core; MS = maturing suburb. RUC = regional urban center.

d MPO staff noted whether a project may address an identified LRTP capacity management and/or mobility (CMM) need by comparing project locations analyzed for the draft Destination 2040 Needs Assessment. Staff noted whether a project may address an identified LRTP safety need by comparing project locations to top all-mode, bicycle, pedestrian, or truck crash cluster locations analyzed for the draft Destination 2040 Needs Assessment

