

2021
UPDATE

NEXT 10

DELIVERY PLAN

2021-2030
DRAFT



DECEMBER 2021



On December 13, 2021, the Orange County Transportation Authority Board of Directors (Board) will consider the adoption of the Draft 2021 Updated Next 10 Delivery Plan (Next 10 Plan). Per Board approval on December 14, 2020, the timeframe of the Next 10 Plan was shifted from fiscal year (FY) 2016-17 through FY 2025-26 to FY 2020-21 through FY 2029-30. As such, original commitments have been reviewed and adjusted accordingly. The Draft 2021 Updated Next 10 Plan also incorporates refined project information, including cost estimates, schedules, and available external funding.

Printed December 2021

**For the latest version of the Next 10 Plan,
including any edits or corrections,
please visit: www.octa.net/Next10**

**For status updates on M2 projects and programs,
including quarterly progress reports,
please visit: www.octa.net/m2**

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2021
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NEXT 10

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Introduction

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2021 UPDATE **NEXT 10** DELIVERY PLAN



Introduction

On November 7, 2006, Orange County voters, by a margin of 69.7 percent, approved the renewal of the Measure M one-half cent sales tax for transportation improvements. Voters initially endorsed Measure M (M1) in 1990 with a sunset in 2011. With the approval of Renewed Measure M2 (M2), the voters agreed to a continued investment of local tax dollars in Orange County's transportation infrastructure for another 30 years to 2041.

Since M2 (also branded externally as OC Go) approval, the Orange County Transportation Authority (OCTA) Board of Directors (Board) has continued to pursue the expeditious implementation of M2 through the adoption of a series of early delivery plans. These early delivery plans are designed to ensure the delivery of all projects and programs as promised to the voters. The goal is to bring transportation improvements to Orange County residents and commuters earlier, and as appropriate, address changes in sales tax revenue projections through strategic financing and augmenting the M2 Program with external revenue. To date, there have been three early delivery plans: Early Action Plan (EAP) adopted in 2007, M2020 Plan adopted in 2012 (intended to go through 2020), and the Next 10 Delivery Plan (Next 10 Plan) adopted on November 14, 2016. Due to changes in sales tax revenue projections, the M2020 Plan was replaced after four years with the Next 10 Plan that covered fiscal year (FY) 2016-17 through FY 2025-26. In December 2020, the Board approved a shift of the Next 10 Plan timeframe to span FY 2020-21 through FY 2029-30. See the M2 Timeline on the following page.

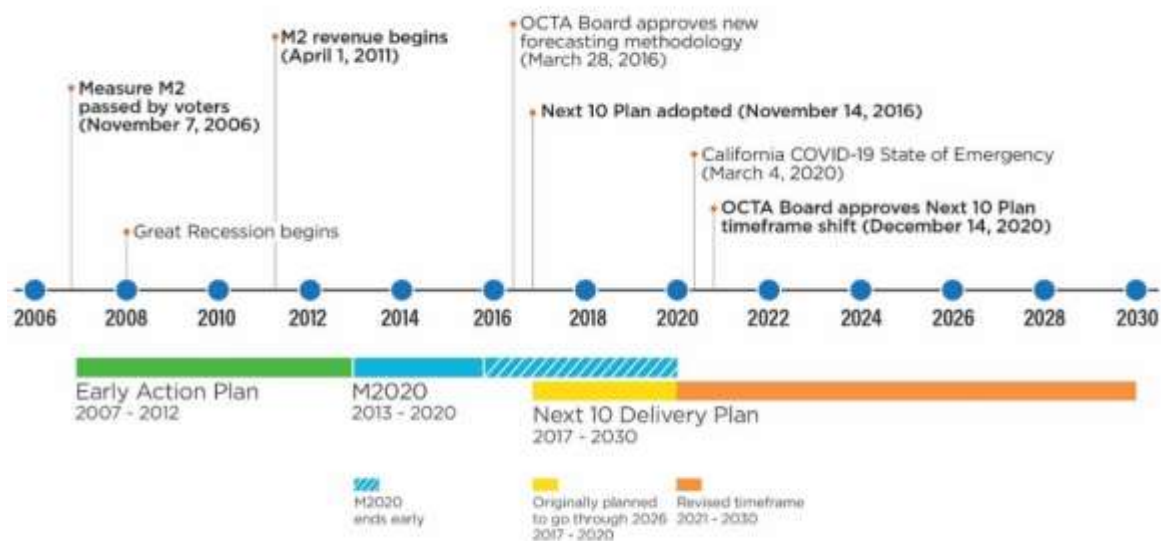
To ensure and reconfirm the ability to deliver the Next 10 Plan, annual reviews and updates have incorporated changes in sales tax revenue forecast assumptions, external revenue, and project cost and schedule refinement.

A summary of the adopted plans and annual updates of the base assumptions follow:

- The 2016 Next 10 Plan set M2 project and program priorities based on a revenue forecast of \$14.2 billion through 2041. The Next 10 Plan revenues were augmented by net excess 91 Express Lanes revenue, in an amount not to exceed the project costs for two eligible projects on State Route 91 (SR-91) - Project I between State Route 57 (SR-57) and State Route 55 (SR-55) and Project J between State Route 241 (SR-241) and the Riverside County line. Net Excess 91 Express Lanes revenue is designated to improvements on the 91 Corridor.

- The 2017 update incorporated a revised \$13.5 billion revenue forecast and required bonding adjustments and inclusion of the full amount of eligible excess 91 Express Lanes revenue. The update also designated Project I as one of the priority projects for advancement and included plans to initiate construction by 2026.
- The 2018 update incorporated a revised \$13.1 billion revenue forecast. The impact of the lower forecast was offset by an early \$300 million increase in captured external revenue. The update also responded to construction market concerns of potential project cost increases in the freeway program by incorporating a program level line item for economic uncertainty to ensure OCTA could weather fluctuations in M2 revenue receipts. The 2018 update anticipated up to four bond issuances during the Next 10 Plan period to accommodate market changes if necessary.
- The 2019 update incorporated a revised \$13.4 billion revenue forecast, which was the first increase in the M2 forecast since 2014. The increase was driven by the growing economy and the implementation of the Wayfair decision in California. The Wayfair decision required internet sellers to collect sales tax for out-of-state transactions and remit the revenues to the state. As a result of this decision, increased sales tax receipt assumptions were incorporated in the short-term forecast provided by MuniServices, LLC, which increased the overall long-term forecast.
- The 2020 update incorporated a revised \$11.6 billion revenue forecast, the lowest since M2 inception. The substantial decrease was driven by uncertainties regarding the economic impacts of the coronavirus (COVID-19) pandemic. The update also shifted the timeframe from FY 2016-17 through FY 2025-26 to FY 2020-21 through FY 2029-30 for more strategic, forward-thinking planning and adjusted commitments as appropriate. This update revised the bonding assumptions to maintain progress on near-term projects and prepare additional projects for delivery.

M2 Timeline



2021 Review

While the COVID-19 pandemic negatively impacted sales tax revenue through the first half of FY 2020-21, the second half of the FY showed tremendous growth as the Orange County economy began emerging from the pandemic. Though restaurants, gas stations, and brick and mortar retail continued to be impacted in FY 2020-21, the impacts were more than offset by increased online purchases and the benefit of collecting sales tax on out-of-state online purchases, made possible by the Wayfair decision. As a result, sales tax collections for FY 2020-21 grew by 8.6 percent to \$345 million, which is the highest annual sales tax collection for M2. Based on the strong sales tax growth in FY 2020-21 coupled with more optimistic near-term economic recovery, the 2021 sales tax revenue forecast for M2 is \$13.2 billion. The revised forecast was presented to the Board on September 27, 2021 and represents a \$1.6 billion gross increase from what was assumed in the prior year's forecast.

Staff has reviewed and updated the cash flow for the complete M2 plan of projects and programs. The 2021 update incorporates the higher M2 sales tax revenue forecast, current programmed external revenues, revised bonding assumptions, and refined project cost estimates. Through this process, staff has confirmed that the M2 Program remains deliverable.

Next 10 Plan Delivery Risks

While the M2 Program continues to demonstrate financial viability, OCTA remains cognizant of the delivery risks of M2 projects and programs. A table of identified risks are included on pages 6 through 8 with two key risks highlighted below.

Funding – While the 2021 sales tax revenue forecast of \$13.2 billion is good news, it is still \$200 million less than the pre-pandemic 2019 sales tax revenue forecast. Coupled with the high inflationary cost environment forecasted for 2022 through 2024, a significant amount of risk remains as increases in expenses could net out the forecasted increase in revenues. In addition, state and federal transportation policies continue to shift, which could reduce access to future external funding opportunities for the M2 Freeway Program. Current external funding commitments are assumed in the M2 cash flow for the 2021 Next 10 Plan, but prospects of future revenues for highway projects are low. This is because current state policies favor projects that reduce automobile travel. These policies are more suited to the advancement of transit projects where OCTA has more flexibility in defining the scale the scope of the projects. However, external funding for transit capital projects are contingent on defined project scopes. Future updates of the Next 10 Plan may include these projects and are dependent on progress of project development activities.

Regulatory Risks – Current state planning and project approval policies place great emphasis on reducing travel by automobile and encourage project alternatives that promote short trips where possible, such as travel by transit, bicycling or walking, and use

of zero-emission vehicles. These requirements will affect the project environmental review process. The majority of M2 freeway projects, where this risk could manifest itself, have obtained the necessary approvals, but if the approvals require a review or revision, these new requirements could impact delivery.

A summary table of the risks, explanations, and suggested management actions are identified on the following pages and are tracked and reported in the M2 Quarterly Progress Reports presented to the Board, following each fiscal year quarter.

Risk		Explanation	Action
	Low		Moderate
Financial			
1	The 2021 M2 revenue forecast is \$13.2 billion, which is a \$1.6 billion (13.8 percent) year-over-year increase from the 2020 forecast. While this is good news, it is still \$200 million less than the pre-pandemic 2019 M2 sales tax forecast. Major swings in future revenue projections may further challenge delivery.	Sales tax revenues were impacted by the Great Recession and the COVID-19 pandemic. Changes in consumer spending habits and the 2018 Wayfair decision have impacted sales tax revenues.	The higher 2021 forecast provides a positive change; however, staff will continue to monitor sales tax revenue actuals and review the Next 10 Plan annually to ensure delivery of M2 as promised to voters.
2	Reduced external funding opportunities for the M2 freeway program.	State and federal priorities continue to shift and favor projects that reduce automobile travel, which limits future external funding opportunities for the M2 freeway projects.	Only adopted external funding commitments are assumed in the M2 cash flow for the 2021 Next 10 Plan, which combined with 91 Express Lane and M2 revenues, shows there is adequate financial capacity to deliver the freeway program.
3	Potential for an environment of increasing cost as M2 capital projects are readied for construction.	The fall 2021 update of the Next 10 Plan Market Conditions Forecast and Risk Analysis reflects a high inflationary environment from 2022 through 2024. This is driven by increases in construction wages, building permits, and construction materials.	To further protect against potential cost increases in the M2 Freeway Program, an 11 percent expense line item has been incorporated in the 2021 M2 cash flow at the program level for an economic uncertainty allowance. The Next 10 Plan Market Conditions Forecast and Risk Analysis report is updated biannually and provides a three-year look ahead. OCTA will continue to monitor bid results and market conditions affecting project costs.

Risk	Explanation	Action
4	Inability to scale the M2 Freeway Program to available revenue and still deliver the M2 commitments.	OCTA will work closely with the California Department of Transportation (Caltrans) to apply value engineering strategies on projects to manage costs.
5	Schedule and scope changes on capital projects that impact delivery and project costs.	OCTA will work closely with project partners and project contractors to manage changes in scope and schedules.
6	Sustain Metrolink train service as an attractive alternative to driving in Orange County within the limits of available revenue.	In September 2020, Metrolink adopted a Recovery Plan Framework to ensure the safety of passengers and employees and restore service in a post-COVID-19 environment. Metrolink has received approximately \$92 million in federal COVID-19 relief funds which alleviates some concerns in the near-term. OCTA will continue to work closely with Metrolink and member agencies to minimize cost increases, scale service levels to demand, while seeking external revenue.
Resource		
7	Substantial work underway in the region has resulted in significant demand for professional and skilled labor which may impact delivery given the volume of the M2 capital program.	OCTA will monitor impacts of COVID-19 on the labor market as well as contractor reported COVID-19 cases. Expert and timely coordination between OCTA and project partners is imperative to manage this risk.

Risk	Explanation	Action
<p>8</p> <p>New operational responsibilities with the OC Streetcar.</p>	<p>With the implementation of the OC Streetcar service, OCTA will be increasing its overall role in operations.</p>	<p>To ensure success of the OC Streetcar, OCTA hired a streetcar operations manager with proven start-up experience to oversee start-up and daily operations. A contractor with extensive experience in operations of rail systems was selected to handle the startup and revenue operation phases.</p>
Regulatory		
<p>9</p> <p>Changing federal and state directives could affect M2 freeway project approvals.</p>	<p>Current state planning and project approval policies place great emphasis on reducing travel by automobile and encourage project alternatives that promote short trips where possible, travel by transit, bicycling or walking, and use of zero-emission vehicles. These requirements will affect the project environmental review process.</p>	<p>The majority of M2 freeway projects, where this risk would manifest itself, have obtained the necessary approvals. If the approvals require a review or revision, these new requirements could impact delivery</p>

Guiding Principles

During the development of the EAP, guiding principles were established that set direction for staff on establishing priorities for freeway project acceleration. These guiding principles continue to instruct us today and were used to identify projects to recommend moving from the environmentally cleared/shelf-ready list to early funding through construction.

- Project Readiness
- Congestion Relief and Demand
- External Funding Availability
- Public Opinion and Support
- Project Sequencing and Connectivity
- Project Duration

Progress on Next 10 Plan Deliverables

Significant M2 Program accomplishments and progress have been made since 2007. The Next 10 Plan is based on ten deliverables intended to provide guidance on program and project delivery efforts during the ten-year period from FY 2020-21 through FY 2029-30.

Freeways

1. Deliver 14 freeway improvement projects through construction (Projects A-M).

Status:

The M2 Freeway Program is currently made up of 30 projects/project segments. Deliverable 1 includes 14 projects to be delivered through construction by FY 2029-30 as reflected in the table below. These projects would bring the total number of completed projects to 26, which equates to approximately 87 percent of the M2 Freeway Program. On January 6, 2021, the Interstate 5 (I-5) project between SR-55 and SR-57 was completed. The remaining 13 projects included in Deliverable 1 are various stages of design or construction. See Appendix for a table of the completed projects.

Completed		Construction Complete	Cost
1. Project A	I-5 between SR-55 and SR-57	2021	\$39.4
In Construction		Construction Complete	Cost
2. Project C, D	I-5 between State Route 73 (SR-73) and Oso Parkway/Avery Parkway Interchange	2025	\$195.8
3. Project C, D	I-5 between Oso Parkway and Alicia Parkway/La Paz Road Interchange	2023	\$203.1
4. Project C	I-5 between Alicia Parkway and El Toro Road	2024	\$165.9
Project C, D	I-5 between SR-73 and El Toro Road Landscaping	2026	\$12.4
5. Project K	Interstate 405 (I-405) between SR-73 and Interstate 605 (I-605)	2024	\$1,560.2
In Design		Construction Complete	Cost
6. Project B	I-5 between Yale Avenue and SR-55	2028	\$200.4
7. Project F	SR-55 between I-405 and I-5	2026	\$503.2
8. Project I	SR-91 between SR-55 and Lakeview Avenue	2027	\$100.9
9. Project I	SR-91 between La Palma Avenue and SR-55	2028	\$208.4
10. Project I	SR-91 between Acacia Street and La Palma Avenue	2028	\$116.2

In Design		Construction Complete	Cost
11. Project M	I-605 Katella Avenue Interchange	2025	\$29.0
In Environmental		Construction Complete	Cost
12. Project B	I-5 between I-405 and Yale Avenue	2029	\$230.5
13. Project F	SR-55 between I-5 and SR-91	2029	\$131.3
14. Project G	SR-57 Northbound from Orangewood Avenue to Katella Avenue	2027	\$71.8
Deliverable 1 Total			\$3,768.5

2. Prepare remaining freeway improvement projects for delivery (Projects A-M).

Status: The four remaining projects (of the 30 total) are environmentally cleared or on track to be cleared by 2030, making them shelf-ready for future advancement. These projects have specific reasons related to the application of the guiding principles that require additional time prior to these projects being recommended for advancement, which are described within the respective project status sections. They will continue to be reevaluated for earlier delivery as the Next 10 Plan is reviewed annually.

Remaining Projects		Environmentally Clear Shelf-Ready	Cost
1. Project D	I-5 El Toro Road Interchange	2022	\$120.5 ¹
2. Project G	SR-57 Northbound from Lambert Road to Tonner Canyon Road	2025	\$213.9 ¹
3. Project J	SR-91 between SR-241 and Interstate 15 (I-15)	2030	\$300.0 ¹
4. Project L	I-405 between I-5 and SR-55	2018	\$262.4
Remaining M2 Freeway Projects Total			\$896.8²

¹ These cost estimates are preliminary and will be updated once the project alternative is selected at the completion of environmental clearance.

² The total will be revised once the three remaining projects (projects D, G, and J) complete environmental clearance and have a selected project alternative.

Streets and Roads

- 3. Provide annual competitive funding opportunities for local jurisdictions to address bottlenecks and gaps in the street system, synchronize signals (Project O and P) and continue flexible funding to local jurisdictions to preserve the quality of streets or for use on other transportation needs, as appropriate (Project Q).**

Status: As of June 2021, OCTA has awarded approximately \$455.6 million in competitive funding through the Regional Capacity Program (RCP) (Project O) and Regional Traffic Signal Synchronization Program (RTSSP) (Project P) through annual calls for projects (call). Additionally, \$512.9 million in Local Fair Share (LFS) (Project Q) funds have been distributed to local jurisdictions.

Transit

- 4. Maintain Metrolink service and complete rail station improvements (Project R).**

Status: The three lines serving Orange County (Orange County, Inland Empire-Orange County, and the 91/Perris Valley lines) now operate 41 trains, compared to 54 daily trains operated prior to COVID-19. Metrolink is gradually adding service back based on projections of ridership growth. OCTA will continue to actively engage with Metrolink and other member agencies and monitor ridership levels and the corresponding financial impacts to M2.

Within this program, funding is provided for rail corridor and station improvements to accommodate increased passenger train service including station upgrades, parking expansions, and safety enhancements, such as the Anaheim Canyon Metrolink Station improvement project, which began construction in May 2021.

A recent impact to Metrolink in Orange County is the railroad track stabilization effort in the City of San Clemente. In September 2021, tidal surges along with a failing slope severely degraded the railroad track structure. OCTA owns the railroad right-of-way (ROW) in the affected area. Metrolink has performed the majority of the emergency repair work with contract forces on behalf of OCTA. These repairs are being funded from the commuter rail fund. More enduring treatments are in the early stage of planning to ensure the stability of the tracks in this area. Future updates to the Next 10 Plan will need to consider the financial implications of the additional track improvement needs.

5. Complete construction, secure vehicles, begin operating the OC Streetcar, and work with local jurisdictions to consider recommendations from planning studies to guide development of future high-quality transit connections (Project S).

Status: The 4.15-mile OC Streetcar will serve the Santa Ana Regional Transportation Center (SARTC) through downtown Santa Ana and the Civic Center to Harbor Boulevard in the City of Garden Grove. Activities underway include construction of the tracks, installation of rail and overhead poles, communication with third parties on utility relocation, and continued coordination with the Federal Transit Administration. Other significant activities include construction of the maintenance and storage facility. OCTA has also issued a limited notice to proceed for the operations and maintenance contract. The first seven cars are in the final stages of equipping and the last car is in final assembly. Construction is anticipated to be complete in 2023.

6. Support expanded mobility choices for seniors and persons with disabilities (Project U).

Status: Project U is comprised of three programs: the Senior Mobility Program (SMP), the Senior Non-Emergency Medical Transportation (SNEMT) Program, and the Fare Stabilization Program. Since its inception, approximately \$91.7 million³ has been provided to these three programs. The SMP provides funding to participating cities to design and implement transit service that best fits the needs of seniors (60 and above) in their communities. The SNEMT Program provides funding to the County of Orange Office on Aging for senior (60 and above) transportation to and from medical appointments, dentists, therapies, exercise programs, testing, and other health-related trips at a low cost to the rider than would otherwise be available. The Fare Stabilization program provides stable discounted fares for seniors and persons with disabilities by lowering the cost of riding transit.

7. Work with local agencies to maintain successful community circulator projects and potentially provide grant opportunities for expanded or new local transit services (Project V).

Status: Since its inception, OCTA has approved 35 projects and ten planning studies totaling approximately \$52 million through four calls. The most recent Project V call was programmed by the OCTA Board on April 13, 2020. As of June 2021, ten projects are active, 13 have been cancelled (primarily due to low ridership), nine are suspended or not initiated as a result of the COVID-19 pandemic, and three have been completed. Staff continues to work with local jurisdictions through letters of interest requests, workshops, Comprehensive Transportation Funding Program Guidelines revisions, calls, and

³Only includes disbursed funds. On October 12, 2020, the Board approved a temporary exception to the SMP guidelines which allows for OCTA to hold allocations in reserve for agencies with suspended services due to the COVID-19 pandemic. The funds will be held until the State lifts the state of emergency or the agency resumes transportation services, whichever occurs first.

cooperative agreement amendments to fine-tune this program and facilitate successful project implementation, especially in light of the COVID-19 pandemic.

8. Continue to improve the top 100 busiest transit stops to enhance the customer experience (Project W).

Status: Through three calls, the Board has approved \$3.1 million to improve 122 city-initiated improvement projects at the busiest OCTA transit stops. The program is designed to ease transfers between bus lines and provide passenger amenities such as installation of bus benches or seating, shelters, improved lighting, and other passenger related amenities. To date, 43 improvements have been completed, 69 improvements are in various stages of implementation, and ten improvements have been cancelled by the awarded agency.

Environmental

9. Ensure the ongoing preservation of purchased open space, which provides comprehensive mitigation of the environmental impacts of freeway improvements and higher-value environmental benefits in exchange for streamlined project approvals (Projects A-M).

Status: The M2 freeway Environmental Mitigation Program (EMP) includes seven conservation properties (Preserves) totaling more than 1,300 acres and 12 restoration projects covering nearly 350 acres. In 2017, OCTA received biological resource permits after completing a state and federal Natural Community Conservation Plan/Habitat Conservation Plan (Conservation Plan) for the EMP, allowing streamlined project approvals for the M2 freeway improvement projects. The Conservation Plan also includes a streamlined process for coordination of streambed alteration agreements. In 2018, OCTA secured programmatic permits and assurances for federal and state clean water permitting requirements. Receipt of these permits represents the culmination of years of collaboration and support by the Board, environmental community, and regulatory agencies.

OCTA makes annual endowment deposits of approximately \$2.9 million. While the performance of the endowment fund will affect the time frame for full funding, current projections indicate that OCTA is on track to meet the target of \$46.2 million in FY 2027-28. As of June 30, 2021, the endowment balance was \$19,181,289, and performed above original projections due to higher investment earnings and lower fees.

10. **Work with the Environmental Cleanup Allocation Committee (ECAC) to develop the next tiers of water quality programs to prevent the flow of trash, pollutants, and debris into waterways from transportation facilities. In addition, focus on improving water quality on a regional scale that encourages partnerships among the local agencies as part of the Environmental Cleanup Program (ECP) (Project X).**

Status: In May 2010, the Board approved a two-tier approach to funding Project X. Tier 1 consists of funding equipment purchases and upgrades to existing catch basins and related best management practices, such as screens and other low-flow diversion devices. Tier 2 consists of funding regional, potentially multi-jurisdictional, and capital-intensive projects. Since inception, the Board has approved \$27 million in funding for 189 Tier 1 projects through ten calls and \$27.9 million for 22 Tier 2 projects through two calls.

Oversight and Safeguards

Ordinance No. 3 (M2 Ordinance) includes taxpayer safeguards to ensure accountable and transparent delivery of M2. The 2021 Next 10 Plan has been prepared in addition to the full oversight and regular reporting promised to the voters. Progress on implementing the Next 10 Plan is included in M2 Quarterly Progress Reports that are prepared for the Board. These reports are included on the OCTA website, as well as other means, to ensure accessibility and transparency of the information. Contact information for the OCTA staff member responsible for each program or project is included.

Additionally, as specified in the M2 Ordinance, Section 10, there will be three performance assessments conducted during the Next 10 Plan time period. Performance assessments are to be conducted at least once every three years to evaluate the efficiency, effectiveness, economy, and program results of OCTA efforts in satisfying the provisions and requirements of the M2 Plan and M2 Ordinance. These assessments will take place during 2021, 2024, and 2027. The 2021 performance assessment is currently underway with a final report anticipated to be completed in the spring of 2022.

Also included in the M2 Ordinance, Section 11, is a ten-year comprehensive review of M2 programs and projects, which will be initiated during the Next 10 Plan time period. Due to the early initiation of project development activities prior to the start-up of revenue collection in 2011, the first review was completed in FY 2014-15. A second review is planned to take place in FY 2024-25 (or sooner if warranted) and will determine the basis for setting the direction of future refinements to the M2 Plan. The ten-year review includes a comprehensive review of all projects and programs implemented under the M2 Plan to evaluate the performance of the overall program and may result in revisions to further improve performance.

Sustainable Communities Strategy

It is important to note that M2 also supports and enhances the ability of OCTA to support the regional Sustainable Communities Strategy in Orange County. M2 projects and programs are part of a larger suite of transportation improvements included in the 30-year M2 Plan. More than 50 percent of M2 funds are intended to fulfill transit, system optimization, enhanced environmental elements and infrastructure preservation goals. In addition, the funding eligibility criteria encourages local agencies to consider accommodations for transit and non-motorized transportation.

M2 was publicly reviewed through a Program Environmental Impact Report (EIR) prior to voters approving the ballot measure in November 2006. Since 2008, the M2 Program has been included in the Regional Transportation Plans, Sustainable Communities Strategies, and the associated Program EIR prepared by the Southern California Association of Governments.

In addition to funding freeway improvements, the M2 Program dedicates funding for many transit and local street improvement projects. These include improvements such as:

- New transit connections between major Orange County activity areas that reduce the need for short automobile trips;
- Enhanced convenience and reliability for bus services and Metrolink commuter rail to encourage transit as a dependable commute option;
- Local funding for development of multimodal corridors and roadway preservation that improves the quality of mobility for all users; and
- Signal synchronization on 750 miles of roadways throughout Orange County to reduce congestion and tailpipe emissions.

The M2 freeway EMP has preserved 1,300 acres of wild lands that will be converted to the Preserves to enhance connectivity and wildlife movement between existing conservation areas - such as the Cleveland National Forest, the Chino Hills State Park, and the Irvine Ranch Conservancy lands - and to coastal areas. Furthermore, the program also provides critical habitat for endangered or listed species. Additionally, since M2 inception, the ECP has funded over 200 projects totaling over \$55 million to treat storm water runoff and help keep waterways and beaches clean in Orange County. The aforementioned transit, local streets, and environmental programs collectively contribute to and enhance the quality of life, as well as provide a sustainable future, and an efficient transportation system that benefits the region.

Brief summaries of the specific programs are listed below.

- ✓ Projects A through N – Freeway improvements and Freeway Service Patrol (FSP) to provide emission reductions through congestion relief.
- ✓ Projects O and P – Signal synchronization and street improvements that provide emission reductions through congestion relief and flexibility to accommodate bike and pedestrian project elements as appropriate.

- ✓ Project Q – Local funding for city-selected transportation projects that provide for preservation of the streets and roads system and includes bike, pedestrian, water quality, and transit enhancements as eligible expenditures.
- ✓ Project R – Expanded Metrolink train capacity including improvements to stations and parking to improve transit reliability and convenience and reduce reliance on highways while also supporting potential transit-oriented development.
- ✓ Project S – Transit extensions to improve access between Metrolink stations and residential/employment centers and provide an alternative to driving.
- ✓ Project T – Station improvements to connect to planned future High-Speed Rail services.
- ✓ Project U – Sustain mobility choices for seniors and persons with disabilities and provides an alternative to driving.
- ✓ Project V – Community-based circulators to complement regional transit services with local communities and provides an alternative to driving.
- ✓ Project W – Transit stop improvements to support transfers between major bus lines and support the implementation of mobile ticketing to ensure ease of fare purchase and convenience for bus passengers.
- ✓ Project X – Water quality improvement programs/projects to meet federal Clean Water Act standards for urban runoff, and augment required mitigations.
- ✓ Freeway Mitigation Program – Natural resource protection strategy to provide for more comprehensive mitigation of environmental impacts from M2 freeway improvements.

Updated Next 10 Plan Funding Assumptions

Funding assumptions are included in the 2021 Next 10 Plan. The revenue assumptions incorporate the latest 2021 M2 sales tax revenue forecast of \$13.2 billion and prior commitments in programmed local, state, and federal external revenues.

Projected revenues and expenses are merged into a high-level cash flow model. To support project delivery schedules in the Freeway Program, bond assumptions are also included. With the increase in the revenue forecast as well as refined project costs, bond assumptions remain at one planned issuance in 2023, however, the amount anticipated has been reduced significantly. The 2021 Next 10 Plan assumes a single \$200 million bond issuance, which is 65 percent less than the 2020 estimated bond amount of \$575 million. Additional bonding capacity is available should it be needed, as OCTA's debt coverage ratios are well above the allowable amount of 1.3x. The minimum forecasted debt coverage ratio during the Next 10 Plan timeframe is 5.9x in 2023. This offers significant financial protection against unforeseen economic changes and unanticipated project delivery challenges. The appendix on page 103 includes a more detailed discussion on assumed revenues, costs, and debt service.

For the 2021 Next 10 Plan review and update, forecasted revenues and costs through 2041 were tested. This effort was conducted to ensure the complete M2 Program could be delivered consistent with commitments provided to the voters as part of M2 approval in November 2006. The M2 expenditure plan includes the freeway project cash flow requirements that is based on the assumed project delivery schedules and programmatic items which adjust according to available revenues.

Funding for the freeway mode assumes \$8.6 billion in total revenue, with costs for the same period totaling \$8.5 billion. To date, OCTA has been very successful in capturing external funding to offset the reduction in sales tax revenue. The long-term M2 freeway plan relies on the total receipt of approximately \$1.7 billion in state and federal revenues. Additionally, the program includes \$692 million in net excess 91 Express Lanes revenue and \$695 million in bond proceeds.

As a result of the higher forecasted sales tax, the freeway program net sales tax revenue through 2041 increased by approximately \$602 million compared to the 2020 Next 10 Plan. In addition, each project in the freeway program was reviewed and cost estimates updated. With the majority of the projects now either nearing completion of the environmental phase or in design, project cost estimates have a higher level of engineering and are therefore better defined. Project cost refinements resulted in a net increase of approximately \$54.1 million. The increase in projected revenue and relatively small increase in project costs allowed for more conservative bonding assumptions. The reduction in size of the bond provides significant savings to the freeway program. The 2021 Next 10 Plan includes an allowance for economic uncertainties in the freeway mode for 2022, 2003, and 2024 in light of inflationary pressures on the construction projects and additional allowances for economic uncertainty between FY 2027-28 and FY 2040-41. As noted earlier, there is additional bonding capacity available should the freeway program require additional revenue to support project expenses.

Funding for the streets and roads mode assumes \$4.8 billion in total revenue, with costs for the same period totaling \$4.8 billion. The expenditures within the Streets and Roads Program are scaled to available revenue and are reflected in the cash flow on a pay-as-you-go basis. The Streets and Roads Program relies on approximately \$619 million in external revenues (state, federal, and local) primarily for the OC Bridges grade separation projects, the majority of which has been received. More detailed program assumptions for the Streets and Roads Program can be found in the Appendix on page 106.

For the transit mode, \$3.6 billion in total revenue is assumed, with costs for the same period totaling \$3.6 billion. The majority of projects within the Transit Program are scaled to available revenue with the exception of Project U's Fare Stabilization Program. The M2 Ordinance specifically requires that the Fare Stabilization Program subsidize fares for seniors and persons with disabilities to the extent of maintaining the reduced fare rate effective on July 24, 2006, through FY 2040-41. While this program is not scalable, it remains solvent due to OCTA's proactive amendment to the M2 Ordinance. The remaining transit mode programs are assumed on a pay-as-you-go basis. The funding

for the transit mode assumes the total receipt of \$407.1 million in local, state, and federal revenues. This number is inclusive of \$148.96 million in Federal New Starts and \$25.52 million in State Cap-and-Trade revenues to partially fund the OC Streetcar project. More detailed program assumptions for the Transit Program can be found in the Appendix on page 107.

The ECP assumes \$263.6 million in total revenue, with costs for the same period totaling \$247.6 million. The expenditures within the ECP can be scaled to available revenue and are reflected in the cash flow on a pay-as-you-go basis. More detailed program assumptions for the ECP can be found in the Appendix on page 107.

With careful management of the projects and use of financial resources, the full scope of the M2 Program through 2041 can be delivered as promised.

Funding and Financing

The Board's vision in developing the EAP created a great opportunity for the M2 Program. While the economy took a significant downturn due to the 2008 Great Recession, OCTA advanced projects years before revenue became available. Projects were accelerated, making them shelf-ready. This allowed OCTA to capture significant one-time external funding provided through State Proposition 1B and the American Recovery and Reinvestment Act. Using the revised forecasting methodology implemented in March 2016, and applying it to the latest economic and revenue information, the 2021 M2 sales tax revenue forecast is \$13.2 billion.

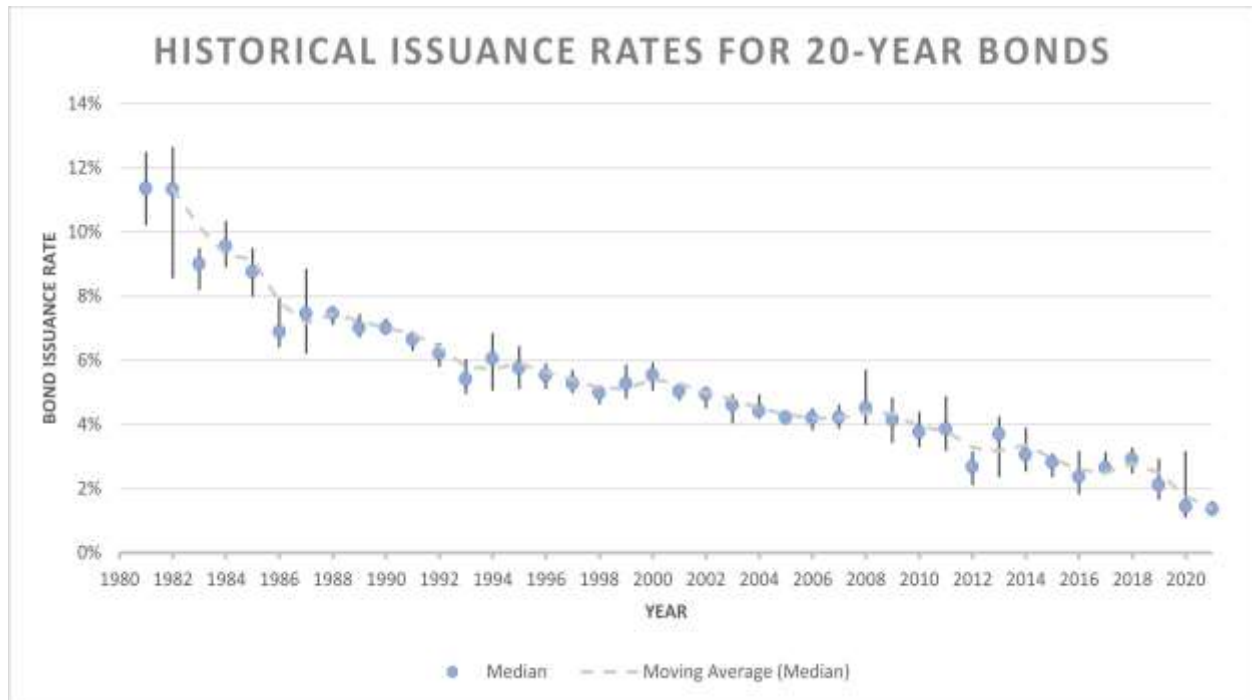
When it comes to the bidding environment, OCTA significantly benefited during the recession by capitalizing on a low-cost environment with early project development and acceleration. When the M2020 Plan was adopted in late 2012, staff reported that freeway construction bids were consistently coming in between ten to 20 percent below engineers' estimates. Since that time, engineers estimates have been updated to reflect the competitive market and as a result the construction bids are coming in closer to the estimates and some cases the bids have exceeded estimates.

In the 2020 update of the Next 10 Plan, there was one bond issuance anticipated in 2023. This year's update maintains one bond issuance in 2023; however, the amount has decreased from approximately \$575 million to \$200 million. The update also continues to maintain prudent annual ending balances and an economic uncertainties allowance, which provides continued financial stability in the event of additional financial fluctuations.

Pay-as-you-go project funding is identified in the M2 Ordinance as the preferred method of financing, while bond financing is an option that is within the purview of the Board. It takes many years to bring projects to fruition therefore it is prudent to maintain current project schedules to deliver M2 congestion relief benefits earlier.

Although the current cost of debt remains low making use of financing more attractive, only one debt issuance is planned through 2041 to deliver the remaining program of

projects promised to the voters. Current 20-year bond rates have slightly increased from last year from 1.17 percent to 1.29 percent. Although short-term rates have fallen as well, long-term rates remain near all-time lows of 1.15 percent, thus maintaining a relatively “flat” yield curve, allowing OCTA to take advantage of attractive mid- and long-term rates if and when needed. See the graph below showing historical issuance rates of 20-year bonds.



OCTA has a strong track record of successfully delivering projects by utilizing bond financing, as seen in M1, as well as M2, under the EAP and M2020 Plan. The updated Next 10 Plan anticipates bond financing for the Freeway Program as a means to deliver the freeway projects early bringing relief to commuters sooner.

Future Outlook

As noted in the Risks section starting on page 6, major capital work is underway in the Southern California region that may impact OCTA's ability to secure resources needed for future project and program delivery. Competition for available resources for capital projects has increased with the major capital work currently underway in Los Angeles, Riverside, and San Bernardino counties. For future projects going forward, engineers, ROW experts, skilled labor, and materials will be in higher demand.

In September 2017, the Board was presented with a Market Conditions Forecast and Risk Analysis report conducted by economists Dr. Wallace Walrod and Dr. Marlon Boarnet through a contract with the Orange County Business Council (OCBC). The result of this engagement was development of an analysis tool that provides general indications of near term construction cost pressures. The Board directed staff to continue to work with OCBC to monitor and track key early warning indicators and provide OCTA information on changes to the risk factors and potential cost impacts.

In October 2021, OCBC provided an updated forecast to the Board for 2022 through 2024. OCBC tracked relevant market data and indicators, performed analytics, and incorporated this analysis to provide OCTA with a range of potential cost fluctuations through the use of an Infrastructure Construction Cost Pressure Index (ICCPI). The ICCPI incorporates a detailed trend analysis of building permits, unemployment rates, localized labor costs, material costs and general economic conditions.

ICCPI Range of Cost Fluctuations			
Index Score	Low	Midpoint	High
0	-17 Percent	-9.5 Percent	-2 Percent
1	-2 Percent	-0.5 Percent	1 Percent
2	1 Percent	1.5 Percent	2 Percent
3	2 Percent	4 Percent	6 Percent
4	6 Percent	8.5 Percent	11 Percent
5	11 Percent	25.5 Percent	40 Percent

From 2022 through 2024, OCBC is forecasting that OCTA may experience a high inflation cost environment ranging six to 11 percent. The updated forecast points to more volatile market conditions as cost pressures have increased in the most recent data available. Major drivers include increases in building permits and, by correlation, the cost of materials. From 2018 through 2020, building permits in the State declined, but that trend has reversed and there was a sharp increase in 2021. Also, in previous updates, the pattern of material prices had been mixed. More recent data reflect a more uniform trend of all material prices increasing due partly to market disruptions and those impacts to many industries as well as overall demand. Another factor that contributes to these inflationary pressures is unemployment. The prior forecast captured the sharp increase in unemployment due to the COVID-19 pandemic starting in 2020, which has since declined, pointing to a potential additional cost pressure in the future.

OCBC Orange County Transportation ICCPI Score, 2022-2024		
Year	Index Score	Range of Cost Fluctuation
2022	4	6 percent to 11 percent
2023	4	6 percent to 11 percent
2024	4	6 percent to 11 percent

As in prior forecasts and especially with COVID-19, OCBC indicates that OCTA will also need to be aware and ready to respond to cost pressures that cannot be modeled. Examples of such forces include:

- Pent up demand may continue to drive costs higher,
- Shifting regulatory environment due to COVID-19, and
- Future potential economic shutdowns related to COVID-19 spread and other variants.

To mitigate cost pressures, OCTA's Project Controls Department monitors and adjusts project cost escalation assumptions according to market trends. Project Controls' cost estimating process uses historical information, as well as current trends in the market, and follows a consistent and defined process. Looking back at the last 20 years, OCTA's cost estimates have included a three percent escalation, which, on average during this timeframe, provided the appropriate escalation to deliver projects successfully. Currently, using 3.5 percent for construction escalation, as well as incorporating contingency based on the project type and complexity, is staff's best estimate using industry standards on cost estimating. Additionally, to further protect against potential cost increases in our freeway capital program, staff incorporated an 11 percent program level expense line item in the cash flow for an economic uncertainty allowance.

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2021
UPDATE

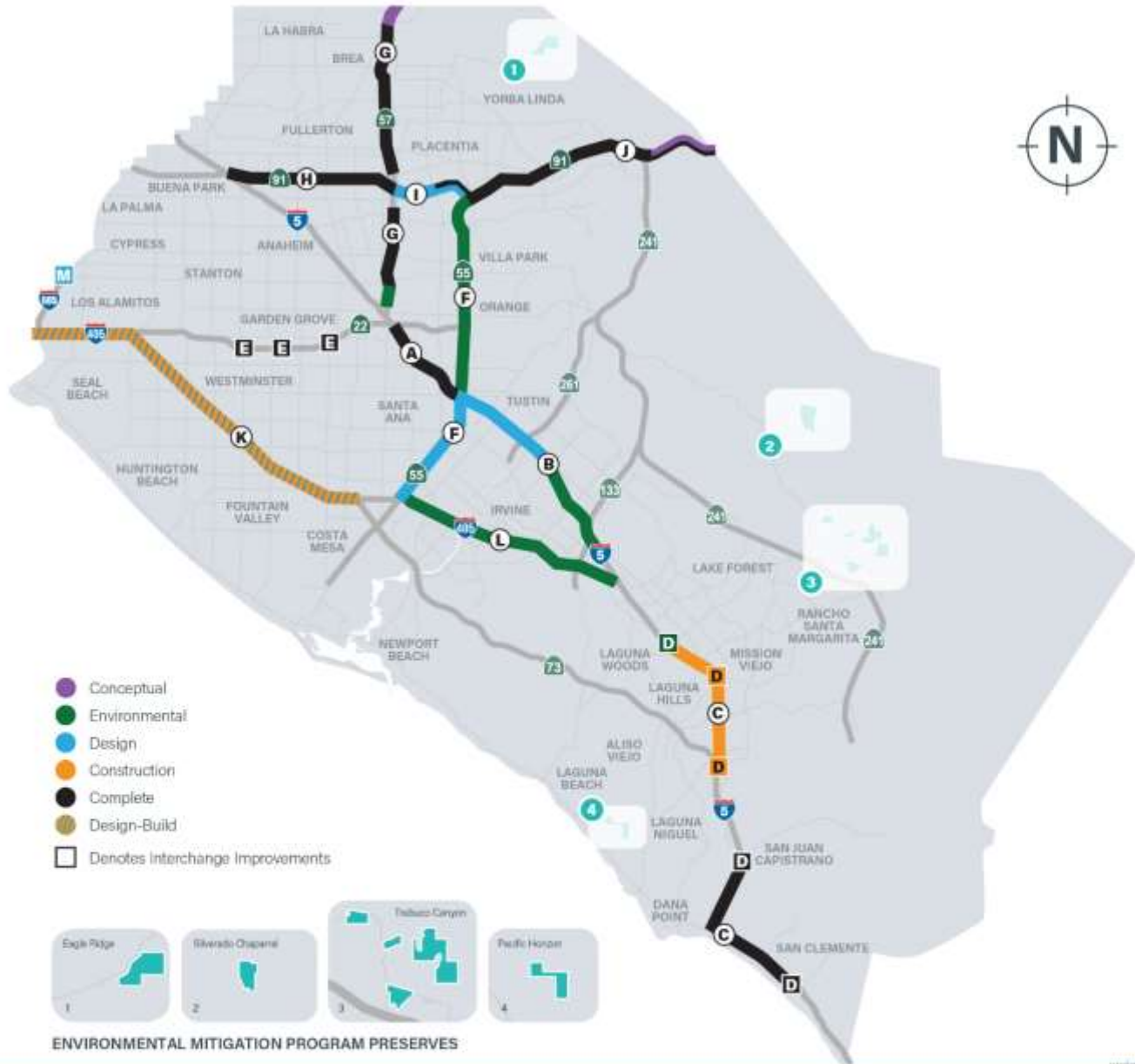
NEXT 10

DELIVERY PLAN

Freeway Program

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OC GO FREEWAY PROGRAM



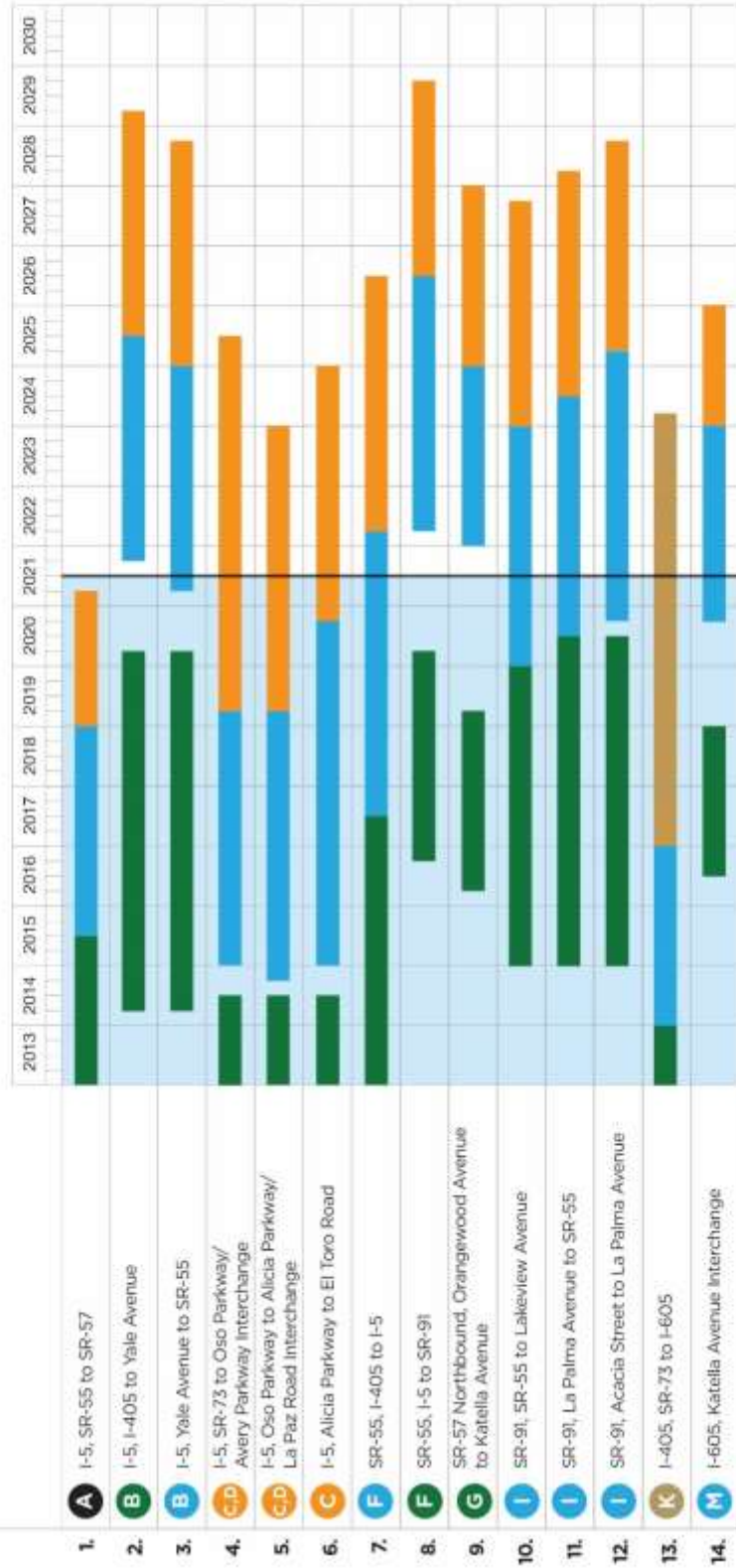
updated 9.03.21

- A** I-5 (SR-55 to SR-57)
- B** I-5 (I-405 to SR-55)
- C D** I-5 (Avenida Pico to San Juan Creek Road)
- C D** I-5 (SR-73 to El Toro Road)
- D** I-5/Ortega Highway Interchange Improvements
- D** I-5/El Toro Road Interchange Improvements
- E** SR-22 Access Improvements
- F** SR-55 (I-405 to I-5)
- F** SR-55 (I-5 to SR-91)
- G** SR-57 NB (Orangethorpe Avenue to Katella Avenue)
- G** SR-57 NB (Katella Avenue to Lincoln Avenue)
- G** SR-57 NB (Orangethorpe Avenue to Lambert Road)
- G** SR-57 NB (Lambert Road to County Line)
- H** SR-91 WB (I-5 to SR-57)

- I** SR-91 (SR-57 to SR-55)
- I** SR-91 WB (Tustin Avenue to SR-55)
- J** SR-91 (SR-55 to SR-71)
- J** SR-91 (SR-241 to I-15)*
- K** I-405 (SR-73 to I-605)
- L** I-405 (I-5 to SR-55)
- M** I-605/Katella Avenue Interchange Improvements
- N** Freeway Service Patrol (not mapped)
- A-M** Environmental Mitigation Program
 - 1,300 acres of permanent open space
 - 12 restoration projects totaling nearly 350 acres (not mapped)

*Project environmentally reviewed as part of the Riverside County Transportation Commission's Corridor Improvement Project. Additional studies needed prior to construction.

OC Go Freeway Projects Through Construction



Please note that schedules are updated as of June 30, 2021. Shown schedules are subject to change.

OC Go Freeway Projects Through Environmental Phase/Shelf Ready



Schedule for I-5, El Toro Road Interchange is updated as of June 30, 2021. Projected and active project schedules are subject to change.

The Next 10 Plan provides direction through 2030. Schedules and revenues will be reviewed annually. The Board will adopt an updated delivery plan to provide direction on further advancement as appropriate.

*Project environmentally reviewed as part of the Riverside County Transportation Commission's Corridor Improvement Project. Additional studies needed prior to construction.

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Freeway Program



Overview:

The Freeway Program accounts for 43 percent of the M2 Program. Over the life of M2, approximately \$5.4 billion is expected to be generated in sales tax revenues for freeway Projects A-N (not including the five percent of net revenues apportioned to the EMP). Improving Orange County freeways is a major investment of the M2 Program.

To ensure delivery of the Freeway Program, the Next 10 Plan includes the following framework:

- Relieve congestion.
- Deliver projects using the guiding principles.
- Work with Caltrans to deliver cost-effective projects.
- Manage project scopes and schedule to reduce cost escalation risk.

Next 10 Plan Deliverables:

When M2 originally passed, 13 freeway projects were highlighted in the M2 Transportation Investment Plan. Since then, these projects have been segmented into 30 projects or project segments. Prior to FY 2020-21, 12 projects or project segments have been completed. Significant progress of the freeway program is included in the Next 10 Plan deliverable goals through 2030:

1. Deliver construction of 14 freeway projects or project segments: six along I-5, one along I-405, two along SR-55, three along SR-91, one along SR-57, and one at the I-605 Interchange (Projects A, B, C, C/D, F, G, I, K, and M.).
2. Prepare the remaining four project segments for delivery. This includes one on I-405, SR-91, and SR-57; and one interchange project at I-5 El Toro Road (Projects D, G, J and L).

A. I-5 (SR-55 to SR-57)

Description:

Project A reduced freeway congestion by adding a second high-occupancy vehicle (HOV) lane (approximately three miles) in both directions on I-5 between SR-55 and SR-57. The project was generally constructed within the existing ROW.

Cost:

\$39.37 million.

Status:

All lanes opened to traffic in August 2020. Construction was completed in January 2021.

Present Day:

The current daily traffic volume on this segment of I-5 is about 380,000 vehicles and is severely congested. Traffic volumes are expected to increase nearly seven percent by 2035, bringing it up to 406,000 vehicles per day. The HOV lanes experience more congestion in the peak period than the

adjacent general-purpose lanes, underscoring the need to add HOV capacity on this freeway segment.

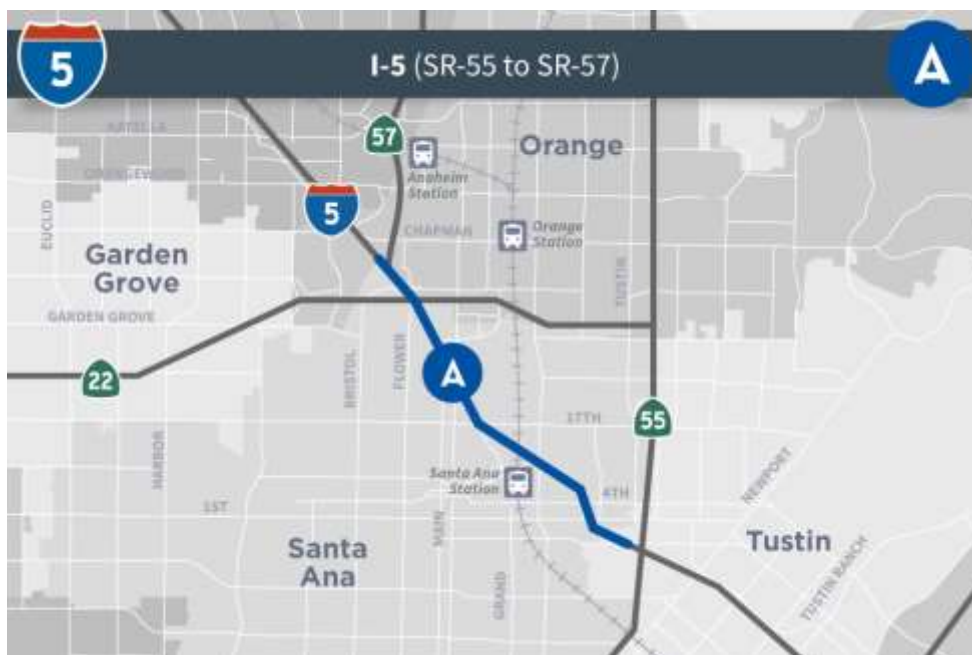
Benefits:

This project increased the capacity of the HOV facility on I-5 in Santa Ana to meet traffic demands and eliminate bottlenecks. Improvements were needed to accommodate HOV traffic from both the SR-55/I-5 and SR-57/I-5 direct HOV connectors.

Originally considered under this project, the extension of the auxiliary lane from southbound I-5 to southbound SR-55 through the McFadden Avenue exit ramp on SR-55 to Edinger Avenue, was instead studied as part of SR-55 Project F.

External Funding:

The Board has approved \$36.19 million in federal funds to support this project.



A. I-5 (SR-55 to SR-57)

Risks:

No risk to project delivery as the project is complete.

Related Projects:

Projects B and F.

Other Involved Agencies:

California Transportation Commission (CTC), Caltrans, City of Santa Ana, Federal Highways Administration (FHWA), and Southern California Regional Rail Authority.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

B. I-5 (I-405 to SR-55)

Description:

Project B will increase I-5 freeway capacity and reduce congestion by constructing new northbound and southbound general-purpose lanes and improving key interchanges in the area between SR-55 and State Route 133 (SR-133) (near the El Toro “Y”). This segment of I-5 is the major route serving activity areas in the cities of Irvine, Santa Ana, and Tustin, and north Orange County. The project will generally be constructed within the existing ROW. The project is divided into two segments as described below.

Segment 1: This project will add one general-purpose lane in each direction between I-405 and Yale Avenue (approximately 4.5 miles), improve interchanges, and add auxiliary lanes where needed to increase freeway capacity and improve traffic operations in the Irvine area.

Segment 2: This project will add one general-purpose lane in each direction between Yale Avenue and SR-55 (approximately 4.5 miles), improve interchanges, and add auxiliary lanes where needed to increase freeway capacity and improve traffic operations in Irvine and Tustin areas.

Cost:

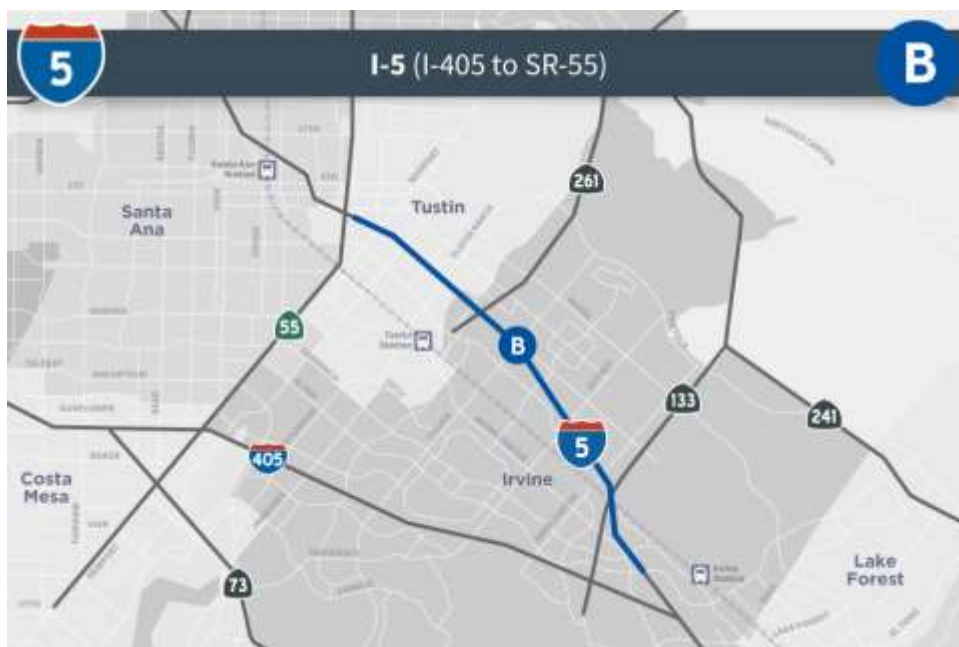
Segment 1: \$230.48 million (YOE).

Segment 2: \$200.44 million (YOE).

Status:

The environmental phase for both segments was completed in January 2020.

Segment 1: The project was advertised for design services in December 2020, and the Board approved a design consultant in May 2021. Final design is anticipated to begin in fall 2021.



B. I-5 (I-405 to SR-55)

Segment 2: The project was advertised for design services in June 2020 and the Board approved a design consultant in November 2020. Final design began in May 2021.

Present Day:

The current traffic volume on this segment of I-5 is about 358,000 vehicles per day and is expected to increase by nearly 16 percent by 2035, bringing it up to 416,000 vehicles per day.

Benefits:

Project improvements would alleviate congestion and reduce delay.

External Funding:

The Board has approved funding that supports this project including:

Segment 1: \$52.36 million in federal funds and \$128.73 million (of which \$95.34 million is assumed to carry over from the 2020 STIP to the 2022 STIP) in state funds.

Segment 2: \$33.38 million in federal funds.

Risks:

Overall time, scope, and costs risks are high with this project due to tight ROW and the need for design variations.

Related Projects:

Projects A and F.

Other Involved Agencies:

Caltrans, cities of Irvine and Tustin, and FHWA.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

C. I-5 (SR-73 to El Toro Road includes Avery Parkway and La Paz Road Interchanges)

Description:

Project C will add new lanes to I-5 from El Toro Road in the City of Lake Forest to the vicinity of SR-73 in the cities of Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, and Mission Viejo. Improvements include continuous HOV access completion and major improvements at the Avery Parkway and La Paz Road interchanges, as part of Project D. The project will generally be constructed within the existing ROW. This project is divided into three segments as described below.

Segment 1: This project from SR-73 to Oso Parkway will add one general-purpose lane (approximately 2.2 miles) in both directions between SR-73 and Oso Creek, reconstruct Avery Parkway interchange, and add auxiliary lanes where needed to increase freeway capacity and reduce congestion in Laguna Niguel and Mission Viejo areas.

Segment 2: This project from Oso Parkway to Alicia Parkway will add one general-purpose lane (approximately 2.6 miles) in both directions between Oso Creek and Alicia Parkway, reconstruct La Paz Road interchange, and add auxiliary lanes where needed to increase freeway capacity and reduce congestion in Laguna Hills and Mission Viejo areas.

Segment 3: This project from Alicia Parkway to El Toro Road will add one general-purpose lane (approximately 1.7 miles) in the southbound direction between Alicia Parkway and El Toro Road, continue the additional general-purpose lane in the northbound direction through Alicia Parkway, extend the second HOV lane (approximately one mile) in both directions from El Toro Road to Alicia Parkway, and add auxiliary lanes where needed to increase freeway capacity and reduce congestion in Laguna Hills, Lake Forest, and Mission Viejo areas.



C. I-5 (SR-73 to El Toro Road includes Avery Parkway and La Paz Road Interchanges)

Cost:

Segment 1: \$195.80 million (YOE).

Segment 2: \$203.07 million (YOE).

Segment 3: \$165.86 million (YOE).

Landscaping for all three segments: \$12.37 million (YOE).

Status:

Segment 1: Construction began in March 2020 and is scheduled to be complete and open to traffic in 2025.

Segment 2: Construction began in May 2019 and is scheduled to be complete and open to traffic in 2023.

Segment 3: Construction began in January 2021 and is scheduled to be complete and open to traffic in 2024.

Present Day:

The current traffic volume on I-5 near the El Toro “Y” is about 343,000 vehicles per day. This volume will increase in the future by 22 percent by 2035, bringing it up to 420,000 vehicles per day.

Benefits:

This project will help alleviate congestion and reduce traffic delays. The second HOV extension for Segment 3 will enable more efficient operation of general-purpose lanes and increase capacity for future projected traffic volumes. Adding an additional general-purpose lane in Segments 1 and 2 will increase capacity of the freeway to accommodate future projected traffic volumes. The I-5/

La Paz Road and I-5/Avery Parkway interchange improvement projects called for in M2 Project D will reduce chokepoints and congestion, as well as accommodate future traffic demands on the local roads at each interchange.

External Funding:

The Board has approved funding that supports this project including:

Segment 1: \$34.60 million in federal funds and \$121.81 million in state funds.

Segment 2: \$55.60 million in federal funds.

Segment 3: \$54.63 million in federal funds and \$9.39 million in state funds.

Additionally, \$6.00 million in state funds have been approved for landscape planting across all three segments.

Risks:

Overall time, scope, and costs risks are medium with this project due to potential ROW impacts.

Related Projects:

Project C (Avenida Pico to San Juan Creek Road) and Project D (El Toro Road Interchange).

Other Involved Agencies:

Caltrans, cities of Laguna Hills, Laguna Niguel, and Mission Viejo, CTC, FHWA, and Transportation Corridor Agencies.

C. I-5 (SR-73 to El Toro Road includes Avery Parkway and La Paz Road Interchanges)

Assumptions:

Costs based on June 2021 M2
Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

C. I-5 (Avenida Pico to San Juan Creek Road includes Avenida Pico Interchange)

Description:

Project C extended the HOV lanes on I-5 from Avenida Pico to San Juan Creek Road in the cities of Dana Point, San Clemente, and San Juan Capistrano. Major interchange improvements were also included at Avenida Pico, as part of Project D. This project was generally constructed within the existing ROW and was divided into three segments as described below.

Segment 1: This project from Avenida Pico to Avenida Vista Hermosa added new continuous-access HOV lanes (approximately 0.7 miles) in each direction between Avenida Vista Hermosa overcrossing and Avenida Pico Undercrossing. The Avenida Pico Interchange was reconstructed to optimize traffic movements within the interchange and provided bicycle lanes in both directions of Avenida Pico.

Segment 2: This project from Avenida Vista Hermosa to Pacific Coast Highway (PCH) added new continuous-access HOV lanes (approximately 2.5 miles) in each direction between Avenida Vista Hermosa overcrossing and PCH undercrossing. The project also reconstructed on- and off-ramps at Avenida Vista Hermosa and Camino de Estrella, and re-established existing auxiliary lanes. Avenida Vaquero Undercrossing was widened in both directions to accommodate the new HOV lanes.

Segment 3: This project from PCH to San Juan Creek Road added new continuous-access HOV lanes (approximately 2.5 miles) in each direction between Camino Estrella overcrossing and San Juan Creek Road undercrossing. The project also reconstructed on- and off-ramps at Camino Las Ramblas/ PCH and the I-5/PCH northbound connector and



C. I-5 (Avenida Pico to San Juan Creek Road includes Avenida Pico Interchange)

I-5/Camino Las Ramblas Undercrossing were widened in both directions.

Cost:

Segment 1: \$83.60 million.

Segment 2: \$75.26 million.

Segment 3: \$74.27 million.

Status:

All segments of Project C opened to traffic at the same time in early 2018. Segment 1 was completed in August 2018, Segment 2 in July 2017, and Segment 3 in July 2018.

Present Day:

This section of I-5 has high levels of traffic during the weekdays and weekends, as well as holidays, throughout the proposed project limits. The current traffic volume on this segment of I-5 is about 250,000 vehicles per day and is expected to increase by nearly six percent by 2035, bringing it up to 266,000 vehicles per day.

Benefits:

This project eliminated a southbound lane drop at PCH by extending the southbound HOV lane between Camino Capistrano and Avenida Pico, and the northbound HOV lane between Avenida Pico and PCH. Elimination of the lane drop enabled more efficient operation of general-purpose lanes and serves projected traffic volumes for the year 2040.

External Funding:

The Board approved funding that supported these projects including:

Segment 1: \$28.47 in federal funds and \$43.74 million in state funds.

Segment 2: \$12.07 million in federal funds and \$46.78 million in state funds.

Segment 3: \$11.33 million in federal funds and \$20.79 million in state funds.

Risks:

No risk to project delivery as the project is complete. Final claims remain pending in Segment 3, however, cost risk is low.

Related Projects:

Project D.

Other Involved Agencies:

Caltrans, cities of Dana Point, San Clemente, and San Juan Capistrano, CTC and FHWA.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report - State Highway Project (September 2021)

D. I-5 (El Toro Road Interchange) Improvements

Description:

Proposed Project D improvements at I-5/El Toro Road Interchange include modifying entrance and exit ramps and modifying or replacing existing bridge structures.

Cost:

\$120.52 million (YOE) is currently included in the cash flow however, once the selected project alternative is determined this will need to be updated.

Status:

The Next 10 Plan includes funding this project through environmental. The environmental phase for this project began in April 2017. OCTA and Caltrans are working on developing a consensus for an alternative that has the support of the three stakeholder cities (cities of Laguna Hills, Laguna Woods, and Lake Forest). Using the guiding principles – Readiness and Public Support, this project needs additional time before it moves forward.

Built into M2 is a promise that projects will be delivered in cooperation with local agencies. The three stakeholder cities have been asked to help develop a mutually acceptable and viable alternative.

A consultant was retained in September 2020 by OCTA to provide further assessment of the build alternatives to help facilitate reaching an agreement. The assessment was completed in May 2021, and the results are anticipated to be presented to the Board in late 2021. OCTA continues to work with the consultant and Caltrans to finalize the ROW cost estimates for each alternative and facilitate discussions between the three cities to determine which build alternatives will go through the environmental process. An alternatives assessment was completed in May 2021. Discussions continue with the three cities to determine alternatives to incorporate in the environmental phase.



D. I-5 (El Toro Road Interchange) Improvements

Present Day:

This portion of I-5 has high levels of traffic during the weekdays and weekends, as well as holidays, throughout the proposed project limits. The current traffic volume on this segment of I-5 is about 355,000 vehicles per day and is expected to increase nearly nine percent by 2035, bringing it up to 388,000 vehicles per day.

Benefits:

This project would reduce the chokepoint and better accommodate forecasted traffic demands. Modification of the entrance and exit ramps would alleviate congestion at adjacent intersections.

External Funding:

The Board has approved \$4.40 million in federal funds for the environmental phase. Future phases may be eligible for state and federal funds. Any additional funding is expected to be submitted for Board approval at a later time.

Risks:

Overall time, scope, and cost risks are high with this project due to the

challenging project area with significant ROW impacts with study alternatives under consideration. Community concerns has resulted in a lack of consensus between the three stakeholder local jurisdictions. This project will need local jurisdiction consensus, before moving forward.

Related Projects:

Project C.

Other Involved Agencies:

Caltrans, cities of Laguna Hills, Laguna Woods, and Lake Forest, and FHWA.

Assumptions:

Cost based conceptual estimates, which was incorporated in the June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report - State Highway Project (September 2021)

D. I-5 (Ortega Highway Interchange) Improvements

Description:

Project D improvements included reconstructing the I-5 interchange at State Route 74 (SR-74) in south Orange County, as well as widening SR-74, modifying entrance and exit ramps and replacing the existing bridge structure.

Cost:

\$79.80 million.

Status:

The project opened to traffic in September 2015 and was officially completed in January 2016.

Present Day:

Prior to completion of the project, the existing freeway overcrossing and on- and off-ramps did not accommodate existing and projected to-and-from street/freeway traffic.

Benefits:

This project alleviated a major chokepoint and reduced congestion by widening the Ortega Highway Bridge and improving local traffic flow through reconfigured streets and on- and off-ramps.

External Funding:

\$752,000 in federal funds, \$73.48 million in state funds, \$2.50 million in M1 funds from the regional interchange program, and \$5.01 million in other local funds were used for the project.

Risks:

None – project is complete.

Related Projects:

Project C.



D. I-5 (Ortega Highway Interchange) Improvements

Other Involved Agencies:

Caltrans, City of San Juan Capistrano, and CTC.

Assumptions:

Cost based on January 2020 Project Status Report, which was incorporated in the June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- January 2020 Project Status Report
- Capital Funding Program Report - State Highway Project (September 2021)

E. SR-22 Access Improvements

Description:

Project E constructed interchange improvements at Euclid Street, Brookhurst Street, and Harbor Boulevard to reduce freeway and street congestion near these interchanges.

Cost:

\$25.80 million.

Status:

These projects were part of the State Route 22 (SR-22) widening project completed in 2008 using M1 funds.

Present Day:

The project widened the streets at the interchanges and were designed to improve accommodation of existing and projected traffic.

Benefits:

The project reconstructed the freeway overcrossings to allow these streets to be widened through the interchange area. These improvements reduced congestion and delay at all three interchanges.

External Funding:

\$15.9 million of M1 funds and \$9.9 million of other non-M2 (federal, state and city) funds were used for the project.

Risks:

None – project is complete.

Related Projects:

West County Connector improvements at SR-22/I-405 and I-405/I-605 interchanges.

Other Involved Agencies:

Caltrans and City of Garden Grove.

Assumptions:

Completed as part of the M1 SR-22 Design/Build project.

References:

- OCTA 2014 Long-Range Transportation Plan



F. SR-55 (I-405 to SR-91)

Description:

Project F will increase freeway capacity and reduce congestion by adding lanes and operational improvements to SR-55 between I-405 and SR-91. This project is divided into two segments as described below.

Segment 1: This project will add one general-purpose lane (approximately four miles) between I-405 and I-5, including auxiliary lanes between interchanges to smooth traffic flow. The general-purpose lane will be funded with M2, state, and federal funds. Concurrent with these efforts, a second HOV lane will also be constructed between I-5 and I-405 with state and local funds.

Segment 2: This project will add new lanes (approximately 7.5 miles) between I-5 and SR-22, including merging lanes between interchanges to smooth traffic flow. Operational improvements between SR-22 and SR-91 would also be incorporated. The environmental phase of this segment was completed in March 2020 and is ready to advance into design and construction. This segment will generally be constructed within the existing ROW.

Cost:

Segment 1: \$503.22 million (YOE) which includes cost for potential ROW risk.

Segment 2: \$131.31 million (YOE).



F. SR-55 (I-405 to SR-91)

Status:

Segment 1: The design of this project is nearing completion with ROW certification anticipated in September 2021. The project is scheduled to be advertised by the end of 2021 with construction beginning in mid-2022.

Segment 2: The environmental phase for this project was completed in March 2020. The release of the request for proposals for the design phase is anticipated in fall 2021 with final design beginning in fall 2022.

Present Day:

This freeway carries about 316,000 vehicles on a daily basis. This volume is expected to increase by nearly eight percent by 2035, bringing it up to 340,000 vehicles per day in the future.

Benefits:

This project will increase freeway capacity, improving mobility and reducing congestion in central Orange County areas by adding new lanes and making operational improvements for existing and forecasted traffic volumes (especially for weaving and lane efficiency at ramp junctions).

External Funding:

Segment 1: The Board has approved providing \$161.4 million in federal funds and \$220.00 million in state funds. As previously mentioned, Caltrans has also committed

\$42.70 million in State Highway Operation and Protection Program funds for this project.

Segment 2: The Board has approved providing \$11.00 million in federal funds for this project. This project is eligible for future state and federal funds.

Risks:

Schedule, scope, and cost risks remain high on Segment 1 due to complex ROW and utilities issues which rely on design variations to minimize private property impacts.

Overall schedule, scope, cost risks are low on Segment 2 at this time.

Related Projects:

Projects A and B.

Other Involved Agencies:

Caltrans, cities of Orange and Santa Ana, and FHWA.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report - State Highway Project (September 2021)

G. SR-57 Improvements

Description:

Project G will increase capacity and reduce congestion by adding one general-purpose lane in the northbound direction from Orangewood Avenue in the City of Orange to approximately Tonner Canyon Road in the City of Brea. Select northbound undercrossings will also be widening and seismically retrofitted, as required. The project is divided into three segments as described below.

Segment 1: This project consists of three northbound sections including Katella Avenue to Lincoln Avenue (approximately 2.8 miles), Orangethorpe to Yorba Linda Avenue (approximately 2.4 miles), and Yorba Linda Boulevard to Lambert Road (approximately 2.5 miles) in the cities of Anaheim, Brea, Fullerton, and Placentia. Projects in this segment are complete.

Segment 2: This project includes the addition of a northbound truck-climbing lane (approximately 2.5 miles) from Lambert Road in the City of Brea to one-half mile south of the Los Angeles County Line (approximately Tonner Canyon Road).

Segment 3: This project includes adding one northbound general-purpose lane (approximately one mile) from approximately Orangewood Avenue in the City of Orange to Katella Avenue in the City of Anaheim. Segment improvements would maintain the existing auxiliary lane and address existing non-standard features between Orangewood Avenue and Katella Avenue.

Cost:

Segment 1: \$144.36 million.

Segment 2: \$213.92 million (YOE).

Segment 3: \$71.78 million (YOE).



G. SR-57 Improvements

Status:

Segment 1: This project was completed and opened to traffic in 2014.

Segment 2: This project is planned to be environmentally cleared during the Next 10 Plan timeframe. Through the SB 1 (Chapter 5, Statutes of 2017) Trade Corridor Enhancement Program, an initial phase for interchange improvements at the Lambert Road is under construction and is anticipated to be completed in early 2022. The mainline project could be a strong candidate for additional trade corridor funding but requires connectivity coordination with Los Angeles County. Reviewing the guiding principles – Readiness, External Funding and Project Sequencing and Connectivity, moving this project into design following environmental clearance will be annually reviewed or brought to the Board as a separate item.

Segment 3: This project completed the environmental phase in March 2019 and is anticipated to begin the design phase in early 2022.

Present Day:

This freeway carries about 302,000 vehicles on a daily basis. This volume is expected to increase by nearly 13 percent by 2035, bringing it up to 342,000 vehicles per day in the future.

Benefits:

This project will substantially improve existing and future mobility, reduce congestion, improve mainline weaving, and merge/diverge movements, which will improve both traffic operations and safety. Combined improvements from

Orangethorpe Avenue to Tonner Canyon Road could achieve a 40 percent reduction in total delay through the SR-57 northbound corridor.

External Funding:

Segment 1: \$104.85 million in state funds were used for the project.

Segment 3: The Board approved \$5.74 million in federal funds to support the environmental phase of this project.

Segments 2 and 3 are eligible for future state and federal funds.

Risks:

Overall time, scope, costs, and quality risks are low to medium with this project due to construction within the existing ROW and relatively straightforward design issues. However, risks exist due to the potential need for seismic retrofitting of existing bridges.

Related Projects:

Project H.

Other Involved Agencies:

Caltrans, cities of Anaheim, Brea, Fullerton, Orange, and Placentia, CTC, and FHWA.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report - State Highway Project (September 2021)

H. SR-91 (I-5 to SR-57)

Description:

Project H widened westbound SR-91 by connecting existing auxiliary lanes (approximately 4.5 miles) through interchanges, thus forming a fourth continuous general-purpose lane between I-5 and SR-57. The project also replaced existing auxiliary lanes on westbound SR-91 between State College Boulevard and Raymond Avenue, and between Euclid Street and Brookhurst Street, and added a new auxiliary lane between Raymond Avenue and Lemon Street.

Cost:

\$59.23 million.

Status:

The project opened to traffic in March 2016 and was officially completed in June 2016.

Present Day:

SR-91 serves as a major commuting route connecting Orange County with Riverside and Los Angeles counties.

SR-91 is also one of the most congested freeways in Southern California. This freeway carries about 290,000 vehicles on a daily basis. This volume is expected to increase by nearly five percent by 2035, bringing it up to 304,000 vehicles per day in the future.

Benefits:

This project alleviated congestion and increased mainline capacity by adding a continuous general-purpose lane and replaced existing auxiliary lanes, which improved merging operations at each interchange.



H. SR-91 (I-5 to SR-57)

External Funding:

\$27.23 million in state funds were used for the project.

Risks:

None – project is complete.

Related Projects:

Project I.

Other Involved Agencies:

Caltrans, cities of Anaheim and Fullerton, and CTC.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

I. SR-91 (Tustin Avenue Interchange to SR-55)

Description:

Project I from Tustin Avenue Interchange to SR-55 added a westbound auxiliary lane, beginning at the northbound SR-55 to westbound SR-91 connector, through the Tustin Avenue interchange. The overall segment length was approximately two miles. Additional features of this project included widening the westbound Santa Ana River Bridge to accommodate the auxiliary lane.

Cost:

\$42.47 million.

Status:

The project was completed and opened to traffic in 2016.

Present Day:

SR-91 serves as a major commuting route connecting Orange County with Riverside and Los Angeles counties.

SR-91 is also one of the most congested freeways in Southern California. This freeway carries about 290,000 vehicles on a daily basis. This volume is expected to increase by nearly five percent by 2035, bringing it up to 304,000 vehicles per day in the future.

Benefits:

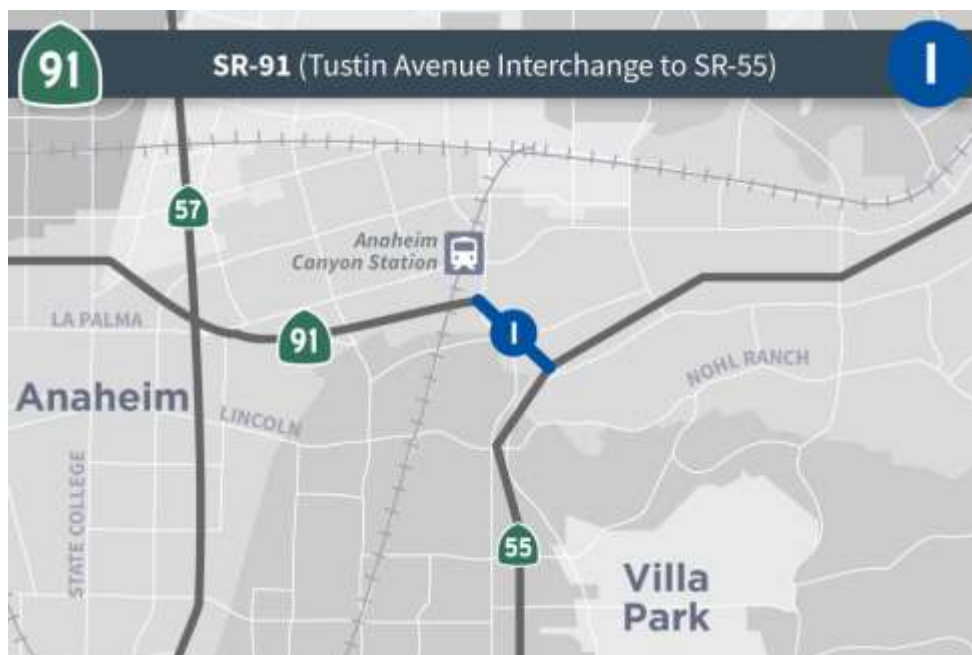
This project addressed chokepoint conditions and reduced operational problems, including weaving and merging maneuvers, which were primarily caused by extensive weaving between the northbound SR-55 to westbound SR-91 connector and the westbound SR-91 off-ramp to Tustin Avenue.

External Funding:

\$29.75 million in state funds were used for the project.

Risks:

None – project is complete.



I. SR-91 (Tustin Avenue Interchange to SR-55)

Related Projects:

Projects H, I (SR-57 to SR-55) and J.

Other Involved Agencies:

Caltrans, City of Anaheim, CTC, and FHWA.

Assumptions:

Cost based on January 2019 Project Status Report, which was incorporated in the June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- January 2019 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

I. SR-91 (SR-57 to SR-55)

Description:

Project I from approximately SR-57 to SR-55 will add one westbound general-purpose lane from northbound SR-57 connector to westbound SR-91 connector, and one eastbound general-purpose lane between SR-57 and SR-55. The project is divided into three segments as described below.

Segment 1: This project from SR-55 to Lakeview Avenue (approximately 1.4 miles) will realign the westbound on-ramp to direct traffic to westbound SR-91. This project will replace the Lakeview Avenue Bridge that will feature a new on-ramp from the Lakeview Avenue Bridge connecting directly to southbound SR-55 to increase freeway capacity and improve traffic operations in the Anaheim area.

Segment 2: This project from La Palma Avenue to SR-55 will add an eastbound general-purpose lane (approximately 2.7 miles) on SR-91 between La Palma Avenue and SR-55 and include bridge

replacements at Glassell Street/Kraemer Boulevard and Tustin Avenue to increase freeway capacity and reduce congestion in the cities of Anaheim and Fullerton.

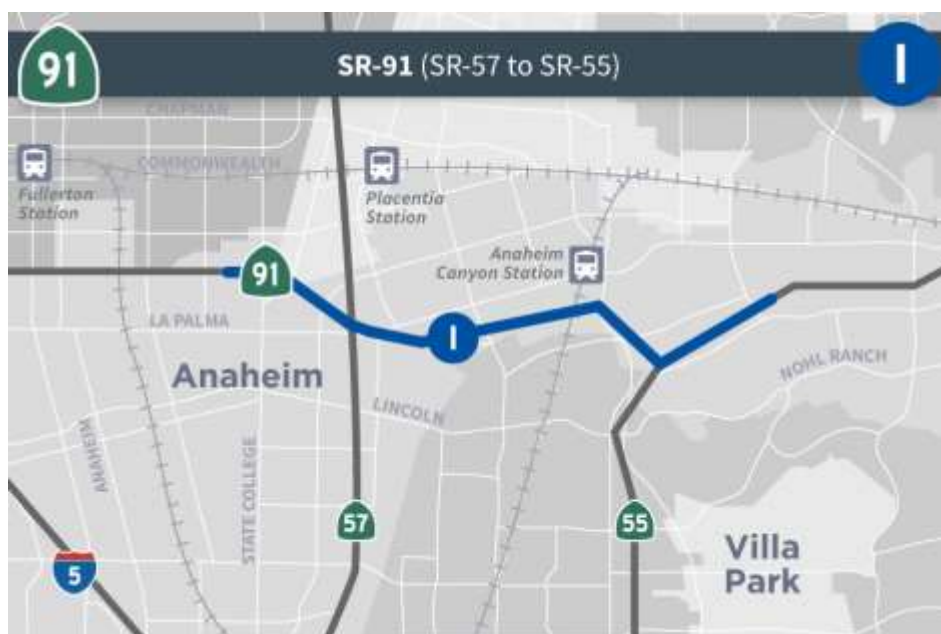
Segment 3: This project from Acacia Street to La Palma Avenue will add a fourth general-purpose lane (approximately 1.7 miles) on westbound SR-91 from the northbound SR-57 to westbound SR-91, make improvements to the weave from westbound SR-91 to northbound and southbound SR-57, and replace the bridge at La Palma Avenue to enhance westbound operations on SR-91, increase overall freeway capacity, and reduce congestion in the cities of Anaheim and Fullerton.

Cost:

Segment 1: \$100.91 million (YOE).

Segment 2: \$208.45 million (YOE).

Segment 3: \$116.20 million (YOE).



I. SR-91 (SR-57 to SR-55)

Status:

The environmental phase for all three segments was completed in June 2020.

Segment 1: The design phase was initiated in March 2020.

Segment 2: The design phase was initiated in June 2020.

Segment 3: The design phase was initiated in November 2020.

Present Day:

Current freeway volume on this segment of the SR-91 is about 250,000 vehicles per day. This vehicular demand is expected to increase by 12 percent by 2035, bringing it up to 280,000 vehicles per day in the future.

Benefits:

Segment 1: This project will alleviate congestion and reduce delay by improving the connection from Lakeview Avenue to southbound SR-55.

Segment 2: This project will increase freeway capacity in the eastbound direction and reduce traffic congestion.

Segment 3: This project will enhance westbound operations and increase freeway capacity.

External Funding:

The Board has approved funding including:

Segment 1: \$1.77 million in federal funds and \$13.98 million in 91 Express Lanes excess revenue.

Segment 2: \$3.46 million in federal funds and \$42.81 million in 91 Express Lanes excess revenue.

Segment 3: \$1.77 million in federal funds and \$14.40 million in 91 Express Lanes excess revenue.

Construction is anticipated to be funded with 91 Express Lanes excess revenue.

Risks:

Overall time, scope and costs risks are high. High risk is the result of refined design options that require Caltrans concurrence, which remain under review.

Related Projects:

Projects H, I (Tustin Avenue Interchange to SR-55), and J.

Other Involved Agencies:

Caltrans, cities of Anaheim, Fullerton, Orange, and Placentia, CTC, and FHWA.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

J. SR-91 (SR-55 to I-15)

Description:

Project J includes the addition of capacity on SR-91 from SR-55 to I-15 in Riverside County and is divided into three segments.

Segment 1: This project added one eastbound lane (approximately six miles) on SR-91 from one-mile east of SR-241 to State Route 71 (SR-71) in Riverside County.

Segment 2: This project added one new lane (approximately six miles) in both directions of SR-91 between SR-55 and SR-241 and improved key interchanges. Additional improvements included the widening and seismic retrofitting for the Imperial Highway and Weir Canyon Road undercrossing bridges. This project was led by OCTA in coordination with Caltrans District 12.

Segment 3: This project entails future improvements that require coordination and funding agreements with Riverside County Transportation Commission (RCTC) to deliver improvements between SR-241 and SR-71 in Riverside County. Improvements

between SR-71 and I-15 are overseen by RCTC.

Cost:

Segment 1: \$57.77 million.

Segment 2: \$79.74 million.

Segment 3: \$300.00 million (YOE).

Status:

Segment 1: This project was completed in January 2011.

Segment 2: This project was completed in March 2013.

Segment 3: This project is part of a larger package of improvements underway, with planned sequencing of improvements in the 91 Corridor jointly agreed to by both OCTA and RCTC's Board. The project straddles the county line. The segment was environmentally reviewed as part of the RCTC's Corridor Improvement Project. RCTC, with OCTA's support, is advancing the westbound portion of this segment with the addition of a lane (two miles in



J. SR-91 (SR-55 to I-15)

length) from Green River Road to SR-241. RCTC is the lead agency and OCTA contributed \$15 million towards the project. Construction began in November 2020 and is anticipated to be completed by late 2021. The eastbound lane project from SR-241 to SR-71 has engineering challenges due to project area topography and natural constraints and requires an engineering feasibility assessment. Reviewing the guiding principles – Readiness and Project Sequencing and Connectivity, this project will be reassessed following the completion of the engineering feasibility study, which is anticipated in late 2021.

Present Day:

Today, this freeway carries about 328,000 vehicles every day. This volume is expected to increase by 15 percent, bringing it up to 378,000 vehicles by 2035.

Benefits:

Segment 1 improvements added one general-purpose lane, which improved weaving by reducing the volume of exiting vehicles in the SR-91 mainline through lanes that are exiting at Green River Road and SR-71.

Segment 2 improvements helped to alleviate congestion and reduce delay.

Segment 3 proposed improvements are expected to reduce congestion and delay and improve operational efficiency by reducing the existing chokepoints via gap closure.

External Funding:

Segment 1: \$45.91 million in federal funds and \$4.92 million in local funds were used for this project.

Segment 2: \$76.30 million in state funds were used for this project and \$2.90 million in state funds were used for replacement planting.

Segment 3: \$15.00 million of 91 Express Lanes excess revenue is Board approved for the Orange County portion of this segment. RCTC will contribute \$26.80 million. Future needs are anticipated to be funded by 91 Express Lanes excess revenue.

Risks:

No risks for Segments 1 and 2 as they are complete. For Segment 3, time, scope, and costs risks are dependent upon required coordination with RCTC. Eastbound improvements have engineering challenges due to project area topography (Santa Ana Canyon) and natural constraints (Santa Ana River).

Related Projects:

Project I and the Riverside County Corridor Improvement Project.

Other Involved Agencies:

Caltrans, cities of Anaheim and Yorba Linda, Corona, County of Orange, CTC, and FHWA.

J. SR-91 (SR-55 to I-15)

Assumptions:

Cost based on December 2012 Project Status Report (Segment 1), June 2018 Project Status Report (Segment 2), and conceptual estimates (Segment 3) which was incorporated in the June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- December 2012 Project Status Report (Segment 1)
- June 2018 Project Status Report (Segment 2)
- Capital Funding Program Report – State Highway Project (September 2021)

K. I-405 (SR-73 to I-605)

Description:

Project K includes the addition of new lanes to I-405 between SR-73 and I-605 and updating key local interchanges to the current Master Plan of Arterial Highway (MPAH) standards. The project will add one general-purpose lane (approximately 14 miles) in each direction of I-405 from Euclid Street to I-605. Additional improvements include reconstruction of local interchanges and making improvements to freeway entrances and exits along the corridor from SR-73 to I-605 through the cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Seal Beach, and Westminster.

Concurrently with Project K, an additional lane (approximately 16 miles) will be added in each direction that would combine with the existing HOV lane to provide dual express lanes in each direction on I-405 from SR-73 to I-605. The general-purpose lanes will

be funded with M2, state, and federal funds; the express lanes will be funded solely with express lane revenues.

Cost:

M2 Portion: \$1.560 billion (YOE).

Express Lanes Portion: \$520 million (YOE).

Status:

Project K is currently over 60 percent complete and is being implemented using design/build. Design/build is a project delivery method in which one team is hired to perform both the design and construction of the project allowing for construction to begin as design plans are being finalized, thus reducing overall project delivery time. The project's substantial completion and opening of the 405 Express Lanes milestones are currently anticipated to be met in late 2023 with full project completion anticipated in early 2024.



K. I-405 (SR-73 to I-605)

Present Day:

On average, I-405 carries approximately 392,000 vehicles daily. The volume is expected to increase by 20 percent by 2035, bringing it up to 472,000 vehicles daily. The project will increase freeway capacity, reduce congestion, enhance operations, increase mobility, improve trip reliability, and maximize throughput on I-405.

Benefits:

Project K includes the addition of auxiliary and general-purpose lanes that will help reduce congestion and improve travel times. Additional improvements include interchange and local street improvements, and a direct Express Lanes connector at the I-405/SR-73 Interchange.

The express lanes will operate congestion-free throughout the day, due to toll rates that vary based on traffic demand. The express lanes provide commuters with a reliable travel option compared to the adjacent, general-purpose lanes.

M2 improvements, in combination with express lanes improvements, will provide more throughput in the corridor. These improvements will add two additional freeway lanes to I-405 in both directions between SR-73 to the I-605 interchange.

External Funding:

The Board has approved funding that supports this project, including \$89.77 million in state funds, and \$45.65 million in federal funds. The project also successfully secured

\$628.93 million from Transportation Infrastructure Finance and Innovation Act (TIFIA), a low-cost federal loan. The M2 cash flow will benefit from \$108.93 million in TIFIA revenues for this project. The entire TIFIA loan will be paid back solely with toll revenues.

Risks:

Overall time, scope, utility relocation, archeological discoveries and cost risks are high with this project due to the extensive project scope.

Related Projects:

Project L and WCC improvements at SR-22/I-405 and I-405/I-605 interchanges (mentioned under Project E).

Other Involved Agencies:

Caltrans, Build America Bureau TIFIA Office, cities of Costa Mesa, Fountain Valley, Huntington Beach, Seal Beach, and Westminster, Community of Rossmore, CTC, and FHWA.

Assumptions:

Costs based on June 2021 M2 Program Cash Flow. M2 will only pay for the addition of the general-purpose lanes. Toll revenues will pay for the 405 Express Lanes.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

L. I-405 (I-5 to SR-55)

Description:

Project L will add new lanes (approximately 8.5 miles) to I-405 from the vicinity of I-5 to SR-55 to alleviate congestion and reduce delay. The project will generally be constructed within the existing ROW.

Cost:

\$262.39 million (YOE).

Status:

The project completed the environmental phase in August 2018 and is shelf-ready to begin the design phase.

Project B (I-5, I-405 to SR-55) is a parallel project that has been advanced through construction. To minimize public inconvenience, OCTA opted to complete Project B before this project. Project B was determined to be a higher priority project based on the guiding principles of Project Sequencing and Connectivity and Project Congestion Relief and

Demand. Congestion levels on the I-5 are higher than in the Project L, I-405 improvement area. Additionally, a significant Caltrans safety project is scheduled to take place within the Project L project limits and will require additional coordination.

Present Day:

This segment of the freeway carries 296,000 vehicles a day. This number will increase by nearly 22 percent, bringing it up to 362,000 vehicles per day by 2035.

Benefits:

Improvements between I-5 and SR-55 would help alleviate congestion and reduce delay.

External Funding:

The Board approved providing \$8 million in federal funds to support the environmental phase of the project. This project is eligible for future state and federal funds.



L. I-405 (I-5 to SR-55)

Risks:

Although this project has completed the environmental phase, regulatory risks remain should changing federal and state directives require a review or revision. If the project can proceed as currently approved, overall time, scope, and costs risks are low due to low ROW impacts and straightforward design.

Related Projects:

Projects B and K.

Other Involved Agencies:

Caltrans, City of Irvine, CTC, FHWA, and Transportation Corridor Agencies.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- February 2019 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

M. I-605 (Katella Avenue Interchange) Improvements

Description:

Project M includes improvements to I-605 freeway access and the arterial connection at Katella Avenue, which serves communities in the cities of Cypress and Los Alamitos.

Cost:

\$29.02 million (YOE).

Status:

The environmental phase for this project was completed in late 2018 and was done in cooperation with the City of Los Alamitos. A design consultant was approved by the Board on August 10, 2020, and the contract was executed on December 28, 2020. Final design was initiated in January 2021.

Present Day:

The existing interchange design is outdated and results in both arterial congestion and freeway queuing in the interchange area.

Benefits:

The I-605 Katella Avenue interchange project would include both freeway and arterial improvements that would improve interchange traffic operations and improve bicycle and pedestrian facilities while minimizing adjacent ROW and environmental impacts. Additionally, these improvements would reduce congestion, traffic queuing, and delay within the interchange area.

External Funding:

The construction phase of this project is eligible for future state and federal funds.

Risks:

Overall time, scope, and costs risks are low with this project due to low ROW impacts and straightforward design.



M. I-605 (Katella Avenue Interchange) Improvements

Related Projects:

Project K and I-405/I-605/SR-22 HOV connector project (West County Connector).

Other Involved Agencies:

Caltrans and City of Los Alamitos.

Assumptions:

Cost based on June 2021 M2 Program Cash Flow.

References:

- OCTA 2018 Long-Range Transportation Plan
- June 2021 Project Status Report
- Capital Funding Program Report – State Highway Project (September 2021)

N. Freeway Service Patrol

Description:

The Freeway Service Patrol (FSP) provides competitively-bid, privately contracted tow truck services to help stranded motorists quickly clear disabled vehicles and large debris from freeway lanes to minimize congestion caused by blocked traffic lanes and passing motorists rubbernecking. Currently FSP is available on various Orange County freeways, seven days a week. This project assures that this basic level of service will be continued through 2041.

Program Funding:

\$50.20 million in M2 revenue between 2021 and 2030.

Status:

FSP is primarily funded by State Highway Account (SHA) and Road Repair and Accountability Act of 2017 (SB 1) funds. OCTA meets matching fund requirements by utilizing a portion of its share of Service Authority for Freeway Emergencies (SAFE) funds, which are collected by the Department of Motor Vehicles each year. Since June 2012, the FSP has assisted more than 611,837 motorists along Orange County freeways.

As demand, congestion levels, and costs increase, this project will allow the program to maintain existing service hours and allow service to be extended throughout the day and on weekends on additional freeway segments.

M2 also helps support the California Highway Patrol (CHP) as the partner responsible for field supervision. Currently, M2 funds a full-time

dispatcher to ensure dispatcher coverage seven days a week.

Present Day:

In FY 2020-21, the FSP program provided a total of 60,062 assists to motorists along the Orange County Freeway system.

Benefits:

To keep Orange County moving, FSP provides free limited roadside assistance to motorists whose vehicles have become disabled on an Orange County freeway. Assistance is limited to taping a leaking hose, providing water for a radiator, a jump start, a gallon of gas, a tire change, or towing a disabled vehicle off the freeway to a designated drop zone where the motorist may seek additional assistance.

In FY 2019-20, for every dollar invested in the program, Orange County received approximately \$6 of congestion relief benefit.

External Funding:

SHA allocation provided by Caltrans – approximately \$2.2 million annually.

SB 1 allocation provided by Caltrans – approximately \$2 million annually.

SAFE (\$1 per vehicle registration fee) - funds not allocated to the Freeway Call Box and 511 Motorist Assistance and Traveler Information programs are available for FSP program use, to meet local match fund requirements – approximately \$1.2 million annually.

N. Freeway Service Patrol

Risks:

Should the State of California stop funding FSP through the SHA and SB 1, M2 will not be sufficient to maintain existing service levels.

Related Projects:

M2 Project N funds are designated to maintain existing service levels, provide mid-day, and weekend service, and support FSP service for construction of Projects A-M.

Other Involved Agencies:

Caltrans and CHP.

Assumptions:

Project N is assumed to be funded on a pay-as-you-go basis. Funding provided through the SHA and SB 1 are allocated first, and then M2 funding is applied as needed.

References:

- M2 Project N Guidelines Freeway Service Patrol Project, approved on February 13, 2012

Environmental Mitigation Program



Overview:

The EMP provides for allocation of five percent of the total M2 freeway budget for comprehensive environmental mitigation related to impacts from freeway improvements (Projects A-M). The EMP was approved by Orange County voters under the M2 half-cent sales tax for transportation improvements in 2006.

A master agreement between OCTA, Caltrans, and state and federal resource agencies was approved in January 2010. This offers higher-value environmental benefits such as habitat protection, connectivity, and resource preservation in exchange for streamlined project approvals for the 13 (segmented into 30) M2 freeway projects.

To adhere to the promise of M2, the Next 10 Plan includes the following framework for the Mitigation Program as it relates to Projects A-M:

- Streamline freeway projects through the biological permitting process.
- Provide comprehensive environmental mitigation.
- Partner with state and federal resource and regulatory agencies.
- Provide higher-value environmental benefits such as habitat protection, connectivity, and resource preservation.

Next 10 Plan Deliverables:

In 2009, the Board approved a policy to allocate approximately 80 percent of the revenues to acquisitions and 20 percent to fund restoration projects. This policy will need to be revisited periodically to ensure it continues to meet program needs. The Next 10 Plan recommends four major initiatives through 2030 consistent with the above framework:

1. Oversee and manage the Preserves while the endowment is being established and determine long term land manager(s) and endowment holder(s).
2. Focus EMP resources funding as a first priority toward the establishment of the endowment for the Preserves.
3. Review and update the resource management plans (RMP) on the Preserves as appropriate. This includes the development of fire management plans (FMP) for each of the Preserves.
4. Complete approximately 350 acres of restoration projects funded through M2 to fulfill the Conservation Plan commitments. This includes working with the restoration project sponsors to remediate damages caused by the 2020 Silverado and Bond fires.

Environmental Mitigation Program

Description:

In 2010, OCTA began preparing a Conservation Plan, which examines habitat resources within broad geographic areas and identifies conservation and mitigation measures to protect habitat and species. This analysis was completed in 2016; in accordance with the master agreement “advance credit” provision, funds were allocated prior to completion of the Conservation Plan. In 2017, the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (collectively, Wildlife Agencies) finalized the issuance of their respective biological opinion, findings, and associated permits, as well as signed the Conservation Plan Implementing Agreement. Receipt of these permits represent the culmination of years of collaboration and support by the Board, environmental community, and Wildlife Agencies.

Concurrent with efforts made toward completing the Conservation Plan and EIR/Environmental Impact Statement (EIS), OCTA collaborated with the United States Army Corps of Engineers (USACE) and the State Water Resources Control Board (SWRCB) - regulatory agencies - to streamline the regulatory permitting process. In 2017, the USACE issued a programmatic permit to OCTA and Caltrans (as owner/operator of the state highway system). The SWRCB provided a letter to OCTA in 2018, which further secured assurances related to advanced mitigation and freeway project permit issuance.

RMPs for each of the seven Preserves were finalized in 2018. These RMPs guide the management of the Preserves as outlined within the Conservation Plan. The Conservation Plan also requires that each Preserve also have a Preserve specific FMP. These FMPs are being developed in coordination with local fire agencies and will require approval from the Wildlife Agencies. The FMPs will be attachments to the RMPs. Staff will continue to oversee and manage the Preserves until a long-term manager(s) is established.

Cost:

In 2007, the Board approved approximately \$55 million as part of the EAP. Accordingly, \$42 million and \$10.5 million were allocated for acquisition and restoration, respectively. An additional \$2.5 million was allocated for the Conservation Plan development and program support, including appraisals and biological surveys.

Status:

Since 2010, a total of \$10 million has been allocated for 12 projects to restore approximately 350 acres of open space lands throughout Orange County.

On September 26, 2016, the Board approved the selection of the endowment fund manager. Annually, approximately \$2.9 million is deposited in the endowment. These annual deposits are expected over a ten to 12-year period, or until the fund totals approximately \$46.2 million. As of June 30, 2021, the balance was \$19,181,289, which includes five

Environmental Mitigation Program

deposits. Annual endowment deposits will continue to be made near the beginning of each fiscal year.

The Wildlife Agencies finalized the issuance of their respective permits, as well as executing the Implementing Agreement in 2017. In early 2018, OCTA secured advance streamlined state and federal clean water permitting requirements.

All seven Preserves have finalized RMPs and are being managed and protected for an interim period by OCTA staff and contractors. These RMPs will be reevaluated every five years and revised as necessary. Staff will continue to oversee and manage the Preserves until a long-term manager(s) is established.

Present Day:

In consultation with the local fire authority, staff has begun the preparation of FMPs for the seven Preserves. The plans will provide guidelines for decision-making at all stages including fire prevention, pre-fire vegetation management, suppression activities, and post-fire responses that are compatible with conservation and stewardship responsibilities. These plans are a requirement of the Conservation Plan and will require approval by the Wildlife Agencies.

Benefits:

The completed Conservation Plan and regulatory permitting process are tools by which OCTA obtains biological and regulatory permits/assurances for the 13 (segmented into 30) M2 freeway projects. This comprehensive process

enables OCTA to streamline future M2 freeway improvement projects.

External Funding:

Examples of external funding available for this program include:

- USFWS contribution toward the acquisition of open space land in the Trabuco Canyon area.
- USFWS Habitat Conservation Planning Assistant Grant to help fund the completion of the Conservation Plan.
- Restoration project sponsors utilize external funds and resources to implement their projects.

Risks:

The success of the restoration projects will support OCTA's Conservation Plan and regulatory permitting processes. However, unforeseeable conditions such as the frequency of drought and wildfires have and may continue to impact plant reestablishment. Additional funding may be necessary to ensure successful implementation of the restoration projects if the Wildlife Agencies do not sign off on the project under current conditions.

OCTA will need to establish the endowment over a ten to 12-year period. OCTA currently holds the title and interim land management responsibility of the Preserves but will eventually need to secure a long-term land manager(s).

Related Projects:

Projects A-M.

Environmental Mitigation Program

Other Involved Agencies:

Caltrans, CDFW, the environmental community, SWRCB, USACE, and USFWS.

Assumptions:

This program is assumed to be funded primarily on a pay-as-you-go basis in the future, in addition to prior bonding issuances. More detailed assumptions are included in the appendices.

References:

- Final Conservation Plan and EIR/EIS
- Additional resources can be found online: www.octa.net/environmental

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DELIVERY PLAN

Streets & Roads Program

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OC GO STREETS AND ROADS PROGRAM



updated 11/1/21

① Regional Capacity Program

- Competitive funding program with annual call for projects for roadway improvements (not mapped)
- OC Bridges Grade Separation Projects

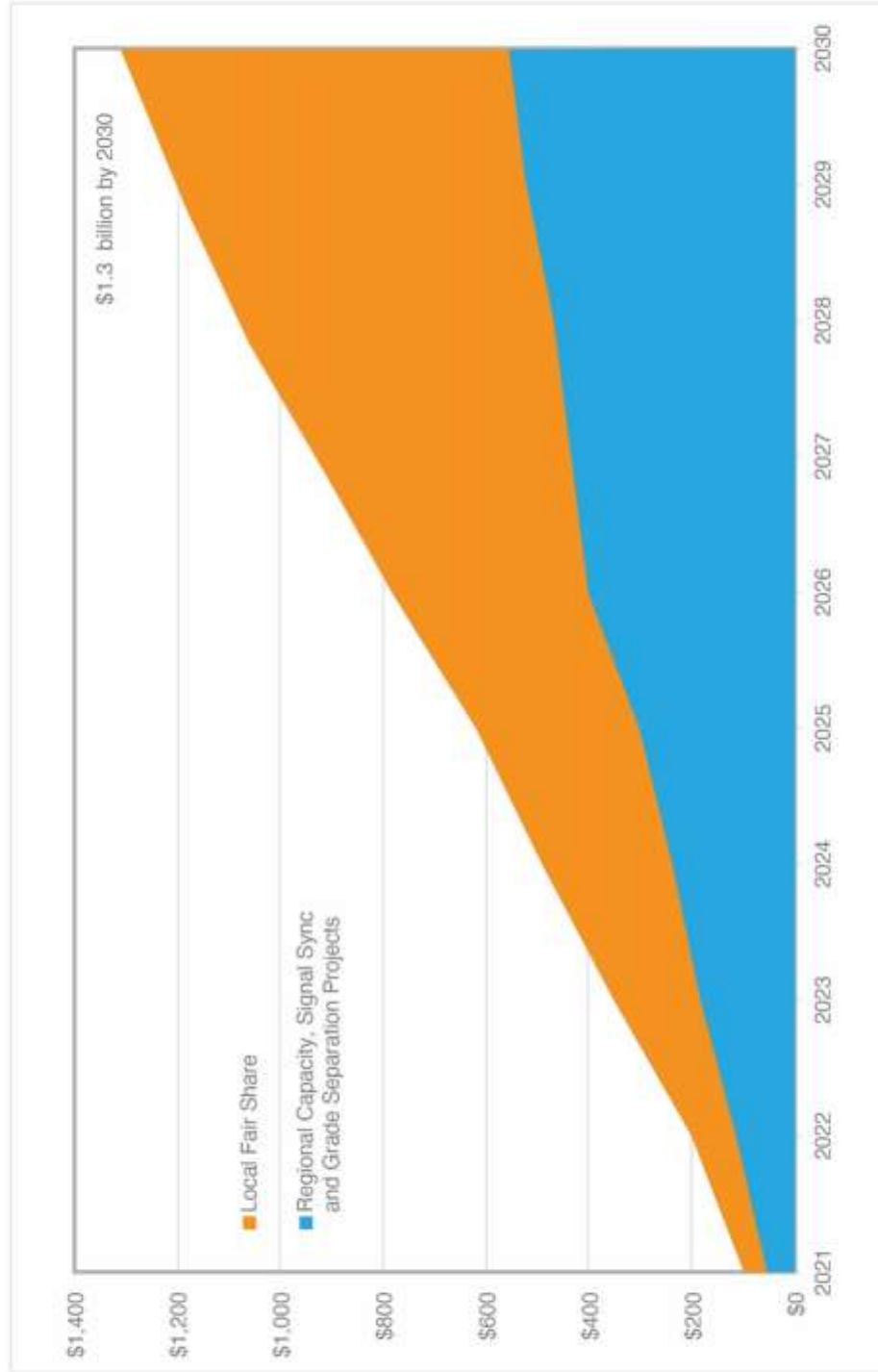
② Regional Traffic Signal Synchronization Program

- Competitive funding program with annual call for projects for signal coordination

③ Local Fair Share Program

- Flexible funding to local jurisdictions for street maintenance and improvements (not mapped)

OC Go Streets and Roads Cumulative Expenditures



Streets and Roads



Overview:

Local streets provide the capacity for the movement of people and goods which is essential to Orange County's commerce and vitality. Streets carry approximately half of Orange County's car and truck traffic and nearly all of Orange County's bicycle and pedestrian traffic. Keeping people moving on local streets is an essential function of the M2 funding programs for local streets. To meet this broad mobility goal, the Next 10 Plan includes the following framework for the Streets and Roads Program:

- Target M2 competitive program funds for streets with the worst traffic congestion.
- Maintain the value of investments in streets by synchronizing traffic signals and keeping pavement in good condition.
- Keep traffic moving on Orange County streets by completing key grade separations along the BNSF Railway corridor in north Orange County.
- Consider all modes of travel when planning for added street capacity.

Next 10 Plan Deliverables:

Continue to provide funding to improve the countywide network of streets and roads making them safer and more efficient. The Next 10 Plan for streets and roads recommends two major initiatives through 2030, consistent with the above framework:

1. Provide annual calls for competitive funding to local jurisdictions to address bottlenecks and gaps in the street system and synchronize signals (Project O and P).
2. Provide flexible funding to local jurisdictions to preserve the quality of streets or for use on other transportation needs as appropriate (Project Q).

O. Regional Capacity Program

Description:

Project O provides funding through a competitive process to local jurisdictions for recommended streets and roads projects which complete the Orange County MPAH, relieve congestion, are cost effective, and can proceed to construction quickly. These projects fall into one of two categories as described below.

RCP: This portion of Project O provides a funding source to complete the Orange County MPAH, a plan for future roadway improvements throughout Orange County. This includes intersection improvements and other projects that help improve street operations and reduce congestion. The M2 goal for these projects is to complete roughly 1,000 miles of new street lanes, mostly in the form of widening existing streets to their ultimate planned width. Matching local funds are required for these projects.

OC Bridges: This portion of Project O funded seven over- or underpass grade separations that eliminate car and train conflicts along the BNSF Railway (Orangethorpe corridor) in northern Orange County. These grade separations increased safety for everyone traveling through the intersections and eliminate delays caused by trains.

Program Funding:

RCP: \$354 million between 2021 and 2030.

Status:

To date, OCTA has awarded \$339.77 million, which includes \$24 million in external funding, to 164 projects through eleven competitive RCP calls. Annual calls are planned for projects between 2021 and 2030.

As of November 2017, all seven grade separation projects were opened to traffic (Kraemer Boulevard, Lakeview Avenue, Orangethorpe Avenue, Placentia Avenue, Raymond Avenue, State College Boulevard, and Tustin Avenue/Rose Drive). No future calls for grade separations are anticipated.

Present Day:

Annual RCP calls take place providing local jurisdictions the opportunity to request funding for street improvements.

Benefits:

Completion of the MPAH system, including grade separations will result in better traffic flow and a more efficient transportation system.

O. Regional Capacity Program

External Funding:

RCP: Local jurisdictions are required to provide a 50 percent local match. Matching funds may be reduced contingent on participation in pavement and signal programs, as well as use of non-M2 funds for local match. While other external state and federal funding are not typically used for RCP projects, there have been eight projects to date which qualified for and received State-Local Partnership Program funds, amounting to approximately \$24 million.

OC Bridges: The Board approved the use of \$209.7 in federal funds and \$260.83 million in state funds for this project. Additionally, local jurisdictions provided \$44.4 million in funding. OC Bridges funding includes 75 percent in external local, state, and federal funds.

Risks:

Local jurisdictions must meet and maintain eligibility requirements to receive net M2 funds. Additionally, funds received are subject to M2 timely use of funds provisions.

Related Projects:

Project P and Project Q.

Other Involved Agencies:

All local jurisdictions (cities and County of Orange).

Assumptions:

Project O is assumed to be funded primarily on a pay-as-you-go basis with bonding for the seven OC Bridges projects. More detailed assumptions are included in the appendices.

References:

- M2 Eligibility Guidelines
- Comprehensive Transportation Funding Guidelines
- Orange County MPAH Guidelines
- Capital Funding Program Report – Local Road Project (September 2021)

P. Regional Traffic Signal Synchronization Program

Description:

Project P provides funds to local jurisdictions to implement new signal timing on a 750-mile regional network that covers most of Orange County. Optimizing traffic signal timing is a low-cost, high-benefit approach to reducing congestion and improving traffic flow. Better signal timing results in fewer traffic stops, delays, pollution, and saves commuters gas and money.

Program Funding:

\$149.42 million between 2021 and 2030.

Status:

Annual calls are planned for projects between 2022 and 2030. As of June 2021, OCTA has awarded more than \$140.81 million, including approximately \$30.48 million in external funding, to 123 projects. Since 2008, 91 corridor-based signal synchronization projects for a cost of approximately \$70.4 million (including non-M2 funds) have been implemented, 29 are planned or underway, and three have been cancelled. Including early efforts, OCTA and local jurisdictions have synchronized more than 3,000 intersections. From FY 2020-21 through FY 2029-30, the entire network of signals is anticipated to have been retimed or optimized at least two times. This equates to more than 4,000 intersections retimed over a ten-year period.

Present Day:

In the past, many traffic signal synchronization projects were limited to segments of roads in individual cities.

M2 provides funds to expand these projects to benefit neighboring cities and regional corridors.

Benefits:

Optimizing signal timing offers substantial benefits in reducing traffic delays and improving air quality. To date, OCTA has implemented optimized signal timing on 91 corridors with 3,108 intersections covering 799 miles of roadway. On the average, each project resulted in a 13 percent travel time savings for corridor end-to-end travel, saving commuters time and money for a relatively low investment. Future projects may see comparable benefits when combined with capital improvements to reduce physical bottlenecks where appropriate.

External Funding:

Local jurisdictions are required to provide a 20 percent local match. Matching funds may be in-kind services. There may be future needs for more capital-intensive investments as systems age.

Projects started prior to the 2011 call were funded with \$4.95 million in M1, \$1.77 million in federal Congestion Mitigation and Air Quality Improvement (CMAQ), and \$3.82 million in Prop 1B funds. The 2013 call was partially funded with \$1.25 million in MSRC grant money. The 2018 call was able to leverage \$6.69 million in SB 1 Local Partnership Program competitive grant funds. OCTA was also able to leverage \$12 million in SB 1 Solutions for Congested Corridor Program competitive grant funds for three

P. Regional Traffic Signal Synchronization Program

corridor projects outside the 2020 call. In all, external funding (not including funds provided by local jurisdictions) contributed is approximately \$30.4 million.

Risks:

Local jurisdictions must meet and maintain eligibility requirements to receive net M2 funds. Additionally, funds received are subject to M2 timely use of funds provisions.

Related Projects:

Project O (RCP) and Project Q.

Other Involved Agencies:

Caltrans and all local jurisdictions (cities and County of Orange).

Assumptions:

Project P is assumed to be funded on a pay-as-you-go basis.

References:

- M2 Eligibility Guidelines
- Comprehensive Transportation Funding Program Guidelines
- OCTA's Comprehensive Business Plan
- Capital Funding Program Report – Local Road Project (September 2021)

Q. Local Fair Share Program

Description:

Project Q provides formula-based funds that local jurisdictions may use for a variety of transportation purposes and needs, including repairing aging streets, residential street projects, bicycle lanes, and pedestrian safety.

Key among these needs is pavement preservation, which involves extending the useful life of pavement and avoiding costly street reconstruction. Preserving and maintaining roads in good condition is a key goal of M2 and Project Q in particular.

Program Funding:

Up to \$715.01 million will be provided between 2021 and 2030.

Status:

As of June 2021, approximately \$512.94 million in LFS payments have been provided to local jurisdictions and the County.

Orange County streets are in generally good condition on average (with a pavement condition index of 79 based on the 2018 statewide report, the best in state). As roadway pavement conditions deteriorate, however, the cost for repairs increases exponentially. For example, it costs as much as 14 times more to reconstruct pavement than to preserve it when it is in good condition.

Present Day:

The cost of street rehabilitation has increased substantially in recent years, and gas tax revenues have not kept pace, which has a direct impact on the ability to fund street maintenance and rehabilitation.

Benefits:

Investments in streets and roads save future costs, keep traffic moving, and offer expanded travel choices.

LFS funds are also flexible and can be used as matching funds for capacity and safety projects, bike and pedestrian facilities, as well as local transit services.

External Funding:

This program is not externally funded.

Risks:

Local jurisdictions must meet and maintain eligibility requirements to receive net M2 funds. Additionally, funds received are subject to M2 timely use of funds provisions.

Related Projects:

Project O (RCP) and Project P.

Other Involved Agencies:

All local jurisdictions (cities and County of Orange).

Assumptions:

Project Q is assumed to be funded on a pay-as-you-go basis.

References:

- M2 Eligibility Guidelines
- 2018 California Statewide Local Streets and Roads Needs Assessment
- OCTA's Comprehensive Business Plan
- Capital Funding Program Report – Local Road Project (September 2021)

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NEXT 10

DELIVERY PLAN

Transit Programs

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Updated 6/21/22

R High Frequency Metrolink Service

- Metrolink Grade Crossing Improvements
- Metrolink Station Improvement Projects
- Planned Metrolink Station
- Laguna Niguel-San Juan Capistrano Passing Siding Project
- Sand Canyon Grade Separation Project

S Transit Extensions to Metrolink

- Bus and Station Van Extension Projects (not mapped)
- OC Streetcar

T Metrolink Gateways

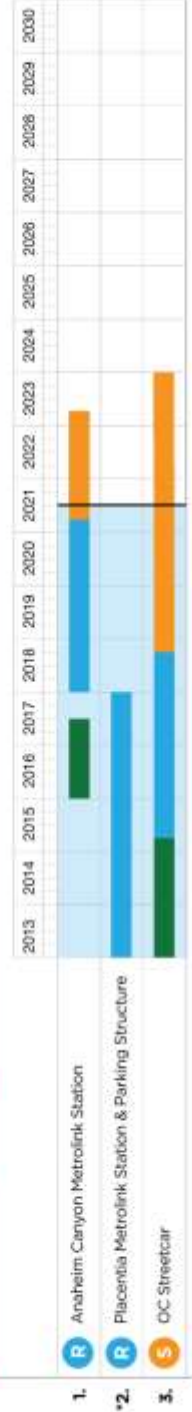
- Anaheim Regional Transportation Intermodal Center (ARTIC)

U Expand Mobility Choices for Seniors and Persons with Disabilities (countywide, not mapped)

V Community Based Transit/Circulators (countywide, not mapped)

W Safe Transit Stops (countywide, not mapped)

OC Go Transit Projects Through Construction



Please note that schedules are updated as of June 30, 2021. Shown schedules are subject to change.

* The Placentia Metrolink Station's ability to move into construction is subject to a track sharing agreement with Burlington Northern Santa Fe Railway

Transit Program



Overview:

The goal of the Transit Program is to build a visionary transit system that is safe, clean, and convenient, with a focus on Orange County's transportation future. Providing mobility choices and connectivity for Orange County residents and workers are key components of the overall M2 Plan. To meet this broad mobility goal, the Next 10 Plan includes the following framework for the Transit Program:

- Ensure efficient and integrated Metrolink service for Orange County residents.
- Assess and deliver transit options providing riders first and last mile connections and alternatives to driving.
- Provide services and programs to meet the growing transportation needs of seniors and persons with disabilities.
- Support local agency efforts to deliver Board-approved community-based transit projects.
- Advance improvements to the busiest transit stops across the County to provide passenger amenities that ease transfers between bus lines.

Next 10 Plan Deliverables:

The Next 10 Plan for transit recommends seven major initiatives through 2030, consistent with the above framework.

1. Complete rail station improvements.
2. Sustain Metrolink service as an attractive alternative to driving in Orange County.
3. Complete construction and begin operating the OC Streetcar.
4. Incorporate recommendations from planning studies to guide development of future transit connections.
5. Support expanded mobility choices for seniors and persons with disabilities.
6. Work with local jurisdictions to maintain successful community circulator projects and potentially provide grant opportunities for expanded or new local transit services.
7. Continue to improve the top 100 busiest bus stops in Orange County.

R. High Frequency Metrolink Service

Description:

Project R provides for sustained and expanded rail service into Los Angeles and Orange Counties along the three Metrolink lines serving Orange County (Orange County, Inland Empire-Orange County, and 91/Perris Valley Lines). Project R also provides for safety and operational improvements to the railroad infrastructure necessary to support existing and expanded train service, including grade crossing improvements, track improvements, signal and communications system improvements, as well as other projects as necessary to support the rail system. Grade separation projects will be considered as available funding permits.

Program Cost:

Approximately \$393.48 million between 2021 and 2030.

Status:

To date, rail safety enhancements at 50 at-grade rail-highway crossings have been completed. As a result, quiet zones have been established in the cities of Anaheim, Dana Point, Irvine, Orange, San Clemente, San Juan Capistrano, Santa Ana, and Tustin.

Station improvements completed during the EAP include parking expansion projects at the Fullerton Transportation Center, Tustin Station and Laguna Niguel/Mission Viejo Station, as well as safety repairs to the San Clemente Pier Station platform.

Since then, several station improvement projects have been completed: the San Clemente Pier Metrolink/ Amtrak Station lighting, the Laguna Niguel/Mission Viejo

Metrolink Station Americans with Disabilities Act (ADA) ramps, the Orange Transportation Center Parking Structure the Fullerton Transportation Center elevator upgrades project and stair replacement project, and detectable tile replacements at various stations.

Rail station improvements are anticipated to be completed during the Next 10 Plan to accommodate increased passenger train service such as the Anaheim Canyon Metrolink Station improvement project. The Anaheim Canyon Metrolink Station project began construction in May 2021 and is anticipated to be complete early 2023.

Completed rail corridor improvements include Control Point Stadium, the San Clemente Beach Trail Audible Warning System, Laguna Niguel to San Juan Capistrano Passing Siding, Railroad ROW Slope Stabilization, and six Project Study Reports for potential grade separations along the Los Angeles-San Diego-San Luis Obispo Rail (LOSSAN) corridor, including: Control Point at 4th Street, 17th Street, Ball Road, Grand Avenue, Main Street, Orangethorpe Avenue, and Santa Ana Boulevard.

Rail corridor improvements underway include: San Juan Creek Railroad Bridge Replacement, Metrolink Preventive Maintenance Capitalized Operation, Metrolink Rehabilitation/Renovation, and ongoing operation of Positive Train Control.

Present Day:

The three lines serving Orange County (Orange County, Inland Empire-Orange County, and the

R. High Frequency Metrolink Service

91/Perris Valley lines) now operate 41 trains, compared to 54 daily trains operated prior to COVID-19. Metrolink is gradually adding service back based on projections of ridership growth. OCTA will continue to actively engage with Metrolink and other member agencies and monitor ridership levels and the corresponding financial impacts to M2.

In October 2019, four weekday intracounty round trips operating between Laguna Niguel/Mission Viejo and Fullerton were replaced with two round trips between Laguna Niguel/Mission Viejo (extended from Fullerton) into Los Angeles. Additional service changes were scheduled to be implemented in April 2020, however, due to COVID-19, they have been postponed until full service is reinstated. In March 2020, all Metrolink services were impacted by the statewide enforcement of stay-at-home orders that resulted from the COVID-19 pandemic. Metrolink implemented temporary service reductions in March and November 2020 due to the decline in ridership. OCTA and partner agencies are working together with Metrolink to assess future demand, determine how to implement the restoration of service, and plan for improvements that will allow the expansion of service to Los Angeles. OCTA is coordinating with LOSSAN and its member agencies to continue to support improved service integration and coordination within the corridor.

Benefits:

Project R allows for sustained operation and enhanced capacity of

Metrolink trains serving Orange County, providing a viable alternative to single-occupant vehicle travel, thereby reducing congestion on crowded roadways and freeways.

External Funding:

State: STIP, Propositions 1A, 1B, and 116, and Transit and Intercity Rail Capital Program totaling \$179.85 million.

Federal: CMAQ, the Surface Transportation Block Grant Program, and FTA Sections 5307, 5309, and 5337, totaling \$373.34 million.

Other Local: Local funding from the cities as well as other entities is programmed for \$85.26 million.

M1 also provided \$136.58 million.

Risks:

The lower sales tax revenue projections due to COVID-19 limit the ability to expand Metrolink service to Los Angeles. In addition, COVID-19 has greatly impacted Metrolink service. Depending on Metrolink ridership recovery projections and future service level assumptions, maintaining pre-COVID-19 service or expansion of service may no longer be feasible.

Outside of the Next 10 Plan but important to Metrolink operations is the undertaking by Metrolink of a major multi-year \$443.5 million systemwide rehabilitation program that, in addition to safety, will help improve system reliability and performance for commuters. This program needs to be

R. High Frequency Metrolink Service

funded over and above ongoing maintenance and operation costs.

Related Projects:

Project S, Project T, and Project V.

Other Involved Agencies:

BNSF, Caltrans, California Office of Emergency Services, California Public Utilities Commission (CPUC), California State Transportation Agency (CalSTA), Corridor Agencies, CTC, FTA, Los Angeles County Metropolitan Transportation Authority, Metrolink, RCTC, San Bernardino County

Transportation Authority, and Ventura County Transportation Commission.

Assumptions:

Funding and operating agreements with partner agencies will be successfully implemented.

References:

- OCTA's Comprehensive Business Plan
- Capital Funding Program Report - Rail Project (September 2021)

S. Transit Extensions to Metrolink

Description:

Project S establishes a competitive program for local jurisdictions to broaden the reach of Metrolink to other Orange County cities, communities, and activity centers via transit, to connect passengers to their final destinations. With approximately 60 percent of Orange County's population and employment centers located within a four-mile radius of Metrolink stations, the emphasis of Project S is on expanding access to the core rail system and establishing connections to destinations that are not immediately adjacent to the Metrolink corridor, within the central core, north and south of Orange County. These connections may include a variety of transit technologies such as conventional bus or vanpool (Rubber Tire), bus rapid transit or high-capacity rail transit systems (Fixed Guideways), as long as they can be fully integrated and provide seamless transition for the users.

Program Funding:

Approximately \$352.52 million between 2021 and 2030 for fixed guideways in sales tax revenue.

Status:

Fixed Guideway: Through a competitive process, one project (OC Streetcar) advanced beyond initial study. The OC Streetcar is in construction and will operate in the cities of Garden Grove and Santa Ana.

Rubber Tire: One call has been issued since 2012, providing approximately \$732,000 for four projects in the cities of Anaheim and Lake Forest. The City of Lake Forest has cancelled all three

projects. The City of Anaheim project successfully completed its grant on June 30, 2020, and is being funded on a go-forward basis through a subsequent Project V grant. No future calls for rubber tire projects are anticipated.

Present Day:

Maintaining and growing Metrolink ridership relies on convenient and seamless bus and rail connections. Currently, OCTA fixed bus service and company shuttles are the prime providers of transit connections. However, Uber/Lyft paid-ridesharing services have been a growing presence.

Benefits:

Project S will provide expanded transit access to the centralized Metrolink system, thereby allowing Metrolink commuters to connect to other parts of the County without using an automobile.

External Funding:

Fixed Guideways: External funds for two preliminary studies for the cities of Anaheim and Santa Ana were funded with \$3.12 million in federal FTA Section 5307 and city local funds. M1 also provided \$20.63 million for preliminary studies.

The Board has approved funding supporting the OC Streetcar project, including \$25.59 million in contribution of state funds, and \$224.97 million in federal funds from federal CMAQ, FTA Section 5307 and 5309 and New Starts funding totaling \$250.55 million.

S. Transit Extensions to Metrolink

Rubber Tire: None. These projects are funded by M2 and local city matching funds.

Risks:

Overall schedule, scope, and cost risks are high with this project due to the extensive project scope.

Related Projects:

Project R (High Frequency Metrolink Service), Project T, and Project V.

Other Involved Agencies:

CalSTA, Caltrans, CPUC, CTC, FTA, and local jurisdictions.

Assumptions:

OC Streetcar: cities of Garden Grove and Santa Ana will provide their required match for operations.

Funding for a future call will be at the Board's discretion.

Rubber Tire: Future calls will be at the Board's discretion based on the level of interest from local jurisdictions but will likely be transitioned to Project V, which provides for greater flexibility.

References:

- M2 Eligibility Guidelines
- Project S Guidelines
- Federal 5307 and 5309 Funding Guidelines
- OCTA's Comprehensive Business Plan
- OC Streetcar Project Revised Funding Plan (July 2018)
- Capital Funding Program Report - Rail Project (June 2021)
- OC Streetcar Supplemental Contingency (March 2021)

T. Convert Metrolink Stations to Regional Gateways that Connect Orange County with High-Speed Rail Systems

Description:

Provide funding for local improvements to stations along the LOSSAN corridor in Orange County to facilitate connections to future high-speed rail systems, thereby ensuring Orange County's presence in the development and implementation of high-speed rail systems that will serve Orange County. One project, the Anaheim Regional Transportation Intermodal Center (ARTIC), moved forward to completion.

Cost:

M2 contributed \$35.29 million of the \$225.53 million cost of the ARTIC Project.

Status:

As part of EAP efforts, OCTA held a competitive call in 2009 for eligible station cities for the development and implementation of station projects in preparation of future high-speed rail systems. The cities of Anaheim, Fullerton, Irvine, and Santa Ana were awarded funding for planning of major expansions of their Metrolink Stations. The City of Anaheim received environmental clearance for the ARTIC project in early 2012. The completed facility opened to rail and bus service on December 6, 2014.

On December 14, 2015, the Board amended the M2 Ordinance and Transportation Investment Plan to officially close out Project T by considering the completion of ARTIC as fulfilling the intent of Project T, as the only Orange County station on the planned High-Speed Rail route. The remaining balance of M2 funds were then transferred to two projects in need:

the Metrolink Service Expansion Program (part of Project R), and the Fare Stabilization Program for Seniors and Persons with Disabilities (part of Project U).

Present Day:

In partnership with transportation agencies, corridor cities, and stakeholders, the California High-Speed Rail Authority in 2008 planned a High-Speed Rail system that was envisioned to extend as far north as Sacramento and as far south as San Diego with a connection in Anaheim. Work on the Central Valley segment from Bakersfield to Merced continues, however other areas of the system have been postponed.

Benefits:

Early completion of Project T allowed for investment in Orange County's rail system to facilitate the planned ultimate integration of various high-speed rail systems within the County. The project relocated the prior rail station from leased land in the Los Angeles Angels of Anaheim parking lot, to its new permanent location as a multi-modal station for all transit riders.

External Funding:

State: STIP totaling \$29.22 million.

Federal: CMAQ, Regional Surface Transportation Program, FTA Sections 5309 and 5337, FTA Bus Livability, and Highway Safety Improvement Program, totaling \$76.00 million.

T. Convert Metrolink Stations to Regional Gateways that Connect Orange County with High-Speed Rail Systems

M1 also provided \$87.02 million of which \$32.50 million for ROW will be repaid plus interest by the City of Anaheim by 2025.

Risks:

None – project is complete.

Related Projects:

California High-Speed Rail System.

Other Involved Agencies:

California High-Speed Rail Authority, Caltrans, cities of Anaheim, Fullerton, Irvine, and Santa Ana, CTC, FTA, and Metrolink.

Assumptions:

The California High-Speed Rail System will extend to the City of Anaheim as identified in their 2016 Business Plan.

References:

- M2 Eligibility Guidelines
- Section 5309 and 5337 Funding Guidelines
- California High-Speed Rail 2016 Business Plan
- December 2017 Project Status Report
- Capital Funding Program Report - Rail Project (June 2021)

U. Expand Mobility Choices for Seniors and Persons with Disabilities

Description:

Project U provides funding for three programs to expand mobility choices for seniors and persons with disabilities.

The SMP, administered by OCTA, was first established in 2001. For the first ten years, this program was supported with Transit Development Act funds. The allocation of Project U funding ensures the continuation of dedicated resources to sustain this program.

The SNEMT Program was established by the County of Orange in 2003, utilizing Tobacco Settlement Revenue (TSR) to fund the program. Project U funding supplements existing TSR resources to expand the capacity of the program and increase the number of available SNEMT trips.

The Fare Stabilization Program ensures that fares for seniors and persons with disabilities continue to be discounted at the same percentage as 2006 levels.

Program Funding:

Up to \$138.32 million will be provided between 2021 through 2030.

Status:

SMP: This program offers a variety of senior transportation resources. Participating cities determine the services that best meet the needs of the seniors in their community. Examples of services include transportation for medical, nutrition, shopping, and social trips. Currently, there are 32 cities

participating. As of June 2021, two cities' services remain temporarily suspended due to COVID-19.

SNEMT: This program is administered by the County of Orange Office on Aging and is carried out by two transportation contractors. This program provides approximately 140,000 annual trips under Project U for non-emergency services such as trips to doctor and dental appointments, therapy, dialysis, and pharmacy visits.

As of June 2021, more than \$36.00 million has supported over 123 million trips through the Fare Stabilization Program, \$26.50⁴ million provided 2.50 million trips through SMP, and \$28.60 million provided 1.38 million trips through the SNEMT Program since the inception of M2.

Fare Stabilization: In December 2015, the Board approved an amendment to the M2 Ordinance and Transportation Investment Plan that backfilled a funding shortfall identified in this program with remaining Project T funds. Effective January 2016, an amendment to the M2 Ordinance adjusted this amount to 1.47 percent of net M2 revenues. With the amendment, projected Fare Stabilization revenues are expected to be solvent through the life of the M2 Program.

Present Day:

Studies of senior mobility needs have identified seniors' preference for utilizing

⁴ Only includes disbursed funds. On October 12, 2020, the Board approved a temporary exception to the SMP guidelines, which allows OCTA to hold allocations in

reserve for agencies with suspended services due to the COVID-19 pandemic. The funds will be held until the State lifts the state of emergency or the agency resumes transportation services, whichever occurs first.

U. Expand Mobility Choices for Seniors and Persons with Disabilities

local, community-based transportation services rather than countywide or regional services.

The SMP allows participating cities to identify the specific mobility needs of the seniors in their communities and develop transportation programs to best meet those needs with available funding.

The SNEMT Program fills a gap in senior transportation services, as trips are often provided to seniors who do not qualify for ACCESS service, or to seniors whose advanced age or disposition make it difficult to use ACCESS service. Contracting with social service agencies to provide SNEMT services allows this program to provide enhanced service elements beyond the requirements of ACCESS, a paratransit service that complements OCTA's fixed route bus service and is provided to comply with ADA.

Benefits:

M2 funding of these programs, combined with OCTA ACCESS service and other senior transportation services funded with public and private resources, provide a menu of mobility options for Orange County seniors, allowing them to select the service that most appropriately meets their transportation need.

External Funding:

Local jurisdictions contribute a 20 percent match to their SMP services. A variety of funding sources are used by cities for their SMP match requirement, including general fund, Community Development Block Grants,

sponsorships, advertising revenue, and administrative in-kind resources. The County of Orange utilizes primarily TSR funds to meet their maintenance of effort requirement.

Risks:

Local jurisdictions must meet eligibility requirements and provide matching funds for SMP.

Related Projects:

Not Applicable.

Other Involved Agencies:

Nearly all local jurisdictions. Participating SMP cities include: Aliso Viejo, Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Dana Point, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, Laguna Beach, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, Mission Viejo, Newport Beach, Orange, Placentia, Rancho Santa Margarita, San Clemente, San Juan Capistrano, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda. The Orange County Office on Aging administers the SNEMT Program.

Assumptions:

Project U is assumed to be funded on a pay-as-you-go basis.

References:

- M2 Eligibility Guidelines
- Project U Funding and Policy Guidelines
- OCTA's Comprehensive Business Plan

V. Community Based Circulators

Description:

Project V provides funding to local jurisdictions through a competitive process to develop local bus transit services, such as community-based circulators, shuttles, and bus trolleys that complement regional bus and rail services and meet local needs in areas not adequately served by regional transit. Projects need to meet performance criteria, connect to bus and rail services, and document financial viability to be considered for funding.

Program Funding:

\$68.52 million between 2021 through 2030.

Status:

Since M2 inception, the Board has approved \$52 million for 35 projects (Note: service expansions and/or extensions from the 2018 & 2020 calls are counted as separate projects) and ten planning studies through four calls.

Out of the 35 projects awarded by OCTA: 10 are currently active, 13 are suspended (or not initiated) due to COVID-19, nine have been cancelled (primarily due to low ridership), and three have been completed.

Present Day:

Project V helps address the regularly-expressed need for local community-based transit service by Orange County communities.

Benefits:

Community based circulators can provide relief to arterials in high traffic areas, and provide non-auto based mobility options that meet specific local needs.

External Funding:

The local match requirement for both capital and any operating funds authorized by the Board is a minimum of ten percent.

Risks:

Local jurisdictions must meet eligibility requirements to receive funding. Ability to sustain ridership will be key to moving projects forward. Continued social distancing may also impact ridership as services are re-initiated post-pandemic.

Related Projects:

Project S (some Project S and V routes could serve dual purposes).

Other Involved Agencies:

Participating local jurisdictions.

Assumptions:

Project V is assumed to be funded on a pay-as-you-go basis.

References:

- M2 Eligibility Guidelines
- Project V Guidelines
- OCTA's Comprehensive Business Plan

W. Safe Transit Stops

Description:

Project W provides funding for passenger amenities at the 100 busiest transit stops across Orange County. The intent is to assist bus riders in the ease of transfer between bus lines and provide passenger amenities.

Program Funding:

\$7.48 million between 2021 through 2030.

Status:

Since inception, the Board has approved over \$3.1 million for 122 stop improvements through three calls. To date, 43 stops have been completed, 69 stop improvements are either planned or underway, and ten improvements have been cancelled by the awarded agency.

Present Day:

High volume stops are eligible for funding providing needed passenger amenities commensurate with the volume of riders.

Benefits:

Eligible improvements in locations where such amenities do not exist to enhance the customer experience. Improvements include enhancements such as sun/rain protection, passenger seating, improved lighting, etc.

External Funding:

Minimal local match provided for design requests; the rest is 100 percent M2-funded up to the Project W funding caps. If over the cap, then additional local agency funds are required.

Risks:

Local jurisdiction-initiated: Local jurisdictions are responsible for amenities at bus stops. Depending on the amenities selected, long-term maintenance and costs could be required.

Related Projects:

Not Applicable.

Other Involved Agencies:

Local jurisdictions with a top 100 busiest stop are eligible to receive these funds.

Assumptions:

Project W is assumed to be funded on a pay-as-you-go basis.

References:

- M2 Eligibility Guidelines
- Project W Guidelines
- OCTA's Comprehensive Business Plan

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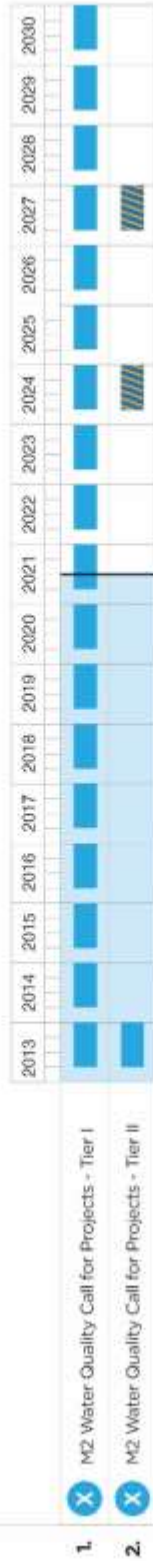
Environmental Cleanup Program

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OC Go Environmental Cleanup Grants and Call for Projects

Call for Projects
 Call for Projects to be determined based on revenue flow



Tier 1 grants program consists of funding for equipment purchases and upgrades to existing storm drains and related best management practices.

Tier 2 grants program consists of funding for regional, potentially multi-jurisdictional, capital-intensive projects.

Environmental Cleanup Program



Overview:

The ECP (Project X) allocates approximately \$225 million toward improving overall water quality in Orange County from transportation related pollution. Project X was approved by Orange County voters under the M2 half-cent sales tax for transportation improvements in 2006.

To adhere to the promise of M2, the Next 10 Plan includes the following framework for Project X:

- Provide supplemental funds (not supplant) for existing transportation related water quality programs.
- Allocate funds on a competitive basis to improve water quality standards in Orange County.
- Reduce transportation-generated pollutants along Orange County's streets, roads, and freeways.
- Implement best management practices to improve runoff from streets, roads, and freeways.

Additionally, as part of the overall M2 Plan, all M2 capital projects (freeway, street, and transit) must include water quality mitigation as part of their respective project scope and cost. Therefore, this source of funding is not eligible for environmental mitigation efforts.

Next 10 Plan Deliverables:

The Next 10 Plan for Project X recommends two major initiatives through 2030 consistent with the above framework:

1. Protect Orange County beaches by removing trash from entering waterways and inlets that ultimately lead to the ocean.
2. Work with the ECAC to develop the next tiers of water quality funding programs to prevent the flow of trash, pollutants, and debris into waterways from transportation facilities. In addition, focus on improving water quality on a regional scale that encourages partnerships among the local agencies as part of Project X.

X. Environmental Cleanup Program

Description:

Project X implements street- and highway-related water quality improvement programs and projects that assist Orange County cities, the County of Orange and special districts in meeting federal Clean Water Act standards for urban runoff. Project X is intended to augment, not replace existing transportation-related water quality expenditures and to emphasize high-impact capital improvements over local operations and maintenance costs.

In May 2010, the Board approved a two-tiered approach to fund Project X. The Tier 1 grant program is designed to mitigate the more visible forms of pollutants, such as litter and debris that collect on roadways and in storm drains. Tier 1 consists of funding equipment purchases and upgrades to existing catch basins and related best management practices, such as screens and other low-flow diversion devices.

The Tier 2 grant program consists of funding regional, potentially multi-jurisdictional, and capital-intensive projects. Examples include constructed wetlands, detention/infiltration basins, and bioswales which mitigate pollutants such as heavy metals, organic chemicals, and sediment and nutrients.

Program Funding:

\$58.78 million between 2021 and 2030.

Status:

To date, the Board has awarded approximately \$27.36 million to fund 189 Tier 1 projects across the County through ten rounds of funding since M2 inception. An eleventh call was released in early 2021 for approximately \$2.8 million and

programming recommendations are anticipated in late summer. The Board has also awarded approximately \$27.89 million for 22 Tier 2 projects in 12 cities and the County of Orange.

The 2021 Next 10 Plan will continue to commit to annual Tier 1 calls. The timing for the next Tier 2 call is currently being evaluated, with future calls determined based on local jurisdiction interest and cash flow analysis.

Present Day:

Staff estimates that over 45 million gallons (approximately 105 football fields at one-foot deep) of trash have been captured as a result of the installation of Tier 1 devices since the inception of the Tier 1 Program in 2011. As the equipment is in service over time, the volume of trash captured is expected to increase. The funded Tier 2 projects, once fully operational, have the potential to recharge 157 million gallons of groundwater annually.

Benefits:

Improvements funded through this program will improve overall water quality in Orange County. Funds allocated on a countywide competitive basis will assist agencies in meeting federal Clean Water Act requirements for controlling transportation-generated pollution.

External Funding:

Local jurisdictions are required to provide a 20 percent (Tier 1) and 50 percent (Tier 2) minimum local cash match. Tier 2 matching funds may be reduced, depending on project readiness and operations and maintenance above the ten-year minimum requirement.

X. Environmental Cleanup Program

Risks:

Local jurisdictions must meet eligibility requirements and timely-use-of-funds provisions to M2 receive funding.

Related Projects:

Not Applicable.

Other Involved Agencies:

All local jurisdictions (cities and County of Orange). Third parties such as environmental organizations, homeowner's associations, non-profit groups, and water and wastewater public entities cannot be a lead agency applicant; however, they could jointly apply with an eligible applicant.

Assumptions:

Funds will be allocated on a countywide competitive basis to assist agencies with improving water quality related to transportation pollution.

References:

- M2 Eligibility Guidelines
- Project X Guidelines
- Tier 2 Grant Program Planning Study
- OCTA's Comprehensive Business Plan

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Appendix

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To determine the status of the M2 Program, staff reviewed and updated cash flows for the Next 10 Plan for each of the program elements to test whether commitments provided to the voters as part of the M2 approval in November 2006 remain achievable. The revenue assumptions are based on the 2021 M2 revenue forecast of \$13.2 billion using the latest M2 revenue forecast methodology approved by the Board. The Next 10 Plan also assumes approved TIFIA proceeds, FFGA, and net excess 91 Express Lanes revenues for eligible projects as well as the availability of a viable amount of discretionary federal and/or state funds from 2021 to 2041. Revenues and expenses were merged into a high-level cash flow model that will be refined through a Plan of Finance. Bonding assumptions were updated to determine the need to address projected negative ending balances by year (compared to a pay-as-you-go scenario) and are constrained to minimum debt coverage ratios. An M2 cash flow summary chart showing ending balances in all years is shown below.



Freeway Program

Revenues for the M2 Freeway Program assumed a proportional share (43 percent) of net M2 revenue. From inception to 2030, the Freeway Program would receive approximately \$2.85 billion in M2 revenue, \$694.74 million in bond proceeds (includes \$495.44 million in prior bond proceeds), and \$1.62 billion in state/federal grants, \$108.93 million in TIFIA proceeds, \$427.63 million in net excess 91 Express Lanes revenue for eligible projects, \$29.59 million in interest, and \$20 million transferred in

Next 10 Plan Funding Assumptions



from M1 for a total of \$5.75 billion in total revenue. Costs for the same period total \$5.47 billion (including debt service payments against prior bonding).

For the 2021 Next 10 Plan update, forecasted revenues and costs through 2041 were also tested for the complete M2 Freeway Program to ensure it could be delivered consistent with commitments. For projects currently in environmental or final design, project schedules and costs were based on data provided by OCTA's Project Controls Department. For projects that have not yet entered the environmental phase, cost estimates were prepared based on initial engineering estimates and schedules were prepared based on a scoring of congestion relief, project readiness, and cost escalation risks (associated with project delays). The 2021 update maintains just one bond issuance during the Next 10 Plan timeframe; the amount assumed decreased by approximately \$375 million from the 2020 Next 10 Plan and does not include any other issuances looking out to 2041. As always, bonding is constrained to legal debt coverage ratios, and a Plan of Finance is brought separately to the Board for approval at the time with refined bond assumptions.

Prior to FY 2020-21, 12 of the 30 freeway projects have been completed, as listed in the table below.

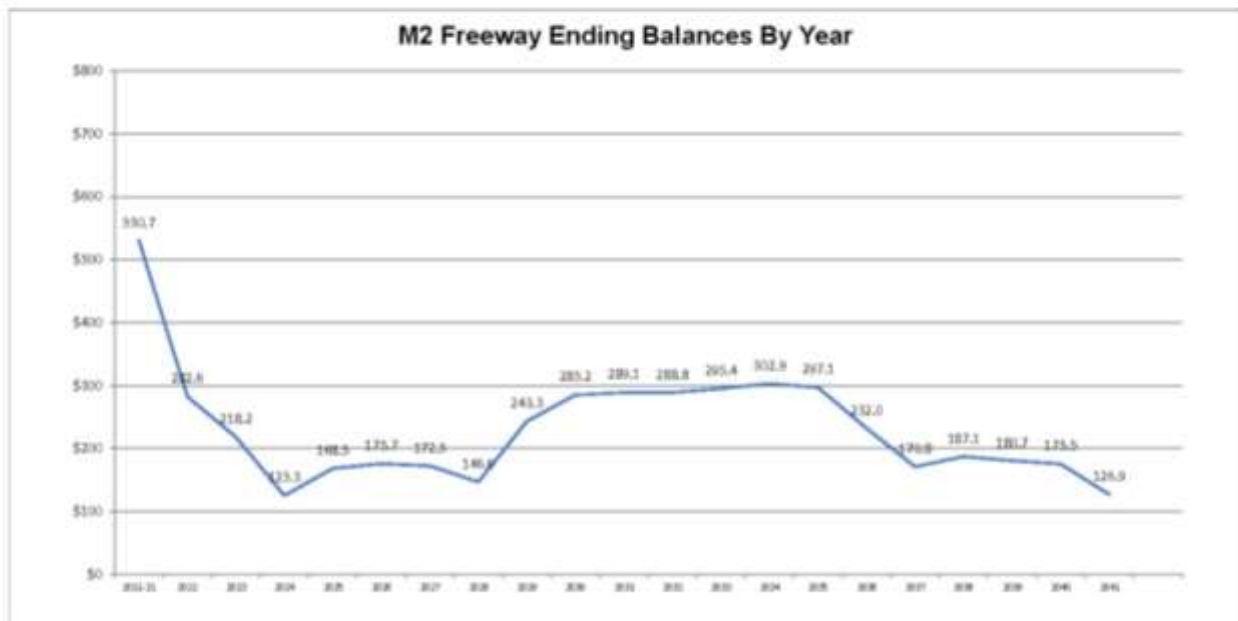
Completed M2 Freeway Projects		Construction Complete	Cost*
1. Project C, D	I-5 between Avenida Pico and Avenida Vista Hermosa/Avenida Pico Interchange	2018	\$83.6
2. Project C	I-5 between Avenida Vista Hermosa and Pacific Coast Highway	2017	\$75.3
3. Project C	I-5 between Pacific Coast Highway and San Juan Creek Road	2018	\$74.3
4. Project D	I-5, Ortega Highway Interchange	2016	\$79.8
5. Project E	SR-22 Access Improvements at Euclid Street, Brookhurst Street, and Harbor Boulevard	2008	M1's
6. Project G	SR-57 Northbound from Katella Avenue to Lincoln Avenue	2015	\$38.0
7. Project G	SR-57 Northbound from Orangethorpe Avenue to Yorba Linda Boulevard	2014	\$52.3
8. Project G	SR-57 Northbound from Yorba Linda Boulevard to Lambert Road	2014	\$54.1
9. Project H	SR-91 Westbound from I-5 to SR-57	2016	\$59.2
10. Project I	SR-91 Westbound from Tustin Avenue Interchange to SR-55	2016	\$42.5
11. Project J	SR-91 between SR-55 to SR-241	2013	\$79.7
12. Project J	SR-91 Eastbound from SR-241 to SR-71	2011	\$57.8
Completed M2 Freeway Projects Total			\$696.6

* Cost in millions

Next 10 Plan Funding Assumptions

2021 Next 10 Update - M2 Freeway Program Revenues, Estimated Costs, and Ending Balances (Millions of Dollars; Year of Expenditure)

	M2 Projected Revenue A	Programmed Other Revenue B	Estimated Costs (YOE) C	Project Revenues - Costs D = A + B - C
Project A (I-5, SR-55 to SR-57)	\$ 492.1	\$ 36.2	\$ 39.4	\$ 488.9
Project B (I-5, SR-55 to "Y")	\$ 314.3	\$ 188.0	\$ 430.9	\$ 71.4
Project C (I-5, South of "Y")	\$ 656.5	\$ 445.2	\$ 810.2	\$ 291.4
Project D (I-5 interchanges)	\$ 270.1	\$ 83.8	\$ 200.3	\$ 153.4
Project E (SR-22 access improvements)	\$ 125.6	\$ -	\$ -	\$ 125.6
Project F (SR-55 improvements)	\$ 383.2	\$ 433.4	\$ 634.5	\$ 182.1
Project G (SR-57 improvements)	\$ 270.9	\$ 110.6	\$ 430.1	\$ (48.6)
Project H (SR-91, I-5 to SR-57)	\$ 146.6	\$ 27.2	\$ 59.2	\$ 114.6
Project I (SR-91, SR-57 to SR-55) ¹	\$ 436.1	\$ 455.3	\$ 468.0	\$ 423.4
Project J (SR-91, SR-55 to OC/RC line) ¹	\$ 368.7	\$ 430.0	\$ 437.5	\$ 361.3
Project K (I-405, I-605 to SR-55) ²	\$ 1,123.2	\$ 244.3	\$ 1,560.2	\$ (192.6)
Project L (I-405, SR-55 to I-5)	\$ 334.7	\$ 8.0	\$ 262.4	\$ 80.3
Project M (I-605 access improvements)	\$ 20.9	\$ -	\$ 29.0	\$ (8.1)
Project N (Freeway Service Patrol)	\$ 157.0	\$ -	\$ 157.7	\$ (0.6)
Mitigation Program @ 5%	\$ 268.4	\$ -	\$ 239.6	\$ 28.9
Transfer from M1 Savings	\$ -	\$ 20.0	\$ -	\$ 20.0
Interest Earnings	\$ -	\$ 29.6	\$ -	\$ 29.6
Bond Interest Costs ³	\$ -	\$ -	\$ 348.1	\$ (348.1)
Other Non-Programmed Revenue	\$ -	\$ 4.7	\$ -	\$ 4.7
Freeway Program Economic Uncertainties	\$ -	\$ -	\$ 1,650.7	\$ (1,650.7)
Subtotal M2 Revenues and Costs:	\$ 5,368.4	\$ 2,516.3	\$ 7,757.8	\$ 126.9
2041 Projected Balance:				



¹ \$691.8 million in 91 Express Lanes excess revenue has been incorporated into Other Revenues for portions of Project I (currently assumed at \$418.6 million) and Project J (currently assumed at \$273.2 million).

² \$108.9 million has been incorporated into Other Revenues for Project K. This is a direct benefit to the M2 portion of the I-405 Improvement Project, as the loan will be repaid with toll revenues and not M2.

³ Total debt service less bond proceeds.

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Streets and Roads

The M2 Streets and Roads Program consists of Project O (RCP), Project P (RTSSP), and Project Q (LFS). Combined M2 revenues for these programs assume a proportional share (32 percent) of net M2 revenue. From inception to 2030, the Streets and Roads Program would receive approximately \$2.12 billion in M2 revenue, \$37.70 million in interest, \$121.62 million in prior bond proceeds, and \$618.93 million in M1 and state/federal grants (primarily for the OC Bridges Program), for a total of \$2.89 billion in total revenue. This includes \$17.19 million in SB 1 funding leveraged for Project P. Costs for the same period would total approximately \$2.78 billion (including debt service payments against prior bonding).

Part of Project O includes the OC Bridges Program, which funded seven over- or underpass grade separations that eliminated car and train conflicts along the BNSF Railway in northern Orange County. These grade separations, listed in the table below, increased safety for everyone traveling through the intersections and eliminate delays caused by trains.

Completed OC Bridges – Grade Separation Projects		Construction Complete	Cost*
1. Project O	Kraemer Boulevard (Placentia)	2014	\$63.8
2. Project O	Placentia Avenue (Placentia)	2014	\$64.5
3. Project O	Orangethorpe Avenue (Anaheim/Placentia)	2016	\$105.9
4. Project O	Tustin Avenue/Rose Drive (Anaheim/Placentia)	2016	\$96.6
5. Project O	Lakeview Avenue (Anaheim/Placentia)	2017	\$110.7
6. Project O	Raymond Avenue (Fullerton)	2018	\$126.2
7. Project O	State College Boulevard (Fullerton)	2018	\$99.6
Completed OC Bridges – Grade Separation Projects Total			\$667.3

*Cost in millions

Next 10 Plan Funding Assumptions



Transit Program

The M2 Transit Program consists of Project R (High Frequency Metrolink Service), Project S (Transit Extensions to Metrolink), Project T (Metrolink Gateways), Project U (Seniors/Disabled Persons Mobility Programs), Project V (Community-Based Transit/Circulators), and Project W (Safe Transit Stops). Revenues for the M2 Transit Program assume a proportional share (approximately 25 percent) of net M2 revenue. From inception to 2030, the Transit Program would receive approximately \$1.66 billion in M2 revenue, \$51.68 million in prior bond proceeds, \$361.49 million in external revenue, \$45.65 million transferred from M1, and \$16.0 million in interest for a total of \$2.13 billion. The cash flow includes \$148.96 million in Federal New Starts funding, \$62.41 million in federal CMAQ, and \$25.51 million in State Cap-and-Trade for the OC Streetcar Project. Expenses for this same time period total \$2.02 billion (including debt service payments against prior bonding). The unprogrammed balance for Project S allows for the option of an additional future transit connection project.

Environmental Cleanup Program

The M2 ECP consists of Project X (Cleanup Highway and Street Runoff that Pollutes Beaches). Revenues for the M2 ECP assume two percent of gross annual M2 sales tax revenue. From inception to 2030, the ECP would receive approximately \$139 million in M2 revenue. Expenses for this same time period total \$98.55 million.

Common Abbreviations

Americans with Disabilities Act	ADA
Anaheim Regional Transportation Intermodal Center	ARTIC
Board of Directors	Board
BNSF Railway Company	BNSF
California Department of Fish and Wildlife	CDFW
California Department of Transportation	Caltrans
California Public Utilities Commission	CPUC
California State Transportation Agency	CalSTA
California Transportation Commission	CTC
Call for Projects	Call
Congestion Mitigation and Air Quality	CMAQ
Conservation Properties	Preserves
Coronavirus	COVID-19
Early Action Plan	EAP
Environmental Cleanup Allocation Committee	ECAC
Environmental Cleanup Program	ECP
Environmental Impact Report	EIR
Environmental Impact Statement	EIS
Environmental Mitigation Program	EMP
Federal Highways Administration	FHWA
Federal Transit Administration	FTA
Fire Management Plan	FMP
Fiscal Year	FY
Freeway Service Patrol	FSP
Full Funding Grant Agreement	FFGA
High-Occupancy Vehicle	HOV
Infrastructure Construction Cost Index	ICCI
Interstate 15	I-15
Interstate 405	I-405
Interstate 5	I-5
Interstate 605	I-605
Local Fair Share	LFS
Los Angeles-San Diego-San Luis Obispo	LOSSAN
Master Plan of Arterial Highways	MPAH
Measure M	M1
Measure M2 or Renewed Measure M	M2
Natural Community Conservation Plan/Habitat Conservation Plan	Conservation Plan
Next 10 Delivery Plan	Next 10 Plan
Orange County Business Council	OCBC
Orange County Transportation Authority	OCTA
Ordinance No. 3	M2 Ordinance
Pacific Coast Highway	PCH
Regional Capacity Program	RCP

Common Abbreviations

Regional Traffic Signal Synchronization Program	RTSSP
Resource Management Plan	RMP
Right-of-Way	ROW
Riverside County Transportation Commission	RCTC
Senate Bill 1	SB 1
Senior Mobility Program	SMP
Senior Non-Emergency Medical Transportation	SNEMT
Service Authority for Freeway Emergencies	SAFE
State Highway Account	SHA
State Route 133	SR-133
State Route 22	SR-22
State Route 241	SR-241
State Route 55	SR-55
State Route 57	SR-57
State Route 71	SR-71
State Route 73	SR-73
State Route 74	SR-74
State Route 91	SR-91
State Transportation Improvement Program	STIP
State Water Resources Control Board	SWRCB
Tobacco Settlement Revenue	TSR
Transportation Infrastructure Finance and Innovation Act	TIFIA
United States Army Corps of Engineers	USACE
United States Fish and Wildlife Service	USFWS
Year of Expenditure	YOE