

# APPENDIX

# C

## PROJECT RATINGS

### **HIGHWAY PROJECT RATINGS**

Each highway project included in the Universe of Projects with a defined description was rated for its impact consistency with six of the eight Boston Region MPO Regional Transportation Plan policies. Ratings were given a value from -3 to 3.

This evaluation of the projects is summarized on the following pages in five matrices, each addressing a category of highway project. In the matrices, the numbers in parentheses that follow most of the project names refer to notes on the projects; the notes follow each matrix. For type of project, MI is an acronym for Major Investment (over \$25 million) and AQ stands for Regionally Significant for AQ Conformity.

### **TRANSIT PROJECT RATINGS: SEE PAGE C-12**

COMMUNITY	PROJECT	MOBILITY										SAFETY & SECURITY				PRESERVATION		ENVIRONMENT				REGIONAL EQUITY			LAND USE & ECONOMIC DEVELOPMENT					REVISED COST	PROJECT INFO.		
		MMS DATA					OVERALL RATING					CRASHES PER YEAR	CRASHES/MILES	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	OVERALL RATING	BASED ON 4% INFLATION	CURRENT STATUS OF PROJECT	TYPE OF PROJECT
		AVERAGE DAILY TRAFFIC ENTERING INTERCHANGE	PEAK HOUR SPEED INDEX - RANGE	AVERAGE PEAK HOUR SPEED INDEX IN PEAK DIRECTION	AVERAGE AM/PM DELAY AT INTERSECTION (SECONDS OF DELAY)	VOLUME/PRACTICAL CAPACITY - AVERAGE	IMPROVES CONNECTIONS/ACCESS TO SYSTEM	IMPROVES PUBLIC TRANSIT SERVICE	EXPANDS SYSTEM CAPACITY	PROVIDES BIKE & PED FACILITIES	ADDRESSES SUBURBAN TRANSIT NEEDS																						

LIMITED ACCESS HIGHWAY PROJECTS - INTERCHANGES

READING AND WOBURN	I-93/I-95 INTERCHANGE (A)	327,000	51-78%	59%	N/A	N/A	2	0	3	0	0	0	0	0	0	2	3	147	1.23	2	3	3	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1.25	\$194,732,000	RTP	M/ AQ	
CANTON	I-93/I-95 INTERCHANGE (B)	212,000	46-80%	60%	N/A	N/A	2	1	3	0	1	0	2	3	67	0.87	1	3	2	0	0	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.25	\$190,000,000	RTP	M/ AQ
BRAINTREE	I-93/ROUTE 3 INTERCHANGE (BRAINTREE SPLIT) (C)	253,000	33-80%	64%	N/A	N/A	2	1	3	0	0	0	2	3	55	.56	1	3	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.75	\$36,017,000	RTP	M/ AQ	
SOMERVILLE	I-93/NORTIC AVE INTERCHANGE (D)	174,000	31-38%	34%	N/A	N/A	2	1	2	1	0	0	2	2	106	1.87	2	3	3	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00	\$63,274,000	RTP	M/ AQ	
CONCORD AND LINCOLN	ROUTE 2/ CROSBY CORNER GRADE SEPARATION (E)	50,000	66-120%	95%	27.8/ 34.7	N/A	2	0	3	0	0	0	2	2	31	1.70	2	3	2	0	0	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.50	\$72,000,000	RTP/ TIP	M/ AQ	
REVERE	ROUTE 1A/ ROUTE 16 INTERSECTION (F)	52,500	60-65%	63%	36.5/ 88.8	N/A	2	0	1	0	0	0	2	2	N/A	N/A	1	2	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00	\$50,078,000	RTP	MI		
REVERE	ROUTE 1/ ROUTE 16 INTERCHANGE (G)	133,000	102-114%	108%	N/A	N/A	2	0	3	0	0	0	2	3	39	0.81	1	2	2	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	\$4,975,000	RTP	AQ	
REVERE	MAHONEY CIRCLE GRADE SEPARATION (F)	52,500	35-55%	44%	36.5/ 88.8	N/A	2	1	2	1	0	0	2	2	48	2.52	3	3	3	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00	\$16,224,000	RTP	M/ AQ		
MARLBOROUGH AND HUDSON	I-95/920/ ROUTE 88 CONNECTOR INTERCHANGE (I)	97,000	83-98%	91%	N/A	N/A	2	0	2	0	0	0	2	2	53	1.50	2	3	3	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.25	\$29,852,000	RTP	M/ AQ	
CANTON	I-95 NORTHBOUND/ DEERHAM STREET AND BRIDGE (J)	106,500	71-80%	76%	N/A	N/A	3	1	3	0	1	0	2	3	N/A	N/A	1	2	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.75	\$3,786,000	RTP	AQ		
CONCORD	CONCORD ROAD/ ROUTE 2 (K)	42,000	36-46%	42%	21.4/ 68.8	N/A	3	0	2	0	0	0	2	2	41	2.44	3	3	3	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1.00	\$43,254,000	RTP	MI		

COMMUNITY	PROJECT	MOBILITY										SAFETY & SECURITY				PRESER- VATION			ENVIRONMENT			REGIONAL EQUITY			LAND USE & ECONOMIC DEVELOPMENT				REVISED COST	PROJECT INFO.						
		AVERAGE MAJOR ROAD ADT	PEAK HOUR SPEED INDEX IN PEAK DIRECTION - RANGE	AVERAGE PEAK HOUR SPEED INDEX IN PEAK DIRECTION	AVERAGE AM/PM DELAY AT INTERSECTION (SECONDS OF DELAY)	VOLUME/PRACTICAL CAPACITY - AVERAGE	IMPROVES CONNECTIONS/ ACCESS TO SYSTEM	IMPROVES PUBLIC TRANSIT SERVICE	EXPANDS SYSTEM CAPACITY	PROVIDES BIKE & PED FACILITIES	ADDRESSES SUBURBAN TRANSIT NEEDS	BETTER ACCESS FOR TARGET POPULATIONS	IMPROVES FREIGHT MOBILITY	OVERALL RATING	CRASHES PER YEAR	CRASHES/AVERAGE ANNUAL DAILY TRAFFIC (CRASHES PER MILLION VEHICLES)	ENHANCES SAFETY OF INFRASTRUCTURE FOR USERS	COMPONENT OF SAFETY/ SECURITY INITIATIVE	OVERALL RATING	PREPRESVES 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	OVERALL RATING	CONSIDERS LAND USE & ECONOMIC PLANS	SUPPORTS SUSTAINABLE DEVELOPMENT	SERVES EXISTING CENTER OF ACTIVITY	PROVIDES LINKS FOR ECONOMIC ACTIVITIES	OVERALL RATING	BASED ON 4% INFLATION	CURRENT STATUS OF PROJECT	TYPE OF PROJECT
		MMS DATA										MMS DATA																								
BOSTON	ROUTE 1A/ BOARDMAN GRADE SEPARATION (L)	65,500	33-40%	36%	55.4/ 133.5	N/A	2	1	2	0	0	0	2	8	0.32	1	2	2	0	0	1	0	0	0	0	0	0	1	-1	1	1	1	0.25	\$10,516,000	RTP	M/ AQ
DANVERS AND PEABODY	ROUTE 1/ ROUTE 114 CORRIDOR IMPROVEMENTS (M)	77,000	N/A	N/A	N/A	N/A	2	0	2	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	\$50,519,000	RTP	M/ AQ	
WILMINGTON AND READING	I-93/ROUTE 129 INTERCHANGE IMPROVEMENT PROJECT (N)	177,000	88%	88%	N/A	N/A	1	0	1	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	\$18,928,000	RTP	M/ AQ	

LIMITED ACCESS HIGHWAY PROJECTS - INTERCHANGES (CONT)

1 "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.

2 Speeds were collected during spring 2004-fall 2007.

3 Crash data is from 2004-2006.

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

5 Safety Rating is largely based on the following criteria: crash rates<1: 1; crash rate greater than 1 but less than 2: 2; crash rate >2: 3.

6 ADT counts are from major road only, not all 4 approaches to the interchange.

## Notes: Limited-Access Highway Projects – Interchanges

- A. A high crash location (#1);with moderately high crash rate. It is used daily by the highest number of commuters.
- B. A high crash location (#23) with low crash rate. Chronic congestion AM and PM. LOS F. Route to Route128 commuter rail station and used by feeder shuttles to station. Implements previous MPO study; consistent with local growth planning study. Much abutting land protected (ACEC). MBTA station access. Economic development district.
- C. A high crash location (#30) with low crash rate. Congestion in AM northbound (entering split) and PM southbound (both entering and leaving split). Implements results of previous MPO study. \* AQ depending on alternative chosen.
- D. 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; lack of pedestrian access under I-93.
- E. AM and PM LOS F (1995). High commuting use. Consistent with Concord long-range planning.
- F. A high usage corridor to Boston and Logan. Below 70% posted speed in AM and at LOS E/F in PM. Revere is a state economic target area.
- G. A high crash location (#80) with low crash rate. Will improve mobility regional connections from Routes 1A, 107, and 1. 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.
- H. Questionable community support. 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.
- I. Existing safety problems. A high crash location (#48), with medium crash rates; truck rollovers. Ramps at or near LOS F.
- J. 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.
- K. A high crash location (#123) and high crash rate. One of 5 busiest radial routes to Boston; high commuting use. Questionable support by Concord.
- L. A high crash location (#600). LOS D in AM and F in PM. Ranked 1A's worst intersection. Air quality benefits.

- M. A high crash location (#15). Serious congestion in AM and PM. Corridors are in designated redevelopment districts.
- N. 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 intersection in N. Suburban subregion in PM).

COMMUNITY	PROJECT	MOBILITY										SAFETY & SECURITY			PRESER- VATION		ENVIRONMENT				REGIONAL EQUITY		LAND USE & ECONOMIC DEVELOPMENT					REVISED COST	PROJECT INFO.							
		AVERAGE MAJOR ROAD ADT <sup>1</sup>	RANGE OF PEAK HOUR SPEED INDEX <sup>2</sup>	AVERAGE PEAK HOUR SPEED INDEX <sup>2</sup>	RANGE OF VOLUME/ <sup>3</sup> PRACTICAL CAPACITY <sup>4</sup>	AVERAGE OF VOLUME/ <sup>3</sup> PRACTICAL CAPACITY <sup>4</sup>	IMPROVES CONNECTIONS/ <sup>5</sup> ACCESS TO SYSTEM	IMPROVES PUBLIC TRANSIT SERVICE	EXPANDS SYSTEM CAPACITY	PROVIDES BIKE & PED FACILITIES	ADDRESSES SUBURBAN TRANSIT NEEDS	BETTER ACCESS FOR TARGET POPULATIONS	IMPROVES FREIGHT MOBILITY	OVERALL RATING	CRASHES PER YEAR	CRASHES/MILE	MMS DATA	ENHANCES SAFETY OF IN- FRASTRUCTURE FOR USERS	COMPONENT OF SAFETY/ <sup>6</sup> 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	OVERALL RATING	CONSIDERS LAND USE & ECONOMIC PLANS	SUPPORTS SUSTAINABLE DEVELOPMENT	SERVES EXISTING CENTER OF ACTIVITY	PROVIDES LINKS FOR ECONOMIC ACTIVITIES	OVERALL RATING	BASED ON 4% INFLATION	CURRENT STATUS OF PROJECT
BEVERLY TO PEABODY	ROUTE 128 CAPACITY IMPROVEMENTS(A)	80,200	73-102%	89%	75-125%	100%	2	0	3	0	0	0	3	0	0	0	0	3	3	2	2	1	0	0	1	0	0	0	2	-3	-1	1	-0.25	\$156,832,000	RTP	MV/AD
MALDEN AND REVERE	ROUTE 1 IMPROVEMENTS(B)	86,600	50-110%	85%	108%	108%	1	0	3	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	2	-1	1	1	0.75	\$70,304,000	RTP	MV/AD	
WEYMOUTH TO DUX-BURY	ROUTE 3 SOUTH AD-DITIONAL LANES(C)	85,900	60-105%	96%	82-130%	107%	1	0	3	0	0	0	3	0	0	0	0	3	3	0	0	1	0	0	1	0	0	0	-3	-1	1	-1.50	\$227,785,000	RTP	MV/AD	

LIMITED ACCESS HIGHWAY PROJECTS - SEGMENTS

<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>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/Easbound 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>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/Easbound and Southbound/Westbound direction during both the AM and PM Peak Hour. The results of these calculations were then averaged by project.

<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 were 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 were then used to define the range.

<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 were 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 were then averaged to provide the value per project.

## Notes: Limited-Access Highway Projects – Segments

- A. Eight high crash locations (#22 to #166). Oldest remaining section of 128; poor design standards and high volumes.
- B. A high crash location (#79). Congestion southbound in AM and northbound in PM peaks. Two redevelopment areas in project area; state economic target area. High crash location and substandard horizontal curve design.
- C. Four high crash locations (#8 to # 84). LOS E and F in AM and PM peaks; breakdown lane used in peaks.

COMMUNITY	PROJECT	MOBILITY												SAFETY & SECURITY				PRESERVATION		ENVIRONMENT			REGIONAL EQUITY			LAND USE & ECONOMIC DEVELOPMENT					REVISED COST	PROJECT INFO.				
		MMS DATA						OVERALL RATING						CRASHES/PER YEAR	CRASHES/MILE	CRASHES/AVERAGE ANNUAL DAILY TRAFFIC (CRASHES PER MILLION VEHICLES)	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	OVERALL RATING	CONSIDERS LAND USE & ECONOMIC PLANS	SUPPORTS SUSTAINABLE DEVELOPMENT	SERVES EXISTING CENTER OF ACTIVITY	PROVIDES LINKS FOR ECONOMIC ACTIVITIES	OVERALL RATING	BASED ON 4% INFLATION	STATUS OF PROJECT AS OF 12/31/06	TYPE OF PROJECT
		AVERAGE MAJOR ROAD ADT	AVERAGE DELAY PER MILE - AM/PM (SECONDS OF DELAY PER MILE)	AVERAGE AM/PM DELAY AT INTERSECTION (SECONDS OF DELAY)	IMPROVES CONNECTIONS/ACCESS TO SYSTEM	IMPROVES PUBLIC TRANSIT SERVICE	EXPANDS SYSTEM CAPACITY	PROVIDES BIKE & PED FACILITIES	ADDRESSES SUBURBAN TRANSIT NEEDS	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																	

ARTERIAL ROADWAY PROJECTS - INTERSECTIONS

FRAMMINGHAM	ROUTE 126/ROUTE 135 GRADIENT ADAPTATION (A)	36,000		218/220	2	0	0	1	0	0	2	2	33		2.46	3	2	3	0	0	1	0	1	2	2	2	2	2	2	2.00	\$54,080,000	RTP	MI
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ARTERIAL ROADWAY PROJECTS - SEGMENTS

WEYMOUTH	ROUTE 18 CAPACITY IMPROVEMENTS(B)	25,200 TO 36,600	51/55		3	0	3	1	0	0	2	3	355	71		3	2	3	0	0	0	0	0	3	1	1	2	1.75	\$26,100,000	RTP/TIP	M/AQ
EVERETT MEDFORD, REVERE	ROUTE 16 (REVERE BEACH PARKWAY)(C)	40,200 TO 52,600	102/102		2	0	3	0	0	0	2	3	197	86		3	2	3	0	0	0	0	1	1	1	-1	1	0.50	\$101,236,000	RTP	M/AQ
BEDFORD, BURLINGTON AND BILLERICA	MIDDLESEX TURNPIKE IMPROVEMENTS(D)	15,000 TO 20,000	25/28		1	0	3	1	0	0	2	2	11	5		1	2	1	0	0	0	0	2	-1	-1	1	0.25	\$19,200,000	RTP/TIP	M/AQ	
HUDSON	WASHINGTON STREET (ROUTE 85) WIDENING	26,000	17/19		1	0	2	2	0	0	1	2	118	75		1	1	1	0	0	0	0	2	1	1	1	1.25	\$8,400,000	AQ	AQ	
NEWTON AND NEEDHAM	NEEDHAM STREET(HIGH-LAND AVENUE)(E)	25,200 TO 34,000	N/A		1	0	1	0	0	0	1	1	90	65		2	2	2	0	0	0	0	2	-1	-1	1	0.25	\$8,100,000	RTP	AQ	
BOSTON	RUTHERFORD AVENUE(F)	12,600 TO 25,100	N/A		1	1	-1	0	0	0	0	0	23	20		1	2	1	0	0	2	0	2	2	2	3	2.25	\$85,507,000	RTP	MI	
WOBBURN	MONTVALE AVENUE(G)	33,600 TO 36,400			1	0	2	0	0	0	1	1	79	66		3	2	2	0	0	0	0							\$3,400,000		AQ
MARSHFIELD	ROUTE 139 IMPROVEMENTS(H)	6,200 TO 20,100	10/14		1	0	2	0	0	0	1	1	60	25		1	1	1	0	0	0	0	1	-1	-1	1	0.00	\$7,150,200		AQ	
MILFORD	ROUTE 16 BY-PASS ROAD(I)	17,900 TO 25,000	56/68		2	0	3	0	0	0	1	2	23	48		0	0	0	0	0	0	0	2	-1	-2	0	-0.25			AQ	



## Notes: Arterial Roadway Projects – Intersections

- A. 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 identified EJ community. Linked to downtown redevelopment.
- G. Improvements in traffic flow. Adding additional lanes between I-93 and Washington St. and will improve flow at Montvale and Washington St. intersection.
- H. Sidewalks and shared bicycle lane (shoulder) included. Development consistent with local master plan.
- I. Improvements in traffic flow and a bike trail extension. Crash information is for Route 16 in area of bypass.

## Notes: Arterial Roadway Projects – Segments

- B. 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.
- C. 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.
- D. LOS E in AM and PM along Turnpike. LOS F at 6 of 7 intersections. Adding sidewalks. Improvements in a multi-community Economic Opportunity Area.
- E. 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.
- F. Two Orange Line rapid transit stations adjacent to project. An Urban Ring Phase 2 route. Would improve access to historic resources and park; improve pedestrian facilities; add open space. Boston is a state economic target area.

COMMUNITY	PROJECT	MOBILITY										SAFETY & SECURITY			ENVIRONMENT				REGIONAL EQUITY				LAND USE & ECONOMIC DEVELOPMENT					REVISED COST	PROJECT INFO.	
		AVERAGE MAJOR ROAD ADT	IMPROVES CONNECTIONS/ACCESS TO SYSTEM	IMPROVES PUBLIC TRANSIT SERVICE	EXPANDS SYSTEM CAPACITY	PROVIDES BIKE & PED FACILITIES	ADDRESSES SUBURBAN TRANSIT NEEDS	BETTER ACCESS FOR TARGET POPULATIONS	IMPROVES FREIGHT MOBILITY	OVERALL RATING	CRASHES PER YEAR	CRASHES/MILE	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	OVERALL RATING	CONSIDERS LAND USE & ECONOMIC PLANS	SUPPORTS SUSTAINABLE DEVELOPMENT	SERVES EXISTING CENTER OF ACTIVITY	PROVIDES LINKS FOR ECONOMIC ACTIVITIES	OVERALL RATING	BASED ON 4% INFLATION
		MMS DATA											MMS DATA																	

COLLECTOR/LOCAL ROADWAY PROJECTS

Weymouth, Hingham, and Rockland	S. WEYMOUTH NAVAL AIR STATION ACCESS IMPROVEMENTS (A)		2	1	3	1	0	0	0	3		0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	2			RTP	M/AC	
Quincy	QUINCY CENTER CONCOURSE, PHASE 2(B)		2	0	3	1	0	0	1	3		0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	1			RTP	AC
Woburn	NEW BOSTON STREET BRIDGE(C)		3	1	3	0	0	0	2	3		0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	-1	1			RTP	AC	
Salem	BRIDGE STREET (D)	17,900 to 23,900	1	2	3	1	0	0	1	2	65	2	2	2	0	0	0	0	0	0	0	0	0	0	2	1	-2	1			RTP	AC/MI	
Everett, Malden, Medford	TELECOM CITY BOULEVARD(E)		2	0	3	0	0	0	1	2		0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	1			RTP	AC/MI	
Salem	BOSTON STREET (F)	22,900	1	1	3	0	0	0	1	2	66	2	2	2	0	0	0	0	0	0	0	0	0	0	1	-1	1			RTP	AC		
Boston	T UNDER D (G)		1	2	0	0	0	0	0	1		1	1	1	0	0	1	0	0	0	0	0	0	0	2	2	1	1				MI	

FREIGHT PROJECTS

Boston	EAST BOSTON HALL ROAD, CHELSEA TRUCK ROUTE(H)		3	1	3	1	0	0	3	3		2	1	2	0	0	1	0	1	0	1	0	2	2	1	-1	1	3			RTP	AC/MI
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## Notes: Collector/Local Roadway Projects

- A. 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.
- B. Would provide new connection and improve access and economic activity in downtown.
- C. Would provide a second access route to the Anderson Regional Transportation Center on the Lowell commuter rail line and the Industriplex area and for emergency vehicles.
- D. Two high crash locations (#141 and #600).  
Would improve access to Salem commuter rail station including pedestrian access. MBTA buses serve the station.
- E. Would facilitate development at Telecom City and vicinity, a state economic target area.
- F. Salem is a state economic target area.
- G. Would provide more reliable service to Logan on Silver Line. In South Boston Waterfront District.

## Notes: Freight Projects

- H. 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.

## **TRANSIT PROJECT RATINGS**

Evaluations of the transit expansion projects broken down by mode (rapid transit, bus and trackless trolley, commuter rail, and boat) follow. High, medium, and low ratings are used.

OVERALL RAPID TRANSIT PROJECT EVALUATION

PROJECT DESCRIPTION	TYPE	UTILIZATION	MOBILITY	COST-EFFECTIVE	AIR QUALITY	SERVICE QUALITY	ECON./LAND USE IMPACTS	ENVIRON. JUSTICE	TOTAL
BLUE-RED CONNECTOR	LINE EXT.	▶	▶	●	▶	▶	●	▶	▶
CONVERT DUDLEY/BOYLSTON SECTION OF SILVER LINE TO LIGHT RAIL	LINE EXT.	○	○	○	○	▶	●	●	○
EXTEND BLUE LINE FROM BOWDOIN TO WEST MEDFORD	LINE EXT.	▶	▶	▶	▶	▶	●	●	▶
EXTEND BLUE LINE FROM LYNN TO SALEM	LINE EXT.	●	▶	▶	●	○	▶	▶	▶
EXTEND BLUE LINE FROM WONDERLAND TO LYNN	LINE EXT.	●	▶	▶	●	▶	●	●	●
EXTEND GREEN LINE TO WEST MEDFORD	LINE EXT.	▶	▶	▶	▶	▶	▶	●	▶
NEW GREEN LINE NEEDHAM BRANCH	LINE EXT.	○	○	○	○	▶	○	○	○
ORANGE LINE NO. EXT. FROM OAK GROVE TO READING/ROUTE 128	LINE EXT.	▶	○	○	▶	○	○	○	○
ORANGE LINE SO. EXT. FROM FOREST HILLS TO RTE. 128 VIA HYDE PARK	LINE EXT.	○	○	○	▶	▶	▶	▶	○
ORANGE LINE SO. EXT. FROM FOREST HILLS TO W. ROXBURY/NEEDHAM	LINE EXT.	○	○	○	○	○	○	▶	○
RED LINE EXTENSION TO WEYMOUTH	LINE EXT.	▶	○	○	▶	○	●	○	○
RED LINE NW EXT. FROM ALEWIFE TO RTE. 128	LINE EXT.	○	○	○	▶	▶	○	○	○
RESTORE GREEN LINE SERVICE BETWEEN HEATH ST. & ARBORWAY	LINE EXT.	○	○	▶	○	●	●	▶	▶
SILVER LINE EAST EXT. TO CITY POINT	LINE EXT.	○	○	●	▶	▶	●	○	▶
SILVER LINE PHASE III: SOUTH STATION-BOYLSTON CONNECTOR	LINE EXT.	●	●	▶	▶	▶	●	●	●
SILVER LINE SO. EXT. TO ASHMONT & MATTAPAN	LINE EXT.	▶	▶	●	▶	●	●	●	●
SILVER LINE WEST EXTS. TO ALLSTON & LONGWOOD MEDICAL AREA	LINE EXT.	●	▶	▶	▶	▶	●	▶	▶
URBAN RING PHASE 2	LINE EXT.	●	●	●	●	●	●	●	●
URBAN RING PHASE 3	LINE EXT.	●	●	●	●	●	●	●	●
CONSTRUCT ORANGE LINE NEW STATION AT ASSEMBLY SQ.	NEW STATION	○	○	●	▶	○	●	▶	▶
WONDERLAND: NEW CONNECTOR	NEW STATION	○	○	▶	▶	○	●	○	○

HIGH PRIORITY ● MEDIUM PRIORITY ▶ LOW PRIORITY ○

OVERALL BUS/TRACKLESS TROLLEY PROJECT EVALUATION

PROJECT DESCRIPTION	TYPE	UTILIZATION	MOBILITY	COST-EFFECTIVE	AIR QUALITY	SERVICE QUALITY	ENVIRON. JUSTICE	TOTAL
BUILD NEW BUSWAYS TO LINE EXT./ALEWIFE STATION	LINE EXT./NEW LINE	○	○	●	●	◐	○	◐
EXTEND TRACKLESS TROLLEY LINE #71 FROM WATERTOWN TO NEWTON CORNER	LINE EXT./NEW LINE	○	○	●	◐	○	○	○
ROUTE 128 CIRCUMFERENTIAL BUS SERVICE	LINE EXT./NEW LINE	◐	●	○	○	○	○	○
SUBURBAN COMMUTER RAIL FEEDER BUS SERVICES	LINE EXT./NEW LINE	◐	●	◐	◐	●	●	●
URBAN RING PHASE 1	LINE EXT./NEW LINE	●	◐	○	○	●	●	●

HIGH PRIORITY ● MEDIUM PRIORITY ◐ LOW PRIORITY ○

OVERALL COMMUTER RAILROAD PROJECT EVALUATION

PROJECT DESCRIPTION	TYPE	UTILIZATION	MOBILITY	COST-EFFECTIVE	AIR QUALITY	SERVICE QUALITY	ECON./LAND USE IMPACTS	ENVIRON. JUSTICE	TOTAL
BUILD CRR SPUR FROM FRAMINGHAM TO LEOMINSTER	LINE EXT.	●	●	○	○	○	●	▶	▶
BUILD CRR SPUR FROM SALEM TO DANVERS	LINE EXT.	▶	●	▶	▶	○	○	▶	●
CRR BRANCH FROM EXISTING OLD COLONY LINES TO GREENBUSH	NEW LINE	●	●	▶	▶	○	○	○	●
CRR TO MILLIS	LINE EXT.	●	●	▶	▶	○	○	○	▶
CRR TO NEW BEDFORD/FALL RIVER	LINE EXT.	●	●	▶	▶	○	▶	▶	●
EXTEND CRR FROM PROVIDENCE TO T.F. GREEN (RI)	LINE EXT.	▶	●	▶	▶	▶	○	○	▶
EXTEND CRR FROM FITCHBURG TO GARDNER	LINE EXT.	○	●	○	○	○	●	▶	▶
EXTEND CRR FROM FORGE PARK TO MILFORD	LINE EXT.	▶	●	▶	▶	○	○	▶	▶
EXTEND CRR FROM HAVERHILL TO PLAISTOW	LINE EXT.	●	○	●	●	○	○	○	▶
EXTEND CRR FROM LOWELL TO NASHUA	LINE EXT.	●	●	▶	●	○	○	○	▶
EXTEND CRR FROM MIDDLEBOROUGH TO WAREHAM	LINE EXT.	▶	●	○	▶	○	▶	○	▶
EXTEND PASSENGER RAIL SERVICE FROM WAREHAM TO HYANNIS	LINE EXT.	▶	○	○	●	○	○	○	○
NORTH-SOUTH RAIL LINK	LINE EXT.	●	▶	▶	▶	▶	●	▶	●
OPERATE FULL-TIME SERVICE TO FOXBORO STA.	LINE EXT.	○	▶	○	▶	○	○	○	○
OPERATE HIGH-FREQUENCY RIVERSIDE – SOUTH STATION CRR	LINE EXT.	○	○	○	○	○	▶	○	○
OPERATE HIGH-FREQUENCY RIVERSIDE – JFK/UMASS CRR	LINE EXT.	▶	○	○	○	○	▶	▶	○
OPERATE HIGH-FREQUENCY READVILLE – ALLSTON LANDING CRR	LINE EXT.	○	▶	○	○	○	●	●	▶
ADD STATION AT MILLBURY ON THE FRAMINGHAM/WORCESTER LINE	NEW STATION	○	▶	●	▶	○	●	○	▶
ADD A STATION AT SO. SALEM ON ROCKPORT/NEWBURYPORT LINE	NEW STATION	○	▶	●	●	○	▶	▶	▶
BUILD A NEW ALLSTON/BRIGHTON CRR STATION	NEW STATION	○	▶	▶	▶	○	●	●	▶
BUILD A NEW CRR STATION ON THE FITCHBURG LINE AT UNION SQ., SOMERVILLE	NEW STATION	○	▶	●	▶	○	●	●	●
BUILD A REGIONAL CRR STATION ALONG RTE. 2 WEST OF I-495	NEW STATION	○	○	○	▶	○	○	○	○
BUILD REGIONAL CRR STATION ON I-495 IN METROWEST	NEW STATION	▶	○	▶	●	○	○	○	▶
CONNECT FITCHBURG CRR W/ RED LINE AT ALEWIFE	NEW STATION	○	○	▶	▶	▶	●	○	▶
FAIRMOUNT LINE IMPROVEMENTS	NEW STATION	▶	●	▶	○	●	●	●	●
NEW CRR STATION AT RIVERSIDE	NEW STATION	○	○	●	▶	▶	○	○	▶

HIGH PRIORITY ● MEDIUM PRIORITY ▶ LOW PRIORITY ○

OVERALL BOAT PROJECT EVALUATION

PROJECT DESCRIPTION	TYPE	UTILIZATION	MOBILITY	COST EFFECTIVE	AIR QUALITY	SERVICE QUALITY	ECON./LAND USE IMPACTS	ENVIRON. JUSTICE	TOTAL
RUSSIA WHARF/ SOUTH STATION	LINE EXT./ NEW LINE	●	●	●	○	●	●	○	●
HIGH-SPEED FERRY SERVICE FROM THE NORTH SHORE TO BOSTON AND THE AIRPORT	LINE EXT./ NEW LINE	●	○	○	○	○	●	●	○
RESTORE EAST BOSTON FERRY	LINE EXT./ NEW LINE	○	○	●	○	○	●	●	●
IMPROVED FERRY SERVICE FROM SOUTH SHORE COMMUNITIES (QUINCY, HINGHAM AND HULL) TO BOSTON	FREQUENCY IMPROVE- MENT	●	●	●	○	○	○	●	●

HIGH PRIORITY ●   
 MEDIUM PRIORITY ●   
 LOW PRIORITY ○