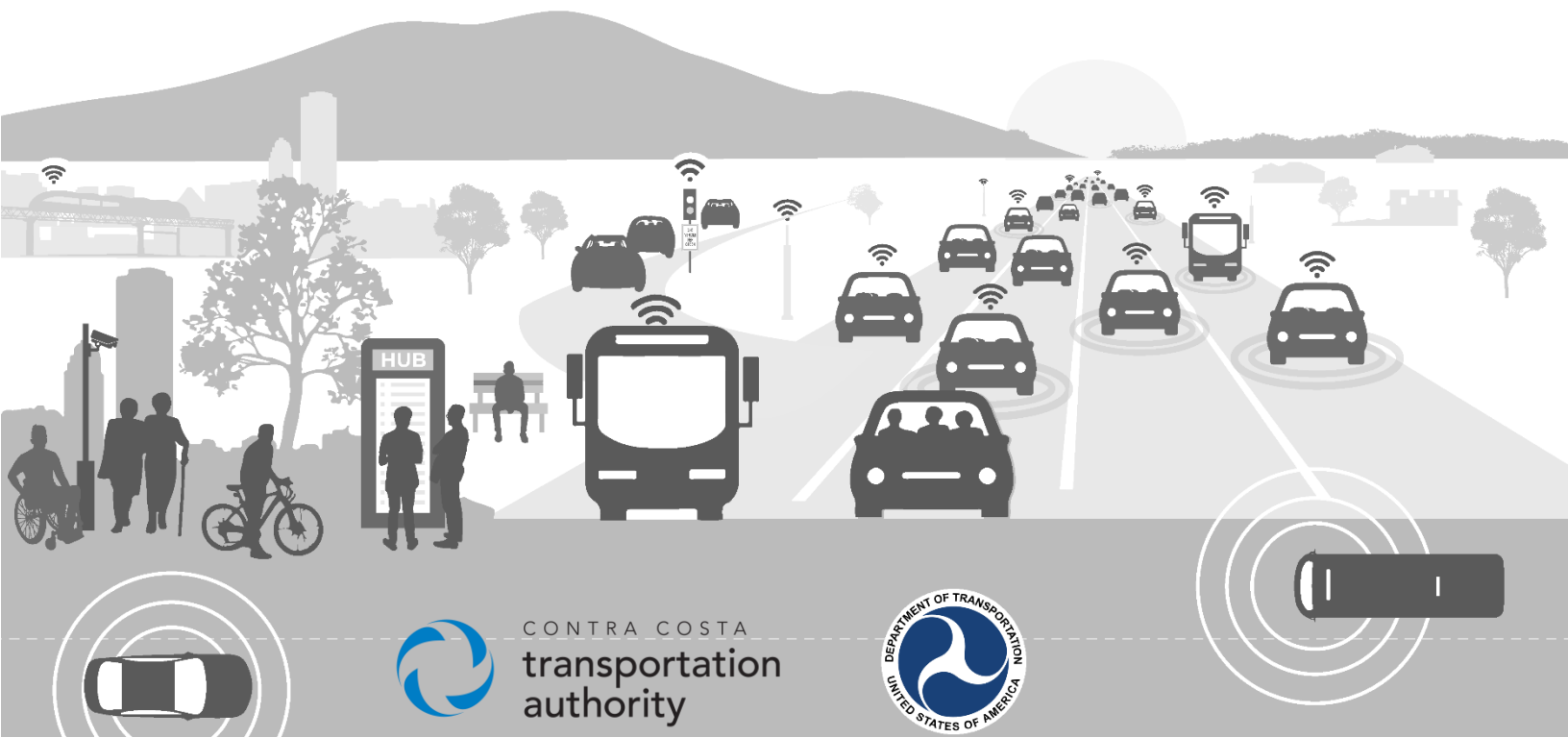


Multimodal Projects Discretionary Grant (MPDG) - Mega

Section 7 | Project Requirements

INNOVATE 680
IMAGINE THE POSSIBILITIES

Access the *Innovate 680* program resource webpage [here](#).



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7 | Statutory Project Requirements



The Combined Project meets all the funding requirements of the Mega and Infra grant application guidelines. Table 16 below indicates specific funding program requirements and links to applicable supporting documentation. An easily accessible [Innovate 680 MPDG webpage](#) has been created that includes application attachments and resources. Access the resource webpage [here](#).

TABLE 16: MPDG Program Requirements

(Check Mark Denotes Meeting Program Statutory Requirements per NOFO; "NPR" denotes Not a Program Requirement)

MPDG Program Requirements	Mega	INFRA Large	Application Section
1 Generate national or regional economic, mobility, or safety benefits			
<p>The Innovate 680 Combined Project adopts a comprehensive, multimodal strategy to enhance mobility with innovative transportation strategies to optimize corridor efficiency and promote a transition from SOV to public or shared transportation. This approach aims to improve operational efficiency, ensure reliable travel times, enhance safety, and alleviate corridor congestion. Recognized as a Route of Regional Significance and a key connector in the Bay Area Mega Region Global Gateway, the I-680 corridor is also part of the NHS and NHFN. The efficacy of the Combined Project in fulfilling these roles is examined in Sections 4 and 5, with additional specifics provided for each individual project component in Table 17 below.</p>			<p>Section 4, Outcome Criteria</p> <p>Section 5, BCA Attachment A, BCA Narrative</p>
2 The project will be cost effective			
<p>The Combined Project has an NPV of \$399.8 million in discounted 2022 dollars, resulting in a BCR of 2.64. The Internal Rate of Return for the project is 12% with a Payback Period of 12 years.</p>			
<p>The Shared Mobility Hubs component project has an NPV of \$22.5 million in discounted 2022 dollars, resulting in a BCR of 1.46. The Internal Rate of Return for the project is 4% with a Payback Period of 19 years.</p>			<p>Section 5, BCA Attachment A:</p> <ul style="list-style-type: none"> – BCA Narrative – BCA Analysis
<p>The Express Lane Completion component project has an NPV of \$246 million in discounted 2022 dollars, resulting in a BCR of 2.66. The Internal Rate of Return for the project is 10% with a Payback Period of 13 years.</p>			
<p>The CARM component project has an NPV of \$155.1 million in discounted 2022 dollars, resulting in a BCR of 4.38. The Internal Rate of Return for the project is 21% with a Payback Period of 10 years.</p>			

3	The project will contribute to 1 or more of the national goals described under 23 U.S.C. § 150	The Combined Project and component projects will contribute to all of the national goals described under 23 U.S.C. § 150, including safety, infrastructure condition, congestion reduction, reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. See Table 17 below.	NPR	<input checked="" type="checkbox"/>	Section 4, Outcome Criteria Section 5, BCA Table 17 below
4	The project is based on the results of preliminary engineering	The three component projects under the Combined Project have completed preliminary engineering and studies, in coordination with stakeholders, to determine feasibility and to define scope, costs and schedule.	NPR	<input checked="" type="checkbox"/>	Section 3, Budget Section 6 Project Readiness
5	With respect to related non-federal financial commitments, 1 or more stable and dependable sources of funding and financing are available to construct, maintain, and operate the project, and contingency amounts are available to cover unanticipated cost increases	The Combined Project has secured close to \$167 million in funding, the \$213 million in MPDG funds requested are required to fully fund the \$380 million Combined Project. Each project component has independent utility such that the Combined Project is scalable based on available funding. A funding plan detailing Federal Funding Sources and any required non-Federal match for future eligible project costs is documented in Attachment C . Match funding are from multiple dependable and stable fund sources including RM3, STIP, SHOPP, and Measure J. Documentation supporting these funding commitments are include in Attachment C . Reasonable contingencies have been applied to the cost estimates to ensure sufficient funding to cover unanticipated cost increases.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 3, Budget Attachment C, Funding Commitments
6	The project cannot be easily and efficiently completed without other Federal funding or financing available to the project sponsor	The Combined Project as well as each project component requires MPDG to fund the construction phase. While CCTA has been successful in securing other fund sources for pre-construction phases, funding shortfalls for construction are difficult to bridge since other grant opportunities have smaller funding capacity. MPDG funding opportunity is the most suitable grant to seek funding for large construction projects. If MPDG is not received, project costs will increase due to cost escalations over time.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 3, Budget Attachment C, Funding Commitments
7	The project is reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project	Previously secured funding will be utilized for pre-construction phases which are currently underway. The requested MPDG funding will cover the construction costs of SMHs, Express Lane Completion, and CARM component	NPR	<input checked="" type="checkbox"/>	Section 6 Project Readiness

projects. The requested funds will also cover the operation costs of SMHs and CARM. The Combined Project can begin construction no later than 18 months after funding obligation, when agreements are executed. CARM Segment 1 has received environmental clearance and will be the first component project to begin construction in January 2026. Construction of SMHs is expected to occur in 2026. The Express Lanes Completion and CARM Segment 3A are expected to begin construction in 2027. CCTA will be able to obligate MPDG funds by 9/30/2028.

8 The applicant has sufficient legal, financial, and technical capacity to carry out the project

CCTA has a long and successful history of partnering with federal, regional, state, and local agencies as well as with its consultants and contractors to successfully deliver over \$2.8 billion of transportation projects in the last 14 years. CCTA has the legal, financial, and technical capacity to carry out the Combined project. CCTA’s financial acumen is demonstrated through its strategic management of funds and resources, ensuring the successful delivery of complex, multi-faceted and innovative transportation initiatives. This solid track record positions CCTA to confidently manage and execute the Combined project, maintaining the highest standards of quality and effectiveness.



NPR

[Section 6
Project
Readiness](#)

9 The application includes a plan for the collection and analysis of data to identify the impacts of the project and accuracy of forecasts included in the application.

A Data Plan has been prepared for the Combined Project that details how the technical team will collect and handle data and prepare the required reports, during and after the period of performance. The Data Plan includes the following:

- **High-Level Goals:** CCTA will monitor the project to achieve goals related to improving economy, mobility, and safety while maintaining cost-effectiveness.
- **Key Performance Indicators (KPIs):** Section 1.4 of Chapter 1 identifies KPIs mapped to criteria defined in the NOFO.
- **Data Types and Sources:** Chapter 2 describes data types, standards, metadata, and sources used for data collection.
- **Data Gathering Process:** Chapter 3 explains the process of data collection.
- **Data Analysis Approach:** Chapter 4 outlines the approach for analyzing data, including baseline, predicted project characteristics, and monitoring.
- **Access Policies:** Chapter 5 covers access restrictions and sharing policies.
- **Data Storage:** Chapter 6 specifies data storage location, policies, requirements, and tools.



NPR

[Attachment F,
Mega Data Plan](#)

TABLE 17. PROJECT IMPACTS AND BENEFITS SUMMARY – BY COMPONENT PROJECT

MPDG Outcome Criteria/Benefit	Description	Monetized (Discounted 2022 \$M)	National goals under 23 U.S.C. § 150
Shared Mobility Hubs			
<u>Criterion #1:</u> Safety	Enhanced access facilities including installation and extension of dedicated bicycle lanes lead to 27% reduction in collisions based on FHWA CMF database.	\$15.7 M	Safety
	Reduction of daily auto VMT leads to additional reduction of crashes across the region due to fewer miles driven.	\$0.9 M	
<u>Criterion #2:</u> State of Good Repair	Multimodal facilities reduce daily auto VMT and pavement damage by shifting to transit/active modes.	\$0.1 M	Infrastructure Condition
	Estimated reduction in daily VMT leads to reduction in overall vehicle operations and maintenance costs across 20 full years of operations.	\$27.6 M	
<u>Criterion #3:</u> Economic Impacts	Reduction of Daily auto VMT leads to congestion reduction benefiting the commuters in the corridor and the overall county.	\$7.3 M	Economic Vitality, Congestion Relief
<u>Criterion #4:</u> Climate Change/Environment	Reduced auto daily VMT together with increased speeds lead to corresponding reduction in GHG (23,700 tons of CO ₂), NO _x (2.8 tons), and SO _x (0.2 tons) emissions benefiting communities across the corridor. Reduced daily VMT also leads to regional-level emission reduction.	\$5.5 M	Env. Sustainability
<u>Criterion #5:</u> Equity/Multimodal/Quality of Life	The benefits of the enhanced facilities include improved ride quality, comfort, and access to real-time information for riders. The establishment and expansion of dedicated bicycle lanes provide active transportation and increased safety benefits to all cyclists. Additionally, there are health advantages and a reduction in mortality rates for those who switch to active transportation. Communities near the corridor also experience better noise levels due to the decrease in daily automobile VMT. The Martinez Amtrak Station SMH is located in a DAC, and will benefit communities of concern. Utilizing alternative fuel for ZEH I-680 Express Bus will also reduce carbon impact for a better environment.	\$15.3	Env. Sustainability, Reliability
Express Lane Completion			
<u>Criterion #1:</u> Safety	Conversion of an HOV lane to an Express Lane would result in a 20% reduction in collisions based on FHWA's Crash Modification Factor applicable to urban site conditions and collisions of all types. Braided Ramps will eliminate unsafe weaving movements.	\$109.5 M	Safety
<u>Criterion #2:</u> State of Good Repair	Improvements have a 20-year life with no residual value, equal to the analysis period.	\$0.0 M	Infrastructure Condition
<u>Criterion #3:</u> Economic Impacts	Converting HOV lanes to express lanes saves travel time at both corridor and county levels, with 1.8 million person-hours saved in the first year and 26.2 million over 20 years, due to increased throughput and speed.	\$314.9 M	Economic Vitality, Congestion Reduction

MPDG Outcome Criteria/Benefit	Description	Monetized (Discounted 2022 \$M)	National goals under 23 U.S.C. § 150
<u>Criterion #4:</u> Climate Change/Environment	Incentive-based mode shift from SOV to HOV enhance network use, boosting person-throughput and cutting congestion and related emissions—about 98,000 tons of CO2, 0.6 tons of SOX, and 70.1 tons of NOX. Expected corridor speed improvements and a TDM Program will mitigate for VMT, leading to an overall drop in emissions over time.	\$26.6 M	Env. Sustainability
<u>Criterion #5:</u> Equity/Multimodal/Quality of Life	The project optimizes the productivity of I-680 to yield a more reliable and stable traffic flows, reducing the impact of traffic diverting into neighborhoods along I-680 corridor to avoid freeway congestion, especially in the disadvantaged census tracts located in Concord and Walnut Creek. A complete express lane network will also provide reliable transit travel time, enhancing multimodal experience.	Qualitative Benefit	Congestion Reduction, Reliability
Coordinated Adaptive Ramp Metering			
<u>Criterion #1:</u> Safety	Application of adaptive ramp metering is expected to reduce collisions of all types by at least 8% based on FHWA's CMF for the proposed countermeasure for both Segments 1 and 3A.	\$69.6 M	Safety
<u>Criterion #2:</u> State of Good Repair	Recapitalization of CARM software and detection infrastructure occurs in 10-year cycles while the analysis period is extended to account for 20 full years of operations. The strategic recapitalization investment rejuvenates the CARM component project to a state of good repair.	-\$30.8 M	Infrastructure Condition
<u>Criterion #3:</u> Economic Impacts	The application of real-time and predictive traffic management is projected to lead to a 2% reduction in morning peak travel times and a 10% reduction in evening peak travel times, resulting in less congestion, smoother traffic, and faster average speeds. These benefits are projected to save 1.2 million person-hours in the first year and 15.4 million hours over 20 years, taking into account the increasing demand on the corridor.	\$183.0 M	Congestion Reduction, Reliability
<u>Criterion #4:</u> Climate Change/Environment	GHG (around 29,600 tons CO2 reduction), NOX (17.7 tons), and SOX (0.2 tons) Emission reductions due to an increase in freeway speeds with the reduction of weaving movements across the corridor segments where CARM is implemented	\$8.7 M	Envi. Sustainability
<u>Criterion #5:</u> Equity/Multimodal/Quality of Life	Deploying adaptive ramp metering technology will smooth traffic flow and reduce congestion on I-680 and on ramps. This minimizes diversion to local communities and reduces queue spillbacks to local streets. These can have positive impacts to Concord and Walnut Creek, which have disadvantaged census tracts.	Qualitative Benefit	Congestion Reduction
All Component Projects	The planning and management of the Combined Project is covered by an Innovation Team Master Cooperative Agreement to streamline delivery, achieve greater cost efficiency, and improve Combined Project outcomes.	Qualitative Benefit	Reduced Project Delivery Delays