# JOURNEY to 2030 Projects List Evaluation Criteria Rating

					MMS	S Data		Mobility									Safety MMS Dat		curity		Pre vat		Enviro	nment		giona quity	La		& Ecc	onomic ent	Revised Current Cost	Proje	ect Info.	
Page in Universe of Projects and Programs	Lapuig Community	Project	Average Daily Traffic Entering Interchange	Peak Hour Speed Index - Range <sup>2</sup>	Average Peak Hour Speed Index in Peak Direction	Average Delay Per Mile - AM/PM (Seconds of Delay per Mile)	Average AM/PM Delay at Intersection (Seconds of Delay)	Volume/Practical Capacity - Range	Volume/Practical Capacity - Average	Improves Connections/Access to System	Improves Public Transit Service Exnands System Capacity	8	Addresses Suburban Transit Needs	Better Access for Target Populations Improves Freight Mobility		Crashes Per Year <sup>3</sup>	Crashes/Mile	Crash Rate Per Million Vehicles 4	Enhances Safety of Infrastructure for Users 5	Component of Safety/Security Initiative Overall Rating	Preserves Existing System	Overall Rating	ا پر ا	Preserves Natural/Cultural Resources Overall Rating	Improves Mobility for EJ Residents	Addresses EJ Issue	Considers Land Use & Economic Plans	ts Susta	Serves Existing Center of Activity Provides Links for Economic Activities	Overall Rating		Current Status of Project	Type of Project	Notes
Г	Limited Access High	nway Projects - Interchanges (1 of	2)																П															A high crash location (#1); with moderately
1-5	Reading and Woburn	I-93/I-95 Interchange	327,000 5	1_78%	59%		N/A		N/A	2	0	3 0		0 3	2 3	147	7	1.23	2	3 ,	3 0	0	1 0	0	1 0	0	0 1	2	1 1	1.25	\$187,300,000	RTP	MI/AO	high crash rate. It is used daily by the highest number of commuters.
										2		3 0		0 2						3	0					J		2						A high crash location (#23) with low crash rate. Chronic congestion AM and PM. LOS F; Route to 128 commuter rail station; used by feeder shuttles to station. Implements previous MPO study; consistent with local growth planning study. Much abutting land protected (ACEC), MBTA station access.
1-1	4 Canton	I-93/I-95 Interchange	212,000 4	6-80%	60%		N/A		N/A	2	1	3 0	1	0 2	2 3	67	7	0.87	1	3 2	2 0	0	0 1	0	1 0	0	0 2	-1	-1 1	0.25	\$225,000,000	RTP	MI/ AC	A high crash location (#30) with low crash
5-1	D Braintree	I-93/Route 3 Interchange (Braintree Split)	253.000 3	3-80%	64%		N/A		N/A	2	1	3 0	0	0 2	2 3	55	5	0.56	1	3	2 0	0	0 0	0	0 0	0	0 -1	-1	-1 0	0 -0.75	\$34,632,000	RTP	MI/AQ <sup>2</sup>	rate. Congestion in AM NB (entering split) and PM SB (both entering and leaving split). Implements results of previous MPO study. * AQ depending on alternative
																																		A high crash location (#4) with medium crash rate. Design addresses safety on the arterial local road network. Some elements at LOS F in AM. At the intersection of 2 major regional roadways. Used by 3 MBTA bus routes accessing Orange Line rapid transit and commuter rail stations; will provide access to proposed Assembly Square station and major future development; rezoned to encourage high-density/mixed use development. Somerville is a state economic target area. Lack of direct access from Route 28, south of I-93;
1-6	2 Somerville	I-93/Mystic Avenue Interchange	174,000 3	1-36%	34%		N/A		N/A	2	1	2 1	0	0 2	2 2	106	6	1.67	2	3 3	3 0	0	0 0	0	0 0	2	2 2	-1	1 2	1.00	\$60,840,000	RTP	MI/ AC	lack of pedestrian access under I-93.
1-2	O Concord and Lincoln	Route 2/Crosby's Corner Grade Separation <sup>6</sup>	45,500 6	6-120%	93%		27.8/34.7		N/A	2	0	3 0	0	0 2	2 2	g	9	0.64	1	3 2	2 0	0	1 0	0	1 0	0	0 1	-1	-3 1	-0.50	\$72,000,000	RTP/	MI/ AQ	AM and PM LOS F (1995). High commuting use. Consistent with Concord long-range planning. High crash location (#775) with low crash rate.  A high usage corridor to Boston and Logan.
1-5	6 Revere	Route 1A/Route 16 Connection <sup>6</sup>	52,500 6	0-65%	63%		36.5/88.8		N/A	2	0	1 0	0	0 2	2 2	N/A		N/A	1	2	1 0	0	0 1	0	0 0	1	1 1	1	1 1	1.00	\$48,152,000	) RTP	MI	Below 70% posted speed in AM and at LOS E/F in PM. Revere is a state economic target area.  A high crash location (#80) with low crash rate. Will improve mobility regional connections from Routes 1A, 107, and 1.
1-5	4 Revere	Route 1/Route 16 Interchange	133,000 1	02-114%	108%		N/A		N/A	2	0	3 0	0	0 2	2 3	39	9	0.81	1	2 2	2 0	0	0 0	0	0 0	1	1 1	-1	-1 1	0.00	\$4,784,000	) RTP	AQ	Benefits EJ community. Linked to other improvements in the corridor. Revere is a state economic target area. Route 1/Route 16 would remove traffic now going through Mahoney Circle. Direct connection would relieve Mahoney Circle/Route 60 traffic delays.

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					MMS	6 Data	Mob	oility								Safety MS Data	& Secur	ity		Preser- vation	Env	/ironme	ent	Regio Equi			Use & E evelop			Revised Current Cost	Projec	ct Info.	
Page in Universe of Projects and Programs Binder	Community	Project hway Projects - Interchanges (2 of	Average Daily Traffic Entering Interchange	Peak Hour Speed Index - Range <sup>2</sup>		Average Delay Per Mile - AM/PM (Seconds of Delay per Mile) Average AM/PM Delay at Intersection	Del	Volume/Practical Capacity - Range Volume/Practical Capacity - Average	Improves Connections/Access to System	Improves Public Transit Service	Expands System Capacity Provides Bike & Ped Facilities	Suburban Transit Ne	Better Access for Target Populations Improves Freight Mobility	Overall Rating	Crashes Per Year <sup>3</sup>	Crashes/Mile	Crash Rate Per Million Vehicles 4 Enhances Safety of Infracture for Heare 5	or infrastructure fety/Security Init	Overall Rating	Preserves Existing System Overall Rating	اج ا	Protects Water, Open Space, Wildlife, etc. Preserves Natural/Cultural Resources		Improves Mobility for EJ Residents Addresses EJ Issue	Overall Rating	Considers Land Use & Economic Plans Supports Sustainable Development	Serves Existing Center of Activity	S	Overall Rating		Current Status of Project	Type of Project	Notes
	Lillited Access Fig	ilway Projects - interchanges (2 or	2)																		П					T							Questionable community support.
	Revere Marlborough and Hudson	Mahoney Circle Grade Separation		) 35-53% ) 83-98%	44%	36.5/8. N/A	8.8	N/A	2	2 1	2	1 0	0	2 2	48		2.52	3 3	3	0 0	1	0 0	1	0 2	2 2	1 2	1 1		1.00	, , ,		MI/ AQ	Development of parcels in project area will hinder project. A high crash location (#46) with high crash rate. LOS D in AM and LOS D and F in PM. The 18th most delayed intersection in the MPO region. Moves regional trips from local roads; benefits this EJ community. Revere is a state economic target area. Within 1/2 mile of MBTA Blue Line rapid transit station.  Existing safety problems. A high crash location (#48), with medium crash rates; truck rollovers. Ramps at or near LOS F.
	Mariborough and Hudson	I-95 Northbound/Dedham Street Ramp and Bridge	,	71-80%	76%	N/A		N/A	3	3 1	3	0 0	0	2 3	NA SA		1.50 NA	1 2	1	0 0	0	0 0	0		0 0	2 -	1 1		0.75	\$28,704,000 \$3,500,000			Benefit for local streets and access to major industrial/commercial area. Improves access to Westwood and MBTA 128 commuter rail station. Implements previous MPO study; consistent with local growth planning study. In protected area (ACEC). Provides direct connection with Westwood business district and MBTA commuter station, eliminating circuitous access from I-95/Route 128. Canton opposition.
																																	A high crash location (#123) and high crash rate. One of 5 busiest radial routes to Boston; high commuting use. Questionable
1-18	Concord	Concord Rotary/Route 2 <sup>6</sup>	42,000	36-48%	42%	21.4/6	9.8	N/A	3	0	2	0 0	0	2 2	41		2.44	3 3	3	0 0	0	0 0	0	0 (	0	-2 -	1 -1	0 -	1.00	\$41,600,000	RTP		Support by Concord.  A high crash location (#600). LOS D in AM
1-8	Boston	Route 1A/Boardman Street Grade Separation <sup>6</sup>	65,500	33-40%	36%	55.4/1	33.5	N/A	2	1	2	0 0	0	2 2	8		0.32	1 2	2	0 0	_1	0 0	1	0 (	0	1 -	1 1	1	0.25	\$10,400,000	RTP		and F in PM. Ranked 1A's worst intersection. Air quality benefits.
1-22	Danvers and Peabody	Route 1/Route 114 Corridor Improvements	77,000	N/A	N/A	N/A		N/A	2	0	2	0 0	0	1 2	40		1.41	2 2	2	0 0	0	0 0	0	0 (	0 0	2 -	1 -1	1	0.25	\$48,672,000	RTP	MI/ AQ	A high crash location (#15). Serious congestion in AM and PM. Corridors are in designated redevelopment districts.  Two high crash locations (#46 and #136). LOS D in PM at one ramp; LOS F in AM and E in PM at another (the 15th most delayed
1-72	Wilmington and Reading	I-93/Route 129 Interchange Improvement Project	177,000	88%	6 88%	N/A		N/A	1	0	1	0 0	0	1 1	49		0.76	1 2	2	0 0	0	0 0	0	0 0	0	0 -	1 -1	1 -	0.25	\$18,200,000	RTP		intersection in N. Suburban subregion in

<sup>&</sup>lt;sup>1</sup> "Average Daily Traffic Entering Interchange" is a measure of the traffic activity at the interchange. It is defined by the sum of the ADT entering the interchange from all approaches, highway and arterial/other. ADT volumes were collected in 2003-2008.

CTPS/Boston Region MPO 2/18/09

<sup>&</sup>lt;sup>2</sup> Speeds were collected during spring 2004–fall 2007.

<sup>&</sup>lt;sup>3</sup> Crash data is from 2004 - 2006

<sup>&</sup>lt;sup>4</sup> Crash rate per million entering vehicles = (Avg. # of crashes per year \* 10<sup>6</sup>) / (ADT \* 365)

<sup>&</sup>lt;sup>6</sup> Safety Rating is largely based on the following criteria: crash rate<1: 1; crash rate greater than 1 but less than 2: 2; crash rate >2: 3

 $<sup>^{\</sup>rm 6}$  ADT counts are from major road only, not all 4 approaches to the interchange.

#### JOURNEY to 2030 RTP Projects List Evaluation Criteria Rating

					MMS Data		Mobility							М	Safety MS Dat	& Secu	urity		Preser- vation		vironm	ent	Regio Equ			Jse & E evelopn	conomic nent		Revised rrent Cost	Projec	ct Info.	
Page in Universe of Projects and Programs Binder		Project (4 of 1)	Average Major Road ADT¹	Range of Peak Hour Speed Index²	Average Peak Hour Speed Index³ Average Delay Per Mile - AM/PM (Seconds of Delay per Mile)	Average AM/PM Delay at Intersection / Intersection (Seconds of Delay)	Range of Volume/Practical Capacity <sup>4</sup>	Average of Volume/Practical Capacity <sup>5</sup>	Improves Connections/Access to System Improves Public Transit Service	Expands System Capacity Provides Bike & Ped Facilities	Suburban Transit Ne	Better Access for Target Populations Improves Freight Mobility	Overall Rating	Crashes Per Year	Crashes/Mile	Crashes/Average Annual Daily Traffic (Crashes per Million Vehicles)	Enhances Safety of Infrastructure for Users Component of Safety/Security Initiative		Preserves Existing System Overall Rating	П	Protects Water, Open Space, Wildlife, etc. Preserves Natural/Cultural Resources	Overall Rating	Improves Mobility for EJ Residents Addresses EJ Issue	ing	Considers Land Use & Economic Plans Supports Sustainable Development	Serves Existing Center of Activity	Provides Links for Economic Activities Overall Rating			Current Status of Project	Type of Project	Notes
_	Limited Access High	nway Projects - Segments (1 of 1)				National de la constant de la consta					1 1	1											1			T T					l	Eight high crash locations (#22 to #166).
1-4	Beverly to Peabody	Route 128 Capacity Improvements	80,200	73-102%	89%		73-125%	100%	2 0	3 (	0 0	0 3	3 3	271	41		3 3	3	2 2	2 1	0 (	0 1	0	0 0	2 -	3 -1	1 -0.:	25 \$1	150,800,000	RTP	MI/ AQ	Oldest remaining section of 128; poor design standards and high volumes.
1-38	Malden and Revere	Route 1 Improvements	86,600	30-110%	85%		108%	108%	1 0	3 (	0 0	0 3	3 3	100	55		3 3	3	0 (	0 0	0 (	0 0	0	0 0	2 -	1 1	1 0.	75 \$	67,600,000	RTP		A high crash location (#79). Congestion SB AM and NB PM peaks. Two redevelopment areas in project area; state economic target area. High crash location and substandard horizontal curve design.
1-68	Weymouth to Duxbury	Route 3 South Additional Lanes	85,900	60-105%	96%		82-130%	107%	1 0	3 (	0 0	0 3	3 3	321	20		2 3	3	0 (	0 1	0 (	0 1	0	0	-3 -	3 -1	1 -1.	50 \$2	219,024,000	RTP		Four high crash locations (#8 to #84). LOS E and F AM and PM peaks; breakdown lane used in peaks.

<sup>&</sup>lt;sup>1</sup> Average Major Road ADT: Values were calculated based on the information presented in the Traffic Volumes on Major Highways in Massachusetts book (May 2007). The ADT values were determined by matching the project area to the road segments presented in the book, converting the AWDT to ADT with a 0.875 adjustment factor and then averaging the segment values for the project.

<sup>&</sup>lt;sup>2</sup> Range of Peak Hour Speed Index: The speed index values were calculated by matching up the project area to the travel time run values conducted by the MMS. The speed from each segment of the travel time run was divided by the posted speed limit for that segment for Northbound/Eastbound and Southbound/Westbound direction during both the AM and PM Peak Hour. The results of these calculations were then used to define the range of values.

<sup>&</sup>lt;sup>3</sup> Average Peak Hour Speed Index: The speed index values were calculated by matching up the project area to the travel time run values conducted by the MMS. The speed from each segment of the travel time run was divided by the posted speed limit for that segment for Northbound/Eastbound and Southbound/Westbound direction during both the AM and PM Peak Hour. The results of these calculations were then averaged by project.

<sup>&</sup>lt;sup>4</sup> Range of Volume/Practical Capacity: Values were calculated based on the information presented in the Traffic Volumes on Major Highways in Massachusetts book (May 2007). The ADT values were determined by matching the project area to the road segments presented in the book, converting the AWDT to ADT with a 0.875 adjustment factor. These values where then divided by the Practical Capacity (20,000 vehicle per lane) to generate the V/PC figures for each segment within the project area. The V/PC where then used to define the range.

<sup>&</sup>lt;sup>5</sup> Average of Volume/Practical Capacity: Values were calculated based on the information presented in the Traffic Volumes on Major Highways in Massachusetts book (May 2007). The ADT values were determined by matching the project area to the road segments presented in the book, converting the AWDT to ADT with a 0.875 adjustment factor. These values where then divided by the Practical Capacity (20,000 vehicle per lane) to generate the V/PC figures for each segment within the project area. The V/PC where then average to provide the value per project.

## JOURNEY to 2030 Projects List Evaluation Criteria Rating

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Page in Universe of Projects and Programs Binder	Community	Project ojects - Intersections	Range of Average daily Traffic	Range of Peak Hour Speed Index	Average Delay Per Mile - AM/PM (Seconds of Delay per Mile)	Average AM/PM Delay at Intersection (Seconds of Delay)	Range of Volume/Practical Capacity	ıme/Practical Capaci	Improves Connections/Access to System Improves Public Transit Service Expands System Capacity	Provides Bike & Ped Facilities Addresses Suburban Transit Needs	ulati	Overall Rating	Crashes Per Year	Crashes/Mile	Crashes/Average Annual Daily Traffic (Crashes per Million Vehicles)	Enhances Safety of Infrastructure for Users Component of Safety/Security Initiative	Overall Rating Preserves Existing System	Overall Rating	Improves Air Quality Protects Water, Open Space, Wildlife, etc.	Preserves Natural/Cultural Resources Overall Rating	Improves Mobility for EJ Residents Addresses EJ Issue		Considers Land Use & Economic Plans Supports Sustainable Development	Serves Existing Center of Activity Provides Links for Economic Activities			Current Status of Project	Type of Project	Notes
1-28	- - - - ramingham	Route 126/Route 135 Grade Separation	36,80	)		218/220			2 0 0	1 (	0 0	2 2	33		2.46	3 2	3	0 0	1 0	0 1	0	1 1	2 2	2	2 2.00	\$52,000,000	RTP		A high crash location (#130). Intersection at LOS F in AM and PM. Second worst in MetroWest subregion and 8th worst in MPO region. MBTA commuter rail station in the vicinity and LIFT buses operate in area. Is an an identified EJ community. Linked to downtown redevelopment.
	Arterial Roadway Pr	Route 18 Capacity Improvements	25,200 to 36,600		51/55				3 0 3	1 (	0 0	2 3	367	81		3 2	α.	0 0	0 0	0 0	0		3 1	1	2 1.75	\$26.100.00	RTP/		Three high crash locations (#8 to #298). Six intersections in the top 25 most delayed in South Shore Coalition subregion. Provides access to South Weymouth commuter rail station on Plymouth Line. Part of development plan for S. Weymouth Naval Air Station, site designated for redevelopment. Weymouth is a state economic target area.
1-26	Everett, Medford, Revere	Route 16 (Revere Beach Parkway)	40,200 to 52,800		102/102	2			2 0 3	0 0	0 0	2 3	197	86		3 2	3	0 0	0 0	0 0	0	1 1	1 1	-1	1 0.50		) RTP	MI/ AQ	Four high crash locations (#11 to #539). LOS E/F in AM and PM. Would improve access to MBTA Wellington Orange Line station. Important access to Telecom City site. Everett is a state economic target area. LOS E in AM and PM along Turnpike. LOS F at 6 of 7 intersections. Adding sidewalks.
1-2	Bedford, Burlington and Billerica	Middlesex Turnpike Improvements  Needham Street/Highland Avenue	15,000-20,000 25,200 to 34,000		25/28 N/A				1 0 3	0 (	0 0	1 1	90	65		2 2	2	0 0	0 0	0 0	0 0	0 0	2 -1	-1	1 0.25			MI/AQ AQ?	Improvements in a multi-community Economic Opportunity Area. One high crash location (#41). LOS E/F in AM and PM. MBTA bus route uses Needham St. in Newton. Needham section in a redevelopment district; project would facilitate. Two Orange Line rapid transit stations adjacent to project. An Urban Ring Phase 2 route. Would improve access to historic
1-10	3oston	Rutherford Avenue	12,600 to 29,100		N/A				1 1 -1	0 0	0 0	0 0	23	20		1 2	1	0 0	0 0	2 2	0 (	0 0	2 2	2	3 2.25	\$79,300,000	RTP	МІ	resources and park; improve pedestrian facilities; add open space. Boston is a state economic target area.  Improvements in traffic flow. Adding additional lanes between I-93 and Washington Street and will improve flow at Montvale and Washington Street
7-10		Montvale Avenue  Route 139 Improvements  Route 16 Bypass Road	33,600 to 36,400 6,200 to 20,100 17,800 to 25,000		10/14				1 0 2	0 0	0 0	1 1 1 1 1 2	22	10		3 2 1 1 1 0 0	1 0	0 0	0 0	0 0	0 0	0 0	1 -1	-1	1 0.00	\$3,400,000 \$7,150,200		AQ AQ	intersection. Sidewalks and shared bicycle lane (shoulder) included. Development consistent with local master plan. Improvements in traffic flow and a bike trail extension. Crash information is for Route 16 in area of bypass.

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					MMC	S Data		Mobility								Safet MMS Da	y & Sec	curity		vation	Er	nvironm	ent	Equ	ıity	ı	Develop	ment		Current Cost	Project	t Info.	
					IVIIVIS						_		_		_	MINIS DE	ita				-					_		_				_	
Page in Universe of Projects and Programs Binder	Community	Project	4verage Major Road ADT	Peak Hour Speed Index in Peak Direction - Range	Average Peak Hour Speed Index in Peak Direction	Average Delay Per Mile - AM/PM (Seconds of Delay per Mile)	Average AM/PM Delay at Intersection Seconds of Delay)	Volume/Practical Capacity - Range	Volume/Practical Capacity - Average	mproves Connections/Access to System mproves Public Transit Service	Capaci	Provides Bike & Ped Facilities	et P	mproves Freight Mobility	Overall Rating	crasnes Per Year Crashes/Mile	Crashes/Average Annual Daily Traffic Crashes per Million Vehicles)	Enhances Safety of Infrastructure for Users Component of Safety/Security Initiative		Preserves Existing System Overall Rating	mproves Air Quality	Protects Water, Open Space, Wildlife, etc. Preserves Natural/Cultural Resources	Overall Rating	mproves Mobility for EJ Residents	Overall Rating	Considers Land Use & Economic Plans	Serves Existing Center of Activity	Provides Links for Economic Activities	Overall Rating		Current Status of Project	Type of Project	Notes
	Collector/Local Roa					` '	( )				~					<u> </u>	<u> </u>	7 1 5	U				U			<u> </u>	, ,						
	Weymouth, Hingham, and Rockland	S. Weymouth Naval Air Station Access								2	1 3	1	0 0	0	3			0 (	0 0	0 (	0 0	0	0 0	0	0 0	3	1 1	2	1.75	\$52,000,000	RTP	MI/	Five high crash locations (#142 to #985) Would connect 2 regional routes and provide access to mixed-use redevelopment site and proposed multi-modal center for the South Weymouth commuter rail station on the Plymouth Line.
	Quincy	Quincy Center Concourse, Phase 2								2	0 3	1	0 0	1	3			0	1 0	0 (	0 0	0	0 0	0	0 0	2	3 2		2.00			,	Would provide new connection and improve access and economic activity in downtown.
1-74	Woburn	New Boston Street Bridge								3	1 3	0	0 0	2	3			0	1 0	0 (	0 0	0	0 0	0	0 0	2	-1 -1	1	0.25	\$4.500,000	RTP		Would provide a second access route to the Anderson Regional Transportation Center on the Lowell commuter rail line and the Industriplex are and for emergency vehicles.
	Salem	_	17,300 to 23,900							1	2 3	1	0 0	1	2	36 65		2 :	2 2	0 (	0 0	0	0 0	0	0 0	2	1 -2		0.50	\$10,000,000		AQ/	Two high crash locations (#141 and #600). Would improve access to Salem commuter rail station including pedestrian access. MBTA buses serve the station.
	Everett, Malden, Medford Salem	Telecom City Boulevard Boston Street	22,900							2	0 3	0	0 0	1	2	37 66		0 (	0 0	0 (	0 0	0	0 0	0	0 0	3	2 1		1.75	\$15,808,000 \$2,392,000	RTP RTP	AQ/ MI	Would facilitate development at Telecom City and vicinity, a state economic target area.  Salem is a state economic target area.
. 00			22,300		<u> </u>					- '	د ۱	, J	J U	'		3/ 00	K/////////////////////////////////////	1 -1		0	<b>-</b>	<u>ا</u>	0	V	J 0	- '	1 -1	'	3.00	ψ <u>-</u> ,σο <u>-</u> ,σοο			2 and a state described target area.
	Boston Freight Projects	T Under D								1	2 0	0	0 0	0	1			1	1 1	0 (	0 1	0	0 1	0	0 0	2	2 1	1	1.50	\$80,000,000			Would provide more reliable service to Logan on Silver Line. In South Boston Waterfront District.
1-6/ 6· 34	Boston	East Boston Haul Road/Chelsea Truck Route								3	1 3	1	0 0	3	3			2	1 2	0 (	0 1	0	1 1	0	2 2	1	-1 1	3	1.00	\$18,000,000	RTP	AQ/	Would enhance accessibility for commercial vehicles to Logan and Chelsea; remove this traffic from neighborhood streets; add pedestrian connection to E. Boston Greenway. Eliminates truck traffic bottleneck. Boston is a state economic target area.

Ongoing No-Build Project	2007 Plan Cost	2010	2011–2020	2021–2030	2007 Plan Total	Updated Cost Status
Route 128 Additional Lanes (Randolph to Wellesley)	\$301,350,000	\$32,000,000	\$219,500,000		\$301,350,000	\$251,500,000 This cost is lower since money has been spent down since adoption of Plan in 2007.
Recommended Projects						
Middlesex Turnpike Improvements Phase 3 (Bedford, Burlington, and Billerica)	\$14,400,000	\$14,400,000			\$14,400,000	\$19,200,000 Phase 2 of 3 in the 2009 element of TIP for \$13.8M, Phase 3 is \$19.2M and is shown here
Route 128 Capacity Improvements (Beverly to Peabody)	\$145,000,000			\$293,743,000	\$293,743,000	\$293,743,000 From Lisco Memo - Potential Long-Range Plans for Improving Express Highways
East Boston Haul Road/Chelsea Truck Route (Boston)	\$14,000,000	\$5,401,600	\$11,767,500		\$17,169,100	\$18,000,000 \$5.6 million is an earmark, Massport - In planning looking for programming in outer TIP year, requested that price be increased to \$18,000,000
Route 1A/Boardman Street Grade Separation (Boston)	\$10,000,000		\$13,686,000		\$13,686,000	\$13,686,000 Route 1A Corridor Study - 1990, project is inactive in MHD Environmental Services Division, if reactivated a new feasibility study would be needed.
Rutherford Avenue/Sullivan Square (Boston)	\$79,300,000	\$21,252,500	\$79,443,000		\$100,695,500	\$100,695,500 Boston recommendation from Rutherford Ave Study (1999), Sullivan Square earmark of \$11.6 million, part is programmed in 2009
Consolidated Rental Car Facility (Logan Airport, Boston)[1]	\$453,000,000	\$49,000,000	\$404,000,000		\$453,000,000	\$453,000,000 Needs to be listed in Plan for Massport, no MPO money
I-93/Route 3 Interchange - Braintree Split (Braintree)	\$33,300,000		\$45,573,000		\$45,573,000	\$45,573,000 Braintree Split study with recommendations (2005)
I-93/I-95 Interchange (Canton)	\$120,000,000		\$164,228,000		\$164,228,000	\$225,000,000 Project in MHD Environmental Services Division, probably ready for 2012, most recent estimate from MHD Environmental's most recent alternative.
I-95 Northbound/Dedham Street Ramp and Bridge (Canton)[2]	\$3,500,000	\$3,500,000			\$3,500,000	\$3,500,000 Project to be paid for by developer
Concord Rotary/Route 2 (Concord)	\$40,000,000			\$81,033,000	\$81,033,000	\$81,033,000 Preparing 25% plans - in design phase (Route 2 Corridor Study), questionable support by Concord, supported by Acton.
Route 2/Crosby's Corner Grade Separation (Concord and Lincoln)	\$31,500,000	\$12,450,000	\$19,050,000		\$31,500,000	\$72,000,000 In past TIP (\$39 million programmed in 2011 and 2012, remaining should be programmed in 2013 and 2014) - (Route 2 Corridor Study)
Route 1/Route 114 Corridor Improvements (Danvers and Peabody)	\$46,800,000			\$94,808,000	\$94,808,000	\$94,808,000 Project inactive in Environmental Section of MassHighway. Developer paid for some ramp improvements.
Telecom City Boulevard (Everett, Malden, and Medford)	\$15,200,000		\$20,802,000		\$20,802,000	\$20,802,000 Economic Development Plan, new bridge, now called River's Edge
Revere Beach Parkway (Everett, Medford, and Revere)	\$93,600,000			\$189,616,000	\$189,616,000	\$189,616,000 Signal coordination in Lower North Shore Improvement Study (Everett requested widening)
Route 126/Route 135 Grade Separation (Framingham)	\$50,000,000			\$101,291,000	\$101,291,000	\$101,291,000 Framingham and MassHighway project
Route 85 Improvements (Hudson)	\$5,900,000		\$8,075,000		\$8,075,000	\$10,659,000 Part of the I-495/I290 Interchange, Separated on request from Hudson, cost increase to \$8,100,000 increased by 4%/year to 2015.
Route 1 Improvements (Malden and Revere)	\$65,000,000			\$131,678,000	\$131,678,000	\$131,678,000 Lower North Shore Improvement Study, approved by PRC, in MHD Environmental Services with FEIR anticipated by end of 2009 and 25% design mid 2010.
I-495/I-290/Route 85 Connector Interchange (Marlborough and Hudson)	\$27,600,000		\$37,773,000		\$37,773,000	\$37,773,000 MassHighway project
Needham Street/Winchester Street (Newton and Needham) [3]	\$6,000,000		\$7,896,000		\$7,896,000	\$6,000,000 Needham, Newton, MassHighway project
Highland Avenue (Needham) [3]	\$2,100,000		\$2,763,000		\$2,763,000	\$2,100,000 Needham, Newton, MassHighway project
Quincy Center Concourse, Phase 2 (Quincy)	\$7,000,000		\$9,580,000		\$9,580,000	\$7,500,000 Quincy - 100% design plans received by MassHighway
I-93/I-95 Interchange (Reading and Woburn)	\$171,000,000		\$234,025,000		\$234,025,000	\$246,474,000 I-93/I-95 Interchange Transportation Study
Mahoney Circle Grade Separation (Revere)	\$15,000,000			\$30,387,000	\$30,387,000	\$30,387,000 MassHighway project, no PRC approval, project on hold in MHD Environmental Services Division.
Route 1/Route 16 Interchange (Revere)	\$4,600,000		\$6,295,000		\$6,295,000	\$6,295,000 Lower North Shore Improvement Study
Route 1A/Route 16 Connection (Revere)	\$46,300,000			\$93,795,000	\$93,795,000	\$93,795,000 Lower North Shore Improvement Study
Boston Street (Salem)	\$2,300,000		\$3,148,000		\$3,148,000	\$3,148,000 MassHighway in preliminary design phase
Bridge Street (Salem)	\$3,500,000		\$4,790,000		\$4,790,000	\$13,159,000 MassHighway 25% design plans received by MassHighway, cost increase to \$10,000,000 increased by 4%/year to 2015.
I-93/Mystic Avenue Interchange (Somerville)	\$58,500,000			\$118,510,000	\$118,510,000	\$118,510,000 Mystic Avenue/Route 128/I-93 Interchange Improvement Study - 1994 earmark for study in the 2009 element of TIP
S. Weymouth Naval Air Station Access Improvements (Parkway construction)[4]	\$52,000,000		\$52,000,000		\$52,000,000	\$52,000,000 Naval Station Redevelopment, \$52 million for Parkway construction (not included in the total to be funded with non-MPO revenues)
S. Weymouth Naval Air Station Access Improvements (Multi-modal Center)[4]						\$10,000,000 Naval Station Redevelopment \$10 million for Multi-Modal Center (cost included in total, funding with federal earmark). Programmed in 2009 TIP.
Route 18 Capacity Improvements (Weymouth)	\$24,000,000	\$24,000,000			\$24,000,000	\$26,100,000 Was in 2010 element of TIP
Route 3 South Additional Lanes (Weymouth to Duxbury)	\$210,600,000			\$426,637,000	\$426,637,000	\$426,637,000 Federal requirement - using shoulder in peak - required to build additional lane to accommodate. May want to include Braintree Split in study area.
I-93/Route 129 Interchange Improvement Project (Wilmington and Reading)	\$17,500,000		\$23,950,000		\$23,950,000	\$23,950,000 Phase from Woburn St to Rte 38 nearing completion - reconstruction with sidewalks, project dropped by MHD Environmental Services Division.
New Boston Street Bridge (Woburn)	\$2,400,000			\$4,862,000	\$4,862,000	\$4,862,000 City of Woburn request, no PRC approval no design plans, Woburn asked for 2010 at Municipal TIP Day, MassHighway site -\$4.5M
Total	\$1,663,750,000	\$109,504,100	\$912,344,500	\$1,566,360,000	\$2,638,058,600	\$2,725,974,500
					Difference	\$87,915,900

[1] This project will be paid for by the Massachusetts Port Authority. Funding for this project will come from General Airport Revenue Bonds, taxable revenue bonds supported by revenue from the daily Customer Facility Charge and rent from car companies, and Transportation Infrastructure Finance and Innovation Act (TIFIA) funds

The Highland Avenue project in Needham does not include an expansion. The roadway is currently a four lane section from south of the bridge at the Needham/Newton town line to Webster Street. The bridge and should be widened to accommodate these projects. The bridge widening is not included in either of the projects' designs or costs.

[4] Total project is \$62 million; the \$52 million for the construction of the Parkway will be funded with non-MPO revenues (state, local, etc.); \$10 million for the Multi-modal center programmed in 2009 TIP.

Marshfield – Route 139 Widening (in Universe of Projects list in Plan)\$7,150,20025% design plans approved May 2008Milford – Veterans Memorial Drive (in Universe of Projects list in Plan)\$3,400,000PRC Approval, no design plansWoburn – Montvale Avenue\$80,000,000\$80,000,000MassPort – T Under D\$80,000,000\$50,000,000Somerville – Assembly Square Roadway Project\$50,000,000\$15,500,000Beverly – Route 128 Brimball Avenue Interchange Relocation\$15,500,000\$15,500,000Hanover – Route 53 Final Phase\$1,000,000\$10,000,000

<sup>[2]</sup> This project will be paid for by the developer and is not included in the total.

<sup>[3]</sup> The Needham Street/Highland Avenue project has been split in two because it is currently split by MassHighway. The Needham Street description has been changed to be a three lane cross-section rather than four-lane. It is currently a three lane cross-section so it is no longer an expansion.

# PROJECTS CURRENTLY PROGRAMMED IN THE TRANSPORTATION IMPROVEMENT PROGRAM WITH COSTS OVER \$10,000,000

Project	Location	Cost	Currently Listed in Plan
Route 128 Improvement Program Contract 4	Canton, Randolph & Westwood	\$61,000,000	Υ
Route 128 Improvement Program Contract 5	Dedham, Needham & Westwood	\$72,000,000	Υ
Route 128 Improvement Program	Needham & Wellesley	\$53,219,389	Υ
Middlesex Turnpike Phase II	Bedford, Billerica, & Burlington	\$13,438,679	Υ
Pulaski Boulevard	Bellingham	\$13,006,510	N
Route 128 at Routes 35 & 62	Danvers & Peabody	\$34,982,000	N
Route 18 Roadway Improvements	Weymouth	\$26,100,000	Υ
Route 2 (Crosby's Corner)	Concord & Lincoln	\$71,943,985	Υ

# PROJECTS IN THE TRANSPORTATION IMPROVEMENT PROGRAM UNIVERSE WITH PRC APPROVAL WITH COSTS OVER \$10,000,000

Project	Location	Cost	Currently Listed in Plan
Bridge Street (Beverly/Salem Bridge)	Salem	\$10,000,000	Υ
Route 27 (North Main Street)	Natick	\$10,129,579	N
Lechmere Station Relocation and Expansion	Cambridge	\$11,120,000	N
Massachusetts Avenue Bridge	Boston	\$12,000,000	N
Route 93 Lighting	Somerville & Medford	\$12,250,429	N
Route 107 (Fox Hill) Bridge	Lynn & Saugus	\$13,600,000	N
Pulaski Boulevard, Phase 1	Bellingham	\$13,006,510	N
Route 1/Walnut Street	Saugus	\$18,525,078	N
Middlesex Turnpike Improvement Project, Phase Three	Bedford, Billerica & Burlington	\$191,200,000	Υ
Concord Rotary (Routes 2/2A/119)	Concord	\$31,000,000	Υ
Route 2A (Marrett Road) Bridge	Lexington	\$21,087,700	N
I-495/I-290 Interchange	Hudson & Marlborough	\$25,000,000	Υ
Border to Boston Bikeway	Danvers	\$26,269,150	N
Route 128 Interchanges Phase 2	Danvers & Peabody	\$34,982,000	N
Revere Beach Parkway Bridge	Everett & Medford	\$41,320,000	N
Route 1	Malden, Revere, Saugus	\$65,563,620	Υ
Route 3A (Washington Street) Bridge	Quincy & Weymouth	\$255,360,000	N
Longfellow Bridge	Boston & Cambridge	\$267,500,000	N

# Environmental Services Division - Major Projects Update July 2, 2009

	FUNDED MAJOR PRO	OJECTS IN PR	ROGRESS	
Town	Project	MHD Env. Construction Cost	RTP Cost/Year	Fed/State Document
Andover - Tewksbury - Wilmington	I-93/Lowell Junction Interchange	\$150,000,000	Project included in Merrimack Valley RTP	EIS/EIR
Beverly	Route 128/Brimball Ave. Interchange	\$20-26 Million	Not Listed	EA/EIR
Boston - Cambridge	Longfellow Bridge	\$250,000,000	Not Listed	ENF/EA /4F
Canton-Dedham- Westwood	I-95/I-93/University Ave/Dedham Street	\$225,000,000 (2012)	Current - \$120,000,000 2011-2020 - \$164,228,000	EA/EIR
Concord	Concord Rotary	\$30,000,000	Current - \$40,000,000 2021-2030 - \$81,033,000	EA/EIR
Marlborough - Hudson	I-290/I-495 Interchange Improvement Project	\$31,000,000	Current - \$27,600,000 2011-2020 - \$37,773,000	ENF/Unknown
Quincy-Weymouth	Fore River Bridge Replacement	\$152,000,000	Not Listed	Unknown
Revere - Malden - Saugus	Route 1 Relocation and Add-a-Lane	\$70,000,000	Current - \$65,000,000 2021-2030 - \$131,678,000	EA/EIR
Weymouth-Rockland	East-West Parkway/Multimodal Center	\$62,000,000	Current - \$42,000,000 2011-2020 - \$42,000,000	EA/FEIR
Weymouth-Abington	Route 18 Widening	\$26,100,000	Current - \$24,000,000 2007-2010 - \$24,000,000	EA/Report
Weymouth-Duxbury	Route 3 South Improvements	\$125,000,000 – \$200,000,000	Current - \$210,000,000 2021-2030 - \$426,637,000	EA/SDEIR
Woburn - Reading - Stoneham	I-95/I-93 Interchange Improvements	\$260,000,000	Current - \$187,300,000 2011-2020 -\$246,474,000	EIS/EIR

# Environmental Services Division - Major Projects Update July 2, 2009

	PROJECTS IN PERMITT	ING - 25% - 10	00% DESIGN	
Town	Project	MHD Env. Construction Cost	RTP Cost/Year	Fed/State Document
Bedford –Billerica- Burlington	Middlesex Turnpike phase II	\$33,000,000	Current - \$13,800,000 2007-2010 - \$33,041,840 (Phase II & III together)	EA-FONSI 8/03. FEIR Cert. 8/03
Bedford –Billerica- Burlington	Middlesex Turnpike phase III	Unknown	Current - \$19,200,000	EA-FONSI 8/03. FEIR Cert. 8/03
Concord - Lincoln	Crosby's Corner Safety Improvements	\$72,000,000	Current - \$72,000,000	FEIR Cert. 4/02
Dedham-Needham- Westwood	Rt 128 Add-a-Lane Bridge Contract IV	\$92,000,000	Total Rte 128 Project - \$301,350,000	EA/FEIR approved 4/99
Needham-Wellesley	Rt 128 Add-a-Lane Bridge Contract V	\$126,500,000	Total Rte 128 Project - \$301,350,000	EA/FEIR approved 4/99
Salem	Reconstruction of Bridge Street from Flint to Washington	\$15,500,000	Current - \$10,000,000 2011-2020 - new cost \$13,159,000	Re-evaluation/NOPC

# Environmental Services Division - Major Projects Update July 2, 2009

	PENDING, ON HOLD, AND I	NACTIVE MA	IOR PROJECTS	
Town	Project	MHD Env. Construction Cost	RTP Cost/Year	Fed/State Document
East Boston	Route 1A /Boardman Street	\$10,000,000	Current - \$10,000,000 2011-2020 - \$13,686,000	EA/EIR
East Boston	East Boston Haul Road	\$14,000,000	Current - \$14,000,000 2011-2020 - \$17,169,100	
Danvers	Rt. 114/I-95 Improvements	\$35,000,000 (1994)	Current - \$46,800,000 2021-203 \$94,808,000	EA/EIR
Littleton	Route 2 Interchange/MBTA	\$10,000,000 (Interchange only)	Not Listed	EIS/EIR
Revere	Mahoney Circle Grade Separation	\$25,000,000	Current - \$15,000,00 was included in Plan 2021-2030 - \$30,387,000	EA/EIR
Wilmington & Reading	I-93/Rt. 129 Interchange Improvements	\$10,000,000	Current - \$17,500,000 2011-2020 - \$23,950,000	EIR Cert 12/99
Wilmington	I-93/Rt. 125/Ballardvale Rd.		Not Listed Ramp was constructed	EA; FEIR Cert. 7/00

#### Additional Expansion Highway Projects Requested by Municipalities/Agencies

Project	Cost (if available)
Marshfield – Route 139 Widening (in Universe of Projects list in Plan)	\$7,150,200
Milford – Veterans Memorial Drive (in Universe of Projects list in Plan)	
Woburn – Montvale Avenue	\$3,400,000
MassPort – T Under D (Boston Waterfront)	\$80,000,000
Somerville – Assembly Square Roadway Project	\$50,000,000
Westwood - Westwood Station Projects (over and above the I-95 Northbound/Dedham	
Street Ramp and Bridge (Canton))	
Beverly - Route 128 Brimball Avenue Interchange Relocation (possible expansion project)	15,500,555
Hanover – Route 53 Final Phase (included in Staff's TIP recommendation)	\$1,000,000

#### **Additional Expansion Highway Projects In Other MPOs**

Project Cost (if available)

 $Merrimack\ Valley-Tri-Town\ Interchange$ 

Central Mass – I-90/I495 (Westborough and Hopkinton)

Central Mass – I-495/Route 9 (Westborough and Southborough)

#### **Bicycle Projects with Earmarks or Those over \$10 Million**

Project	Cost (if available)
Assabet River Rail Trail	\$20,000,000
Bruce Freeman Rail Trail	\$20,000,000
Border to Boston Bikeway	\$42,500,000