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May 24, 2022

Metropolitan Transportation Commission  
375 Beale Street  
San Francisco, CA 94105

Dear Chair Pedroza and Commissioners:

Thank you for dedicating your annual workshop to the important topic of delivering the region's major transit projects more quickly, cost-effectively and with better public value.

The Bay Area's major transit projects have become slower and costlier, and are among the most expensive in the world.<sup>1</sup> When projects cost too much and take too long, we cannot afford to build many projects. Additionally, as project costs escalate, the pressure to control costs can sometimes steer design decisions in ways that compromise the very purpose of the project.

Now is the time to get ahead of these challenges. One-time federal funding available through the Infrastructure Investment and Jobs Act of 2021 and California's General Fund surplus provide an incredible opportunity to help build out the Bay Area's transit infrastructure. These funds are substantial, but finite, and must be transformative. The megaproject advancement policy (MAP) call for projects showed that the capital project wish list tops \$124 billion. Even with new federal and state investment, there will not be enough funding to meet demand.

This letter outlines our hopes for MTC's major project advancement policy and additional efforts that we recommend to occur alongside it to improve project success.

### Definitions

We adopt the following terminology to describe phases of the project delivery system in this letter.

- Strategic planning - This is the stage that establishes the vision for the transit network and service performance standards for each part of the network. Typically, this is also when a strategic business case for a project or program of projects is made.

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<sup>1</sup> Eno Center for Transportation (2021). "Saving Time and Making Sense: A Blueprint for Building Better Transit." <https://www.projectdelivery.enotrans.org>

- Project selection - This is the stage at stakeholders clearly define project outcomes and requirements, prepare conceptual project plans, and complete a second business case to rigorously assess project options, feasibility and delivery approaches to select a preferred project. This is when there are political or funding commitments made to a project. This stage includes setting up a project team and organizational capabilities for successful delivery.
- Project development - This stage typically involves completing environmental analyses, developing a detailed funding plan and work to secure funding, completing a risk assessment, selecting a project delivery option, advanced design and engineering, confirming the need for the project, and securing approvals from relevant resource and regulatory authorities. This stage includes evolving the project team and organizational capabilities for successful delivery.
- Project delivery - This stage involves procuring the goods and services needed for the project and the construction of the project. It includes determining workforce requirements, preparing the contracts for the market, bidding the contracts, pre-construction activities, constructing the project, and preparing for operations/ service. The project team evolves and/or expands again.

## Recommendations

### **I. The megaproject advancement policy should establish strong regional leadership in strategic planning, project selection and project development.**

*Several studies of real-life projects have found that the success or failure of a project is determined at its earliest stages—well before a project ever breaks ground. Some of the most common points of failure in these early stages can include:*

- Failure to translate desired regional and local goals into project requirements, design, or procurement strategy;
- Failure to rigorously evaluate all project alternatives for benefits and costs before selecting a project;
- Failure to equip the project management organization with the right capabilities and culture needed to manage risk and deliver a complex project.

Each of these problems steers cost, schedule and quality in the wrong direction. Taking time to set up projects for success in the early stages will be repaid many times over in delivery, ultimately saving taxpayers money and getting more projects in the ground.

**We therefore recommend that the major projects advancement policy establish regional leadership in the early stages of project delivery: strategic planning, project selection and project development. Key functions could include regional visioning/ planning, funding, standard-setting, evaluation, and assurance.** These functions are critical *complements* to the leadership of the project owner to set projects up for success.

**II. The major project advancement policy should establish an “outside view” to rigorously evaluate projects at key points in a project’s life cycle.**

Megaprojects take on a life of their own. Practitioners and researchers recommend establishing both internal and external assurance in tandem with external independent peer review. This helps to create a continuous “**outside view**” for evaluation and assurance to counter common pitfalls and biases while ensuring that public interest goals (cost, schedule, quality, outcomes) stay at the heart of the project over time. In other places around the world, the “outside view” is formalized in three mechanisms:

- **Business case assessment** - A business case assessment is a comprehensive approach for assessing the benefits and costs of a project and evaluating the impacts of potential transit investments. It is a key deliverable in the stage gate process, and is therefore updated several times over the course of a project’s life cycle, starting with strategic planning.
- **Stage gate process** - A stage gate process is a project evaluation and assurance technique that divides a project into phases or stages, separated at distinct decision points, known as gates. The gates typically occur at major project phase transitions and determine whether a project can move to the next stage toward delivery and operation.
- **Independent peer review** - An independent peer review is the process by which a panel of external independent experts evaluate the feasibility and reasonableness of a project sponsor and/or delivery entity’s plans and assumptions, project designs, as well as a project’s leadership and internal and external oversight structures.

Importantly, the “outside view” continues through the life of a project—it is not a one-time assessment. Though some argue that the FTA provides an outside view, the FTA only does so once the project receives federal funding and moves towards delivery. There is no such formal process during early stages of the project, which is when projects are most likely to go off track.

Though some project sponsors choose to implement these steps, in general, the Bay Area lacks a formal evaluation process that is *continuously* applied over a project’s life cycle and *consistently* applied across all major projects.

**III. The major project advancement policy should eventually be rooted in the Connected Network Plan.**

As currently described, the megaproject advancement policy is rooted in Plan Bay Area. However, we believe that the megaproject advancement policy must be a living document and be updated when the Connected Network Plan - a key action step in the Transformation Action Plan - is completed. The Connected Network Plan is the policy foundation of a more integrated and coherent public transit network. It is a strategic, long-range and mode-agnostic vision for the Bay Area’s transit network, centered on connecting people and places with high-quality service, that is used to guide strategic planning and investment decisions. The Connected Network Plan is one of the first and most important steps to take to improve project selection.

**IV. Alongside the megaproject advancement policy, consider what other organizational needs will support project success.**

We recommend that the Commission and project sponsors strive to create accountability structures and decision-making processes that can ensure project success. SPUR's research - including interviews and a task force with project delivery practitioners and literature reviews - suggests that it takes a village. There are organizations that serve **mutually reinforcing roles across project phases** to support excellence in project delivery. We encourage MTC to work with cities, project sponsors, operators, labor unions, and the state to study the value of the following:

- Centers of excellence/ expertise - These centers of excellence focus on building the highly skilled workforce needed to undertake major infrastructure programs, such as public sector project delivery professionals and underground construction expertise.
- Regional construction authority - Construction authorities focus primarily on determining a project's delivery approach and delivering a project or a program of projects (e.g., contract packaging, securing third party agreements, project management, etc) on behalf of a project owner. They do not have operating responsibilities nor project ownership responsibilities which tends to allow them to accumulate expertise and avoid distractions.
- A large regional-scale project sponsor for Bay Area megaprojects - The project sponsor (sometimes called a project owner) is the entity that is typically responsible for initiating the project and delivering a project. In the Bay Area, project sponsors tend to be existing transit agencies, which tend to deliver just one project in a generation. By contrast, in some other countries there is a dominant regional or national-scale operator that rigorously evaluates project alternatives and delivers many projects (e.g., Deutsche Bahn). Such an approach in the Bay Area would likely require consolidations of divisions of some existing transit agencies - yet could yield benefits.

In addition, we support the ongoing work to explore setting up a network manager for the region and its potential roles in the project delivery system.

Thank you for considering these ideas and your leadership in determining how the Bay Area can build transit projects more quickly and cost effectively—big and small. We will not be able to meet our climate, equity and economic goals without dramatically transforming the way we move.

Sincerely,

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