

Draft Memorandum for the Record

Boston Region Metropolitan Planning Organization

TIP Project Cost Ad Hoc Committee Meeting Summary

July 8, 2021, Meeting

10:00 AM–12:00 PM, Zoom Video Conferencing Platform

Eric Bourassa, Chair, representing Marc Draisen, Metropolitan Area Planning Council (MAPC)

Materials

Materials for this meeting included the following:

1. [Boston MPO Municipal Contributions Memorandum](#)
2. [MassDOT Pre-25 Percent Design Scoping Procedure](#)
3. [Sample MassDOT Project Review Committee Approval Letter](#)

Meeting Agenda and Summary of Discussion

1. Introductions

E. Bourassa called the meeting to order, read the accessibility statement, and called the roll of attendees.

2. Public Comments

There were none

3. Discussion of Transportation Improvement Program (TIP) 25 Percent Design Programming Options—*Matt Genova, MPO Staff*

M. Genova reviewed project cost increases across project types. M. Genova stated that in the sample of 50 projects the MPO has funded since federal fiscal year (FFY) 2016, projects have been first programmed in the TIP just after approval by the Massachusetts Department of Transportation's (MassDOT) Project Review Committee (PRC), and at the 25 percent and 75 percent design stages. M. Genova displayed the percent cost change in this sample by the initial design stage at which the projects were programmed. The largest cost changes occurred with projects programmed after PRC approval, and the smallest cost changes occurred with projects programmed at 75 percent design.

M. Genova reviewed current project requirements after PRC approval. Within two years, a project proponent must receive MassDOT's approval of the project scope, secure a

signed contract with a design consultant, and identify full design funding. If these milestones are not reached in two years, proponents are required to resubmit project plans to the PRC. Resubmission to PRC also may be required if there is a significant cost increase or change in scope.

M. Genova shared a timeline of project development through 25 percent design. Details are available in the support materials posted on the MPO's online meeting calendar.

M. Genova presented three TIP programming options. Option 1, named *High Flexibility, High Uncertainty*, makes no changes to the MPO's current policy and allows projects to be programmed in the TIP at any time after PRC approval. M. Genova stated that a benefit to this approach is that it maximizes the number of projects that the MPO can consider for funding in any given TIP cycle. This option provides municipalities an early capital funding commitment. The drawbacks to this option are that it fails to mitigate cost increase risks to the MPO and maximizes the potential for projects to change from the MPO's original evaluation.

M. Genova shared Option 2, named *Low Flexibility, Low Uncertainty*, which requires projects to reach 25 percent design approval before TIP programming. This approval has not been required in at least the last nine TIP cycles. The benefits are that Option 2 mitigates a significant portion of cost increase risk to the MPO and minimizes potential for projects to change from the original scoring. The drawbacks are that it limits the number of projects the MPO can consider and requires municipalities to fund 25 percent design without certainty of capital funding.

M. Genova shared Option 3, *Moderate Flexibility, Moderate Uncertainty*, which requires projects to reach pre-25 percent scope approval before TIP programming, similar to the Cape Cod Commission's requirements. Option 3 mitigates some cost increase risk and reduces some potential for projects to change from original scoring. The drawbacks include limiting the number of projects the MPO can consider and requiring municipalities to fund 25 percent design without certainty of capital funding.

M. Genova said that the MPO can consider more options, such as some already suggested by the board, including the incorporation of scaled cost contingency based on design stage at programming or the programming of projects at any stage while requiring proponents to cover increases.

Discussion

Ken Miller (Federal Highway Administration) asked for clarification on when the MPO evaluates projects. M. Genova replied that the MPO staff primarily scores projects after PRC approval, but they may start evaluating projects prior to this milestone if the project

is awaiting approval at the next PRC meeting. If the project is scored but not approved by the PRC, MPO staff remove it from the list of projects considered for TIP funding that year. K. Miller asked how MPO staff respond to proponents who receive a low evaluation score. M. Genova responded that all project proponents have an opportunity to review their draft scores and provide feedback. Then MPO staff prepare final scores.

John Romano (MassDOT Highway) stated that the change in project costs between PRC approval and 25 percent design occurs because that is the period of time when the project is being fully scoped. Many things change between PRC approval and the 25 percent design hearing because of community input, MassDOT recommendations, and utilities assessments.

E. Bourassa stated that previously the MPO programmed projects at 25 percent design submission prior to the project's design public hearing. E. Bourassa said that over the past decade the MPO has developed more detailed project evaluation criteria and has become more willing to score projects prior to reaching 25 percent design. E. Bourassa stated that it might be more effective to return to waiting until 25 percent design submission.

L. Diggins asked if it is possible for the MPO to fund design. K. Miller stated that design is a federally eligible expense. E. Bourassa responded that if the funds are used for design, there are fewer funds for construction. If the MPO funds design, it has to commit to funding the whole project. K. Miller stated that if federal funding is used for design and a project does not go to construction within ten years, then the federal government can ask for the funds back. L. Diggins said that part of his reasoning for considering funding design was to help projects that align with MPO goals get in the TIP, especially when funding design can be challenging for some communities.

Ben Muller (MassDOT Office of Transportation Planning) stated that it is prudent for the MPO to decrease the risk from cost increases. B. Muller asked to hear more about what capacity the MPO staff requires to support projects, especially those that are regional or Long-Range Transportation Plan (LRTP) priorities.

Tom Bent (Inner Core Committee, City of Somerville) stated that he hears frequently from municipalities concerned about losing money spent on project design if projects are not approved for capital funding in the TIP. T. Bent stated that an approach between Option 2 and Option 3 is an ideal policy option.

E. Bourassa asked for more details on what is required for PRC approval and 25 percent design. M. Genova described how the PRC submission includes a statement of need, describes existing issues in the project area, and provides a basic proposal for

addressing these issues. The 25 percent design submission includes the full engineering draft documents that have detailed plans. Option 3 is an interim step between PRC and 25 percent design where MassDOT has worked with the proponent to understand the needs, but the consultant has not submitted formal plans.

B. Muller added that the pre-25 percent scoping list helps assess risks and identifies potential hold ups in the project development process. E. Bourassa asked if this step is part of the formal process. B. Muller replied that it is a formal step as of March 2021. Previously, the process was relatively informal. E Bourassa said that his only concern would be that prior to 25 percent design there is more potential for cost increase.

Brian Kane (MBTA Advisory Board) commented that in these discussions, there is an assumption that the project would not be funded by any other source. B. Kane stated that cities and towns do have other options aside from the MPO to get funding for projects.

E. Bourassa reiterated the question about the implications to LRTP projects. M. Genova responded that for projects in the LRTP, the MPO still has to decide on the specific years the project will be programmed on the TIP. B. Muller added that there are also regional priorities that might be in communities that do not have the capacity to push them forward or move as quickly, but the MPO should still consider programming those projects. E. Bourassa asked for an example. B. Muller offered an example of an existing bike connection that would fill a gap in the network that happened to be in a municipality unable to move the project quickly through development. Such a project may be more important to the MPO as a regional network benefit than another project in a municipality that has the ability to quickly develop. B. Muller stated that for a high-scoring priority project there needs to be some potential for flexibility in the rules and the ability to provide some support to move that project ahead.

Anne McGahan (MPO Staff) stated that the MPO adopted a policy in 2020 that all Major Infrastructure projects will be rescored when they are ready for programming in the TIP.

L. Diggins asked if the MPO had the opportunity to review the LRTP Universe of Projects each LRTP cycle to see if any projects that had not made progress could be removed from the LRTP. A. McGahan confirmed that if the projects were not moving forward, the MPO could discuss removing them from the plan.

L. Diggins affirmed B. Muller's point and added that there could be equity concerns with smaller communities that cannot advance projects quickly. L. Diggins stated that transportation projects affect more than just the people in the area of the project.

4. Discussion of Potential Cost-Effectiveness Policies—*Matt Genova, MPO Staff*

M. Genova shared the goals for cost-effectiveness scoring, which include providing a measure of project efficiency in accomplishing MPO goals, acting as a tool for reevaluating projects when scopes change, and encouraging project proponents to value engineer their projects to seek more efficient ways to achieve the same benefits.

M. Genova explained that MPO staff tested three methods for cost-effectiveness scoring. The first was a measure of points per \$1 million, which divides the project score by cost and multiplies the result by one million. M. Genova displayed the test results on the sample projects by project cost and project type. In Test Two, project costs were divided by a valuation score producing a cost-effectiveness measure of cost per point.

M. Genova recapped that these two cost-effectiveness scoring tests resulted in low-cost projects faring best regardless of how they scored using the MPO's evaluation criteria. Given that outcome, Test Three was designed to provide more nuanced results. Test Three utilized the Atlanta-Region Transit Link Authority's Four-Quadrant Model test where project score is plotted against cost per point with tiers created to prioritize projects for funding.

M. Genova described Atlanta-Region Transit Link Authority's project prioritization process, which incorporates project evaluation criteria, project ranking by project type, project ranking across all projects, the cost-effectiveness tiered ranking, and plan level evaluation. M. Genova stated that the Four-Quadrant Model test produces more nuanced results and recognizes that low scoring projects may still be worth funding if they are also relatively affordable on a cost-per-points basis and that high cost-per-point projects may still be worth funding if they score well relative to their peers.

M. Genova reported that both systems rely on the project evaluation score as the sole measure of benefit and do not include cost per mile, cost per user, or a similar measurement.

Discussion

K. Miller stated that just using the points to measure cost effectiveness would result in higher cost projects always having a lower cost-effectiveness score. K. Miller shared that cost-effectiveness measures could incorporate multiple elements such as cost per unit and cost per mile to help the MPO make a decision.

E. Bourassa stated that the aim of the committee is to develop a policy that goes further than just covering cost increases of committed projects and gives the MPO the option to

only provide the money that the MPO has already programmed, or ask the project proponent to change their project or scale it back, or accept the cost increase because the changes align with MPO goals.

T. Bent stated that one of the frustrations in the previous TIP cycle was there were a lot of last-minute cost changes from municipalities and MassDOT. T. Bent said that the MPO wants to ensure that when project proponents submit TIP projects, all the costs are accurate. T. Bent stated that the MPO should be able to decide not to provide full funding for projects when costs go up. Project cost increases cause other projects, that could be eligible for funding, to be pushed back another year or not considered for funding. T. Bent stated that the MPO needs to ensure that consultants include MassDOT's requirements, such as police detail funding, in cost estimates. T. Bent suggested increasing the four percent inflation factor. Currently, construction costs have been dramatically increasing.

L. Diggins stated that the MPO needs to either compound the inflation or increase the inflation rate. L. Diggins said that another way to look at cost effectiveness is to divide it by the subset of criteria. L. Diggins stated that the new criteria are helpful for deciding what projects to support.

E. Bourassa suggested one policy approach. If a project scores 75 points or more, the MPO would remain committed to the project. If the project scores within 50 to 75 points, the MPO would reevaluate it if the project goes up in cost using a variety of tools like the Four-Quadrant test. If a project scores below 50 points, the chances that the MPO would fund the cost increase are very low. E. Bourassa stated that he is striving for transparency for the proponents. It is hard for MPO members to deny funding for the project proponent, therefore, the MPO should be clear about cost increase policies and share it with any proponents and other interested parties early in the TIP process.

K. Miller stated that he agreed with E. Bourassa's suggestion, but shared his concern about proponents adding to the project to get a higher score. K. Miller suggested that a way to mitigate that is to use a unit-cost measure.

M. Genova suggested that a way to use cost-effectiveness scoring is to conduct an internal assessment for each project. The MPO initially scores a project at 25 percent design. If the project cost goes up by 10 percent or more, the MPO could then rescore it. Using a cost-per-point evaluation, the MPO could compare a project's initial evaluation and current evaluation.

E. Bourassa stated that for the next meeting, the committee should decide the cost increase threshold to trigger reevaluation and decide on a cost-effectiveness measure.

5. Discussion of TIP Project Proponent Engagement—*Matt Genova, MPO Staff*

M. Genova reviewed how MPO staff currently engage with project proponents and opportunities available for staff to enhance this engagement so that all stakeholders, proponents, consultants, the MPO board, MPO staff, and MassDOT can work together to keep projects on track.

M. Genova provided an annual timeline of current engagement. From February through April, proponent engagement centers around the outcome of TIP Readiness Day when MassDOT staff provide updates to MPO staff on all currently programmed projects. Any project with cost increases or schedule delays are flagged, which tends to prompt a large amount of proponent engagement. Proponents with cost or schedule issues are encouraged to come to an MPO meeting, which is why there tends to be a rush of comments submitted on the TIP between February and April. Proponent engagement slows down in the summer after the TIP has been endorsed.

M. Genova stated that much of the communication between MPO staff and proponents is focused on developing the new TIP. This means that information on current projects is often only shared in the spring when decisions need to be made by the MPO. During this period, project updates can often be inconsistent, incomplete, or unavailable. There is little time for MPO staff to track down the finer details of where every project stands, and then to share that information with the board.

M. Genova said that proponent engagement with MPO staff and the board is not explicitly required once a project has been programmed in the TIP. Proponent engagement is encouraged but there are relatively few consequences if proponents do not stay engaged. Engagement is largely driven by project-related crises like significant cost increases or prospective schedule delays.

M. Genova stated that MPO staff do engage MassDOT Highway staff and project managers throughout the year, but this interaction tends to be on an as-needed basis. There is no regular check-in time or schedule between MPO staff, MassDOT District staff, or project managers. MassDOT project managers seldom participate directly in MPO meetings.

M. Genova stated that possible new engagement options could include requiring check-ins for current project proponents either at specific times of the year or at project development milestones. Proponents could be encouraged or required to submit updated project documentation as their project design advances. MPO staff could set

regular check-ins with MassDOT Highway District staff. MPO staff could create additional materials to help guide proponents through the development process.

M. Genova stated that the MPO could require proponents to present at MPO meetings when a project changes cost or scope beyond a specific threshold. Proponents could sign an agreement with the MPO that includes certain expectations or requirements for their project's life span. The MPO could reestablish a requirement for project proponents to make a presentation to the board when they are seeking funding, providing the MPO a direct opportunity to ask questions to the project proponent. M. Genova stated that the MPO could request that proponents submit information on their project documenting its completion to provide a way to evaluate success of projects funded.

Discussion

L. Diggins asked for further clarification on MassDOT's project development process and how MassDOT handles project cost increases. B. Muller responded that MassDOT staff try to identify where there is available funding to balance the budget, and they bring this information before the MPO in a TIP amendment. The MassDOT project managers have a suite of projects they are working on and they work directly with the municipality on project development. The MassDOT District project development engineers pay close attention to the process as well. They know when a project has missed a milestone and reach out to a municipality to learn more about the circumstances.

B. Muller stated that there is a lot of opportunity for increased collaboration. Most other Massachusetts MPOs have only one highway district so it is easier to coordinate, but the Boston region has more.

E. Bourassa asked M. Genova if MPO staff have the capacity to take on the additional coordination recommendations or if it would require more resources or a tradeoff of other work. M. Genova responded that MPO staff have not had a robust internal discussion about this. M. Genova stated that the discussion will be based on the outcome of this committee, but there are ways to streamline parts of this process so that they are not necessarily labor intensive.

E. Bourassa stated that the previous TIP Days, where proponents came and presented about their projects, often took two six-hour days. E. Bourassa shared that presentations were rushed and presenters did not address issues like cost increases.

E. Bourassa stated that having a formalized regular checkup or presentation from proponents who have projects on the TIP would be positive, and he said that it is critical for proponents to explain why costs went up.

B. Muller stated that this might be an opportunity to try out a structure that would trigger more MPO staff involvement, if a particular concern arose, as far as keeping track of milestones.

E. Bourassa asked Frank Tramontozzi (City of Quincy) about his feedback on ideal project cost estimate times. F. Tramontozzi described how sometimes projects have cost increases because MassDOT District staff ask to add certain amenities. Last-minute cost increases are not necessarily the fault of the municipality or the consultant. F. Tramontozzi stated that MassDOT adds percentage contingencies for police details and traffic mitigation and management, but the contingencies may not cover all the costs. Police details are more expensive in highly urbanized areas.

E. Bourassa stated that the challenge is that the MPO is trying to establish a policy to address cost increases that is fair and clear. E. Bourassa said that the easiest solution may be for the MPO to program projects further along in the process.

E. Bourassa reviewed some of the committee's past ideas, including the consideration of funding design. E. Bourassa stated that the issue of funding design is outside the goals of the committee and the committee should focus on creating a policy addressing project cost increases. L. Diggins stated that he had been interested in exploring funding design, but after discussion he reevaluated his stance. L. Diggins said that by supporting projects the MPO is committing to communities and the MPO needs to coordinate with MassDOT. L. Diggins stated that the MPO needs to make the process better either by making fewer unexpected adjustments or by creating more of a buffer to accommodate cost changes in funding commitments.

E. Bourassa stated that the MPO could explore having more contingencies built into the cost estimates, but he shared a concern that the MPO would not be able to fund as many projects under those circumstances.

6. Members Items

There were none.

7. Next Meeting

The committee will meet on July 29, 2021, at 10:00 AM.

8. Adjourn

A motion to adjourn was made by the Advisory Council (Len Diggins) and seconded by the Inner Core Committee (City of Somerville) (Tom Bent). The motion carried.

Attendance

Members	Representatives and Alternates
Massachusetts Department of Transportation (Highway Division)	John Romano John Bechard
Metropolitan Area Planning Council	Eric Bourassa
Regional Transportation Advisory Council	Lenard Diggins
Inner Core Committee (City of Somerville)	Tom Bent
SouthWest Advisory Planning Committee (Town of Medway)	Peter Pelletier

Other Attendees	Affiliation
Amira Patterson	MBTA Advisory Board
Benjamin Muller	MassDOT Office of Transportation Planning Town of Belmont (School Committee and Community Path Committee)
Catherine Bowen	
Deborah Gaul	
Frank Tramontozzi	City of Quincy
Jon Seward	MoveMass
Ken Miller	FHWA
Matthew Peterson	TransitMatters
Michaela Boneva	
Shannon O'Brien	

MPO Staff/Central Transportation Planning Staff

Tegin Teich, Executive Director

Anne McGahan, Chief Planner

Annette Demchur, Director of Policy and Planning

Ariel Patterson, Transportation Planner

Betsy Harvey, Transportation Equity Program Manager

Matt Archer, Transportation Planner

Matt Genova, TIP Manager

Michelle Scott, Chief Planner

Sandy Johnston, UPWP Manager

Kate White, Public Outreach Coordinator

Róisín Foley, Administrative and Communications Assistant

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