

CMMPO Transportation Improvement Program (TIP)

495/MetroWest Partnership

Transportation Committee Meeting

April 5, 2022

What is the TIP?

- **Federally-Required Planning Document**
- **Includes Highway, Bridge, Transit, Bicycle & Pedestrian, and Intermodal Projects over 5 Years**
- **Updated Annually, Amended as needed**
- **Must Demonstrate Financial Constraint**

DEVELOPMENT SCHEDULE

- December 2021:** Annual outreach effort for TIP begins with invitations for community presentations, currently programmed project progress updates, new project proposals or previously submitted active projects status updates.
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- January 19, 2022:** **CMMPO meeting 4:30 PM.** TIP project presentations by invited communities. CMMPO Advisory Committee members invited to attend.
- January 26, 2022:** CMMPO Advisory Committee meeting, 3:00 PM.
- January 28, 2022:** MassDOT provides 2023 to 2027 regional federal-aid funding targets for TIP development purposes.
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- February 8&9, 2022:** "TIP Readiness Day" to be held at the MassDOT Highway Division District #3 office. The status of eligible TIP projects will be reviewed to inform the MPO's programming efforts. *(This is a MassDOT/CMRPC-only working session.)*
- February 16, 2022:** **CMMPO meeting 4:00 PM.** Annual TIP development continues. Additional TIP project presentations, if needed.
- February 23, 2022:** CMMPO Advisory Committee Meeting, 3:00 PM. TIP project scoring for recommendation to CMMPO.
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- March 16, 2022:** **CMMPO meeting 4:00 PM.** Annual TIP development continues – TIP Workshop. CMMPO Advisory Committee TIP project recommendations discussed.
- March 23, 2022:** CMMPO Advisory Committee Meeting, 3:00 PM.
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- April 7, 2022:** "TIP Environmental Consultation Session" held virtually, 10:00 AM.
- April 20, 2022:** **CMMPO meeting 4:00 PM.** MPO finalizes draft listing of programmed projects for highway and transit. Approved *Draft* TIP listings released for public review and comment; listings available on CMRPC website. 21-day public review & comment period begins, legal ad appears in the *T&G* and nationwide mailing invites all interested parties to attend public meeting.
- April 27, 2022:** CMMPO Advisory Committee Meeting, 3:00 PM. Comments on Draft TIP.
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- May 10, 2022:** 2023 to 2027 TIP Virtual Public Meeting, 5:00 PM.
- May 11, 2022:** Public comment period on *Final Draft* TIP closed, 4:30 PM.
- May 18, 2022:** **CMMPO meeting 4:00 PM.** Endorsement of *Final* TIP document considered after review of all submitted comment. TIP documentation subsequently finalized for federal agency review with accompanying Technical Appendix materials.
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- August/Sept 2022:** Federal agency review of CMMPO *Endorsed* TIP underway.
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- October 1, 2022:** Federally approved CMMPO *Endorsed* TIP is in effect and available for distribution to interested parties.

2023-2027 TIP Development Schedule

Development Meetings

CMMPO

- TIP Candidate Project Presentations (Jan/Feb)
- TIP Workshop (March)
- Release of Draft TIP (April)
- Endorsement of TIP (May)

CMMPO ADVISORY COMMITTEE

- Review of TIP Candidate Projects (Jan/Feb)
- Project Scoring Review (Feb)
- TIP Programming Option Recommendation (March)
- Draft TIP Comments (April)

OTHER PUBLIC MEETINGS

- Environmental Consultation (April)
- Draft TIP Public Meeting (May)

Performance Management

FEDERALLY-REQUIRED MEASURES

- PM1 – Safety
- PM2 – State of Good Repair
- PM3 – Congestion / System Reliability
- WRTA Asset and Safety Plans

CMMPO REGIONALLY-CUSTOMIZED MEASURES

- Multimodal
- Sustainability
- Equity
- Economic Vitality
- Security
- Stormwater Management
- Travel & Tourism

TIP Project Scoring Criteria

	OBJECTIVE	TARGET/MEASURE	Scoring
SAFETY	(PM1) Reduce Number and Rate of Fatal and Serious Injury Crashes in the Region. Move towards Zero Deaths.	Reduction of Fatalities, Fatality Rates, Serious Injuries, Serious Injury Rates, and Non-Motorized Fatalities & Serious Injuries based on 5-year Rolling Averages.	X - project will help reduce all types of crashes X - project roadway has an identified HSIP crash cluster
STATE OF GOOD REPAIR	(PM2) Maintain the Highway Infrastructure Asset System in a State of Good Repair	Increase % of Non-Interstate & Interstate NHS Pavement in Good Condition and Decrease % of Non-Interstate & Interstate NHS Pavement in Poor Condition	X - project is improving roadway pavement (or) XX - project is improving roadway pavement in poor condition
		Increase % of Bridges by Deck Area in Good Condition & Reduce % of Bridges by Deck Area in Poor Condition	X - project is rehabilitating or replacing a bridge (or) XX - project is rehabilitating or replacing multiple bridges
CONGESTION	(PM3) Achieve a Significant Reduction in Congestion on the National Highway System	Increase Travel Time Reliability, % of Non-Single Occupancy Vehicle (SOV) Travel, and Reduce Peak Hour Excessive Delay (PHED)	X - project is improving an existing signalized intersection, installing new signalized control or roundabout, or adding ITS components X - project roadway is considered unreliable
		Reduce On-Road Mobile Source Emissions	X - project is potentially eligible for CMAQ funding (reduce emissions)
		Improve Truck Travel Time Reliability on both Interstate and Non-Interstate NHS	X - project is along an established primary freight route (or) XX - project is on a primary freight route and reducing average freight delay
SECURITY	Enhance the Transportation Security Coordination and Preparedness Regionwide	Evacuation Routes Established as Primary; Vulnerable roadway specified within Hazard Mitigation/MVP Plan	X - project roadway is a primary established evacuation route X - project roadway is listed in the town's Hazard Mitigation Plan as a potential hazardous location
MULTIMODALITY	Improve and/or Expand Transportation Accessibility for all Modes (Bicycle, Pedestrian, Transit) in the Region	Increase # of ADA-Compliant Ramps and Reduce Mileage of Sidewalks in Poor Condition	X - project is improving existing sidewalks or building new sidewalks X - project is improving existing ADA ramps or building new ADA ramps
		Increase Bike Lane Mileage and Infrastructure; Improve accessibility to Bus Routes	X - project is increasing bike lane mileage and infrastructure X - project is improving accessibility to fixed route transit
		Increase the Number of Communities with Complete Streets Policies	Incorporate Complete Streets Prioritization Plan Roadways into TIP Projects
SUSTAINABILITY	Combat sprawl and its effects	Project provides opportunities to avoid, minimize, or mitigate environmental effects in a PDA area	X - project is within a PDA area X - project includes extensive environmental mitigation work
EQUITY	Assure that Improvements are Fairly Distributed among Populations, Towns and Subregions	Equitable TIP Project Distribution; Increase Percent of EJ and Vulnerable Population that can Access Transit Service	X - project is within an identified EJ or vulnerable population area X - project is within a community that is below the average per capita of distributed TIP target funds.
ECONOMIC	Make Employment Opportunities Accessible and Available Allowing for Job Expansion and Reducing Transportation Costs	Improving the accessibility to jobs in the CMMPO region.	X - project improves mobility in an area that is losing jobs access between 33rd and 66th percentile of other areas in th region (or) XX - project improves mobility in an area that is losing jobs access greater than 66th percentile of other areas in the region
STORMWATER MGMT	Create a Transportation Network that is Resilient to the Impacts of Stormwater	Consider Nature-Based Solutions for Stormwater Management; Improve Drainage or Replace/Retrofit Culverts that have either Moderate, Significant, or Severe Barriers	X - project is improving stormwater infrastructure (i.e. - drainage, culverts) (or) XX - project is improving stormwater infrastructure within a identified 100 or 500 year flood zone
TRAVEL & TOURISM	Enhance region's travel and tourism opportunities	To improve traveler access, mobility and linkages to sites of touristic value and balance the travel demand needs of area residents and visitors	X - project is improving the mobility to/from these tourist attractions/recreational areas

Each X = 1pt (max total of 27)

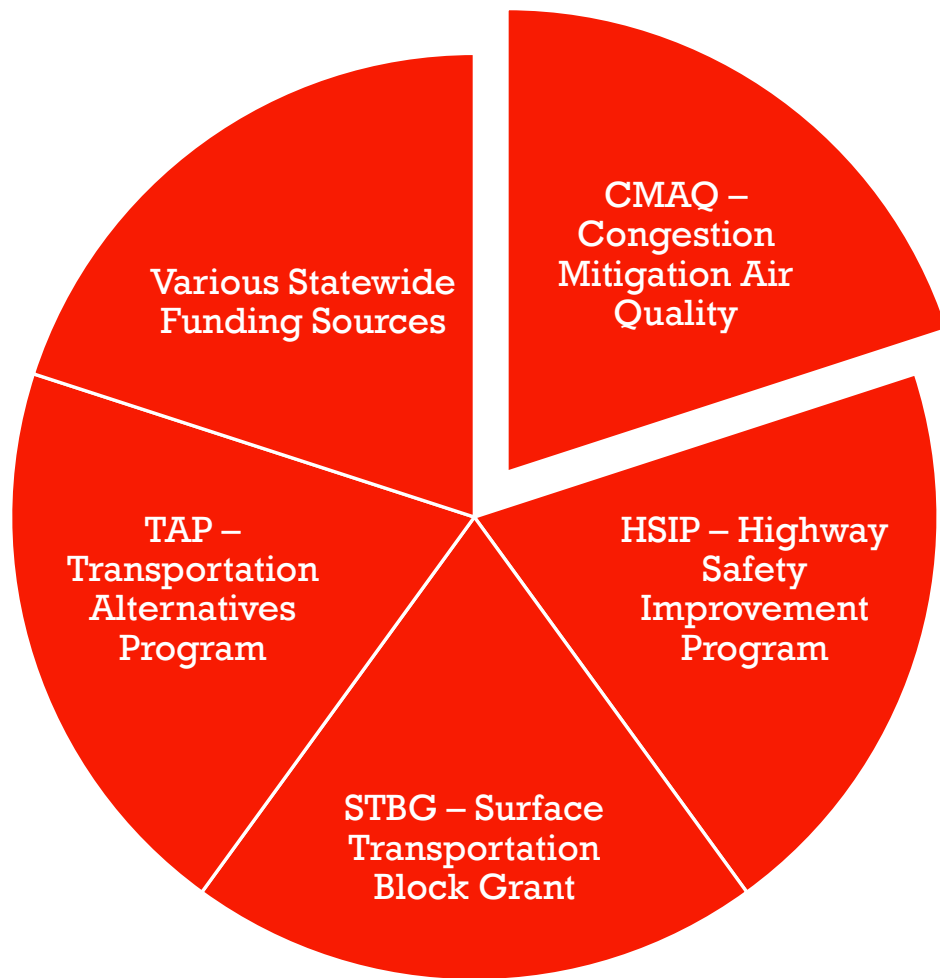
For the PM scoring that has a choice of either "X" or "XX", only one of the two choices can be chosen for up to a total of 2pts

Regional Target Project Scores

Prog Year**	Proj ID#	Project	Sub- Region***	Safety	State of Good Repair	Congestion	Security	Multimodality	Sustainability	Equity	Economic	Stormwater	Travel & Tourism	TOTAL SCORE
23-26	602659	Oxford/Charlton-Route 20	SW	2	3	5	2	4	2	1	1	2	0	22
2026	608990	Worcester - Chandler St (Phase I)	C	2	2	4	2	3	1	2	1	0	0	18
2025	608433	Webster-I-395/Rte 16/Sutton Rd	SW	2	1	4	2	3	2	1	1	1	0	17
2023	609219	Holden - Shrewsbury St/Doyle Rd	N	1	1	5	2	3	1	2	1	0	1	17
2026	610825	Shrewsbury - Route 20 Rehab	NE	2	1	4	2	4	0	2	2	0	0	17
2027	612011	Worcester - Chandler St (Phase II)	C	2	1	4	2	4	1	2	1	0	0	17
2026	609441	Northbridge - 122/Sutton/School	SE	2	1	2	2	5	1	2	1	0	0	16
2023	608873	Spencer - Meadow Rd	W	1	1	3	2	4	1	1	0	2	1	16
2026	611933	Sturbridge - R 20/131 Roundabout	SW	1	2	5	1	3	0	1	0	0	1	15
2024	608778	Southbridge - Downtown Improv	SW	2	1	3	0	4	1	2	0	0	1	14
2025	608961	Worcester - Chandler/May Sts	C	2	1	4	1	2	0	2	1	0	0	14
2027	610931	Uxbridge - Route 16 Rehab	SE	1	2	2	1	4	1	0	1	1	0	13
2024	608171	Uxbridge - Route 122 (S Main St)	SE	1	1	0	2	3	1	0	1	2	0	11
2025	609049	West Brookfield - Route 9 (Phase II)	W	1	1	1	2	2	1	0	0	2	1	11
2024	606517	West Brookfield - Route 9 (Phase 1)	W	1	1	1	2	2	1	0	0	1	1	10
2026	608456	Upton - Culvert Replacement	SE	0	1	1	1	0	2	0	2	2	0	9
2023	605035	New Braintree - Ravine/Hardwick	W	1	2	0	2	0	0	0	0	2	1	8

TIP Workshop

- **Workshop held during the March CMMPO Meeting**
- **Project Proponents Invited to Attend**
- **Staff Provides Programming Options for all 5 Years**
Considering:
 - **Project Readiness**
 - **Project Costs**
 - **Project Scoring**
 - **Financial Constraint**
- **CMMPO Members choose Option for Draft TIP**



TIP Funding Sources

Environmental Justice (EJ)

TIP Year	Hwy Projects Using Federal Target \$\$		Projects Located in Municipalities with Environmental Justice Neighborhoods		Projects Located in Environmental Justice Neighborhoods		EJ % of Total Federal Target \$\$
	#	\$\$ (in millions)	#	\$\$ (in millions)	#	\$\$ (in millions)	
2023	4	25.456	3	21.852	2	20.084	78.9%
2024	3	21.014	2	12.612	1	5.418	25.8%
2025	4	18.549	4	18.550	2	9.754	52.6%
2026	5	17.830	4	17.430	3	16.427	92.1%
2027	3	12.528	1	4.878	1	4.878	38.9%
Total	19	95.377	14	75.322	9	56.561	59.3%

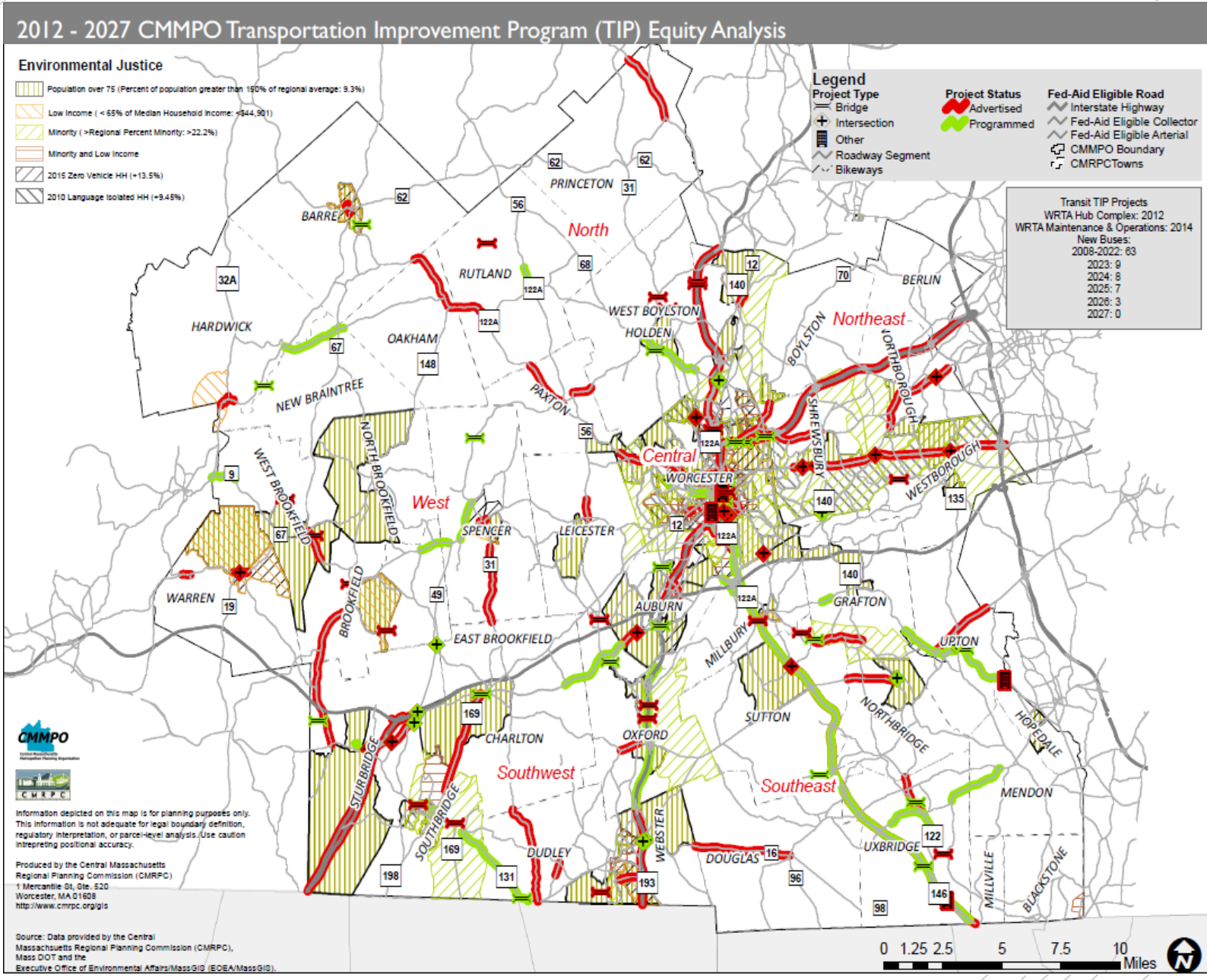
Year	PRC#	Municipality	Facility	Description	Cost (in millions)	Funding	Environmental Justice		Vulnerable Populations		
							Low-Income	Minority	Zero-vehicle households	Linguistic isolated households	Households with pop 75+
2023	608873	Spencer	Meadow Rd	Rehabilitation	9.541	STBG / CMAQ	Y	N	Y	N	N
2023	609219	Holden	Shrewsbury St & Doyle Rd	Rehabilitation	10.542	STBG	N	N	N	N	Y
2024	608778	Southbridge	Hamilton St/Hook St/Central St/Foster St	Intersection improvements	5.418	STBG / HSIP / CMAQ	Y	Y	Y	Y	Y
2025	608433	Webster	Rt 16 / I-395 Ramps / Sutton Rd	Intersection improvements	3.274	STBG	Y	Y	N	N	Y
2025	608961	Worcester	May St & Chandler St	Intersection improvements	6.481	STBG / HSIP	N	Y	Y	Y	Y
2026	609441	Northbridge	Rt 122 / Sutton St / School St / Upton St	Intersection improvements	3.091	HSIP	N	N	N	N	Y
2026	611933	Sturbridge	Route 131 / Route 20	Intersection improvements	7.173	STBG	N	N	N	N	Y
2026	608990	Worcester	Chandler St (Phase 1)	Reconstruction	6.163	HSIP / STBG	Y	Y	Y	Y	Y
2027	612011	Worcester	Chandler St (Phase 2)	Reconstruction	4.878	HSIP	Y	Y	Y	Y	N

Maps of these areas which include census block group information are included in Technical Appendix.

Environmental Justice Criteria:

- 1) Block Groups where the median household income is less than or equal to 65% of the regional median as determined by the 2015 ACS (65%*\$69,078 = \$44,901)
- 2) Block Groups with the percentage of minority population is greater than or equal to the regional proportion of minority population, 22.2%
- 3) Households with a person 75 years or older, 9.3%
- 4) Households without an available vehicle, 13.5%
- 5) Linguistically-isolated households, 9.45%

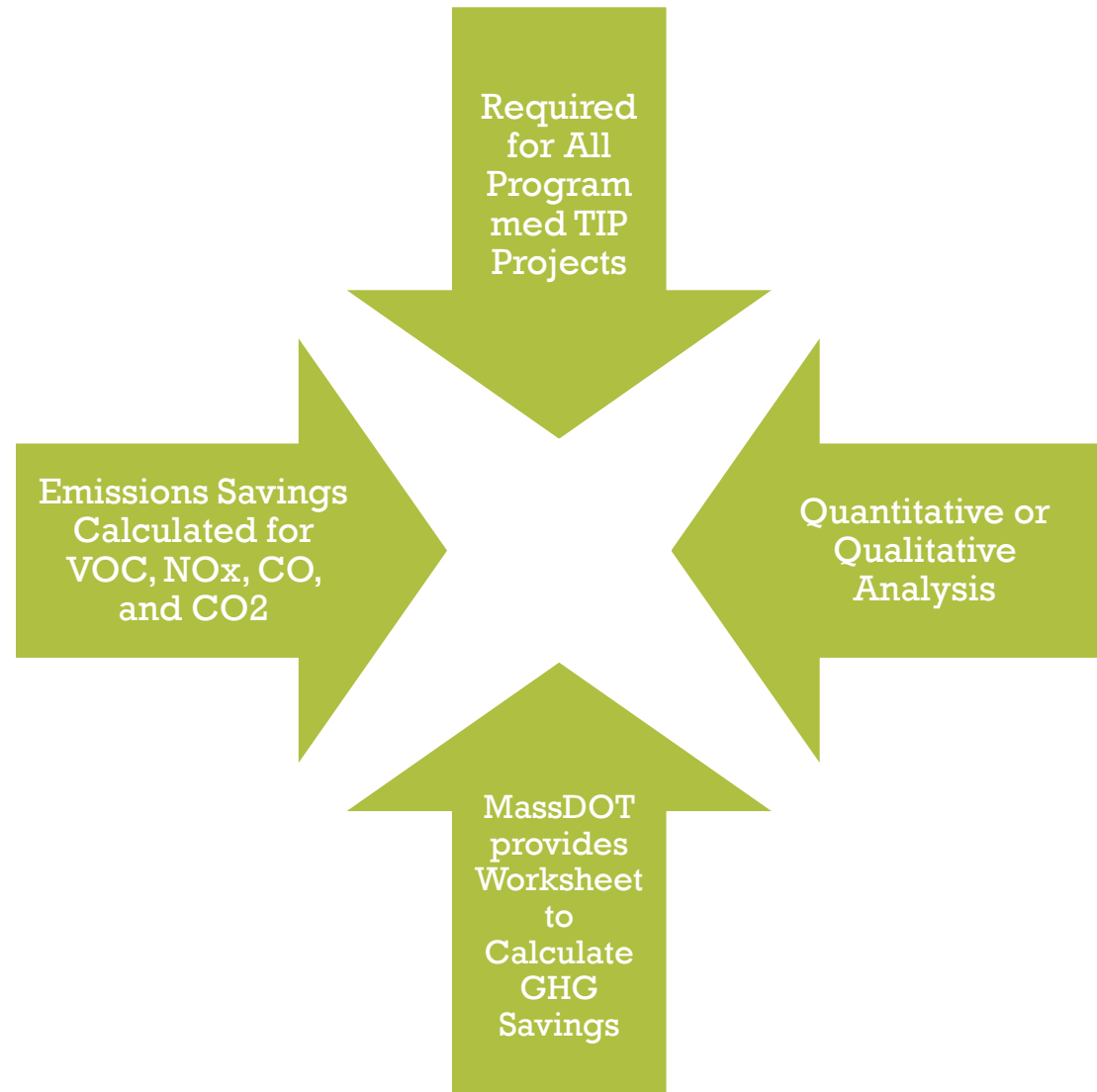
Equity Analysis



Equity Analysis Continued

CMRPC Sub-Region	Community	# of Target Projects	Target Funds	Total # of Projects	# of Projects In EJ Area	Total Funds Allocated
Central	Worcester	11	\$54.888	37	36	\$224.605
	Barre	1	\$3.64	2	1	\$4.979
North	Holden	1	\$10.542	6	2	\$24.568
	Oakham	1	\$1.533	1	0	\$1.533
	Paxton	2	\$5.904	2	0	\$5.904
	Princeton	1	\$7.984	1	0	\$7.984
	Rutland	2	\$7.767	3	0	\$9.942
	West Boylston	0	N/A	3	3	\$16.046
	Berlin	0	N/A	0	0	N/A
Northeast	Boylston	0	N/A	2	0	\$7.310
	Northborough	0	N/A	5	2	\$23.674
	Shrewsbury	1	\$6.278	8	5	\$44.482
	Westborough	2	\$9.378	4	4	\$25.106
	Blackstone	0	N/A	0	0	N/A
Southeast	Douglas	0	N/A	1	0	\$3.017
	Grafton	1	\$10.241	2	2	\$15.025
	Hopedale	0	N/A	2	0	\$3.010
	Mendon	0	N/A	1	0	11.747
	Millbury	2	\$14.334	4	3	\$29.421
	Millville	0	N/A	1	0	\$2.358
	Northbridge	2	\$10.531	2	2	\$10.531
	Sutton	1	\$3.024	6	2	\$20.277
	Upton	3	\$12.023	5	2	\$22.725
	Uxbridge	3	\$20.946	8	0	\$31.009
	Auburn	2	\$8.412	9	9	\$54.292
Southwest	Charlton	0	N/A	3	1	\$42.021
	Dudley	1	\$2.929	5	1	\$18.515
	Oxford	2	\$9.369	7	2	\$60.210
	Southbridge	1	\$5.417	4	4	\$16.897
	Sturbridge	4	\$15.606	11	6	\$41.677
	Webster	2	\$13.449	3	3	\$14.615
	Brookfield	1	\$2.230	2	1	\$3.941
West	East Brookfield	1	\$.911	2	1	\$2.622
	Hardwick	1	\$5.031	2	1	\$6.232
	Leicester	1	\$2.959	1	0	\$2.959
	New Braintree	1	\$4.604	2	0	\$5.805
	North Brookfield	0	N/A	0	0	N/A
	Spencer	4	\$18.533	6	3	\$31.473
	Warren	3	\$4.434	0	2	\$4.434
	West Brookfield	5	\$17.549	7	5	\$21.565
Totals		63	\$290.446	174	104	\$872.511

Greenhouse Gas (GHG) Analysis



2024

- Upton (#608490) – Resurfacing & Related Work on Route 140 & Roundabout Construction at Route 140, Church Street and Grove Street, \$8,050,057
- Upton/Hopedale (#612098) – Resurfacing and Related Work on Route 140, \$5,304,000
- Grafton (#609528) – Millbury Street Improvements (SRTS), \$2,543,259
- Shrewsbury (#607764) – Intersection & Signal Improvement at US 20 (Hartford Turnpike) at Grafton Street, \$4,952,937

2026

- Upton (#608456) – Culvert Replacement, Milford Street (Route 140) over Unnamed Tributary to Center Brook, \$1,003,800
- Shrewsbury (#610825) – Rehabilitation & Box Widening on Route 20, from Route 9 to South Street, \$17,249,176

TIP Projects in
495/MetroWest
Partnership
Communities

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Questions?

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