

**DRAFT Amendment Three  
FFY 2009 Element of the FFYs 2007 - 2010 TIP**

<i>Indicates a change in project cost</i>
<i>Indicates removed from TIP (cost not reflected in total)</i>
<i>Indicates a project moved in from another TIP funding category</i>
<i>Indicates a project moved out to another TIP element (cost not reflected in total)</i>
<i>Indicates a new addition to the TIP (action taken as denoted)</i>
<i>Indicates a new funding category</i>

***Regional Highway Program***

***FEDERAL-AID TARGET PROJECTS***

<b>Congestion Mitigation and Air Quality Improvement Program</b>			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
Belmont, Cambridge & Somerville	600811	Bicycle Facility	\$4,160,000	\$1,040,000	\$5,200,000
Franklin	602962	King Street Ramps	\$3,800,000	\$950,000	\$4,750,000
Milford	604530	Upper Charles Trail, Phase 2	\$3,280,000	\$820,000	\$4,100,000
Watertown	602053	Intersection Improvements at Three Locations	\$700,000	\$175,000	\$875,000
			<i>Federal Funds</i>	<i>State/Local Funds</i>	<i>Total Funds</i>
Boston		Boston Traffic Management Center Operations	\$324,000	\$81,000	\$405,000
Boston Region		Improving the Region's Bike/Ped Infrastructure Program	\$520,000	\$130,000	\$650,000
Boston Region		Regional Transportation Demand Management Program	\$200,000	\$50,000	\$250,000
Boston Region		Suburban Mobility Improvement Program	\$520,000	\$130,000	\$650,000
		<b>Congestion Mitigation and Air Quality Improvement Program Total</b>	<b>\$13,504,000</b>	<b>\$3,376,000</b>	<b>\$16,880,000</b>
				<i>CMAQ Regional Target</i>	\$8,593,420
 <b>National Highway System</b>			 <i>Federal Funds</i>	 <i>State Funds</i>	 <i>Total Funds</i>
Canton, Randolph & Westwood	87800	Route 128 Improvement Program Contract 3, Year Three of Six	\$9,567,511	\$2,391,878	\$11,959,389
Dedham, Needham & Westwood	603206	Route 128 Improvement Program Contract 4, Year One of Six	\$2,400,000	\$600,000	\$3,000,000
		<b>National Highway System Total</b>	<b>\$11,967,511</b>	<b>\$2,991,878</b>	<b>\$14,959,389</b>
 <b>Surface Transportation Program</b>			 <i>Federal Funds</i>	 <i>State Funds</i>	 <i>Total Funds</i>
Bedford, Billerica & Burlington	29491	Middlesex Turnpike (Mitre Extension), Phase Two	\$4,996,004	\$1,249,001	\$6,245,005
Danvers/Peabody	87612	Route 128 at Route 35 and Route 62	\$7,600,000	\$1,900,000	\$9,500,000
Foxborough, Norfolk, & Wrentham	602496	Route 115 (Pond/Pine St)	\$5,188,800	\$1,297,200	\$6,486,000
Salem	601017	Route 1A (Bridge Street)	\$5,280,000	\$1,320,000	\$6,600,000
		<b>Surface Transportation Program Total</b>	<b>\$23,064,804</b>	<b>\$5,766,201</b>	<b>\$28,831,005</b>

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**Highway Safety Improvement Program (HSIP) Project**

			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
Bedford, Billerica & Burlington	29491	Middlesex Turnpike (Mitre Extension), Phase Two	\$3,867,039	\$429,671	\$4,296,710
<b>Highway Safety Improvement Program Total</b>			<b>\$3,867,039</b>	<b>\$429,671</b>	<b>\$4,296,710</b>
				<i>HSIP Regional Target</i>	<i>\$4,296,710</i>

**Surface Transportation Program/Enhancement**

			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
Ipswich	604945	North Green Improvements (Design)	\$73,440	\$18,360	\$91,800
Cambridge	605188	Cambridge Common/Flagstaff Park (Design)	\$144,000	\$36,000	\$180,000
<b>Surface Transportation Program/Enhancement Total</b>			<b>\$217,440</b>	<b>\$54,360</b>	<b>\$271,800</b>

**Total Regional Target Programming**      **\$65,238,904**  
*Boston Region MPO Regional Target with State Match*      *\$65,225,104*

**FEDERAL-AID NON-TARGET PROJECTS**

**FEDERAL-AID American Recovery and Reinvestment Act of 2009**

			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
Arlington	PROG-7	Cyrus Dallin or Thompson or Stratton Elementary School(s) Sidewalk Improvements	\$448,000		\$448,000
Arlington and Somerville	DCR920	Minuteman Bike Path Connector	\$3,000,000		\$3,000,000
Boston	M0330B	Northern Ave Sidewalk Improvements	\$800,000		\$800,000
Boston		Dorchester Ave	\$12,926,000		\$12,926,000
Boston		Resurfacing on Federal Aid Roads within Boston	\$21,000,000		\$21,000,000
Burlington, Lexington, Reading, Woburn	605018	Guide and Traffic Sign Repair on I-95	\$3,289,560		\$3,289,560
Cambridge and Charlestown	DCR927	North Bank Pedestrian Bridge	\$36,000,000		\$36,000,000
Concord		Route 2	\$3,575,000		\$3,575,000
Harvard and Littleton	604400	Route 2	\$5,784,600		\$5,784,600
Lincoln	604629	Route 2	\$1,289,990		\$1,289,990
Lynn	DCR901	Blossom St Ferry Terminal	\$4,000,000		\$4,000,000
Metro Boston	DCR930	Pavement Improvements to Metro Parkway System	\$3,000,000		\$3,000,000
Metro Boston	DCR934	Sidewalk Improvements to Metro Parkway System	\$700,000		\$700,000
Newton	MTA-MHS-04	Harvard St Bridge	\$3,500,000		\$3,500,000
Region		Regionwide ITS Program	\$5,000,000		\$5,000,000
Statewide	MTA-ALL-01	Statewide Communications Network Expansion	\$2,000,000		\$2,000,000
Somerville to Wilmington	604938	Guide and Traffic Sign Repair on I-93	\$4,620,000		\$4,620,000
Somerville		Magon Square	\$3,100,000		\$3,100,000
Waltham	PROG 9	Northeast Elementary School Sidewalk School	\$518,000		\$518,000
Watertown, Newton, Boston	DCR949	Nonantum Rd Improvements	\$6,059,400		\$6,059,400
Weston	MTA-MHS-02	Ramp G over Turnpike	\$3,000,000		\$3,000,000
Weston	MTA-MHS-03	Ramp G over Aqueduct	\$2,000,000		\$2,000,000
Wilmington and Methuen	605396	Guide and Traffic Sign Repair on I-93	\$4,275,000		\$4,275,000
<b>Highway ARRA Total</b>			<b>\$129,885,550</b>		<b>\$129,885,550</b>

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**FEDERAL-AID BRIDGE PROJECTS**

<b>Bridge</b>			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>	
Boston	600944	American Legion HWY over Route 203	\$4,904,904	\$1,226,226	\$6,131,130	
Framingham	604013	Fountain Street over MBTA and CSX	\$3,120,000	\$780,000	\$3,900,000	
Hanover	605101	Route 53 over Route 3	\$10,807,520	\$2,701,880	\$13,509,400	\$11,050,000 will be in 2010
Hudson	604006	Houghton Street over Assabet River	\$2,033,058	\$508,264	\$2,541,322	
Marlborough	603506	Robin Hill and Boundary Street Bridges over the Assabet	\$3,158,748	\$789,687	\$3,948,435	
<b>Bridge Total</b>			<b>\$21,991,172</b>	<b>\$5,497,793</b>	<b>\$27,488,965</b>	
			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>	
<b>Advance Construction Bridge</b>						
Boston	604517	Chelsea Street Bridge	\$8,800,000	\$2,200,000	\$11,000,000	
Boston & Everett	603370	Route 99 (Alford Street) Bridge	\$4,800,000	\$1,200,000	\$6,000,000	
Dedham, Needham & Westwood	603206	Route 128 Improvement Program Contract 4	\$800,000	\$200,000	\$1,000,000	
Lynn & Saugus	026710	Route 107 (Fox Hill) Bridge	\$800,000	\$200,000	\$1,000,000	
<b>Advance Construction Bridge Total</b>			<b>\$15,200,000</b>	<b>\$3,800,000</b>	<b>\$19,000,000</b>	
			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>	
<b>Special Bridge Funds</b>						
Danvers	603715	Route 1 over Centre Street	\$5,360,000	\$1,340,000	\$6,700,000	
Millis	604240	Route 115 (Norfolk Rd) over Charles River	\$1,200,000	\$300,000	\$1,500,000	
<b>Special Bridge Funds Total</b>			<b>\$6,560,000</b>	<b>\$1,640,000</b>	<b>\$8,200,000</b>	
<b>Federal-Aid Bridge Total</b>					<b>\$54,688,965</b>	

**FEDERAL AID MAJOR INFRASTRUCTURE AND STATEWIDE CATEGORIES**

<b>Interstate Maintenance</b>			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
Marlborough, Hudson & Berlin	604877	Interstate 495	\$13,403,988	\$1,489,332	\$14,893,320
Stoneham, Winchester & Reading	604878	Interstate 93	\$9,855,648	\$1,095,072	\$10,950,720
<b>Interstate Maintenance Total</b>			<b>\$23,259,636</b>	<b>\$2,584,404</b>	<b>\$25,844,040</b>
			<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
<b>National Highway System Pavement Preservation</b>					
Arlington/Belmont/Cambridge	604629	Route 2	\$3,367,200	\$841,800	\$4,209,000
<b>National Highway System Pavement Preservation Total</b>			<b>\$3,367,200</b>	<b>\$841,800</b>	<b>\$4,209,000</b>

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**FEDERAL AID EARMARKED FUNDING**

**High-Priority Projects (TEA-21)**

			<i>Federal Funds</i>	<i>State/Local Funds</i>	<i>Total Funds</i>
Bedford, Billerica & Burlington	29491	Middlesex Turnpike (Mitre Extension) Construction, Phase Two (HPP 924)	\$1,922,102	\$480,526	\$2,402,628
Boston		Symphony Area/Huntington Ave Streetscape Design (HPP 447)	\$200,000	\$50,000	\$250,000

**High-Priority Projects (SAFETEA-LU)**

			<i>Federal Funds</i>	<i>State/Local Funds</i>	<i>Total Funds</i>
Acton and Maynard	604531	Assabet River Rail Trail Design (HPP 1761)	\$452,000	\$113,000	\$565,000
Bedford, Billerica & Burlington	29491	Middlesex Turnpike (Mitre Extension) Construction, Phase Two	\$718,000	\$179,500	\$897,500
Boston		Pedestrian Improvements to Kenmore Sq Construction (HPP 682)	\$3,318,758	\$829,690	\$4,148,448
Boston	604775	Longwood Ave / Urban Ring Tunnel Study (HPP 856)	\$96,033	\$24,008	\$120,041
Boston	600636	Massachusetts Avenue Construction (HPP 270)	\$1,260,573	\$315,143	\$1,575,716
Boston	604997	Museum Way Improvements Construction (HPP 1960)	\$2,871,997	\$717,999	\$3,589,996
Boston		Sullivan Square, Phase 1 Design (HPP 3568)	\$897,498	\$224,375	\$1,121,873
Danvers to Peabody	604874	Border to Boston Bikeway Design (HPP 843)	\$718,000	\$179,500	\$897,500
Danvers & Peabody	87612	Route 128 Improvements Construction (1477)	\$1,106,253	\$276,563	\$1,382,816
Franklin	604988	Route 140 Design (HPP 4279)	\$400,000	\$100,000	\$500,000
Hudson & Stow		Assabet River Rail Trail Design (HPP 1761)	\$269,250	\$67,312	\$336,562
Hull	604743	West Corner Culvert Construction (HPP 1681)	\$143,600	\$35,900	\$179,500
Somerville		I-93 Mystic Avenue Interchange Study (HPP 792)	\$359,000	\$89,750	\$448,750
Somerville	604778	Union Square Improvements Study (HPP 999)	\$73,961	\$18,490	\$92,451
Somerville	604872	Assembly Square Multimodal Access Improvements Construction (HPP 4281)	\$5,007,375	\$1,251,844	\$6,259,219
Watertown	601686	Pleasant Street and Howard Street Construction	\$341,449	\$85,362	\$426,811
Watertown*	605139	Watertown Bike Path Construction (HPP 1400)	\$576,618	\$144,155	\$720,773
Watertown*	605139	Watertown Bike Path Construction (HPP 1424)	\$579,339	\$144,835	\$724,174
Walpole	605187	Washington St Design (HPP 2431)	\$125,650	\$31,412	\$157,062
Weymouth		Weymouth Multi-Modal Center Construction (HPP 4276)	\$8,011,800	\$2,002,950	\$10,014,750

**Transportation Improvement Projects (SAFETEA-LU)**

Boston to Worcester		Rail Line Improvments (TI 172)	\$8,985,072	\$2,246,268	\$11,231,340
<b>High-Priority Projects Total</b>			<b>\$38,434,327</b>	<b>\$9,608,582</b>	<b>\$48,042,909</b>

\*match to be provided by the Department of Conservation and Recreation

**Section Earmarks Other Match**

**Section 112**

			<i>Federal Funds</i>	<i>Other Funds</i>	<i>Total Funds</i>
Medford	605122	Clippership Drive Streetscape Construction	\$990,000		\$990,000
Cambridge	600991	Kendall Square/Broadway Streetscape Construction	\$750,000		\$750,000

**Section 117**

Cambridge	604993	Innovation Blvd Streetscape Construction	\$990,000		\$990,000
Malden		Pleasant St Design	\$310,200		\$310,200

**Section 330**

Winthrop		Winthrop Ferry Improvements Construction	\$496,750		\$496,750
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<b>High-Priority Project (SAFETEA-LU) Other Match</b>			<i>Federal Funds</i>	<i>Other Funds</i>	<i>Total Funds</i>
Boston	604774	National Park Traveler Information System & Visitor Center	\$1,218,000		\$1,218,000
<b>2004 Ferry Boat Discretionary Commuter Ferry</b>			<i>Federal Funds</i>	<i>State/Local Funds</i>	<i>Total Funds</i>
Winthrop		Winthrop Ferry Improvements Construction	\$264,232	\$66,058	\$330,290
<b>2005 Ferry Boat Discretionary Ferry Infrastructure</b>			<i>Federal Funds</i>	<i>State/Local Funds</i>	<i>Total Funds</i>
Winthrop		Winthrop Ferry Improvements Construction	\$208,167	\$52,042	\$260,209
<b>Eastern Federal Lands Highway Division</b>			<i>Federal Funds</i>	<i>Other Funds</i>	<i>Total Funds</i>
Minuteman National Park (Concord)		Pavement Management Project			\$230,000
<b>Other Earmarks Total</b>			<b>\$5,227,349</b>	<b>\$118,100</b>	<b>\$5,575,449</b>
<b>FFY 2009 Federal-Aid Non-Target Non-Bridge Projects Total</b>					<b>\$53,618,358</b>
<b>FFY 2009 Total Federal-Aid Highway Program</b>					<b>\$433,592,139</b>
<b>FFY 2009 Total Highway Program</b>					<b>\$433,592,139</b>

***Central Artery/Tunnel Project***

	<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
National Highway System (NHS)	\$70,000,000	\$17,500,000	\$87,500,000
State Transportation Program (STP)	\$56,845,000	\$14,211,250	\$71,056,250
<b>Federal-Aid Subtotal</b>	<b>\$126,845,000</b>		
<b>Federal-Aid Matching Funds Subtotal</b>		<b>\$31,711,250</b>	
<b>FFY 2009 Central Artery/Tunnel Funds Total</b>			<b>\$158,556,250</b>

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***REGIONAL TRANSIT PROGRAM***

<b>Section 3037</b>		<i>Federal Funds</i>	<i>MBTA Funds</i>	<i>Total Funds</i>
Systemwide	Job Access	\$1,502,650	\$375,662	\$1,878,312
	<b>Section 3037 MBTA Match Total</b>	<b>\$1,502,650</b>	<b>\$375,662</b>	<b>\$1,878,312</b>

<b>New Freedom</b>		<i>Federal Funds</i>	<i>MBTA Funds</i>	<i>Total Funds</i>
Systemwide	New Freedom	\$1,292,406	\$323,101	\$1,615,507
	<b>New Freedom MBTA Match Total</b>	<b>\$1,292,406</b>	<b>\$323,101</b>	<b>\$1,615,507</b>

<b>Section 5307</b>		<i>Federal Funds</i>	<i>MBTA Funds</i>	<i>Total Funds</i>
Systemwide	Locomotive and Coach Procurement	\$13,600,000	\$3,400,000	\$17,000,000
Systemwide	ITS Initiatives	\$4,000,000	\$1,000,000	\$5,000,000
Red Line	Power System Improvements	\$4,000,000	\$1,000,000	\$5,000,000
Systemwide	Station Rehabilitation	\$4,000,000	\$1,000,000	\$5,000,000
Green Line	MBTA Accessibility Program	\$21,600,000	\$5,400,000	\$27,000,000
Blue Line	Blue Line Vehicles	\$8,000,000	\$2,000,000	\$10,000,000
Systemwide	Station Management Program	\$2,800,000	\$700,000	\$3,500,000
Bus	CNG Bus Overhaul Program	\$12,000,000	\$3,000,000	\$15,000,000
Bus	Everett Maintenance Facility	\$4,400,000	\$1,100,000	\$5,500,000
Systemwide	Elevator Replacement/Rehabilitation	\$27,308,761	\$6,827,190	\$34,135,951
Systemwide	Grant Anticipation Notes (GANs) Program	\$19,985,000	\$4,996,250	\$24,981,250
Systemwide	MBTA Enhancement Program	\$1,354,482	\$338,621	\$1,693,103
Systemwide	Preventative Maintenance	\$10,000,000	\$2,500,000	\$12,500,000
Systemwide	Bus and Train Arrival LCD Signage	\$2,400,000	\$600,000	\$3,000,000
	<b>Section 5307 MBTA Match Total</b>	<b>\$135,448,243</b>	<b>\$33,862,061</b>	<b>\$169,310,304</b>

		<i>Federal Funds</i>	<i>State Funds</i>	<i>Total Funds</i>
Cape Ann	Cape Ann Transportation Authority	\$344,568	\$86,142	\$430,710
	<b>Section 5307 State Match Total</b>	<b>\$344,568</b>	<b>\$86,142</b>	<b>\$430,710</b>

<b>High-Priority Projects (SAFETEA-LU)</b>		<i>Federal Funds</i>	<i>Local Funds</i>	<i>Total Funds</i>
Bus	HPP Bus - Framingham Transit System	\$406,296	\$101,574	\$507,870
	<b>SAFETEA-LU High-Priority Projects (HPP Bus) Total</b>	<b>\$406,296</b>	<b>\$101,574</b>	<b>\$507,870</b>

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<b>Section 5309</b>		<i>Federal Funds</i>	<i>MBTA Funds</i>	<i>Total Funds</i>
Blue Line	Blue Line Modernization	\$21,600,000	\$5,400,000	\$27,000,000
Red Line	Red Line Number 2 Car Overhaul	\$14,190,124	\$3,547,531	\$17,737,655
Systemwide	Kawasaki Coaches	\$1,600,000	\$400,000	\$2,000,000
Systemwide	Locomotive and Coach Procurement	\$33,295,500	\$8,323,875	\$41,619,375
<i>Section 5309 Infrastructure Program</i>				
Red Line	Columbia Junction	\$10,400,000	\$2,600,000	\$13,000,000
Systemwide	Power Improvements	\$7,080,000	\$1,770,000	\$8,850,000
Systemwide	Bridge and Tunnel Program	\$4,800,000	\$1,200,000	\$6,000,000
<b>Section 5309 MBTA Match Total</b>		<b>\$92,965,624</b>	<b>\$23,241,406</b>	<b>\$116,207,030</b>

<b>Section 5309 Omnibus Earmarks 2008</b>		<i>Federal Funds</i>	<i>MBTA/State/Local Funds</i>	<i>Total Funds</i>
Salem/Beverly	Intermodal Station Improvements (Salem/Beverly)	\$783,750	\$156,750	\$940,500
Blue Line	Wonderland Station Intermodal Transit Improvements (Revere, MA)	\$950,000	\$190,000	\$1,140,000
<b>Section 5309 Omnibus Earmarks Total</b>		<b>\$1,733,750</b>	<b>\$346,750</b>	<b>\$2,080,500</b>

<b>Section 5307 (Carryover)</b>		<i>Federal Funds</i>	<i>MBTA Funds</i>	<i>Total Funds</i>
Bus	Everett Maintenance Facility	\$6,400,000	\$1,600,000	\$8,000,000
Systemwide	Redundant Operations Control Center	\$8,652,318	\$2,163,080	\$10,815,398
<b>Section 5307 Carryover MBTA Match Total</b>		<b>\$15,052,318</b>	<b>\$3,763,080</b>	<b>\$18,815,398</b>

<b>Section 5309 (Carryover Earmarked Funds)</b>		<i>Federal Funds</i>	<i>MBTA/State/Local Funds</i>	<i>Total Funds</i>
Beverly/Salem	Beverly/Salem Intermodal Center	\$1,146,400	\$286,600	\$1,433,000
Blue Line/North Shore	Feasibility Study for Blue Line Extension to Lynn	\$3,136,160	\$784,040	\$3,920,200
Salem	Beverly/Salem Intermodal Center	\$973,371	\$243,343	\$1,216,714
Beverly	Beverly/Salem Intermodal Center	\$973,371	\$243,343	\$1,216,714
Quincy	Quincy Catamaran	\$973,371	\$243,343	\$1,216,714
Revere	Wonderland Station	\$876,034	\$219,009	\$1,095,043
Red Line	Red Line Number 2 Car Overhaul	\$2,678,793	\$669,698	\$3,348,491
Systemwide	Power Improvements	\$4,000,000	\$1,000,000	\$5,000,000
Systemwide	Bridge and Tunnel Program	\$11,124,000	\$2,781,000	\$13,905,000
Systemwide	Positive Train Control	\$800,000	\$200,000	\$1,000,000
Boston	Commonwealth Ave	\$525,280	\$131,320	\$656,600
Boston	Improvements at Harbor Islands Park	\$217,360	\$54,340	\$271,700
Hingham	Hingham Intermodal Center	\$3,756,172	\$939,043	\$4,695,215
Commuter Rail	Auburndale Station	\$1,264,000	\$316,000	\$1,580,000
Commuter Rail	Rockport Improvements	\$1,338,386	\$334,596	\$1,672,982
Commuter Rail	Fitchburg Line Improvements	\$6,272,160	\$1,568,040	\$7,840,200

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**Section 5309 (Carryover Earmarked Funds) cont.**

Medford	Medford Downtown Parking	\$973,371	\$243,343	\$1,216,714
Melrose	Commuter Rail Station Improvement	\$686,000	\$171,500	\$857,500
Ferry	Vessel Procurement, Engine Overhaul and Improvements at Quincy	\$5,980,000	\$1,495,000	\$7,475,000
Woburn	Woburn Park & Ride Facility	\$876,034	\$219,009	\$1,095,043
<b>Section 5309 MBTA Various Match Total</b>		<b>\$48,570,264</b>	<b>\$12,142,566</b>	<b>\$60,712,830</b>

**FEDERAL-AID American Recovery and Reinvestment Act of 2009**

**MBTA 5307 Urban Formula**

		<i>Federal Funds</i>	<i>Total Funds</i>
Commuter Rail	Commuter Rail Rolling Stock (Locomotives and Vehicle Rehab)	\$38,000,000	\$38,000,000
The RIDE	Vehicle Procurement (up to 108 vans)	\$5,500,000	\$5,500,000
Systemwide	Track and Right of Way Improvements	\$3,800,000	\$3,800,000
Commuter Rail	Signal and Grade Crossing Improvements (Fitchburg and Haverhill Lines)	\$13,200,000	\$13,200,000
Commuter Rail	Double Track Initiative (Fitchburg and Haverhill Lines)	\$10,000,000	\$10,000,000
Systemwide	Station Upgrade Program	\$21,703,250	\$21,703,250
Green Line	Positive Train Control - Light Rail Pilot Program	\$500,000	\$500,000
Systemwide	Facility Upgrade Program	\$13,676,000	\$13,676,000
South Boston	Gas Turbine Replacement and Fuel Conversion	\$1,000,000	\$1,000,000
Bus	Bus Stop and Corridor Enhancements (including Bus 23 and Silver Line)	\$9,525,000	\$9,525,000
<b>MBTA 5307 Urban Formula ARRA Funds Total</b>		<b>\$77,404,250</b>	<b>\$77,404,250</b>

**MBTA 5309 Fixed Guideway**

Commuter Rail	Double Track Initiative (Fitchburg and Haverhill Lines)	\$27,000,000	\$27,000,000
Commuter Rail	Bridge Program (Drawbridge Repairs)	\$3,000,000	\$3,000,000
Commuter Rail	Commuter Rail Rolling Stock (Locomotives and Vehicle Rehab)	\$7,383,648	\$7,383,648
Systemwide	Rolling Stock (Buses)	\$30,000,000	\$30,000,000
Systemwide	Station Upgrade Program	\$12,918,000	\$12,918,000
Commuter Rail	Signal and Grade Crossing Improvements (Fitchburg and Haverhill Lines)	\$10,212,000	\$10,212,000
Systemwide	Facility Upgrade Program	\$8,000,000	\$8,000,000
<b>MBTA 5309 - Fixed Guideway ARRA Funds Total</b>		<b>\$98,513,648</b>	<b>\$98,513,648</b>

**MBTA ARRA Funds Total**      **\$175,917,898**      **\$175,917,898**

**MetroWest Regional Transit System**

Systemwide	Vehicle and Equipment Procurement	\$750,000	\$750,000
<b>MWRTA ARRA Funds Total</b>		<b>\$750,000</b>	<b>\$750,000</b>

**Cape Ann Transportation Authority**

Systemwide	Bus and Equipment Procurement	\$430,710	\$430,710
<b>CATA ARRA Funds Total</b>		<b>\$430,710</b>	<b>\$430,710</b>

**Federal-Aid Subtotal**

**Federal-Aid Various Matching Funds Subtotal**

**Federal-Aid MBTA Matching Funds Subtotal**

	<b>\$473,234,017</b>		
		<b>\$12,330,282</b>	
			<b>\$61,565,310</b>
	<b>FFY 2009 Regional Transit Funds Total</b>		<b>\$546,576,569</b>
	<b>FFY 2009 TIP Total</b>		<b>\$1,140,805,458</b>

moved to 5309 and project cost change

\$10,000,000

project cost to be split between 5309 and 5307, was \$18M

project cost to be split between 5309 and 5307, was \$55M

\$1M positive train control earmark added

project cost to be split between 5309 and 5307, was \$21M

\$9,700,000

project cost to be split between 5309 and 5307, still \$37M

moved from 5307, was \$38M

project cost to be split between 5309 and 5307, was \$18M

project cost to be split between 5309 and 5307, was \$21M

**\$198,700,000**



# Alewife Bicycle and Pedestrian Access Study

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DRAFT



May 2009

## 1. Study Purpose

The Alewife Access Study has been commissioned to provide recommendations for improving pedestrian and bicycle access to Alewife Station. This study identifies current conditions in and around the station, current proposals in planning or design, and recommended short and long term projects and actions.

The study area is focused on the area that is walking distance to the station for pedestrian improvements, and cycling distance to the station for bicycle improvements. The pedestrian study area is bounded roughly by Cedar St to the east in Cambridge, Mass Ave to the northeast, Lake Ave to the northwest, Blanchard Rd to the west and Concord Ave to the south. The bicycle study area is bounded roughly by Cedar St to the east, Arlington center to the north, Belmont center to the west and Belmont St to the south.

INSERT STUDY AREA MAP

CTPS is concurrently undertaking a companion study to evaluate improving feeder bus routes, and motor vehicle access and egress to the station. Pedestrian and Bicycle counts were conducted at Rindge @ Rt 16 in 2008.

Through the study process, an advisory committee met, consisting of the government stakeholders in the station area. Representatives from the following organizations contributed:

- MBTA
- Department of Conservation and Recreation
- Executive Office of Transportation
- Cambridge
- Arlington
- Belmont
- State Rep. Will Brownsberger

## 2. Existing Conditions

The Alewife Station serves as the western terminus of the Red line and sits on the border with Cambridge and Arlington. The Belmont border is 2/3 of a mile from the station.

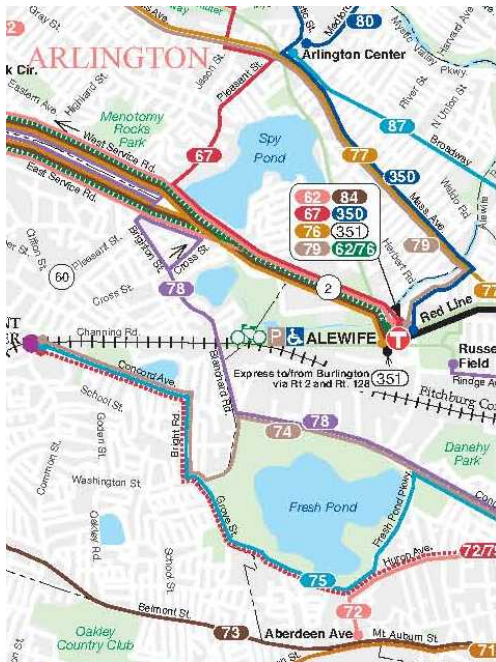


Figure 1 MBTA Routes at Alewife Station

There are currently 2733 vehicle parking spaces in the multilevel parking garage. The garage fills to capacity most weekdays. The parking rate is \$7 per day.

There are racks holding 174 bike parking spaces plus an additional 100 spaces in each of two enclosed bicycle parking cages, for a total of close to 400 spaces. The bike racks often fill to capacity during the peak summer season. Installation of the bike cages has alleviated the undersupply of bike racks.

The following MBTA buses serve the station

- [62](#) - Bedford VA. Hospital
- [76](#) - Hanscom/Lincoln Labs
- [67](#) - Turkey Hill
- [79](#) - Arlington Heights
- [84](#) - Arlington Village
- [350](#) - North Burlington
- [351](#) - Oak Park/Bedford Woods

The station area is surrounded a number of pedestrian and bicycle access points, including sidewalks, walking paths, and shared use paths. There are a number of projects that are either funded or proposed, as well as future opportunities, and numerous gaps.

The following list identifies, by agency or community, the existing, planned, and proposed multi-use paths, sidewalks, and walkways within the Alewife station area. Planned projects are those that are under design and or construction. Proposed projects may be projects suggested in planning studies, or other documents, but do not currently have funding.

## **MBTA**

The MBTA has several projects and recent accomplishments at Alewife station.

### *Existing*

Bicycle Cages - Two bicycle cages, accessible by a Special Bike Charlie Card were completed and opened in September 2008. Each cage holds approximately 100 bicycles.

CTPS is preparing a bicycle demand study for the MBTA.

### *Planned*

Wayfinding - The MBTA has installed wayfinding signs around the station. The City of Cambridge has installed a wayfinding system of signs from the Alewife T/Minuteman Bikeway to/from Harvard Square and the Charles River.

### *Proposed*

A new commuter rail stop has been proposed at Alewife station by various parties in the past. Planning has not been initiated for this project.

## **Massachusetts Highway Department**

### *Existing*

MHD owns maintains Rt 2, the limited access freeway that terminates adjacent to Alewife Station.

### *Planned*

Belmont-Cambridge-Somerville Path project - MHD has a long standing project to upgrade portions of the shared use path between Belmont and Somerville. Scheduled advertising date for bids is April 2009 with construction commencing in Summer 2009.

The \$5,200,000 project consists of improvements to the shared use paths between Somerville and Belmont. This project will physically and visually connect the proposed work with the existing sections of path improving the continuity of the bike path. The project starts at the end of the Somerville Bicycle Path at Cedar St, continues through Davis Square, and follows Linear Park to Alewife Station in Cambridge where it will connect with Minuteman Path. At Alewife, a new bridge will be constructed over the Alewife Brook and the path will continue to Brighton Road in Belmont.

Upon completion of path construction, land along the borrow pond (cantilever section) to be transferred to DCR . Total path width of 13ft, includes rub rails on both sides and crash guard on access road side. The resulting effective width of the path is 10ft.

## DCR

### *Existing*

There is stabilized surface path that connects Cambridge Discovery Park to the Alewife station.

### *Planned*

Minuteman to Mystic River Paths - Two trails are at 100% design along the Alewife River between the Minuteman Trail and the Mystic River. On the west side, a 10 ft stabilized surface path is planned. On the east side, a 6-8 ft asphalt –shared use path is planned. The west side paths are designed to be informal nature paths, with a stabilized surface designed for all users.

The west side path will have a gap at the St Pauls Cemetery (with access provided by the east side asphalt sidewalk). Although the Cemetery has encroached into DCR property, there are no plans to reclaim the land. The sidewalk on the east side, adjacent to Rt 16 will be reconstructed as an 8ft wide sidewalk.

Funding from the stimulus (ARRA) program will fund \$3,000,000 for paths on both sides of the river as shown in the enclosed maps.

Watertown Branch Path - The proposed Watertown Branch Trail would eventually run from Danehy Park in Cambridge southwest through Fresh Pond Reservation to School St in Watertown and beyond to the Charles River. The section between School St and Grove St in Watertown has had 100% design documents prepared.

Phase 1 – School St to Arlington St. \$2.1 million in funding is available through MHD, with a \$200,000 match from DCR. The project is expected to go out to bid in the Spring of 2009 with construction commencing in 2009.

Phase 2 – Arlington St to Cottage St. The short section between Grove St and Cottage has not yet been designed. VHB will be preparing plans. Expected cost for this section of trail is approximately \$2 million.

Phase 3 – Cottage St to Fresh Pond Parkway. This section of railroad right-of-way remains in active in use. In May 2005, Guilford Rail systems filed to abandon service (See Surface Transportation Board STB Docket AB 32 (Sub No. 98X) and AB 355 (Sub No. 32X)). The future status of rail service is in doubt, but there is potential for shared trail/rail use.

Mass Central - Described in the MHD project description above. DCR will take over control of the trail between Brighton St and Alewife on completion of reconstruction.

Alewife Reservation - An MWRA project to construct a stormwater retention pond is planned for Alewife Reservation. As part of this project, a pedestrian bridge crossing Little River may be provided.

*Proposed*

None

## Cambridge

*Existing*

Several paths access Alewife station, including the Minuteman Trail from the north, the Linear path from the east, and side paths along Alewife Brook Parkway.

The *Concord-Alewife Plan* was conducted through a public process in 2005. The plan provided recommendations for future pedestrian connections through the shopping centers when redevelopment occurs as well as future pedestrian connections through the industrial area (“Quadrangle”) north of Fresh Pond.

*Planned*

Linear Path – The MHD project (described above) provides connections into Alewife station from both the east and the west.

Large Scale Developments - There are several large scale residential and commercial projects within walking distance to Alewife station that are going through various stages of review. All of the projects will significantly increase the pedestrian traffic throughout the station area.

- The Faces Nightclub site is proposed for development of a 240 unit apartment complex
- A 260 unit residential complex is permitted along Fawcett St in the Quadrangle area.
- A large commercial office space is permitted along the south side of Cambridge Park Drive

### *Proposed*

- A feasibility study will be prepared to evaluate a pedestrian/bicycle bridge over the tracks west of Alewife station to connect developments along Concord Ave with the station
- A second pedestrian bridge over the tracks east of the station connecting the shopping center, and Danehy Park, and the proposed rail trail on the Watertown Branch with residential areas to the north. An easement through Brickworks condominiums to Rindge Ave exists.
- Long term focus on a shared use path on the north side of the tracks between Alewife and Sherman Rd.
- The Concord Alewife Plan recommends a series of connections through the Quadrangle area

## **Arlington**

### *Existing*

The Minuteman Trail provides a major feeder of bicycle and pedestrian traffic directly into Alewife from Arlington Center and beyond.

### *Planned*

Mass Ave between Rt 16 at the Cambridge line and Pond Street will be reconstructed. Reconstructed sidewalks and bike lanes (along with other bicycle accommodations) are being considered. Preliminary design is underway, funded through the 2008 TIP. Estimated construction cost of \$4,500,000.

## **Belmont**

### *Existing*

The Mass Central/Linear path is currently a packed dirt surface and provides access from Brighton St to Alewife station.

### *Planned*

None

### *Proposed*

The Belmont Citizens Forum purchased 3560 ft of right-of-way in 2008 adjacent to the Fitchburg line for a path from Belmont Center to Brighton St. The path will connect to the Linear Path as described above at Brighton St. This path corridor is also part of the much longer Mass Central Trail that will eventually connect Boston with Northampton.

### 3. Priorities and Concerns

The stakeholders were asked to identify key priorities and safety concerns within the station area. The issues ranged from the need for new facilities, better signage, and physical changes to improve safety or reduce conflicts between users.

#### CTPS

CTPS is evaluating vehicle operations in and around the station<sup>1</sup> as part of their component of the Alewife Access Study. Two key questions related to this study have potential impacts for pedestrians and cyclists in the station area.

- The signal at Rindge and Alewife Brook Pkwy currently has an exclusive pedestrian phase. The Alewife Working Group<sup>2</sup>, aided by CTPS staff, has evaluated alternative geometric and traffic designs, including a concurrent pedestrian phase. This would improve overall LOS but might affect pedestrian safety.
- The evaluation of bus access to the station and overall traffic conditions at the Route 2/Route 16 intersection has led to a recommendation to add a lane westbound on Rt 2 from the Alewife Station Access Road approach (jug-handle) to just past the Minuteman Bike Path overpass. To add this lane, the sidewalk on the north side of the bridge over the Minuteman Trail would have to be removed/relocated. Pedestrian access issues must be addressed in connection to this proposal.

#### MBTA

The MBTA has stated that additional signage opportunities in and around the station need to be evaluated.

Second, the access roads around the station need to have improved channelization.

#### DCR

The DCR would like to complete the network of paths on both sides of the Alewife River between Alewife station and the junction with the Mystic River. The ARRA (stimulus) package will help fund a large portion of this path network to provide pedestrian access along the river.

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<sup>1</sup> Alewife Station Study: Improvements to Feeder Bus Routes, Bus Access and Egress, and Route 2/Route 16 Intersection, Boston Region MPO, Draft Report, April 2009

<sup>2</sup> A working group convened by Massachusetts State Senator Stephen Tolman's office in May 2008 to examine traffic operations in the Alewife Station area, including the intersections of Route 16 with Cambridgepark Drive and Rindge Avenue.



The Alewife River Master Plan calls for a network of walking trails throughout the Alewife Reservation that extends largely west from the Station to Brighton Rd in Belmont. Most of the trails would not provide a direct transportation route to the station, however a proposed pedestrian bridge over the Alewife Brook could provide improved transportation connections in the area.

## Cambridge

The City of Cambridge has a number of concerns and interests around the Alewife station area.

- How can the findings of this study be implemented? What funding will be available?
- Enhance cooperation with the affected agencies and constituencies
- What is the impact on the increase in pedestrian traffic?
- TDM issues
- How will the public be made aware of the implemented improvements? How can we achieve a mode shift away from single occupant vehicles?
- What is happening with the proposal to consider a roundabout at the R2/16 intersection?<sup>3</sup>
- Not only access the T, but access the area, retail, housing, etc.
- Shared use paths, sidewalks and other pedestrian and bicycle facilities, are firm, stable and meet ADA requirements for accessibility.
- Need to improve Rindge Ave and Rt 16 for pedestrians<sup>4</sup>
- Increased pedestrian access over the commuter rail tracks
- The path along Fresh Pond Parkway fronting the shopping malls needs to be upgraded (wider, better maintenance)
- Coordination and increase level of bicycle and pedestrian counts between CTPS, Cambridge and others
- Need to provide a connection when the greenhouses are developed (between the Linear Path and Whittemore Ave.
- Improved access to new housing around the station area

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<sup>3</sup> The Alewife Working Group examined roundabout alternatives but they did not prove to be effective. See analysis and recommendations contained in Alewife Station Study: Improvements to Feeder Bus Routes, Bus Access and Egress, and Route 2/Route 16 Intersection, Boston Region MPO, Draft Report, April 2009

<sup>4</sup> The Alewife Working Group evaluated alternative designs that need further analysis and consideration.

## Arlington

The Minuteman is the major access point to Alewife Station from Arlington. There are ongoing concerns about how to handle the mix of motor vehicle traffic and non-motorized users at the end of the Minuteman Trail.

The town desires a path that is built to accommodate both bicycle and pedestrians along the Mystic and Alewife Rivers to improve access to the station, provide recreational opportunities, and link with the future Green Line station in Medford.

Arlington residents use all of the non-auto modes of access to Alewife: walking, cycling, and bus, with several bus routes from Alewife serving Arlington. Need to consider the impact of pedestrian/ bike improvements on bus access to the station.

## Belmont

Belmont is extremely concerned to see the completion of the planned shared use path from Belmont through to Alewife. This pathway will dramatically improve commuting options for many Belmont residents.

## 4. Recommended Improvements

The following is a list of recommended improvements and projects as developed by the advisory committee in conjunction with MAPC. The recommendations are divided into Programmed Projects, Small Scale Projects and Large Scale Projects

Programmed projects are those projects with funding and are currently under design or close to construction. Small scale projects are primarily sidewalk or path repair or other maintenance issues. Large scale projects are typical new infrastructure such as paths or bridges.

### Programmed Projects (in progress)

#### **Belmont – Cambridge Somerville Path (MHD)**

Although this project is scheduled to go out to bid in April 2009, there are some remaining outstanding issues that the advisory committee recommends should be addressed.

- Narrow sidewalk shared by bicycles and pedestrians. MHD design for a 10ft path with no clear zone does not meet AASHTO standards. (Map C)  
Recommendation – Out to bid April 2009. *Responsibility – MHD*
- Difficult crossing at this point. During off-peak hours, high motor vehicle speeds with poor visibility. During the evening peak, motorists are illegally blocking the crosswalk and curb ramp. Need to consider how to provide better egress for buses (#79 and #350). MHD is considering a flashing signal at this intersection (Map D)  
Recommendation – Install a sign stating “do not block crosswalk”. Construct a wider ramp on the north side and a raised crossing of the intersection. *Responsibility – MHD*

#### **Alewife and Mystic Paths**

Current design calls for a soft surface stabilized path on the west side of the Alewife River, and a reconstructed sidewalk on the east side between Alewife Station and the Mystic River intersection. Neither of the designs allow for a continuous paved shared use path along at least one side of the river. With the upcoming extension of the Green Line to Medford at the confluence of the Mystic River, station access, connectivity and park access is are key elements.

Recommendation – DCR should evaluate options for provided a paved all weather shared use path through this corridor. Examine the possibility of dropping a lane on Alewife parkway, particularly opposite the cemetery to provide adequate width for a path. *Responsibility - DCR*

#### **Mass Ave**

There is an ongoing public process to rebuild Mass Ave between the Cambridge line and Arlington Center. Bike lanes and improved sidewalks are a part of the current proposal.

Recommendation – Ensure that quality bicycle and pedestrian accommodation are provided as part of the project. *Responsibility – Arlington/MHD*

## Small Scale Project Recommendations

- The sidewalk on the north side of Rt 2 extends from opposite Whittemore Ave on the eastern end to just short of the pedestrian bridge over Rt 2 at the west end. *(Map A)*

Recommendation – A pedestrian corridor needs to be maintained on the north side of Rt 2 between the bus stop at the pedestrian overpass, and the future Alewife River paths along Route 16. Removal of the sidewalk along the north side of Rt 2 to accommodate capacity improvements has been proposed. Any such change shall also include relocating the sidewalk to provide an equivalent connection between the pedestrian overpass and Whittemore Ave. *Responsibility – DCR, MHD*

- Sidewalk on the north side of the Route 2/16 intersection terminates opposite Whittemore Ave. It's practically impossible to cross Rt 16 due to lack of a controlled crossing and high traffic volumes and speeds. *(Map B)*

Recommendation – DCR calls for a pedestrian bridge crossing the Alewife river at this location. When this is constructed, a signalized crossing at Whittemore should be installed. The signalization also allows for elimination of police detail at that intersection during rush hour periods. *Responsibility – DCR*

Cut-through traffic through WR Grace parking lot to avoid queuing from Rt 2 EB to Rt 16 EB. The increases congestion and conflicts along the route. *(Map F)*

Recommendation – Consider prohibiting left turns at point P of which also eliminates such conflicts for the Minuteman Trail to Alewife traffic. Identify local O-D's for the traffic that uses this shortcut.

*Responsibility – Cambridge*

Plaza at east head house is in poor condition with tree grates that are not flush, and numerous vertical pavement changes. The MHD project is making partial improvements to the surface in this area to delineate the shared use path. *(Map G)*

Recommendation – Improve landscaping and surface conditions. Consider a public private partnership to maintain landscaping. *Responsibility – MBTA*

Pathway from Alewife Parkway to the pedestrian underpass is dark and narrow about 6 ft wide. *(Map H)*

Recommendation – Evaluate feasibility to widen the path to 10 ft. *Responsibility – DCR?*

Multi-use path on east side of Alewife Brook Parkway – missing curb ramps, deteriorated concrete. No signs directing to the station. No crosswalk to Cambridge Park Drive. *(Map I)*

Recommendation – Eliminate curb cut and rebuild the sidewalk to provide a continuous walkway connecting to H above. *Responsibility – DCR*

Exclusive pedestrian phase results in long wait times for the pedestrian to cross Alewife Pkwy. Long wait times for pedestrians. (Map J)

Recommendation - Evaluate what improvements could be made to the system to enhance and support pedestrian access and crossings. In the evaluation, consider options such as concurrent walk phases (with Leading Pedestrian Intervals) and additional crossing opportunities. *Responsibility – DCR*

Path along the west side of Alewife Pkwy is substandard in width for shared use paths. Dirty/slushy snow from the parkway lands on the path when plowed. (Map K)

Recommendation – Look for the opportunity to widen the path leading to the bridge through development on adjacent parcels. Evaluate striping a bike lane on the bridge and approaches. An adequate shoulder current exists to mark a bike lane. *Responsibility – DCR*

Northbound motorists on Cambridge Park West illegally form two lanes, blocking the marked bike lane during evening peak. (Map O)

Recommendation – See N above for roadway changes. Consider allowing buses only on the right bike lane section to allow jumping of the queues. *Responsibility – Cambridge*

Traffic turning from two directions onto the Rt 2 access road causes conflicts with the high volume of users approaching to/from the Minuteman Trail. There is no obvious sign announcing the trail start. (Map P)

Recommendation – Put up a sign (perhaps a banner similar to Arlington center). Consider formalizing the second lane as a bus only lane. Bus circulation in general should be part of a larger discussion with the MBTA. *Responsibility – Cambridge*

Sometimes poor coordination between MBTA, Cambridge, Arlington and DCR on snow removal. The Minuteman is rarely plowed south of the Rt 2 underpass. The parallel sidewalk is usually plowed though there have been some inconsistencies. Minuteman Trail is poorly lit in the vicinity of the bridge. Excessive headlight glare for pedestrians walking westbound along the sidewalk. The bollards located on the bridge over Alewife Brook present a hazard for trail users. (Map Q)

Recommendation – resolve plowing and lighting issues in this section. Remove bollards on the bridge over Alewife Brook to allow a small vehicle with a plow. Check MHD plans to identify the load capacity of the bridge. *Responsibility – DCR, Cambridge, Arlington*

Path to Acorn Park Drive is muddy when wet. Surface does not allow for plowing. There is no lighting. (Map R)

Recommendation – Pave the path with an all weather surface and add lighting. *Responsibility – DCR*

Between Discovery Park and Lake St there is a narrow sidewalk behind the guard rail, in poor condition. What are plans by Belmont to improve this area? (Map S)

Recommendation – long term narrow the roadway to accommodate a wider sidewalk. *Responsibility- Belmont, DCR?*

Southern terminus of path at Russell Field at Rindge – An easement exists through Brickworks Condominiums on the opposite side of Rindge Ave of which would then connect across the tracks via a future bridge to Danehy Park, and the future rail-trail to Watertown. (Map T)

Recommendation – monitor developments and feasibility studies to ensure this corridor is maintained and a bridge is eventually realized. *Responsibility- Cambridge*

## Large Scale Project Recommendations

The following lists of priorities are development of shared use paths along river and railroad rights-of-way. They are in varying stages of development.

### **Minuteman South Extension to Porter Square**

Future multi-use trail extensions meet at a proposed crossing of the MBTA tracks between Danehy Park and the Brickworks Condominiums. The Minuteman extension would connect Alewife with Sherman St on the north side of the MBTA tracks, and perhaps beyond to Porter Square.

Recommendation – Continue to monitor opportunities to develop the trail through development and projects. *Responsibility – Cambridge*

### **Watertown Branch – Grove St to Danehy Park**

This railroad is current still active in this section. However continued disrepair with the track and minimal use suggests that it could become abandoned in the near future.

Recommendation – Continue to monitor potential abandonment, acquisition of right-of-way opportunities and other opportunities to develop a trail. *Responsibility – Cambridge/Watertown*

### **Fresh Pond to Spy Pond Trail**

MAPC proposed multi-use trail provides a connection between Fresh Pond and Spy Pond, and more importantly provides a feeder from areas expecting large development in the next few years to the Mass Central Corridor and into Alewife. The trail is really a connection of individual projects tied together in a cohesive corridor. The components of this corridor from south to north are as follows:

- Railroad ROW between Concord Ave and Fawcett St (Cambridge)
- Pedestrian/bicycle bridge over the commuter rail tracks. Feasibility study will be prepared shortly (Cambridge)
- Access required through private land to Cambridge Park Drive (Cambridge)
- Alewife reservation, and proposed pedestrian bridge across the Alewife Brook (DCR)
- Access required through private land between Acorn Park and the Faces nightclub site to the sidewalk along Rt 2. (Cambridge)
- Sidewalk along Alewife Reservation and Little Pond to Lake St (DCR)

Recommendation – Each community works together on their respective sections to ensure that a cohesive corridor is formed. *Responsibility – Cambridge, Arlington, Belmont, DCR*

### **Cambridgepark Drive and Cambridgepark West Reconstruction**

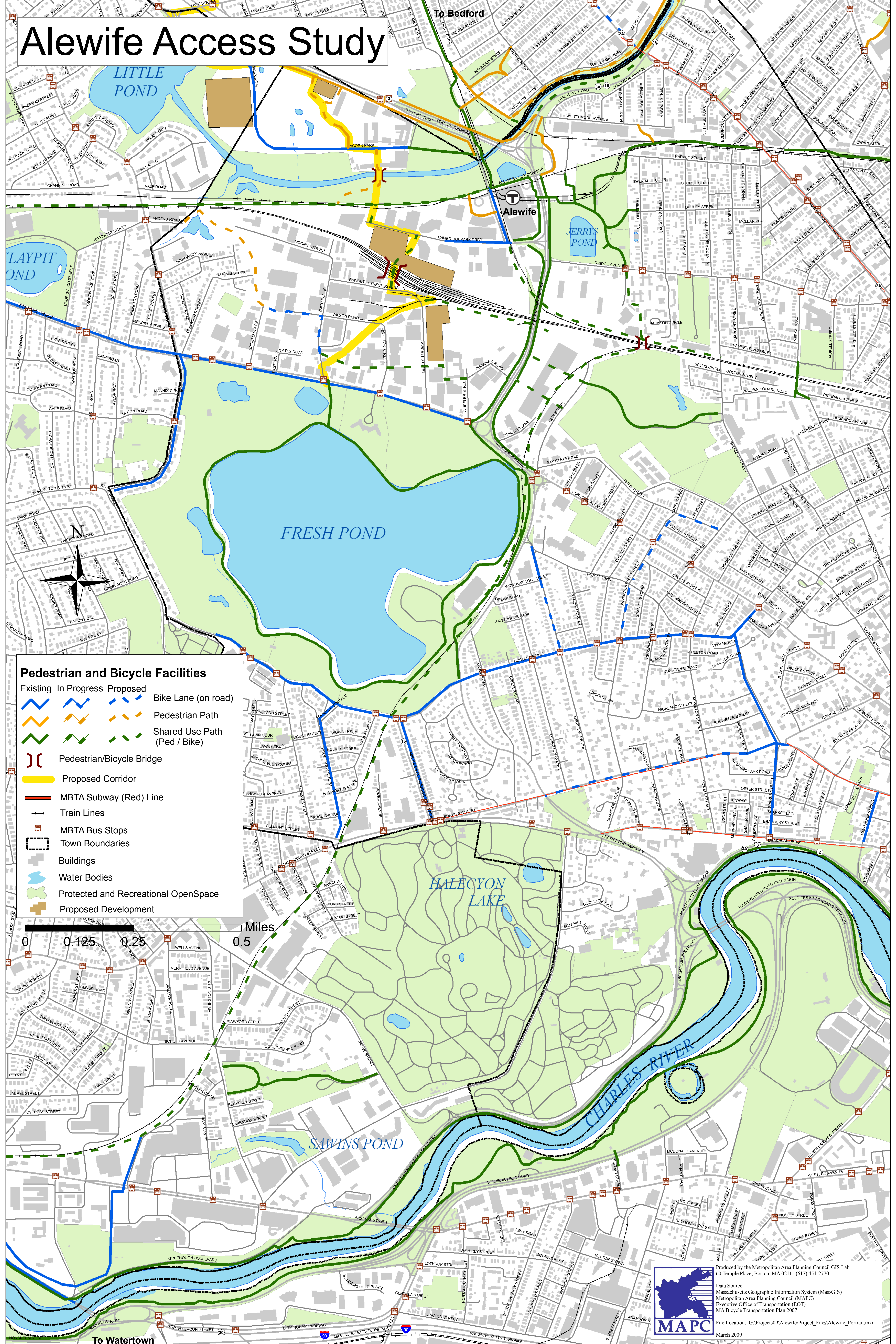
Traffic flow in and out of the Alewife station garage is not operating as originally designed or built. Later additions of bike lanes as well as the Minuteman Trail have improved access by non motor vehicle modes. However it was clear that conflicts are continuous

- During the PM peak on Cambridge Park Drive, EB vehicles illegally occupy the bike lane.  
Recommendation – Narrow the pavement width to eliminate the possibility of two vehicles side by side at this intersection.  
Recommendation – The proposed development at 150-180 Cambridge Park Drive will be required by the city to mitigate the project by reconstructing portions of roadway at the intersection with Cambridgepark West. *Responsibility - Cambridge*
  
- Evaluate roadway operations including turning movements, pedestrian conflicts and bicycle access to bicycle parking along Cambridgepark West.  
Recommendation – Evaluate moving curbs inward to channelize traffic and prevent occupying the bike lane. Larger problem with vehicular access to Alewife station as well as egress to Rt 2 will likely require a much larger comprehensive re-evaluation and reconstruction of the entire street. *Responsibility - Cambridge*

## **5. Next Steps**

Implementation of each recommendation should be lead by the responsible agency or community as identified above. That includes presenting the proposals to the MPO as appropriate for funding through the various funding sources, and gathering the appropriate public feedback.

# Alewife Access Study



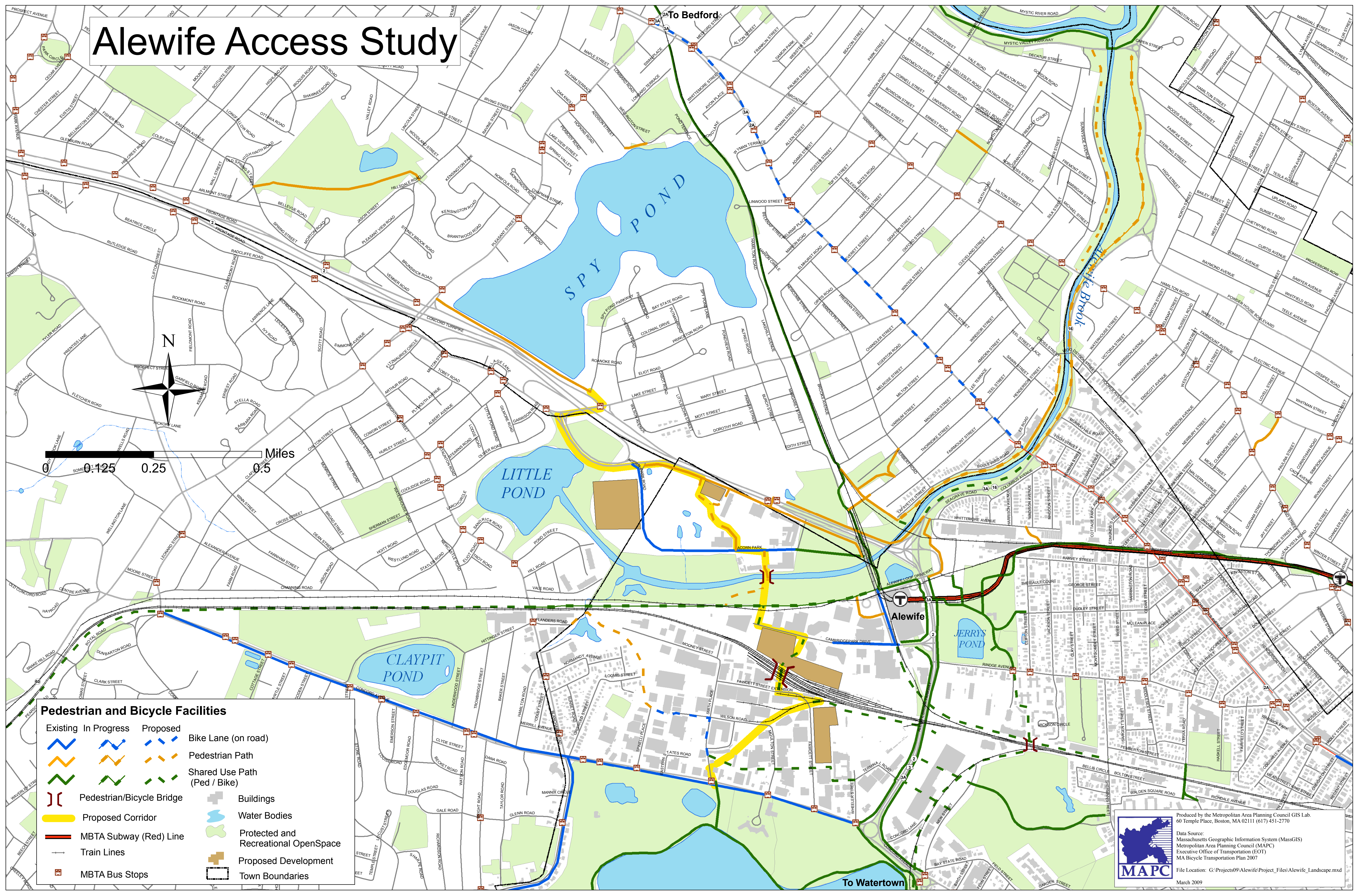
**Pedestrian and Bicycle Facilities**

- Existing In Progress Proposed
- Bike Lane (on road)
- Pedestrian Path
- Shared Use Path (Ped / Bike)
- Pedestrian/Bicycle Bridge
- Proposed Corridor
- MBTA Subway (Red) Line
- Train Lines
- MBTA Bus Stops
- Town Boundaries
- Buildings
- Water Bodies
- Protected and Recreational OpenSpace
- Proposed Development

0 0.125 0.25 0.5 Miles



# Alewife Access Study




**Pedestrian and Bicycle Facilities**

	Existing		In Progress		Proposed		Bike Lane (on road)
	Existing		In Progress		Proposed		Pedestrian Path
	Existing		In Progress		Proposed		Shared Use Path (Ped / Bike)
	Existing		In Progress		Proposed		Pedestrian/Bicycle Bridge
	Existing		In Progress		Proposed		Proposed Corridor
	Existing		In Progress		Proposed		MBTA Subway (Red) Line
	Existing		In Progress		Proposed		Train Lines
	Existing		In Progress		Proposed		MBTA Bus Stops
	Existing		In Progress		Proposed		Buildings
	Existing		In Progress		Proposed		Water Bodies
	Existing		In Progress		Proposed		Protected and Recreational OpenSpace
	Existing		In Progress		Proposed		Proposed Development
	Existing		In Progress		Proposed		Town Boundaries

Produced by the Metropolitan Area Planning Council GIS Lab.  
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Data Source:  
 Massachusetts Geographic Information System (MassGIS)  
 Metropolitan Area Planning Council (MAPC)  
 Executive Office of Transportation (EOT)  
 MA Bicycle Transportation Plan 2007

File Location: G:\Projects\09Alewife\Project\_Files\Alewife\_Landscape.mxd  
 March 2009





# BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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Secretary of Transportation  
and MPO Chairman

Arnold J. Soolman  
Director, MPO Staff

The Boston Region MPO,  
the federally designated  
entity responsible for  
transportation decision-  
making for the 101 cities  
and towns in the MPO  
region, is composed of  
the following:

Executive Office of Transportation  
and Public Works

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City of Newton

City of Salem

City of Somerville

Town of Bedford

Town of Framingham

Town of Hopkinton

Metropolitan Area Planning Council

Massachusetts Bay Transportation  
Authority Advisory Board

Massachusetts Bay Transportation  
Authority

Massachusetts Highway Department

Massachusetts Port Authority

Massachusetts Turnpike Authority

Regional Transportation Advisory  
Council (nonvoting)

Federal Highway Administration  
(nonvoting)

Federal Transit Administration  
(nonvoting)

## MEMORANDUM

DATE May 7, 2009  
TO Transportation Planning and Programming Committee  
of the Boston Region Metropolitan Planning Organization  
FROM Arnold J. Soolman, CTPS Director  
RE Work Program for: Arterial Traffic Signal Improvements and  
Coordination

### ACTION REQUIRED

Review and approval

### PROPOSED MOTION

That the Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization vote to approve the work program for Arterial Traffic Signal Improvements and Coordination in the form of the draft dated May 7, 2009.

### PROJECT IDENTIFICATION

Unified Planning Work Program Classification  
Planning Studies

CTPS Project Number  
13243

Client  
Boston Region Metropolitan Planning Organization

CTPS Project Supervisors  
*Principal:* Efi Pagitsas  
*Manager:* Mark Abbott

Funding  
MassHighway 3C PL Highway Planning Contract #56242

## IMPACT ON MPO WORK

This is MPO work and will be carried out in conformance with the priorities established by the MPO.

## BACKGROUND

This study is one of the recommendations from the MPO's Mobility Management System (MMS).

Traffic signal coordination or synchronization promotes efficient traffic operations along an arterial roadway. Typically, arterial flow quality and efficiency is dictated by the level of service at traffic signals and the degree of coordination between them. As a rule of thumb, traffic signals located within one-quarter of a mile from each other qualify potentially for coordination. Coordination is performed in such a way that traffic platoons along the road where this signal treatment is applied can proceed through intersections at certain speeds without braking or stopping. In coordination, side street traffic and pedestrian volumes must also be considered so that their needs for service through the coordinated intersections are met without extra delays.

The "promotion of efficient system management and operations" is one of the SAFETEA-LU planning factors seeking to integrate this concept in the existing planning process. Side benefits to coordination are enhanced safety: when arterial signal systems are managed and operated efficiently, usually safety improves as well.

This study's purpose is to evaluate three or four groups of arterial signalized intersections from throughout the region and to develop recommendations for improvements focused primarily on traffic signal coordination in order to improve traffic flow and safety along these arterials. As part of the traffic signal coordination strategy, staff will consider geometric improvements and traffic signal design changes at the selected locations. Each group will likely consist of two or three intersections.

## OBJECTIVE

This study seeks to accomplish the following objective: to develop recommendations for traffic signal coordination of three or four groups of intersections on arterials in the Boston Region MPO area, for the purpose of potentially improving operations and safety at and between the intersections.

## WORK DESCRIPTION

### Task 1 Select Intersections

#### *Subtask 1.1 Select Ten Groups of Intersections for Possible Inclusion in the Study*

The final set of three to four groups of intersections will be selected from an initial set of ten groups. The set of ten will be selected using a tiered selection process as follows: 1. Locations will be selected only if they are not currently under study by MPO staff or by others, or under design. 2. Using GIS techniques, staff will identify all groups of two or three signalized intersections in the region that meet the “one-quarter mile or less between intersections” criterion. 3. Of these, only those intersections that match with locations included in Transportation Improvement Program (TIP) projects from the “Conceptual” and “Pre-TIP” categories will be considered.

#### *Subtask 1.2 Coordinate with Transportation Agencies and Involved Communities*

Following the process described above, it is expected that the selected ten intersection groups will be along major arterials operated by MassHighway, the Department of Conservation and Recreation (DCR), and cities. Staff will coordinate with the involved entities to (a) receive their input in the process with respect to appropriate intersections to be studied and (b) discuss mechanisms to follow up with implementing eventual recommendations. MAPC staff outreach should be helpful in identifying community interest. CTPS staff will contact MassHighway and DCR staff to identify locations with agency interest. Based on criteria listed above, the larger set of ten will be reduced to up to four groups of intersections, which staff will analyze in detail.

#### *Product(s) of Task 1*

A table listing the initial set of ten intersection groups considered and the final set of up to four groups of intersections throughout the region meeting criteria from the sources referenced above. The table will include information explaining why the final set of intersection groups were chosen.

### Task 2 Perform Field Reconnaissance and Collect Data

Once the set of up to four groups of intersections has been selected, staff will collect detailed data and information pertaining to each location. This will involve visiting each site and inventorying all relevant geometric, landscape, land use, and signal features. Data will include:

- Turning movement counts (TMCs)
- Bicycle counts
- Pedestrian counts
- Signal timing data (phases, timing lengths)
- Queue lengths
- Geometric data (lanes, curb cuts, sidewalks, crosswalks, pedestrian buttons)
- Land use/zoning information
- Jurisdictional/administrative system responsibilities

*Product(s) of Task 2*

Summaries of count, signal, queue, and geometric data, as well as land use and jurisdictional information, for the final set of selected intersections

**Task 3 Evaluate and Analyze Selected Intersection Groups**

Staff will evaluate each intersection for its level of service performance as an isolated traffic signal first and then test various strategies for coordination between adjacent intersections. The software SYNCHRO will be used for these purposes. Particular attention will be given to the evaluation of existing pedestrian signal phases, if any, or the need for them. Also, field observations will yield a full understanding of safety levels and traffic operations of vehicles, bicycles, and pedestrians at each location. Impacts of signal progression on bus transit (if any) will be analyzed qualitatively.

*Product(s) of Task 3*

Level of service and energy savings summaries for each intersection and for each of the considered coordination strategies per intersection group

**Task 4 Receive Input from MassHighway District Office Staff and Local Officials**

Once staff has developed coordination strategy results for the selected intersection groups, staff will contact MassHighway District Office and DCR staff, and local officials in each community involved, in order to discuss the intersection summaries, receive input on analysis and findings, and discuss potential improvements.

*Product(s) of Task 4*

The product of this task will be a summary of discussions and interactions with MassHighway District Office and DCR staff and local officials with respect to the preliminary findings. The combined comments generated by local and state officials will steer the development of all final recommended improvements.

### Task 5 Recommend Improvements

Based on the evaluation and analysis performed in Task 3, and on the feedback given by local and state officials, staff will recommend specific traffic signal coordination strategies to improve throughput capacity, operations, and safety levels at the selected intersection groups. Staff will also estimate costs and identify the jurisdictional entity responsible for implementation.

#### *Product(s) of Task 5*

The product of this task will be a list of recommended traffic signal coordination strategies for the selected groups of intersections.

### Task 6 Document All Findings and Recommendations

Staff will document all study tasks in a technical memorandum. MassHighway, DCR, and each of the communities involved will also receive a condensed memorandum pertaining to their particular intersections that will present analysis and recommendations.

#### *Product(s) of Task 6*

The Task 6 product will be a technical memorandum documenting Tasks 1 through 5.

## ESTIMATED SCHEDULE

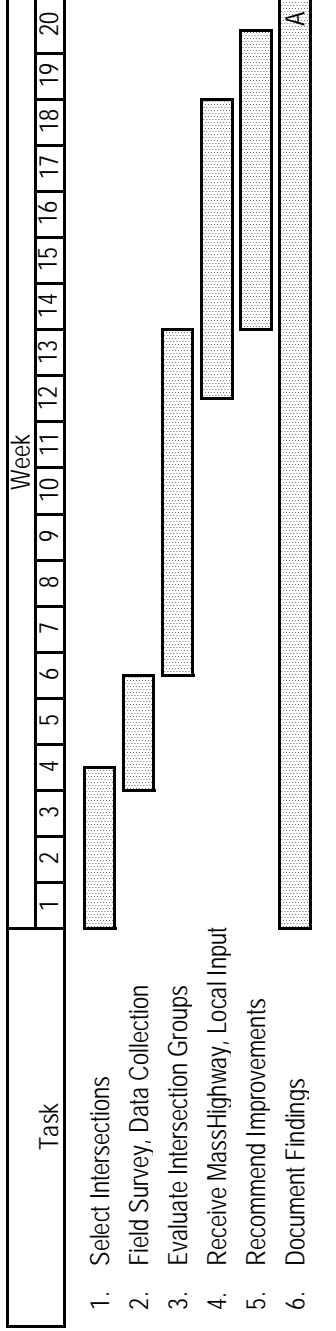
It is estimated that this project would be completed 16 weeks after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 1.

## ESTIMATED COST

The total cost of this project is estimated to be \$45,000. This includes the cost of 20.0 person-weeks of staff time, overhead at the rate of 86.97 percent, and travel. A detailed breakdown of estimated costs is presented in Exhibit 2.

AJS/EP/ep

Exhibit 1  
**ESTIMATED SCHEDULE**  
 Arterial Traffic Signal Improvements and Coordination



Products/Milestones  
 A: Technical memorandum

Exhibit 2  
 ESTIMATED COST  
 Arterial Traffic Signal Improvements and Coordination

**Direct Salary and Overhead \$44,872**

Task	Person-Weeks		Total	Direct Salary	Overhead (@ 86.97%)	Total Cost
	M-1	P-5 Temp				
1. Select Intersections	0.5	1.5	2.0	\$3,212	\$2,793	\$6,005
2. Field Survey, Data Collection	0.0	1.5	3.0	\$3,157	\$2,745	\$5,902
3. Evaluate Intersection Groups	0.2	5.0	5.2	\$8,304	\$7,222	\$15,525
4. Receive MassHighway, Local Input	0.2	1.0	1.2	\$1,923	\$1,672	\$3,595
5. Recommend Improvements	0.6	1.0	1.6	\$2,578	\$2,242	\$4,819
6. Document Findings	1.0	2.0	3.0	\$4,828	\$4,199	\$9,026
Total	2.5	12.0	16.0	\$24,000	\$20,873	\$44,872

**Other Direct Costs \$128**

Travel \$128

**TOTAL COST \$45,000**

Funding  
 MassHighway 3C PL Highway Planning Contract #56242



## **Draft Memorandum for the Record**

### **Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization (MPO)**

#### **April 30, 2009 Meeting**

10:00 AM –12:30 PM, State Transportation Building, MPO Conference Room, Suite  
2150, 10 Park Plaza, Boston

David Mohler, Chair, representing James Aloisi, Executive Office of Transportation &  
Public Works (EOT)

#### **Decisions**

The Transportation Planning and Programming Committee voted to take the following  
actions:

- approve for public circulation the draft Amendment Three to the FFY 2009  
Element of the federal fiscal years (FFYs) 2007 – 2010 Transportation  
Improvement Program (TIP) with the exclusion of the project for the *Commuter  
Rail – Station Consolidation and Development Study*
- reduce the public comment period for the Draft Amendment Three to ten days
- approve the City of Somerville’s request to specify the Federal Functional  
Classification of Assembly Square Drive, New Road, Foley Street, G Street,  
IKEA Way, and Lombardi Street as “collectors”
- approve the minutes of the meetings of March 19 and April 2

#### **Meeting Agenda**

##### **1. Public Comments**

There were none.

##### **2. Chair’s Report – David Mohler, EOT**

D. Mohler reported that Massachusetts's projects that received funding through the American Recovery and Reinvestment Act (ARRA) are moving forward. Construction on some begins next month.

Jim Gallagher, Metropolitan Area Planning Council (MAPC), asked about when EOT expects to present the MPO with financial information for the development of the Regional Transportation Plan (RTP). D. Mohler replied that EOT is working toward developing a finance plan.

**3. Subcommittee Chairs' Reports** –*Stephen Woelfel, MassHighway, and Jim Gallagher, MAPC*

On May 7 there will be a joint meeting of the Administration & Finance (A&F) Subcommittee and the Unified Planning Work Program (UPWP) Subcommittee. There will be discussions about how the CTPS and UPWP budgets relate and about the next steps for the development of the FFY 2010 UPWP.

The Suburban Mobility/Transportation Demand Management (TDM) Subcommittee met on April 16 to review Suburban Mobility proposals. Members had questions on the project proposals and these will be relayed to proponents by letter. Responses from proponents are due May 15. TDM proposals and requests for second and third year Suburban Mobility funding are all due May 7. The Subcommittee will review those proposals on May 19. The Subcommittee will also meet on June 4.

**4. Regional Transportation Advisory Council** – *Steve Olanoff, Regional Transportation Advisory Council*

The Advisory Council distributed a letter to the MPO explaining the Council's position on the fiscal crisis facing the MBTA and requesting MPO support. (See attached.)

The Council is working on increasing its membership and would like to have more participation from MPO members. The next meeting is on May 13 and the agenda will

include a discussion of the Department of Conservation and Recreation's (DCR) bridge program.

James Aloisi, Secretary of Transportation, arrived at the MPO meeting at this time and took a few questions from members. Mary Pratt, Town of Hopkinton, asked him if the DCR bridges will be transferred to MassHighway oversight. Secretary Aloisi replied that it depends on how the Legislature acts. Ginger Esty, Town of Framingham, voiced support for increasing Chapter 90 funds in a fair way. Marc Draisen, MAPC, noted that MAPC is supportive of devoting a portion of gas tax revenues to Chapter 90 if revenues overall could be increased. Secretary Aloisi voiced support for a 19-cent gas tax.

**5. Director's Report** – *Arnie Soolman, Director, Central Transportation Planning Staff (CTPS)*

The previously mentioned joint A&F and UPWP Subcommittee meeting scheduled for May 7 resulted from the quarterly UPWP Subcommittee meetings, where each quarter, the CTPS operating budget shows less spending on UPWP tasks than expected. One reason for this is that the UPWP and operating budgets are different. At the meeting, Robin Mannion, Deputy Director of CTPS, will make a presentation on how the operating and UPWP budgets are derived and how they are different. All MPO members are invited.

Annette Demchur, the MPO's Regional Equity Program Manager, is transitioning to the Transit Service Planning Group at CTPS. Alicia Wilson, MPO staff, will transition to the Certification Activities Group and assume responsibility for the Regional Equity Program.

M. Pratt asked if the MPO would be doing the Job Access Reverse Commute (JARC) Program this year. S. Woelfel stated that the EOT will do it this year and that solicitations will likely take place in June.

**6. Draft Amendment Three to the FFY 2009 Element of the FFYs 2007 – 2010 Transportation Improvement Program (TIP) – David Mohler, EOT, Hayes Morrison, MPO Staff, and Joe Cosgrove, MBTA**

Staff distributed revised TIP tables and two handouts from the MBTA. (See attached.) H. Morrison reviewed the proposed changes to the FFY 2009 Element of the FFYs 2007 – 2010 TIP element (as detailed in the TIP tables).

***Federal-aid Bridge Projects***

Changes to the federal-aid bridge projects include a cost adjustment of approximately \$2.5 million to the *Hanover – Route 53 over Route 3* project and the shifting of the *Hudson – Houghton Street over Assabet River* project from the FFY 2009 element to the FFY 2010 element.

M. Draisen asked several questions about these changes:

*The cost of the Hanover project increased substantially, why is that? (M. Draisen)*

MassHighway reviews the project cost at each design stage and typically costs need to be adjusted as the plans get more developed. This project is now at 100% design and is expected to be advertised in May. (H. Morrison)

*Was money moved out of the Hudson project to accommodate the cost increase to the Hanover project? (M. Draisen)*

The Hudson project is at 25% design and does not have an advertising date in the next couple of months. If the money were kept in this project, there would be a tight schedule for advertising the project in FFY 2009. (H. Morrison)

*How confident can we be that the Hudson project will be programmed in the FFY 2010 TIP element? (M. Draisen)*

Extremely confident. The project is in MassHighway's FFY 2010 bridge list. (D. Mohler)

*What was the reaction from the Town of Hudson? (M. Draisen)*

MassHighway notified the TIP contact in Hudson. (H. Morrison)

***Transportation Improvement Projects***

H. Morrison then continued reviewing changes to the highway element noting the addition of an \$11.23 million earmark for the *Boston to Worcester – Rail Line Improvements* project. D. Mohler added that the earmark is for improvement to the tracks that would benefit both freight traffic and commuter rail. Lourenço Dantas, Massport, asked about the status of the CSX right-of-way acquisition. D. Mohler replied that it is ongoing.

***Section 5309 Omnibus Earmarks 2008***

Joe Cosgrove reviewed changes to the transit portion of the FFY 2009 TIP element.

The changes include the addition of three earmarks for:

- *Commuter Rail – Station Consolidation and Development Study (Belmont)*  
[Fitchburg commuter rail line]
- *Salem/Beverly – Intermodal Station Improvements*
- *Blue Line – Wonderland Station Intermodal Transit Improvements*

J. Cosgrove discussed the project status for the *Salem/Beverly – Intermodal Station Improvements* project. The Beverly portion of the project is proceeding, though there is no commitment yet to build the Salem portion. The Salem portion, which would involve the building of a new garage, is in the preliminary design stage. This project could be part of the state's legal commitment, specified in the State Implementation Plan (SIP), to build 1,000 new parking spaces by 2011.

Members asked questions and made comments:

*Has the EOT or the MBTA identified how it will pay for additional parking projects that might be needed to meet the SIP commitments? (J. Gallagher)*

The projects would be funded with non-federal aid. EOT has authorization under the state's bond cap to spend funds for that purpose. (D. Mohler)

*Would the bond authorization come out of the Transit Oriented Development (TOD) Program? (M. Draisen)*

It would come out of the SIP bond authorization. Since the Beverly portion of the intermodal project is being designed as a TOD project, that might be funded partially from the TOD bond cap. But there will be various funding sources for the garage, including SIP, MBTA, and city funds. (D. Mohler)

M. Draisen expressed his view that the TOD Program monies should be directed toward municipal projects. He noted that the program was not intended to be used to meet EOT's SIP requirements or solely to build garages.

*Will other garage projects be left hanging if the MBTA uses TOD funds for the intermodal project? (S. Olanoff)*

The MBTA's parking program is underfunded. In the short term, financing a major parking expansion is not possible with the MBTA's current revenue stream. (D. Mohler)

M. Pratt said that the state needs to get a commitment from CSX to allow the MBTA to use more train cars on the western commuter rail lines.

*Will CTPS conduct the Commuter Rail – Station Consolidation and Development Study? (J. Gallagher)*

It has not been determined. (J. Cosgrove)

J. Gallagher added that communities that would be affected by station consolidation on the Fitchburg commuter rail line should be involved in the study.

*Will the work scope for the Commuter Rail – Station Consolidation and Development Study come before the MPO for approval? (M. Draisen)*

There is not a problem with that happening, but the work scope does not necessarily have to come back to the MPO. The study would be an alternatives analysis and may be more appropriate for the UPWP. (J. Cosgrove)

M. Draisen stated that the work scope and study should be approved by the MPO so that communities can be informed when the study gets underway. M. Pratt seconded this opinion and stated that the study would need to be publicly aired. David Koses, City of Newton, also concurred.

*Has the Town of Belmont been informed of this study? (D. Koses)*

Belmont has been involved in discussions about station consolidation. This project is being added as a placeholder in the TIP at this stage. (J. Cosgrove)

Monica Lamboy, City of Somerville, recommended that the MPO create a subcommittee to review the study work, rather than have the entire MPO review it.

D. Koses suggested creating a work scope before the study is added to the TIP.

*How is the busway associated with the Blue Line – Wonderland Station Intermodal Transit Improvements project going to be funded? (D. Mohler)*

The project will be funded with federal money as well as contributions from the developer and the City of Revere. (J. Cosgrove)

***Section 5309 (Carryover Earmarked Funds)***

To address cash flow issues, the MBTA is proposing to move \$800,000 from the *Bridge and Tunnel Program* to the *Positive Train Control* project.

***Federal-aid – ARRA: MBTA 5307 Urban Formula and MBTA 5309 Fixed Guideway***

J. Cosgrove noted changes to the following projects proposed for federal stimulus funding:

- *Commuter Rail Rolling Stock (Locomotives and Vehicle Rehab):* The MBTA's proposed deal with Utah Transit Authority to procure new locomotives did not go forward. The MBTA now proposes to buy 25 low-emission diesel buses to replace older buses and provide capacity improvements on some bus lines.
- *Track and Right of Way Improvements:* The fencing portion of the project is moving ahead. Since the Grand Junction ownership question is not resolved, a portion of the project may have to move into the second phase of stimulus funding.
- *Signal and Grade Crossing Improvements (Fitchburg and Haverhill Lines):* The cost has increased because of the addition of interlocking work on the Fitchburg line.
- *Double Track Initiative (Fitchburg and Haverhill Lines):* The cost of this project is being split between the 5307 and 5309 programs.
- *Station Upgrade Program:* \$21.7 million of this project's cost is being reserved for the second phase of stimulus funding.
- *Positive Train Control – Light Rail Pilot Program:* This project was removed from ARRA funding, however, there is \$1 million of funding for this project being added in the 5309 program.
- *Facility Upgrade Program:* The cost of this project is being split between the 5307 and 5309 programs.
- *Gas Turbine Replacement and Fuel Conversion:* Stimulus funds will not be sought for this project because it cannot be implemented in the required timeframe.
- *Bus Stop and Corridor Enhancements:* The cost of this project has been adjusted.

In response to a question from Paul Regan, MBTA Advisory Board, J. Cosgrove provided assurance that by shifting the balance of the funds for phase one stimulus funding into phase two, the MBTA would not be losing any stimulus funding.

### ***MetroWest RTA***



Ed Carr, MetroWest RTA, addressed the MPO and explained that the RTA is revising the items in its \$750,000 request for stimulus funding. (See attached handout.) The RTA is requesting:

- \$180,000 for *Vehicle Replacement & Expansion*: to replace one bus and add three sedans for the paratransit fleet
- \$270,000 for *Intelligent Transportation Systems*: to add mobile data terminals on the entire fleet
- \$300,000 for *ADA Operating*: to add paratransit equipment (rather than shop equipment as in the original request)

Members asked questions:

*Can ARRA funds be used for operating costs? (J. Gallagher)*

The Federal Transit Administration (FTA) has approved the use of ARRA monies for ADA-related operating costs. (E. Carr) FTA did inform EOT that it approves the limited use of ARRA monies for those purposes. (D. Mohler)

*Is the RTA going forward with plans to acquire a new building and conduct the 21E study? (M. Pratt)*

Yes, but stimulus funds will not be used for that purpose. (E. Carr)

*Is the RTA planning to lease or buy the paratransit vehicles? (P. Regan)*

The RTA plans to buy the vehicles. (E. Carr)

A motion to approve Amendment Three to the FFY 2009 Element of the FFYs 2007 – 2010 TIP as presented was made by P. Regan, and seconded by S. Woelfel. S. Olanoff requested that the motion be amended to exclude the *Commuter Rail – Station Consolidation and Development Study*. The motion makers approved of the amendment. The motion passed unanimously.

M. Draisen requested that, for future amendments, members should be provided with narrative project descriptions in advance of the MPO meetings.

Due to timing associated with upcoming deadlines for MBTA grant requests for stimulus funding, J. Cosgrove suggested shortening the public comment period for the amendment.

A motion to reduce the public comment period for the Draft Amendment Three of the FFY 2009 Element of the FFYs 2007 – 2010 TIP to ten days, was made by S. Karanfiloglu, and seconded by J. Gallagher. The motion passed unanimously.

Staff was advised to email TIP contacts and chief elected officials to inform them of the shortened comment period.

**7. Assembly Square Drive and Other Key Streets, Somerville** – *David Mohler, EOT*  
Mayor Joseph Curtatone of the City of Somerville addressed the MPO regarding the city's request that the MPO approve Federal Functional Classification designations for several roadways near the Assembly Square redevelopment project. The city requested that Assembly Square Drive be classified as a "collector road" and that New Road, Foley Street, G Street, IKEA Way, and Lombardi Street be classified as "Surface Transportation System (STP) eligible." (See attached correspondence from the Mayor to the MPO.) The Mayor was joined by Tim McIntosh, VHB, and David Webster, Federal Realty Trust.

Mayor Curtatone described the Assembly Square project as the largest Smart Growth and Transit Oriented Development (TOD) project on the east coast. He stated that the project would bring significant economic benefits in terms of housing, construction jobs, and approximately 19,000 permanent jobs within ten to fifteen years. He thanked the MPO for its past support in programming earmarks associated with the project and noted that the reclassification of the roadways is a critical step for moving the project forward.

Members addressed questions and comments to the Mayor, T. McIntosh, and D. Webster:

*In the design of the planned Orange Line station at Assembly Square, was consideration given to the possible convergence of the commuter rail lines and the Orange Line? If not, are we missing opportunities to capture riders from the North Shore? (Lourenço Dantas, Massport)*

The developers did discuss this with the MBTA. The Newburyport/Rockport commuter rail line does not align with the planned Orange Line station and the Haverhill line tracks would require more extensive improvement. (D. Webster) Having the lines converge would increase the run time for commuter rail trains. If the goal is to get people using commuter rail the trains need to be able to travel at high speeds with few stops. (P. Regan)

*The last time the MPO reclassified roadways was in the 1990s and the criteria it used pertained to regional connections. How did the proponents determine that the selected roadways would be regional? (J. Gallagher)*

The roadways selected for reclassification would provide connectivity to regional roadways and transit connections. Assembly Square Drive connects to Interstate 93 and the Fellsway. Other roadways in the area (Middlesex and Mystic Avenues) are already “STP eligible” roadways. Foley and New Streets connect Assembly Square Drive to Middlesex Avenue and would connect with the Assembly Square Orange Line Station. Foley and G Streets and IKEA Way would be a multi-modal loop connecting to bus routes that serve Wellington and Sullivan Stations and downtown Boston.

(T. McIntosh)

*What is the process for reclassifying roadways? (M. Draisen)*

The Federal Highway Department (FHWA) would have to approve the reclassification after it is approved by the MPO and EOT. (D. Mohler)

*Is there a sense of how much money the city is likely to request from future federal stimulus funds or what those funds would be used for? (M. Draisen)*

The request would be for whatever portions of the project are determined eligible. The construction cost of Assembly Square Drive and the intersections at Lombardi Street and the Fellsway is estimated at \$23 million, including all utilities. The project includes full reconstruction of Assembly Square Drive and signalization. (D. Webster) The city is also pursuing other funding, but the stimulus funding is needed for this project that will increase tax revenue and create jobs. (Mayor Curtatone)

*Does the project add capacity? Would it have to be added to the TIP? If so, the Regional Transportation Plan has to be amended. (A. Soolman)*

A new portion of roadway (one lane in each direction and bicycle lanes) will be added to Assembly Square Drive. At the northerly and southerly intersections, however, signalization upgrades will improve traffic efficiency. (T. McIntosh) The project would have to go on the TIP to receive stimulus funding. (D. Mohler)

*If the project adds capacity, will there be problems in making it eligible for stimulus funding? (M. Draisen)*

If federal funds are to be spent on a capacity adding project, the project needs to be included in the RTP. This project would need to be amended into the RTP. The schedule for amending the RTP is between May and September. (D. Mohler)

D. Mohler emphasized that members should make their decisions on the classification issue based on whether they believe the roads will function as “collectors,” regardless of the question of the roadways’ eligibility for stimulus funds. “Collectors” take local traffic and funnel it onto arterials.

*Has CTPS evaluated whether these roadways should be considered “collectors”? (Shirin Karanfiloglu, Massachusetts Turnpike Authority)*

CTPS was not asked to evaluate this, however, the roadways appear to be “collectors.” (A. Soolman)

M. Draisen expressed support for approving the city's request. He then suggested that when requests for reclassification arise in the future, MPO staff or MassHighway should provide information to members beforehand on whether the roadways should be reclassified and why.

L. Dantas reminded members that the Assembly Square Orange Line Station project is included in the RTP and that the roadways proposed for reclassification will serve the Urban Ring.

*Is the loop road being approved based solely on the new Orange Line station? (S. Olanoff)*

The justification is the Orange Line station. (D. Mohler)

Ginger Esty, Town of Framingham, expressed support for the city's proposal and praised the city and developers for their forward thinking.

*Will this help improve traffic on Route 28? (M. Pratt)*

The new improvements will include signal upgrades at the Route 28 connector and the breaking of a median to allow for both left and right turns (now only right turns are possible). Four points of access and egress will serve the development. The new MBTA station will alleviate some congestion. (T. McIntosh)

A motion to approve the City of Somerville's request to specify the Federal Functional Classification of Assembly Square Drive, New Road, Foley Street, G Street, IKEA Way, and Lombardi Street as "collectors" was made by M. Draisen, and seconded by S. Woelfel. The motion passed unanimously.

#### **8. Meeting Minutes – Pam Wolfe, Manager of Certification Activities, CTPS**

A motion to approve the minutes of the meeting of March 19 was made by P. Regan, and seconded by G. Esty. The motion passed unanimously.

A motion to approve the minutes of the meeting of April 2 was made by Thomas Kadzis, City of Boston, and seconded by P. Regan. The motion passed unanimously.

**9. Regionwide Suburban Transit Opportunities Study, Phase III** – *Karl Quackenbush, Deputy Technical Director, CTPS, and Rob Guptill, MPO Staff*

This item was deferred to the next meeting.

**10. Regional Equity Community Outreach Update** – *Annette Demchur, MPO Staff*

This item was deferred to the next meeting.

**11. Operational Improvements at Selected Congested and High-Crash Intersections Study** – *Karl Quackenbush, Deputy Technical Director, CTPS*

Last month, the MPO approved the work program for the *Operational Improvements at Selected Congested and High-Crash Intersections Study*. As requested by members, staff provided a list of the proposed intersections for study. (See attached memorandum which includes the list of intersections.)

The intersection selection process involved using the Registry of Motor Vehicle (RMV) crash database to identify high-crash locations, focusing on intersections that are known to the TIP process, eliminating large intersections and locations where there are multiple intersections within a corridor, sorting the intersections by Equivalent Property Damage Only (EPDO) scores, and considering intersection geometry and congestion. Staff also contacted communities to ascertain their interest in implementing study recommendations. MAPC also conducted outreach to communities and from that process the intersections in Randolph and Sudbury were selected.

Members asked questions and made comments:

*Are the intersections in Lynn being counted as one intersection? Are they signalized? (S. Olanoff)*

Yes. City of Lynn officials asked staff to focus on these intersections. The Waitt Street intersection is currently signaled and the Eastern Avenue intersection is not. (K. Quackenbush)

Monica Lamboy, City of Somerville, requested that staff consider multi-modal improvements at the Route 16/Alewife Brook Parkway and Broadway intersection in Somerville. She remarked upon Secretary Aloisi's support for the Green Line terminus at Route 16, and noted that bicycle and pedestrian access would be important in that location. K. Quackenbush assured her that the examination of the intersections would be highly multi-modal.

*Has every municipality with a proposed intersection agreed to participate? (J. Gallagher)*

Yes. (K. Quackenbush)

*None of the proposed intersections are in the MetroWest subregion. Were there any potential ones there? (M. Draisen)*

MAPC's outreach identified the Marlborough – Route 20/Concord Road intersection, which is far enough along in its design (at 25%) to not warrant studying it in this scope of work. The Marlborough – Route 85/Lincoln Street intersection was identified from the RMV crash data, but since there is limited right-of-way in that location staff would be constrained in providing recommendations. The Southborough – Route 85/Marlborough Road intersection also came up in the RMV data, but the intersection was too large for this scope of work. (K. Quackenbush)

*Did any intersections in Framingham appear on the crash scorecard? (G. Esty)*

No. Framingham intersections arose on the larger list. Staff searched 2004-2006 RMV crash data. In recent years, data going into the RMV database has decreased from some communities. Staff also focused on projects known to the TIP process. (K. Quackenbush)

G. Esty suggested that staff supplement RMV crash data with police, ambulance, or other data.

Members agreed to give staff approval to study the proposed set of intersections.

## **12. Members' Items**

M. Draisen reported that MAPC is finalizing a date for the MPO election and the MetroFuture roll-out.

## **13. Adjourn**





**Transportation Planning and Programming Committee Meeting Attendance**  
**Thursday, April 30, 2009, 10:00 AM**

**Member Agencies**

EOT  
City of Boston  
City of Newton  
City of Salem  
City of Somerville  
MAPC  
  
MassHighway  
MassPike  
Massport  
MBTA  
MBTA Advisory Board  
Regional Transportation  
Advisory Council  
Town of Hopkinton  
Town of Framingham

**Representatives and Alternates**

David Mohler  
Thomas Kadzis  
David Koses  
Carey Duques  
Monica Lamboy  
Marc Draisen  
Jim Gallagher  
Stephen Woelfel  
Shirin Karanfiloglu  
Lourenço Dantas  
Joe Cosgrove  
Paul Regan  
Steve Olanoff  
Sue McQuaid  
Mary Pratt  
Ginger Esty

**MPO Staff/CTPS**

Maureen Kelly  
Anne McGahan  
Hayes Morrison  
Sean Pfalzer  
Karl Quackenbush  
Arnie Soolman  
Pam Wolfe

**Other Attendees**

Ed Carr  
Tony Centore  
Joseph Curtatone  
Mark Grenard  
Tim McIntosh  
David Webster  
  
MetroWest Regional Transit Authority  
Town of Medfield  
Mayor, City of Somerville  
EOT  
VHB  
Federal Realty Trust