

Transportation Improvement Program (TIP) Process, Readiness, and Engagement Committee

December 14, 2023

Boston Region Metropolitan Planning Organization



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- 1. All participants will join the meeting with muted microphones.
- 2. Please rename yourself to include your first name, last name and affiliation.
- 3. After roll call, Board members may mute and unmute themselves. Always remain muted unless actively speaking.
- 4. To participate in the discussion, please select the "raise hand" function. Find this by clicking either on the "Participants" button at the bottom of the screen, and a window will pop up with a "Raise Hand" button at the bottom, or the "Reactions" button in the toolbar. The Chair will then call on participants.
- 5. If you are on the phone, you can use *9 to raise your hand.
- 6. If you have any technical difficulties, please contact Logan Casey via the chat box, list-style="list-style: type: color: blue;">list-style="list-style: type: color: blue;">list-style: type: color: blue; list-style:type: color: blue; <a href



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If you require any additional accommodations in order to participate fully in this meeting, please contact Ethan Lapointe, MPO staff, at lcasey@ctps.org or 857.702.3706.

Agenda

- Microtransit Project Update (40 mins)
- TIP Project Universe Overview (20 mins)
- Project Design Pilot Update (15 mins)
- Members Items
- Adjourn (2:30 pm)



Technical difficulties? Call Logan Casey at 857.702.3706 or email Icasey@ctps.org.



Microtransit Projects Update

December 14, 2023

Ethan Lapointe TIP Manager, MPO Activities

Boston Region Metropolitan Planning Organization

Introductions

Today's Objective

- Refresher on Microtransit Pilot
- Amendment 3: NewMo Service Scope Changes
- Consistent challenges
- Program strategy



Technical difficulties? Call Logan Casey at 857.702.3706 or email Icasey@ctps.org.

Background on the Microtransit Pilot

Community Connections: Program Background

- Community Connections focuses on first and last mile connectivity regionwide
 - Project types include bikeshare, bike parking and lanes, as well as microtransit pilots
- Started in FFY 2021–25 TIP
 - \$2.5 million per year set aside
 - Utilizes CMAQ funding
- Microtransit has long been a popular solution to resolving first and last mile gaps



Image Source: City of Malden



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Community Connections: Microtransit Background

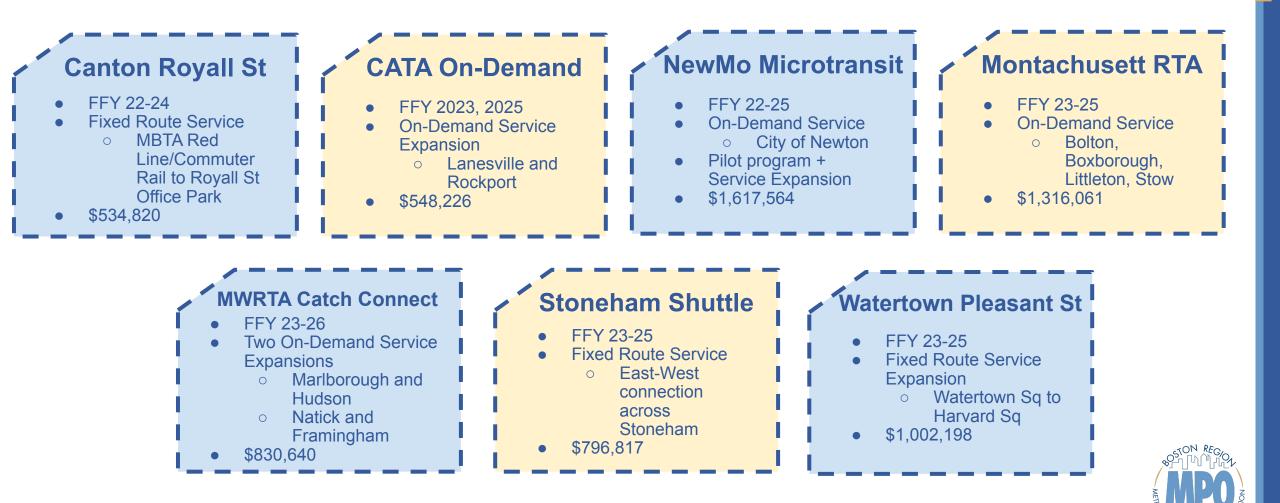
- Other sources, like Community Transit Grants, also available
- Pilots had been around for decades
- Latest Boston Region MPO iteration built upon Workforce Transportation Grant Program in FFY 2020



Image Source: Town of Wellesley



Currently Funded Microtransit Projects



Amendment 3: NewMo Shuttle Scope Change

Background: What is NewMo?

- Started in FFY 2021–25 TIP, with expansion funded in FFY 2023
 - \circ \$1,617,564 programmed over five years by MPO
- Operates weekdays from 7am to 6:30pm, and 9am to 12pm on weekends
- Similar to a taxi service, majority of vehicles EV with some hybrid
- Targeted 6,000 monthly trips
 - Previously surpassed that figure

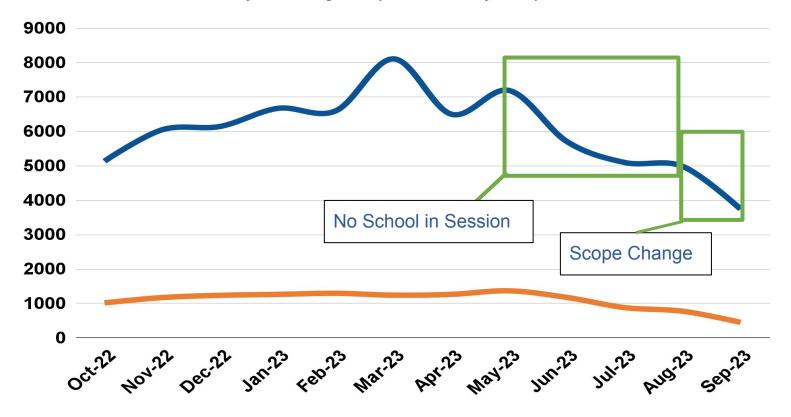


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NewMo Performance in FFY 2023: Ridership

NewMo FFY 2023 Monthly Passenger Trips and Unique Riders

Monthly Passenger Trips
 Monthly Unique Riders



Technical difficulties? Call Logan Casey at 857.702.3706 or email Icasey@ctps.org.

Why the scope change?

Project Name	FFY 21	FFY 22	FFY 23	FFY 24	FFY 25	Total
Newton Microtransit Service Initial	\$ 300,000	\$ 275,000	\$ 152,000	\$ -	\$ -	\$727,000
NewMo Microtransit Service Expansion	\$ -	\$ -	\$ 412,665	\$ 268,246	\$ 209,663	\$890,564
MPO Contributions	\$300,000	\$ 275,000	\$564,665	\$ 268,246	\$ 209,663	\$ 1,617,564
Total Costs		\$1,199,900	\$1,265,860	\$1,094,150	\$1,116,033	

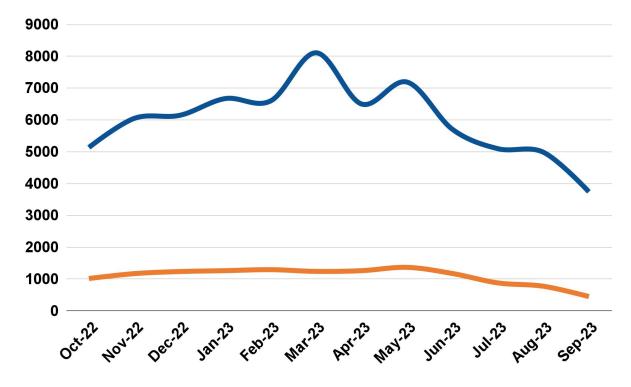
- Scope Change: Shift to seniors, persons with disabilities, very select other groups only versus open-access
- Some service area expansion, but same hours
- NewMo was highly popular, equivalent to \$4 Uber/Lyft
- But, service model did not lend itself to scalability



NewMo Performance in FFY 2023: Absence of Economies of Scale

NewMo FFY 2023 Monthly Passenger Trips and Unique Riders

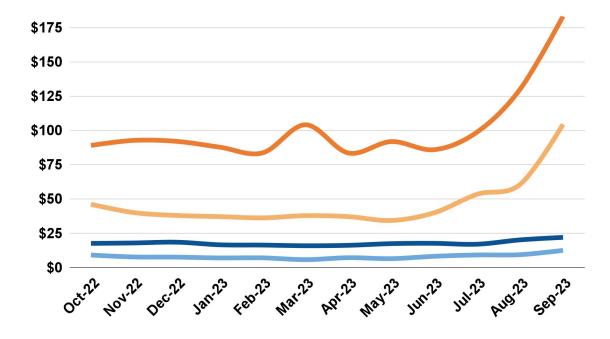
- Monthly Passenger Trips - Monthly Unique Riders



NewMo FFY 2023 Monthly Costs Per Passenger Trip and Unique Riders

- Cost Per Passenger Trip (MPO) - Cost Per Unique Rider (MPO)

- Cost Per Passenger Trip (All) - Cost Per Unique Rider (All)



Impact on FFY 2024-28 TIP

- Adjusted scope differs from what was applied for
 - \circ $\,$ No longer as robust for workforce/commuter connections or students
- 3,750 trips in September demonstrates impact against performance
- Next Steps
 - December 21, 2023 MPO Board meeting includes scope amendment as sole item in Amendment 3



Technical difficulties? Call Logan Casey at 857.702.3706 or email Icasey@ctps.org.

Microtransit Challenges and Broader TIP Considerations

Challenges: The Bottom Line

- To date, NewMo is the best performing microtransit service the MPO has funded in terms of subsidy per passenger trip and total ridership.
 - Greatest likelihood of continuing after pilot's conclusion
- NewMo's challenge to meet targets despite strong performance illustrates a broader structural issue
- This challenge is more pronounced in other MPO-funded pilots, and is not unique to Eastern Massachusetts



Why Microtransit?

Microtransit is proposed as the modern, tech-savvy solution to decades-long challenges for transit operators.

Green + Citylab

Microtransit Programs Promise On-Demand Transportation For All

But in small towns and cities, pilot programs underscore the inefficiencies and high costs inherent in this model.

By Bill Donahue

February 5, 2022 at 6:00 AM EST

TRANSPORTATION

Microtransit Has Broad Appeal, Despite Clear Drawbacks

More public transit agencies are offering low-fare, ondemand shuttle service as a way to connect people to existing transit services and serve far-flung communities. But many transit advocates are wary of the trend.

Nov. 1, 2023 • Jared Brey



- Bill Donahue, Bloomberg Citylab (2022)

- Jared Brey, Governing.com (2023)

Why Microtransit?



Human Transit

The professional blog of public transit consultant Jarrett Walker.

However, contrary to almost all "microtransit" marketing, *ridership is the death of flexible service*. Suppose that a flexible service on these peninsulas was so attractive that many people began calling it. Then the flexible route van would be expected to go to every peninsula every hour, which is impossible. So more vans would have to be added, still at a very high cost/rider. This process would devour the limited coverage budgets of most agencies, and if those agencies haven't established a clear limit on what they'll spend on coverage service, this process can start threatening high-ridership service.

- Jarrett Walker (Human Transit, 2019)

TransitCenter

TransitTools no.13

MICROTRANSIT + TRANSIT

You can't throw a dart at a map of the U.S. without hitting a "microtransit" pilot. Microtransit is the latest spin on an old idea – running on-demand service with smaller vehicles that people can summon without walking to a fixed location like a bus stop. Transit agencies in cities including Austin, Sacramento, Kansas City, and Los Angeles are currently running various trials of microtransit service, often touting it as a cure for declining ridership.

The results don't justify the hype: Microtransit is incapable of serving the same scale of ridership as fixed-route buses and trains. Nevertheless, transit agencies just can't seem to shake the notion that "this time will be different." With its flexible routing, microtransit can seem like the solution to longstanding first-mile/last-mile challenges. But microtransit has inherent limitations.

Current Microtransit Projects

Project Name	FFY 23	FFY 24	FFY 25	FFY 26	
Canton Royall Street Shuttle	\$ 177,177	\$ 148,542	\$ -	\$-	
CATA On-Demand Microtransit Service Expansion (Lanesville and Rockport)	\$ 333,450	\$-	\$ 214,776	\$ -	
Montachusett RTA Microtransit Service	\$ 479,066	\$ 430,354	\$ 406,641	\$ -	
MWRTA CatchConnect Microtransit Service Expansion (Marlborough and Hudson)	\$ 141,250	\$ 149,425	\$ 159,488	\$ -	
MWRTA CatchConnect Microtransit Service Expansion (Natick and Framingham Extended Hours)	\$-	\$ 175,000	\$ 165,625	\$ 162,500	
Newton Microtransit Service	\$ 152,000	\$-	\$-	\$ -	
NewMo Microtransit Service Expansion	\$ 412,665	\$ 268,246	\$ 209,663	\$ -	
Stoneham Shuttle Service	\$ 330,189	\$ 261,439	\$ 205,189	\$ -	
Watertown Pleasant Street Shuttle Service Expansion	\$ 437,825	\$ 335,434	\$ 228,939	<u> </u>	
Community Connections Program Balance (FFYs 2025–2026)			\$ 909,679	\$2,337,500	

CATA = Cape Ann Transportation Authority. FFY = Federal Fiscal Year. MWRTA = MetroWest Regional Transit Authority.

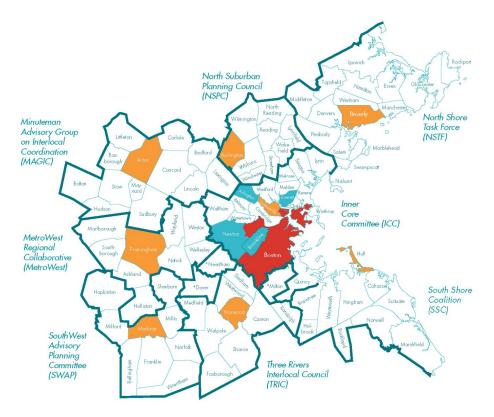
Challenges in Boston MPO Region: Demand

- Existing transit service
 - Limited paratransit resources from RTAs
 - Substitution of lower ridership fixed route
 - Question: Why are these resources being cut back?
- Almost every municipality wants some form of microtransit service, if they can obtain the funding
- Like other transit, microtransit demand has been
 impacted by post-COVID mobility trends



Challenges in Boston MPO Region: Supply

- Abundant research, studies, plans, lessons of previous pilots, and media coverage...
 - But most services are customized to local context
 - "Could this time be different?"
- Fiscal constraint, including federal funding requirements
- Opportunity cost





Status Update on All Microtransit Projects

Project Name	Years	MPO Budget	Status
Canton Royall Street Shuttle	2022-2024	\$ 534,820	In final year, struggling to meet key performance metrics.
CATA On-Demand Microtransit Service Expansion (Lanesville and Rockport)	2023-2025	\$813,291	Did not execute in 2023 due to staff constraints, no longer funded in 2024. May not proceed.
Montachusett RTA Microtransit Service	2023-2025	\$1,316,061	Just commenced service, no data. High cost, not in urban area.
MWRTA CatchConnect Microtransit Service Expansion (Marlborough and Hudson)	2023-2025	\$450,163	Underway, no imminent concerns, ridership improving in FFY24.
MWRTA CatchConnect Microtransit Service Expansion (Natick and Framingham Extended Hours)	2024-2026	\$503,125	Current indication is performing well.
Newton Microtransit Service	2021-2025	\$1,617,564	Strong initial ridership, resource constraint forcing scope change to continue operation
Stoneham Shuttle Service	2023-2025	\$796,817	Still in procurement, service has not yet started.
Watertown Pleasant Street Shuttle Service Expansion	2023-2025	\$1,002,198	Underway, but low ridership and very high costs per unique rider.

Recommendation and Impacts for Future Applications

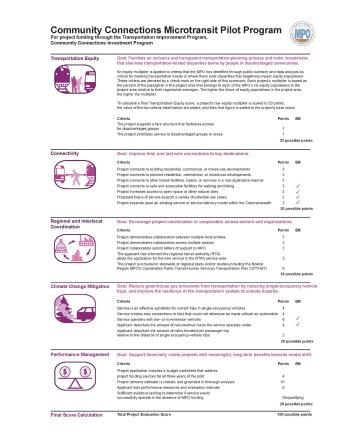
Closing Thoughts

- The Boston Region MPO, MassDOT, and its municipalities have invested significant financial and staff resources into these pilots
- Thus far <25% of projects have demonstrated potential to continue after their third year...
 - But potential is not a guarantee of success, and these are expensive lessons.
- The program cannot continue on the current course.



Impact on Future Applications

- Three year microtransit pilots may still be applied for.
 - RTA's have always had a preference, now more so
- Technical assistance and further study are required.
- We can explore other ways to deliver climate and mobility benefits with these resources





Technical difficulties? Call Logan Casey at 857.702.3706 or email lcasey@ctps.org.

Supporting Data

FFY 2023 Community Connections Scoring

Community Co	onnections Program									
Proponent	Project Name	Project Cost	Cost/Monthly User**	Total Score	Connectivity	Coordination	Plan Implementation	Transportation Equity	Mode Shift and Demand Projection	Fiscal Sustainability
Newton	NewMo Microtransit Service Expansion	\$712,459	\$34	87	18	14	12	9	24	10
Cambridge	Bluebikes Station Replacement and System Expansion	\$349,608	\$27	78	18	4.5	12.5	9	24	10
Medford/ Malden	Bluebikes System Expansion	\$145,821	\$81	78	17	12	6	9	24	10
Watertown	Pleasant Street Shuttle Service Expansion	\$801,758	\$668	78	18	12	9	9	20	10
Salem	Bluebikes System Expansion	\$119,629	\$399	77	13	15	6	9	24	10
Stoneham	Stoneham Shuttle Service	\$637,453	\$82	72	15	12	12	6	17	10
CATA	CATA On Demand Microtransit Service Expansion	\$650,633	\$145	61.75	10.75	6	9	6	20	10
MWRTA	CatchConnect Microtransit Service Expansion	\$360,130	\$80	59	12	3	9	9	16	10
Acton	Bicycle Parking along the Bruce Freeman Rail Trail	\$8,017	\$7	58	6	2	9	9	22	10
MART	Montachusett RTA Microtransit Service	\$1,052,849	\$225	57	7	15	3	6	16	10
Belmont	Chenery Middle School Bicycle Parking	\$4,376	\$12	49.75	4.75	6	5	6	18	10
			Possible Points	100	18	15	15	18	24	10

FFY 2024 Community Connections Scoring

Community C	connections Program									
Proponent	Project Name	Project Cost	Cost/Monthly Passenger Trip	Total Score	Connectivity	Coordination	Plan Implementation	Transportation Equity	Mode Shift and Demand Projection	Fiscal Sustainability
Concord	Concord Workforce Shuttle**	\$369,911	\$155	71	13	15	6	6	21	10
MWRTA	CatchConnect Microtransit Expansion Phase 2**	\$402,500	\$93	90	17	15	15	9	24	10
North Reading	North Reading Demand Response Shuttle Pilot Program**	\$77,637	\$348	77.25	16.25	15	9	9	18	10
Revere	Revere On Demand Shuttle Service**	\$980,976	\$30	57	17	0	3	12	15	10
Boston	Boston Electric BlueBikes Adoption	\$1,020,000	\$21	84	17	15	6	12	24	10
Cambridge	Cambridge Electric BlueBikes Adoption	\$352,575	\$13	81	17	15	6	9	24	10
Canton	Canton Center Bicycle Racks	\$10,000	\$12	72	14	9	12	6	21	10
Canton	Canton Public Schools Bike Program	\$22,500	\$4	38	13	0	6	6	3	10
Lynn	Broad Street Corridor TSP	\$297,800	\$2	88	17.5	12	13.5	12	23	10
Medford	Medford Bicycle Parking - Tier 1	\$29,600	\$12	84	17	12	12	9	24	10
Medford	Medford Bluebikes Expansion	\$118,6 <mark>4</mark> 3	\$53	78	17	15	3	9	24	10
Possible Po	oints		Possible Points	100	18	15	15	18	24	10





FFYs 2025–29 Transportation Improvement Program (TIP) Project Universe

December 14, 2023

Ethan Lapointe TIP Manager, MPO Activities

Boston Region Metropolitan Planning Organization

Presentation Overview

- Review of the FFYs 2024–28 TIP
- Project development process
- Summary of the FFYs 2025–29 TIP Universe
- Next steps
- Discussion

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Review of the FFYs 2024–28 TIP

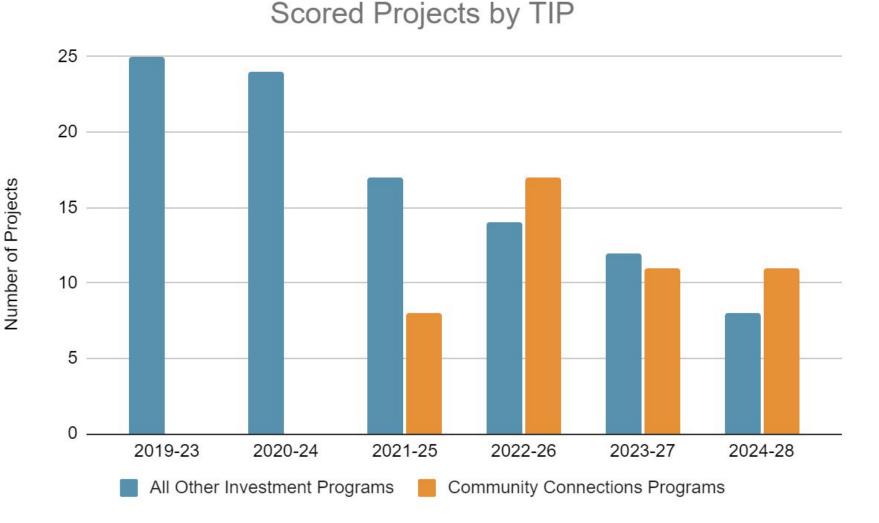
Review of the FFYs 2024–28 TIP

- \$150.2 million allocated to 21 new projects
 - 10 in the Community Connections program
 - \circ 3 in the Transit Transformation program
- Compared to 23 projects in FFYs 2023–27 TIP and 10 in FFYs 2022–26
- 58 projects total funded with \$697.5 million in regional target funding to program
- Implemented new Bikeshare and Design programs to improve project application pipeline



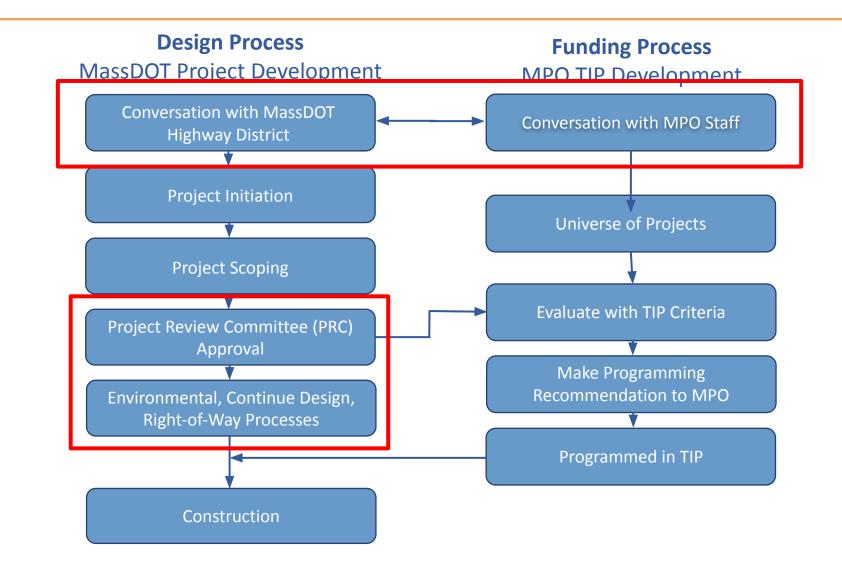
Projects Scored in Each Year

- Downward trend in applications received
- Smaller
 dollar value
 programs
 increasingly
 prominent



Project Lifecycle

Project Lifecycle



Key Thresholds for TIP Funding

- Initiation / Scoping: Early stages, often before significant design has taken place.
 - Unlocks the Project Design Pilot
- Project Review Committee Approval: Still early stage, gives a go-ahead to start working towards federal funding
 - Unlocks ability to apply for construction funds
- 25% Design: Key design elements and permits are in place or underway, scope is mostly defined
 - Superior candidates for TIP funding versus PRC approval

Summary of FFYs 2025–29 Universe of Projects

Creating the TIP Universe

- FFYs 2024–28 universe, minus programmed and deactivated projects
- What is a deactivated project?
- Refine project list
 - Correspondence with municipal TIP contacts
 - Virtual meetings with Metropolitan Area Planning Council's subregional groups
 - Feedback from MassDOT Highway District offices



FFYs 2025–29 TIP Project Universe

Subregion	Total in Universe	Complete Streets	Intersection Improvements	Bicycle/ Pedestrian	Major Infrastructure	Community Connections
ICC	46	18	8	11	6	3
MAGIC	15	3	2	5	3	2
MWRC	10	3	3	3	1	0
NSPC	10	5	3	1	0	1
NSTF	18	12	2	3	1	0
SSC	7	5	2	0	0	0
SWAP	23	11	7	4	1	0
TRIC	14	9	3	1	1	0
TOTAL	143	66	30	28	13	6



Takeaways

- Up to 143 projects from 105 for the FFYs 2024–28 Universe
- Less gatekeeping for listing in Universe is main driver
- Representative of high interest in advancing projects
 - A growing project universe is a way of tracking the project pipeline



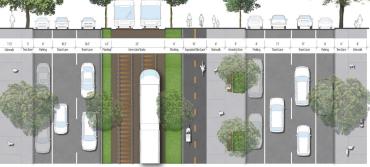
Inner Core Trends

CONNECTION TO EDGEWATER TRAIL

OSCEOLA ST

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- Increased from 37 projects to
 Initiation and PRC approvals new projects
- Bicycle and Pedestrian Prog
 - Arlington, Belmont, Boston, Brookline Cambridge Milton, Newton all have new approvals



OSTON

Minuteman Advisory Group and MetroWest

- Increased from 7 each to 15 in MAGIC, 10 in MWRC
- More distributed interest and engagement
- Strong interest in Design Pilot
- Community Connections projects being explored
- Likely to emerge as key growth area for Transit Transformation as well

Northern Suburbs and North Shore

- NSPC from 8 to 10, NSTF from 13 to 18
- Subregion historically well engaged with TIP process, steady progress in design, initiation
- Vulnerable user safety is most prominent trend

Southwestern Subregions

- SWAP from 16 to 23, TRIC 11 to 14
- Most of the growth is in complete streets
- But only four communities account for all new projects
- Getting projects initiated and designed is the key barrier

South Shore Coalition

- Increase from 6 to 7 projects with Hull's Nantasket Avenue Redesign project
- Engagement has been tricky, working with MAPC for comprehensive planning and strategy there
- Key resilience and trail gap concerns





Update on FFY 2025 Design Pilot

December 14, 2023

Ethan Lapointe TIP Manager, MPO Activities

Boston Region Metropolitan Planning Organization

Presentation Overview

- Design pilot functions
- Applications trends thus far
- Likely scenario themes, challenges
- Discussion



Design Pilot Features

- Funded with \$4 million, but only \$3.2 million can be awarded
- Award is for FFY 2025, new design work only
- Can fund any level of design
- Contracts are held by MassDOT, municipality involved in RFP process and reimbursed for expenses

Trends in Applications

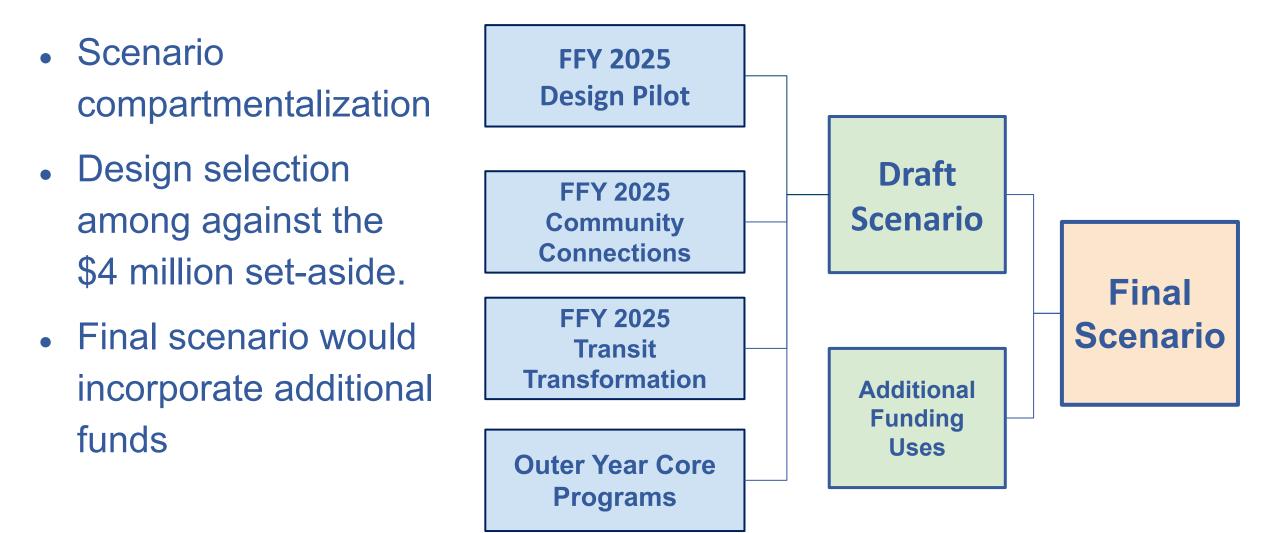
- High volumes of dedicated bike/ped infrastructure
 - Mostly trails projects, some short-range connections
- Intersection safety projects popular as well
- Complete Streets is a lagging area
- Double-edged sword of strong interest
 - Validates demand for program, justifies demand in future years



Insufficient resources to support most applications



Scenario Strategy



Scenario Priorities

- For the design pilot, some areas will be emphasized more heavily
- Greater scores and consistency with MPO objectives
- Municipalities without TIP projects vs. municipalities with staff capacity, experience



