

AGENDA

- 1. Welcome**
- 2. Pledge of Allegiance**
- 3. Approval of Minutes/Attendance Report for February 12, 2019**
- 4. Presentation Items**
 - A. OC Streetcar Update
Jim Beil, Executive Director, Capital Programs
 - B. Measure M2 Performance Assessment
Tamara Warren, Program Manager, M2 Program Management Office
 - C. Project V Update
Joseph Alcock, Section Manager, Local Programs
- 5. OCTA Staff Updates**
 - A. Local Agency Expenditure Reports Status – Sean Murdock, Director, Finance & Administration
 - B. Measure M2 Bond Issuance Update – Andy Oftelie, Chief Financial Officer
 - C. I-405 Update – Christina Byrne, Department Manager, Public Outreach
 - D. Staff Liaison Update – Alice Rogan, Director, Marketing & Public Outreach
- 6. Annual Eligibility Review Subcommittee Report**
- 7. Audit Subcommittee Report**
- 8. Environmental Oversight Committee Report**
- 9. Committee Member Reports**
- 10. Public Comments***
- 11. Adjournment**

The next meeting will be held on June 11, 2019

*Public Comments: At this time, members of the public may address the Taxpayer Oversight Committee (TOC) regarding any items within the subject matter jurisdiction of the TOC, provided that no action may be taken on off-agenda items unless authorized by law. Comments shall be limited to three (3) minutes per person, unless different time limits are set by the Chairman, subject to the approval of the TOC.

Any person with a disability who requires a modification or accommodation in order to participate in this meeting should contact the OCTA Clerk of the Board, telephone (714) 560-5676, no less than two business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

INFORMATION ITEMS

<u>Staff Report Title</u>	<u>Board Meeting Date</u>
1. Measure M2 Quarterly Progress Report for the Period of October 2018 Through December 2018	March 11, 2019
2. 2019 Measure M2 Environmental Cleanup Program Call for Projects	March 11, 2019
3. Environmental Mitigation Program Endowment Fund Investment Report for December 31, 2018	March 25, 2019
4. Fiscal Year 2019-20 Measure M2 Eligibility Guidelines Update	April 8, 2019

*Public Comments: At this time, members of the public may address the Taxpayers Oversight Committee (TOC) regarding any items within the subject matter jurisdiction of the TOC, provided that no action may be taken on off-agenda items unless authorized by law. Comments shall be limited to five (5) minutes per person and 20 minutes for all comments, unless different time limits are set by the Chairman, subject to the approval of the TOC.

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Measure M Taxpayer Oversight Committee
Orange County Transportation Authority
550 S. Main Street, Orange CA, Room 07
February 12, 2019 @ 5:00 p.m.

MEETING MINUTES

Committee Members Present:

Eric Woolery, Orange County Auditor-Controller, Chairman
Richie Kerwin Lim, First District Representative
Dale Soeffner, First District Representative
Mark Kizzar, Second District Representative
Larry Tekler, Second District Representative
Eugene Fields, Third District Representative, Co-Chairman
Ronald Randolph, Third District Representative
~~Stanley F. Counts, Fourth District Representative~~
Larry Lang, Fourth District Representative
Jeffery Kaplan, Fifth District Representative
Matt McGuinness, Fifth District Representative

Committee Member(s) Absent:

Orange County Transportation Authority Staff Present:

Vicki Austin, Department Manager, Accounting & Financial Reporting
Jim Beil, Executive Director, Capital Programs
Chris Boucly, Section Manager, Capital Projects Outreach
Christine Byrne, Department Manager, Public Outreach
Jared Hill, Community Relations Specialist
Steven King, Senior Project Manager, Highway Programs
Kia Mortazavi, Executive Director, Planning
Tamara Warren, Measure M Program Manager

1. Welcome

Chair Eric Woolery welcomed everyone to the Orange County Transportation Authority (OCTA) Taxpayer Oversight Committee (TOC) meeting.

2. Pledge of Allegiance

Eugene Field led the Pledge of Allegiance.

3. Approval of the Minutes/Attendance Report for October 9, 2018

Chairman Eric Woolery asked if there are any corrections to the Minutes/Attendance Report for October 9, 2018. A motion was made by Larry Tekler, seconded by Dale Soeffner, and carried unanimously to approve the October 9, 2018 TOC Minutes and the Attendance Report.

4. Action Items

A. M2 Quarterly Revenue & Expenditure Report (Dec 18)

Vicki Austin reviewed the M2 Quarterly Revenue & Expenditure Report ending December 2018.

A motion was made by Larry Lang, seconded by Larry Tekler and carried unanimously to receive and file the Measure M2 Quarterly Revenue and Expenditure Report ending December 31, 2018.

The TOC asked about the trends in sales tax revenue collection. Vicki Austin said things are pretty stable currently, but in May we will receive an updated forecast from the three universities.

The TOC asked if sales tax money is required to be given to OCTA within a certain amount of time after it is collected. Vicki Austin said she is unsure about the timing. Alice Rogan said normally Sean Murdock and Andrew Ofelie would be here to give the TOC this information, but they are currently in New York working on Measure M2 bond sales. Vicki said when the BOE was handling this, OCTA received funds within 60 days. She said the BOE would then do a true-up in the subsequent quarter.

5. Presentation Items

A. Signal Synchronization Program Update

Kia Mortazavi presented the Signal Synchronization Program Update. He provided background on the project as funded through the Measure M2 Streets and Roads Program. He said the cities are tasked with doing their own signal synchronization, but Measure M2 provides money to help with synchronization between multiple local jurisdictions. Kia showed a map of the signal synchronizations projects. He said 69 projects have been completed, which is about 2,400 signals, and 613 lane miles have been coordinated. He said M2 goals have been met because OCTA got a three year head start on this project using savings from Measure M1 and State/Federal Funding. Kia said due to this program, travel time has improved by about 13 percent. Traffic flow moves 15 percent faster and stops at red lights are down 31 percent. He said a side benefit from this program is people are using less fuel and that adds up to about \$144M in savings for commuters and there is a reduction of greenhouse emissions. Kia said the value for the investment is about \$40M which is about \$17,000 per intersection.

Kia Mortazavi showed a map of where signals have been synchronized, where signals were re-synchronized and current projects. He said OCTA will continue to fund these projects. Kia said in about half the projects, OCTA takes the lead since OCTA is a neutral party between local jurisdictions. He said each year about

\$8M is put towards this program and in the spring of 2019 OCTA will announce more projects to be funded. Kia said the public always sees this project as favorable. Alice Rogan said during outreach, the public always lists signal synchronization as a number one priority.

The TOC asked how the benefits are measured. Kia Mortazavi said there are studies/counts done before and after the project and they are done on each corridor. The numbers are cumulative over three years. Then, every 3-5 years the timing is rechecked and if they are not refreshed after that time period, the benefits are not collected in that corridor. The committee asked how additional traffic on the roads is weighted into the benefits calculations. Kia said the calculations before and after the project is implemented. He said it is monitored globally and OCTA sees the benefits decrease over time, due to the increased traffic. He said OCTA has more detailed studies and he would be happy to share with anyone that is interested. The committee asked if there will be a point where there will be no benefit. Kia said the before was much worse, so it is always going to be somewhat better.

The committee asked if this program interacts with countywide disaster plans. Kia Mortazavi said this plan is to deal with daily traffic and does not account for disasters.

The committee asked how many more signals need to be synchronized and updated to the hardware. Kia Mortazavi said we have hit our mark on synchronization and are now exceeding the expectations as set forth in Measure M2. He said in the next round of funding, the costs are higher because OCTA is investing in hardware. Kia explained that entails including optimizing equipment and planning for future technologies.

The TOC asked about how OCTA goes about replacing hardware and how it affects traffic at the intersections. Kia Mortazavi said the equipment is replaced at the request of the cities and it does not really affect traffic flow.

The TOC asked if there are other agencies that coordinate corridors. Kia Mortazavi said in Los Angeles the Los Angeles Department of Transportation coordinates corridors. In Orange County, OCTA is the agency to coordinate these efforts. OCTA works with the cities and Caltrans to help with bus rapid transit.

B. Freeway Projects Update

Jim Beil provided a Freeway Projects Update. He presented a slide show on the Capital Action Plan which tracks all of OCTA's major freeway projects along with major rail and facility projects. This plan tracks milestones on Measure M2 projects and other OCTA projects. . Jim discussed some of the major projects.

Jim Beil talked about the OC Streetcar project and OCTA is about to sign the final notice to proceed. He said a lot of prep work is underway, especially with the relocating of the utilities. The committee asked for a full update on the project at one of the next meetings. Jim said staff will be going to OCTA Board in March with an update and the TOC will hear that update in April.

Jim Beil talked about the progress of current projects. He said the I-5 widening in central Orange County will add second carpool lane and demolish the Main Street drop ramp. He said the contract has been awarded to OHL. During the first quarter all the construction was complete on the I-5 widening in San Clemente.

The TOC asked about the Cost Pressure Index. Jim Beil said we are starting to see these cost pressures. On one segment of the I-5 Project costs were about 12 percent higher than expected, but the bidder was able to keep the overall budget to what OCTA has available for the project. He said with this bid, OCTA was able to update expected costs on other projects. Jim said on some rail projects we are seeing engineering bids come in 20 percent higher than predicted. Jim said steel prices are an issue and the tariffs on these products are an issue. He said labor is also going up and it is getting tougher to find subcontractors that fit the Disadvantage Business Enterprises (DBE) provisions.

The committee asked about items marked as a cost and/or scheduling risk. Jim Beil said many projects have significant risk due to rising cost of materials and we are working with Caltrans to get things approved quicker to avoid scope-creep. He noted that some projects recover even though they are currently at risk of going over schedule. He said this is all reported quarterly to the OCTA Board. The TOC asked what happens if risks come to fruition. Jim said it has happened before, but the projects have never been terminated. He said there are mitigations that can take place.

The TOC asked about on update on Project L costs. Jim Beil said currently it is in the environmental process, so the costs are not reported.

C. I-405 Update

Jim Beil introduced Steven King who is the project manager for the I-405 Project. He provided a brief update on the project including: a map of the project area, the total project cost is \$1.9B. In December OCTA received the second installment of the TIFIA Loan. He said by the end of the year OCTA anticipates being 100 percent complete on the structure designs. He said there will be 288 right of way needs on this project which are mostly temporary easements and some small slivers of properties are needed. One property owner is negotiating to have his full property taken. Steven said the project is running on-schedule.

Steven King talked about the two-stage bridge versus full bridge reconstructions on the project. In the spring, it is anticipated that work will begin on the Fairview Avenue bridge. Work will continue on the Bolsa Chica bridge. In the summer, OCTA will build a new pedestrian bridge at Heil and then take down the original Heil bridge. In late 2019, the Slater Avenue bridge will be the first bridge opened and then OCTA will move on to the Talbert and Bushard bridges. The McFadden bridge may be opened at the end of 2019 or early 2020. Concrete paving and wall construction will begin in the next month or so.

Chris Boucly discussed the outreach on the I-405 Project. He gave a brief background on the strategies and events associated with outreach on this project. He said between May and June 2018 there were six open houses briefing the community on the project and there were nearly 600 people at these events. Chris said we will continue to go to festivals in the area and we do neighborhood meetings prior to the project starting in each area. He said at the latest neighborhood meeting in the area of Fairview, OCTA had nearly 150 people attend meetings. Chris also talked about stakeholder meetings, school and business outreach, one-on-one meetings and homeowner association meetings. He also talked about how the I-405 Project information is given to Waze and how the interactive map tool works.

Dale Soeffner noted the outreach has been excellent and wanted to let the outreach team know. He wanted to know more about working with the City of Garden Grove. Chris Boucly said OCTA's government relations staff works directly with the elected officials. Dale said he administers a website for the West Garden Grove residents and if he was provided information on the project he could send it out to a lot of constituents all at once. Chris will be in contact with him.

The TOC asked about coordination with the cities. Chris Boucly said OCTA provides each city with outreach plans for their area and they comment on the plan. He said OCTA also meets with the cities weekly on plans for the area. Steven King said there are cooperative agreements in place with each city.

The committee asked about the public's reaction to the outreach. Chris Boucly said the public has been appreciative of the transparency and the many strategies. He said the public still has a tough time with the project and we get many calls about the time of day the work takes place, the dirt, and the many other inconveniences. Chris said the majority of calls are really questions, not negative responses. He said people are happy to have us listen to them.

The TOC asked about traffic collisions in the project area. Steven King said we have reduced the speed limit in the area and have worked with the California Highway Patrol (CHP). He said the Freeway Service Patrol (FSP) has additional vehicles in the area to clear accidents as soon as possible and move disabled cars from the freeway. Chris Boucly said OCTA coordinated with CHP to provide

additional enforcement. He said we have an extensive safety message in all of our outreach. The committee is concerned about response time by emergency vehicles due to the slow down and bridges being taken down. Chris said OCTA has regular meetings with emergency services and they are part of the plans for demolitions and detours. He talked about how the contractor will directly work with the emergency service when they see an accident and let them know from their vantage point the best way to get to the incident.

6. OCTA Staff Updates

- A. Ordinance Compliance Matrix – Tamara Warren presented the Ordinance Compliance Matrix. She provided the background on the creation of the matrix. Tamara said OCTA staff goes through this matrix each year to ensure promises to the voters are being upheld. Alice Rogan pointed out there are TOC items in this matrix.

- B. Upcoming Annual Hearing – Alice Rogan provided an outline of the Annual Public Hearing. She said one of the main tasks of the TOC is to do an Annual Compliance Finding to see if OCTA is complying with the Measure M2 Ordinance. Alice reminded the committee this meeting will take place at 6 p.m. to allow the public time to get to the meeting after work hours. She said the goal of the meeting is to listen to the public comments. It is not a time to engage/debate with the public. Alice said overall this is a time to share with the public the TOC's work. She talked about how OCTA provides public outreach for this meeting.

Alice Rogan gave a brief update on the committee member status. She said Stanley Counts resigned due to health reasons. Alice said staff went through the next people in line to his position and could not replace him. She said Andrew Lesko moved out of the district that he represents, so we went to the next person in line who is Dr. Ronald Randolph. Dr. Randolph previously served on the TOC three years ago and served as Co-Chair during his tenure. He will be fulfilling the year and half left on Andrew's term.

7. Annual Eligibility Review Subcommittee Report

Matt McGuinness said have been no meetings since the TOC last met. The next meeting will be in March.

8. Audit Subcommittee Report

Richie Lim said the auditor provided their audit of OCTA and the Agreed-Upon Procedures for the Measure M2 Status Report. He said there were no exceptions found and for the first time in his three years, there was no management letter which reflects on the excellent performance of OCTA. The auditor stated OCTA fulfilled or met all recommendations from the past three years. He said the subcommittee heard about the performance assessment given and there have been mostly positive comments and reinforcement from the consultant. Richie said the Finance Plan was also discussed.

9. Environmental Oversight Committee (EOC) Report

Eugene Fields said the EOC met on February 6 and received an update on North Coal Canyon and Chino Hills State Park Restoration Project. He said OCTA has identified two new contractors for these projects. The EOC also heard a presentation on the Fire Management Plans for all of OCTA's preserves. Eugene said the hike and ride scheduled for this month were cancelled due to weather conditions and the next ones are scheduled for April.

Dale Soeffner said he has attended a previous hike. He said it was fantastic and he would recommend it to anyone interested.

10. Committee Member/Staff Reports

Larry Tekler said he participated in the process of selecting a new independent auditor. He said 10-12 firms submitted responses to the Request for Proposals (RFP) and staff asked four firms to come in and discuss their proposals. The recommendation was submitted to the OCTA Board for approval in January and Crowe, LLP was selected for the position of independent auditor.

11. Public Comments

There were no public comments.

12. Adjournment

The Measure M Taxpayer Oversight Committee meeting adjourned at 6:13 p.m. The next meeting will be held on April 9, 2019 at 5 p.m.

Note: The Measure M Annual Hearing will be on June 11, 2019 at 6 p.m.

Taxpayer Oversight Committee

Fiscal Year 2018-2019

Attendance Record

X = Present E = Excused Absence * = Absence Pending Approval U = Unexcused Absence -- = Resigned

Meeting Date	10-Jul	14-Aug	11-Sep	9-Oct	13-Nov	11-Dec Cancelled	8-Jan	12-Feb	12-Mar	9-Apr	14-May	11-Jun
Stanley F. Counts		X		--				--				
Eugene Fields		X		X				X				
Jeffery Kaplan		X		X				X				
Richie Kerwin Lim		X		X				X				
Mark Kizzar		X		U				X				
Larry Lang		X		X				X				
Andrew Lesko		X		X				--				
Ronald T. Randolph								X				
Matt McGuinness		X		X				X				
Dale Soeffner		X		U				X				
Larry Tekler		X		X				X				

Absences Pending Approval

Meeting Date Name Reason

***Presentation
Items***



March 14, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: OC Streetcar Project Update

Overview

The Orange County Transportation Authority is currently underway with the implementation of the OC Streetcar project. This report provides a project update.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA), in cooperation with the cities of Garden Grove and Santa Ana, is implementing a modern streetcar running between the Santa Ana Regional Transportation Center in the City of Santa Ana (City) and the Harbor Boulevard/Westminster Boulevard intersection in the City of Garden Grove (OC Streetcar). The OC Streetcar will improve transit connectivity and accessibility, increase transit options, relieve congestion, and provide benefits to the community and traveling public.

Construction of the 4.15-route-mile (8.3-track-mile) OC Streetcar line will involve complex and specialized work, including the installation of embedded track in streets, overhead catenary system to supply power to the vehicles, stops with canopies, bridges, and a maintenance and storage facility (MSF).

The OC Streetcar includes ten streetcar stops in each direction (four shared center platforms and six side platforms in each direction, for a total of 16 platforms). Each stop includes a canopy, benches, leaning rails, trash cans, lighting, changeable message signs, video cameras, a public address system, and ticket vending machines which will be procured separately. Platforms will be 14 inches high to enable level boarding. Also included are the installations of new traffic signals and transit signal priority at intersections.

The MSF can accommodate up to 15 modern streetcar vehicles and includes OC Streetcar administration, operations, vehicle maintenance, parts storage, and maintenance-of-way. Secured exterior vehicle storage, including a wye-track for turning vehicles end-for-end, a free-standing drive-through vehicle wash, employee parking, and fire department and delivery access will also be included.

On March 26, 2018, the OCTA Board of Directors (Board) awarded a contract to Siemens Industries, Inc. (Siemens) for the manufacture and delivery of eight modern streetcar vehicles, spare parts, and special tools. On September 24, 2018, the OCTA Board awarded the OC Streetcar construction contract to Walsh Construction Company (Walsh). On November 30, 2018, the Federal Transit Administration (FTA) executed the Full Funding Grant Agreement (FFGA) which was a significant milestone as it secured \$149 million in federal New Starts discretionary funding for the OC Streetcar. In February 2019, the FFGA grant was awarded through the FTA Transit Award Management System, which was the final step necessary to begin the drawdown of federal funding.

Discussion

A status of ongoing OC Streetcar activities follows.

Right-of-Way Acquisition

Three parcels were acquired to accommodate the MSF on Fifth Street near Raitt Street. Possession of all property rights required to construct the OC Streetcar was completed on March 4, 2019.

Utility Relocation

There are numerous overhead and underground utilities that require relocation to accommodate the OC Streetcar. Wet utilities (sewer, water, and storm drains) are being relocated by Walsh as part of the construction contract. There are eight private utility companies with relocations underway. Final relocation of the private utilities is expected to be complete by August 2019, with the exception of final AT&T relocations which will take place after the sewer work is complete. OCTA closely coordinates with the utility companies to monitor progress, and work windows were included in the construction contract to minimize conflicts.

Permits

Construction of the OC Streetcar bridge across the Santa Ana River requires permits from two agencies: United States Army Corps of Engineers (Corps) and Orange County Flood Control District (OCFCD). The Corps has committed to

issuing the required permits by mid-March 2019, and OCFDC has committed to issue the required encroachment permit upon final Corps permits being issued.

The City building permit required for construction of the MSF was issued to Walsh on February 27, 2019.

Construction Activities

OCTA executed the construction contract and issued a Limited Notice to Proceed (LNTP) to Walsh on November 19, 2018. The LNTP allowed Walsh to begin preparation of key pre-construction submittals before issuance of the Notice to Proceed with Construction (NTPC). Additionally, federal requirements would not allow OCTA to issue a NTPC until the FFGA was executed. Key deliverables completed during the LNTP include an approved 120-day schedule, a baseline schedule, quality plan, approval of a full-time safety representative, safety plans, and the stormwater pollution prevention program.

The NTPC was issued to Walsh on March 4, 2019. Generally speaking, construction activities will commence on the western half of the alignment, with the focus on preparations for construction of the Santa Ana River and Westminster Avenue bridges, the MSF, storm drain relocations, and sewer and water systems within City streets.

Walsh has 820 days from NTPC (June 1, 2021), to complete Milestone 1, which includes the MSF and a 1.4-mile section of test track from the MSF to the west approach of the Westminster Avenue bridge. This milestone is a critical target to meet the delivery schedule of the first vehicle. Milestone 2, the completion of all track and systems, is scheduled to be completed 910 days from NTPC (August 30, 2021).

Based upon the contractual construction duration of 1,065 days, and allowing sufficient time for integrated testing between the vehicles, infrastructure and systems following the completion of Milestone 2, the estimated revenue service date (RSD) is February 2, 2022. This revised RSD is approximately five months later than the RSD that was provided to the Board in July 2018.

Vehicle Manufacturing and Delivery

On November 12, 2018, an overview of the vehicle design process was provided to the Board. This overview included the status of submittal of key documents, including the schedule, document control process, project management plan, and quality assurance plan. The Board also approved the vehicle exterior design concept to be submitted to Siemens for further modifications as part of the design review process. Since November 2018, the submittals were approved by OCTA and the preliminary design review (PDR) process kicked off in early February 2019. As part of PDR, OCTA and Siemens have begun an iterative

review process where every major component and sub-system of the vehicle is reviewed by OCTA and technical consultants to confirm design compliance to the technical specification. These major elements include the carbody, doors, cab layout, propulsion, auxiliary power, energy absorbing bumpers, and related manuals. During the next six months, comments and revisions will be incorporated into a final design review package for OCTA's final review and approval. The production of the first car shell will be completed in December 2019.

Other key OC Streetcar updates include:

- Received approvals from the California Public Utilities Commission (CPUC) for grade crossings along the alignment,
- Responded to questions on the Operations and Maintenance Request for Proposals,
- Hosted the Safety and Security Review and the Fire Life Safety and Security Committees to direct and track compliance against the CPUC safety certification process and emergency planning/preparedness requirements.

Cost and Contingency

The overall OC Streetcar cost, as included in the FFGA, remains at \$407.7 million. This includes a 10.2 percent overall contingency.

Public Outreach

OCTA has a comprehensive Public Awareness Campaign designed to keep stakeholders, community members, and property owners informed about the OC Streetcar construction activities. Recently OCTA has focused the outreach efforts on community notifications for utility relocation activities, distribution of the Business Resource Guide (BRG), and installation of sidewalk decals along the alignment. OCTA has supported Southern California Edison (SCE) and Southern California Gas (SCG) by providing community notifications about traffic impacts related to relocation efforts; however, planned power outage notifications remain SCE's responsibility. Outreach notifications are provided in English and Spanish.

The BRG was developed with several components, including signage, individual briefings, a resource directory of agencies and organizations that provide low and no cost consulting services, a business spotlight program that will provide exposure through social media and other outlets, and participation in an Eat, Shop, Play Coupon program meant to provide additional customer visibility. Implementation of the BRG is multi-phased. The initial phase included the distribution of a program overview flyer by outreach staff to more than 300 businesses along the alignment. The flyer briefly described the program and invited business owners to make an appointment to review the packet and discuss

its interest. The next phase will include follow up appointments and the distribution of the entire packet to every business owner. These community visits continue to build rapport with business owners, and reinforces OCTA's commitment to provide community members with personal and responsive interactions.

A sidewalk decal was developed in English, Spanish, and Vietnamese to alert pedestrians to upcoming construction and to build awareness of stop locations. Thirty decals were applied to sidewalks along Santa Ana Boulevard, with the exception of 4th Street, as well as a location near the terminus stop at Harbor Boulevard and Westminster Avenue. SCG has begun relocation work that will impact the 4th Street sidewalk areas between Birch Street and French Street. Once SCG's work is concluded, the decals will be installed. Planning is underway for a Stakeholder Working Group and two community meetings in April 2019 to provide information about the OC Streetcar construction activities and milestones. Also under development is a project app that will provide real time information about OC Streetcar construction activities.

Summary

An update on the OC Streetcar project is provided for the Orange County Transportation Authority Board of Directors' review.

Attachment

None.

Prepared by:



Mary Shavali
Program Manager
(714) 560-5856

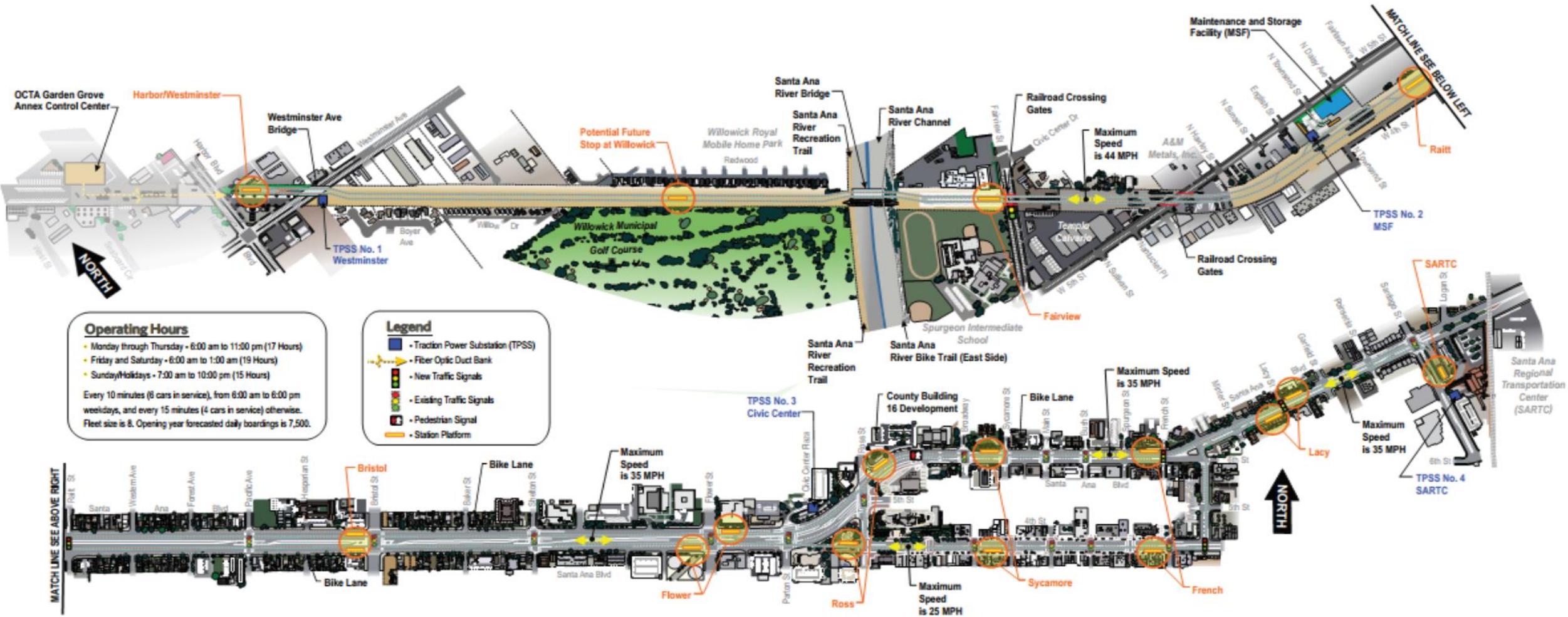
Approved by:



James G. Beil, P.E.
Executive Director, Capital Programs
(714) 560-5646

OC Streetcar Project Update

Alignment



Background - Key Dates

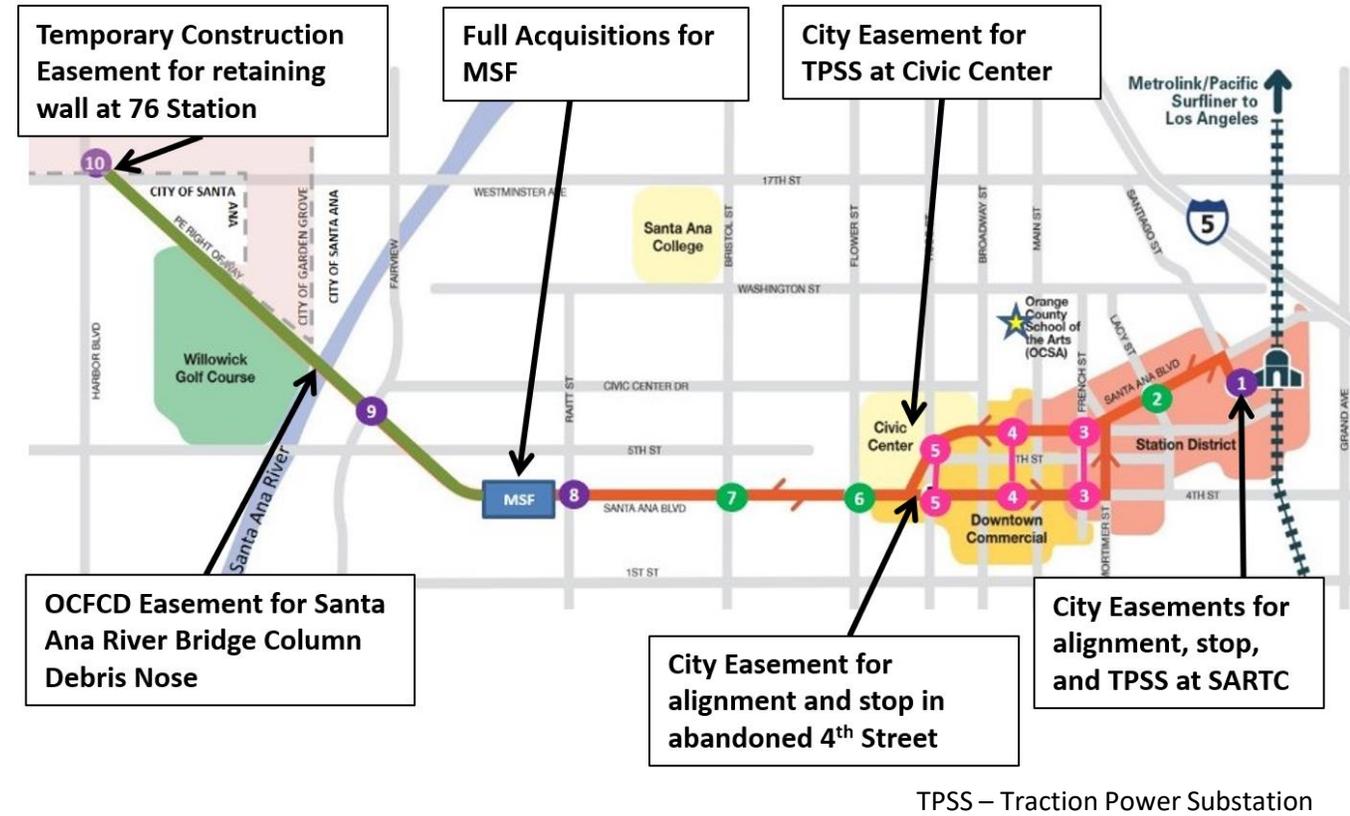
Milestone	Completion Date
Environmental Clearance	March 2015
Full Funding Grant Agreement Request Submitted	May 2017
Final Design Complete	December 2017
Vehicle Contract Award	March 2018
Construction Contract Award	September 2018
Full Funding Grant Agreement Executed	November 2018
Notice to Proceed with Construction	March 2019

Project Groundbreaking and Full Funding Grant Agreement



Right-of-Way

- Three parcels were acquired to accommodate the new maintenance and storage facility (MSF) at Fifth Street near Raitt Street
- Possession of all property rights was completed on March 4, 2019



Utilities

- Overhead and underground utilities require relocation as part of the project
 - Wet utilities are being relocated by the streetcar construction contractor: water, sewer, and storm drain
 - Eight private utilities are in the process of being relocated
 - Final utility relocation work for the private utilities is expected to be complete by August 2019, with exception of final AT&T relocation after sewer lines are complete



Permits

- Santa Ana River Bridge Permits
 - U.S. Army Corps of Engineers (Corps)
 - Section 404 and 408 permits to be issued in mid March 2019
 - Orange County Flood Control District
 - Encroachment permit upon issuance of Corps permits
- MSF Building Permit
 - Issued by City of Santa Ana (City) on February 27, 2019



Construction

- Key submittals completed
 - Approved 120-day Schedule
 - Baseline Schedule
 - Quality Plan
 - Approval of full-time safety representative, safety plans, and stormwater pollution prevention program
- Construction activities are commencing on the western half of the alignment, focusing on preparations for construction of the Santa Ana River and Westminster Avenue bridges, MSF, storm drain relocations, and sewer and water systems within City streets

Milestone	Actual/Forecast
Contract Execution/Limited Notice to Proceed	November 19, 2018
Notice to Proceed with Construction	March 4, 2019
Milestone 1 – Completion of MSF and 1.5 mile test track (820 days)	June 1, 2021
Milestone 2 – Completion of all track and systems (910 days)	August 30, 2021

Vehicles

- In November 2018, the Board of Directors was presented an overview of the vehicle design process and approved the vehicle exterior design concept
- Preliminary Design Review started in early February 2019
- Final Design Review will be completed in September 2019
- The production of the first car shell will be completed in December 2019

Schedule Status

Milestone	Actual/Forecast
Vehicle Contract Award	March 26, 2018
Vehicle Contract Notice to Proceed	July 31, 2018
Vehicle 1 Delivery	June 9, 2021
Begin Start Up and Integrated Testing	June 9, 2021
All Vehicles Delivered	August 6, 2021
Begin Full System Testing	August 30, 2021



Outreach

- Utility Relocations Notification
- Business Resource Guide
- Sidewalk Decals



Business Resource Program / Programa de Recursos para Negocios

The Orange County Transportation Authority (OCTA) is moving forward into construction later this year with Orange County's first modern streetcar – OC Streetcar. As part of the outreach component for this project, OCTA has developed a resource guide for local businesses. The Business Resource Guide (BRG) will provide support in advance of and during construction. Highlights of the programs and sources include:

La Autoridad de Transporte del Condado de Orange (OCTA, en inglés) está avanzando con la construcción después en este año con el primer tranvía moderno en el Condado de Orange – Tranvía de OC. Como parte del componente de alcance a la comunidad para este proyecto, OCTA ha desarrollado un programa de recursos para negocios locales. La Guía de Recursos para Negocios (Business Resource Guide o BRG en inglés) brindará soporte antes y durante la construcción. Los puntos destacados del programa y recursos incluyen:

Eat, Shop, Play Coupons – Encourages shopping in local businesses. Requires application.	Cupones para comer, Comprar, Jugar – Alienta las compras a negocios locales. Requiere una aplicación.
Business Resource Directory – Provides information regarding training and educational programs for businesses owners.	Directorio de Recursos de Negocios - Proporciona información sobre programas educativos y de capacitación para propietarios de negocios.
Business Spotlight – Features a short story promoting local business. Requires application.	Negocio Destacado - Presenta una breve historia para promocionar un negocio local. Requiere una aplicación.
Project Briefings – Briefings with project team members are available to help answer questions.	Informes del Proyecto - Informes con los miembros del equipo del proyecto están disponibles para ayudar a responder preguntas.
Business Signage – Provides free signage to adjacent businesses in active construction areas. Requires application.	Señalización de Negocios – Provee Señalización gratuita está disponible para negocios adyacentes en sitios de construcción activa. Requiere una aplicación.

Please call the project information number at (877) 7-GoOCSC or (844) 746-6272 to make an appointment to meet with an outreach team member at your business to review the BRG materials and help answer questions.

Por favor llame al número de información del proyecto al (877) 7-GoOCSC o (844) 746-6272 para hacer una cita con el equipo de alcance en su negocio y revisar los materiales del BRG y ayudar a contestar sus preguntas.

Thank you,

Tresa Oliveri

Tresa Oliveri
Community Relations Officer

OCstreetcar.com | 550 S. Main Street, P.O. Box 14184, Orange, CA 92683



Other Key Project Updates

- California Public Utilities Commission (CPUC) Approval of Grade Crossings - 11/8/2018
 - Staff are coordinating with CPUC on variance requests for vehicles
- Safety and Security Committee meeting - 2/20/2019
 - Oversight of the design and construction certification process
 - Coordination of requirements, procedures, and other aspects affecting streetcar safety and security
- Responding to questions on the Operations and Maintenance Request for Proposals



March 4, 2019

To: Executive Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: Measure M2 Performance Assessment Report

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is positioned in the upper right area of the document.

Overview

On November 7, 2006, Orange County voters approved the Renewed Measure M2 Transportation Ordinance and Investment Plan, now referred to as Measure M2. Ordinance No. 3 implements Measure M2 and requires specific safeguards and requirements that are to be followed. Included is a requirement for a performance assessment to be conducted every three years to evaluate the efficiency, effectiveness, economy, and program results of the Orange County Transportation Authority in delivering Measure M2. The fourth of these performance assessments, covering the period of July 1, 2015 through June 30, 2018, has been completed, and a report on the findings is presented.

Recommendation

Direct staff to implement the action plan outlined in the response to findings and to report back on the implementation progress to the Board of Directors in the Measure M2 quarterly reports.

Background

On November 7, 2006, the voters of Orange County approved the Measure M2 (M2) Transportation Investment Plan (Plan) with a 69.7 percent vote. The Plan provides a revenue stream, from April 1, 2011 through March 31, 2041, to fund a broad range of transportation improvements. The M2 Ordinance specifies specific safeguards and requirements that are to be followed.

Ordinance No. 3 states: "A performance assessment shall be conducted at least once every three years to evaluate the efficiency, effectiveness, economy, and program results of the Authority in satisfying the provisions and requirements of the investment summary of the Plan, the Plan, and the ordinance.

A copy of the performance assessment shall be provided to the Taxpayers Oversight Committee.”

The Orange County Transportation Authority’s (OCTA) general counsel opined, in 2008, that the ordinance became effective the day after the election, November 7, 2006, thus starting the clock on the three-year review period. The first M2 performance assessment was completed in October 2010, covering the period from November 2006 through June 2009. The second M2 performance assessment was completed in March 2013, covering the period from July 1, 2009 through June 30, 2012, and the third M2 performance assessment was completed in May 2016. All three assessments’ conclusions to date were positive overall and included a set of recommendations that were determined to have been addressed in a timely manner.

Discussion

Consulting services were sought to conduct the fourth performance assessment. Following OCTA’s procurement policies, in July 2018, the contract was awarded to Sjoberg Evenshenk to cover the period from July 1, 2015 through June 30, 2018. The key objectives of the assessment are as follows: evaluate the status of findings from the prior M2 performance assessment and the effectiveness of changes implemented, assess the performance of OCTA on the efficient delivery of M2 projects and programs, and identify and evaluate any potential barriers to success, including opportunities for process improvements. In addition to reviewing the prior assessment findings and OCTA-related actions, five main areas of focus were identified for the assessment:

- Project delivery
- Program management/responsiveness
- Compliance
- Fiscal responsibility
- Transparency and accountability

Work on the fourth performance assessment for fiscal year (FY) 2015-16 through FY 2017-18 has concluded. A copy of the consultant’s report is attached for Board of Directors’ review (Attachment A). The report included a review of the prior assessment findings for the FY 2012-13 through FY 2014-15 period. The prior assessment identified nine findings with recommendations for OCTA to address. The consultant reviewed the nine findings and OCTA’s response to each, and concluded affirmatively that OCTA adequately and actively addressed each recommendation in a timely manner.

Overall, the FY 2015-16 through FY 2017-18 assessment commends OCTA’s commitment to the effective and efficient management and delivery of the M2 Program. The report specifically highlights the following areas as it relates to OCTA’s activities during the three-year period.

Program Goals Were Met Thus Far

The M2 Ordinance specifies projects and programs to be implemented. The review identified that OCTA's stated purpose and directive is to complete and deliver the projects and programs as identified in the M2 Plan. The review found that OCTA has many accomplishments towards the goals within the seven years of the M2 30-year timeframe. The report further shares that OCTA actively tracks and reports on progress in terms of number of projects completed and dollars spent to date. The review suggests that OCTA might consider reporting the information differently, pointing to the Ordinance's overarching goals.

Strong M2 Management Existed

The review concludes that OCTA has in place strong program management practices to ensure delivery of the program and safeguarding of the sales tax expenditures.

M2 Program Areas Showed Significant Progress

Looking at the current status of the program in terms of being in year seven of the 30-year M2 Program, the report concludes that OCTA is either where it should be or has accomplished more than what would be assumed in the seven-year period across all M2 program areas.

Approaches Ensured Compliance with Ordinance

The consultant found OCTA to be in compliance with all areas and further found that OCTA's adherence to promises made to the voters penetrated through all levels of the organization from the executive team to new hires.

Good Fiscal Practices were in Place

Managing M2 funds with sound fiscal practices, including efficiently leveraging state and federal dollars, is critical to successful delivery of M2. OCTA was found to employ a careful and conservative approach when planning and programming funds, with sound fiscal practices in place.

OCTA was Transparent and Accountable

In general, the assessment report finds that OCTA has made significant progress in the implementation of the M2 Program on all plan elements over the last three years. Additionally, the assessment identified strong oversight practices to ensure compliance, sound fiscal practices, and that OCTA is transparent and accountable to the public.

Looking forward, the assessment suggests that while the ordinance does not require it, OCTA may want to consider investing in tracking performance measures. The report shared that measuring performance through target setting and data collection has become part of more recent federal mandates. Requirements related to performance targets and data reporting in areas such as safety, pavement conditions, congestion management, and air quality as it relates to M2 projects may be required in the future.

This type of tracking and data collection can be rather resource intensive to gather and report on, and would likely pose a significant financial burden on the M2 program. The cost of administering the M2 Program is capped at one percent of net revenues which is intended to focus expenditures on transportation improvements rather than administrative efforts. However, to the extent that such data is available as part of project delivery activities, staff will include this information in M2 reporting documents.

As part of the report, Sjoberg Evenshenk has eight recommendations for enhancements related to the execution of the elements outlined in the scope of work. There were no major recommendations that suggest there should be a change in the direction of OCTA's actions.

The attached summary outlines the recommendations, as well as a staff response/action plan (Attachment B). These findings will be addressed during the next calendar year as M2 policies and procedures are updated and implemented.

The Measure M Taxpayers Oversight Committee (TOC) Audit Subcommittee received a presentation on the draft report, and the TOC will be presented with the final report at their April 9, 2019 meeting.

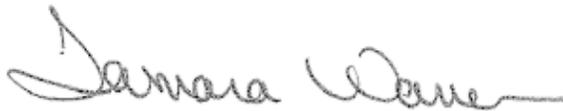
Summary

The Measure M2 Performance Assessment, as required by Ordinance No. 3, has recently been completed. While there were no significant findings, recommendations for improvements were made. The report, along with a summary of the recommendations and responses/action plan, is presented for Board of Directors' review.

Attachments

- A. Orange County Transportation Authority, July 1, 2015 to June 30, 2018 M2 Performance Assessment, Final Report
- B. July 2015 – June 2018 M2 Performance Assessment, Recommendations and Action Plan

Prepared by:



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Orange County Transportation Authority

July 1, 2015 to June 30, 2018 M2 Performance
Assessment

Final Report



February 2019



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EXECUTIVE SUMMARY

With only seven years elapsed of the Measure M2 Program’s 30-year timeframe, we found that the Orange County Transportation Authority (OCTA) and its M2 partners are on track towards meeting the primary goals of the M2 Ordinance and fulfilling the promises made to the voters thus far. The agency is at a mature phase in its implementation of M2 and has incorporated many leading practices resulting in strong program management and sound fiscal practices.

Like other similar entities tasked with delivering transportation and other public infrastructure, OCTA was recovering from the impacts of the Great Recession when projected sales tax collections did not materialize as expected. Yet, at the same time, OCTA was able to take advantage of external revenue opportunities, favorable construction prices, and debt financing instruments to advance projects for delivery, allowing Orange County voters to realize the benefits of their “yes-vote” early on in the M2 Program’s lifecycle.

Program Goals Were Met Thus Far



While the M2 Ordinance established a goal of relieving traffic congestion in Orange County and used certain performance indicators as part of its Long Range Transportation Plan that is significantly comprised of M2 projects, OCTA’s stated focus and directive was to complete the projects listed in the Renewed Measure M Transportation Investment Plan under the premise that those efforts would address the Ordinance purpose and goals. Our review found that OCTA had many accomplishments toward those goals with only 7 years elapsed of the M2 30-year timeframe—although OCTA did not specifically track performance against the overarching M2 goals.



M2 GOALS WERE MET THUS FAR

- Congestion increased, but so did vehicle miles traveled indicating more vehicles on the road.
- M2 freeway improvement showed decreases in travel delay during evening commute hours on the SR-91 between SR-57 and I-5, after the project was completed.
- Over \$58 million was provided to projects expanding senior transportation services and stabilizing fares for seniors and persons with disabilities.
- Local street and road condition improved since 2014 and was the best in the state in 2016 when data was available.
- More traffic lights were synchronized than promised.
- Environmental efforts achieved results with more than 6.2 million cubic feet of trash removed from local beaches and roadways as well as 1,300 acres of land acquired and preserved as open space.

Strong M2 Program Management Existed



When Orange County voters approved the M2 Ordinance in 2006, OCTA was tasked with administering an initial \$11.9 billion (in 2005 dollars) program over a 30-year period. The Ordinance required OCTA to deliver a diverse portfolio of transportation solutions, generally geared towards relieving congestion in the region.

Embracing the challenge to fulfill promises made to voters while safeguarding tax dollars, OCTA evolved into an organization that employed strong program management practices, valued external reviews on its program and practices, and safeguarded sales tax dollars. Moreover, OCTA has begun implementing a higher-level cyber security framework to minimize vulnerabilities, risks, and risks of potential attacks to its technology and information systems.

- OCTA's Program Management Office employed strong oversight practices and in many instances is more robust than other similar entities.
- Clear roles and functions within OCTA helped coordinate the delivery of the M2 Program and formal M2 Program management committee consisting of OCTA executives and key managers ensured appropriate sharing of knowledge.
- Continuous improvements were valued as demonstrated by OCTA's implementation of prior performance assessment recommendations, with no open or recurring issues noted.
- Administrative costs were closely monitored and limited to comply with the Ordinance.
- Strong framework was in place over cybersecurity, but training protocols could be tightened.

M2 Program Areas Showed Significant Progress



When Orange County voters renewed Measure M in 2006, they agreed to spend a half-cent sales tax on improving transportation infrastructure and offsetting related environmental impacts in essentially four program areas: Freeways, Streets and Roads, Transit, and Environmental. Similar to other transportation agencies, OCTA was able to take advantage of favorable conditions in the construction industry and financial markets during the Great Recession to accelerate projects prior to the start of the M2 sales tax collection in 2011 through its Early Action Program. As a result, with only seven years passed since the start of the sales tax collection, OCTA already demonstrated significant progress across all M2 Program areas.

- Many accomplishments realized to-date early in M2 timeframe included, but were not limited to:
 - 43.6 new freeway lane miles, 5 reconstructed interchanges, 7 railroad grade crossings, 8 Metrolink grade crossings/station improvements completed.
 - 96 million boardings provided to seniors and persons with disabilities.
 - \$342 million provided to improve local transportation infrastructure.
 - 6.2 million cubic feet of trash collected and 1,300 acres preserved as open space in addition to 350 acres of restoration projects.
- Capital projects showed substantial progress to-date, although some faced budget and schedule challenges.
- Appropriate systems were in place to monitor and report on capital project progress toward full completion of the Ordinance.
- Solid policies and procedures existed over contract and construction management.
- Procurement practices and activities complied with OCTA policies.
- Capital project selection principles seemed reasonable and were generally comparable to others, but linkages to projects implemented could be more formal.
- Environmental programs realized substantial successes.

Approaches Ensured Compliance with Ordinance

 Gaining public trust and confidence is critical for any successful government entity, in particular those with sales tax measures placed on ballots before local residents to fund transportation or other types of public services. As such, adherence to promises made to voters and compliance with ballot provisions is important. At OCTA, we found that this philosophy and mandate permeated through all levels of the organization from executive management to newly hired employees. Staff developed strong approaches and practices to track compliance and ensure strict adherence to the promises made.

- Robust system was used to track compliance with Ordinance provisions that was more thorough than similar entities.
- Processes to award grants were vigorous and, once awarded, monitoring of local grants was sound.
- Local eligibility requirements were robust and thoroughly reviewed by OCTA.



Good Fiscal Practices were in Place

 To deliver the freeway and transit projects outlined in the M2 Ordinance by 2041, OCTA must reasonably manage Measure M2 funds, efficiently leverage those local funds with additional state and federal dollars, and carefully program financial resources over the life of the program. In general, we found that OCTA had sound fiscal practices in place during our assessment period and management employed a careful and conservative approach when planning and programming funds to deliver projects. As a result, OCTA appeared to be on track to complete the M2 freeway and transit projects despite a significant reduction in forecasted sales tax collections largely resulting from the Great Recession.

- Sales tax reductions were not unlike other similar entities and OCTA implemented appropriated safeguards.
- Forecast methodology was generally sound and OCTA made appropriate revisions to increase forecast accuracy.
- OCTA's ability to leverage sales tax dollars with additional state and federal funding helped mitigate the impact of the decline in sales tax revenue and future funding assumptions and leveraged funds were reasonable.
- OCTA took a conservative approach when issuing debt and debt service coverage appeared sufficient to meet future repayment obligations.
- While future construction cost increases could pose a significant potential risk to OCTA's ability to deliver promised capital projects, OCTA adopted a construction cost pressure index to mitigate that risk and built in an economic uncertainty factor to its cash flow projections.

OCTA was Transparent & Accountable



Transparency and accountability is paramount to OCTA's mission and culture in addition to being a critical measure of success of the M2 Program. We found OCTA was highly focused on accountability to the promises made in the Ordinance and being transparent in its actions, decisions, and data communicated to its Board, the Taxpayer Oversight Committee, stakeholders, and the general public.

- Outreach efforts provided access to information and key staff and efforts were similar to others; although certain website features and social media content could be enhanced.
- Stakeholder awareness and public perception results were positive and showed more awareness.
- Taxpayer Oversight Committee functioned as envisioned in the M2 Ordinance and was similar to other entities; however, adding member resumes on the website and considering specific transportation experience could increase transparency and oversight.
- Internal audit function provided additional layer of oversight and accountability.

Summary of Recommendations

To improve efficiency, effectiveness, and accountability to the taxpayers of Orange County, OCTA should consider and implement the recommendations summarized in the following table.

	Recommendation	Report Page
Chapter 1: Program Goals Have Been Met Thus Far		
1.	Consider identifying measures to capture progress towards each of the six key M2 Ordinance goals and, on a periodic basis, report on how results achieved correlate to those goals.	14-16
Chapter 2: OCTA Demonstrated Strong Program Management		
2.	Implement in-progress plans to update security training policy and require annual cybersecurity training as well as establish a timeline for implementation.	28-31
3.	Regularly monitor the training status of all employees to ensure employees complete cybersecurity training within the required timeframe including defining specific roles and responsibilities, timelines and frequency of monitoring, verification methods, and documentation of status.	28-31
Chapter 3: While Still Early in the M2 Life Cycle, Substantial Progress was Made Across All Program Areas		
4.	Create a methodology to gather quantitative accomplishment data and track project outputs and accomplishments against Transportation Investment Plan anticipated goals.	33-35
5.	Demonstrate a stronger link between capital project selection guiding principles and the actual implementation order for capital projects by formally memorializing discussions and decisions made.	41-42
Chapter 4: OCTA Approaches Ensured Compliance with M2 Ordinance		
6.	Include additional links, where appropriate, to underlying support documentation to validate compliance efforts and activities tracked and evaluated in the Program Management Office's Compliance Matrix.	44-45
Chapter 5: OCTA's Sound Fiscal Practices Helped Mitigate Risks Associated with Rising Construction Costs and Decreased Sales Tax Revenue		
No recommendation.		
Chapter 6: OCTA was Transparent and Accountable to The Public		
7.	Enhance awareness of the M2/OC Go Program, M2-funded projects, and related M2 accomplishments on social media through posts on currently existing OCTA social media pages or through using separate social media dedicated to M2.	73-74
8.	Add a short biography on the OCTA website highlighting Taxpayer Oversight Committee members' experience and expertise to enhance transparency of those providing oversight.	74-76

Introduction and Background

To provide congestion relief, improved accessibility, and reduced pollution through a variety of freeway, roadway, transit, and environmental projects, voters passed Measure M in November 2006 calling for a continuation of an existing Measure M half-cent sales tax for an additional 30-year period from 2011 through 2041. This measure paved the way for transportation-related improvements worth an initially projected amount of \$11.9 billion in 2005 dollars as part of the 2006 Renewed Measure M Transportation Investment Plan (Transportation Investment Plan) as approved by the Orange County Transportation Authority (OCTA) Board of Directors (Board).¹ OCTA, in its capacity as the Regional Transportation Planning Agency and administrator of the sales tax, was responsible for administering the Measure M Program and projects in coordination with the California Department of Transportation (Caltrans) and several local partner jurisdictions.

Measure M Ballot Goals

Measure M was a half-cent sales tax for transportation improvements in Orange County first approved by voters in 1990 for a 20-year time period. When Orange County voters renewed Measure M (known as M2) in November 2006, they agreed to continue the half-cent sales tax in Orange County for an additional 30 years.² Specifically, the ballot promised congestion relief on the I-5, I-405, SR-22, SR-55, SR-57, and SR-91 freeways, along with funding to fix potholes and resurface local streets, expand Metrolink rail service, provide additional transit options and transit services at reduced rates to seniors and disabled persons, synchronize traffic lights, reduce air and water pollution, and protect local beaches from oil runoff from roadways, as shown in Exhibit 1. Additionally, the M2 Ordinance included taxpayer safeguards through annual independent audits and taxpayer reports, triennial performance assessments, ongoing monitoring and spending reviews by the Taxpayer Oversight Committee, regular quarterly project progress reports, and a comprehensive review of M2 every ten years.

EXHIBIT 1. M2 GOALS FROM 2006 VOTER BALLOT



Source: Official Ballot General Election Orange County, November 7, 2006.

¹ Sales tax forecast estimates as of 2018 were \$13.1 billion (year of collection dollars) over the life of the program.

² The initial Measure M Ordinance as extended on November 7, 2006 was subsequently amended in November 2012, November 2013, and December 2015 and was known as Measure M2. In 2017, Measure M2 was rebranded as OC Go.

Transportation Investment Plan and Projects

Upon approval by the voters, the OCTA Board's Ordinance No. 3 was enacted to implement the goals outlined to voters and included the Transportation Investment Plan outlining specific projects. Specifically, OCTA's Board collaborated with the Orange County Board of Supervisors, the 34 cities within Orange County, and thousands of Orange County citizens to create the Transportation Investment Plan designed for addressing current and future transportation needs.

In fact, the Measure M2 Ordinance sought to continue investment to expand and improve the freeway system, maintain and improve roadways, expand Metrolink rail service, provide more transit service for seniors and persons with disabilities, preserve open space, and clean up runoff from roads that lead to beach closures. Twenty-four specific projects and programs were outlined for completion over the 30-year timeframe of M2 as shown in Exhibit 2.

EXHIBIT 2. MEASURE M2 PROJECTS

(A) Santa Ana Freeway (I-5) Improvements between Costa Mesa Freeway (SR-55) and "Orange Crush" Area (SR-57)	(B) Santa Ana Freeway (I-5) Improvements from the Costa Mesa Freeway (SR-55) to El Toro "Y" Area	(C) San Diego Freeway (I-5) Improvements South of the El Toro "Y"	(D) Santa Ana Freeway/San Diego Freeway (I-5) Local Interchange Upgrades	(E) Garden Grove Freeway (SR-22) Access Improvements
(F) Costa Mesa Freeway (SR-55) Improvements	(G) Orange Freeway (SR-57) Improvements	(H) Riverside Freeway (SR-91) Improvements from the Santa Ana Freeway (I-5) to the Orange Freeway (SR-57)	(I) Riverside Freeway (SR-91) Improvements from Orange Freeway (SR-57) to the Costa Mesa Freeway (SR-55) Interchange Area	(J) Riverside Freeway (SR-91) Improvements from Costa Mesa Freeway (SR-55) to the Orange/Riverside County Line
(K) San Diego Freeway (I-405) Improvements between the I-605 Freeway in Los Alamitos Area and Costa Mesa Freeway (SR-55)	(L) San Diego Freeway (I-405) Improvements between Costa Mesa Freeway (SR-55) and Santa Ana Freeway (I-5)	(M) I-605 Freeway Access Improvements	(A-M) Freeway Environmental Mitigation	(N) Freeway Service Patrol
(O) Regional Capacity Program	(P) Regional Traffic Signal Synchronization Program	(Q) Local Fair Share Program	(R) High Frequency Metrolink Service	(S) Transit Extension to Metrolink
(T) Convert Metrolink Station(s) to Regional Gateway that Connect Orange County with High-Speed Rail System	(U) Expand Mobility Choices to Seniors and Persons with Disabilities	(V) Community Based Transit/Circulators	(W) Safe Transit Stops	(X) Environmental Cleanup

Source: Renewed Measure M Transportation Investment Plan.

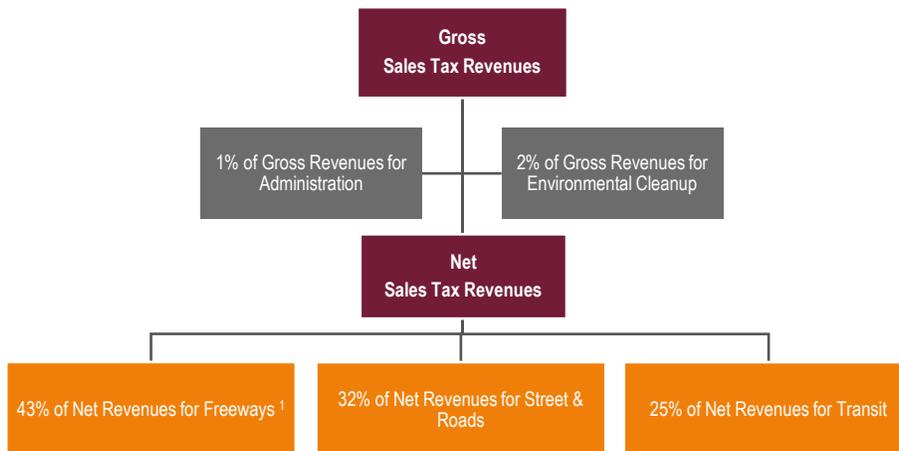
Legend: ■ Freeways ■ Streets & Roads ■ Transit ■ Environmental Cleanup

Except for the specific highway capital construction projects identified in the M2 Ordinance, many of the M2 projects or programs are scalable to available funds—meaning the plan can be delivered as promised, based on the available revenue, while still meeting commitments to voters. One other exception related to Project U-Fare Stabilization Program where one percent of net revenue must be dedicated to provide fare discounts for seniors and persons with disabilities “in an amount equal to the percentage of partial funding of fares” as of the effective date of the Ordinance.

Financing the M2 Program

With provisions for continuation of the existing half cent sales tax, the M2 Program was designed to be primarily funded through local sales tax collections starting on April 1, 2011 for a period of 30 years. After deduction for State Board of Equalization costs of administering the collection and distribution of the sales tax revenue to OCTA, the M2 Program revenues are to be allocated as shown in Exhibit 3.

EXHIBIT 3. REQUIRED MEASURE M2 SALES TAX REVENUE ALLOCATIONS



Source: Generated from M2 Ordinance and Renewed Measure M Transportation Investment Plan.

Note: ¹ 5 percent of net freeway revenues for Environmental Freeway Mitigation Program.

While “pay as you go” was the preferred method of financing transportation improvements and operations, the M2 Ordinance included provisions to use bond financing as an alternative method of financing project scopes where “pay as you go” was unfeasible. As of June 30, 2018, OCTA issued two bond series totaling approximately \$350 million—although future bond issues were expected. Additionally, to offset reduced sales tax revenues mostly impacted by the Great Recession, OCTA successfully leveraged state, federal, and other local funding. In fact, between Fiscal Year 2010-2011 when sales tax collections started and the end of our assessment period in Fiscal Year 2017-2018, the M2 Program received 38 percent of its funding from these other external sources.

Key M2 Partners

Pursuant to state law, OCTA was designated as the Orange County Local Transportation Authority in 1991. As such, OCTA’s mission is “to develop and deliver transportation solutions to enhance the quality of life and keep Orange County moving.” Governed by a 17-member Board of Directors with the Caltrans District Director serving as the 18th member in an ex-officio capacity, OCTA is responsible for planning, funding, and implementing transit and capital projects throughout Orange County—including the Measure M2 Ordinance Plan.

While OCTA is the primary entity responsible for the M2 Program, other entities cooperatively shared responsibilities for managing and implementing projects and programs funded through Measure M2. Other

key partners included Caltrans and the 34 local city and county jurisdictions along with a multitude of grantees, non-profits, conservancy groups, and other federal and state agencies.

Capital Project Delivery Plans

With the Measure M2 Plan providing specific projects and programs promised to the voters over a 30-year period, OCTA needed shorter term blueprints to guide project prioritization and implementation. OCTA coordinated and sought input from officials and stakeholders to develop a series of delivery plans including an Early Action Plan (EAP), M2020 Plan, and a Next 10 Delivery Plan (Next 10 Plan) described as follows:

- **EAP:** While sales tax collections for the Measure M2 Plan were not slated to begin until April 2011, the OCTA Board adopted a five-year Early Action Plan in 2007 to advance projects between 2007 and 2012 and place more than \$1.6 billion in transportation improvements underway by 2012. The EAP allowed Measure M2 projects to start before any sales tax revenue was collected. Funding was provided through debt financing against future Measure M2 Plan revenues, unallocated Measure M1 funds, and leveraging of external state, federal, and local grants and/or matching funds.
- **M2020 Plan:** Developed after completion of the EAP in 2012, the M2020 Plan expedited projects and programs for all modes between 2013 and 2020 to help deliver projects earlier than originally anticipated by taking advantage of a favorable bidding climate and low construction costs as well as adhering to aggressive project schedules and collaboration with local jurisdictions and project partners.
- **Next 10 Plan:** When sales tax revenue forecasts decreased, the Board cut short the M2020 Plan and replaced it with the Next 10 Plan—initially approved in November 2016 and reviewed and updated in November 2017 and September 2018—to account for additional sales tax forecast reductions. The Next 10 Plan outlined priorities and funding commitments for a ten-year period between 2017 and 2026. In all, approximately \$6 billion in transportation improvements is anticipated to be completed or underway by 2026.

Scope and Methodology

As part of the M2 Ordinance, OCTA must undergo a performance assessment at least once every three years to evaluate efficiency, effectiveness, economy, and program results of OCTA in satisfying the provisions and requirements of the Ordinance including its Transportation Investment Plan. Three performance assessments were completed to date covering program activities since Fiscal Year 2006-2007. This report provides results of the fourth performance assessment as of June 30, 2018.

Scope

Sjoberg Evashenk Consulting Inc. (Sjoberg Evashenk), was contracted by OCTA to conduct the fourth performance assessment for the three-year period covering July 1, 2015 through June 30, 2018. Specifically, OCTA asked Sjoberg Evashenk to examine OCTA's performance on a range of activities surrounding the planning, management, and delivery of M2 Program components to ensure necessary tools and practices were in place to successfully implement the plan over its remaining life. This included, but was not limited to, a review of OCTA's:

- Effectiveness and efficiency in developing and implementing the M2 projects and programs;
- Approach to program management with regard to addressing prior assessment findings, interdivisional coordination, progress reporting mechanisms, function and functionality of the M2 Program Management Office, and security over cyber-attacks;
- Practices to ensure compliance with monitoring and reporting on M2 Ordinance provisions;
- Fiscal responsibilities when funding local grants and reporting on expenditures in addition to established practices surrounding long-term financial and investment decisions given anticipated revenue shortfalls; and
- Transparency and accountability in informing the public and decision-makers on M2 matters, public involvement when planning for M2 projects, and functionality of safeguards such as the Taxpayer Oversight Committee.

Objectives

The primary objectives identified for this performance assessment were as follows:

1. Evaluate the status of findings from the third performance assessment and the effectiveness of the changes implemented;
2. Assess the performance of the agency on the efficient delivery of M2 projects and programs; and
3. Identify and evaluate any potential barriers to success and opportunities for process improvements.

Methodology

To fulfill these objectives, we conducted a series of detailed tasks involving data mining and analysis, documentary examinations, peer comparisons, source data verification, and interviews. Appendix A provides the detailed methodology employed on this assessment.

Chapter 1: Program Goals were Met Thus Far

While the M2 Ordinance established a primary goal of relieving traffic congestion in Orange County, OCTA's stated focus and directive was to complete the projects listed in the Renewed Measure M Transportation Investment Plan under the premise that those efforts would address the Ordinance purpose and goals. Our review found that OCTA realized many accomplishments toward that goal with only seven years elapsed of the 30-year M2 Ordinance timeframe—although OCTA did not specifically track performance against the overarching M2 goals.

We found that the M2 Ordinance programs implemented and projects completed all contributed towards fulfilling the promises of the Ordinance and helped in achieving M2 goals. For instance, in reviewing congestion levels in Orange County over the assessment period, we noted that while overall congestion slightly increased, an area with an M2 funded transportation improvement actually realized a decline in congestion levels. Specifically, on a completed segment for the SR-91 “centerpiece” freeway westbound between I-5 and SR-57 where a 4.5 mile-long general purpose lane was added, vehicle hours of delay during peak evening commutes decreased from 2012 (prior to construction start) to 2017 (after the new lane opened to traffic in July 2016).³ Other goals of the Ordinance were also met including highway and roadway pavement condition improving over the years and consistently ranking high statewide. While progress may fluctuate as time passes or even change depending on the period of time being measured, the M2 Program performed well thus far.

Many M2 Goals were Met Early in the M2 Program Lifecycle

Specific ballot language set forth funding for six overarching programs or goals to relieve traffic congestion, as shown in Exhibit 1 in the Introduction and Background Section of this report, through highway improvements, street resurfacing and traffic light synchronization, transit options, and environmental activities. As summarized in Exhibit 4 and described in the sections that follow, M2 goals were met even though less than a quarter of the M2 timeframe has elapsed.

EXHIBIT 4. STATUS TOWARD MEETING M2 GOALS THROUGH JUNE 30, 2018

#	M2 Ordinance Goal	Measure	Results Thus Far
1	Relieve Congestion on I-5, I-405, SR-22, SR-55, SR-57, and SR-91	<ul style="list-style-type: none"> • Commute Time • Hours of Delay 	<ul style="list-style-type: none"> • Congestion increased, but so did vehicle miles traveled (VMT)⁴ • Delay was less on the SR-91 project reviewed
2	Fix Potholes & Resurface Streets	<ul style="list-style-type: none"> • Pavement Condition Index 	<ul style="list-style-type: none"> • Pavement Condition Index (PCI) improved from 77 in 2014 to 79 in 2016. Orange County has the best pavement condition in the State
3	Expand Metrolink Rail & Connect with Local Communities	<ul style="list-style-type: none"> • Projects Completed 	<ul style="list-style-type: none"> • 8 of 13 identified Metrolink rail expansion capital projects needed to accommodate future increased

³ Vehicle Hours of Delay or travel time delay is a measure of additional time driven on a roadway relative to the amount of time it would have taken at “free-flow” speeds (60 mph).

⁴ VMT is a widely-known industry measure of the number of miles traveled by all vehicles in a region over a specific time period. It is determined by either actual odometer readings or by estimated modeling calculations.

#	M2 Ordinance Goal	Measure	Results Thus Far
			<ul style="list-style-type: none"> service frequency were completed which included approximately 50 at-grade rail crossings OC Streetcar ready to start construction
4	Provide Reduced Cost Transit Services to Seniors and Persons with Disabilities	<ul style="list-style-type: none"> Number of Issued Passes Number of Boardings Funding Provided 	<ul style="list-style-type: none"> More than 6.8 million of reduced senior passes and approximately 2.7 million of reduced passes for persons with disabilities issued between Fiscal Year 2015-2016 and Fiscal Year 2017-2018 alone More than 96 million fare stabilization program-related boardings provided \$36.4 million provided to projects expanding senior transportation services \$22 million provided to stabilize fares and provide fare discounts to seniors and persons with disabilities.
5	Synchronize Traffic Lights	<ul style="list-style-type: none"> Number of Lights Synced 	<ul style="list-style-type: none"> 2,258 traffic lights synchronized.
6	Reduce Air and Water Pollution and Protect Local Beaches through Cleanup of Roadway Oil Runoff	<ul style="list-style-type: none"> Better Air Quality and Less Water Pollution 	<ul style="list-style-type: none"> 6.2 million cubic feet of trash removed 1,300 acres preserved as open space

Source: Generated from OCTA M2 Website at <http://www.octa.net/OC-Go/Milestones/>.

When evaluating goals and progress towards them, one must keep in mind that results may fluctuate as time passes or depend on the period being measured. Thus, performance results over a 3-year assessment period can vary from performance results over a longer time span such as the start of M2. Further, there are several forces that constantly affect transportation demand and performance outcomes as described in the following section.

Both Internal and External Forces Impact Goals and Outcomes

Outcomes are one of the most important measures of what government entities provide. They compare the results or outputs of program activities—such as completed construction projects or new transit service stops—to a program’s intended purpose and allow a determination of progress toward meeting goals. While the M2 Ordinance had an overarching goal or outcome to relieve traffic congestion, achievement of that goal was affected by both internal factors within OCTA’s span of influence and external forces outside of OCTA’s purview as shown in Exhibit 5.

For instance, results can be influenced internally by factors such as the design of capital projects, approach to pavement maintenance, transit scheduling, and local policies and priorities—all of which are areas where M2 funds were directed and influenced performance. However, there are also significant external forces affecting transportation plans and projects—not just in Orange County, but across the nation—including population, employment, economy, and driver preference. External legislative changes and technological advances can also affect traffic demand and mobility. Although OCTA did not have full control over certain factors that can affect performance, understanding performance results and outcomes is useful for decision makers to initiate actions and improvements to enhance performance.

EXHIBIT 5. INTERNAL AND EXTERNAL FORCES IMPACTING M2



Source: Generated from legislative research, data from U.S. Energy Information Administration, National Conference of State Legislatures Research, and Federal Highway Administration website guidance at <https://fhwa.dot.gov/publications>.

Many Entities Tracked and Measured Performance

Over the past several years, transportation agencies and the federal government evolved toward stronger performance measurement in terms of performance priorities, goals and target setting, and data collection methods. Additionally, legislation passed in 2012 and subsequent guidance progressively elevated target setting and performance measurement, with transportation agencies across the nation reacting to these mandates.

Although not specifically required for OCTA, other entities invested in measuring performance through target-setting and data collection as part of more recent federal mandates placed on other regional transportation entities through the Moving Ahead for Progress in the 21st Century (MAP-21) Act of 2012 as continued under the Fixing America's Surface Transportation (FAST) Act of 2015. Specific requirements related to performance targets and data reporting in certain areas include safety; pavement and bridge condition; system, freight, and congestion mitigation and air quality; and asset management. While these federal requirements were specific to OCTA's regional Metropolitan Planning Organization (MPO), the Southern California Association of Governments (SCAG), the M2 efforts and transportation investments impact the region's progress in meeting SCAG's performance targets. While no particular performance requirements were placed on OCTA, SCAG may look to OCTA at some point in the future for assistance in data gathering or reporting through some type of performance measurement system.

In fact, many other MPO and non-MPO entities across the nation were capturing performance measurement data related to similar sales-tax measures or long-term regional plans even before mandates from the federal government. For instance:

- **Redding, California**

The Shasta Regional Transportation Agency created performance measures tied to the goals and objectives of its Regional Transportation Plan in addition to those required by federal law and track progress against regionally-specific goals such as:

- ✓ Reduce average travel time (in minutes); and
- ✓ Reduce vehicle air pollutants and greenhouse gas emissions.

- **San Francisco, California**

The Metropolitan Transportation Commission for the San Francisco Bay Area and its sister agency, the Association of Bay Area Governments, used performance targets in its Plan Bay Area 2040 regional plan to measure and report on its transportation network conditions including:

- ✓ Increase share of jobs accessible within 30 minutes by auto by 20 percent; and
- ✓ Increase non-auto mode share by 10 percent.

- **Chicago, Illinois**

In its long-range transportation plan titled Go to 2040, the Chicago Metropolitan Agency for Planning established specific targets such as:

- ✓ Increase arterials with acceptable ride quality to 90 percent and bridges “not deficient” to 80 percent; and
- ✓ Increase transit ridership’s share to 13.5 percent of trips each weekday.

According to the Federal Highway Administration, performance measurement improves the effectiveness of any program since significant effort goes into planning and implementing projects, but little effort goes into looking back on how they performed. The Federal Highway Administration offered four key benefits as follows:

- Provide transparency to public and accountability to public officials;
- Understand where problems are;
- Direct the best mix of investments; and
- Evaluate how well past investments worked.

Yet, capturing and analyzing performance information can be challenging and time consuming requiring staff to mine data from a variety of sources to assess progress toward M2 goals. Thus, this effort can involve a significant investment of staff time and resources and make it more challenging for entities to evaluate performance outcomes. Once performance data is gathered, it should be analyzed and used in some capacity to inform future transportation decisions.

Like many similar entities, no required or planned activities to track performance results were built into the M2 plan. Thus, if the OCTA Board wants to better capture, track, analyze, and report more fully on the taxpayer’s return on investment and progress toward M2’s goals, more staff time and/or monetary resources would need to be allocated for this function. Extra resources may be needed to gather and track data, analyze what the data means, correlate the results with other factors, and determine how the data

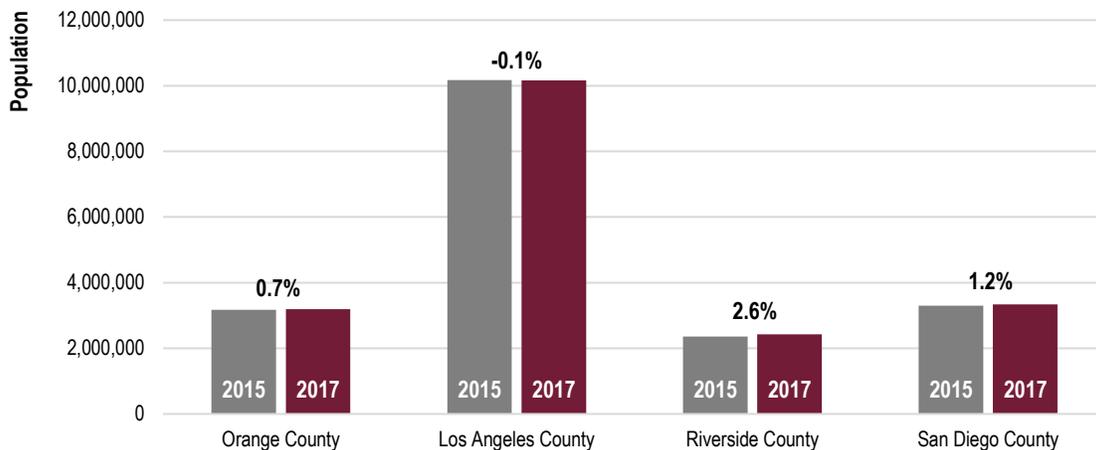
influences future planning and project activities. Additionally, because there are a multitude of performance metrics used in industry, OCTA would need to consider and determine which metrics it would want to track and use to measure performance and results.

At a minimum, OCTA could consider identifying measures to capture progress towards each of the six key M2 Ordinance goals and on a periodic basis report on how results achieved correlate to those goals—similar to the data previously presented in Exhibit 4.

While Population Remained Fairly Stable, Traffic Demand Increased Since 2015

As part of our assessment of M2 Ordinance performance, we gathered information from a variety of external sources to understand performance in the region.⁵ Two significant external forces on a region's transportation performance were population and traffic demand on the roadways. According to the US census' one-year estimates, Orange County's population of approximately 3.2 million for calendar year 2017 was fairly stable since 2015—similar to population fluctuations at three nearby counties in Los Angeles, Riverside, and San Diego as shown in Exhibit 6.

EXHIBIT 6. ESTIMATED POPULATION CHANGE IN CALIFORNIA COMPARISON COUNTIES, CALENDAR YEARS 2015 TO 2017



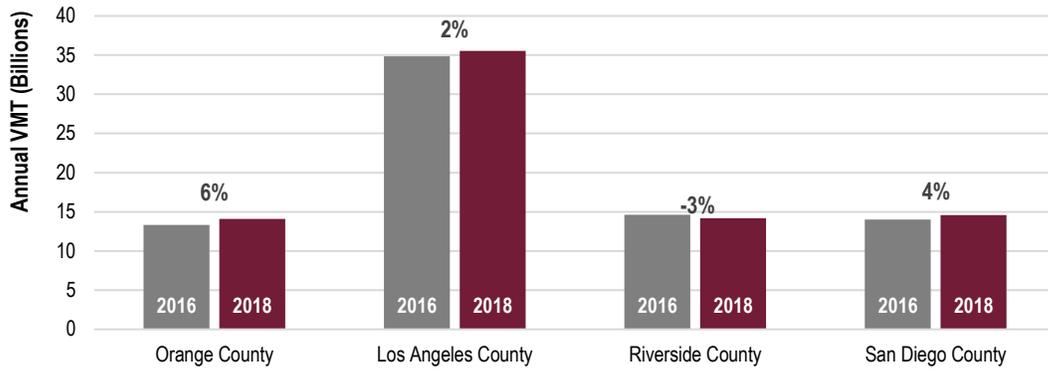
Source: US Census Bureau's Population Estimates for Calendar Years Shown.

When population grows, there could be more potential drivers in the region that would tend to increase demand as well as often lead to more congestion. In terms of traffic demand on roadways, a common industry measure is vehicles miles of travel (VMT). Specifically, VMT measures the total miles driven by all of the vehicles over a freeway segment during a specified time period.⁶ In Orange County, VMT data shows that traffic demand increased in Orange County between 2016 and 2018 from 13.3 billion in 2016 to 14.1 billion in 2018—an increase of approximately 6 percent. The traffic demand in comparison counties generally increased at slower rates or showed slight declines as shown Exhibit 7.

⁵ External performance sources included the United States Census and Caltrans' Performance Measurement System (PeMS) database.

⁶ Through its PeMS database, Caltrans calculated VMT for the state highway system through detectors by collecting data in individual travel lanes. Detectors report flow, occupancy, and speed.

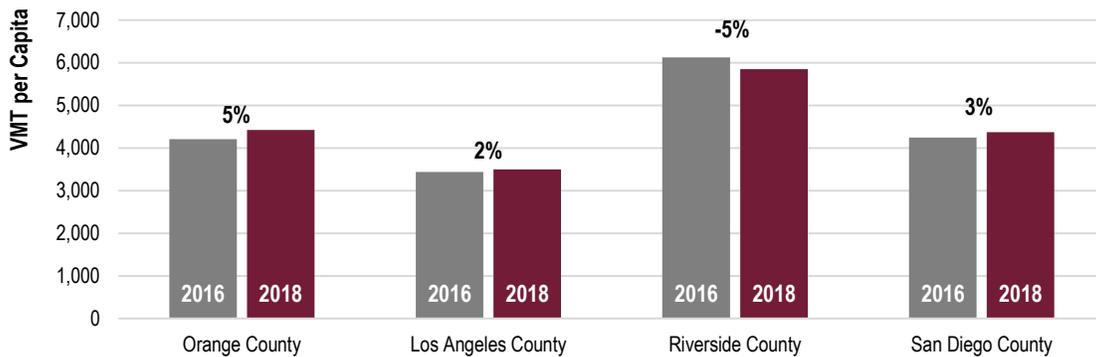
EXHIBIT 7. CHANGE IN ANNUAL VMT FOR CALIFORNIA COMPARISON COUNTIES, CALENDAR YEARS 2016 TO 2018



Source: US Census Bureau's Population Estimates and Caltrans PeMS.

When looking at both population and VMT in combination, data showed that VMT per capita in Orange County increased by 5 percent from 4,206 VMT per capita in 2016 to 4,423 in 2018 as shown in Exhibit 8—similar to most nearby comparison counties we reviewed. This metric showed that the traffic demand increased at a higher rate than population growth from 2016 to 2018.

EXHIBIT 8. CHANGE IN ANNUAL VMT PER CAPITA FOR CALIFORNIA COMPARISON COUNTIES, FISCAL YEARS 2016 TO 2018



Source: US Census Bureau's Population Estimates and Caltrans PeMS.

Congestion slightly increased since 2015, but M2 Project Showed Less Congestion

A key goal stated in the M2 ballot language was to “relieve congestion on the I-5, I-405, SR-22, SR-55, SR-57, and the SR-91.” To determine whether that goal was being met thus far, we used U.S. Census American Community Survey Urbanized Zone Areas (Urbanized Areas) data to gather commute time data and compare Orange County’s performance to nearby areas.⁷ Specifically, we compared Orange County’s performance over the last three years with the other areas, although there were limitations in the

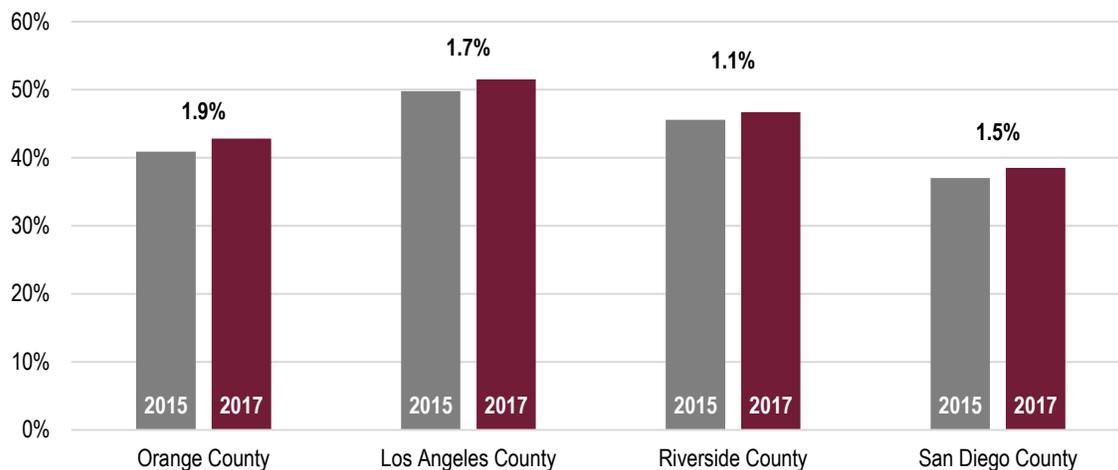
⁷ Urbanized Zone Areas are U.S. Census-designated land areas consisting of a central core and adjacent to densely settled territory that together contain at least 50,000 residents. Comparison counties in California reviewed include San Diego, Riverside-San Bernardino, and Los Angeles.

conclusions that could be drawn from the data as there were many factors influencing performance and no targets in place for expected performance.

Commute Time Slightly Increased over Assessment Period

Data produced by the American Community Survey estimated the commute time to work for all commuters in each of the comparison regions across all modes—driving alone, carpools, motorcycles, trucks, public transportation, bikes, and walking.⁸ We reviewed the percent of commutes across these modes that took fewer than 30 minutes and the change from calendar year 2015 to 2017. Orange County commuters had slightly longer commutes in 2017 than in 2015 with 40.9 percent of commuters having commutes under 30 minutes in 2015 and only 42.8 percent of commutes under 30 minutes in 2017—for a 1.9 percent increase, on average, as shown in Exhibit 9.

EXHIBIT 9. CHANGE IN PERCENT OF COMMUTES THAT TOOK LONGER THAN 30 MINUTES, CALENDAR YEARS 2015 TO 2017



Source: American Community Survey Estimates.

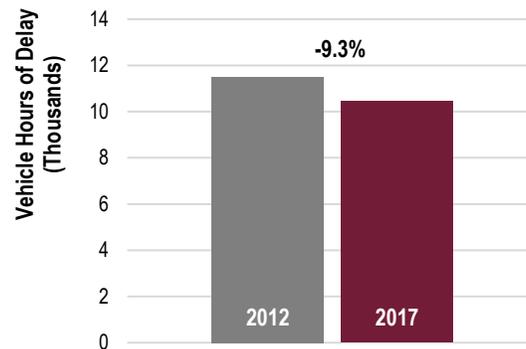
Vehicle Hours of Delay Decreased on SR-91 Project

While countywide performance statistics can give context to factors impacting transportation performance in a region, measuring outcomes of transportation projects are generally more beneficial at a focused level. For example, according to the M2 Early Action Plan, the proposed benefits of Project "H"—Riverside Freeway (SR-91) Improvements from the Santa Ana Freeway (I-5) to the Orange Freeway (SR-57)—were to increase freeway capacity and reduce congestion.⁹ Delay data from Caltrans PeMS was available for the year before construction started in 2012 and was compared to the congestion data from the year after the new lane was open to traffic in 2016. As shown in Exhibit 10, there was a decrease in vehicle hours of delay over the project area in 2017 compared to 2012 for the evening commute.

⁸ While not specific to the M2 Ordinance, the SCAG Regional Transportation Plan that is influenced by OCTA's portfolio of regionally significant projects indicated that it would use American Community Survey data to monitor the commute to work time performance measure related to congestion.

⁹ The project added a 4.5-mile-long general-purpose lane to the westbound SR-91 Riverside Freeway with construction starting in February 2013 and opening to traffic in March 2016.

**EXHIBIT 10. CHANGE IN VEHICLE HOURS OF DELAY ON M2 PROJECT H CORRIDOR:
WESTBOUND SR-91 RIVERSIDE FREEWAY, BETWEEN I-57 AND I-5, DURING PEAK PM HOURS**



Source: Generated from Caltrans PeMS

Note: Data from PeMS was available on the corridor level, specifically, travel time delay. Travel time delay is a measure of additional time driven on a roadway relative to the amount of time it would have taken at “free-flow” speeds (non-congested conditions). Caltrans’ system allowed a user to set the free-flow” for the system to perform the delay calculations. In the exhibit, 60mph was used as the free-speed condition. Peak evening hours were 3pm to 8pm.

Pavement Condition has Improved Over the Assessment Period

Another goal in the M2 ballot language was to “fix potholes and resurface streets.” While we describe accomplishments related to projects commissioned for fixing potholes and resurfacing streets in Chapter 2, we also assessed overall pavement condition that allows for safe and free-flow travel to help address congestion. We found that both highway pavement and local road condition improved in Orange County over the period of our assessment.

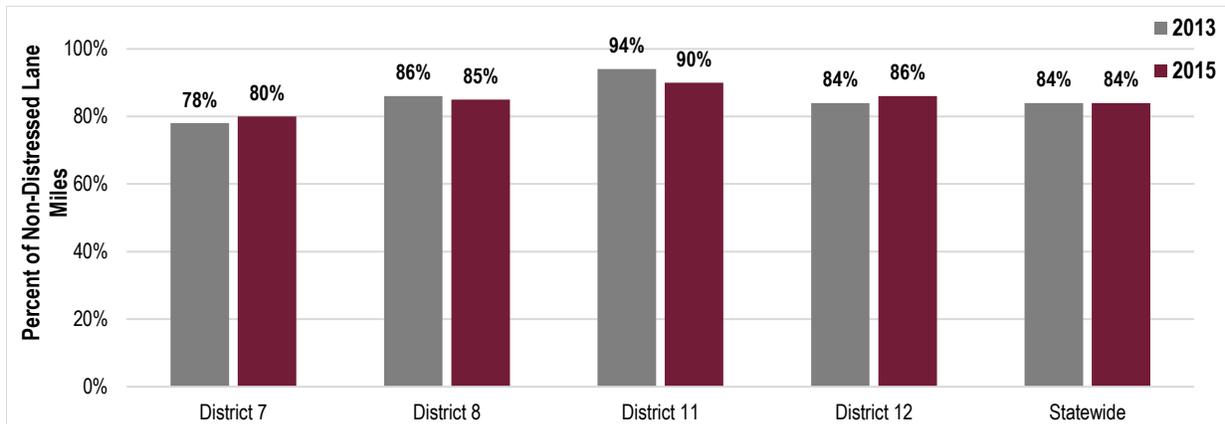
Pavement condition can be assessed by a variety of methods. Two standardized methods include the International Roughness Index (IRI) and the Pavement Condition Index (PCI). The IRI is measured by a vehicle that is equipped with sensors and computers to automatically collect and analyze road conditions as a driver travels the roadway. The IRI basically measures the “roughness” of ride quality, or in simpler terms, the bumpiness of a road. Another method of assessing pavement condition is the PCI initially developed by the U.S. Army Corps of Engineers. The PCI is calculated from a visual survey—which may be aided by video captured from a modified vehicle—of pavement distress with score ranging from 0 (failed) to 100 (perfect). Points are deducted from 100 for distress such as cracking, rutting, and other distortions.

For highway pavement condition, Caltrans previously used IRI and a pavement condition survey to report results by Caltrans District in a biannual State of Pavement report. The last report was issued in 2015, because Caltrans was in process of changing its method to comply with MAP-21 and will use an automated pavement condition survey on a go-forward basis. For roadways, local entities used PCI to report results to the League of California Cities as part of an annual Local Streets & Roads Needs Assessment—as well as to report performance to OCTA through annual eligibility determination processes.

Highway Pavement Condition Improved since 2013

While the percent of distressed highway lane miles at the statewide level remained constant from 2013 to 2015, Caltrans District 12, which included only Orange County, showed improvement with 88 percent of non-distressed lane miles in 2015 up from 84 percent of non-distressed lane miles in 2013—better than the statewide average as shown in Exhibit 11. When compared to other nearby Caltrans Districts, two other districts showed worsening highway conditions—District 8 and District 11— during the same time period where data was available.

EXHIBIT 11. CHANGE IN SHARE OF NON-DISTRESSED HIGHWAY LANE MILES FROM 2013 TO 2015



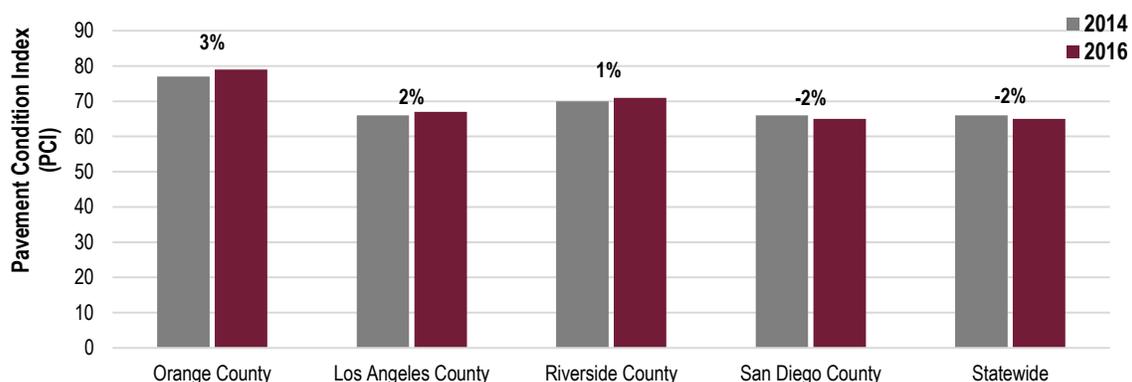
Source: Caltrans State of the Pavement reports, 2013 and 2015.

Note: District 7 includes Los Angeles and Ventura counties, District 8 includes Riverside and San Bernardino counties, District 11 includes San Diego and Imperial counties, and District 12 is only Orange County.

Local Streets and Roads Condition Improved since 2014

Pavement condition for local streets and roads was reported by the League of California Cities in its California Local Streets & Roads Needs Assessment through a survey of California’s 58 counties, 482 cities, and 48 Regional Transportation Planning Agencies. While statewide averages decreased approximately 2 percent between 2014 and 2016, Orange County’s condition showed an approximate 3 percent improvement increasing from a PCI of 77 in 2014 to a PCI of 79 in 2016 as shown in Exhibit 12.

EXHIBIT 12. CHANGE IN ROADWAY PAVEMENT CONDITION



Source: California Statewide Local Streets and Roads Needs Assessment Local Pavement Data.

Transit Performance Showed Progress towards Goals

With guiding principles of value, safety, convenience, and reliability, Project R from the M2 Ordinance intended to expand Metrolink services and connect with local communities. As described in more detail in Chapter 2 of this report, OCTA completed eight Metrolink grade crossing, safety, and station projects as well as Project T, the Anaheim Regional Transportation Intermodal Center project.

Additionally, Project W related to safe transit stops where competitive grants were planned for the 100 busiest transit stops to ease transfers between bus lines and provide passenger amenities such as improved shelters, lighting, ticketing machines, and arrival timetables. According to OCTA, as of October 2018, 43 bus stop improvements were completed or nearing completion from the 51 project grants awarded. The City of Anaheim requested a cancellation of their grants and to postpone their eight improvements until a future competitive call for projects. Improvements included replacement or improvements to shelters, benches, concrete, curb ramps, and trash receptacles.

Further, an additional goal of the Ordinance was to provide reduced-cost transit services to seniors and persons with disabilities through Project U. Because reductions in collections were projected to not be sufficient to fund the M2 Ordinance's fare stabilization requirements for seniors and persons with disabilities, transfers from Project T (a completed program) converting Metrolink Stations to Regional Gateways, filled the shortfall.¹⁰ Yet, over the three-year period of our assessment, OCTA provided more than \$12.6 million of M2 revenues for reduced transit fares and issued more than 6.8 million reduced senior passes and 2.7 million reduced passes for persons with disabilities. Reduced senior fare passes issued decreased slightly between 2015 and 2018 as did ACCESS passes for persons with disabilities as bus ridership overall decreased across the country.

More Traffic Lights were Synchronized than Expected

To maximize efficiency of the street system, the Ordinance set aside funding for a coordinated regional traffic signal synchronization program. It was expected that, once completed, this program would increase street capacity and reduce delay by over six million hours annually in more than 2,000 signalized intersection. While initial amounts of funding for this program were much higher at pre-Great Recession levels, the program has already implemented 2,258 synchronized traffic signals with just one-quarter of the M2 Program timeline elapsed. According to an OCTA Regional Traffic Signal Synchronization Program Overview from March 2017, these completed projects reduced average travel time by 13 percent and improved average speed by 15 percent. Equally important, OCTA estimated that those improvements reduced greenhouse gas emissions by approximately 667.2 million pounds by decreasing the number of vehicle stops, smoothing the flow of traffic, and reducing the amount of vehicle acceleration and deceleration.

Environmental Efforts Achieved Desired Results

One of the six project goals for the M2 Ordinance was to mitigate the impacts of construction activities on the environment by "reducing air and water pollution, and protecting beaches by cleaning up oil runoff from

¹⁰ According to OCTA's Renewed Measure M Comprehensive Ten-Year Review issued in 2015.

roadways.” OCTA employed two programs to address these goals—an Environmental Cleanup Program (Project X) and an Environmental Mitigation Program as part of the M2 freeway program.

Environmental Cleanup Program Met Ordinance Goals

To date, OCTA made significant efforts through its Environmental Cleanup Program whereby 2 percent of gross annual M2 revenues is set aside for competitive grant activities to protect Orange County beaches, improve ocean water quality, and comply with the Clean Water Act through activities such as removing trash and debris. Envisioned as a competitive countywide program, the Ordinance set-aside \$237.2 million (revised to \$259.4 million in 2018) over the life of the program to help supplement existing water quality programs. The OCTA Environmental Cleanup Allocation Committee is a technical working committee that makes recommendations on competitive funding to implement street- and highway-related water quality improvement projects to the Board. The Environmental Cleanup Allocation Committee meets as needed and is comprised of 14 members representing stakeholders and experts in the field. Tier 1 grants are designed to mitigate more visible forms of pollutants, such as litter and debris on roadways and catch basins, while Tier 2 grants are more regional, capital intensive projects such as construct wetlands or detention basins to mitigate pollutants. As of June 30, 2018, there have been seven rounds of funding for Tier 1 projects totaling \$20.1 million for 154 projects and two rounds of funding for Tier 2 projects totaling \$27.9 million for 22 projects.

With approximately \$48 million invested to date, OCTA appeared on track to accomplish this Ordinance goal through its two-tiered competitive grant program. Reported results of the Tier 1 grants indicated 6.2 million cubic feet of trash was removed from local beaches and roadways. Additionally, OCTA estimated that once the Tier 2 projects currently underway are completed, they have the potential to recharge 157 million gallons of groundwater annually.

Environmental Mitigation Program Achieved Successes

As part of the Environmental Mitigation Program, 5 percent of M2 freeway revenues, or approximately \$243.5 million of projected M2 revenues (revised to \$266 million in 2018), were allocated to pay for direct mitigation of transportation projects and included acquisition, restoration, and land management activities. The OCTA’s Environmental Oversight Committee makes technical recommendations to the OCTA Board, including fund allocations. The Environmental Oversight Committee meets quarterly and is comprised of 12 members which includes two OCTA Board representatives, Caltrans, state and federal resource agencies, non-governmental environmental organizations, the public, and the Taxpayer Oversight Committee. Over the period of our assessment, there were several accomplishments related to the M2 environmental programs.

Specifically, since a 2013 external audit was conducted focusing on the mitigation portion of the EMP, OCTA acquired two additional properties for a total of seven properties that need mitigation as well as funded 11 habitat restoration projects. Additionally, in 2016, OCTA funded a dam removal project (its 12th project) to enhance aquatic organism passage and stream habitat in the San Juan Creek area. Furthermore, the United States Fish and Wildlife Services and the California Department of Fish and Wildlife finalized the issuance of their respective biological permits, as well as executed the implementing

agreement in June 2017, streamlining M2 freeway project approvals and reducing mitigation costs. In January 2018, OCTA secured advanced streamlined state and federal clean water permitting requirements.

With the commitment to the voters largely achieved in terms of mitigation, OCTA staff began to focus on property management requirements and establishing an endowment for future management of the seven properties totaling 1,300 acres. To estimate the amount of endowment needed to fund land management efforts on the seven properties indefinitely, an external economist determined that an endowment of \$34.5 million would be required assuming a 5.75 percent rate of return—of which 2.5 percent was forecasted to account for inflation. A small part of the \$34.5 million endowment interest would cover operating costs estimated at 2.5 percent of the endowment earnings and fund management estimated at 0.75 percent of the endowment earnings.

In 2016, the Board approved an approximate 12-year plan to set-aside approximately \$2.8 million annually to reach the \$34.5 million endowment goal with expectations that it could take 10 to 15 years to establish—depending on sales tax revenue collections—and be fully funded by 2033. As of June 30, 2018, OCTA had made two deposits to the endowment with the future deposits anticipated to be made annually during the August timeframe. During the endowment building phase, OCTA's plans to focus on establishing agreements with local land managers for the seven properties and establishing the mechanism for allocating the endowment monies.

Once the endowment is fully funded, OCTA estimates that approximately 45 percent of the initial mitigation budget could remain and Board direction would be needed at that time to determine the appropriate use of the funds consistent with the M2 Ordinance. The existing M2 transportation projects are associated with the protected lands for which the endowment has been established. However, if additional lands are acquired to offset additional transportation projects, extra funds could be needed to pay for the long-term land management through a separate endowment. Further, OCTA is well aware that these long-term decisions will require agreement from the wildlife agencies, and staff will coordinate and collaborate in the future as necessary.

Recommendations

To enhance its reporting on program goals, OCTA could consider the following:

1. Identify measures to capture progress towards each of the six key M2 Ordinance goals and, on a periodic basis, report on how results achieved correlate to those goals.

Chapter 2: OCTA Demonstrated Strong Program Management

When Orange County voters approved the Measure M2 Program in 2006, OCTA was tasked with administering an initially estimated \$11.9 billion (in 2005 dollars) program over a 30-year period. The Ordinance required OCTA to deliver a diverse portfolio of transportation solutions, generally geared towards relieving congestion in the region. Embracing the challenge to fulfill the promises made to voters while safeguarding tax dollars, OCTA employed strong program management practices, valued external reviews on its program and practices, and safeguarded sales tax dollars. Moreover, OCTA has begun implementing a cyber security framework to minimize vulnerabilities, mitigate risks of potential attacks, and resolve issues with evolving technology and information systems.

OCTA’s PMO Employed Strong Practices and Aligned with Others

In 2007, OCTA created the M2 Program Management Office (PMO) to oversee the measure and “provide unified oversight and action to ensure successful delivery.” While other organizational units within OCTA helped carry out the Transportation Investment Plan’s individual projects and programs during our period of assessment, the PMO monitored and, as appropriate, analyzed, assessed, facilitated, coordinated, and reported on M2 activities and progress with a commitment to fulfilling promises made in the M2 ballot language. Operating under five goals related to compliance, effective management, fiscal responsibility, transparency, and taxpayer safeguards, the PMO formally defined ten functional responsibilities for managing the program and highlighting the importance of public trust as shown in Exhibit 13.

EXHIBIT 13. PMO FUNCTIONAL RESPONSIBILITIES

PMO Goal	Functional Responsibilities
Compliance & Consistency	1. Ensure projects and programs are delivered according to Ordinance
	2. Coordinate and monitor close out plan for Measure M
Management	2. Ensure business processes and systems are established for efficient and effective implementation
	3. Coordinate program and project management policies and procedures
	4. Serve as a clearinghouse for ensuring critical interdivisional information sharing and formation of Measure M Program Management Advisory Committee.
Fiscal Responsibility	5. Ensure proper reporting and review of receipts, expenditures, and accounts to meet standards
	6. Ensure uses of M2 and external funding follow Ordinance provisions
Transparency	7. Coordinate and oversee reporting of M2 Program status to the Board, public, and stakeholders
	8. Ensure consistent and appropriate reporting of M2 project development activities
	9. Provide access to relevant M2-related policy and procedure development
Safeguards	10. Ensure implementation of Ordinance safeguards including Taxpayers Oversight Committee, quarterly reports to the Board, annual expenditure reports, Triennial Performance Assessments, ten-year review, annual Local Transportation Authority audit, and reporting from local jurisdictions.

Source: PMO Charter.

Through interviews and documentary review, we found the PMO employed strong practices to fulfill its responsibilities. For instance, as described in more detail throughout this report, the PMO used a formal tracking matrix to demonstrate compliance with the M2 Ordinance, participated in project development

team meetings to stay current on progress and issues, and employed monthly tools to understand and validate reasonableness of project control data—in addition to other management methods.

We also found that the PMO’s role, responsibilities, and approaches were generally consistent with protocols used by other similar agencies to fulfill their specific measure objectives related to organizational location, reporting, and involvement as shown in Exhibit 14. For instance, like the San Francisco County Transportation Authority and the Maricopa Association of Governments, OCTA’s PMO issued annual reports focused on its sales tax measure and was involved in relevant project team meetings. While other entities used a similar PMO-like function or employed a centralized oversight on their particular sales tax measures, OCTA seemed to have a more formally established and comprehensive management function focused on its measure than the other entities.

EXHIBIT 14. COMPARISON OF OCTA’S PMO TO OTHER SIMILAR ENTITIES

Function	OCTA	SANDAG	SFCTA	MAG	RTA
Dedicated PMO or Similar	✓	✓	Note ¹	Note ¹	Note ¹
Location of PMO or Similar Organizationally	Planning	Planning	Planning	Planning	Planning
Dedicated Oversight Functions	✓	Note ²			
Annual Reports	✓	Note ³	✓	✓	Limited
Quarterly Reports	✓	✓		Note ⁴	✓
Involved in Project Development Team and Other Pertinent Meetings	✓	✓	✓	✓	✓
Dedicated Focus to ensure Consistency with Reports, Fact Sheets, and Website	✓	Partial	Partial	Partial	✓
Formally tracks Compliance with each Ordinance Requirement	✓				

Source: Based on data gathered during performance audits and consulting engagements conducted by Sjoberg Evashenk Consulting, Inc. SANDAG = San Diego Association of Governments, SFCTA = San Francisco County Transportation Authority, MAG = Maricopa Association of Governments (Phoenix, Arizona), and RTA = Regional Transportation Authority (Tucson, Arizona).

Notes: ¹ No dedicated PMO exists, but these entities assume a leadership role on their respective local transportation sales tax measures. ² While some oversight was provided, the PMO activities focused more on planning and programming. ³ Annual report issued by SANDAG Taxpayer Oversight Committee. ⁴ Quarterly Reports prepared by program staff in separate entities within MAG, Arizona Department of Transportation, and Valley Metro.

Clear Roles and Functions helped Coordinate M2 Program within OCTA

Although the PMO coordinated the delivery of the M2 Program, there was a multitude of functional experts in several divisions that helped deliver the program with roles that seem to be clearly defined for the M2 Program as depicted in Exhibit 15. Based on interviews, other divisions held a positive view of the PMO role and activities and those involved seemed to understand their individual M2 responsibilities. As such, there did not appear to be significant areas of misinterpretation, confusion, or inconsistency related to activities such as compliance, schedule and cost control, schedule and budget adherence, change orders, local eligibility, local grants and monitoring, contracting, outreach, forecasting, cash flows, and reporting. Further, to help ensure continued cooperation at regular and critical points, the PMO participated in capital project development team meetings to understand project scope, schedules, budgets, and challenges. The

primary purpose of these meetings was to communicate progress and discuss any existing or expected impediments to the project that could potentially impact the project’s critical path.

EXHIBIT 15. ASSIGNMENT OF KEY M2 FUNCTIONS AND RESPONSIBILITIES

Key Function and Responsibility	PMO	Planning/ Programming	Capital Programs	Project Controls	Local Programs	Finance	Transit Ops	External Affairs
Program Delivery	✓		✓		✓		✓	✓
Compliance with Ordinance	✓	✓	✓		✓	✓		✓
Program Oversight	✓							
Project Oversight & Management			✓		✓			✓
Schedule & Cost Control	✓	✓	✓	✓	✓			
Schedule & Budget Adherence	✓	✓	✓	✓	✓			
Change Order Management			✓	✓	✓			
Determining Local Eligibility					✓			
Grants to Locals					✓	✓		
Monitoring Local Projects & Expenditures	✓ ¹				✓	✓ ¹		
Senior Passes							✓	
Forecasting & Cash Flows	✓	✓				✓		
Revenue Projections	✓	✓				✓		
Revenue Monitoring	✓	✓				✓		
Reporting to Decision Makers	✓	✓	✓		✓	✓		
Reporting to Public	✓	✓	✓		✓	✓		✓

Source: OCTA Organizational Chart and results of assessment interviews.

Notes: ¹ During the period of our assessment, staff in the PMO reviewed annual expenditure statements submitted by the local jurisdictions. It was anticipated that this responsibility would be transferred back to the Finance Division at some point.

M2 Management Organizational Structure was more Formal than most Others, Although it Shared Similar Elements

Unlike most of the other entities we reviewed, OCTA established and operated under a formal and separately staffed PMO. Specifically, most of the other entities managed their sales tax measure alongside other transportation improvement projects through the Transportation or Planning Director function—although the San Diego Association of Governments had a separate “PMO” similar to OCTA. While we did not conduct formal workload studies to evaluate the time associated with each PMO responsibility and activity, OCTA’s PMO staff size generally aligned with San Diego Association of Governments’ staff given their capital project workload. Specifically, OCTA’s three PMO staff oversaw and monitored an initial \$11.9 billion measure with the assistance of other divisional functional staff, whereas San Diego Association of Governments’ PMO-like functions employed approximately five staff to monitor its voter-approved \$14 billion sales tax measure.

Yet, OCTA's M2 management shared some organizational elements with the other entities including relying on experts in functional areas to manage and delivery measure projects as well as operating under the scrutiny of a Taxpayer Oversight Committee as shown in Exhibit 16.

EXHIBIT 16. COMPARISON OF OCTA ORGANIZATIONAL STRUCTURE WITH SIMILAR ENTITIES

Characteristic	OCTA	SANDAG	RCTC	SFCTA	MAG	RTA
Voter Approved Measure Amount	\$11.9 B	\$ 14.0 B	\$ 4.7 B	\$ 2.4 B	\$14.3 B	\$ 2.1 B
Length of Measure	30 years	40 years	30 years	30 years	20 years	20 years
Entity Type	TA	MPO/RTC	TC	TA	MPO	TA
Total FTEs	372 ¹	225	50	44	34	60 ⁵
Direct Measure Management and Oversight Provided by	PMO	Separate Project Office	Executive Director/ Transportation Director	Planning Director	Transportation Director	Executive Director/ Transportation Director
PMO Staff FTE ²	3	5 ³	N/A	N/A	N/A	N/A
Taxpayer Oversight Committee	Yes	Yes	Yes	Yes	Note ⁴	Yes
Responsible for Some Capital Project Implementation	Yes	Yes	Yes	Yes	No	No

Source: Current annual budgets for entities shown.

Notes: ¹ FTEs shown less transit operations staff. ² Official Program Management Office (PMO) or similar operating central function staff monitoring the measure. ³ SANDAG's budget included eight positions, but 3 positions were dedicated to financial programming. ⁴ The Citizens Transportation Oversight Committee for MAG's local sales tax measure was eliminated in 2015. ⁵ RTA is managed by the Pima Association of Governments.

Formalized M2 Program Management Committee Ensured Knowledge Sharing

In addition to PMO staff involvement in project specific meetings and regular informal communications, OCTA established an M2 Program Management Committee with regular bi-weekly meetings to ensure a strong communication structure was in place. The PMO creates the agendas and leads the meetings with members including the Chief Executive Officer, Deputy Chief Executive Officer, and key managers from all M2 related OCTA divisions. Cross-divisional data, ideas, issues, information, and solutions were exchanged in an open and shared setting. Because the executive staff support this effort, setting a tone at the top focused on collaboration, openness, and accountability, all issues and items seemed to be discussed in a trusted environment. With the leaders of OCTA present, decisions and authority roles were able to be initiated, determined, and resolved. Each member brings subject matter expertise related to their individual division and function to provide insight, input, and recommendation on the M2 matters before the M2 Program Management Committee.

Moreover, the bi-weekly format ensured a regular communication structure was in place to discuss topics such as revenue assumptions, expenditure reports, individual project cost details, project delivery, competitive project applications, and outreach. Written agendas and meeting notes were prepared to summarize items discussed, updates provided, action items, and action owners. While the other entities we reviewed also collaborated and strategized to share issues and solutions collectively, OCTA's PMO formalized its discussions in written form to reduce any potential for confusion after the meetings and also ensured regular meetings were held.

Continuous Improvement was Valued through Implementation of Prior Assessment Recommendations

With the Ordinance requiring a performance assessment every three years to evaluate the efficiency, effectiveness, and economy of OCTA organization in delivering M2, OCTA staff demonstrated a strong commitment to continuous improvement by quickly responding to prior assessment recommendations. Soon after the completion of each triennial performance assessment, we found that the OCTA executive team and Board actively addressed recommendations as necessary. Prior assessment findings addressed also enhanced areas such as program management, fiscal responsibility, transparency, and accountability to the public and its stakeholders. Some of the actions taken by the PMO team included continuous outreach to partner agencies and formation of new partnerships with other agencies to share experiences. In addition, PMO staff attended Project Management Professional training and continued efforts looking for additional funds.

As such, there were no open or recurring issue themes over the past three assessment periods—other than some continuing discussions over freeway philosophies with Caltrans' statewide policy and procedural requirements at times conflicting with local voter-approved M2 Program initiatives and objectives. For instance, differences in project definition and environmental processes between OCTA and Caltrans caused changes in the past that led to project delays. Both OCTA and Caltrans recognized the need for continued partnership with each other at a technical level of system planning and modeling, and were continuing to work toward better resolutions to any future conflicts.

Administrative Costs were Closely Monitored and Limited to Comply with Ordinance

Recognizing the inherent cost of monitoring and overseeing the M2 Program, the Ordinance set forth provisions allowing M2 funds to pay for administrative salaries, wages, benefits, and overhead up to a ceiling of 1 percent of annual M2 revenues. We found that OCTA diligently monitored costs in compliance with those provisions and had good controls in place to ensure proper charges in keeping within Ordinance limits.

In fact, OCTA's PMO tracked costs quarterly and annually. For instance, at each quarter end, management met as part of a labor review meeting to discuss timesheet charges and ensured staff were billing time to correct projects. Costs were tracked by person, project, and hours spent on M2 activities, and these quarterly expenditures and revenue reports were also provided to the Taxpayer Oversight Committee. Additionally, the accounting department tracked administrative costs annually by fiscal year, which were reviewed by the Finance Director and subsequently provided to the Taxpayer Oversight Committee for review.

Administrative Cost Challenges Existed

Although OCTA has adequate processes in place to monitor its performance, they faced two key challenges in meeting restrictive administrative costs requirements. First, funding sources for administrative activities were affected by M2 revenue projections falling short of expected revenues due to the Great Recession and continued changes in consumer spending habits. As such, the 1 percent of total M2 revenues made available to fund administrative costs for the life of the program are also significantly

less than expected—although administrative demands and activities remained constant. Secondly, the 2007 Early Action Plan required administrative efforts four years prior to the actual start of revenue collection. As a result, OCTA’s administrative costs in the early years did not have M2 revenues sources to reimburse those costs.

To address these challenges, the OCTA Board approved the use of its separate Orange County Unified Transportation Trust (OCUTT) Fund to reimburse M2 administrative costs exceeding the 1 percent limit. Initially, OCTA borrowed \$5.2 million dollars of which \$3.5 million was paid back to the fund—leaving a balance of \$1.6 million owed as of June 30, 2018. According to recent updates in the M2 Ordinance Tracking Matrix, administrative expenditures were well below the one percent for fiscal year 2016-2017. In fact, costs were less than \$600,000 for the year, or 0.81 percent of M2 revenues. These efficiencies offset past overages from the early action planning phase and reduced the balance owed to the trust fund.

Strong Framework was in Place over Cybersecurity, But Training Protocols Could Be Tightened

Cybersecurity is important for all entities and industry sectors, but especially in government and the construction industry. Access to project specifications, physical and security designs, and documentation must be protected. Currently, there are a multitude of best practices to guide entities in developing a cybersecurity framework. For this assessment, we considered guidance from the US Department of Commerce National Institute of Standards and Technology, US Department of Transportation, and California Office of Information Security, as well as pertinent literature from professional associations such as the Information Systems Audit and Control Association and the American Institute of Certified Public Accountants.¹¹ Framework elements most commonly used across the industry, included but were not limited to, the following:

1. Security Awareness Training modules
2. Disaster Recovery and Continuity Planning
3. Strong Authentication Practices
4. Access to Information Systems Policies
5. Incident Response and Reporting
6. Remote and Wireless Network Access Restrictions
7. Standard Contract Provisions for Third-Party Oversight

At OCTA, we found that staff implemented an appropriate information security framework that incorporated many leading practices to protect M2 Program documents and systems from a cyber-attack. For instance, OCTA conducted and implemented recommendations from a forensic exam with Microsoft in 2016 to ensure OCTA was free of any (known) malware or viruses. Further, when comparing OCTA policies, practices, and protocols implemented to seven key areas of cybersecurity controls, we found that OCTA developed a strong framework in alignment with leading practices as shown in Exhibit 17.

¹¹ Cybersecurity best practices are drawn from US Department of Commerce National Institute of Standards and Technology (NIST), US Department of Transportation Cybersecurity Policy, California Office of Information Security (OIS), Information Systems Audit and Control Association (ISACA), and American Institute of Certified Public Accountants (AICPA).

EXHIBIT 17. CYBERSECURITY CONTROLS IN PLACE AT OCTA

Key Control Areas Suggested for Cyber Security	OCTA Control in Place
<p>1. Regular Security Awareness Training</p> <p>Should cover all applicable aspects of the cyber security framework based on role and responsibility including general topics such as recognizing phishing schemes, password requirements, proper incident reporting, and consequences of legal and policy violations as well as specialized training such as disaster recovery. (NIST SP 800-53; AT-2, AT-3, and AT-4).</p>	<ul style="list-style-type: none"> ✓ OCTA staff took mandatory cyber security training which included four modules that cover the topics of password management, phishing scheme awareness, malware prevention, and personally identifiable information. ✓ Between August 2016 and July 2018, 95 percent of OCTA's 544 active employees completed all four modules and 99 percent of employees completed at least one module. ✓ Additionally, OCTA Information System (IS) conducted three phishing tests during our assessment period with the most recent test revealing staff response was 8.2 percent—appropriately less than the industry click rate of 23 percent.
<p>2. Disaster Recovery and Continuity Planning</p> <p>Plans for the recovery of technology and communications following any major event that disrupts the normal business environment, provides for periodic updating and testing of the plan, and its documentation. (NIST SP 800-53; CP-2 and CP-6).</p>	<p>OCTA disaster recovery and continuity plans included:</p> <ul style="list-style-type: none"> ✓ Disaster Recovery Plan ✓ Business Impact Analysis Report ✓ Emergency Operations Plan ✓ System Security and Emergency Preparedness Plan ✓ The Continuation of Operations Plan has been updated as of September 2018 <p>The comprehensive planning also included yearly disaster recovery testing and cybersecurity insurance to minimize financial impacts of any security breach.</p>
<p>3. Utilizing Strong Authentication Practices</p> <p>Unique username, strong passwords, and restriction of sharing access and/or passwords. (NIST SP 800-53; IA-5)</p>	<p>OCTA's Access Control Security Policy includes strong authentication practices and requires passwords with a minimum length of 10 characters and be comprised of a combination of both alpha and numeric characters. The policy also states that credentials should never be shared.</p>
<p>4. Configuring and Monitoring Access to Information Systems</p> <p>Implementing least privilege level necessary and performing periodic monitoring of access levels in regards to changes in position duties, terminations, and transfers. Additionally, other access controls include verifying an individual's authorization for physical access to facilities containing information systems and employing environmental controls for backup power, fire detection and suppression, temperature and humidity controls, and water damage detection and mitigation. (NIST SP 800-53; AC-6, AC-6(7), PE-2, PE-3, PE-11, PE-13, PE-14, and PE-15).</p>	<ul style="list-style-type: none"> ✓ General User access and Privileged User access provided through separate sets of credentials. ✓ OCTA was in process of working with Human Resources (HR) on IS notification timeliness for personnel changes and access. In addition, a quarterly user access review was performed by IFSAS/One Solution and by HR. The independent user review was overseen by OCTA staff who signed-off on the results. ✓ Copier machines were purchased instead of leased, and are located in a secure room. OCTA wipes copier data prior to decommissioning to reduce the risk that OCTA data would be in appropriately accessed or distributed. ✓ OCTA's policies included appropriate physical and environmental controls.

Key Control Areas Suggested for Cyber Security	OCTA Control in Place
<p>5. Implementing Incident Response and Reporting Policy</p> <p>Incident response and reporting policies and procedures consistent with applicable laws and state policies are in place such as identification of roles and responsibilities, training employees and contractors to report incidents, investigation, containment procedures, documentation, communication protocols, and submission of follow-up written reports. (NIST SP 800-53; IR-1, IR-4, and IR-6).</p>	<p>OCTA's Incident Response Security policy guided employees and third parties with the reporting of incidents and sensitive information, responding to, resolution of incidents. According to OCTA, recovery time from a breach was estimated to be less than 1 day.</p>
<p>6. Applying Remote and Wireless Network Access Restrictions and Detection</p> <p>Access is only permitted through secure methods and continuous monitoring for intrusion and rouge access is performed. Additionally, tools and techniques are utilized to monitor attacks or unauthorized system use as well as to protect against malicious code (NIST SP 800-53; AC-17, AC-18, CA-2, CA-8, SI-3, and SI-4).</p>	<ul style="list-style-type: none"> ✓ OCTA's Access Control policy only allowed access through approved methods such as VPN for select staff or direct access through employees' own personal computers with "single-sign-on." ✓ Tools used for detection included Cisco Amp Anti-Virus, Dell Secure Vault, Microsoft Defender, and Safelinks in addition to regular patching implemented every week to protect against malicious code and vulnerabilities.
<p>7. External Partner Management and Oversight</p> <p>Personnel and cyber security requirements for external entities, such as requiring cyber security awareness training, should be standard provisions in any acquisition-related documents, such as service-level. (NIST SP 800-53; PS-6, PS-7, and SA-9).</p>	<p>According to OCTA, Citrix virtualized desktops were used to limit third-party access to OCTA systems. In addition, contracts include standard provisions defining third-party requirements in regards to:</p> <ul style="list-style-type: none"> ✓ Payment Card Industry (PCI) Data Security Standards ✓ Information system security ✓ Production and Test environment backups ✓ Backup requirements

Source: US Department of Commerce National Institute of Standards and Technology (NIST) and US Department of Transportation Cybersecurity Policy.

However, one minor area that could be strengthened related to training protocols to include updating the training policy to require an annual training renewal and monitoring training status to ensure employees complete training within the required timeframe. Specifically, leading practices in security awareness training suggest that one of the best ways to prevent an unauthorized attack is to ensure cyber security awareness training is completed annually. While OCTA did not have an annual cyber security awareness training policy in place during our assessment period, information security staff planned to implement a new annual training policy by December 2018. Thus, OCTA should continue with plans to update security training policy to require annual training and establish a timeline for implementation.

Additionally, while we found OCTA had an appropriate information security framework in place to protect M2 Program documents and systems from a cyber-attack, OCTA should regularly monitor the training status of all employees to ensure employees complete the training within the required timeframe. Within the past two years (August 2016 through July 2018), 95 percent of OCTA's 544 active employees completed all

four OCTA internal training modules and 99 percent of employees completed at least one module.¹² Yet, only 9 percent of OCTA's 544 active employees completed all four modules within the past 12 months between August 2017 and July 2018—as recommended by best practice—and only 13 percent completed at least one module over the same time frame.

Recommendations

To enhance its already strong program management practices, OCTA could consider the following:

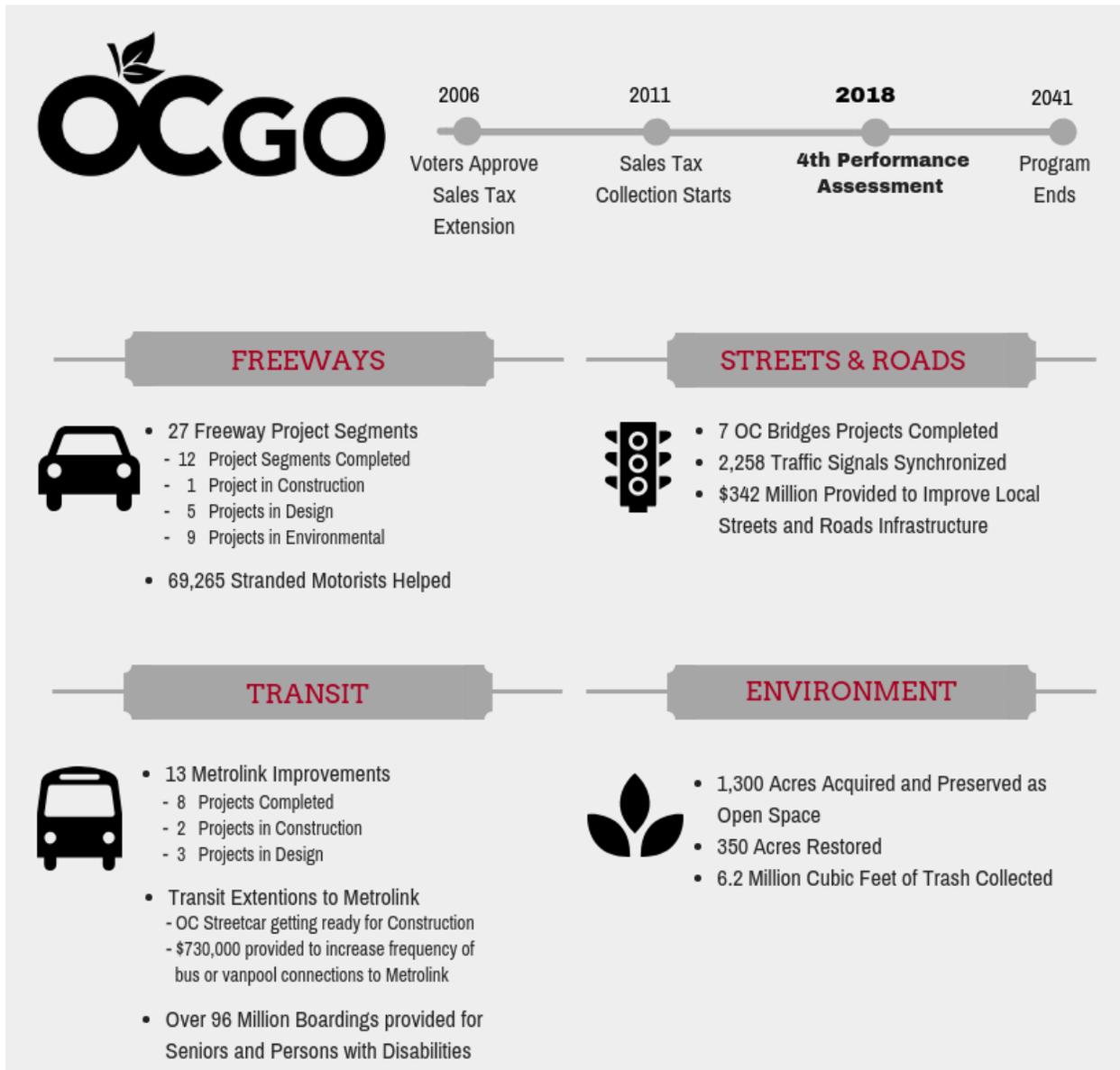
2. Implement in-progress plans to update security training policy and require annual cybersecurity training as well as establish a timeline for implementation.
3. Regularly monitor the training status of all employees to ensure employees complete cybersecurity training within the required timeframe including defining specific roles and responsibilities, timelines and frequency of monitoring, verification methods, and documentation of status.

¹² Two year period from August 2016 through July 2018.

Chapter 3: While Still Early in the M2 Life Cycle, Substantial Progress was Made Across All Program Areas

Similar to other transportation agencies, OCTA was able to take advantage of favorable conditions in the construction industry and financial markets during the Great Recession to accelerate projects prior to the M2 sales tax collection start in 2011 through its Early Action Program (EAP). As a result, with only seven years passed since the start of the sales tax collection, OCTA demonstrated significant progress across all program areas as shown in Exhibit 18 and discussed in the sections that follow.

EXHIBIT 18. M2 ACCOMPLISHMENTS THROUGH JUNE 30, 2018



Source: Generated from OCTA M2 Website at <http://www.octa.net/OC-Go/Milestones/>.

Many Accomplishments Realized Early in M2 Timeframe

After the passage of the Ordinance in 2006, OCTA immediately embarked on a mission to deliver the programs and projects promised to the voters. To-date, improvements completed included a total of 43.6 new freeway lane miles and 4 new interchanges along the seven freeway corridors identified in the M2 Ordinance. Additionally, seven key Burlington Northern Santa Fe (BNSF) railroad crossings and 8 of 13 projects related to improving Metrolink grade crossings and stations were completed as well as mobility options increased for seniors and persons with disabilities with approximately 98.7 million boardings supported by M2 funds to-date. Local jurisdictions received over \$342 million to improve local transportation infrastructure, directly contributing to pavement condition on local roads being among the highest in California during the period of our assessment. For the environmental programs, 1,300 acres purchased and preserved as open space, 350 acres of restoration projects funded and \$48 million awarded for water quality improvement projects as shown in Exhibit 19.

EXHIBIT 19. ACCOMPLISHMENTS ACROSS ALL PROGRAM AREAS AS OF JUNE 30, 2018

Project Letter	Project Name	Planned Improvement per the Ordinance's Transportation Investment Plan	Results to Date	
			Improvement Anticipated	Progress/Status as of June 30, 2018
Freeway Projects				
A	Santa Ana Freeway (I-5) Improvements between Costa Mesa Freeway (SR-55) and "Orange Crush" Area (SR-57)	Improve interchanges. Add capacity.	New HOVL; 3 miles, both directions.	In construction advertisement.
B	Santa Ana Freeway (I-5) Improvements from the Costa Mesa Freeway (SR-55) to El Toro "Y" Area	Add new lanes. Improve interchanges.	New GPL; 9 miles, both directions.	In environmental.
C	San Diego Freeway (I-5) Improvements South of the El Toro "Y"	Add new lanes. Improve interchanges.	6 Segments: <ul style="list-style-type: none"> ✓ 3 HOVL segments; 5.7 miles, both directions. ✓ 3 GPL segments; 6.5 miles, both directions. ✓ 3 Interchanges. 	6 Segments: <ul style="list-style-type: none"> ✓ 3 HOVL segments open to traffic. ✓ 2 GPL segments in design. ✓ 1 GPL segment in construction advertisement. ✓ 1 Interchange open to traffic. ✓ 1 Interchange in design. ✓ 1 Interchange in construction advertisement.
D	Santa Ana Freeway/San Diego Freeway (I-5) Local Interchange Upgrades ¹³	Improve interchanges.	2 Interchanges.	<ul style="list-style-type: none"> ✓ 1 Interchange open to traffic. ✓ 1 Interchange in environmental.
E	Garden Grove Freeway (SR-22) Access Improvements	Improve interchanges.	3 Interchanges.	Open to Traffic.
F	Costa Mesa Freeway (SR-55) Improvements	Add new lanes.	2 Segments: <ul style="list-style-type: none"> ✓ 1 segment with new GPL/HOVL; 8 miles, both directions. 	2 Segments: <ul style="list-style-type: none"> ✓ 1 GPL/HOVL segment in design. ✓ 1 GPL segment and operational improvements in early planning.

¹³ There are five interchanges under Project D—three are completed as part of Project C improvements and the remaining two are completed under Project D.

Project Letter	Project Name	Planned Improvement per the Ordinance's Transportation Investment Plan	Results to Date	
			Improvement Anticipated	Progress/Status as of June 30, 2018
			<ul style="list-style-type: none"> ✓ 1 segment with new GPL; 2.5 miles, both directions; ✓ Operational Improvements. 	
G	Orange Freeway (SR-57) Improvements	Add new lane.	<ul style="list-style-type: none"> ✓ 5 Segments with new GPL; 11.2 miles. 	<ul style="list-style-type: none"> ✓ 3 segments, 7.7 miles open to traffic. ✓ 1 segment in environmental. ✓ 1 segment not yet started.
H	Riverside Freeway (SR-91) Improvements from the Santa Ana Freeway (I-5) to the Orange Freeway (SR-57)	Add capacity.	New GPL, WB; 4.5 miles.	Open to Traffic.
I	Riverside Freeway (SR-91) Improvements from Orange Freeway (SR-57) to the Costa Mesa Freeway (SR-55) Interchange Area	Improve interchanges. Add capacity.	2 Segments: <ul style="list-style-type: none"> ✓ 1 New AUXL segment; 2 miles. ✓ 1 New GPL segment, both directions. 	<ul style="list-style-type: none"> ✓ AUXL open to traffic. ✓ 1 GPL segment in environmental.
J	Riverside Freeway (SR-91) Improvements from Costa Mesa Freeway (SR-55) to the Orange/Riverside County Line	Add capacity by adding new lanes.	3 Segments: <ul style="list-style-type: none"> ✓ 1 New GPL, EB; 6 miles. ✓ 1 New GPL, both directions; 6 miles. ✓ 1 New GPL segment. Not yet started. 	<ul style="list-style-type: none"> ✓ 1 GPL EB open to traffic. ✓ 1 GPL segment, open to traffic. ✓ 1 GPL segment not yet started.
K	San Diego Freeway (I-405) Improvements between the I-605 Freeway in Los Alamitos Area and Costa Mesa Freeway (SR-55)	Add new lanes. Update interchanges. Widen local overcrossings.	New GPL/Express Lane, both directions; 16 miles. ¹⁴	In construction (design-build).
L	San Diego Freeway (I-405) Improvements between Costa Mesa Freeway (SR-55) and Santa Ana Freeway (I-5)	Add new lanes.	New GPL, both directions; 8.5 miles.	In environmental.
M	I-605 Freeway Access Improvements	Improve freeway access and arterial connections.	Modify interchange ramps and lane configurations on Katella Avenue.	In environmental.
A-M	Freeway Mitigation	Restore and preserve habitat impacted by freeway construction.	Acquire land and preserve as open space.	<ul style="list-style-type: none"> ✓ 1,300 Acres Acquired and Preserved as Open Space. ✓ 350 Acres Restored.
N	Freeway Service Patrol	Continuing service through 2041.	Assisting stranded motorists.	69,265 assists provided.
Streets & Roads Projects				
O	Regional Capacity Program	<ul style="list-style-type: none"> ✓ Complete the Orange County Master Plan for Arterial Highways (MPAH), add roughly 1,000 miles of new street lanes. ✓ Construct 7 identified key BNSF railroad over or underpasses in Northern Orange County. 	<ul style="list-style-type: none"> ✓ \$295 million provided to approximately 146 projects on the MPAH. ✓ 7 BNSF railroad crossings open to traffic. 	

¹⁴ The GPL portion of this project is a M2 project funded in part with sales tax dollars (\$1.425 Billion). The Express Lanes are primarily funded through a low interest federal loan (TIFIA) to be paid back with toll revenues (\$475 Million not tied or guaranteed by M2).

Project Letter	Project Name	Planned Improvement per the Ordinance's Transportation Investment Plan	Results to Date	
			Improvement Anticipated	Progress/Status as of June 30, 2018
P	Regional Traffic Signal Synchronization Program	Synchronize over 2,000 Signals.	<ul style="list-style-type: none"> ✓ \$98 Million provided to approximately 106 projects covering 597 miles of streets. ✓ 2,258 Signals Synchronized. 	
Q	Local Fair Share Program	Provide flexible funding to cities to address local transportation needs (e.g. residential streets, safety near schools, etc.)	<ul style="list-style-type: none"> ✓ \$342.4 million provided to cities. ✓ Pavement is in good condition and the best in the State. 	
Transit Projects				
R	High Frequency Metrolink Service	<ul style="list-style-type: none"> ✓ Increase rail service, upgrade stations, add parking capacity, improve safety, and provide for quiet zones. ✓ Improve grade crossings and construct over or underpasses at high volume arterial streets that cross Metrolink tracks. 	<ul style="list-style-type: none"> ✓ 8 of 13 Metrolink grade crossing, safety, and station projects completed with nearly 50 grade crossings completed. 	
S	Transit Extensions to Metrolink	Competitive programs for local jurisdictions to connect to Metrolink service (e.g. conventional bus, bus rapid transit, high capacity rail transit, etc.)	<ul style="list-style-type: none"> ✓ OC Streetcar project pending construction award initiated through competitive fixed funding call. ✓ One funding round totaling \$730,000 awarded to local jurisdictions under the rubber tire competitive program. 	
T	Metrolink Gateways	Provide local improvements necessary to connect Metrolink stations to the future high-speed rail system.	<ul style="list-style-type: none"> ✓ Anaheim Regional Transportation Intermodal Center (ARCTIC) completed. 	
U	Expand Mobility Choices for Seniors and Persons with Disabilities	Stabilize fares and provide fare discounts, expand van service, and supplement senior non-emergency medical transportation services.	<ul style="list-style-type: none"> ✓ 1.9 million boardings under Senior Mobility Program. ✓ 727,000 boardings under Senior Non-Emergency Medical Transportation Program. ✓ 96 million boardings supported under Fare Stabilization Program to date. 	
V	Community Based Transit/Circulators	Competitive program for local jurisdictions to develop local bus transit services (e.g. community based circulators, shuttles, trolley buses, etc.).	<ul style="list-style-type: none"> ✓ Awarded 29 projects and 7 planning studies to local jurisdictions totaling \$43.6 million. 	
W	Safe Transit Stops	Provide passenger amenities (e.g. shelters, lighting, timetable information, ticket vending machines, etc.) at 100 busiest transit stops across the County.	<ul style="list-style-type: none"> ✓ 43 Bus stops improved or nearing completion. ✓ \$1.6 million provided to support 51 transit stop projects. 	
Environmental Cleanup				
X	Clean Up Highway and Street Runoff that Pollutes Beaches	Implement street and highway related water quality improvement programs and projects to help meet federal Clean Water Act standards for urban runoff.	<ul style="list-style-type: none"> ✓ 6.2 Million Cubic Feet of Trash Collected. 	

Source: Generated from M2 Ordinance, M2 Quarterly Progress Reports, OCTA Internal Monthly Status Reports, and M2 Program Website.
Notes: Refer to Appendix B for specific project budgets and schedule estimates and actuals. SR=state route. I=interstate. HOVL=high-occupancy vehicle lane, GPL=general purpose lane. AUXL=auxiliary lane. WB=west bound. EB=east bound.

There were likely additional accomplishments realized for locally implemented projects, but it was difficult to mine more comprehensive data from current systems that are primarily used for local eligibility and grant activities. As such, OCTA staff may want to consider options for obtaining more detailed local data that could provide a more complete listing of other quantitative accomplishments for each project.

Capital Projects Showed Substantial Progress To-Date Although Some Budget and Schedule Challenges Exist

With only seven years elapsed of the 30-year M2 Ordinance, OCTA already made substantial progress on capital projects towards fulfilling the promises made to the voters in 2006. Specifically, for the freeway program, improvements outlined along the seven freeway corridors evolved into the current 27 projects of which 12 were already open to traffic. In fact, 44 percent of the freeway projects envisioned were complete with only a quarter of the M2 Ordinance timeframe elapsed. Given OCTA's past success and current momentum, it is anticipated that all projects will be completed by 2041.

Capital improvements for the local streets and roads program also showed significant success with seven railroad crossings planned in the M2 Early Action Plan completed as of June 2018—although some of the individual projects faced extensive schedule delays and cost increases largely due to right-of-way/utilities issues, coordination with local partner agencies, and sequencing of projects as described in depth in the sections that follow.

Transit capital projects also realized steady progress with 8 of the 13 planned projects related to connecting transit services to Metrolink already opened to traffic. Additionally, the largest transit capital project, the OC Streetcar, was anticipated to be open for use by August 2021, although that project faced some schedule and budget challenges during 2018 but is now on track with construction with a revised completion date of November 2021.

Freeway Capital Projects Completed Under Budget (Ordinance Projects A – M)

For the freeway program, the improvements on the seven freeway corridors were broken into 27 individual project segments as of June 30, 2018. In total, 12 project segments were open to traffic. Of the remaining 15 projects, all have started with one large design-build project in construction, 5 projects in design or construction, and 9 projects in the environmental or conceptual planning phase with majority of those estimated to be in design within the next 10 years.¹⁵ Of those 9 projects, only the "SR 91: SR-241 to Riverside County Line" project is scheduled to move forward past 2034 due to coordination needed with the Riverside County Transportation Commission to ensure a seamless transition of the general purpose lane improvements once the freeway crosses the Riverside County line.

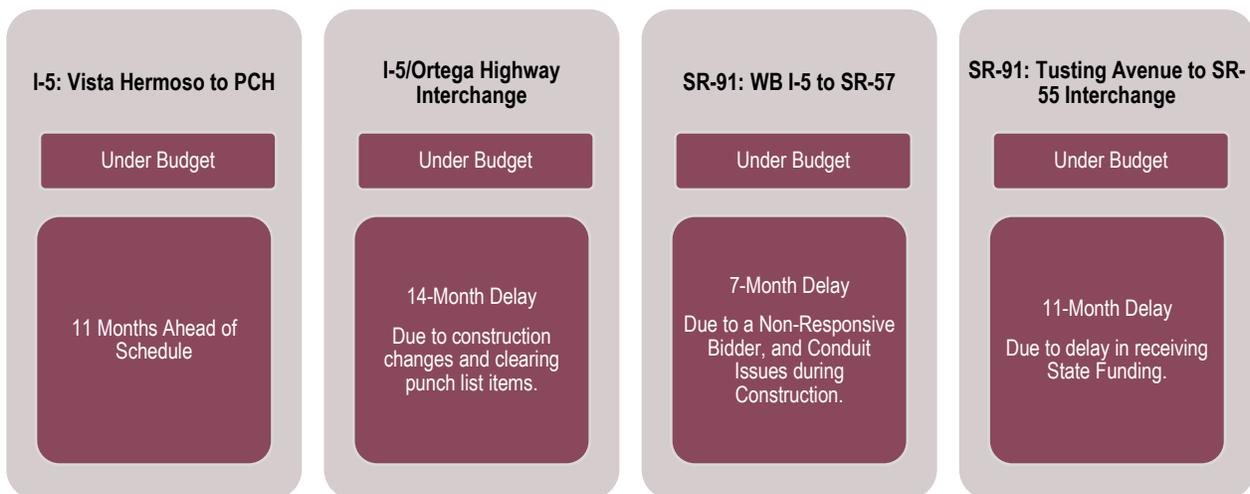
Especially noteworthy for the freeway program, OCTA delivered the projects as promised to voters without any modifications to the scope provided for in the Ordinance. Although the Ordinance and the Transportation Investment Plan contained only general direction on improvements to be made such as adding new lanes or adding capacity, an underlying guiding document used to identify improvement options

¹⁵ Refer to Appendix B for a Universe of M2 Projects.

provided specific recommendations on the types of capacity increasing projects to be built.¹⁶ For instance, on the SR-91 “centerpiece” project, the underlying environmental report proposed “adding one westbound general purpose lane from I-5 to SR-57” (Project H). This project was completed in June 2016 with exactly one new general purpose lane added for westbound traffic.

Moreover, during our assessment period, four freeway segments opened to traffic. For those four projects only, all were completed between 6 percent and 24 percent under budget. While there were some schedule delays on three of the four projects ranging from 7 months to 14 months, the reasons for the delays appeared reasonable as shown in Exhibit 20. For example, the I-5/Ortega Highway Interchange project came in 17 percent under budget, although various delays cumulatively added 14 months to the baseline completion schedule. A one-month delay in completing design, delay in starting construction, as well as Caltrans directed changes and clearing punch-list items were the primary reasons for the behind schedule completion.

EXHIBIT 20. BUDGET & SCHEDULE ADHERENCE FOR FREEWAY PROJECTS COMPLETED JULY 1, 2015 – JUNE 30, 2018



Source: Generated from M2 Monthly Status Reports and PMO Internal M2 Tracking Documents.

Local Streets & Roads Capital Projects Completed Slightly Over Budget (Ordinance Project O)

Outside of local jurisdiction capital improvements funded through Project O competitive calls for projects, OCTA also oversaw the delivery of 7 key Burlington Northern Santa Fe (BNSF) railroad overpasses and underpasses in Northern Orange County.¹⁷ As part of Ordinance Project O, 7 key railroad crossing were completed at a total cost of \$671.24 million, 14 percent over the combined baseline of \$590 million. Although some of the individual projects in this category faced extensive schedule delays and cost increases, the causes appeared reasonable and largely related to right-of-way/utilities issues, coordination with local partner agencies, and sequencing of projects.¹⁸

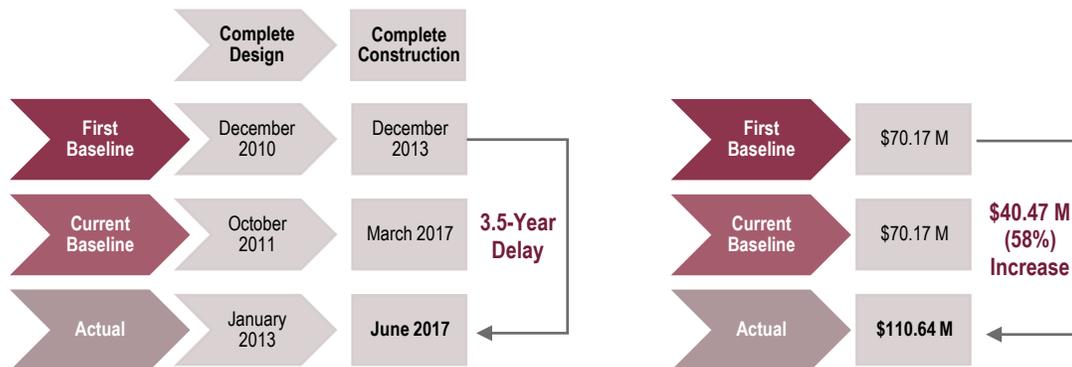
¹⁶ Guiding document was the Final Program Environmental Impact Report (PEIR) developed for OCTA’s Long-Range Transportation Plan in July 2006.

¹⁷ OCTA was the lead on five BNSF projects, and the City of Fullerton was the lead for the remaining two projects.

¹⁸ Refer to Appendix B for specific project budgets and schedule estimates and actuals.

For instance, as shown in Exhibit 21, the “Lakeview Avenue Overcrossing” project was completed 3.5 years behind schedule and cost 58 percent more than initially anticipated. Yet, the reasons for the delay and the cost increase appeared reasonable and were triggered by right-of-way and utilities issues that caused higher than planned related legal services and construction costs. In addition, construction was coordinated with another nearby overcrossing project (Tustin/Rose) that was already delayed—thus further delaying the Lakeview overcrossing completion schedule. Not only was OCTA able to obtain external funding sources to pay for the overage, but staff informed us that commuters in the area are now able to navigate the area without the previous long wait time due to freight train traffic.

EXHIBIT 21. PROJECT O SCHEDULE DELAY & COST INCREASE EXAMPLE: LAKEVIEW AVENUE OVERCROSSING



Source: First Baseline: PMO Grade Separation Progress Tracking; Current Baseline & Actual: M2 Monthly Project Status Report through June 2018. Note: First Baseline was set upon award of engineering consultant contract and estimated the project’s schedule and cost through the end of construction. Current Baseline was set when construction contract is awarded. Actual Cost is being finalized pending remaining claims.

Majority of Completed Transit Capital Projects were On Budget (Ordinance Projects R – W)

Transit capital projects also made significant progress with the majority of projects listed in the Ordinance already open to traffic.¹⁹ Specifically, of the 13 projects related to expansion of Metrolink rail service (Project R), 8 were complete.²⁰ Among those 8 completed projects, one project included improving safety at approximately 50 rail crossings throughout the county—all of which were completed early in 2012. The remaining 5 projects were currently either in design or construction, with the latest project (Anaheim Canyon Station) in this category expected to be completed by March 2021.

Similarly, the largest transit capital project, the OC Streetcar (Project S), was anticipated to be open for use by August 2021; however, facing some schedule and budget challenges due to the delay in moving forward while waiting for approval of a federal Full Funding Grant Agreement and a cost-rising construction market, OCTA revised the project schedule and completion cost. Specifically, the OC Streetcar project is now anticipated to be complete in November 2021 and the project budget was increased to \$418.9 million. This increase of over \$108.4 million is 35 percent higher than when costs were estimated at the time design was completed. The increase was mainly due to higher than expected construction bids coming in \$100 million higher than initially anticipated—a situation also faced by other construction projects on the West Coast. In

¹⁹ Refer to Appendix B for project names.

²⁰ 7 of the 8 completed projects are open to traffic. For the remaining project (17th Street Grade Separation/LOSSAN, M2 paid for the environmental phase only, which has been completed.

November 2018, OCTA received \$149 million from the Federal Transit Administration through a Full-Funding Grant Agreement, which allowed OCTA to move forward into construction.

Appropriate Systems were in Place to Monitor and Report on Capital Project Progress Toward Completion of the Ordinance

Overall, we found that OCTA established a strong framework to monitor and report on capital projects and was following current leading project management practices.²¹ Specific to delivering capital programs under M2, OCTA developed a Program Management Procedures (PMP) manual serving as the guide “to effectively manage and monitor projects and develop strategies for delivering the entire capital improvement program.” The PMP manual contained typical elements used in industry leading practices such as defining roles and responsibilities for OCTA and partner agencies in addition to consultant staff, controlling schedules and costs, reporting progress, evaluating risks, ensuring standards of quality, and managing consultants. In discussion with OCTA capital programs staff, the PMP manual was consistently observed and PMP mandated templates and tools were used.

Capital Projects were Thoroughly Vetted and Information Made Public was Reliable

At OCTA, majority of M2 capital projects were delivered “cradle-to-grave” with one project manager involved from the design stage through construction as well as through regular project team meetings with pertinent parties such as Caltrans, local jurisdictions, engineers, and contractors. Monthly project update meetings are attended by staff from OCTA’s Project Controls section, External Affairs Division, and the M2 Program Management Office to ensure project progress is shared, challenges are communicated, and critical decisions-made are vetted internally at the staff level before information is conveyed to OCTA executive management, oversight bodies, or the public.

As a result of that coordination, we noted that project budget, schedule, scope, and progress information were consistent across internal documents such as Primavera project management systems, project change requests and cost estimate documents, monthly status reports, and PMO status tracking documents as well as were reconciled to information shared publicly via the M2 Quarterly Progress Report and M2 website. This robust dissemination of data at OCTA before it reached the public helped ensure accuracy, reliability, and consistency of information communicated—regardless of the outreach methods used.

Moreover, the main M2 public progress reporting tool—the M2 Quarterly Progress Report—was detailed, provided valuable content, and crafted in an easy-to-understand format to provide a critical look on program status. In particular, the report not only highlighted successes, but also pointed out challenges and clearly identified risks to the program and specific projects. For instance, the Capital Action Plan (CAP) section of the report provided a quick snapshot on cost baseline versus forecast at completion as well as construction completion baseline versus forecast in an easy-to-read format. More importantly, the CAP also flagged those projects where schedule milestones were missed and/or projected final costs were expected to

²¹ Leading practices considered include Project Management Institute’s Construction Extension to the Project Management Body of Knowledge Guide, Construction Management Association’s Construction Management Standards of Practice, Federal Highway Administration guidance, Caltrans Local Assistance Manual.

exceed the baseline. The reasons for the delays or cost increases for each project were then discussed in the report. In addition, OCTA staff presented schedule performance metrics to its Board quarterly describing whether forecasted delivery milestones—such as begin/complete environmental or design, construction ready, advertise construction, award construction contract, and complete construction—were met for each project that quarter. Milestones that were not met were clearly labeled “missed.”

Solid Policies and Procedures Existed over Contract and Construction Management

With construction projects often being complex and subject to a wide range of factors influencing their outcome, managing capital projects is challenging and needs critical policies and procedures to guide project implementation.

Generally, we found OCTA had formal procedures in place over contract and construction management to ensure projects were delivered as planned. In fact, we found that its PMP manual included typical elements related to risk identification, constructability reviews, independent estimates, inspections and testing, change order control, project management, pay applications and schedule of value approvals, claims, utility coordination and relocation, closeout, and document retention. More specifically, OCTA’s Construction Management Procedures, first developed in 2011, defined tools and practices for the construction management team to deliver OCTA projects in a consistent manner. Similar to the PMP manual, OCTA’s Construction Management Procedures detailed steps required to take a project from pre-construction activities through close-out and included protocols for items such as how to review and route requests for information, records needed to substantiate a contract changer order, or how to verify contractor labor compliance. These procedures, if followed, align with leading practices for capital construction as shown in Exhibit 22.

EXHIBIT 22. CURRENT LEADING PROJECT MANAGEMENT PRACTICES COMPARISON

General Leading Practices Areas	Practices Followed by OCTA
Project Management Plans and Related Tools	<ul style="list-style-type: none"> ✓ Project Management Plan ✓ Risk Assessments
Construction Management	<ul style="list-style-type: none"> ✓ Construction Management Procedures ✓ Progress Payments Reviews ✓ Change Order Negotiations
Schedule and Task Management	<ul style="list-style-type: none"> ✓ Primavera for Scheduling ✓ Critical Path Method

Source: OCTA Project Management Plan, OCTA Construction Management Procedures, OCTA Schedule and Cost Reports.

Note: Leading practices are drawn from a variety of industry sources including the Construction Management Association’s Construction Management Standards of Practice, Federal Highway Administration guidance, Project Management Body of Knowledge, and practices observed at capital construction projects.

Procurement Practices and Activities Complied with OCTA Policies

With approximately 185 contracts totaling more than \$284 million awarded for M2 purposes during our three-year period of assessment, strong contract administration over the M2 funds is critical. Toward that end, we found that OCTA established a robust procurement framework with key control points built in at several stages within the procurement process. To determine whether OCTA complied with its policies, we reviewed detailed contract and procurement files for seven M2 contracts issued during our three-year assessment period and found that each procurement complied with the following critical policy and procurement requirements reviewed:

- Scope of work defined
- Independent Cost Estimate performed
- Cost price analysis conducted
- Sole source justified
- Conflict of Interest forms signed by selection panel
- Evaluated and scored against defined criteria
- Evidence of negotiated price
- Properly approved

Capital Project Selection Principles were Reasonable and Compared to Others, but Linkages to Projects Implemented could be More Formal

While the Transportation Investment Plan outlined specific capital projects to be completed over the 30-year timespan of M2, various delivery plans outlined the following guiding principles for choosing projects to implement and meeting early delivery objectives:

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

When compared to other similar entities, OCTA's specific guiding principles aligned with other entities we reviewed. For instance, some entities had similar project selection principles related to congestion relief, availability of external funding, cost effectiveness, and public opinion or support. Other entities' selection criteria used also principles related to safety, accessibility, habitat impacts, and greenhouse gas emissions.

To implement the project selection principles and recommend project sequencing to the Board, managers and staff from a variety of OCTA disciplines were involved with the analysis. Empirical data related to congestion delay, environmental clearance, and cost was used to calculate a quantifiable score and arrive at a final ranking score, although there was no specific definition or data available to assess other guiding

principles such as external funding availability, public opinion, project connectivity, and project duration. We found the resulting ranked projects informed discussions with the Board and provided a nexus with projects identified in the Next 10 Plan for completion between 2017 and 2026, although there was limited documentation to demonstrate how the results of the project selection analysis related to the order of projects chosen for implementation.

Other entities had mixed success with linking project selection guidelines with prioritized projects. For instance, as reported in the 2011 performance audit report of the Maricopa Association of Governments' Regional Transportation Plan, auditors found little documentation correlating prioritization factors with selected project priority as well as no weighted factors for measuring relative value of one project over another using the criteria. Yet, at the San Diego Association of Governments, staff used a quantifiable weighted average to score, rank, and prioritize projects into time phases not just for its sales tax measure projects, but all long-term transportation improvement projects. While the quantifiable prioritization established the project order of implementation, other factors were also considered to ultimately influence the decision to move forward with a project such as when funding was received from a partner agency. To demonstrate a clearer connection between capital project selection principles and capital projects implemented, OCTA could consider formalizing discussions and decisions made leading to the actual selection or order of projects to be implemented.

Recommendations

To improve its already strong project delivery practices, OCTA could consider the following:

4. Create a methodology to gather quantitative accomplishment data and track project outputs and accomplishments against Transportation Investment Plan anticipated goals.
5. Demonstrate a stronger link between capital project selection guiding principles and the actual implementation order for capital projects by formally memorializing discussions and decisions made.

Chapter 4: OCTA's Approaches Ensured Compliance with M2 Ordinance

Gaining public trust and confidence is critical for any successful government entity, in particular for those with sales tax measures placed on ballots before local residents funding transportation or other types of public services. OCTA employed a philosophy of strict adherence to promises made to voters and compliance with ballot provisions that permeated through all levels of the organization from executive management to newly hired employees. Staff developed strong approaches and practices to track compliance and ensure rigorous observance to the promises made.

Robust System Used to Track Compliance

The M2 Ordinance and Transportation Investment Plan detailed provisions for funding, local maintenance of effort, and a Taxpayer Oversight Committee among several other requirements. To track compliance with the Ordinance provisions, the M2 Program Management Office (PMO) developed a comprehensive and detailed matrix involving many owners and experts throughout the organization as coordinated by the PMO. While other entities we reviewed diligently tracked compliance with their individual tax measures as well, OCTA's matrix and process was noticeably more thorough and formalized than those other entities.

Matrix Used was Comprehensive and Effectively Tracked Compliance as a Leading Practice

According to the PMO, its tracking matrix was designed to include all Ordinance areas especially where specific language "shall" and "must" were present. The requirements were presented in a question format with responses to answer compliance with the question. With 190 Ordinance requirements tracked, the PMO sorted the matrix into eight major categories including administration and general, specific projects by mode (freeway, local streets and roads, transit, and environmental), and safeguards and audits. We found the matrix was well organized into sub-categories with many matrix requirements needing action annually and other provisions only requiring actions at start-up or not required until the M2 Program is nearing completion. Based on our review of the OCTA tracking sheet as compared with key elements of the M2 Ordinance, we found the matrix was complete and reliable. We also found that OCTA annually updated the matrix on a calendar year basis, assigned task owners for each area, and typically included a link to a specific document or file providing access to the necessary underlying support from its Document Center.

Compared to other entities we reviewed, OCTA's practices to track, monitor, and document compliance with the M2 Ordinance were above and beyond the others' efforts. The detailed Ordinance tracking matrix was user-friendly and easy to navigate, and served as a tremendous tool to document compliance with Ordinance requirements. Yet, for a small handful of examples, the matrix could be enhanced to provide a more clear definition as to how particular compliance items were reviewed and validated. As shown in Exhibit 23, a 2017 response to compliance item 91.15 indicated that "those local agencies that did not meet the three-year expenditure deadline were not paid for expenditures incurred beyond the expenditure deadline." Yet, the response did not include underlying documentation that could validate that statement.

EXHIBIT 23. EXCERPT FROM ORDINANCE MATRIX WITH EXAMPLE OF ITEM LACKING UNDERLYING SUPPORT

ORANGE COUNTY LOCAL TRANSPORTATION AUTHORITY Ordinance Tracking Matrix - Ordinance No. 3 For Period Ending December 31, 2017							
Item	Description	Citation	Division Responsible	Timeframe	Status	Responsible Person (POC)	2017 Response
91.15	Agreed that if the above time limits were not satisfied, to return to the Authority any retained Net Revenues and interest earned on them to be available for allocation to any project within the same source?	Att. B, Sec. III.A.10.c	Planning	Recurring	Done to date	Section Manager Name	Yes. Local agencies that did not meet the three-year expenditure deadline were not paid for expenditures incurred beyond the expenditure deadline.

Source: Ordinance Tracking Matrix as of 12/31/2017.

Another enhancement to the process could be the addition of a review column next to the responsible person or point of contact column to demonstrate accuracy and reliability of the compliance data tracked.

Currently, OCTA is continuing their efforts to improve and make more efficient processes by transitioning their existing Document Center from SharePoint 2013 to the new version of SharePoint 2016. The improved document center will continue to house all final M2 materials such as staff reports, accounting documents, and audits where PMO and other divisions have “read-only” access. According to the PMO, the upgraded Document Center will allow for more functionality and more user-friendly search features.

Compliance was Well-Managed Centrally, and Several OCTA Divisions were Involved

On an annual basis, the PMO coordinated updates to the tracking matrix. This effort included collaboration from other departments such as Finance & Accounting, Capital Programs, and External Affairs, with the PMO and Planning Division responsible for nearly half of the requirements. Each division assigned an owner or expert responsible for updating status and supplying underlying support documents which was verified centrally by the PMO team for accuracy and completeness in supporting compliance with each requirement.

From this documentation, we saw the compliance requirement, division responsible for maintaining compliance, timeframe and status of the item, response detailing specific steps taken, reference to supporting documents, and a point of contact. Moreover, the brief explanation described what was done, when it was done, and where specific supporting documentation can be viewed. This process allowed the PMO to easily validate and conclude on compliance.

Local Eligibility Requirements Were Rigorous and Thoroughly Reviewed

In order for local jurisdictions to receive M2 funds, they must undergo OCTA’s diligent review process and be determined eligible on an annual basis. This applied to both local formula driven funds and competitive grants for street improvements, transit expansion, and environmental mitigation projects. While OCTA’s process was similar to other entities reviewed, its protocols seemed to be more rigorous in terms of breadth of requirements and verification of compliance.

Requirements were Rigorous

According to the Ordinance, local jurisdictions must satisfy requirements within 13 eligibility categories before receiving M2 funds as shown in Exhibit 24.

EXHIBIT 24. 13 ELIGIBILITY CATEGORIES



Source: M2 Eligibility Guidelines Fiscal Year 2018/2019, Effective April 9, 2018.

To meet these requirements, local jurisdictions were required to report and provide supporting documentation to demonstrate compliance with nearly 100 pages of Measure M2 Eligibility Guidelines updated each fiscal year. Some reporting methods leveraged tools routinely used by local jurisdictions in their public planning processes, while others required specialized OCTA-developed tools.

Using a proprietary internal system called OCFundtracker, local jurisdictions used a series of templates, forms, and report formats to submit required plans, certifications, and checklists to OCTA. Documents were submitted on annual, biennial, or other timeframe as dictated by OCTA policies and feasibility. Thus, not all 13 eligibility elements required verification each year.

Eligibility Review was Extensive and Diligent

Overall, we found OCTA conducted extensive formal eligibility determinations of local jurisdictions with technical due diligence protocols performed on an annual basis that questioned, discussed, collaborated, and documented reasonableness and adherence to the M2 Ordinance's goals.

Specifically, several internal OCTA staff and external technical experts conducted extensive reviews of submitted data to verify eligibility. As part of eligibility conducted, OCTA was responsible for verifying compliance with eight of the eligibility categories and the Taxpayer Oversight Committee's Annual Eligibility Review Subcommittee was responsible for verifying the remaining five eligibility elements. Steering the verification processes were the M2 Eligibility Guidelines and the Comprehensive Transportation Funding Program Guidelines that discussed specific verification methods to be utilized. Our review of underlying documentation found that these guidelines were followed and focused questions were asked and resolved by the local jurisdictions. Reviews were well-documented electronically and in physical files.

Generally, OCTA Local Programs staff coordinated the review of each eligibility element relying on both internal and externally-hired technical experts to question and validate technical elements to ensure documents and plans submitted support a variety of goals such as:

1. Having a Capital Improvement Plan that included projects needed to meet and maintain adopted Traffic Level of Service and Performance Standards.
2. Adopting and maintaining a Circulation Element that defined the minimum planned lane configurations for regionally significant roads and demonstrated consistency with the County Master Plan of Arterial Highways.
3. Complying with the County's Congestion Management Program to support regional mobility and air quality objectives.
4. Contributing required local matching funds to leverage available Measure M2 funds provided.

OCTA staff developed verification checklists to streamline the review processes and ensure consistency of review. For instance, technical reviewers asked questions of the local entity's use of survey systems when reviewing inputs to the Pavement Management Plan or evaluated traffic and intersection analysis through modeling of level of service on the local's Congestion Management Plan.

Detailed analysis occurred during these technical reviews with notes and resolutions documented in the annual eligibility review files. Annual expenditure reports were also studied to identify patterns, ensure expenditures reported agreed with audited financial statements, and determine whether expenditure categories aligned with OCTA disbursement reports.

Other entities we reviewed in California and Arizona used different practices for eligibility determinations—mostly due to the structure of their particular sales tax measure. For instance, the San Diego Association of Governments' sales tax measure distributed funds to local jurisdictions primarily by formula similar to OCTA's Local Fair Share Project Q. But for those funds available through grant funding, the San Diego Association of Governments verified and determined eligibility status in accordance with appropriate grant criteria. In another example in Phoenix, the Maricopa Association of Governments' sales tax measure provided funds to local jurisdictions for arterial street projects through regular transportation improvement plan processes although they created and vetted projects against specific project eligibility criteria.

Local Grant Practices were Solid and Aligned with Others

Once deemed eligible, local jurisdictions received M2 funds either through the formula-driven Local Fair Share Program (Project Q) or through application of individual competitive grants available for streets and roads, transit, and environmental activities through Projects O, P, S, T, V, W, and X as shown in Exhibit 25. We found that OCTA used comprehensive formal guidelines provided to the locals as well as followed solid practices including technical reviews and ongoing monitoring to help ensure that M2 funds were awarded for purposes that would help achieve the M2 goals.

EXHIBIT 25. COMPETITIVE GRANT FUNDING, JULY 1, 2015 THROUGH JUNE 30, 2018

M2 Project	Description	Amounts Allocated During Period	Disbursement Method
O	Roads Regional Capacity (RCP)	\$102,243,642	Advance 75%/Reimburse 25%
P	Roads Regional Traffic Signal Synchronization	23,837,626 (plus \$6,693,813 in external funding)	Advance 75%/Reimburse 25%
S	Transit Connections to Metrolink	\$0	Reimbursement
T	Transit Metrolink Stations/High-Speed Rail	N/A Project Complete	Reimbursement
V	Transit Circulators (Community-Based)	\$33,838,803	Reimbursement
W	Safe Transit Stops	\$0	Reimbursement
X	Environmental Cleanup Tier 1	\$8,766,095	Advance 75%/Reimburse 25%
X	Environmental Cleanup Tier 2	\$0	Advance 75%/Reimburse 25%
Total Awarded		\$175,379,979	

Source: M2 Ordinance and OCTA M2 Allocation spreadsheet.

Selection Practices were Robust

Overall, we found OCTA’s grant selection practices to be thorough, complete, and robust with an internally developed common set of guidelines and project selection criteria known as the Comprehensive Transportation Funding Program Guidelines. Based on our review of seven grants for Projects O, V, and X selected during our assessment period, OCTA files contained supporting application documents, detailed scoring sheets, and evidence of detailed technical reviews conducted to verify reasonableness, feasibility, and adherence to grant purpose of the proposed project. These technical review efforts included questions posed and clarifications requested from the local jurisdictions in addition to in-depth analysis of supporting documentation. In fact, on some of the grants reviewed, technical staff calculated cost-benefits of proposed pollutant reductions, assessed timing of parcel takes on right-of-way project components, and considered traffic conditions. Moreover, OCTA assisted local jurisdictions with application elements and helped ensure complete local documentation was submitted to afford the local governments the best opportunity to receive needed funds.

Grant Disbursement Process was Appropriate

While disbursement methods varied across the different types of M2 grants, OCTA processes employed on grants reviewed were appropriate. For instance, once awarded a grant under Projects O and P related to street and road projects, OCTA advanced 75 percent of grant funds at the beginning of the project and reimbursed the final 25 percent at project completion. A similar process was followed for Project X environmental grants, while the remaining project grants functioned on a reimbursement basis. Regardless of method employed, our review of several grant files showed solid protocols were employed to ensure costs were appropriate prior to disbursement. In addition to looking for adequate support and mathematical

accuracy of disbursements, we saw evidence of engineer review of overhead costs and potential ineligible costs prior to disbursement. Final payments were not made until after close out reports and applicable documentation were received.

Moreover, we found OCTA's grant disbursement practices to be similar to those at other entities we reviewed. For instance, at the San Francisco County Transportation Authority a two-tiered review by accounting staff and project staff is required before payment is released. Specifically, accounting staff were responsible for verifying the financial aspect of the reimbursement requests such as amounts not exceeding grant agreement, mathematical accuracy, or timeliness of request while project level staff validated the eligibility of the expense and ensured progress payment amounts commensurate with project progress. However, this extensive review was lengthy and often took longer than 30 days to process. Additionally, at the San Diego Association of Governments, staff performed detailed reviews of supporting documents submitted, verified agreement with grant terms, and ensured adequate progress as part of disbursements.

Monitoring of Local Grants was Sound and Aligned with Others

OCTA monitored its local grants through a variety of methods such as semi-annual reviews, annual expenditures reviews, and other periodic audits. These protocols ensured Ordinance requirements were met and status was available for project phase or activity, and were similar to processes at other entities we reviewed.

For instance, one critical monitoring activity occurred as part of OCTA's semi-annual review process where staff identified issues with grant spending or use of funds, tracked details of concerns, and resolved issues through early outreach and collaboration with the local jurisdictions. Using its internal OCFundtracker system, OCTA staff reviewed active local M2 funded projects for schedule reasonableness, continued viability, project changes, supporting documents, and potential issues with matching funding. Changes to scope had to be supported and costs increases exceeding 10 percent required an approved revised cost estimate. This review also looked at timely use of funds (within a three-year window) and worked with local entities to encourage and promote compliance with the Comprehensive Transportation Funding Program guidelines and provisions of the M2 Ordinance. Staff obtained expenditure statements to review local match, actual spending, and cash flow versus expected planned spending. These semi-annual reviews were presented to the Taxpayer Oversight Committee and Board for discussion and final approval.

Other monitoring occurred on local annual expenditures where locals submitted certified expenditure statements to OCTA and staff reviewed for consistency with past spending patterns. If costs seemed questionable or outside of typically expected ranges, OCTA staff worked with the locals to ensure accuracy of expenditures and categories of expenditures. Additionally, local eligibility was audited both by external entities and OCTA's Internal Auditor. On an annual basis, the Taxpayers Oversight Audit Subcommittee selected a sample of local jurisdictions receiving M2 funds and approved external agreed upon procedure reviews in areas such as funding, expenditures, maintenance of effort, and project activities.

Additionally, we found that OCTA's processes aligned with other similar entities using competitive grants to provide local funding where the entities conducted in-depth expenditure reviews ensuring costs agree with grant agreement terms, were reasonable, and fiscally sound. For instance, while the Maricopa Association

of Governments did not distribute its sales tax measure money through grants, staff reviewed congestion management plans, required progress reports, and supporting invoices. The San Diego Association of Governments also had a strong and similar process for monitoring grants related to bicycle and pedestrian projects, environmental, and senior transit including activities to ensure grant funding disbursements were efficient and meeting goals of their local measures. While other entities included one or more similar practices, OCTA implemented each of the practices shown in Exhibit 26.

EXHIBIT 26. COMPARISON OF OCTA LOCAL GRANT PRACTICES WITH OTHER SIMILAR ENTITIES

Practice	OCTA	SANDAG	SFCTA	MAG	RTA
Components of Measure	<ul style="list-style-type: none"> Local Formula Grants for signals, transit, and environmental. 	<ul style="list-style-type: none"> Local Formula Grants for transit, environmental, and bike. 	<ul style="list-style-type: none"> Local Formula but requires formal application. 	<ul style="list-style-type: none"> Local Formula Formal Application for streets and roads. 	<ul style="list-style-type: none"> Pre-determined Local Projects.
Strong selection process controls	Yes	Yes	Yes	Yes	Yes
Formal eligibility process looking at CMP and other project docs	Yes	N/A	No	Yes	No
In-depth Review of Disbursements	Yes	No for local formula Yes for grants	Yes	Yes	Yes
Frequency of Disbursements	Varied	Monthly	Quarterly	3x (initial, middle, final)	Monthly
Monitoring—including timely use of funds	Yes	Yes on grants, but informally on local streets via TIP	Yes	Yes	Yes
Semi-Annual Reviews looking at scheduling, budget, spending, etc.	Yes	No	No	No	No
In-depth expenditure reporting process	Yes	Partial	Yes	Yes	No

Source: Grant project files tested as part of OCTA Triennial Performance Assessment; performance audits conducted at SANDAG, MAG, and RTA; and SFCTA consulting engagement.

Recommendations

To enhance compliance with the Ordinance, OCTA could consider the following:

6. Include additional links, where appropriate, to underlying support documentation to validate compliance efforts and activities tracked and evaluated in the Program Management Office's Compliance Matrix.

Chapter 5: OCTA's Sound Fiscal Practices Helped Mitigate Risks Associated with Rising Construction Costs and Decreased Sales Tax Revenue

To deliver the freeway and transit projects outlined in M2 Ordinance and Transportation Investment Plan by 2041, OCTA must effectively manage Measure M2 funds, leverage those local funds with additional state and federal dollars, and carefully program financial resources over the life of the M2 Program. In general, we found that OCTA had sound fiscal practices in place during our assessment period and employed a careful and conservative approach when planning and programming funds to deliver projects. As a result, OCTA appeared to be on track to complete the M2 freeway and transit projects despite a significant reduction in forecasted sales tax collections largely resulting from the Great Recession.

While M2 sales tax collections were initially forecasted to bring in approximately \$24.3 billion, the most recent estimates forecasted total sales tax collections will be closer to \$13.1 billion—a reduction of 46.1 percent—and was similar to those of other transportation agencies with similar half-cent sales tax measures, driven largely by the Great Recession. Despite the reduction, OCTA's methodology for forecasting sales tax collections was reasonably sound and the agency took additional and appropriate steps to improve the short term accuracy of forecasts.

OCTA developed a planning and programming process that began at the individual project level before being aggregated into the overall M2 Program. Similar to peer agencies, OCTA's cash flow planning focused on projects in the near term; but unlike peers, OCTA gave more consideration to planning for projects that will be delivered towards the end of the M2 timeframe. Sales tax revenues, other state and federal funding, and debt obligations resulting from the issuance of sales tax revenue bonds were allocated to individual projects regardless of when they were scheduled to begin. Combined with current delivery dates for capital projects planned for completion at least 5 years before the measure ends, the protocols provided some flexibility for OCTA should they encounter project-specific overruns in the future.

Moreover, OCTA's conservative and careful approach to cash flow planning and programming helped mitigate the impact of the decline in forecasted sales tax revenue. While the M2 Ordinance balanced estimated project costs with forecasted sales tax revenue, OCTA effectively leveraged local sales tax dollars with additional state and federal funds to make up for the decline in revenues. Since M2 collections began in 2011, OCTA secured additional \$0.61 in state and federal funding for every \$1.00 of M2 funds spent program-wide.²² Going forward, current cash flow projections assumed OCTA will only need to leverage state and federal funds at a rate of \$0.30 for every \$1.00 in M2 funds to complete all projects promised—which was more than reasonable given historical performance. Further, recent cash flow planning included contingency reserves to help guard against potential construction cost increases over the next several years without impacting projects scheduled beyond 2026.

While the Ordinance indicated that pay-as-you-go was the preferred method for financing M2 projects, it did allow for debt secured by future sales tax revenue collections. Consistent with that a pay as-you-go

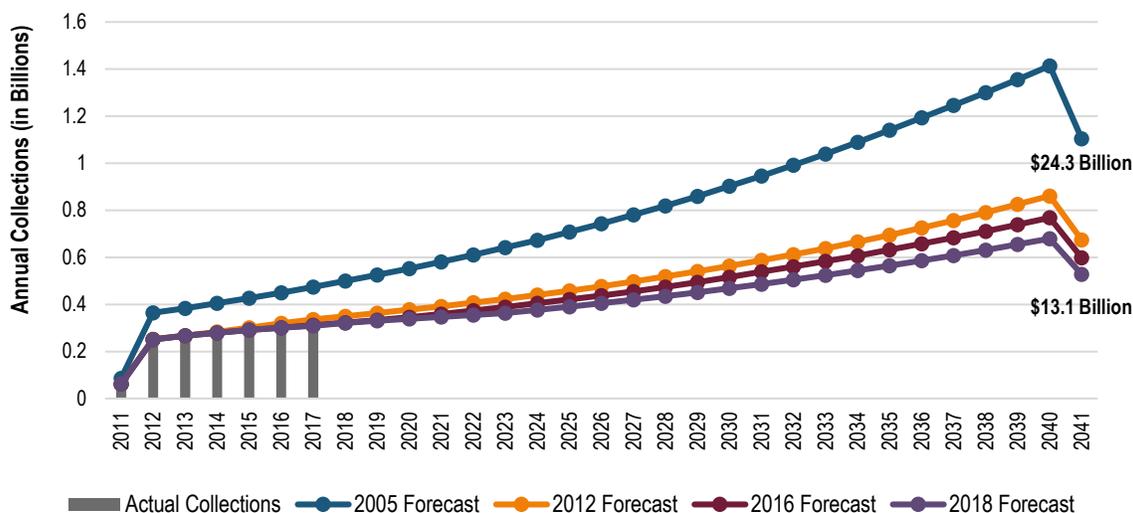
²² Measure M2 funds included sales tax collections and funds raised through the issuance of bonds secured by sales tax revenues.

approach, however, OCTA issued relatively little debt to date when compared with peer agencies— some of which chose to take on high levels of debt to complete projects early, while relying on sales tax revenues to rise over time to provide cash flow in future years. As a result, OCTA’s debt service coverage ratios were well above the 1.3x minimum set by the OCTA Board and remained relatively stable year-to-year. Going forward, OCTA has seven bond issuances planned between Fiscal Year 2018-2019 and Fiscal Year 2033-2034. While this will significantly increase OCTA’s debt service obligations, the agency’s plan showed ample room to meet these obligations even if sales tax revenues slightly stagnate.

Projections Indicated Sales Tax Collections will be Significantly less than \$24.3 Billion Initially Forecasted

In 2005, the initial forecast for Measure M2 projected that the measure would generate \$24.3 billion between Fiscal Years 2010-2011 and 2040-2041.²³ Subsequent forecast updates lowered the estimated total collections—in 2012, the forecasted total was \$15.5 billion and, by 2016, the forecast total had fallen to \$14.2 billion. As shown in Exhibit 27, the most recent forecasts in 2018 suggested that M2 will bring in \$13.1 billion over its 30-year life.²⁴ The 2018 forecast is 46.1 percent lower than the initial 2005 forecast.

EXHIBIT 27. SALES TAX COLLECTIONS AND FORECASTS



Source: OCTA forecast data.

While this represented a significant reduction in forecasted revenues, the decrease was not spread evenly over the life of M2. As shown in Exhibit 28, the largest changes in forecasted revenue happen over the final ten years of the M2 Program.

²³ The fiscal year runs from July 1 through June 30.

²⁴ The 2018 updated forecast includes actual collections through the end of Fiscal Year 2017-2018.

EXHIBIT 28. FORECASTED M2 SALES TAX REVENUES BY PERIOD

Forecast Period	2005 Forecast	2018 Forecast	\$ Difference	Percent Difference
FY 2010-2011 to FY 2019-2020	\$4,167,436,341	\$2,748,904,179	\$1,418,532,162	34.0%
FY 2020-2021 to FY 2029-2030	\$7,316,694,338	\$4,009,097,083	\$3,307,597,255	45.2%
FY 2030-2031 to FY 2040-2041	\$12,815,740,672	\$6,310,177,585	\$6,505,563,087	50.8%
Total	\$24,299,871,351	\$13,068,178,847	\$11,231,692,504	46.2%

Source: OCTA forecast data.

The amount of sales tax collected each year was independent of the actions of transportation agencies, including OCTA. These entities had no direct or indirect control over the amount collected, which was largely determined by economic conditions and individual consumer behavior. As a result, transportation sales tax revenues can be especially volatile during economic downturns. Starting in 2008, the economy entered a period of economic downturn, now known as the Great Recession, which had a significant impact on all sales tax measures, including those enacted to fund transportation programs. For example, statewide sales tax receipts fell by 17.6 percent between 2008 and 2010. The Great Recession also had a significant impact on forecasted long-term revenues because, when forecasting revenue collections 30 years into the future, small changes to growth projections in the first few years have a disproportionate impact on the revenues projected at the end of the collection period.

Sales Tax Reductions were Not Unlike Other Similar Entities, although OCTA Implemented Appropriate Safeguards

Like OCTA, transportation agencies that enacted or renewed sales tax measures in the early 2000s experienced similar declines in forecasted revenue. To analyze these results, we compared OCTA to certain other regional entities that (1) enacted or renewed transportation sales tax measure between 2003 and 2005, (2) estimated total revenue from sales tax collections at the time of renewal, and (3) revised or updated their revenue forecasts since the end of the Great Recession. The agencies that we reviewed meeting this criteria included:

- San Diego Association of Governments in San Diego, CA
- Maricopa Association of Governments in Phoenix, AZ
- Regional Transportation Authority in Tucson, AZ

As shown in Exhibit 29, all four agencies experienced significant declines in forecasted sales tax revenues due to the impact of the Great Recession. Further, the change in projected revenue roughly correlated with the length of the sales tax measures—OCTA's decline in forecasted revenues was greater than the 20-year measures passed by the Maricopa Association of Governments and Regional Transportation Authority, but not as severe as what the San Diego Association of Governments projected for its 40-year measure.

EXHIBIT 29. TRANSPORTATION SALES TAX FORECAST COMPARISON, OCTA VS. SIMILAR REGIONAL ENTITIES

Peer Agencies	Sales Tax Measure	Measure Passed	Duration	Initial Forecast Year	Forecast Updated	Initial Forecast (YOE \$)	Current Forecast (YOE \$) ¹	Variance
Maricopa Association of Governments, Phoenix, AZ	Proposition 400	2006	20 Years	2004	2017	\$14.3 B	\$8.6 B	-39.9%
Regional Transportation Authority, Tuscon, AZ	RTA Plan	2007	20 Years	2005	2013	\$2.5 B	\$1.7 B	-32.0%
San Diego Association of Governments, San Diego, CA ²	TransNet	2006	40 Years	2003	2017	\$39.0 B	\$19.2 B	-50.8%
OCTA	M2	2006	30 Years	2005	2018	\$24.3 B	\$13.1 B	-46.1%

Source: Generated from data provided by OCTA; peer data obtained from publicly-available information posted on each agency's website.

Notes: ¹Based on the most recent publicly-released forecast. ² SANDAG had a forecasting error that was introduced after the initial revenue forecast and resulted in forecasts that were higher than the original estimates. Neither forecast included in the Exhibit were impacted by the forecasting error.

Forecast Methodology was Generally Sound and OCTA made Appropriate Revisions to Increase Forecast Accuracy

While the decline in forecasted revenues was reasonably attributable to the Great Recession, we scrutinized the forecasting models used by OCTA to determine whether the process employed by OCTA produced reasonably accurate short- and long-term forecasts. Ultimately, the forecasting process employed by OCTA was sound and followed many forecasting best practices—specifically, OCTA used growth forecasts produced by nationally-known third parties, attempted to account for uncertainty by blending those forecasts together, used the forecast to evaluate various cash flow scenarios, and continually evaluated forecast methodology by comparing forecasts to actual results.

Since the inception of the initial Measure M in 1991, OCTA relied on revenue forecasts produced by external third parties. For more than a decade, OCTA used forecasts produced by three local universities—Chapman University, California State University Fullerton, and University of California, Los Angeles Anderson School of Management. All three universities were regionally and nationally-known for their economic forecasts, which were used by a variety of private and public entities. OCTA took the three forecasts and combined them into a single blended growth rate, providing an average of future economic growth.

As shown in Exhibit 30, the blended average rate produced variances from actual collections ranging from 0.2 percent less than actuals to 14 percent more than actuals. The blended growth rate was presented to the OCTA Board of Directors for approval and also served as a baseline when evaluating alternative economic scenarios.

**EXHIBIT 30. VARIANCE IN FORECASTED AND ACTUAL SALES TAX GROWTH RATES,
FISCAL YEAR 2004-2005 TO FISCAL YEAR 2015-2016**

Fiscal Year	Chapman	UCLA	CSUF	Blended Forecast Rate	Actual Rate	Variance Over/(Under)
2005	5.3%	1.8%	5.9%	4.4%	5.6%	(1.2%)
2006	4.2%	4.5%	5.9%	4.9%	8.0%	(3.1%)
2007	4.2%	5.2%	5.2%	4.9%	1.0%	3.9%
2008	5.9%	6.1%	5.1%	5.7%	-3.2%	8.9%
2009	1.8%	-1.3%	1.7%	0.7%	-13.3%	14.0%
2010	-1.1%	-0.3%	-1.3%	-0.9%	-3.6%	2.7%
2011	5.1%	8.2%	4.9%	6.1%	6.5%	(0.4%)
2012	6.8%	4.8%	6.5%	6.0%	6.2%	(0.2%)
2013	6.2%	7.2%	3.3%	5.6%	6.2%	(0.6%)
2014	6.1%	6.2%	7.4%	6.6%	4.8%	1.8%
2015	6.3%	9.1%	7.9%	7.8%	4.3%	3.5%
2016	5.7%	6.5%	8.0%	6.7%	3.3%	3.4%

Source: Generated from OCTA's March 28, 2016 Report to the Finance and Administration Committee.

To address concerns over the accuracy of forecasts, OCTA staff re-evaluated their forecast methodology in 2016. As part of the process, OCTA compared the forecasts produced by a variety of universities and nationally-known firms to actual growth rates and sales tax collections. In March 2016, staff recommended the Board adopt a forecast produced by MuniServices, LLC which regularly produced shorter-term 5-year forecasts for clients as opposed to forecasting revenues over a longer term such as the remaining life of M2.

When looking at a comparison of past MuniServices' forecasts against actual collections, the MuniServices forecast was closer to actual collections than the blended forecasts produced by the three universities. As shown in Exhibit 31, a 2012 forecast produced by MuniServices was within 1 percentage point of the actual growth rate in sales tax revenue over the last four fiscal years. In comparison, the blended forecast growth rate used by OCTA was off by as much as 3.5 percentage points over the same period. From Fiscal Year 2015-2016 forward, OCTA's sales tax revenue forecast will use MuniServices for the first 5 years of projections and the average of the blended university forecasts over the remaining life of M2 collections.

**EXHIBIT 31. MUNISERVICES 2012 GROWTH FORECAST COMPARED TO
OCTA BLENDED RATE GROWTH FORECAST AND ACTUAL GROWTH RATE**

Fiscal Year	2012 MuniServices Forecast	OCTA Blended Forecast Rate	Actual Growth Rate	MuniServices Variance	OCTA Blended Variance
2013	7.1%	5.6%	6.2%	0.9%	(0.6%)
2014	4.7%	6.6%	4.8%	(0.1%)	1.8%
2015	4.3%	7.8%	4.3%	0.0%	3.5%
2016	3.5%	6.7%	3.3%	0.2%	3.4%

Source: Reproduced from OCTA's March 28, 2018 Report to the Finance and Administration Committee.

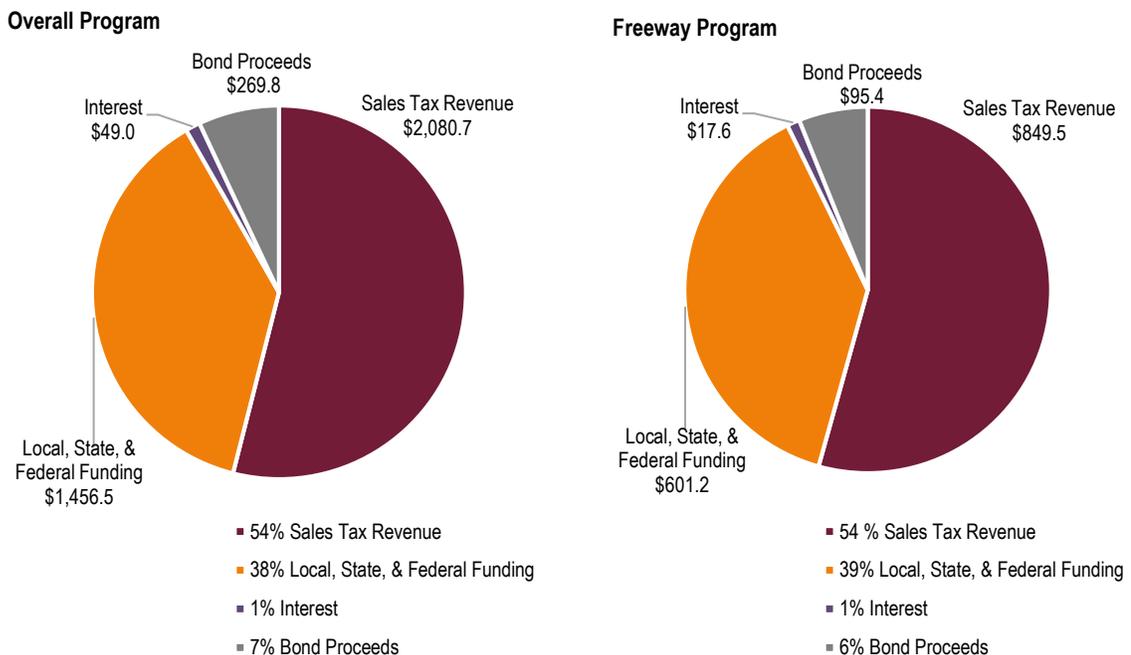
OCTA’s ability to Leverage M2 Sales Tax Dollars with Additional State and Federal Funding Helped Mitigate the Impact of the Decline in Sales Tax Revenue

When the Ordinance was passed in 2006, the spending plan did not include revenues from state or federal sources. OCTA’s Finance and Administration Division indicated they did not initially expect to leverage sales tax funds with other state and federal funding, and took a conservative approach to financial planning. This conservative approach shielded OCTA from much of the impact of the Great Recession. Not only was OCTA able to offset the decline in forecasted revenues through leveraging of M2 revenues with external state and federal funding, it also advanced projects to take advantage of a favorable cost environment.

External Funds were Leveraged

While initial forecasts estimated sales tax collections would total roughly \$3.1 billion between Fiscal Year 2010-2011 and Fiscal Year 2017-2018 and actual collections totaled approximately \$2.1 billion, OCTA has more than offset the difference through securing approximately \$1.5 billion from federal, state, and other local sources as shown in Exhibit 32. This external funding resulted in a leverage ratio of 1:0.61 program-wide; that is, for every \$1 in M2 funding, OCTA secured \$0.61 from state, federal, and other local sources.²⁵ These results were similar when focused solely on the capital projects within the freeway program—the largest component of the M2 Ordinance. For the freeway program, OCTA leveraged M2 funds at a rate of 1:0.62 between Fiscal Year 2010-2011 and Fiscal Year 2017-2018; for every \$1 in M2 funding allocated to the freeway program, OCTA secured a \$0.62 from these external local sources.²⁶

EXHIBIT 32. ACTUAL M2 PROGRAM SOURCES OF FUNDS, FISCAL YEAR 2010-2011 THROUGH FISCAL YEAR 2017-2018



Source: OCTA cash flow data.

Note: Dollar values shown in millions.

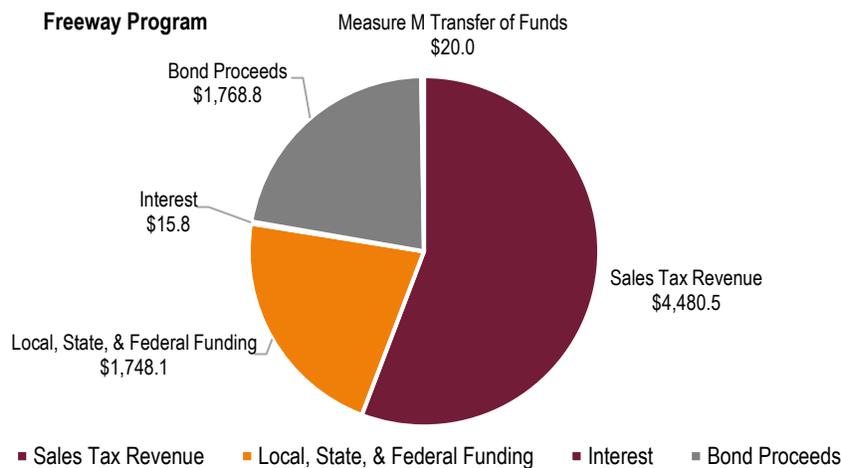
²⁵ External Funding \$1,456.5 million/Sales Tax, Bond Proceeds, and Interest (\$2,080.7 million + \$269.8 million + \$49 million) = \$0.61 or 1:0.61

²⁶ External Funding \$601.2 million/Sales Tax, Bond Proceeds, and Interest (\$849.5 million + \$95.4 million + \$17.6 million) = \$0.62 or 1:0.62.

Assumptions for Future Funding and Leveraged Funds Projections were Reasonable

As shown in Exhibit 33, OCTA’s most recent cash flow planning documents included external funding for Fiscal Year 2018-2019 through Fiscal Year 2040-2041 totaling roughly \$1.8 billion within the freeway program and roughly \$2.1 billion for the M2 Program as a whole. External funding within the freeway program accounts for 22 percent of the roughly \$8 billion in planned revenue over the remaining period of Measure M2, and 14 percent of the \$14.8 billion in total planned M2 Program revenues. Meeting those totals would require OCTA to leverage Freeway program funds at a rate of 1:0.30, raising \$0.30 in external funding for every \$1 dollar of projected M2 funding; for the M2 Program as a whole, the planned leveraging ratio is 1:0.23—for every \$1 dollar of M2 funding, OCTA expects to secure \$0.23 in external funding from federal, state, and other local sources.

EXHIBIT 33. ESTIMATED M2 FREEWAY PROGRAM FUTURE SOURCES OF FUNDS, FISCAL YEAR 2018-2019 THROUGH FISCAL YEAR 2040-2041



Source: OCTA cash flow data.

Note: \$ in millions.

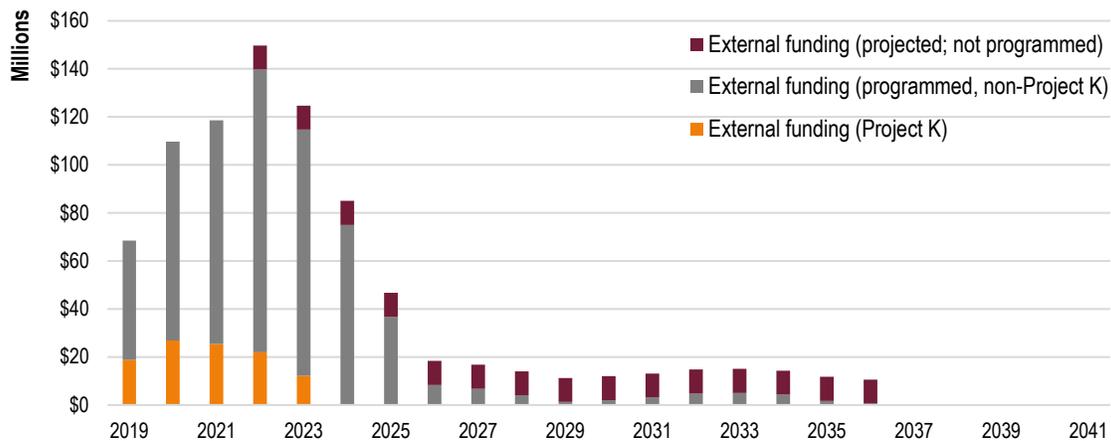
Most of the future external funding expected was anticipated from the following state and federal formula funds, block grants, and project-specific awards—all historically stable funding sources with amounts that can reasonably be estimated and programmed for projects in the near term:

- State Transportation Improvement Program:** From this multi-year capital improvement program funded by the State, State Transportation Improvement Program funds are programmed on a two-year cycle, releasing fund estimates in Year 1 and formally adopted by the California Transportation Commission in Year 2. Thus, funds are programmed every other year for a 5-year period.
- Surface Transportation Block Grant Program:** This program provides funds to the State pursuant to U.S. Code which are allocated to local transportation agencies through the Regional Surface Transportation Program in proportion to their relative shares of the State’s population.

- **Congestion Mitigation and Air Quality Improvement Program:** This program provides funding for surface transportation projects and other related efforts that contribute air quality improvements and provide congestion relief. Funds are distributed through an established funding formula.
- **Senate Bill 1, The Road Repair and Accountability Act of 2017:** Recently passed and withstanding a voter-attempted recall in 2018, Senate Bill 1 increased several gasoline and transportation-related taxes and fees to create new revenue sources for transportation infrastructure including both formula and competitive funding elements.
- **Miscellaneous Other State/Federal Funds:** Several other funding sources are available. For instance, the State Highway Operation and Protection Program provides funding for the rehabilitation and reconstruction of state highways and bridges, including the supporting infrastructure, Caltrans districts work with Regional Transportation Planning Agencies throughout the State—such as OCTA—to determine projects eligible for funding.

In addition, the majority of external funding included in OCTA’s cash flows was programmed as part of the “Next 10” delivery plan. As shown in Exhibit 34, current cash flows from 2018 included approximately \$10 million per year in projected, but not programmed, external funding from Fiscal Year 2021-2022 through Fiscal Year 2035-2036.

EXHIBIT 34. PROGRAMMED AND PROJECTED STATE AND FEDERAL FUNDING BY FISCAL YEAR



Source: OCTA cash flow data.

Note: Project K refers to the I-405 San Diego Freeway Design-Build Project. Fiscal Year 2019=7/1/2018 to 6/30/2019, etc.

Assumptions about future external funding sources and amounts reflected in OCTA’s cash flow planning over the past several years appeared reasonable based on both the assumed external funding from identified, stable funding sources that were already programmed or were reasonably estimated as well as historic leveraging of state, federal, and other local funds between Fiscal Year 2010-2011 and Fiscal Year 2017-2018 that was projected, but not programmed. Moreover, this external funding included in OCTA’s cash flows was reasonable and consistent with OCTA’s general approach to planning—and likely a conservative estimate of future external funding.

Project-Level Cash Flow Planning Allowed OCTA to Focus on Both Immediate and Long Term Financing Needs

OCTA's ability to deliver the M2 Program depends in large part on the success of the agency's planning efforts—not only does OCTA have to ensure it has the revenue to meet project costs, but it also must coordinate funding streams and project resources to ensure that the M2 Program can be completed by 2041. As part of our performance assessment, we found OCTA's planning process was effective in connecting detailed project-level revenues and expenses to program level totals, focused on projects to be completed in the near-term while also programming projects over the life of Measure M2, and took a generally-conservative approach when estimating future revenues and expenses.

Annually, OCTA conducted M2 cash flow planning as part of the Comprehensive Business Plan process and included results in the Next 10 delivery plans when adopted or updated. The process included updates to sales tax revenue forecasts, external funding assumptions and amounts, investment strategies and projected rates-of-return on investments, project cost assumptions, and project delivery timelines. Throughout the process, OCTA took a conservative approach to external funding assumptions and amounts. The majority of external funding assumed in the cash flow plan was from stable sources that were either programmed or reasonably estimated in the short term. When projected, but not programmed, external funding was included in cash flows, such as funding from the State Transportation Improvement Plan, OCTA's estimated funding amounts were consistent with, and typically less than, amounts historically received in the past.

Over the life of Measure M2, OCTA used this planning process to appropriately assess a variety of risks to program delivery. For instance, in the aftermath of the Great Recession, OCTA developed a scenario where sales tax collections amounted to just 85 percent of current forecasts. More recently, OCTA prepared alternative cash flows in the event that voters overturned Senate Bill 1, potentially impacting the timing of external funding from the state. As a result of OCTA's planning process, it reasonably projected cash flows meeting project needs while still providing flexibility for OCTA to respond to emerging issues. Current cash flows were based on the assumption that all projects will be delivered well ahead of the end of Measure M2 in 2041, and staff built in program-level contingencies to guard against potential increases in construction costs as much as can be reasonably expected at this juncture in the Measure M2 lifecycle. The ability to include such contingencies, while maintaining a conservative approach, reflects positively on the planning process employed by OCTA.

OCTA Took a Conservative Approach When Issuing Debt

In November 2010, the OCTA Board of Directors adopted a comprehensive debt management policy allowing the issuance of debt to help fulfill OCTA's mission to enhance the quality of life in Orange County by delivering safer, faster, and more efficient transportation solutions. While the policy stated that pay-as-you-go was the preferred method of financing, it also allowed OCTA to use bond financing as an alternative if the scope of expenditures made pay-as-you-go unfeasible. As such, we found OCTA took a conservative debt approach and issued very little debt when compared to others.

Specifically, consistent with the preference for pay-as-you-go expressed in the ordinance, OCTA issued just two bond series secured by M2 sales tax revenue as depicted in Exhibit 35. In 2010, OCTA issued taxable municipal Build America Bonds featuring tax credits and/or federal subsidies for bondholders as part of the American Reinvestment and Recovery Act. The bonds allowed OCTA to advance projects and take advantage of the favorable construction cost environment that emerged at the tail end of the Great Recession.

EXHIBIT 35. OCTA'S BOND ISSUANCES TO DATE

Year Issued	Description	Secured By	Annual Debt Service	Total Issued
2010	Build America Bonds, Series A	M2 Sales Tax Revenues	\$13,409,389	\$293,540,000
2010	Build America Bonds, Series B	M2 Sales Tax Revenues	\$8,913,100	\$59,030,000

Source: OCTA Bond data.

Like OCTA, many peer transportation agencies issued debt secured by future sales tax revenues to fund their capital improvement programs as well as shown in Exhibit 36. For instance, the Riverside County Transportation Committee issued significantly more debt than OCTA and with a much smaller sales tax base. Similarly, the San Diego Association of Governments decided to issue significant debt early in the life of their 40-year transportation program; however, the San Diego Association of Governments will transition to a pay-as-you-go model in the early 2020s, relying on rising future sales tax revenues to provide funds for projects while still meeting their considerable debt obligations. However, not all transportation agencies relied on debt financing—the Maricopa Association of Governments, with a larger sales tax base than OCTA, used the pay-as-you-go approach to fund their capital improvement program.

EXHIBIT 36. OCTA DEBT SECURED BY SALES TAX REVENUE COMPARED TO OTHER SIMILAR ENTITIES

Agency	Program Duration	Financing Method	Budgeted Sales Tax Revenue for Fiscal Year 2017-2018	Annual Debt Service	Outstanding Debt
Riverside County Transportation Committee, Riverside, CA	9th year of 30-year program	Debt	\$187.0 M	\$96.6 M	\$878.9 M
San Diego Association of Governments, San Diego, CA	10th Year of 40-year program	Debt (2008-2021) Pay-go (2022-2048)	\$292.1 M	\$105.3 M	\$2,263.2 M
Regional Transportation Authority, Tucson, AZ	13th year of 20-year program	Debt	\$88.2 M	\$17.4 M	\$248.2 M
Maricopa Association of Governments, Phoenix, AZ	12th year of 20-year program	Pay-go	\$458.6 M	N/A	N/A
OCTA	7th year of 30-year program	Debt	\$316.5 M	\$44.4 M	\$310.2 M

Source: Generated from data provided by OCTA. Other entity data obtained from budget documents and publicly-available information posted on each agency's website.

How an entity approached funding capital programs (pay-as-you-go vs. debt) and timing of debt (whether consistent over the life of the program or taking on large debt early in the program) was heavily influenced by the structure of each entity’s capital transportation improvement program and the specific commitments made to voters and residents. OCTA’s approach to debt was consistent with the preference for pay-as-you-go expressed in the Ordinance and OCTA’s generally conservative approach to cash flow planning.

OCTA will Significantly Increase its Bonding Activity Starting in Fiscal Year 2018-2019

Over the remaining life of Measure M2, OCTA has programmed seven additional bond issuances in its 2018 cash flow plans that are expected to raise an additional \$1.77 billion between Fiscal Years 2018-2019 and 2040-2041. Five of those bond issuances are planned to occur every other year between Fiscal Year 2018-2019 and Fiscal Year 2026-2027 to provide needed cash flow for several capital construction projects. All planned bond issuance shown in Exhibit 37 will be secured by M2 sales tax revenues.

EXHIBIT 37. OCTA’S PLANNED BOND ISSUANCES

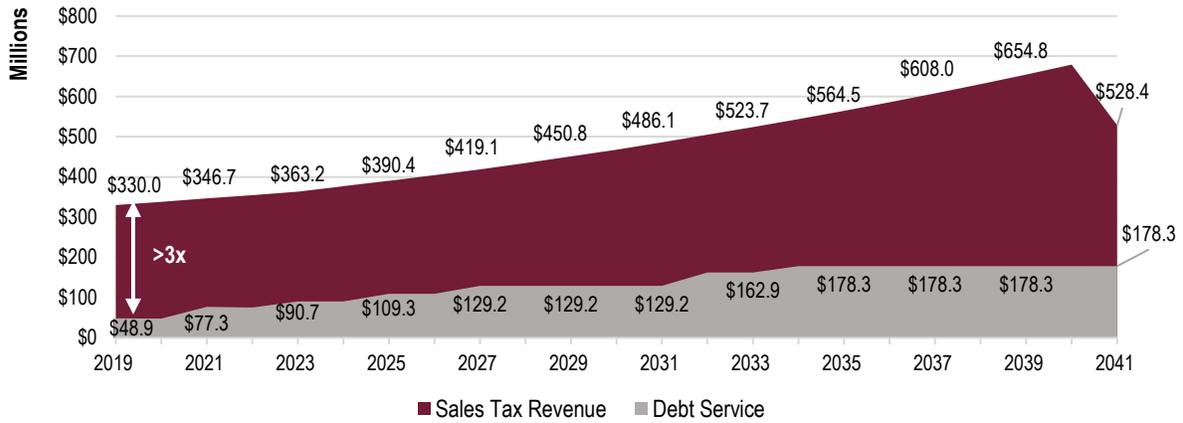
Year of Planned Issuance	Secured By	Bond Proceeds (in Millions)
2019	M2 Sales Tax Revenues	\$348.8
2021	M2 Sales Tax Revenues	\$398.6
2023	M2 Sales Tax Revenues	\$199.3
2025	M2 Sales Tax Revenues	\$224.2
2027	M2 Sales Tax Revenues	\$224.2
2032	M2 Sales Tax Revenues	\$274.0
2034	M2 Sales Tax Revenues	\$99.7
Total:		\$1,768.8

Source: OCTA Cash flow data.

OCTA’s Debt Service Coverage Met Board Requirements and Appeared Sufficient to Meet Future Repayment Obligations

Board policy required OCTA to maintain a debt service coverage ratio of 1.3—meaning projected sales tax revenues should be 1.3 times greater than debt service obligations each year over the life of Measure M2. As shown in Exhibit 38, revenues were projected to be significantly higher than planned debt service over the remaining life of Measure M2. Based on OCTA’s cash flows, debt service coverage for the M2 Program is expected to be 3 times or greater in each year between Fiscal Year 2018-2019 and Fiscal Year 2040-2041 with projected annual sales tax revenues estimated at three times higher than the annual amounts owed on OCTA’s bond debt.

EXHIBIT 38. M2 ANNUAL PROJECTED SALES TAX REVENUE AND DEBT SERVICES, FISCAL YEAR 2018-2019 THROUGH FISCAL YEAR 2040-2041

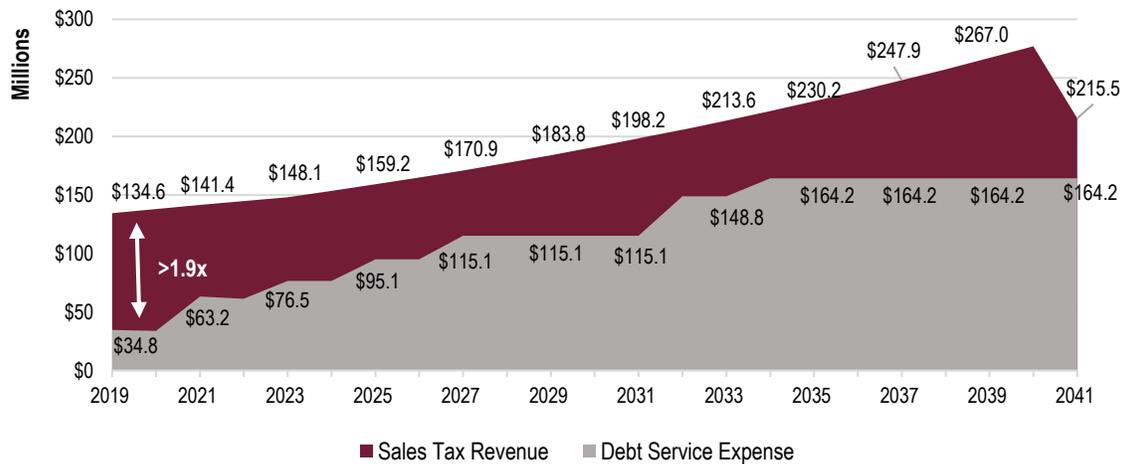


Source: Cash flows provided by OCTA.

Within the M2 Program, the majority of bond proceeds were anticipated to fund the freeway capital construction projects because the other M2 Program areas, including environmental mitigation and funding for local streets and roads, can be scaled to match available revenues. While the majority of bond funds will be directed to the freeway program, bonds issued by OCTA will be secured by all M2 sales tax revenues, not just the portion of revenues allocated to the freeway program. Current cash flow projections show that 91 percent of the more than \$2 billion in expected bond proceeds will be allocated to the freeway program, while debt service was expected to account for 87 percent of total M2 debt service costs.

Exhibit 39 shows forecasted sales tax revenues and debt service expenses just for the freeway program within M2. While debt service coverage for the freeway program was only projected to be 1.9x in total between Fiscal Year 2010-2011 and Fiscal Year 2040-2041, that coverage was still well within the 1.3x required by Board policy.

EXHIBIT 39. FREEWAY PROGRAM PROJECTED SALES TAX REVENUE AND DEBT SERVICE, FISCAL 2018-2019 THROUGH FISCAL YEAR 2040-2041



Source: Cash flows provided by OCTA.

Although increased bonding activity between Fiscal Year 2018-2019 and Fiscal Year 2033-2034 will move OCTA further away from its preference for pay-as-you-go to fund projects, debt service was structured in an appropriate manner that should continue to provide positive cash flow from sales tax revenues each year within the freeway program while also minimizing the risk that debt service for the freeway program will impact other program areas.

Investment Practices Balanced Security with Rate of Return for Cash Flow Needs

In order to deliver the promised M2 projects, OCTA needs adequate revenues at the appropriate time to coincide with project expenses. To that end, OCTA invested funds to preserve capital and provide necessary cash flows with a goal of achieving a market-average rate of return on invested funds. OCTA's investment activities were guided by a Board-adopted investment policy.

The investment policy established portfolio limits for various investment instruments. As shown in Exhibit 40, OCTA's investment portfolio was consistent with the maximum percentages outlined in the investment policy as of October 31, 2018.

EXHIBIT 40. OCTA INVESTMENT PORTFOLIO, AS OF OCTOBER 31, 2018

Investment Instruments	Dollar Amount Invested	Percent of Portfolio	Investment Policy Maximum
U.S. Treasuries	\$579,074,619	37.3%	100%
Medium Term Maturity Corporate Securities	\$340,858,918	22.0%	30%
Federal Agencies & U.S. Government Sponsored-	\$188,145,920	12.1%	100%
Mortgage and Asset-backed Securities	\$159,156,459	10.3%	20%
Money Market Funds & Mutual Funds	\$101,524,818	6.5%	20%
State of California & Local Agencies	\$40,922,800	2.6%	25%
Variable & Floating Rate Securities	\$39,009,707	2.5%	30%
Commercial Paper	\$38,529,892	2.5%	25%
Negotiable Certificates of Deposit	\$25,000,000	1.6%	30%
Orange County Investment Pool (OCIP)	\$17,795,270	1.1%	\$40 Million
Local Agency Investment Fund (LAIF)	\$10,480,795	0.7%	\$40 Million
Repurchase Agreements	\$9,476,363	0.6%	75%
Bank Deposits	\$807,525	0.1%	5%
Total (including instruments not shown)	\$1,550,510,086	100.0%	

Source: OCTA Monthly Report to the Finance and Administration Committee, October 31, 2018. Actual balance is \$1,551,203,087 that includes other instruments not shown in the list.

On a monthly basis, OCTA prepared and presented a report to the Finance and Administration Committee detailing the current investment portfolio, performance relative to benchmarks, and compliance with Board policy. In addition to presenting portfolio information, the monthly report detailed both the liquid portfolio, which was used to meet immediate cash needs, and the short-term portfolio which included investments maturing over the next 5 years to meet project funding needs.

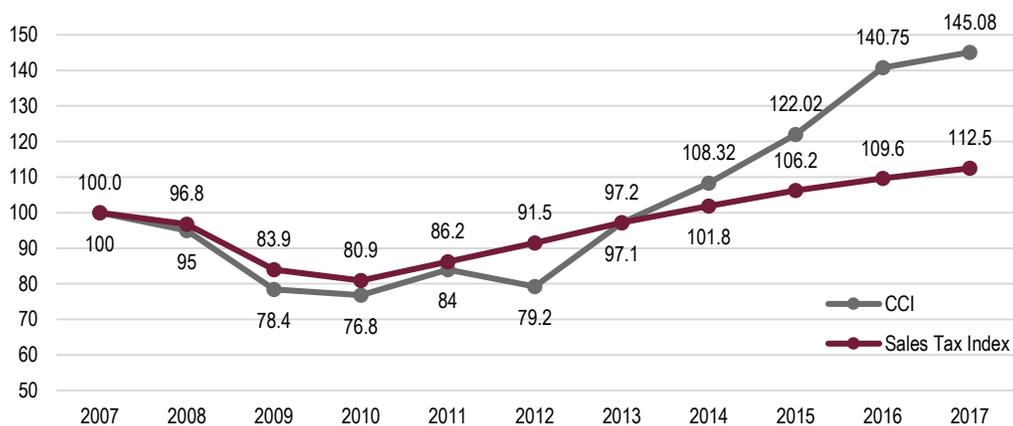
To manage its short-term portfolio, OCTA used four external investment firms—Logan Circle Partners, Chandler Asset Management, Payden and Rygel Investment Council, and Public Financial Management. Board policy stated that OCTA’s portfolio shall be designed to attain a market-average rate of return with rates of return compared against four nationally-recognized benchmarks. Over the past three fiscal years, the funds managed by the four investment firms achieved rates-of-return consistent with these benchmarks. Further, OCTA’s investment program was consistent with the investment policy established by the Board with investments that were within policy’s percentage limits and rates of return that were within the established benchmarks. In addition, detailed monthly reporting to the Finance and Administration Committee ensured that decision-makers were provided timely, accurate information with respect to OCTA’s investment program.

Construction Cost Increases Could Pose a Significant Future Risk to OCTA’s Ability to Deliver the Promised M2 Freeway and Transit Projects

Since M2 collections began in 2011, OCTA saw significant changes in the construction cost environment. During the first several years of the M2 Program, the same factors that lead to the decline in revenue actually helped create a favorable cost environment with a large number of bidders competing for a relatively smaller number of projects and thereby reducing construction cost bid prices. Like OCTA, other entities reviewed chose to advance projects and issue Build America Bonds to take advantage of the favorable cost environment.

Beginning in 2013, however, the cost environment began to change rapidly. As shown in Exhibit 41, the growth in construction costs began to outpace the annual growth in sales tax revenue.²⁷ This trend continued through 2017, and if the trend continues into the future, it could create additional challenges to OCTA’s ability to deliver the M2 Program.

EXHIBIT 41. HISTORIC SALES TAX AND CONSTRUCTION COST GROWTH RATES, FISCAL YEAR 2006-2007 THROUGH FISCAL YEAR 2017-2018



Source: Reproduced from OCTA’s Updated Next 10 Delivery Plan.

²⁷ Growth in construction costs was measured by the Caltrans Construction Cost Index (CCI).

In recognition of these risks and as part of OCTA’s Next 10 Plan, OCTA commissioned a market conditions forecast and risk analysis from the Orange County Business Council. The analysis presented to the Executive Committee on September 7, 2017 identified the following seven risks to OCTA’s ability to deliver the M2 Program—six of which related to the cost environment:

1. Sustained low unemployment
2. Increases in residential construction
3. Consolidation in the public works construction industry
4. Increases in interest rates
5. Neighboring county transportation construction programs
6. Construction wage pressure
7. Future recession

Further, four factors were identified as potentially significant near-term risks—namely, neighboring county transportation construction programs, construction wage pressure, sustained low unemployment, and increased residential construction demand. In light of these cost pressures, OCTA took reasonable steps to better account for and guard against potential increases in construction costs. First, the agency adopted a construction cost pressure index to track four near-term cost pressures including economic trends (captured through building permits and unemployment), material costs, wage pressures, and economic conditions.

As shown in Exhibit 42 OCTA expected larger cost fluctuations between 6 and 11 percent in 2018 and more reasonable fluctuations for 2019 and 2020 at 2 to 6 percent.

EXHIBIT 42. OCTA’S COST PRESSURE INDEX FORECAST

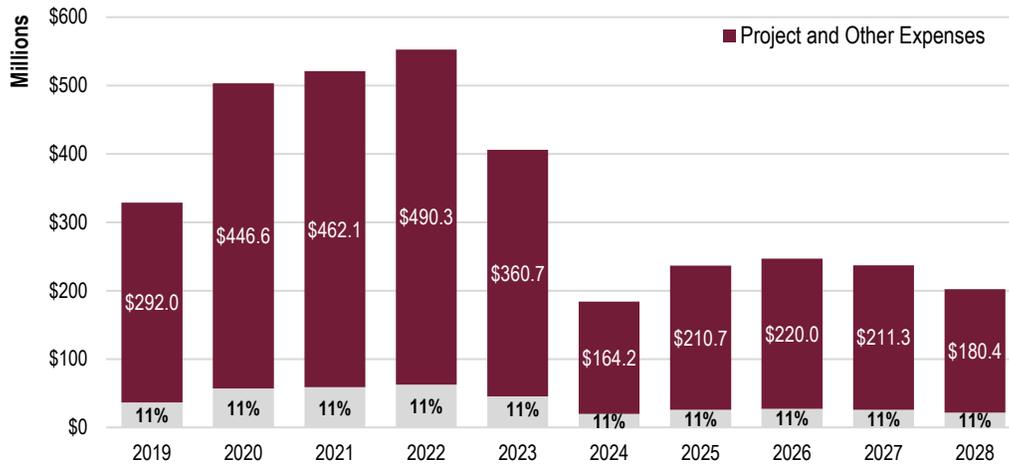
Year	Forecasted Range of Cost Fluctuation
2018	6%-11%
2019	2%-6%
2020	2%-6%

Source: Reproduced from OCTA’s Next 10 Delivery Plan.

The index has the potential to be a valuable planning tool as long as OCTA is committed to regularly revisiting the model by comparing projections to actual cost fluctuations and making adjustments to its methodology as appropriate. While OCTA has no influence over the cost pressures themselves, the index can serve as an early warning indicator providing some advanced notice of potentially large increases that staff can begin to address before they materialize.

To guard against these potential increases, OCTA’s staff included a line item expense for economic uncertainty in the most recent cash flow projection. According to the cash flow projection, the economic uncertainty expenses were set at roughly 11 percent of all freeway expenditures between Fiscal Year 2018-2019 and Fiscal Year 2027-2028 as shown in Exhibit 43.

EXHIBIT 43. FREEWAY PROGRAM CONTINGENCY RESERVES BY FISCAL YEAR



Source: OCTA Cash Flow Data. Fiscal Year 2019=6/30/2108 to 7/1/2019, etc.

While current construction cost trends pose a risk to OCTA's ability to deliver the M2 Program that is largely outside the agency's control, staff attempted to mitigate that risk in two ways. First, OCTA developed a construction cost pressure index to identify potential cost increases before they occur. Second, OCTA included freeway program-level reserves to guard against construction cost increases over the next ten years and help ensure OCTA remains on track to complete the M2 Program by Fiscal Year 2040-2041.

Recommendations

No recommendations.

Chapter 6: OCTA Was Transparent and Accountable to the Public

Transparency and accountability is paramount to OCTA's mission and culture in addition to being a critical measure of success of the M2 Program. As such, we found OCTA was highly focused on accountability to the promises made in the Ordinance and transparency in its outreach, actions, decisions, and data communicated to its Board, Taxpayer Oversight Committee, stakeholders, and general public.

Our review noted that OCTA effectively informed the general public and stakeholders about M2 Programs and projects through a variety of traditional methods. For instance, OCTA resourcefully utilized strategic outreach methods including website, subscriber email blasts and mailers, social media, videos, blogs, press releases, and various community events to inform and involve the public. Surveys and M2 rebranding efforts were regularly employed to gauge and enhance public awareness. Further, there seemed to be continuous effort to keep the community and stakeholders heavily involved including OCTA's use of the Taxpayer Oversight Committee in accordance with Ordinance provisions.

Outreach Efforts provided Access to Information and Key Staff

Throughout our discussions and document review, we found that OCTA staff were committed to being transparent and accountable to the public through regular collaboration of multiple divisions efficiently informing and involving the public through decisions and actions that were openly communicated. In particular, several divisions at OCTA—namely, the Project Management Office, External Affairs, Capital Projects, and Government Relations—were deeply involved with properly informing the public as follows:

- Program Management Office was the primary monitor for the M2 Program, and was responsible for timely updates to ensure information posted to the public is accurate and consistent.
- External Affairs Marketing Department was predominately responsible for engaging and promoting the new M2 branding—known as OC Go—with expertise in graphic design, copy write support, web development, and marketing strategy.
- External Affairs Capital Project Outreach Department functioned as OCTA representatives and community spokespersons for individual highway and rail projects. The Capital Project Outreach project managers and the Capital Programs Rail and Highway project managers worked together when developing and sharing project information with the public.
- A Public Information Officer was the official spokesperson for the Chief Executive Officer and the OCTA Board, and was used to communicate items or issues related to the M2 Program.

Together, these departments coordinated and provided access to information through a variety of methods such as quarterly and annual reports, signage, website, updates and informational pop-ups. For instance, Capital Projects Outreach staff within External Affairs were involved for all phases of highway and rail projects employing specific beginning-to-end community outreach campaigns for each project and participated in community meetings. As project spokespersons, staff were responsible for creating content relevant to assigned projects as developed from direct knowledge and data gathered during individual project development team meetings where External Affairs staff focused on securing data that was consistent, accurate, and current. Further, recognizing that the methods of communication for various

groups was fluid and differed between demographics, OCTA conducted regular surveys to better understand how to best target each market and how the public received M2 information.

Outreach Methods were Similar to Others

During our assessment period, OCTA informed the public about M2 Programs and projects using typical outreach methods used by other entities including website, social media, quarterly reports, factsheets, media publications, blogs, and other various methods as shown in Exhibit 44. OCTA staff were committed to delivering accurate and relevant information to the public and external stakeholders.

EXHIBIT 44. VARIOUS COMMUNICATION AND OUTREACH METHODS USED TO INFORM ON M2

Types of Communication and Outreach Methods	OCTA	SANDAG	SFCTA	MAG	RTA
Direct Mail	✓	Not able to locate on website			
Social Media—General	✓	✓	✓	✓	✓
Social Media—Project Specific	✓	✓		Not able to locate	Not able to locate
Facebook, Twitter, and Instagram	✓	✓	Note ¹	✓	Note ²
YouTube Videos	✓	✓	✓	✓	✓
Advertising Signage	✓	✓	unknown	unknown	unknown
Email blasts to subscribers	✓	✓	✓	unknown	✓
Mobile Apps for real time traffic and detours	✓	✓	No	unknown	✓
Website- Projects Map	✓	✓	✓	✓	unknown
Press Release	✓	Not able to locate	✓	✓	✓
Website & Links to Social Media	✓	✓	✓	✓	✓
Newsletter	✓	Not able to locate	✓	✓	✓
Consistent Logo Specific to Sales Tax Measure	✓	✓			

Source: Individual websites for OCTA, SANDAG, SFCTA, MAG, and RTA viewed as of November 8, 2018.

Notes: ¹ SFCTA did not use Instagram, but used Facebook and Twitter. ² RTA primarily used Twitter.

Moreover, we found that OCTA seemed to use more personal face-to-face methods on a regular basis to enhance its outreach methods such as:

- Neighborhood door hangers
- Pop-up information booths in areas most effected by M2 projects
- Open houses and town halls
- Public meetings and neighborhood meetings
- Door-to-door business visits

In fact, having personal interactions with stakeholders and the public were important tenets of the M2 outreach strategy. As part of the I-405 Improvement Project, staff met with and held town halls with stakeholder groups—such as the Greater Irvine Chamber representing 800 business members and 70,000

employees—to coordinate efforts and ensure that surrounding businesses and organizations were aware of current and upcoming projects. In addition, the External Affairs Capital Projects team implemented a plan to visit 1,400 business located within the vicinity to meet, educate, and form strategic partnerships for open communication with parties potentially affected by the I-405 Improvement Project.

Additionally, as part of its 2014 Long Range Transportation Plan public improvement program and Renewed Measure M Comprehensive Ten-Year Review issued in 2015, OCTA sought to inform and educate the public about transportation improvements with the M2 Plan through infographics highlighting projects and major milestones, press releases, newsletters, and blogs.

Website was Informative, although Certain Features could be Enhanced

One of the most standard tools used by OCTA for transparency and public information—similar to other entities—was its website. We found that the OCTA website was aesthetically functional and user-friendly. Compared to other like entities, the quality of OCTA’s efforts was inline or better in several ways such as:

- **Creating awareness** through immediate displays of the OC Go logo and clear and concise information about the measure and what OCTA is doing by putting “local tax dollars to work.”
- **Ease of use** with clear features and labeling allowing easy navigation to information.
- **Quick links to publications** about and by OCTA such as press releases, annual reports, fact sheets, and project specific information including project overviews, details about phases and schedule of the project and detour maps.

To compare OCTA to other entities, the prior 2015 Triennial Assessment team conducted a thorough review OCTA’s website comparing user function and availability of project information between OCTA, the San Diego Association of Governments, and LA Metro. That assessment found that OCTA’s website had clear and accessible information, although the reviewers mentioned improvements could be made such as interactive map displays to provide project updates.

Social Media Followers Increased

As mentioned in earlier sections, OCTA used social media platforms such as Facebook, Twitter, and Instagram to promote initiatives, garner public perspective through surveys and contests, and inform and engage the public through media videos. For each platform, staff created individual pages to differentiate certain services provided such as OCTA, OC Bus, OC Metrolink and M2-funded project specific pages such as the I-405 Improvement Project—as such, staff managed multiple social media pages for Facebook, Twitter, and Instagram. Our review found that activity increased in terms of the number of followers, fans, and likes for each of the pages reviewed as described in the sections that follow.

- **Facebook:**
Out of the three platforms used, Facebook seemed to have the most activity. In fact, across the OCTA, OC Bus, and OC Metrolink services provided by OCTA, followers nearly doubled from 29,664 in Fiscal Year 2015-2016 to 41,419 followers by Fiscal Year 2017-2018—a 40 percent increase. Further, the number of fans for project-specific Facebook pages also increased by more than 200 percent, on average, with individual increases ranging from 25 percent to 405 percent as shown in Exhibit 45.

EXHIBIT 45. PROJECT-SPECIFIC FACEBOOK METRICS

Facebook Pages	Number of Fans as of July 2015	Number of Fans as of June 2018	Variance	% Change
5 South	1087	5439	4352	400.67%
5 Central	79	399	320	405.06%
OC Bridges	273	460	187	68.50%
405 Improvement Project	591	1764	1173	198.47%
CA-57	484	606	122	25.21%
91 Express Lanes	426	722	296	69.48%
Totals	2940	9390	6450	219.39%

Source: Data provided by External Affairs Capital Projects Outreach Team.

- Twitter:**
 In terms of Twitter social media, followers increased from 7,056 in Fiscal Year 2015-2016 to 8,009 followers by Fiscal Year 2017-2018 across the three Twitter pages for OCTA, OC Bus, and OC Metrolink—a growth of 13.5 percent. For pages related to specific projects, followers remained relatively constant over the period of our assessment other than increases shown for the newly created pages for the I-5 South and I-405 Improvement Projects.
- Instagram:**
 Of the three platforms maintained by OCTA, Instagram was used the least. Starting in Fiscal Year 2016-2017, OCTA began with 1,500 followers that grew to a total of 3,268 followers by Fiscal Year 2017-2018—an overall increase of nearly 118 percent in just one year.

Social Media Content could be Enhanced

With the increased use of social networking and mobile platforms as a source of information for the public, OCTA recognized the importance of communicating via social media. According to the External Affairs Division, OCTA actively updated their social media platforms to be more user and mobile friendly in part to make complex transportation-related information less technical to the public. While significant efforts seemed to be employed, some enhancements could be made to the social media content.

For instance, OCTA could more clearly promote the M2 Program—or OC Go rebranding—through its social media posts to its existing OCTA Facebook page or other social media usage. Based on our high-level review, OCTA’s posts did not provide many linkages to the M2 program or significant content about the transportation improvements and accomplishments funded through M2. There were posts related to environmental clean-up efforts or receiving the federal full funding grant agreement for the OC Streetcar, but there was no clear association to make a follower aware that the M2 Program funded the activity. In other OCTA Facebook posts, we saw content related to guided-hikes and tours that were likely made possible through the M2 environmental efforts to preserve open space; yet, there was no association between these hikes to the M2 program. Further, there were missed opportunities to communicate the purpose and goals of the M2 Program, OCTA’s role in administering the M2 Program, and accomplishments funded through the M2 Program through the existing social media sites.

Alternately, OCTA may want to consider having a separate Facebook page dedicated to M2. When we initially searched for a unique M2 page by performing a simple Google search for M2/Facebook, we were

directed to a private individual's personal page named "On the Go OC." While that page was unrelated to OCTA or M2, it could be very confusing to the public looking for the M2 Program—or the new OC GO rebranding—on social media.

Stakeholder Awareness and Public Perception Results Showed Improvement

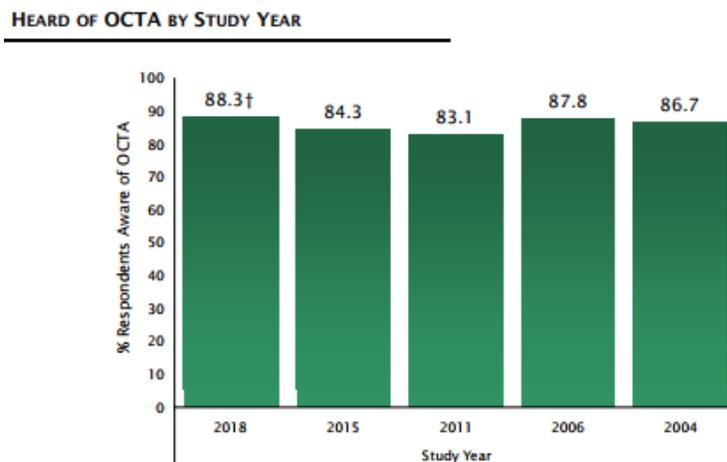
External Affairs frequently sought public opinion and feedback through various methods, including the use of surveys such as an Attitudinal and Awareness Survey conducted every two to five years. Between 2015 and 2018, OCTA conducted two Attitudinal and Awareness surveys that gauged overall public awareness and perceptions of OCTA as well as sought to understand Orange County residents travel behavior, use of transportation systems, communication preferences, and demographic factors. Overall, OCTA garnered a positive public perception with survey participants generally knowing what OCTA did as an organization and agreeing that transportation improvements were evident in Orange County. Additionally, the percent of survey respondents that had heard of M2 significantly increased between the 2015 and 2018 surveys.

Public Opinion of OCTA was Positive and Showed Slight Improvement

Although OCTA provided many transportation services and programs in addition to transit operations, staff also spent significant effort administering the M2 Program and its related projects. Thus, while it cannot be determined whether survey responses related to opinions of OCTA correlate to its efforts on the M2 Program or to other services provided, the results provided some indication of the public's perception on OCTA's performance.

Overall, there was an increase in awareness of OCTA since 2004 with the highest level of awareness reported in 2018. According to survey results, there was a four percent increase in awareness of OCTA, from 84.3 percent in 2015 to 88.3 percent in 2018 as shown in Exhibit 46—with the number of survey respondents remaining relatively stable. Moreover, 48.6 percent gave OCTA a favorable rating—a slight increase from 2015—with another 31.7 percent of respondents preferring not to answer.

EXHIBIT 46. NUMBER OF SURVEY RESPONDENTS AWARE OF OCTA

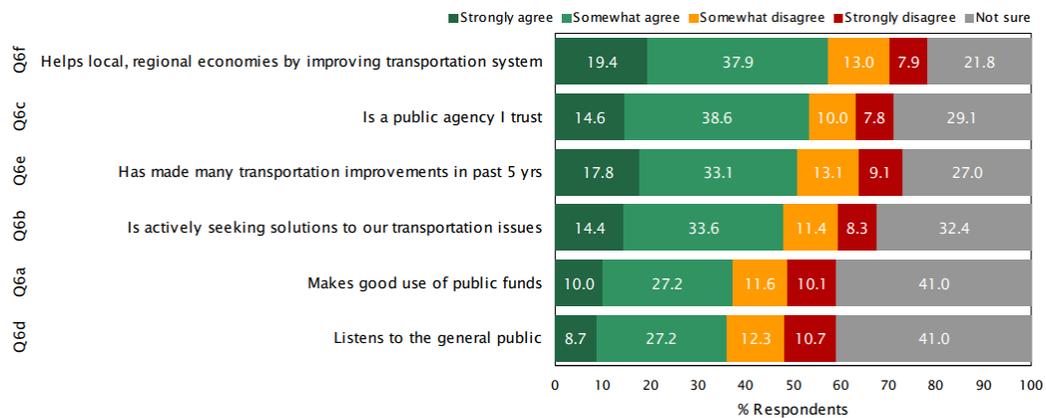


Source: OCTA Attitudinal and Awareness Survey 2018, Figure 7.

Survey results also indicated that 57.3 percent of respondents generally agreed that OCTA helped by improving transportation system, 48 percent believed that OCTA actively sought solutions for transportation issues, and 53.2 percent agreed that OCTA was an agency that can be trusted. Moreover, the percent of respondents who disagreed with those statements remained steady at approximately 20 percent in each area as shown in Exhibit 47.

EXHIBIT 47. SURVEY RESPONDENTS' AGREEMENT WITH STATEMENTS ABOUT OCTA

FIGURE 16 AGREEMENT WITH STATEMENTS ABOUT OCTA



Source: OCTA Attitudinal and Awareness Survey 2018, Figure 16.

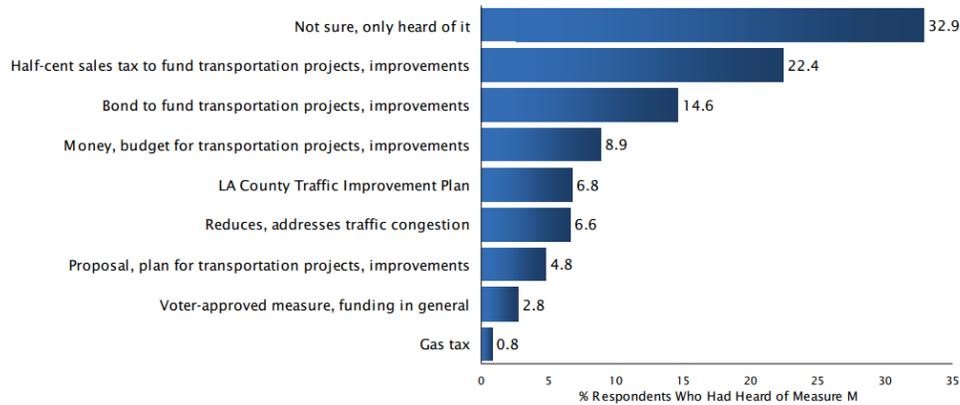
Taxpayers were more Aware of the M2 Program, Although Awareness was still Relatively Low

As part of its regular Attitudinal and Awareness Surveys, OCTA assessed the public’s awareness of the M2 Program among other items with the most recent survey occurring in 2018. Those results revealed a growth of 25.8 percent in the level of survey respondent awareness of the M2 Program increasing from 26.4 percent of respondents hearing of the measure in 2015 to 33.2 percent hearing of the measure by 2018—although the majority of respondents had not or were not sure that they had heard of M2. These results aligned with other entities’ measures we reviewed where the public did not necessarily correlate their individual sales tax measure with the transportation improvement efforts made available from that local funding despite advertising and marketing efforts.

Further, when asked to describe M2 in their own words, the majority of respondents (45.9 percent) described it as a half-cent sales tax, bond, or money to fund transportation projects and improvements. Another 32.9 percent reported that they were not sure what it was, but they had heard of it. While 6.8 percent of respondents confused the Orange County M2 Program with a similar program in Los Angeles County, the remaining respondents responded that it was a general voter-approved measure, proposal for transportation projects, or traffic congestion reduction effort as shown in Exhibit 48.

EXHIBIT 48. SURVEY RESPONDENTS' STATEMENTS ON KNOWLEDGE OF M2

FIGURE 49 MEASURE M DESCRIPTORS



Source: OCTA Attitudinal and Awareness Survey 2018, Figure 49.

To increase awareness and reduce possible confusion with a similar measure in Los Angeles County, OCTA approved moving forward with a rebranding of M2 as OC Go in September 2017 as well as developed signage guidelines and material development for each of the Ordinance areas—freeway, streets and roads, transit, and environmental projects. On the 2018 Attitudinal and Awareness Survey, OCTA asked respondents whether they had heard of OC Go prior to taking the survey. Results showed that 17 percent had heard of OC Go (introduced externally five months earlier) with another 5 percent unsure, and the majority of respondents (78 percent) not yet recognizing the OC Go brand.

While Survey Respondents were not always Aware of M2, the M2 Goal Related to Traffic Congestion will Address Reported Concerns

One of the survey questions asked respondents to rate important issues for Orange County. Results showed that respondents consistently placed traffic or traffic congestion among the top 4 issues since 2011 as shown in Exhibit 49. Although mentioned by far fewer respondents, public transportation, infrastructure, and maintenance ranked among the top 10 concern areas. While the previous section revealed that survey respondents were not always aware of M2, the Ordinance's overarching goals of reducing congestion correlated to the respondents' top interests.

EXHIBIT 49. SURVEY RESPONDENTS' RATINGS OF TOP ISSUES IN ORANGE COUNTY

TABLE 1 TOP MOST IMPORTANT ISSUES FACING ORANGE COUNTY BY STUDY YEAR

Study Year		
2018	2015	2011
Homelessness	Water issues, drought	Economy, unemployment
Real estate, housing	Not sure / Can't think of anything	Not sure / Can't think of anything
Not sure / Can't think of anything	Traffic	Education, schools
Traffic congestion	Economy, unemployment	Traffic
Cost of living	Real estate, housing	Public safety / Crime
Population, overcrowding	Cost of living	Budget, spending
Illegal immigration issues	Public safety	Real estate, housing
Public transportation	Population, overcrowding	Transportation infrastructure
Public safety	Education, schools	Population, overcrowding
Infrastructure maintenance, repair	Homelessness	Cost of living

Source: OCTA Attitudinal and Awareness Survey 2018, Table 1.

Surveys were conducted via phone or online, with an estimated survey time of 20 minutes. Because the length of the survey could be a deterrent for full completion, attention to questions, and comprehension of the question at hand, OCTA might want to consider restructuring their approach to use short small surveys on a more frequent basis, rather than one long survey every few years.

Taxpayer Oversight Committee Functions as Envisioned in the Ordinance

According to the M2 Ordinance, the Taxpayer Oversight Committee (TOC) was formed as a safeguard to ensure taxpayer revenues were spent in accordance with the Ordinance and Plan. In fact, the TOC was charged with annually reviewing and certifying whether expenditures were in compliance with the Ordinance and independently and discretionarily performed ongoing monitoring and reviews to ensure Measure M was implemented as approved by voters. Our assessment found that the TOC fulfilled its responsibilities and followed sound practices.

TOC fulfilled its Responsibilities

According to its “Responsibilities, Operating Practices, Objectives and Procedures,” the TOC had several key responsibilities as follows:

1. Vote on M2 Plan amendments
2. Hold annual public meeting to determine whether OCTA is proceeding in accordance with the Plan
3. Annually certify whether revenues have been spent in compliance with the Plan
4. Contract for independent analysis or examinations, as necessary

5. Determine local agency eligibility by reviewing Congestion Management Program, Mitigation Fee Program, Expenditure Reports, Traffic Signal Synchronization Plans, and Pavement Management Plans
6. Review triennial performance assessment

Based on our review of TOC meeting minutes, the TOC generally met on a bi-monthly basis and fulfilled their responsibilities as established in its procedures. Moreover, the TOC formed two subcommittees to help fulfill responsibilities—an Audit Subcommittee and an Annual Eligibility Review Subcommittee. Meeting minutes demonstrated a general commitment from both TOC and OCTA to follow set procedures and operate in an open and transparent environment where issues were brought to light and discussed as necessary.

Selection Process was Robust and more Independent than Others

Each year, new members were recruited and selected to fill upcoming vacancies for any expiring terms. Members were screened and qualified by the Grand Jurors Association of Orange County (GJAOC). The GJAOC formed a five-member Taxpayer Oversight Committee Selection Panel (Panel) and screened all applications, reviewed conflict of interest forms provided with applications, conducted interviews, and recommended candidates for membership on the TOC. Once recommended, the candidates were grouped by supervisorial district and selected through a public lottery process.

For example, in 2018, the Panel screened 42 applications from interested citizens and interviewed 32 candidates to fill four vacancies. After a detailed review of qualifications, ability, and availability of the candidates, the Panel recommended 18 for possible membership—members were selected during a public “lottery” with candidate names drawn from a hat in a public setting. The first name drawn from each district became the selected member, with remaining names kept on a contingency list if needed to fill future vacancies.

When compared with other similar entities, we found OCTA’s process more independent than others where taxpayer oversight or accountability committee members were specifically selected to represent member jurisdictions by the Board in place over those entities including the Citizen Advisory Committee in San Francisco, California and the Citizen Accountability for Regional Transportation Committee in Tucson, Arizona.

TOC Expertise was Similar to some Entities Reviewed

To be considered for TOC membership, candidates were evaluated on the basis of their commitment and ability to participate in meetings, lack of financial conflicts of interest, and demonstrated interest and history of participation in community activities—with a special emphasis on transportation-related activities. While we found that TOC expertise complied with the Ordinance, the Ordinance did not require specific types of experience—similar to several other entities reviewed where only a general knowledge of transportation was requested.

Yet, certain other entities required greater levels of diversity in expertise. For instance, in San Diego, California, the experience requirements for the San Diego Association of Governments’ Independent

Taxpayer Oversight Committee members were more restrictive than OCTA requiring a specific breadth of expertise in a variety of areas. Specifically, the San Diego Association of Governments required one committee member to be a “licensed architect, civil engineer, or traffic engineer with demonstrated experience of ten years or more in the fields of transportation and/or urban design” and another committee member to possess experience in the field of “municipal/public finance and/or budgeting” among other areas of expertise in real estate, right of way, and environmental sciences.

Moreover, the Independent Taxpayer Oversight Committee for local Measure A in Sacramento, California required members possessing credentials including a licensed civil engineer, a transportation planner, a manager of large development or construction projects, and a senior-level professional in municipal auditing, finance or budget. Likewise, a peer oversight committee in Marin County, California required certain members to have expertise in planning, the environment, and paratransit.

Structuring a diverse committee with robust expertise related to transportation matters at hand helps with understanding and guiding the risks and activities of complex transportation projects. Thus, OCTA could consider, at a minimum, adding a short biography on its website highlighting each TOC member’s experience and expertise to enhance transparency of those providing oversight.

Internal Audit Function Provides Additional Layer of Oversight and Accountability

Complementing the TOC function and requirements for annual financial audits, OCTA also used its internal audit function to assist in “evaluating the effectiveness and efficiency of projects, programs, and operations, while ensuring that adequate controls and safeguards are in place to protect the Orange County Transportation Authority’s assets and resources.” While internal audits and related activities were varied and related to both M2 and general OCTA areas, the internal audit function also provided information to the TOC Audit Subcommittee to assist in their M2 expenditure oversight responsibilities.

For instance, during our assessment period, the internal audit function assisted in the development of agreed-upon procedures for testing compliance with M2 Local Fair Share, Project U Senior Mobility Program, and Senior Non-Emergency Medical Transportation Expenditures. Additionally, audits conducted related to the M2 Program included reviews of contract compliance and oversight controls of project management on the I-405 Improvement Project, right-of-way acquisition activities on Project K, and local jurisdiction compliance with M2 Ordinance and policies of the Comprehensive Transportation Funding Program projects to name a few.

Other more overarching audits still benefited the M2 Program as they reviewed general operational areas that touched both M2 projects and non-M2 efforts. Those audits included reviews of prices proposed by architectural and engineering firms to ensure fairness and reasonableness in addition to grant close-out processes to ensure propriety of expenditures.

Recommendations

To augment its strong transparency and accountability, OCTA could consider the following:

7. Enhance awareness of the M2/OC Go Program, M2-funded projects, and related M2 accomplishments on social media through posts on currently existing OCTA social media pages or through using separate social media dedicated to M2.
8. Add a short biography on the OCTA website highlighting Taxpayer Oversight Committee members' experience and expertise to enhance transparency of those providing oversight.

Appendix A: Detailed Assessment Methodology

As part of the M2 Ordinance, OCTA must undergo a performance assessment at least once every three years to evaluate efficiency, effectiveness, economy, and program results of OCTA in satisfying the provisions and requirements of the Ordinance including its transportation investment plan. Three performance assessments have been completed covering program activities since Fiscal Year 2006-2007.

Sjoberg Evashenk, was contracted by OCTA to conduct the fourth performance assessment for the three-year period covering July 1, 2015 through June 30, 2018, except where we needed to obtain contextual or underlying support data from periods prior to July 1, 2015 or more recent information to fully analyze program activities or practices.

Specifically, OCTA asked Sjoberg Evashenk to examine OCTA's performance on a range of activities surrounding the planning, management, and delivery of M2 Program components to ensure necessary tools and practices are in place to successfully implement the plan over its remaining life. This included, but was not limited to, a review of OCTA's:

- Effectiveness and efficiency in developing and implementing the M2 projects and programs;
- Approach to program management with regard to addressing prior assessment findings, interdivisional coordination, progress reporting mechanisms, function and functionality of the M2 program management office, and security over cyber-attacks;
- Practices to ensure compliance with monitoring and reporting on M2 Ordinance provisions.
- Fiscal responsibilities when funding local grants, reporting on expenditures, and established practices surrounding long-term financial and investment decisions given anticipated revenue shortfalls; and
- Transparency and accountability in informing the public and decision-makers on M2 matters, public involvement when planning for M2 projects, and functioning and functionality of taxpayer safeguards such as the Taxpayer Oversight Committee.

To fulfill these objectives, we conducted a series of tasks involving data mining and analysis, documentary examinations, peer comparisons, and source data verification as follows. Note for peer comparisons, the agencies considered included San Diego Association of Governments in San Diego California, San Francisco County Transportation Authority in San Francisco California, Riverside County Transportation Commission in Riverside County California, Maricopa Association of Governments in Maricopa County, Arizona, and Regional Transportation Authority in Pima County Arizona.

To assess OCTA's effectiveness and efficiency in developing and implementing M2 projects and programs, we performed the following:

- Reviewed various delivery plans including the Early Action Delivery Plan, M2020 Plan, Updated Next 10 Delivery Plan, Capital Project Selection Guiding Principles, the M2 Ordinance and Transportation Improvement Plan, as well as other underlying documents to gain an understanding of the full complement of programs, projects, and promises made.

- Using M2 progress reports such as the M2 Quarterly Reports, M2 website, capital project documents, Primavera schedules, Program Management Office tracking files, and other available budget and cost data to assert the status of the M2 programs and projects as of June 30, 2018.
 - This included an assessment of how and whether M2 Program goals were met by capturing and trending performance outcome data such as for congestion relief and pavement condition using Caltrans PeMS, U.S. Census and other available data. Where applicable and relevant, compared M2 performance to other similar entities.
- For a sample of projects, verified scope for completed projects aligned with intent of the M2 Ordinance by reconciling the improvement made to the recommendations from the final Program Environmental Impact Report that served as the guiding document in developing the M2 Ordinance.
- Compiled a universe of M2 programs and capital projects (see Appendix B) to compare budgets to actuals for both costs and schedules, as well as identify the current status of projects. For projects where variances were greater than 30 percent or 300 days, reviewed further documentation to conclude on the reasonableness of the variances.
- Reviewed program and construction management procedures for elements found in leading practices as determined by the Project Management Institute's Construction Extension to the Project Management Body of Knowledge Guide, Construction Management Association's Construction Management Standards of Practice, Federal Highway Administration guidance, and Caltrans Local Assistance Manual.
- Tested a sample of M2 contract files for compliance with OCTA procurement guidelines as established in its Contracts Administration and Materials Management manual.
- Reviewed successes and challenges with the environmental mitigation program.

To understand OCTA's approach to program management, we:

- Reviewed OCTA's Program Management Office charter and compared its functions to similar entities.
- Compared the M2 management organizational structure to similar entities to identify differences and similarities.
- Reviewed all prior performance assessments reports to determine the current status of prior recommendations, whether findings were adequately addressed, or if there were any carryover items or follow-ups needed.
- Assessed OCTA's processes for calculating and monitoring administrative costs to ensure limits complied with the M2 Ordinance.
- Reviewed OCTA's cyber security policies, procedures, and protocols, and determined whether those aligned with leading practices established by the United States Department of Commerce National Institute of Standards and Technology, United States Department of Transportation Cybersecurity, California Office of Information Security, Information Systems Audit and Control Association , among others.

To evaluate practices in place to ensure compliance with M2 monitoring and reporting provisions, we:

- Identified all compliance areas required by the M2 Ordinance and reviewed OCTA's Ordinance Compliance Tracking Matrix for completeness.
- Compared M2 local eligibility guidelines and grant practices with other similar entities. This included testing of a sample of (1) approved grants for evidence of a robust selection process including availability of supporting documentation such as scoring sheets, technical reviews, and overall adherence to grant purpose and proposed project as well as (2) grant reimbursements for rigor in reviewing requests for adequate support, mathematical accuracy, verification of eligible costs and submission of required reports.
- Verified capital project schedule and cost data presented to the public reconciled with and across internal reports.

To evaluate fiscal responsibilities and decisions made by OCTA to-date, we:

- Assessed and compared OCTA's management of sales tax revenues with similar entities with regard to revenue projection methodologies, leveraging of funds, debt financing, investment practices, and cash flow planning.
- Determined whether fiscal practices in place allow for the delivery of the entire program within the M2 prescribed timeframe. This included a review of safeguards put in place to mitigate for impacts of future projected revenue shortfalls.

To review OCTA's public transparency and accountability, and involvement of the public when planning for M2 projects, as well as the functioning of the Taxpayer Oversight Committee, we:

- Reviewed outreach tools employed and content provided to inform the public about M2 programs and projects. Summarized and assessed surveys of public awareness and attitude towards M2 looking for trends and compared OCTA practices to similar entities.
- Determined whether the Taxpayer Oversight Committee functions as intended by the Ordinance by reviewing meeting minutes for items discussed or issues raised.
- Compared the Taxpayer Oversight Committee to similar entities in terms of selection process, structure, and expertise.
- Assessed OCTA's internal audit function with regard to providing an additional layer of oversight.

Finally, we also met with OCTA executives, managers, staff, and consultants over areas related to planning, finance/administration, internal audit, capital programs, and external affairs on multiple occasions to understand, assess, and vet practices employed implementing the M2 Program. Additional M2 Program stakeholders were interviewed to garner views and perspective, including representatives from the Southern California Association of Governments, Auto Club of SoCal, Rancho Mission Viejo, Citizen Advisory Committee, Environmental Oversight Committee, Taxpayer Oversight Committee, Technical Advisory Committee, and Caltrans. We also made multiple requests for an interview with a representative from the Orange County Taxpayer Association, but we were unable to schedule a meeting during the review period.

Appendix B: Universe of M2 Projects

Using the M2 Ordinance and Transportation Improvement Plan, M2 Quarter 4 Fiscal Year 2017-2018 Report, internal OCTA project status reports and schedules through June 2018, and PMO internal progress tracking worksheets, the status of M2 Program components is summarized in Exhibit 50 that follows. Due to the complex nature of the information, additional clarification is provided in the bullets that follow.

- “Completion Status as of June 30, 2018” column:
 - Dates in “green” font highlight all projects open to traffic.
 - Dates in “red” font represents projects that have not yet completed the environmental phase or have not yet started. Thus, cost shown do not include design or construction cost estimates. Similarly, the dates shown represent the environmental document completion date only and not completion of the entire planned improvement.
 - All other dates represent the current construction completion estimate.
- “Current Cost (Millions, Year of Expenditure (YOE)) column: Amounts shown represent total expenditures for completed projects. For projects in-progress, amounts shown are inclusive of actual expenditures plus future costs.

Exhibit 50. Universe of M2 Projects

24 Project Letters	Project Title	Ordinance Budget (Millions, 2005\$)	Segments	Current Baseline (Millions, YOY)	Current Estimate (Millions, YOY)	Dollar Variance	Percent Variance	Completion Status as of June 30, 2018	Project Scope
Freeways									
I-5 Santa Ana Freeway Interchange Improvements									
A	Santa Ana Freeway (I-5) Improvements between Costa Mesa Freeway (SR-55) and "Orange Crush" Area (SR-57)	\$ 470.0	not applicable	\$ 38.12	\$ 41.66	\$ 3.54	9%	Oct-20	add new HOVL; both directions; 3 miles
B	Santa Ana Freeway (I-5) Improvements from the Costa Mesa Freeway (SR-55) to El Toro "Y" Area	\$ 300.2	not applicable	\$ 9.56	\$ 9.15	\$ (0.41)	-4%	Apr-19	new GPL, both directions; 9 miles
I-5 Santa Ana Freeway/San Diego Freeway									
C	San Diego Freeway (I-5) Improvements South of the El Toro "Y"	\$ 627.0	I-5: SR-73 to Oso Pkwy	\$ 151.87	\$ 188.12	\$ 36.25	24%	Dec-24	GPL, both directions; 2.2 miles; new interchange
			I-5: Oso Pkwy to Alicia Pkwy	\$ 196.17	\$ 188.64	\$ (7.53)	-4%	Oct-23	new GPL; both directions; 2.6 miles; reconstruct interchange
			I-5: Alicia Pkwy to El Toro Rd	\$ 133.55	\$ 164.17	\$ 30.62	23%	Jun-24	new GPL, extend HOVL; both directions; 1.7 miles
			I-5: SR-73 to El Toro Rd Landscape	n/a project not yet started	\$ 12.37	n/a project not yet started		Dec-25	replace landscape, both directions; 6.5 miles; reconstruct interchange
			I-5: Pico to Vista Hermosa	\$ 113.01	\$ 85.85	\$ (27.16)	-24%	Jul-18	new HOVL, both directions; 0.7 miles; reconstruct interchange
			I-5: Vista Hermosa to PCH	\$ 75.63	\$ 71.43	\$ (4.20)	-6%	Jul-17	new HOVL, both directions; 2.5 miles
			I-5: PCH to San Juan Creek Rd	\$ 70.67	\$ 71.19	\$ 0.52	1%	Jul-18	new HOVL, both directions; 2.5 miles

24 Project Letters	Project Title	Ordinance Budget (Millions, 2005\$)	Segments	Current Baseline (Millions, YOE)	Current Estimate (Millions, YOE)	Dollar Variance	Percent Variance	Completion Status as of June 30, 2018	Project Scope
D	Santa Ana Freeway/San Diego Freeway (I-5) Local Interchange Upgrades ²⁸	\$ 258.0	I-5/EI Toro Road Interchange	\$ 5.37	\$ 5.37	\$ 0	0%	Nov-19	reconstruct interchange
			I-5/Ortega Highway Interchange	\$ 90.95	\$ 75.12	\$ (15.83)	-17%	Jan-16	reconstruct interchange
SR-22 Garden Grove Freeway									
E	Garden Grove Freeway (SR-22) Access Improvements	\$ 120.0	Improvements at 3 interchanges along SR-22 completed in 2008 as "bonus project" paid for by M1						
SR-55 Costa Mesa Freeway									
F	Costa Mesa Freeway (SR-55) Improvements	\$ 366.0	SR-55: I-405 to I-5	\$ 410.91	\$ 410.91	\$ 0	0%	Aug-25	new GPL, HOVL, both directions; 8 miles
			SR-55: I-5 to SR-91	\$ 5.60	\$ 5.60	\$ 0	0%	Jan-20	new GPL, both directions; 5 miles; operational improvements only
SR-57 Orange Freeway									
G	Orange Freeway (SR-57) Improvements	\$ 258.7	SR-57: NB Orangewood to Katella	\$ 2.59	\$ 2.59	\$ 0	0%	Jan-19	new GPL, NB; 1 mile
			SR-57: Katella to Lincoln	\$ 78.72	\$ 38.00	\$ (40.73)	-52%	Apr-15	New GPL, NB; 2.8 miles
			SR-57: Orangethorpe to Yorba Linda	\$ 80.25	\$ 52.30	\$ (27.85)	-35%	Nov-14	new GPL, NB, widen existing lanes to standard widths; 2.4 miles
			SR-57: Yorba Linda to Lambert	\$ 79.33	\$ 54.06	\$ (24.49)	-31%	May-14	new GPL, NB, widen existing lanes to standard widths; 2.5 miles
			SR-57: Lambert to Tonner Canyon	\$ -	\$ 5.00	\$ 5.00	n/a ED not yet completed	Jan-23	new GPL; NB, 2.5 miles
SR-91 Riverside Freeway									
H	Riverside Freeway (SR-91) Improvements from the Santa Ana Freeway (I-5) to the Orange Freeway (SR-57)	\$ 140.0	SR-91: WB I-5 to SR-57	\$ 78.09	\$ 58.95	\$ (18.40)	-24%	Jun-16	new GPL, WB; 4.5 miles
I	Riverside Freeway (SR-91) Improvements from Orange Freeway (SR-57) to the Costa Mesa Freeway (SR-55) Interchange Area	\$ 416.5	SR-91: Tustin Avenue to SR-55 Interchange	\$ 49.92	\$ 42.63	\$ (7.16)	-14%	Jul-16	new AUXL, WB; 2 miles
			SR-91: SR-57 to SR-55	\$ 8.87	\$ 8.87	\$ 0	0%	Aug-19	new GPL, both directions; 5 miles
J	Riverside Freeway (SR-91) Improvements from Costa Mesa Freeway (SR-55) to the Orange/Riverside County Line (RCL)	\$ 352.0	SR-91: SR-241 to SR-71	\$ 104.53	\$ 57.77	\$ (46.76)	-45%	Jan-11	new GPL, EB, widen existing lanes to standard widths; 6 miles
			SR-91: SR-55 to SR-241/East of Weir Canyon	\$ 128.40	\$ 79.74	\$ (48.66)	-38%	Mar-13	new GPL, both directions, widen existing lanes to standard widths; 6 miles
			SR-91: SR-241 to RCL	n/a project not yet started				new GPL	
I-405 San Diego Freeway									
K	San Diego Freeway (I-405) Improvements between the I-605 Freeway in Los Alamitos Area and Costa Mesa Freeway (SR-55)	\$ 1,072.8	I-405: SR-55 to I-605 Design-Build	\$ 1,900.00	\$ 1,900.00	\$ 0	0%	May-23	new GPL, both directions; 14 miles; new Express lanes, both directions; 16 miles ²⁹
L	San Diego Freeway (I-405) Improvements between Costa Mesa Freeway (SR-55) and Santa Ana Freeway (I-5)	\$ 319.7	I-405: I-5 to SR-55	\$ 6.83	\$ 6.99	\$ 0.16	2%	Aug-18	new GPL, both directions; 8.5 miles

²⁸ There are five interchanges under Project D—three are completed as part of Project C improvements and the remaining two are completed under Project D.

²⁹ The GPL portion of this project is a M2 project funded with sales tax dollars (\$1.425 Billion). The Express Lanes are externally funded primarily through a low interest federal loan (TIFIA) to be paid back with toll revenues (\$475 Million not tied or guaranteed by M2).

24 Project Letters	Project Title	Ordinance Budget (Millions, 2005\$)	Segments	Current Baseline (Millions, YOE)	Current Estimate (Millions, YOE)	Dollar Variance	Percent Variance	Completion Status as of June 30, 2018	Project Scope
I-605 Freeway Access Improvements									
M	I-605 Freeway Access Improvements	\$ 20.0	I-605/Katella Ave. IC	\$ 1.82	\$ 1.82	\$ 0	0%	Nov-18	modify interchange ramps and lane configurations
A-M	Freeway Mitigation	\$ 243.5	Supports all Projects A – M.	Restore and preserve habitat impacted by freeway construction. To-date, 1,300 acres have been acquired and preserved as open space, 350 acres restored, and removed 14 dams.					
Freeway Service Patrol									
N	Freeway Service Patrol	\$ 150.0	not applicable	M2 funded program to assist stranded motorists on the freeway network. To-date, approximately 69,265 assists have occurred.					
	Sub-Total Freeway	\$4,870.9		\$ 3,820.8	\$ 3,640.1				
Streets & Roads									
O	Regional Capacity Program	\$ 1,132.8	Raymond Ave. Undercrossing	\$ 77.19	\$ 128.41	\$ 51.22	66%	May-18	new rail undercrossing
			State College Blvd. Undercrossing	\$ 73.65	\$ 96.97	\$ 23.32	32%	Jan-18	new rail undercrossing
			Placentia Ave. Undercrossing	\$ 78.23	\$ 64.55	\$ (13.68)	-17%	Dec-14	new rail undercrossing
			Kraemer Blvd. Undercrossing	\$ 70.43	\$ 63.82	\$ (6.61)	-9%	Dec-14	new rail undercrossing
			Orangethorpe Ave. Overcrossing	\$ 117.38	\$ 108.60	\$ (8.78)	-7%	Oct-16	new rail overcrossing
			Tustin Ave./Rose Dr. Overcrossing	\$ 102.99	\$ 98.25	\$ (4.74)	-5%	Oct-16	new rail overcrossing
			Lakeview Ave. Overcrossing	\$ 70.17	\$ 110.64	\$ 40.47	58%	Jun-17	new rail overcrossing
			Orange County Master Plan for Arterial Highways (MPAH) Local Match	Provides improvements on Orange County's MPAH. Awarded to locals via competitive grants, requiring local match. To-date, approximately 146 projects totaling \$295 million in M2 funds have awarded through 8 calls for projects.					
P	Regional Traffic Signal Synchronization Program	\$ 453.1	not applicable	Provides funding to implement signal synchronization projects to coordinate signals and reduce congestion. Awarded to locals via competitive grants, requiring local match. To-date, approximately 103 projects totaling \$98 million in M2 funds have been awarded through 8 calls for projects.					
Q	Local Fair Share Program	\$ 2,039.1	not applicable	Awarded on a formula basis to all locals on a bi-monthly basis. To-date, M2 has provided \$342.4 million.					
	Sub-Total Streets & Roads	\$3,625.0		\$ 590.0	\$ 671.2				
Transit Projects									
R	High Frequency Metrolink Service	\$1,129.8	Sand Canyon Grade Separation	\$ 55.60	\$ 61.87	\$ 6.27	11%	Jan-16	Reconstruct undercrossing.
			Rail-Highway Grade Crossing Safety Enhancement	\$ 94.43	\$ 90.42	\$ (4.01)	-4%	Dec-11	50 at-grade rail-highway crossings with focus on safety improvements (new medians, new gate arms, upgrading traffic signals, new pedestrian swing gates, etc.)
			17th Street Grade Separation - LOSSAN (Environmental Only)	\$ 3.24	\$ 2.48	\$ (0.76)	-23%	Nov-17	Construct highway-rail grade separation in City of Santa Ana.
			Laguna Niguel/San Juan Capistrano Passing Siding	\$ 25.27	\$ 30.83	\$ 5.56	22%	Feb-21	Construct 1.8 miles of new passing siding track adjacent to existing main track.
			Laguna Niguel/Mission Viejo Station Surface Parking Lot	\$ 4.34	\$ 4.14	\$ (0.20)	-5%	Oct-13	Construct parking lot.
			Laguna Niguel/Mission Viejo Station ADA Ramps	\$ 3.55	\$ 5.18	\$ 1.63	46%	Sep-17	Upgrade station facilities to be ADA compliant.

24 Project Letters	Project Title	Ordinance Budget (Millions, 2005\$)	Segments	Current Baseline (Millions, YOY)	Current Estimate (Millions, YOY)	Dollar Variance	Percent Variance	Completion Status as of June 30, 2018	Project Scope
			Placentia Metrolink Rail Station & Parking Structure	\$ 34.83	\$ 34.82	\$ (0.01)	0%	Jan-21	Construct new station including parking structure, bus stop, and passenger loading zone.
			Anaheim Canyon Station	\$ 27.91	\$ 27.91	\$ 0	0%	Mar-21	Construct 3400 linear feet of second station tracks, new second platform and upgrade parking lot to be ADA compliant.
			Orange Station Parking Improvements	\$ 33.18	\$ 32.29	\$ (0.89)	-3%	Feb-19	Construct new parking structure.
			Tustin Station Parking Expansion	\$ 17.60	\$ 15.39	\$ (2.21)	-13%	Sep-11	Construct new parking structure.
			Fullerton Station Parking Expansion	\$ 41.97	\$ 29.76	\$ (12.21)	-29%	Jun-12	Construct new parking structure.
			Fullerton Transportation Center Elevator Upgrades	\$ 3.50	\$ 4.60	\$ 1.10	31%	Dec-18	Modify pedestrian bridge, add elevators.
			San Clemente Beach Trail Safety Enhancements	\$ 6.01	\$ 5.00	\$ (1.01)	-17%	Mar-14	Enhancing safety features at pedestrian crossings (audible warning system, new pedestrian swing gates, fencing, widening crossing surface, etc.).
S	Transit Extension to Metrolink	\$ 1,000.0	OC Streetcar	\$ 310.44	\$ 418.86	\$ 108.42	35%	Aug-21	Construct 4.15-mile streetcar line connecting the SARTC to Downtown Santa Ana.
			Bus and Station Van Extension Projects	Projects intended to increase frequency of service to connect to Metrolink. Four projects totaling \$730,000 has been awarded through one call for projects..					
T	Convert Metrolink Station(s) to Regional Gateway that Connect Orange County with High-Speed Rail System	\$ 57.9	Anaheim Regional Transportation Intermodal Center (ARTIC)	\$ 227.36	\$ 232.19	\$ 4.83	2%	Dec-14	Construct multi-modal transit center serving existing rail and bus and future CA high-speed train.
U	Expand Mobility Choices to Seniors and Persons with Disabilities	\$ 392.8	Senior Mobility Program	Projects intended to expand transportation services for seniors. 1,955,000 boardings have been provided with M2 paying for \$17.4 million.					
			Senior Non-Emergency Medical Transportation Program	Projects intended to supplement existing non-emergency medical transportation to seniors. 727,000 boardings have been provided with M2 paying for \$19 million.					
			Fare Stabilization Program	Program intended to stabilize fares and provide fare discounts to seniors and persons with disabilities. 96 million boardings have been supported with M2 paying for \$22 million.					
V	Community Based Transit/Circulators	\$ 226.5	Projects intended to provide local bus transit service in areas not adequately served by regional transit. Awarded to locals via competitive grants with funding depended on meeting ridership requirements. Approximately 29 projects and 7 planning studies have been awarded, totaling \$43.6 million in M2 funds have awarded through 3 calls for projects.						
W	Safe Transit Stops	\$ 25.0	Projects intended to improve passenger amenities at the 100 busiest transit stops across the County. Awarded to locals via competitive grants. \$1.6 million has been awarded to locals supporting over 51 projects through one call for projects.						
	Sub-Total Transit	\$ 2,832.0		\$ 889.2	\$ 995.7				
Environmental Cleanup									
X	Environmental Cleanup	\$ 237.2	Tier 1	Awarded to locals via competitive grants. There have been 7 rounds of funding under the Tier 1 grants program with awards totaling \$20.1 million for 154 projects.					
			Tier 2	Awarded to locals via competitive grants. There have been 2 rounds of funding under the Tier 2 grants program with awards totaling \$27.9 million for 22 projects.					
	Total	\$11,565.1		\$ 5,300.4	\$ 5,307.0				

Source: Generated from M2 Ordinance, M2 Quarterly Progress Reports, OCTA Internal Monthly Status Reports, and M2 Program Website.

Notes: Variance columns=current baselines minus current costs. I=interstate. SR=state route. HOVL=high-occupancy vehicle lane, GPL=general purpose lane. AUXL=auxiliary lane. WB=west bound. EB=east bound. Miles shown represent the mileage count in one-direction.

**July 2015 - June 2018 M2 Performance Assessment
Recommendations and Action Plan**

Consultant Recommendation		OCTA Response
Chapter 1: Program Goals Have Been Met Thus Far		
1.	Consider identifying measures to capture progress towards each of the six key M2 Ordinance goals and on a periodic basis report on how results achieved correlate to those goals - relieving congestion, fixing potholes and resurfacing streets, reducing air and water pollution, synchronizing traffic lights, expanding Metrolink and providing transit at reduced rates to seniors/persons with disabilities.	The M2 Ordinance specifies projects and programs to be implemented and as such, OCTA reports on progress towards completion and delivery of projects and programs. Staff sees added value in reporting on the goals as suggested and will investigate the best approach for reporting using one of OCTA's existing communication pieces such as possibly the M2/OC Go Annual Report.
Chapter 2: OCTA Demonstrated Strong Program Management		
2.	Implement in-progress plans to update cyber security training policy and require annual training as well as establish a timeline for implementation.	OCTA is in progress updating the security training policy. The policy will include an established timeline and annual training requirements.
3.	Regularly monitor the training status of all employees to ensure cybersecurity training is complete within the required timeframe including defining specific roles and responsibilities, timelines and frequency of monitoring, verification methods, and documentation of status.	A training program that allows for the tracking and targeting of employee training would be beneficial as a best practice for OCTA. Staff will update our current training program/policy and make recommendations for approval and implementation.
Chapter 3: While Still Early in the M2 Life Cycle, Substantial Progress was Made Across All Program Areas		
4	Create a methodology to gather quantitative accomplishment data and track project outputs and accomplishments against Transportation Investment Plan anticipated goals.	Staff will research options for addressing this recommendation and see what modifications can reasonably be made to achieve this utilizing the existing systems in place.
5.	Demonstrate a stronger link between capital project selection guiding principles and the actual implementation order for capital projects by formally memorializing discussions and decisions made.	Staff reports and follows guiding principles on capital program delivery. These decisions are incorporated into board adopted delivery plans. Staff will more formally reference decisions to ensure they are more appropriately memorialized.
Chapter 4: OCTA Approaches Ensured Compliance with M2 Ordinance		
6.	Include additional links, where appropriate, to underlying support documentation to validate compliance efforts and activities tracked and evaluated in the Program Management Office's Compliance Matrix.	Staff began incorporation of additional links as the annual review of the Ordinance Matrix was in progress during this review.
Chapter 5: OCTA's Sound Fiscal Practices Helped Mitigate Risks Associated with Rising Costs and Decreased Sales Tax Revenue – No Recommendation		
Chapter 6: OCTA was Transparent and Accountable to The Public		
7.	Enhance awareness of the M2/OC Go Program, M2 funded projects, and related M2 accomplishments on social media through posts on currently existing OCTA social media pages or through using separate social media dedicated to M2.	Staff will ensure incorporation as appropriate.
8.	Add a short biography on the OCTA website highlighting TOC members' experience and expertise to enhance transparency of those providing oversight.	Staff will incorporate this recommendation on OCTA's website.

Acronyms

M2 – Measure M2 / OCTA – Orange County Transportation Authority / TOC – Taxpayers Oversight Committee

MEASURE M2 PERFORMANCE ASSESSMENT REPORT

MARCH 4, 2019

ORANGE COUNTY TRANSPORTATION AUTHORITY

Presented by:
Catherine Brady
Lien Luu

ASSESSMENT FOCUS

- **Triennial Performance Assessment required by M2 Ordinance — 4th assessment to date**
- **Main areas of focus included project delivery, program management & responsiveness, compliance, fiscal responsibility, and transparency & accountability.**
- **Additional review of status of prior assessment findings, performance of OCTA's delivery of M2 projects and programs, and opportunities for improvement.**

OVERALL SUMMARY AND PROGRAM GOALS

RESULTS

- On track with meeting primary goals of M2 Ordinance and fulfilling promises.
- Significant progress made in all M2 areas.
- Incorporated many leading industry practices.
- Sound Fiscal Practices in place.
- Aligns well with peers reviewed.

RECOMMENDATIONS

- ✓ Consider identifying measures to capture progress towards M2 Goals on a periodic basis

PROGRESS ON M2 GOALS

#	M2 Goal	Results Thus Far (as of June 30, 2018)
1	Relieve Congestion	<ul style="list-style-type: none"> • Congestion increased overall, but so did Vehicle Miles Traveled. • Delay is down on SR-91.
2	Fix Potholes & Resurface Streets	<ul style="list-style-type: none"> • PCI improved from 77 in 2014 to 79 in 2016—best in State.
3	Expand Metrolink Rail	<ul style="list-style-type: none"> • 8 of 13 currently identified expansion projects were completed. • Includes 50 at-grade rail crossing enhancements. • OC Streetcar ready to start construction.
4	Provide Reduced Cost Transit Services to Seniors and Persons with Disabilities	<ul style="list-style-type: none"> • \$22 million provided to stabilize fares. • \$36.4 million provided to projects to expand senior transportation services. • 6.8 million reduced fare passes issued to seniors FY15/16 to FY17/18. • 2.7 million reduced fare passes issued to persons with disabilities FY15/16 to FY17/18. • 96 million fare stabilization program-related boardings provided.
5	Synchronize Traffic Lights	<ul style="list-style-type: none"> • 2,258 traffic lights synchronized.
6	Reduce Air and Water Pollution and Protect Local Beaches through Cleanup of Roadway Oil Runoff	<ul style="list-style-type: none"> • 6.2 million cubic feet of trash removed. • 1,300 acres preserved as open space and 350 acres restored.

STRONG PROGRAM MANAGEMENT EXISTS

RESULTS

- PMO oversight is strong and more robust than peers reviewed.
- Clear roles and functions ensured appropriate oversight and buy-in.
- Continuous improvement valued and prior assessments findings implemented.
- Administrative costs closely monitored and compliant.
- Strong framework and leading practices in place over cybersecurity.

RECOMMENDATIONS

- ✓ Implement in-progress plans to update cybersecurity training policy and require annual training.
- ✓ Regularly monitor cybersecurity training status including identification of responsibilities, frequency, verification, results, and documentation of monitoring efforts.

SIGNIFICANT PROGRESS & ACCOMPLISHMENTS

RESULTS

- Many accomplishments to date such as:
 - 43 new freeway miles
 - 5 new interchanges
 - 8 railroad grade separations
 - \$342 million in fair share dollars provided to cities to improve local infrastructure
 - 6.2 million cubic feet trash collected, 1,300 acres of open space preserved, and 350 acres restored
- Good controls in place over capital budgets and schedule—although some challenges faced.
- Solid Policies & Procedures over contracting and construction were followed.

RECOMMENDATIONS

- ✓ Create a methodology to gather and track outputs and accomplishments against M2 anticipated goals.
- ✓ Demonstrate a stronger link between capital project selection guidance and project prioritization by memorializing discussions and/or decisions.

APPROACHES ENSURED COMPLIANCE

RESULTS

- Philosophy of adherence to voter promises permeated throughout the organization.
- Robust system used to track compliance—well beyond peers reviewed.
- Local eligibility requirements were robust and thoroughly reviewed by OCTA—again, leading the peer group reviewed.
- Grant award and monitoring practices were sound.

RECOMMENDATIONS

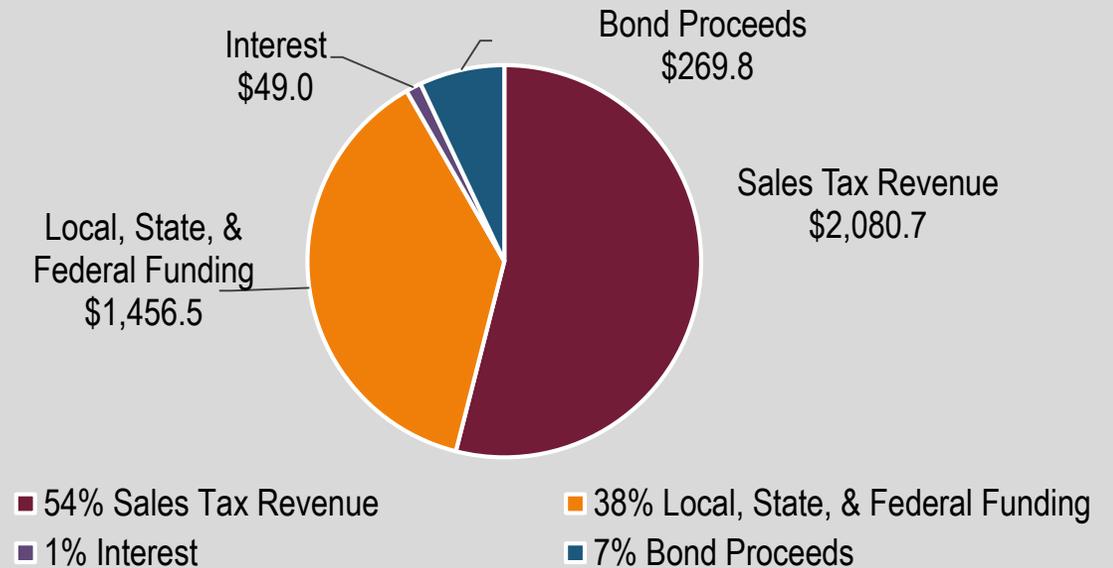
- ✓ Ensure PMO's Compliance Matrix includes links, where appropriate, to underlying support, further demonstrating and validating compliance.

GOOD FISCAL PRACTICES IN PLACE

RESULTS

- Used a careful and modest approach allowing great progress when faced with rising costs and declining revenues.
- Forecast methodology was sound and cash flow practices were more robust than many peers.
- Although future construction cost increases could pose a risk, OCTA adopted a cost pressure index to monitor risk and built in an economic uncertainty factor into cash flow projections to mitigate risk.

- Leveraged approximately \$1.5 Billion in external revenue sources program-wide.



No recommendations.

GOOD FISCAL PRACTICES IN PLACE (CONT.)

- OCTA’s approach to debt financing was conservative, consistent with the Ordinance, in-line with similar transportation agencies, and debt service coverage appeared sufficient to meet future repayment obligations.

Agency	Program Duration	Financing Method	Budgeted Sales Tax Revenue for Fiscal Year 2017-2018	Annual Debt Service	Outstanding Debt
RCTC (Riverside County Transportation Committee, Riverside County, CA)	9th year of 30-year program	Debt	\$187.0 M	\$96.6 M	\$878.9 M
SANDAG (San Diego Association of Governments, San Diego County, CA)	10th Year of 40-year program	Debt (2008-2021) Pay-go (2022-2048)	\$292.1 M	\$105.3 M	\$2,263.2 M
RTA (Regional Transportation Authority, Pima County, AZ)	13th year of 20-year program	Debt	\$88.2 M	\$17.4 M	\$248.2 M
MAG (Maricopa Association of Governments, Maricopa County, AZ)	12th year of 20-year program	Pay-go	\$458.6 M	N/A	N/A
OCTA	7th year of 30-year program	Debt	\$316.5 M	\$44.4 M	\$310.2 M

OCTA IS TRANSPARENT & ACCOUNTABLE

RESULTS

- Highly focused on accountability with great transparency of actions, decisions, and data communicated to Board and public stakeholders.
- Outreach efforts aligned with peers reviewed.
- Public perception results were positive and showed more awareness.
- TOC functioned as envisioned and internal audit function provides additional layer of accountability.

RECOMMENDATIONS

- ✓ Enhance awareness of M2/OC Go on social media through more M2-focused content or through media dedicated solely to M2/OC Go.
- ✓ Add TOC member bios on website to enhance transparency of those providing taxpayer oversight.

QUESTIONS

Sjoberg Evashenk appreciates the cooperation and assistance from OCTA, Caltrans, and stakeholders.

Questions?



Update on State Route 55 Improvement Project from Interstate 405 to Interstate 5

Project Limits and Background

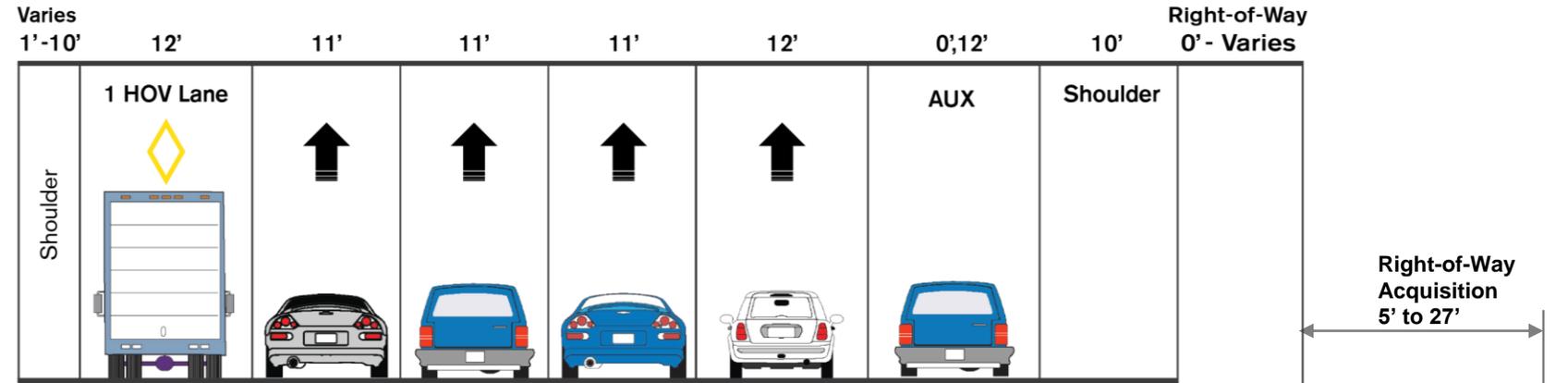


- Borders cities of Irvine, Santa Ana, and Tustin (Cities)
- Partnership with California Department of Transportation (Caltrans) and Cities
- Project F in Measure M2
- Average daily traffic is expected to grow five percent from 261,700 to 274,800 by 2040

Project Improvements

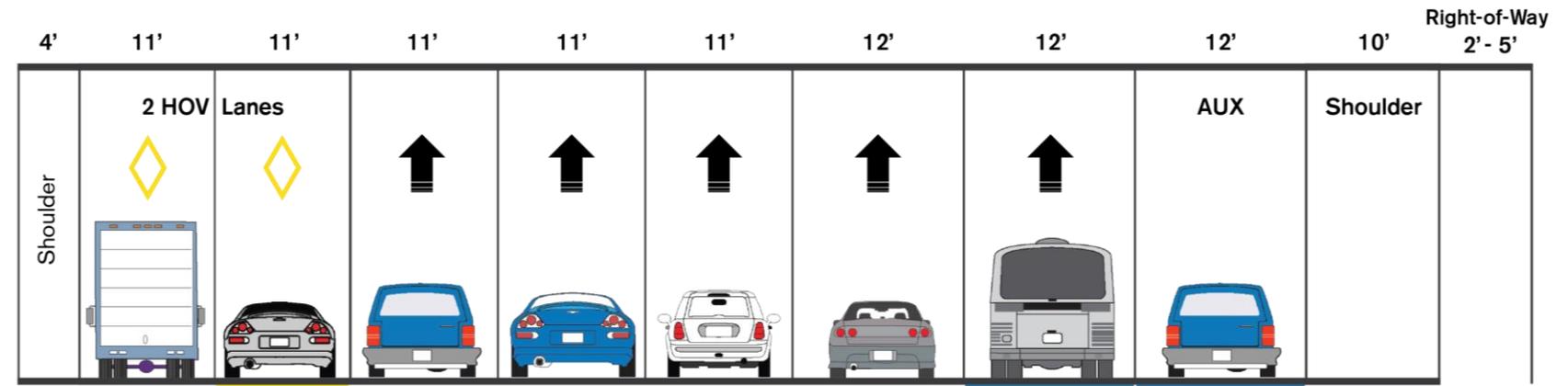
No Build (Existing)

No capital or operational improvements

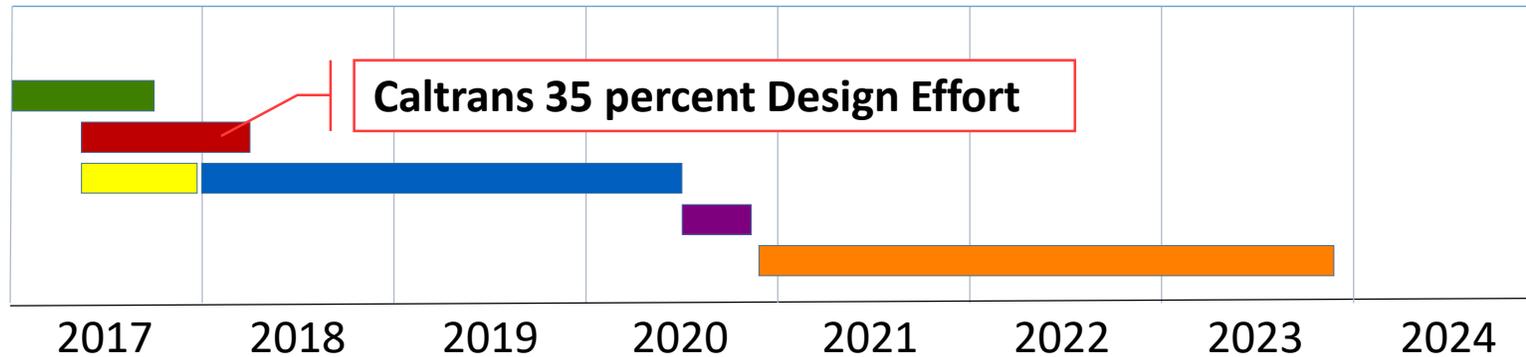


Build Improvements

- Add one high-occupancy vehicle lane in each direction
- Add one general purpose lane in each direction
- Add auxiliary lanes at certain locations



Current Accelerated Schedule



- Environmental
- Design Procurement for Orange County Transportation Authority Consultant
- Design/Right-of-Way (ROW)
- Advertise/Award
- Construction

- Design partnership with Caltrans
- Complete design and ROW efforts by mid-2020
- Begin construction end of 2020

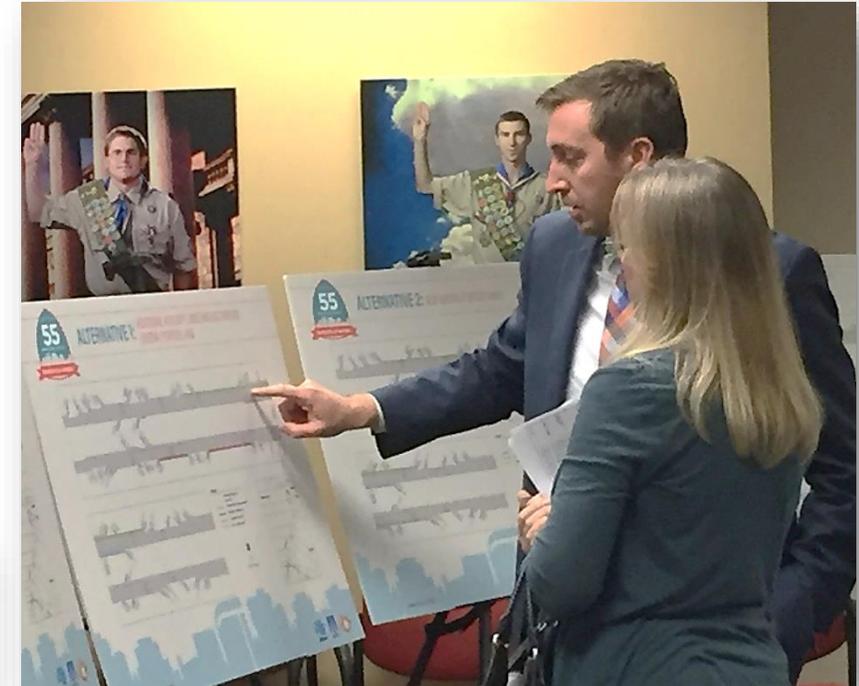
Project Schedule

	2017	2018	2019	2020	2021	2022	2023
Complete Environmental Phase	✓	September 2017					
Initiate 35 percent Design, ROW Need and Utility Conflicts	✓	September 2017					
Complete 35 percent Design		✓ April 2018					
Initiate ROW Appraisal Maps		✓ June 2018					
Complete 65 percent Plans, Specifications, and Estimates (PS&E)			✓ January 2019				
Initiate ROW Appraisals			✓ January 2019				
Submit 95 percent PS&E			★ July 2019				
First Offers to Property Owners			★ Summer 2019				
Submit 100 percent PS&E				★ January 2020			
ROW Certification				★ May 2020			
Ready To List				★ June 2020			
Construction				Early 2021 to End 2023			

Public Outreach

- Stakeholder ascertainment/briefings
- City Council presentations
- Civic organization briefings
- Business/school outreach
- Community events
- Collateral development
- Construction alerts
- Social media
- Closures/detours map

The image displays two overlapping project information sheets for the Costa Mesa Freeway (SR-55) Improvement Project. The top sheet is in Spanish, titled 'PROYECTO DE MEJORAMIENTO DE LA AUTOPISTA COSTA MESA (SR-55) I-405 HASTA I-5'. The bottom sheet is in English, titled 'COSTA MESA FREEWAY (SR-55) IMPROVEMENT PROJECT I-405 TO I-5'. Both sheets include project details such as length (5.7 miles), project cost (approximately \$410.0 million), funding sources (Federal, State and Local), and contact information for the Orange County Transportation Authority (OCTA). The English sheet also features a 'SCHEDULE' section with a Gantt chart showing approximate time frames for various project phases from 2014 to 2024.



Next Steps

Activity/Milestone	Date
ROW	
Complete ROW Appraisals and Provide First Offers to Property Owners	Summer 2019
Complete Utility Agreements	Early 2020
Obtain ROW Certification	May 2020
Design and Construction	
Complete Design	Early 2020
Obtain Ready to List	June 2020
Advertise for Construction	Late 2020
Start Construction	Early 2021

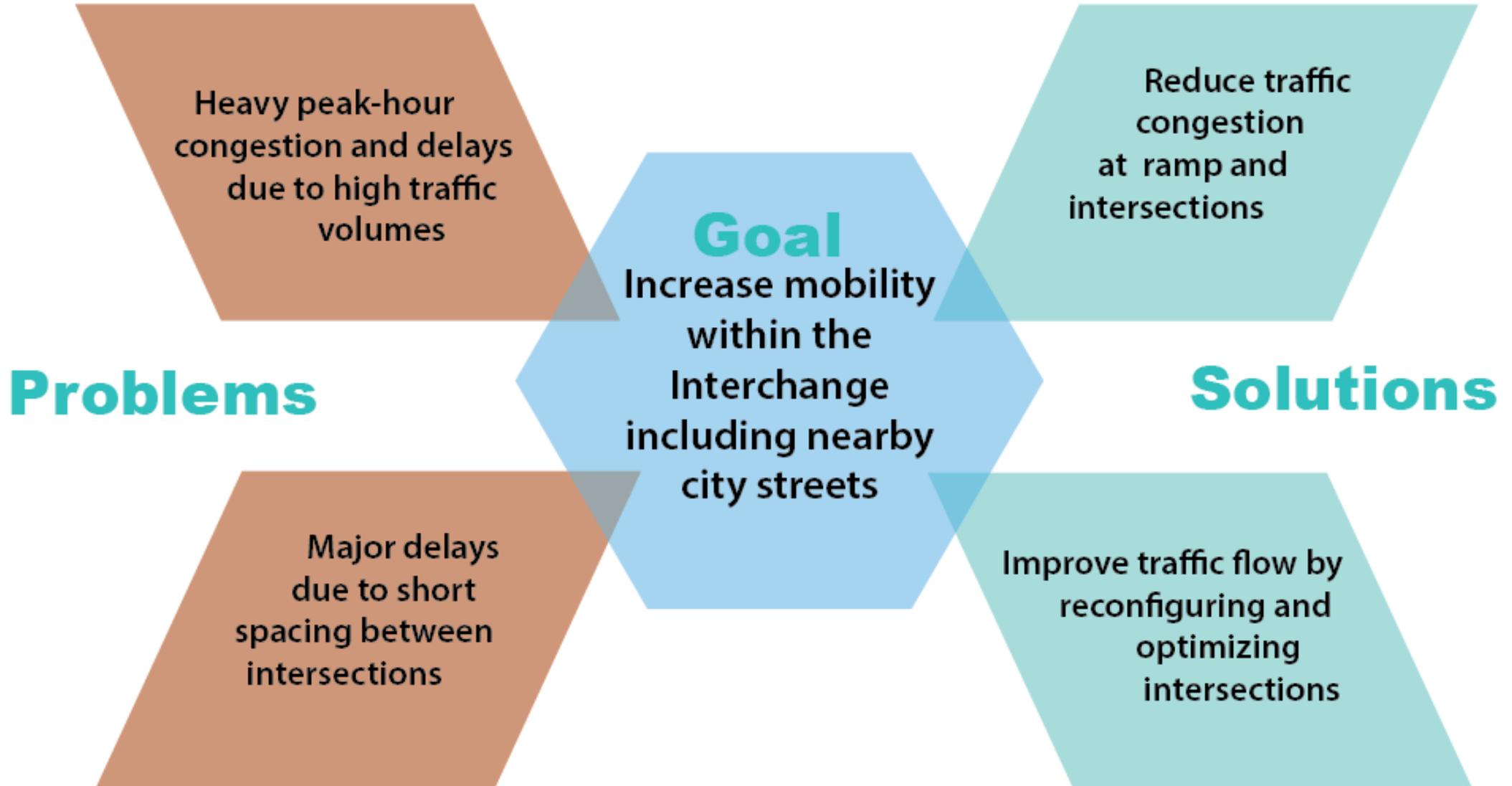
PROJECT UPDATE



PROJECT LOCATION



PROBLEMS/SOLUTIONS



ALTERNATIVE 1: INTERSECTION MODIFICATION



Lake Forest

Bridger Road

El Toro Rd



Avenida De La Carlota

Laguna Woods

Paseo De Valencia

Laguna Hills Mall

Laguna Hills



ALTERNATIVE 2: FLYOVER



Lake Forest

Bridger Road

El Toro Rd



Avenida De La Carlota

Laguna Woods

Paseo De Valencia

Laguna Hills Mall

Laguna Hills



ALTERNATIVE 3: DIVERGING DIAMOND INTERCHANGE



Lake Forest

Bridger Road

El Toro Rd



Avenida De La Carlota

Laguna Woods

Paseo De Valencia

Laguna Hills Mall

Laguna Hills



ALTERNATIVE 4 & OPTION B: COLLECTOR DISTRIBUTER ROAD AND HOOK RAMPS



Alternative 4
Option B

Lake Forest

Bridger Road

El Toro Rd



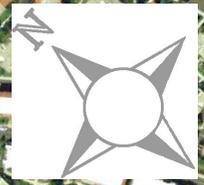
Avenida De La Carlota

Laguna Woods

Paseo De Valencia

Laguna Hills Mall

Laguna Hills



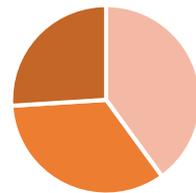
TRAFFIC BENEFITS

Local Intersection Location	Alt 1	Alt 2	Alt 3	Alt 4
Avenida De La Carlota / Paseo De Valencia SB Off-Ramp	N/A	↑	↑	↑
Avenida De La Carlota / El Toro Rd		↑		↑
Bridger Rd / NB On & Off-Ramps / El Toro Rd	↑	↑		↑
Rockfield Blvd / El Toro Rd				↑
Paseo De Valencia / El Toro Rd	↓			

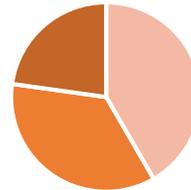
Freeway Mainline Segment	Alt 1	Alt 2	Alt 3	Alt 4
NB I-5 (El Toro Loop On-Ramp to El Toro Tangent On-Ramp)			↑	
NB I-5 (El Toro Tangent On-Ramp to Lake Forest On-Ramp)	↑	↑		↑
SB I-5 (Carlota / Valencia Off-Ramp & Carlota / Valencia On-Ramp)		↓		↑
SB I-5 (Carlota / Valencia On-Ramp to El Toro Tangent On-Ramp)			↑	↑
SB I-5 (El Toro Tangent On-Ramp to Alicia Parkway Off-Ramp)				↑

COST BENEFIT COMPARISON

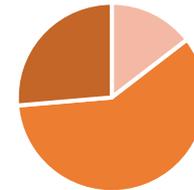
	Alt 1	Alt 2	Alt 3	Alt 4
Name	Intersection Modification	Flyover	Diverging Diamond Interchange	Collector Distributer Road and Hook Ramps
Cost*	\$100 million	\$180 million	\$110 million	\$265 million
Traffic Benefit	Minimal	High	Minimal	High



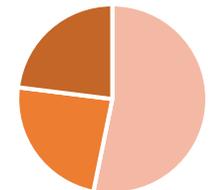
- Right of Way
- Roadway/Structures
- Support



- Right of Way
- Roadway/Structures
- Support



- Right of Way
- Roadway/Structures
- Support



- Right of Way
- Roadway/Structures
- Support

*Total Project Costs are in 2019 dollars and include right of way, roadway/structures construction, support, and contingencies. 9

BUILDABLE ALTERNATIVES CONSIDERED FOR FURTHER REVIEW IN THE DPR & DED

ALTERNATIVE 2: FLYOVER



ALTERNATIVE 4: COLLECTOR DISTRIBUTER ROAD AND HOOK RAMP



NEXT STEPS

May 2017	Begin Environmental
June 2017	Purpose & Need
May – December 2017	Alternatives Development
Nov 2017 – Feb 2018	Value Analysis Study
Jan 2018 – March 2019	Alternatives Analysis
July 2018	Public Information Meeting
April 2019 – May 2019	Public Circulation
April 18, 2019	Public Hearing
May 2019 – July 2019	Respond to Public Comments
July 2019 – August 2019	Project Development Team Members Recommend Preferred Alternative
November 2019	Final Project Approval/Environmental Documents



February 14, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

A handwritten signature in blue ink, appearing to read "Darrell Johnson", is placed over the name of the Chief Executive Officer in the "From:" field.

Subject: Measure M2 Community-Based Transit Circulators Program
Project V Ridership Report

Overview

Measure M2 establishes a competitive process, through the Measure M2 Community-Based Transit Circulators Program, to fund local transit services which complement regional transit. As of September 30, 2018, the Orange County Transportation Authority Board of Directors had approved 29 multi-year projects for a total of \$43.3 million for Project V services. A ridership report on Project V services operating through the reporting period is provided for informational purposes. The reporting period is comprised of the fourth quarter of fiscal year 2017-18 and the first quarter of fiscal year 2018-19.

Recommendation

Receive and file as an information item.

Background

Project V is a competitive program under Measure M2 (M2) that provides funding to develop and implement local transit services. Services eligible for this program include community-based circulators, shuttles, trolleys, and demand-responsive services that complement regional bus and rail services, and better suit local needs in areas not adequately served by regional transit.

Project V-funded service performance is evaluated on a quarterly basis. Shuttles, trolleys, and event services must meet or exceed minimum performance standards as established in the Comprehensive Transportation Funding Programs (CTFP) Guidelines. This allows staff to work with local agencies to make adjustments if necessary, to the service plan with a goal to improve ridership.

If services continue to perform below the minimum performance standard, they are evaluated for cancellation of Project V funding. In the event of cancellation, remaining funds are returned to the program for use in subsequent calls for projects (call). To date, there is an estimated \$8.1 million in project savings which has returned to the program.

Staff provides ridership reports (twice yearly) to the Orange County Transportation Authority (OCTA) Transit Committee and the Board of Directors (Board) on active Project V services. This report includes ridership information for 18 projects that were in operation during the reporting period of April 1, 2018 through September 30, 2018. Additional projects will be added to this report as services begin.

Discussion

Current Project V services include a combination of special event, commuter, fixed-route, and on-demand projects that meet a variety of community needs. The prior ridership report reflected 16 services in operation. Since then, the cities of Anaheim and Costa Mesa have cancelled their services due to low productivity. Additionally, four new services from the 2018 call have initiated. These new services include the City of Laguna Beach Summer Breeze Service, the City of San Juan Capistrano's Special Event and Weekend Summer Trolley Service, and the expansion of existing services in the cities of Newport Beach and San Clemente.

The current ridership report reflects 18 active services. Services must achieve six passenger boardings per revenue vehicle hour (B/RVH) by the end of year one and ten B/RVH by the end of year two. This performance standard was set based on OCTA's operating subsidy of no more than \$9 per boarding plus matching funds provided by local agencies. During this reporting period most services either met or exceeded their respective performance standards. Productivity for special event services averaged 25 B/RVH, commuter services averaged 17 B/RVH, fixed-route services averaged eight B/RVH, and the demand responsive service averaged nine boardings per hour of service (B/HOS)¹.

Active Project V services are identified below. Complete ridership details and next steps for services that are not meeting performance standards are provided in Attachment A.

¹ B/HOS does not include layover or recovery time and is more reflective of how demand-based transit services operate.

Services meeting or exceeding the minimum established performance standard include:

- County of Orange - Local Circulator and Special Event Service,
- Dana Point - Summer Trolley and Seasonal Shuttle,
- Dana Point - Pacific Coast Highway and Special Event Trolley,
- Huntington Beach - Holiday and Event Shuttle,
- Laguna Beach - Summer Weekend Trolley and Seasonal Service,
- Laguna Beach - Summer Breeze Bus Service,
- Lake Forest - Commuter Vanpool Service Irvine Station and Ossur,
- Lake Forest - Commuter Shuttle Service Irvine Station and Panasonic,
- Newport Beach - Balboa Peninsula Seasonal Trolley,
- Newport Beach - Balboa Peninsula Seasonal Trolley Expansion,
- San Clemente - Summer Weekend Trolley and Seasonal Service,
- San Clemente - Summer Weekday Trolley and Seasonal Service Expansion, and
- San Juan Capistrano - Special Event and Weekend Summer Trolley Service.

Services below the minimum established performance standard include:

- Huntington Beach - Seasonal Local Transit Service,
- La Habra - Special Event Service,
- Laguna Beach - Residential Trolley Year-Round and Seasonal Service,
- Mission Viejo - Local Community Circulator, and
- San Clemente - On-Demand Services.

For the cities of Huntington Beach and Mission Viejo² services, OCTA will notify the cities that these programs did not meet the minimum performance targets in the timeframe required and M2-funded Project V support is scheduled to be cancelled. Staff has worked with both agencies over the last year to modify service hoping to improve ridership which unfortunately, has not been realized. Moving forward, staff will work with the cities on outreach and timing to bring the services to an appropriate conclusion.

For the cities of La Habra and Laguna Beach, these services are currently trending below required performance targets. If these trends continue through the required performance target dates, services will be subject to cancellation.

² With respect to Mission Viejo, it should be noted that this service's performance difficulties were reported to the Board in the last M2 Community-Based Transit Circulators Program Project V Ridership Report, which was presented in July 2018. Huntington Beach's performance difficulties were not reported at that time due to the service being inactive during the reporting period.

In the interim, OCTA will work with these cities to improve the productivity and will also continue to evaluate them in order to provide them with the best opportunity to meet performance standards within the required timeframes.

As part of Project V funding, the City of San Clemente (San Clemente) is operating demonstration demand-responsive service, in partnership with Lyft, Inc, that provides access for San Clemente residents in neighborhoods previously served by OCTA routes 191 and 193, which were eliminated in fall 2016 due to low productivity. This demonstration service offers convenience and efficiency in areas where traditional buses have a challenge for residents and transit operations. The funding for this service was extended by five years by Board action in late 2018, based on the demonstration nature of this service.

San Clemente has requested that this demonstration program utilize a different performance metric, more specifically, B/HOS. San Clemente's rationale for this request was that the B/RVH metric does not accurately measure the performance for this unique service model. For example, B/RVH calculations include layover and recovery time in productivity calculations and these types of service elements do not exist when a vehicle goes into service when a request for service is made. Current research has not settled upon a clear metric for these types of demand responsive services. By policy, OCTA's subsidy is capped at \$9 per boarding and this demonstration service is currently performing at \$4.94 subsidy per boarding, well below OCTA's maximum.

Staff has reviewed San Clemente's request, considered the special operating characteristics of this service, and found this request to be consistent with the CTFP Guidelines. As such, staff is working to amend the current cooperative agreement with San Clemente to incorporate this proposed change (reported B/HOS [no minimum], but no more than \$9 subsidy/boarding), which will also be reflected in future reports. Staff will continue to monitor and measure service performance and assess appropriate next steps for this type of service, which will include evaluation of all project-related efforts and policies to determine how best to support and administer this emerging transit delivery model.

OCTA staff will also continue to closely monitor services that are below minimum performance standards and will meet with local agency staff on ideas and concepts to improve service productivity and ridership. Staff will also continue to provide twice yearly updates to the Board on overall Project V status and performance.

Summary

A status report on Project V services is provided for information purposes. Staff will continue to work with local agencies and monitor these services. In addition, information on services starting later this year will be provided in future reports. The next M2 Community-Based Transit Circulators Program Project V Ridership Report is scheduled for July 2019.

Attachment

- A. Project V Services – Current Ridership Report

Prepared by:



Christina Moore
Senior Transportation Funding Analyst
(714) 560-5452

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741

Project V Services - Current Ridership Report

Reporting Period: Q4 FY 2017-18 and Q1 FY 2018-19

Agency	Service Description	Measure M2 Project V Programmed Funds	Service Type	Service Start Month/Year	Boardings Per Revenue Vehicle Hour ¹ (B/RVH)	Next Steps
County of Orange	Local Circulator and Special Event Service	\$ 2,041,547	Local Circulator and Special Event	June 2017	11	-
Dana Point	Summer Trolley and Seasonal Shuttle	\$ 2,456,511	Seasonal Service	June 2015	14	-
Dana Point	Pacific Coast Highway and Special Event Trolley	\$ 905,968	Seasonal Service	June 2017	16	-
Huntington Beach	Holiday and Event Shuttle	\$ 93,287	Special Event	July 2015	19	-
Huntington Beach	Seasonal Local Transit Service	\$ 917,700	Seasonal Service	July 2017	4	60-day discontinuation of service notice has been drafted. Staff will work with Huntington Beach on the cancellation of service during this transition period.
La Habra	Special Event Service	\$ 96,810	Special Event	November 2016	9	Staff will continue to work with La Habra to implement strategies to reduce unproductive service hours.
Laguna Beach	Summer Weekend Trolley and Seasonal Service	\$ 3,559,860	Special Event	March 2015	29	-
Laguna Beach	Residential Trolley Year-Round and Seasonal Service	\$ 1,967,400	Year-Round and Seasonal Service	July 2017	6	Staff will continue to monitor service and work with Laguna Beach to discuss ideas and concepts to improve productivity for the year two performance target.
Laguna Beach	Summer Breeze Bus Service	\$ 634,357	Seasonal Service	July 2018	23	-
Lake Forest	Commuter Vanpool Service Irvine Station and Ossur	\$ 148,855	Commuter Service	July 2015	24	-
Lake Forest	Commuter Shuttle Service Irvine Station and Panasonic	\$ 1,226,862	Commuter Service	June 2017	10	-
Mission Viejo	Local Community Circulator	\$ 3,332,879	Local Circulator	October 2016	6	60-day discontinuation of service notice has been drafted. Staff will work with Mission Viejo on the cancellation of service during this transition period. OCTA will work with the City on an appropriate cancellation timeline.
Newport Beach	Balboa Peninsula Seasonal Trolley	\$ 685,454	Seasonal Service	June 2017	19	-
Newport Beach	Balboa Peninsula Seasonal Trolley Expansion	\$ 278,400	Seasonal Service	July 2018	18	-
San Clemente	Summer Weekend Trolley and Seasonal Service	\$ 1,181,393	Special Event	May 2017	46	-
San Clemente	Summer Weekday Trolley and Seasonal Service Expansion	\$ 1,537,200	Seasonal and Special Event	July 2018	25	-
San Juan Capistrano	Special Event and Weekend Summer Trolley Service	\$ 958,642	Seasonal and Special Event	July 2018	26	-

Agency	Service Description	Measure M2 Project V Programmed Funds	Service Type	Service Start Month/Year ²	Boardings Per Hour of Service (B/HOS) ¹	Next Steps
San Clemente	On-Demand	\$ 914,400	On-Demand Service	October 2016	9	Staff will continue to monitor and measure service performance and assess appropriate next steps for this program which will include evaluation of all project related efforts and existing policies in order to determine how best to support and administer this emerging transit delivery model.

1. Rounded to the next whole number.

2. For this reporting period, usage and performance data reflects April 2018 through July 2018. OCTA is currently working with San Clemente and LYFT, INC., to obtain outstanding data for the months of August and September 2018.

ACRONYMS

- FY - Fiscal year
- OCTA - Orange County Transportation Authority
- Q4 - Quarter 4 (April - June)
- Q1 - Quarter 1 (July - September)

Minimum Performance Standards:

- Six passenger B/RVH by end of year one (12 months from the first day of operating the service).
- Maintain six B/RVH and meet or exceed ten B/RVH by end of year two.
- Ten B/RVH must then be maintained every year thereafter.

NOTE: Services below the minimum performance standard are shaded

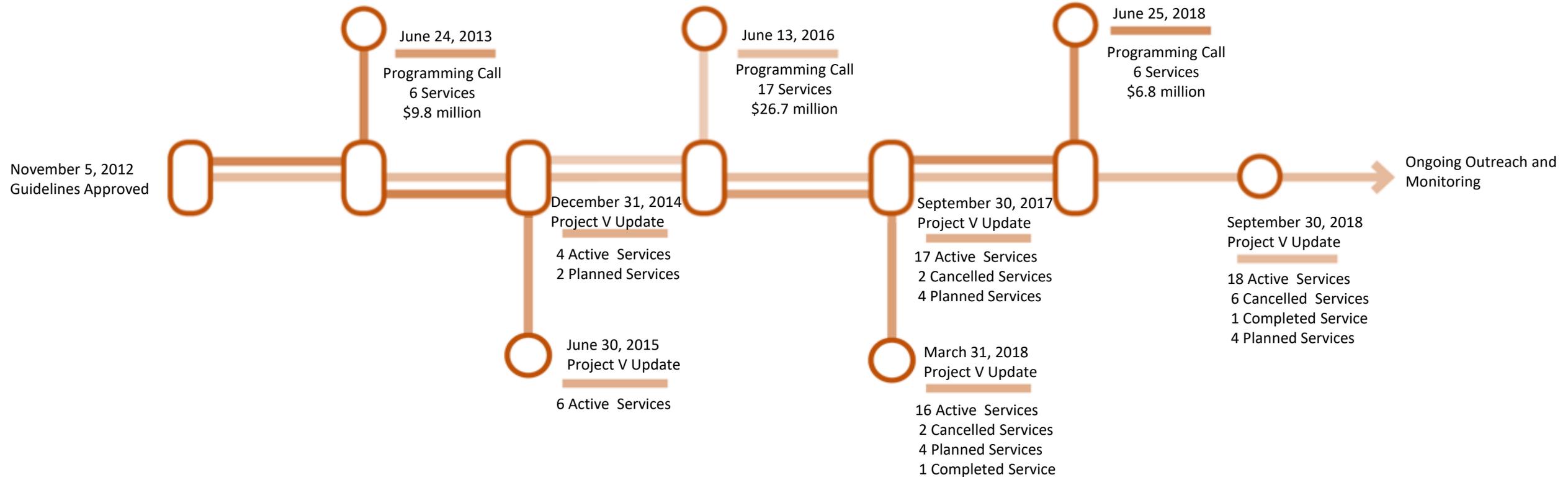


Measure M2 Community-Based Transit Circulators Program Project V Ridership Report

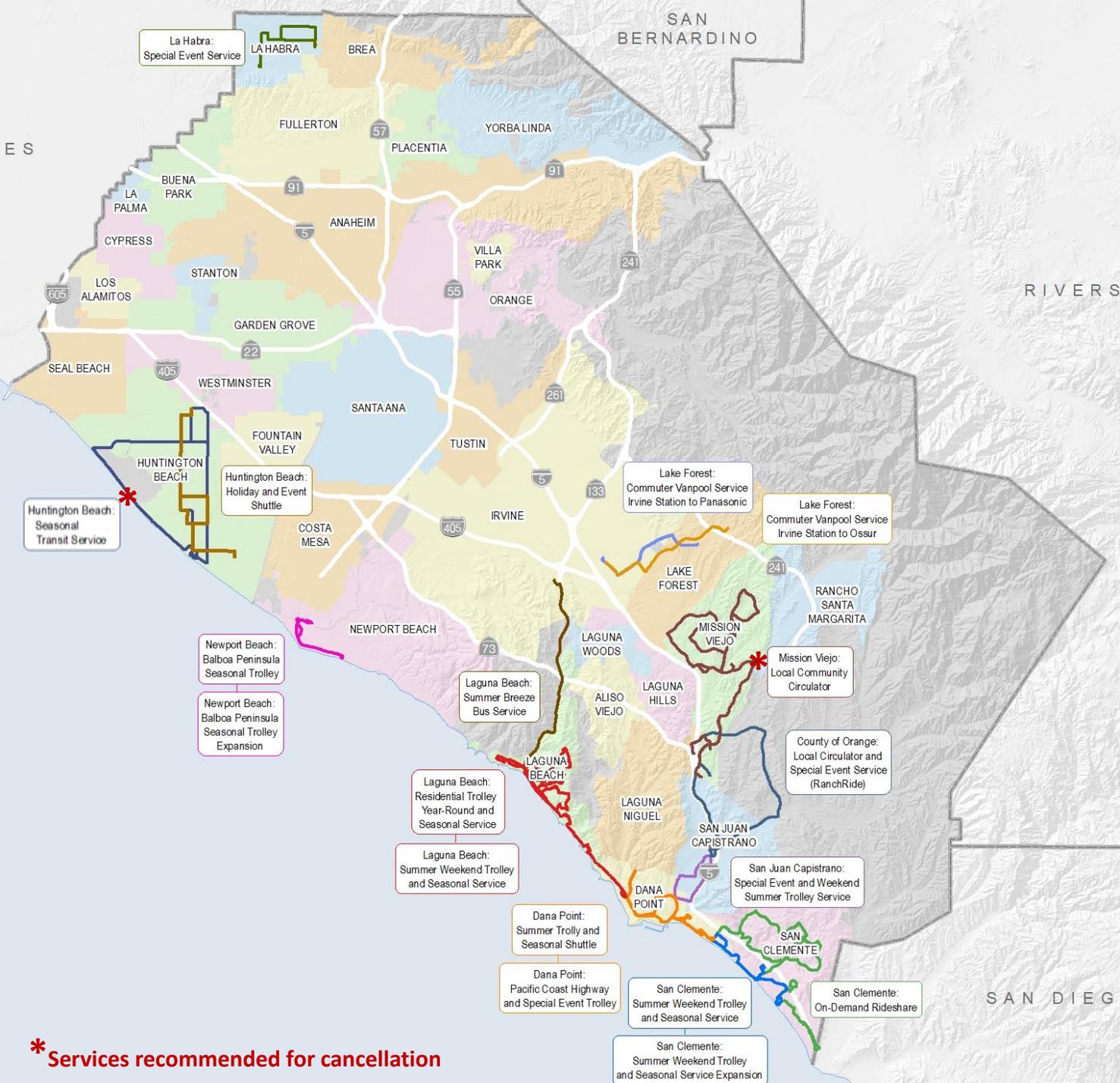
Overview



Background



Call – Call for Projects



Regional Overview

Active Services through
September 2018

* Services recommended for cancellation

Performance Criteria and Monitoring

❖ Key performance indicators:

Year 1	Year 2	Year 3+
Meet or exceed 6 B/RVH by end of Year 1 ¹	Meet or exceed 10 B/RVH by end of Year 2	Maintain 10 B/RVH each reporting period

¹ One Year from the first day of operations

- Under-performing projects subject to cancellation

❖ Reporting Requirements:

- Ridership Reports – Quarterly
- Updates provided to Transit Committee and OCTA Board – Semi-annually

B/RVH – Boardings per revenue vehicle hour
OCTA – Orange County Transportation Authority
Board – Board of Directors



Services meeting or exceeding the minimum established performance standard:

- County of Orange - Local Circulator & Special Event Service
- Dana Point - Summer Trolley & Seasonal Shuttle
- Dana Point - Pacific Coast Highway & Special Event Trolley
- Huntington Beach - Holiday & Event Shuttle
- Laguna Beach - Summer Weekend Trolley & Seasonal Service
- Laguna Beach - Summer Breeze Bus Service
- Lake Forest - Commuter Vanpool Irvine Station & Ossur
- Lake Forest - Commuter Shuttle Irvine Station & Panasonic
- Newport Beach - Balboa Peninsula Seasonal Trolley
- Newport Beach - Balboa Peninsula Seasonal Trolley Expansion
- San Clemente - Summer Weekend Trolley & Seasonal Service
- San Clemente - Summer Weekday Trolley & Seasonal Service Expansion
- San Juan Capistrano - Special Event & Weekend Summer Trolley Service

Services trending below the minimum established performance standard:

- La Habra - Special Event Service
- Laguna Beach - Residential Trolley Year-Round and Seasonal Service
- San Clemente - On-Demand Services

Services below the minimum established performance standard:

- Huntington Beach - Seasonal Local Transit Service
- Mission Viejo - Local Community Circulator

Next Steps

- Total Cumulative Boardings 1.82 million



- Continue to work with local agencies and monitor service performance.
- Return to the Transit Committee and the Board with next ridership update in:



*Information
Items*



March 4, 2019

To: Executive Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Measure M2 Quarterly Progress Report for the Period of October 2018 Through December 2018

Overview

Staff has prepared a Measure M2 quarterly progress report for the period of October 2018 through December 2018, for review by the Orange County Transportation Authority Board of Directors. This report highlights progress on Measure M2 projects and programs and will be available to the public via the Orange County Transportation Authority website.

Recommendation

Receive and file as an information item.

Background

On November 7, 2006, Orange County voters, by a margin of 69.7 percent, approved the Renewed Measure M Transportation Investment Plan (Plan) for the Measure M2 (M2) one half-cent sales tax for transportation improvements. The Plan provides a 30-year revenue stream for a broad range of transportation and environmental improvements, as well as a governing ordinance, which defines the requirements for implementing the Plan. Ordinance No. 3 designates the Orange County Transportation Authority (OCTA) as responsible for administering the Plan and ensuring that OCTA's contract with the voters is followed.

OCTA is committed to fulfilling the promises made in M2. This means not only completing the projects described in the Plan but adhering to numerous specific requirements and high standards of quality called for in the measure, as identified in the ordinance. Ordinance No. 3 requires that quarterly status reports regarding the major projects detailed in the Plan be brought to the

OCTA Board of Directors (Board). On September 25, 2017, the Board approved rebranding M2 externally to OC Go to promote OCTA's Measure M awareness and public perception, as well as to avoid confusion with the recently approved, similarly named Los Angeles County Metropolitan Transportation Authority's "Measure M." M2 progress is summarized in these quarterly progress reports, which are posted online for public review.

Discussion

This quarterly report reflects current activities and progress across all M2 programs for the period of October 1, 2018 through December 31, 2018 (Attachment A).

The quarterly report is designed to be easy to navigate and public friendly, reflecting OCTA's Strategic Plan transparency goals. The report includes budget and schedule information provided from the Capital Action Plan, and Local Fair Share and Senior Mobility Program payments made to cities during the quarter, as well as total distributions from M2 inception through December 2018.

Additionally, Attachment A includes a summary of the Program Management Office (PMO) activities that have taken place during the quarter. Two areas in particular are highlighted below.

Ordinance Safeguards

The M2 Ordinance includes a requirement for a performance assessment to be conducted at least once every three years to evaluate OCTA's efficiency and effectiveness in the delivery of M2, as promised to the voters. Three prior performance assessments have been completed covering fiscal year (FY) 2007 through FY 2009, FY 2010 through FY 2012, and FY 2013 through FY 2015. Findings and recommendations from assessments are presented to the Board, and recommendations are implemented as appropriate.

Sjoberg Evashenk Consulting was selected to conduct the fourth performance assessment covering the period between July 1, 2015 and June 30, 2018. During this quarter, the consultant wrapped up interviews with staff and external stakeholders, held two staff briefings on their findings, and submitted an initial set of findings and report outline. Staff provided an update on progress to the Taxpayer Oversight Committee (TOC). A draft report was provided to staff in January 2019, and a final report is anticipated to be brought to the TOC and Board in spring 2019. The consultants review to date indicates a very positive

assessment of OCTA's efficiency and effectiveness in the delivery of M2 projects and programs.

Sales Tax Revenue Forecast

Staff received good news in December 2018 with FY 2018 sales tax receipts. The actual growth rate for FY 2018 is 4.8 percent and the net annual sales tax receipts is \$320 million, as compared to the 3.3 percent assumed in the FY 2018 budget.

Additionally, the PMO annually reviews and updates the M2 Ordinance Compliance Matrix to ensure that OCTA tracks compliance with all requirements in Ordinance No. 3. During the quarter, the annual review for January 1, 2018 to December 31, 2018, was updated by the PMO in coordination with the responsible OCTA point of contact. The matrix was shared with the TOC Audit Subcommittee on February 12, 2019, and is planned to be shared with the full TOC at their meeting on April 9, 2019.

Progress Update

The following provides an overview of M2 accomplishments to date by mode, as well as highlights of activities that occurred during the first quarter of FY 2019.

Freeway Program

The M2 Freeway Program currently consists of 27 projects or project segments identified in the Plan and approved by the voters to be delivered by 2041.

Currently, while concluding year seven of the 30-year program, 12 segments are complete, with three in construction and another three readying for construction. The remaining nine segments are in various stages of project development, with two of those slated to go into construction and be complete or nearing completion by 2026.

Key freeway project activities taking place this quarter along with updates are highlighted below.

- A construction contract with OHL USA, Inc., was approved for the Interstate 5 (I-5) between State Route 55 (SR-55) and the State Route 57 (SR-57) Project on December 28, 2018. (Project A)

- The construction bid package for the I-5 between Oso Parkway and Alicia Parkway/La Paz Road Interchange Project was advertised on November 5, 2018. Bids were opened on January 16, 2019, and the apparent low bid is 11.68 percent above the engineer's estimate. The apparent low bid is currently being assessed for responsiveness. (Project C and Project D)
- The California Department of Transportation (Caltrans) provided a study update to the Board on October 8, 2018 for the I-5, El Toro Interchange Project. (Project D)
- The public review/circulation period for the SR-57 between Orangewood Avenue and Katella Avenue project draft environmental document and draft project report was held from October 11 to November 9, 2018, with a public hearing on October 25, 2018. The environmental phase is anticipated to be complete in early 2019. (Project G)
- All technical reports, the draft environmental document, and the draft project report were finalized for the State Route 91 between SR-55 and SR-57. The public review/circulation period was held from November 20 to December 21, 2018, with a public hearing on December 11, 2018. (Project I)
- Partial bridge demolition activities on the Interstate 405 between State Route 73 and Interstate 605 (I-605) project began at Goldenwest Street, Bolsa Chica Road, and Magnolia Street. (Project K)
- The environmental document for the I-605, Katella Avenue interchange improvements was completed in October. This project is shelf-ready for future advancement. (Project M)

Streets and Roads

Since 2011, approximately \$741 million has been provided to local jurisdictions for transportation improvements through the streets and roads competitive and formula funding programs. Additionally, M2 provided a portion of the \$664 million to grade separate seven rail crossings, leveraging the majority of the funds (\$520 million) from local, state, and federal sources. The 2019 call for projects for the Regional Capacity Program and the Regional Traffic Signal Synchronization Program were released in August 2018. Final 2019 programming recommendations will be presented to the Board by mid-2019.

Transit

The M2 transit mode includes a number of programs designed to provide additional transportation options. M2 is the main funding source for Metrolink commuter rail service in Orange County and provides funding for rail station improvements and transit connections to extend the reach of the services.

Since 2011, M2 has provided competitive funding commitments for bus and station extension projects to Metrolink (\$483,133 to date), local community-based transit circulators and planning studies (\$36.6 million to date), bus stop improvements (awarded \$1.4 million to date), and funding to support specific programs to meet the needs of seniors and persons with disabilities (\$62.6 million to date). Key transit project activities taking place this quarter are highlighted below.

- On August 27, 2018, the Laguna Niguel to San Juan Capistrano Passing Siding Project was advertised for construction and seven bids were received on October 23, 2018. The lowest bidder was approximately \$3 million or 20.1 percent over the engineer's estimate, and as a result staff reevaluated the project budget. On January 14, 2019, the Board authorized the construction contract to be awarded to Reyes Construction, Inc., and authorized the use of an additional \$6.23 million in state and federal funds for the project. (Project R)
- On November 12, 2018, an exterior vehicle design for the OC Streetcar was approved by the Board to submit to Siemens Industries, Inc. Additionally, the Board approved the release of a request for proposals for operations and maintenance of the OC Streetcar. (Project S)
- OCTA executed a Limited Notice to Proceed for construction to Walsh Construction Company for the OC Streetcar on November 19, 2018 to begin mobilizing, start work on long lead items and prepare key safety, quality, and schedule submittals. (Project S)
- The Federal Transit Administration and OCTA signed the Full Funding Grant Agreement for OC Streetcar on November 30, 2018, and right-of-way (ROW) and utility work began on the project. (Project S)
- On November 26, 2018, the Board approved revised guidelines for the Senior Mobility Program to streamline program delivery and oversight. (Project U)

- On October 22, 2018, the Board authorized a second Project W allocation process providing up to \$3 million to eligible agencies to make bus stop amenity improvements, including installation of bus benches or seating, shelters, lighting, and other passenger related amenities. Funding recommendations are anticipated to go to the Board in April 2019. (Project W)

Environmental Programs

The M2 Program includes two innovative programs, the Environmental Cleanup Program (ECP) with specific activity, and the Environmental Mitigation Program (EMP) with funding from the freeway program. The ECP improves water quality by addressing transportation related pollutants while the EMP off-sets biological impacts of freeway projects.

Since 2011, the ECP has awarded \$48.1 million to local jurisdictions through a competitive process, which funded 159 grants for trash removal devices and 20 grants for large scale water quality best management practices projects. More than 6.2 million cubic feet of trash (or over 2,600 40-foot shipping containers) have been captured so far.

Additionally, the Board has authorized \$55 million for the EMP to acquire conservation lands, fund habitat restoration projects, and to develop the Conservation Plan. OCTA has acquired more than 1,300 acres and funded 12 restoration projects across Orange County. The wildlife and habitat on the acquired lands are protected in perpetuity, and long-term management of the properties will be funded by an endowment.

Challenges

Given current market trends pointing to higher construction costs in project delivery, it is imperative that OCTA continue to closely monitor construction bid activity and update project cost estimates as appropriate.

During this quarter, the trend indicating higher project delivery costs has been realized on the cost of the San Juan Capistrano-Laguna Niguel Passing Siding (Project R) Rail Construction Project. On October 23, 2018, seven bids were received and publicly opened. All seven bids priced the work above the engineer's estimate. In analyzing the lowest bid which was approximately 20 percent over, most of the higher bid prices were attributed to track and structures construction items. The increased construction costs have likely been impacted by current market conditions, such as shortages in availability of skilled

labor and increasing material costs for steel and concrete. On January 14, 2019, the Board authorized the construction contract to be executed with Reyes Construction, Inc., and authorized the use of an additional \$6.23 million in state and federal funds for the project.

Additionally, bids for Segment 2, I-5 between Oso Parkway to Alicia Parkway were opened on January 16, 2019 (projects C and D). The I-5 widening from Oso Parkway to Alicia Parkway is the first large design-bid-build contract bid since market trends have impacted construction costs. Three firms submitted bids, and the apparent low bid is 11.68 percent above the \$116,203,251 engineer's estimate. All three firms that submitted bids priced the work above the engineer's estimate. These bids indicate a continuation in the trend of rising construction bid prices due to escalating labor and material costs. The apparent low bid is currently being assessed for responsiveness. Although the apparent low bid is above the engineer's estimate, on June 11, 2018, the Board approved additional funding based on the Federal Highway Administration required cost estimate review, for a total \$148,232,000 for construction capital funds. This amount includes funds for the contractor plus other construction phase costs such as state furnished items.

Another challenge is availability of professional staff to handle specialty work such as ROW. Staff is working with Caltrans to determine if they have sufficient resources to provide oversight and support OCTA Measure M project demands and schedules. OCTA has several Measure M projects moving forward and due to Caltrans' staff attrition and their own increasing post SB 1 (Chapter 5, Statutes of 2017) project delivery direct workload demands, Caltrans may not be able to meet the rigorous schedule demands. This is a particular concern in the areas of ROW acquisition, utilities, and oversight approvals needed for project delivery. OCTA is exploring options for OCTA to assume lead agency responsibility for ROW acquisition in order to keep Measure M projects moving forward on schedule.

Staff is monitoring the progress of the Caltrans-led project approval and environmental document (PA&ED) phase for the I-5 El Toro Interchange Project (Project D). The PA&ED phase is nearing completion, however, remaining alternatives under analysis have significant ROW impacts, which will result in higher costs than originally assumed in the Next 10 Delivery Plan (Plan), as well as local agency concerns related to community impacts. Staff will continue to monitor the progress of the alternative selection and once the preferred alternative is selected, staff will assess the revised project cost against the built-in assumptions used to develop the program delivery plan.

On all Measure M projects, staff is working to develop and implement the most cost-effective design that provides the highest congestion relief with the least impact to businesses and communities. This includes efforts to document and present non-standard design variations to Caltrans for approvals to achieve project scope while limiting ROW needs. Additionally, staff will continue to urge Caltrans to coordinate all Caltrans initiated safety, operational, and maintenance projects with planned Measure M projects, and avoid multiple impacts to the traveling public and inefficient use of funding and resources.

M2 project delivery is monitored closely, and progress, as well as challenges, are presented to the Board through these quarterly staff reports, individual project staff reports, as well as through the Capital Action Plan quarterly performance metrics reports from the Capital Programs Division.

Summary

As required by M2 Ordinance No. 3, a quarterly report covering activities from October 2018 through December 2018 is provided to update progress in implementing the Plan. The above information and the attached details indicate significant progress on the overall M2 Program. To be cost-effective and to facilitate accessibility and transparency of information available to stakeholders and the public, the M2 Quarterly Progress Report is made available through the OCTA website. Hard copies are available by mail upon request.

Attachment

- A. Measure M2 Progress Report, Second Quarter Fiscal Year 2018-19, October 1, 2018 through December 31, 2018

Prepared by:



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Approved by:



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Executive Director, Planning
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UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
WASHINGTON, D.C.

FULL FUNDING GRANT AGREEMENT

ORANGE COUNTY TRANSPORTATION AUTHORITY
ORANGE, CA

SANTA ANA/GARDEN GROVE STREET

1682-2018-7



OCGO

Local Tax Dollars at Work

MEASURE M2 PROGRESS REPORT

Second Quarter of Fiscal Year 2018 – 19
October 1, 2018 through December 31, 2018

Second Quarter Highlights:

- Freeway Projects
- Streets and Roads
- Environmental Cleanup & Water Quality
- Freeway Mitigation Program
- Finance Matters
- Program Management Office
- Summary





OCGO
Local Tax Dollars at Work

MEASURE M2 PROGRESS REPORT

SUMMARY

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 originally endorsed Measure M in 1990 with a sunset in 2011. The renewal of Measure M continues the investment of local tax dollars in Orange County's transportation infrastructure for another 30 years to 2041.

As required by the Measure M2 (M2) Ordinance No. 3, a quarterly report covering activities from October 1, 2018 through December 31, 2018 is provided to update progress in implementing the Measure M2 Transportation Investment Plan. On September 25, 2017, the Board of Directors (Board) approved externally rebranding M2 to OC Go to promote OCTA's Measure M awareness and public perception and to avoid confusion with Measure M in Los Angeles County.

To be cost effective and to facilitate accessibility and transparency of information available to stakeholders and the public, Measure M2 progress reports are presented on the Orange County Transportation Authority (OCTA) website. Hard copies are mailed upon request.



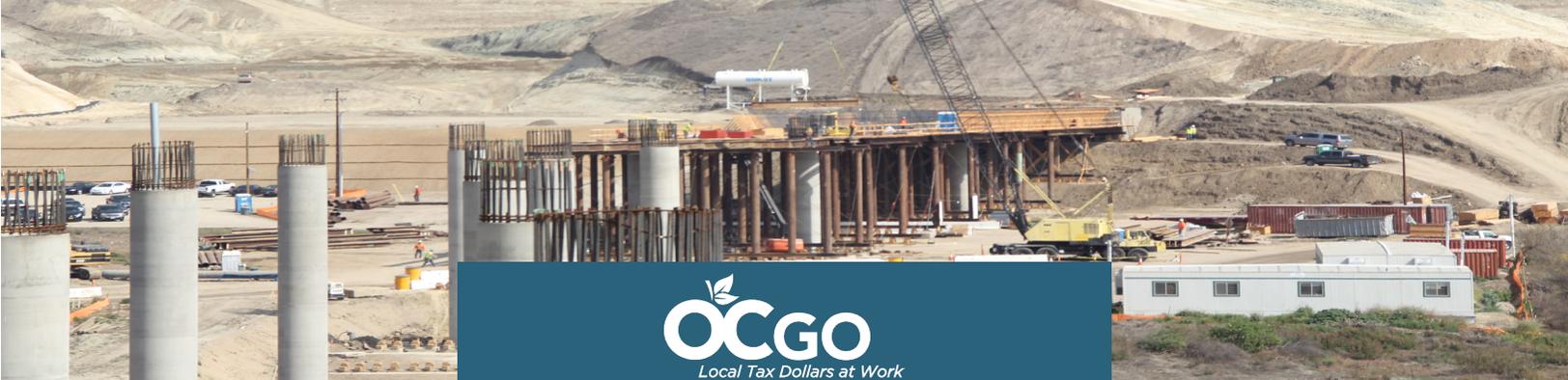
The cover photo shows the Full-Funding Grant Agreement (FFGA) for the OC Streetcar project. The FFGA was executed and a groundbreaking ceremony was held at the Santa Ana Regional Transportation Center on November 30, 2018.



MEASURE M2 PROGRESS REPORT

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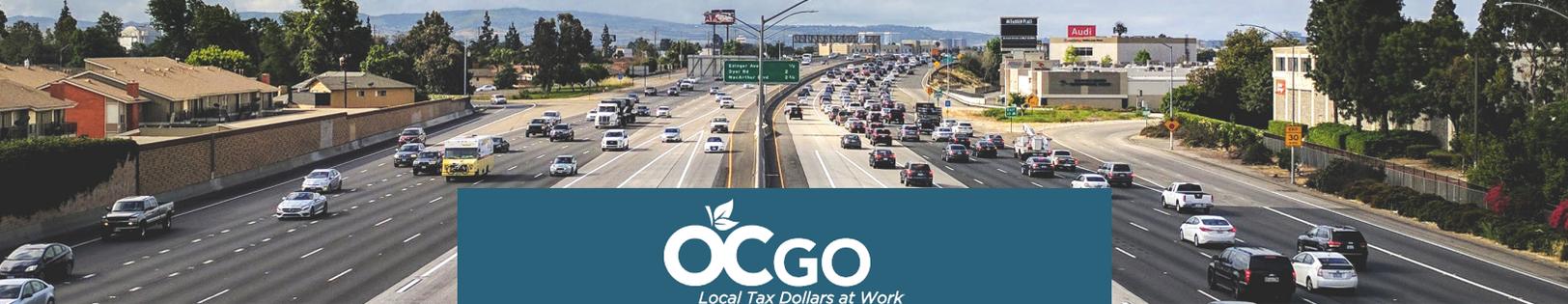
COMMON ABBREVIATIONS

Americans with Disabilities Act	ADA
Annual Eligibility Review	AER
Board of Directors	Board
Burlington Northern Santa Fe	BNSF
California Department of Fish and Wildlife	CDFW
California Department of Tax and Fee Administration	CDTFA
California Department of Transportation	Caltrans
California Transportation Commission	CTC
Capital Action Plan	CAP
Capital Investment Grant	CIG
Chief Executive Officer	CEO
Cost Estimate Review	CER
Congestion Mitigation and Air Quality	CMAQ
Draft Environmental Document	DED
Draft Project Report	DPR
Environmental Cleanup Allocation Committee	ECAC
Environmental Cleanup Program	ECP
Environmental Document	ED
Environmental Impact Report	EIR
Environmental Impact Statement	EIS
Environmental Mitigation Program	EMP
Environmental Oversight Committee	EOC
Federal Highway Administration	FHWA
Federal Transit Administration	FTA
Federal Transportation Improvement Program	FTIP
Freeway Service Patrol	FSP
Full Funding Grant Agreement	FFGA
High Occupancy Vehicle	HOV
Interstate 15	I-15
Interstate 405	I-405
Interstate 5	I-5
Interstate 605	I-605
Invitation for Bids	IFB
Local Faire Share Program	LFSP
Los Angeles – San Diego – San Luis Obispo	LOSSAN
Los Angeles County Metropolitan Transportation Authority	LA Metro
Measure M2 or Renewed Measure M	M2
Memorandum of Understanding	MOU
Metrolink Service Expansion Program	MSEP



COMMON ABBREVIATIONS

Next 10 Delivery Plan	Next 10
Natural Community Conservation Plan/Habitat Conservation Plan	Conservation Plan
Orange County Transportation Authority	OCTA
Orange County Unified Transportation Trust	OCUTT
Pacific Coast Highway	PCH
Plans, Specifications and Estimates	PS&E
Program Management Office	PMO
Project Development Team	PDT
Project Study Report	PSR
Ready to List	RTL
Request for Proposals	RFP
Resource Management Plan	RMP
Right-of-Way	ROW
Riverside County Transportation Commission	RCTC
Santa Ana Regional Transportation Center	SARTC
Senate Bill 1	SB 1
Senior Mobility Program	SMP
Senior Non-Emergency Medical Transportation	SNEMT
Southern California Association of Governments	SCAG
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 74	SR-74
State Route 91	SR-91
State Transportation Improvement Program	STIP
State Water Resources Control Board	SWRCB
Southern California Regional Rail Authority	SCRRA
Taxpayer Oversight Committee	TOC
To Be Determined	TBD
Trade Corridors Improvement Funds	TCIF
Transportation Infrastructure Finance and Innovation Act	TIFIA
United States Army Corps of Engineers	ACOE
United States Fish and Wildlife Service	USFWS
United States Department of Transportation	USDOT




MEASURE M2 PROJECT SCHEDULES



Conceptual



Environmental



Design, Advertise, & Award



Design-Build



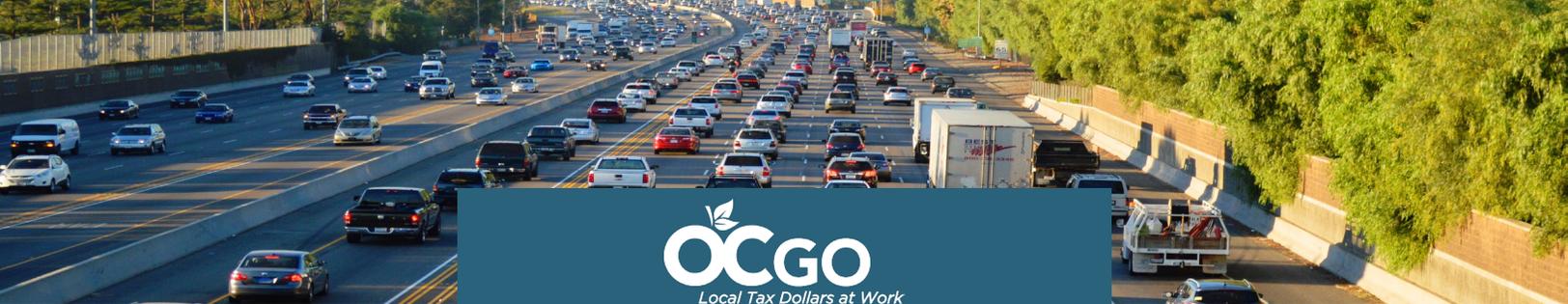
Construction



Complete

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
A	I-5, SR-55 to SR-57	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2021), Complete (2021-2022)]												
B	I-5, I-405 to SR-55 (Further Schedule TBD)	[Gantt chart showing phases: Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2020), Complete (2020-2021)]												
C, D	I-5, Avenida Pico to Avenida Vista Hermosa/Avenida Pico Interchange	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2020), Complete (2020-2021)]												
C	I-5, Avenida Vista Hermosa to Pacific Coast Highway (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2020), Complete (2020-2021)]												
C	I-5, Pacific Coast Highway to San Juan Creek Road	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2020), Complete (2020-2021)]												
C, D	I-5, SR-73 to Oso Parkway/Avery Parkway Interchange	[Gantt chart showing phases: Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2021), Complete (2021-2024)]												
C, D	I-5, Oso Parkway to Alicia Parkway/La Paz Road Interchange	[Gantt chart showing phases: Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2021), Complete (2021-2023)]												
C	I-5, Alicia Parkway to El Toro Road	[Gantt chart showing phases: Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2021), Complete (2021-2023)]												
D	I-5, El Toro Interchange (Further Schedule TBD)	[Gantt chart showing phases: Design, Advertise, & Award (2017-2018), Design-Build (2018-2019), Construction (2019-2020), Complete (2020-2021)]												
D	I-5, Ortega Interchange (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
E	SR-22, Access Improvements (Complete)	<i>Completed in 2008</i>												
F	SR-55, I-405 to I-5	[Gantt chart showing phases: Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2021), Complete (2021-2024)]												
F	SR-55, I-5 to SR-91 (Further Schedule TBD)	[Gantt chart showing phases: Design, Advertise, & Award (2016-2017), Design-Build (2017-2018), Construction (2018-2019), Complete (2019-2020)]												
G	SR-57 NB, Katella Avenue to Lincoln Avenue (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
G	SR-57 NB, Orangethorpe Avenue to Yorba Linda Boulevard (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
G	SR-57 NB, Yorba Linda Boulevard to Lambert Road (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
G	SR-57 NB, Lambert Road to Tonner Canyon Road (Further Schedule TBD)	[Gantt chart showing phases: Construction (2020-2021), Complete (2021-2023)]												
G	SR-57, Orangewood Avenue to Katella Avenue (Further Schedule TBD)	[Gantt chart showing phases: Design, Advertise, & Award (2016-2017), Design-Build (2017-2018), Construction (2018-2019), Complete (2019-2020)]												
H	SR-91 WB, I-5 to SR-57 (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
I	SR-91 WB, SR-55 to Tustin Avenue Interchange (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
I	SR-91, SR-55 to SR-57 (Further Schedule TBD)	[Gantt chart showing phases: Environmental (2014-2015), Design, Advertise, & Award (2015-2018), Design-Build (2018-2019), Construction (2019-2021), Complete (2021-2022)]												
J	SR-91, SR-55 to SR-241 (Complete)	[Gantt chart showing phases: Conceptual (2013-2014), Environmental (2014-2015), Design, Advertise, & Award (2015-2016), Design-Build (2016-2017), Construction (2017-2018), Complete (2018-2019)]												
J	SR-91, SR-241 to SR-71 (Complete)	<i>Completed in 2011</i>												

Project schedules are based on phase start dates. Shown schedules are subject to change.



MEASURE M2 PROJECT SCHEDULES

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
J SR-91, SR-241 to I-15 (Further Schedule TBD)													
K I-405, SR-73 to I-605													
L I-405, I-5 to SR-55 (Further Schedule TBD)													
M I-605, Katella Interchange (Further Schedule TBD)													
O Kraemer Boulevard Grade Separation (Placentia)													
O Lakeview Avenue Grade Separation (Anaheim/Placentia)													
O Orangethorpe Avenue Grade Separation (Anaheim/Placentia)													
O Placentia Avenue Grade Separation (Placentia)													
O Raymond Avenue Grade Separation (Fullerton) ¹													
O State College Blvd Grade Separation (Fullerton) ¹													
O Tustin Ave/Rose Drive Grade Separation (Anaheim/Placentia)													
R Sand Canyon Grade Separation (Irvine)													
R Rail-Highway Grade Crossing Safety Enhancement													
R San Clemente Beach Trail Safety Enhancements													
R Anaheim Canyon Metrolink Station Improvements													
R Fullerton Transportation Center Improvements													
R Laguna Niguel/Mission Viejo Metrolink Station Americans with Disabilities Act (ADA) Ramps													
R Orange Transportation Center Metrolink Parking Structure													
R Placentia Metrolink Station Improvements and Parking Structure													
R San Clemente Pier Station Lighting													
R Laguna Niguel to San Juan Capistrano Metrolink Station Passing Siding Project													
R Tustin Metrolink Station Parking Structure													
R,T Anaheim Regional Transportation Intermodal Center (ARTIC) ¹													
S OC Streetcar													

Project schedules are based on phase start dates. Shown schedules are subject to change.

¹ Projects managed by local agencies



MEASURE M2 PROGRESS REPORT

M2 DELIVERY RISK UPDATE ▼

This section discusses the risks and challenges related to Measure M2 and the 2018 update of the Next 10 Delivery Plan (Next 10) that the Measure M2 Program Management Office (PMO) is monitoring – complete with associated explanations and proposed actions.

Delivery Risk	Explanation	Proposed Action
Financial		
1	The 2018 M2 revenue forecast estimate is \$13.1 billion, which represents a 46 percent decrease in forecasted revenue since M2 adoption. If sales tax revenue continues to be lower than projections, this will further challenge delivery.	Sales tax revenue has been impacted by the recession and changes in consumer spending habits.
2	The 2018 lower forecast results in greater reliance on external funding to deliver the entire Freeway Program as listed. OCTA will continue to actively pursue available state and federal revenue, and work with the California Department of Transportation (Caltrans) to identify lower cost freeway alternative options for approval.	Inability to scale the Freeway Program to available revenue and still deliver the promise.
3	The freeway program includes set project scopes leaving very little flexibility in what is delivered.	OCTA will work closely with Caltrans to review value engineering strategies on freeway projects.
4	Sustain Metrolink train service, as an attractive alternative to driving in Orange County with the limits of available revenue.	Operational cost of Metrolink service continues to grow as system ages, track-sharing arrangements with Burlington Northern Santa Fe Railway (BNSF) are revised, and new air quality requirements. These changes may impact service long term.
5	Staff will continue to work closely with Metrolink and our partners to ensure cost increases are minimized, while seeking external revenue.	The Next 10 Market Conditions Forecast and Risk Analysis identified strong potential for an increasing-cost environment during the Next 10 delivery years.
6	A construction cost pressure index model was created to provide insight on forecasting capital costs. The index tracks four near-term cost risks: economic trends (building permits and unemployment), material costs, wage pressures, and economic conditions.	A program level line item for an economic uncertainty allowance has been included in the freeway cash flow intended to safeguard the program and protect against over-committing. OCTA will continue to monitor and track key early warning indicators and will report in March if significant changes warrant further discussion.



MEASURE M2 PROGRESS REPORT

Delivery Risk	Explanation	Proposed Action		
Organizational				
5	Availability of specialized staff, given the scope of the M2 capital program.	External demand for key talent is becoming more of an issue as large infrastructure programs move forward in the region. Timely completion of engineering and construction related support of the capital program is key to reduce project delivery risk.		
Expert and timely coordination between OCTA and Caltrans are imperative to manage this risk. Staff is currently working with Caltrans to ensure resource needs are met. Internally OCTA's Human Resources Division continues to implement programs to retain and attract talent.	6	New operational responsibilities with the OC Streetcar.		
With the implementation of the OC Streetcar service, OCTA will be increasing its overall role in operations. OCTA holds a strong track record in operating various transportation systems including both a fixed and demand-based bus network.	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.	Policy		
7	New statewide directives create additional hurdles for the Freeway Program in particular.	New directives with greenhouse gas reductions and managed lane corridors focus, may impact approvals for four of the remaining freeway projects with general purpose lanes that are not yet environmentally cleared.	OCTA will work closely with Caltrans to ensure that when freeway improvement projects are reviewed the commitment to Orange County voters is understood.	



MEASURE M2 PROGRESS REPORT

Next 10 Delivery Plan ▼

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On November 14, 2016, the Board approved the Next 10 Delivery Plan (Next 10), providing guidance to staff on delivery of M2 projects and programs between 2017 and 2026. The Next 10 was updated to address and incorporate the 2018 sales tax revenue forecast of \$13.1 billion. The 2018 update of then Next 10 incorporates current revenue projections, bonding assumptions, project costs and schedule, and adjustments ensuring continued delivery of the complete M2 Program by 2041 as promised.

Next 10 Plan Deliverables

The Next 10 Plan is based on ten deliverables intended to provide guidance on program and project delivery during the ten-year period. With nearly two years of the ten-year plan complete, progress on the ten deliverables and accomplishments to date is provided. Significant progress has been made, with projects completing construction, projects in and advancing towards construction, as well as regular funding allocations to local jurisdictions through programs.

1. Deliver \$3.5¹ billion of freeway improvements approved through construction (Projects A-M).

The M2 freeway program currently consists of 27 projects or project segments. At the point of Next 10 adoption in September 2016, nine projects were completed, and another nine were designated to be complete within the Next 10 time-frame. Together, the segments designated for completion by 2026 make up a \$3.1 billion delivery promise. Since Next 10 adoption, three segments of the Interstate 5 (I-5) between Avenida Pico and San Juan Creek Road, opened to traffic in March 2018, adding six miles of carpool lanes. The remaining six segments are in design or construction. Funded with 91 Express Lanes excess revenues, a tenth project, the SR-91 between SR-57 to SR-55 (Project I) was designated a priority project and is now part of Deliverable 1 (planned to be complete by 2029). With this project, OCTA will deliver \$3.5 billion of freeway improvements approved through construction. For more details, see [pages iii-iv](#) (Project Schedules) and the project updates contained in the following pages.

2. Invest approximately \$715¹ million more in revenues, bringing the completed Freeway Program improvements to \$4.3 billion (Projects A-M).

The final eight remaining project segments (of the 27 total) are environmentally cleared or on track to be environmentally cleared by 2026, making them “shelf ready” for future advancement. Currently, two of the eight (Projects L and M) are environmentally cleared and shelf ready. In all, during the Next 10 time-period, approximately \$4.3 billion in freeway improvements promised to the voters in M2 will be completed or underway by 2026. Using the guiding principles adopted by the Board, Deliverable 2 includes approximately \$715 million in funding to move another project (or projects) directly into design and construction if assumptions on revenues and costs hold. For more details, see [pages iii-iv](#) (Project Schedules) and the project updates contained in the following pages.

¹ Because Project I is now included with Deliverable 1, the original Deliverable 1 investment increased to \$3.5 billion, and the original Deliverable 2 investment of \$1.2 billion has been reduced to \$715 million. The overall freeway deliverable commitment remains the same at \$4.3 billion.



MEASURE M2 PROGRESS REPORT

3. Allocate \$1 billion, with \$400 million in competitive funding to local jurisdictions to expand roadway capacity and synchronize signals (Project O and P) and \$600 million in flexible funding to local jurisdictions to help maintain aging streets or for use on other transportation needs, as appropriate (Project Q).

Since the adoption of the Next 10 Plan in November 2016, OCTA has awarded approximately \$82 million in competitive funding through the Regional Capacity Program (Project O) and Regional Traffic Signal Synchronization Program (Project P). Additionally, \$117.4 million in Local Fair Share (Project Q) funds have been distributed to local agencies. This brings the total allocation to date to \$199.4 million. On August 13, 2018, the Board approved the release of the 2019 Call for Projects for approximately \$32 million for Project O and \$8 million for Project P funding. Final programming recommendations will be presented to the Board by mid-2019. Additionally, all seven bridges included in the OC Bridges program are complete. For more details, see the project updates on [page 18](#).

4. Extend Metrolink service from Orange County into Los Angeles County, contingent upon cooperation and funding participation from route partners; complete six rail station improvements (Project R).

The Southern California Regional Rail Authority (SCRRA) continues to work on behalf of its members, the Riverside County Transportation Commission (RCTC), Los Angeles County Metropolitan Transportation Authority (LA Metro), and OCTA, to negotiate an agreement with the BNSF Railway for the shared use of their corridor and associated indemnification and liability. This agreement is necessary to secure additional operating slots in order to provide additional passenger rail service on railroad right-of-way (ROW) owned by the BNSF. Special counsel has been brought in to assist in these negotiations.

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. The Next 10 Plan identifies six projects to be completed by 2026: 1) Laguna Niguel/Mission Viejo Metrolink Station ADA ramps (completed September 2017), 2) Orange Metrolink Station Parking Structure (construction 95% complete), 3) Placentia Metrolink Station (construction to begin late-2019 contingent on BNSF memorandum of understanding approval), 4) Anaheim Canyon Metrolink Station Improvement Project (construction to begin late 2019), 5) Fullerton Transportation Center elevators (construction 85% complete), and 6) San Clemente Pier Metrolink/Amtrak Station Lighting Project (completed March 2017). For more details, see the project updates on [page 24](#).

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

OC Streetcar

Activities continue to move forward, including final possession of remaining required ROW, procurement of demolition services, coordination with third parties on utility relocation, finalizing the California Public Utilities Commission safety approvals for the OC Streetcar's grade crossings certification, finalizing the scope of services for the operations and maintenance request for proposals, and continued coordination with the Federal Transit Administration (FTA) on the status of the FFGA. The streetcar vehicle manufacturing contract has been executed and the notice to proceed has been issued. The FTA continues to show strong support for



the project, and a FFGA was executed in November 2018. See [page 27](#) for more information.

Bristol Street Transit Corridor Study

The study is focused on Bristol Street between West 17th Street and Sunflower Avenue (South Coast Metro); and will also evaluate connections to the John Wayne Airport and the Santa Ana Regional Transportation Center. The study will analyze and develop up to six conceptual transit alternatives for the Bristol Street Corridor. The kick-off meeting with the consultant team was held on October 3, 2018 and monthly coordination meetings were held throughout the quarter. During these meetings the team discussed prior studies and data collection, the proposed outreach plan, and preparation for the initial Project Development Team (PDT) meeting. The PDT meeting was held on November 13, 2018 and included representatives from the cities of Santa Ana, Costa Mesa and Irvine as well as Caltrans and the John Wayne Airport. At this meeting the team discussed the study scope and timeline and solicited input from the external agencies regarding constraints and opportunities in the corridor. The next PDT meeting is scheduled for January 15, 2019 and will focus on the corridor definition and identification of mobility issues. The team is currently working on Task 2 of the scope of work, establishing the purpose and need and goals and objectives.

6. Provide up to \$115 million in funding to expand mobility choices for seniors and persons with disabilities (Project U).

Approximately \$22.5 million has been provided for the Senior Mobility Program (SMP), the Senior Non-Emergency Medical Transportation Program (SNEMT), and the Fare Stabilization Program since the Next 10 Plan adoption. See [page 29](#) for more information.

7. Work with local agencies to develop a plan for the next community circulator projects to provide grant opportunities for local agencies to implement effective local transit services (Project V).

In December 2017, OCTA staff requested letters from local agencies to determine interest for a future round of Project V funding. OCTA received 13 letters of interest and in February 2018, the Board initiated a 2018 Project V Call for Projects. On June 25, 2018 the Board awarded \$6.8 million to fund six Community-Based Transit Circulators Projects. For additional details and information on current project program performance and service see [page 30](#).

8. Allocate up to \$7 million in funding to improve the top 100 busiest bus stops and support the modernization of the bus system to enhance the customer experience (Project W).

To date, the Board has approved up to \$1.2 million to support 51 city-initiated improvements and \$370,000 for OCTA initiated improvements. The City of Anaheim postponed development of eight stops. Of the remaining 43 stops, 14 stops have been completed and the remaining 29 stops are in the project closeout process. Closeout of all projects is anticipated next quarter. OCTA initiated improvements were originally programmed to support the “Text for Next” program and later the OCTA mobile ticketing application—both of these projects ultimately received funding from other external sources.

A second Project W call for projects is anticipated to be released in October, providing up to \$3.0 million (in total) to eligible agencies to make bus stop amenity improvements including installation of bus benches or seating, shelters, lighting, and other passenger related amenities. Eligible agencies (including OCTA) may potentially qualify to receive between \$20,000 to 35,000 (per eligible bus stop) to make passenger amenity



improvements. Final funding recommendations are anticipated to be presented to the Board in early 2019. For additional details see [page 31](#).

9. Ensure the ongoing preservation of purchased open space (Preserves) 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).

The Freeway Mitigation Program Preserves includes seven properties (1,300 acres), and 12 restoration projects (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 Environmental Mitigation Program, allowing streamlined project approvals for the freeway improvement projects. The Conservation Plan also includes a streamlined process for coordination of streambed alternation agreements. In January 2018, the OCTA secured programmatic permits and assurances for federal and state clean water permitting requirements. Receipt of these permits represent the culmination of years of collaboration and support by the Board, environmental community, and regulatory agencies.

To ensure ongoing preservation of the open space, an endowment was established to pay for the long-term management of the Preserves. Approximately \$2.9 million will be deposited annually. The third deposit was made in August 2018. For more details, see the project updates on [page 32](#).

10. Work with the Environmental Cleanup Allocation Committee (ECAC) to develop the next tiers of water quality programs, with a goal of providing \$40 million in grants 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).

Since adoption of the Next 10 Plan in November 2016, OCTA issued two calls for Tier 1 ECP projects. The Board awarded approximately \$5.59 million to fund 28 Tier 1 projects. Staff anticipates the next Tier 2 call in 2021, dependent on projected cash flow and local jurisdictions' interest in potential viable Tier 2 projects. For more details, see the project updates on [page 33](#).



FREWAYS

INTERSTATE 5 (I-5) PROJECTS ▾

Segment: I-5, Between SR-55 and SR-57

PROJECT A

Status: Construction Underway – 1% complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will increase high occupancy vehicle (HOV) capacity by adding a second HOV lane in both directions along I-5 between SR-55 and SR-57 in Santa Ana. In February 2018, the project received federal authorization (E-76) allowing it to be advertised for construction. After all Bidders were deemed “unresponsive” as each did not meet the bidding requirements in the first advertisement, the project was re-advertised on August 27, 2018 and bids were opened on October 18, 2018. The construction contract with Obrascón Huarte Lain (OHL) USA, Inc. was approved on December 28, 2018. Due to changes in scope, the replacement of State Transportation Improvement Program (STIP) funds with Congestion Mitigation and Air Quality (CMAQ) funds, and the need to re-advertise for construction bids, this project was delayed 11 months beyond the original schedule. Construction is expected to begin in early 2019 and be completed mid-2021.

Segment: I-5, I-405 to SR-55

PROJECT B

Status: Environmental Phase Underway - 91% Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will add one general purpose lane in each direction of the I-5 corridor and improve interchanges in the area between SR-55 and SR-133 (near the El Toro “Y” and I-405) in Tustin and Irvine. The environmental study will consider the addition of one general purpose lane on I-5 between just north of I-405 to SR-55. Additional features of Project B include the addition of auxiliary lanes in some areas and re-established in other areas within the project limits. During the quarter, the consultant completed and obtained Caltrans approval for the Draft Environmental Document (DED) and the Draft Project Report (DPR). The DED was circulated from mid-May and held two open house format public hearings in late May. To limit community impacts, the Design Standard Decision Document (formerly Fact Sheet) process is underway to address design variations due to tight ROW constraints. Due to lack of agreement over design variations needed to limit right-of-way impacts to businesses and communities, this project is marked “red” in the Capital Action Plan (CAP) signifying a 12 month delay for the completion of the environmental document. The selection of the preferred alternative is anticipated to be early 2019, and the completion of the final ED is expected to proceed in mid-2019.

FREWAYS

PROJECT C AND PART OF PROJECT D

I-5, Avenida Pico to San Juan Creek Road is one project broken into three segments, as described below.

Segment: I-5, Avenida Pico to Avenida Vista Hermosa/Avenida Pico Interchange

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: This segment added a carpool lane in each direction on I-5 between Avenida Pico and Avenida Vista Hermosa in San Clemente, and included major improvements through reconstruction of the Avenida Pico Interchange (part of Project D). The project also added bicycle lanes in both directions on Avenida Pico. Construction began in February 2015 and all three segments of the I-5 between Avenida Pico to San Juan Creek were opened to traffic on March 13, 2018. The project was officially completed on August 23, 2018. During the quarter, plant establishment continued and will be completed by May 2019.

Segment: I-5, Avenida Vista Hermosa to Pacific Coast Highway

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: This segment added a carpool lane in each direction of I-5 between Avenida Vista Hermosa and Pacific Coast Highway (PCH) in San Clemente, and also reconstructed on and off ramps at Avenida Vista Hermosa and Camino de Estrella. Construction began in September 2014 and all three segments of the I-5 between Avenida Pico to San Juan Creek were opened to traffic on March 13, 2018. The project was officially completed on July 31, 2017. The one-year plant establishment period for this segment was completed in May 2018.

Segment: I-5, Pacific Coast Highway to San Juan Creek Road

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: This segment added one carpool lane in each direction of the I-5 between PCH and San Juan Creek Road in the Cities of San Clemente, Dana Point, and San Juan Capistrano. Project improvements also reconstructed the on and off ramps at PCH/Camino Las Ramblas. Construction began in March 2014. Construction began in March 2014 and all three segments of the I-5 between Avenida Pico to San Juan Creek were opened to traffic on March 13, 2018. The project was officially completed on July 3, 2018. During the quarter, plant establishment continued and will be completed by March 2019.



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I-5, SR-73 to El Toro Road is one project broken into three segments, as described below. The OCTA cost estimate for this project is \$557.11 million, which is above the \$500 million threshold for a “Major Project” designation, as determined by the Federal Highway Administration (FHWA). Major projects require a Cost Estimate Review (CER) workshop, and a CER was conducted by the FHWA, Caltrans, and OCTA in February 2018. The CER estimates that the project may require additional funding up to \$55.75 million.

Segment: I-5, SR-73 to Oso Parkway/Avery Parkway Interchange

Status: Design Complete. Construction bid package preparation underway

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will make improvements along I-5 between SR-73 and Oso Parkway in the Cities of Laguna Hills, Laguna Niguel, and Mission Viejo. The proposed improvements include the addition of a general-purpose lane in each direction and reconstruction of the Avery Parkway Interchange (part of Project D). During the quarter, the consultant continued working on ROW appraisals and coordinated with utility agencies. Staff continued to coordinate with Caltrans to finalize and approve the required Fact Sheet. The 100 percent Plans, Specifications, and Estimates (PS&E) was re-submitted to Caltrans on December 10th implementing the latest Caltrans Highway Design Manual standards. The plans identified a higher cost estimate due to unit price increases, rise in Caltrans support costs, and schedule changes to address bird nesting season restrictions. Due to extended ROW coordination, this project is marked “red” in the CAP, due to a delay of 12 months beyond the original schedule. On March 21, 2018, the CTC approved the 2018 STIP update and programmed approximately \$31.166 million over Orange County’s share target. To maintain CTC funding limits in the next few years, STIP funding in this project was reduced to \$73.735 million. However, there is only \$35 million remaining in the FY18-19 STIP. Staff will work with the CTC staff and Caltrans to maintain the existing schedule. Proposition 1B Trade Corridors Improvement Funds (TCIF) for this project was authorized by the Board in November 2018. TCIF guidelines require the project to receive funding allocation by June 30, 2019.

Segment: I-5, Oso Parkway to Alicia Parkway/La Paz Road Interchange

Status: Design Complete. Construction bid package preparation underway.

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will make improvements along I-5 between Oso Parkway and Alicia Parkway in the Cities of Mission Viejo, Laguna Hills, and Lake Forest. The proposed improvements include the addition of a general-purpose lane in each direction and reconstruction of the La Paz Road Interchange (Part of Project D). Major activities this quarter included advertisement of the construction bid package on November 5, 2018 with bids scheduled to be opened on January 16, 2019. Staff also continued coordination of the service contract with SCRRA/Metrolink, and with Caltrans on ROW and utilities. OCTA and Caltrans received FHWA’s approval of the Financial Plan and Project Management Plan, in accordance with the FHWA’s “Major Project” Guidance. Due to extended ROW coordination, this project is marked “red” in the CAP, due to a delay of nine months beyond the original schedule. This project is anticipated to begin construction in early 2019.



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Segment: I-5, Alicia Parkway to El Toro Road
Status: Design Phase Underway - 95% Complete
Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will make improvements along I-5 between Alicia Parkway to El Toro Road in the Cities of Lake Forest, Laguna Hills, Laguna Woods and Mission Viejo, including the extension of the second HOV lane from El Toro Road to Alicia Parkway. Major activities this quarter included continued coordination with Caltrans, Orange County Parks and Orange County Flood Control regarding the planned work at Aliso Creek and coordination with the Army Corps of Engineers and the State Department of Fish and Wildlife. In this quarter, the Design consultant received the fifth round of comments from Caltrans regarding the final ROW mapping, . Due to extended ROW coordination with Caltrans and delayed design start date, this project is marked “red” in the CAP, due to a delay of over 13 months beyond the original schedule. The 100 percent Design Submittal is now anticipated for April 2019. The 2018 STIP increased STIP funds to \$69.1 million for this segment, but the segment is programmed in the STIP three years later than requested. Staff will work with the CTC staff and Caltrans to maintain the existing schedule.

PROJECT D

This project will update and improve key I-5 interchanges at Avenida Pico, Ortega Highway, Avery Parkway, La Paz, and at El Toro Road. Three interchange improvements at La Paz, Avery Parkway, and Avenida Pico are part of Project C.

Segment: I-5, Ortega Highway Interchange
Status: PROJECT COMPLETE
Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: Construction began in February 2013 to reconstruct the SR-74 Ortega Highway Bridge over I-5, and improve local traffic flow along SR-74 and Del Obispo Street in the City of San Juan Capistrano. All lanes on the new bridge were opened to traffic on September 4, 2015. A dedication ceremony was held on October 1, 2015. The project was officially completed on January 15, 2016.

Segment: I-5, El Toro Interchange
Status: Environmental Phase Underway - 45% Complete
Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: Caltrans is the lead in the environmental phase of this project which includes the study of four build alternatives that consider modifications to the existing interchange, ranging from a I-5 southbound direct connector to El Toro Road to modifications in how existing on and off ramp intersections operate. Work began in April 2017. Work during the quarter included continued preparation of engineering and environmental technical studies for each of the four build Alternatives. A Public Scoping Meeting was held on July 25, 2018 at Laguna



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Woods City Hall. Caltrans provided a study update to the OCTA Board on October 8, 2018. The next update to the Board is anticipated in March 2019. The environmental phase is anticipated to be completed in late 2019.

STATE ROUTE 22 (SR-22) PROJECTS ▾

Segment: SR-22 Access Improvements

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: Completed in 2008, Project E made improvements at three key SR-22 interchanges (Brookhurst Street, Euclid Street, and Harbor Boulevard) in the City of Garden Grove to reduce freeway and street congestion in the area. This M2 project was completed early as a “bonus project” provided by the original Measure M (M1).



PROJECT E

STATE ROUTE 55 (SR-55) PROJECTS ▾

Segment: SR-55, I-405 to I-5

Status: Design Phase Underway - 60% Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will widen SR-55 in the Cities of Irvine, Santa Ana, and Tustin. Through a cooperative agreement, Caltrans and OCTA’s consultant initiated the 65 percent design which will be completed in mid-January 2019. Caltrans is responsible for developing and seeking approval of the required Supplemental Fact Sheet addressing necessary design variations on the project. The Supplemental Fact Sheet is anticipated to be completed by April 2019. The ROW cooperative agreement between OCTA and Caltrans was executed in June 2018. ROW and utility coordination have been initiated and are ongoing. The project is anticipated to be ROW Certified and ready to list (RTL) by December 2020. OCTA received \$12.6 million for this segment through the 2018 STIP, however the segment is currently programmed in the STIP one year later than requested. Staff will work with the CTC staff and Caltrans to maintain the existing schedule.

PROJECT F

Segment: SR-55, I-5 to SR-91

Status: Environmental Phase Underway - 66% Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will study SR-55 between I-5 and SR-91 in the Cities of Santa Ana, Tustin, Orange and Anaheim. The environmental study will consider the addition of one general purpose lane in each direction between SR-22 and the I-5 and provide operational improvements between SR-22 and SR-91. During the quarter, the consultant continued working on technical studies and obtained approval on several technical studies. The Public Information Meeting was held early June 2018. The final ED is expected to be released early 2020.



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STATE ROUTE 57 (SR-57) PROJECTS ▾



PROJECT G

Segment: SR-57 Northbound, Katella Avenue to Lincoln Avenue

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project increased capacity and improved operations on northbound SR-57 between Katella Avenue and Lincoln Avenue in the City of Anaheim with the addition of a new 3-mile general purpose lane, on- and off-ramp improvements, and sound walls. Bridges at Katella Avenue and Douglas Road were also widened in the northbound direction. The project opened to traffic on November 19, 2014 and completed on April 21, 2015.

Segment: SR-57 Northbound, Orangethorpe Avenue to Yorba Linda Boulevard



Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project increased capacity and improved operations on northbound SR-57 with a new 2.5-mile northbound general-purpose lane between Orangethorpe Avenue in the City of Placentia to Yorba Linda Boulevard in the City of Fullerton. In addition to the new lane, capital improvements include reconstruction of northbound on- and off-ramps, widening of seven bridges, and the addition of soundwalls. The new general purpose lane was opened to traffic on April 28, 2014. The project was completed on November 6, 2014.

Segment: SR-57 Northbound, Yorba Linda Boulevard to Lambert Road



Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: Completed on May 2, 2014, this project improved capacity, operations, and traffic flow on SR-57 with the addition of a new 2.5-mile northbound general-purpose lane between Yorba Linda Boulevard in the City of Fullerton and Lambert Road in the City of Brea. Additional project benefits include on- and off-ramp improvements, the widening and seismic retrofit (as required) of six bridges in the northbound direction and the addition of soundwalls. Existing lanes and shoulders were also widened to standard widths, enhancing safety for motorists. The new general purpose lane was opened to traffic on September 23, 2013. The project was completed on May 2, 2014.



Segment: SR-57 Northbound, Lambert Road to Tonner Canyon Road

Status: Environmental phase expected to begin in mid-2020

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: Caltrans previously completed a Project Study Report (PSR)/Project Development Support document for the Lambert Road to Tonner Canyon Road segment, which would add a truck-climbing lane from Lambert Road to Tonner Canyon Road in the City of Brea. The mainline project includes interchange and ramp improvements at Lambert Road. Through the SB 1 Trade Corridor Enhancement Program, funds were allocated to initiate the environmental phase for interchange improvements at Lambert Road which will complement and serve as a first phase to the freeway improvement project. Phase 2, which is the mainline improvements, was approved for STIP funding in March 2018 to initiate the environmental phase to study the truck-climbing lanes in mid-2020. This project will coordinate with and take into consideration any related work by LA Metro across the county line.

Segment: SR-57 Northbound, Orangewood Avenue to Katella Avenue

Status: Environmental Phase Underway - 85% Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project studies the addition of a northbound general purpose lane on SR-57 from Orangewood Avenue to Katella Avenue in the Cities of Anaheim and Orange. The northbound general-purpose lane under this study would join the northbound general purpose lane which was opened to traffic in 2014 between Katella Avenue and Lincoln Avenue. During the quarter the Draft Environmental Document and Draft Project Report were approved and the public review/circulation period took place from October 11, 2018 to November 9, 2018, with a Public Hearing held in the City of Orange on October 25th 2018. The environmental phase is anticipated to be complete in early 2019. This project is marked “yellow” in the CAP, signifying a delay of two months beyond the original schedule.

STATE ROUTE 91 (SR-91) PROJECTS ▼

Segment: SR-91 Westbound, I-5 to SR-57

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



PROJECT H

Summary: This project increased capacity in the westbound direction of SR-91 by adding an additional general purpose lane in the westbound direction between Anaheim and Fullerton, and provided operational improvements at on and off-ramps between Brookhurst Street and State College Boulevard. The general purpose lane was opened to traffic on March 7, 2016. Construction is 100 percent complete, as of June 23, 2016.



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Segment: SR-91, SR-55 to Tustin Avenue Interchange

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



PROJECT I

Summary: This project improved traffic flow at the SR-55/SR-91 interchange by adding a westbound auxiliary lane beginning at the northbound SR-55 to westbound SR-91 connector through the Tustin Avenue interchange in the City of Anaheim. The project was intended to relieve weaving congestion in the area and included reconstruction of the westbound side of the Santa Ana River Bridge to accommodate the additional lane. The bypass lane was open to traffic on May 14, 2016. Construction completed on July 15, 2016 and Contract Acceptance was granted on October 31, 2016.

Segment: SR-91, SR-55 to SR-57

Status: Environmental Phase Underway - 87% Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project will improve traffic flow and operations along SR-91 within the Cities of Fullerton and Anaheim. The study will look at the addition of one general purpose lane eastbound between SR-57 and SR-55, and one general purpose lane westbound from the NB SR-57 connector to State College Boulevard. Additional features of this project include improvements to various interchanges. Auxiliary lanes will be added in some segments and re-established in others within the project limits. During this quarter, the consultant obtained approval on remaining environmental and engineering technical studies, draft ED and draft PR. Due to Caltrans requiring extra work to study interchange improvements outside of the completed PSR and the M2 promised project, the project is marked “red” in the CAP signifying a delay of 10 months from its original schedule. SR-91 Express Lanes excess revenue is designated to pay for the mainline freeway improvements included in M2. A study update was provided to the Board on November 26, 2018. The draft ED has been circulated to the public and an open house format public hearing was held in December 2018. The final ED is anticipated to be complete in mid-2019. This project is anticipated to proceed into design shortly following the completion of this study.

Segment: SR-91, SR-55 to SR-241

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



PROJECT J

Summary: This completed Project J segment added six miles in the westbound and eastbound direction to a key stretch of SR-91 between SR-55 and SR-241 in the Cities of Anaheim and Yorba Linda. In addition to adding 12 lane miles to SR-91, the project also delivered a much needed second eastbound exit lane at the Lakeview Avenue, Imperial Highway and Yorba Linda Boulevard/Weir Canyon Road off-ramps. Beyond these capital improvements, crews completed work on safety barriers, lane striping and soundwalls. Completion of this

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project in March 2013 means a total of 18 lane miles have been added to SR-91 since December 2010. The lanes opened to traffic in December 2012, and construction completed on March 5, 2013.

Segment: SR-91, SR-241 to SR-71

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: Completed in January 2011, this segment added six miles through a key stretch of SR-91 between Orange County's SR-241 and Riverside County's SR-71. The project improves mobility and operations by reducing traffic weaving from traffic exiting at SR-71 and Green River Road. An additional eastbound general purpose lane on SR-91 was added and all existing eastbound lanes and shoulders were widened. The new facilities were opened to traffic on December 2, 2010 and construction completed January 31, 2011. Because this project was shovel-ready, OCTA was able to obtain American Recovery and Reinvestment Act funding for this M2 project, saving M2 revenues for future projects.

Segment: SR-91, SR-241 to I-15

Status: RCTC's Design-Build - Initial Phase Complete March 20, 2017

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: The purpose of this project is to extend the 91 Express Lanes eastward from its current terminus in Anaheim to I-15 in Riverside County. This project will also add one general purpose lane in each direction of SR-91, from SR-71 to I-15, and construct various interchange and operational improvements. On March 20, 2017, the RCTC contractors completed the \$1.3 billion initial phase freeway improvement project which extended the 91 Express Lanes from Orange County to I-15 in Riverside County, added a general-purpose lane east of SR-71 to I-15, and provided tolled express connectors between SR-91 and I-15. While the portion of this project between SR-241 and the Orange County/Riverside County line is part of OCTA's M2 Project J, the matching segment between the county line and SR-71 is part of RCTC's Measure A. The ultimate project widens all SR-91 general purpose lanes to standard lane and shoulder widths from SR-241 to SR-71 (RCTC is responsible for the lane improvements between Green River and SR-71 while OCTA will be responsible for the lane improvements west of Green River to SR-241). To maintain synchronization, these general-purpose lanes improvements, which span both counties, will be scheduled to ensure coordinated delivery of both portions of the project, and will provide a continuous segment that stretches from SR-241 to SR-71. While construction of the final additional general-purpose lane between SR-241 and SR-71 was planned to take place post-2035, the RCTC has requested acceleration of the 91 Corridor Operation Project (adding a sixth lane in the westbound direction) to address a bottleneck issue in the city of Corona. OCTA is supportive of having this discussion.

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INTERSTATE 405 (I-405) PROJECTS ▾

Segment: I-405, SR-73 to I-605

PROJECT K

Status: Design-Build Underway

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: OCTA and Caltrans are working together to widen I-405 through the Cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Seal Beach, and Westminster. These improvements will add one general purpose lane, add a second lane to be combined with the existing HOV lane to provide a dual express lanes facility, and improve the local interchanges along the corridor from SR-73 to I-605.²

During the quarter, work continued on ROW acquisition, utility coordination, environmental permitting, and public outreach. Other work includes review of design-builder submittals including design and construction submittals. OCTA's toll lanes system integrator, Kapsch, is now under contract and working with OCTA and the design-builder. In December, OCTA received the second TIFIA loan disbursement in the amount of \$122 million. Clearing and grubbing, including tree and ground cover removal, and rough grading activities have also advanced in the last quarter. More recently, significant roadway construction activities, such as installation of drainage systems and paving operations, have begun. The previously demolished Slater Avenue and McFadden Avenue bridges are anticipated to be complete and open to traffic in late 2019. At Goldenwest Street, a minor partial demolition of the bridge was performed in November 2018. This is a two-stage bridge, which means traffic will be maintained on the remaining portion of the bridge while the first half of the new bridge is constructed. In December 2018, both the Bolsa Chica Road and Magnolia Street bridges were partially demolished. These are also two-stage bridges.

Lastly, OCTA continued targeted public outreach this past quarter in the form of neighborhood meetings in anticipation of the bridge demolition and construction activities mentioned previously. Construction is scheduled to be completed in 2023.

²The general purpose lane portion of the project is a M2 project and will be funded by a combination of local, state and federal funds, with the express lanes portion of the project financed and primarily paid for by those who choose to pay a toll and use the 405 Express Lanes.

Segment: I-405, I-5 to SR-55

PROJECT L

Status: Environmental Phase Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: This project studied the addition of general purpose lanes on the I-405 corridor between I-5 and SR-55 in Irvine. The final Project Report (PR) and Environmental Document (ED) were completed in August 2018. The project development team reviewed the alternatives and public comments received during public circulation and as a result of the effort, recommended adding one general purpose lane in each direction. The Next 10 Plan sets direction through 2026; as projects listed are completed, schedules and revenues will be reviewed, and the



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Board will adopt a new delivery plan providing direction on further project advancement. Using only Measure M funding, this project is scheduled to move into design beyond 2026, however, projects that compete best for external funding are those that are already environmentally cleared. OCTA continually looks for opportunities to accelerate construction by taking advantage of state and federal dollars.

INTERSTATE 605 (I-605) PROJECTS ▼

Segment: I-605, Katella Interchange Improvements

Status: Environmental Phase Complete

Contact: Rose Casey, Capital Projects • (714) 560-5729

PROJECT M

Summary: This project will improve freeway access and the arterial connection to I-605 at Katella Avenue in the City of Los Alamitos and the County of Orange. Improvements under this project will include enhancements at the on-ramps and off-ramps in addition to operational improvements on Katella Avenue at the I-605 Interchange. During the quarter, the final ED was approved in October 2018 and the final PR was approved in November 2018. The project development team reviewed the alternatives and public comments received during public circulation and as a result of the effort, recommended modification of interchange ramps and lane configurations on Katella Avenue from Coyote Creek Channel to Civic Center Drive. The Next 10 Plan sets direction through 2026; as projects listed are completed, schedules and revenues will be reviewed, and the Board will adopt a new delivery plan providing direction on further project advancement. Using only Measure M funding, this project is scheduled to move into design beyond 2026, however, projects that compete best for external funding are those that are already environmentally cleared. OCTA continually looks for opportunities to accelerate construction by taking advantage of state and federal dollars.

FREEWAY SERVICE PATROL ▼

Status: Service Ongoing

Contact: Cliff Thorne • (714) 560-5975

PROJECT N

Summary: M2's Freeway Service Patrol (FSP) began operation in June 2012 and provides tow truck service for motorists with disabled vehicles on the freeway system to help quickly clear freeway lanes and minimize congestion. During the quarter, the midday service provided assistance to 949 motorists and weekend service provided assistance to 708 motorists and during this quarter there was no M2 funded construction service offered to motorists. Since inception, M2 and construction-funded FSP has provided a total of 73,210 assists to motorists on the Orange County freeway system.



STREETS AND ROADS

REGIONAL CAPACITY PROGRAM ▼

Status: 2019 Call for Projects in Progress

PROJECT O

Contact: Joseph Alcock, Planning • (714) 560-5372

Summary: This program, in combination with required local matching funds, provides funding for improvements on Orange County’s Master Plan of Arterial Highways. Since 2011, 146 projects totaling more than \$295 million, including \$24 million in external funding, have been awarded through eight calls for projects by the Board³. On August 6, 2018, the OCTA Board approved the release of the 2019 Call for Projects which made up to \$32 million available to fund additional road improvements throughout the County. Final 2019 programming recommendations will be presented to the Board by mid-2019.

³ To date, 11 of the 181 phases awarded by OCTA totaling approximately \$12 million have been cancelled by the awarded local jurisdictions.

OC Bridges Railroad Program

This program built seven grade separations (either under or over passes) where high volume streets are impacted by freight trains along the BNSF Railroad in North County. With all seven grade separations open to traffic, an OC Bridges completion ceremony was held on October 24, 2017. To date, the Board has approved approximately \$664 million in committed M2 and external funds for all seven of the OC Bridges Program grade separation projects. Minor activities this quarter include completion of punch list items and close out of projects.

Segment: Kramer Boulevard Grade Separation



Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729

Summary: The project located at Kraemer Boulevard railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the City of Placentia by building an underpass for vehicular traffic. The grade separation was opened to traffic on June 28, 2014, and an event was held on July 8, 2014 to commemorate the opening. Project acceptance by the Cities of Anaheim and of Placentia, respectively, occurred in December 2014 and the cities assumed full maintenance responsibilities. In December 2015, the one-year warranty period expired with no issues or repairs identified.

Segment: Lakeview Avenue Grade Separation



Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



STREETS AND ROADS

Summary: The project located at Lakeview Avenue railroad crossing grade separated the local street from railroad tracks in the Cities of Anaheim and Placentia by building a bridge for vehicular traffic over the railroad crossing and reconfiguring the intersection of Lakeview Avenue and Orangethorpe Avenue. Construction began on July 1, 2014.

Lakeview Avenue was reopened on June 6, 2017. Construction acceptance from the Cities of Anaheim and Placentia was obtained on June 2, 2017 and OCTA has turned over the maintenance responsibilities to the cities and completed the one-year warranty on some constructed items. The one-year warranty was extended to July 2019 for some minor repair items. Close-out activities is nearing completion and claims resolution will be ongoing through mid 2019.

Segment: Orangethorpe Avenue Grade Separation

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: The project located at Orangethorpe Avenue railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the Cities of Placentia and Anaheim by building a bridge for vehicular traffic over the railroad tracks. On May 17, 2016, a joint-grand opening event was held to commemorate the opening to traffic for the Orangethorpe and Tustin/Rose Grade Separation projects. Construction was completed in October 2016 and construction acceptance was obtained from the Cities of Anaheim and Placentia on October 25, 2016. OCTA has turned over the maintenance responsibilities to the cities and completed the one-year warranty on the majority of constructed items. The one-year warranty was extended to June 2019 for some minor repair items.

Segment: Placentia Avenue Grade Separation

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: The project located at Placentia Avenue railroad crossing is grade separated and open to traffic. This project separated the local street from railroad tracks in the City of Placentia by building an underpass for vehicular traffic. An event was held on March 12, 2014, to commemorate the opening. Project acceptance by the Cities of Anaheim and Placentia occurred in December 2014 and the cities assumed full maintenance responsibilities. In December 2015, the one-year warranty period expired with no issues or repairs identified.



STREETS AND ROADS

Segment: Raymond Avenue Grade Separation

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: The project located at Raymond Avenue railroad crossing grade separated the local street from railroad tracks in the City of Fullerton by taking vehicular traffic under the railroad crossing. The City of Fullerton is managing construction and OCTA is providing construction oversight, public outreach, railroad coordination, and ROW support. Construction began on June 2, 2014. Raymond Avenue has been opened to traffic since October 2017. OCTA received conditional construction acceptance in May 2018. Activities this quarter include project closeout documentation.

Segment: State College Boulevard Grade Separation

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: The project located at State College Boulevard railroad crossing grade separated the local street from railroad tracks in the City of Fullerton by taking vehicular traffic under the railroad crossing. The City of Fullerton managed the construction and OCTA provided construction oversight, public outreach, railroad coordination, and ROW support. Activities this quarter continue to include work on pump station, landscape, irrigation, pavement and striping. State College Boulevard was opened to through traffic on November 1, 2017. Construction acceptance and maintenance responsibilities from the City of Fullerton was obtained on March 7, 2018 and the one-year warranty began. Close-out activities will be ongoing through early 2019.

Segment: Tustin Avenue/Rose Drive Grade Separation

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: The project located at Tustin Avenue/Rose Drive railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the Cities of Placentia and Anaheim by building a bridge over the railroad crossing for vehicular traffic. On May 17, 2016, a joint-grand opening event was held to commemorate the opening to traffic for the Orangethorpe and Tustin/Rose Grade Separation projects. Construction was completed in October 2016 and construction acceptance was obtained from the Cities of Anaheim and Placentia on October 25, 2016. OCTA has turned over the maintenance responsibilities to the cities and completed the one-year warranty on the majority of constructed items. The one-year warranty was extended to November 2018 for some minor repair items. In November 2018, the warranty period expired with



STREETS AND ROADS

no additional issues or repairs identified.

REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROGRAM ▼

Status: 2019 Call for Projects in Progress

PROJECT P

Contact: Anup Kulkarni, Planning • (714) 560-5867

Summary: This program provides funding and assistance to implement multi-agency signal synchronization. The target of the program is to regularly coordinate signals for 2,000 intersections along 750 miles of roadway as the basis for synchronized operation across Orange County. The program also leverages external funding to further enhance the efficiency of the street grid and reduce travel delay.

To date, OCTA and local agencies have synchronized more than 2,000 intersections along more than 619 miles of streets (or 69 completed projects). Through a competitive process, there have been eight rounds of M2 funding awarded by the Board thus far. On June 11, 2018, the Board approved six projects for the 2018 Call for Projects Regional Traffic Signal Synchronization Program, funding \$8.9 million with M2 and leveraging \$6.6 million from SB-1. This program has provided a total of 106⁴ projects totaling more than \$98 million, including \$18 million in external funding. On August 6, 2018, the OCTA Board approved the release of the 2019 Call for Projects which made up to \$8 million available to fund improvements throughout the County. Final 2019 programming recommendations will be presented to the Board by mid-2019.

⁴To date, three projects totaling approximately \$1.6 million have been cancelled by the awarded local jurisdictions.

LOCAL FAIR SHARE ▼

Status: Ongoing

PROJECT Q

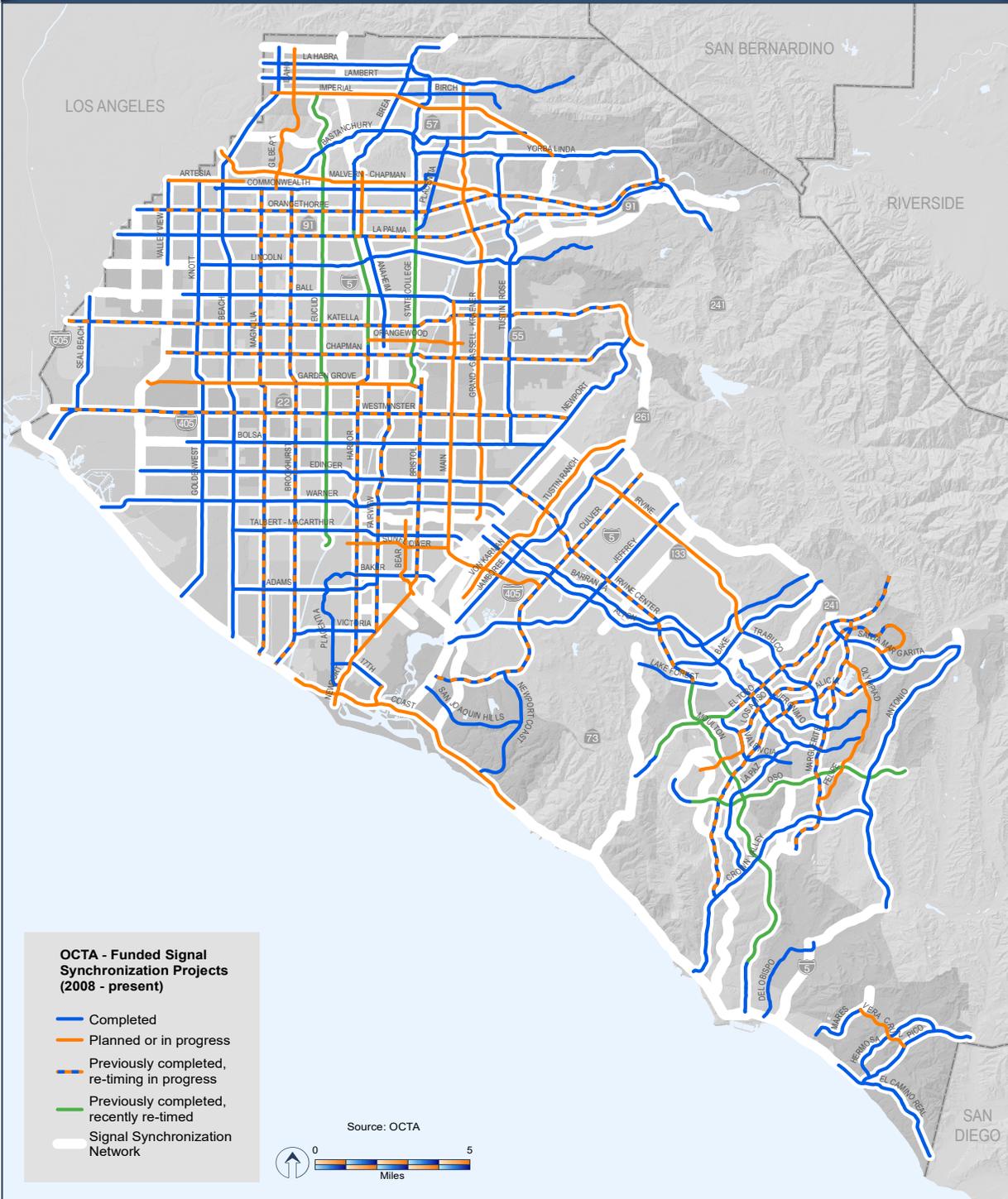
Contact: Vicki Austin, Finance • (714) 560-5692

Summary: In order to help cities and the County of Orange keep up with the rising cost of repairing the aging street system, this program provides flexible funding intended to augment, not replace, existing transportation expenditures of the cities and the County. All local agencies have been found eligible to receive Local Fair Share funds. On a bi-monthly basis, 18 percent of net revenues are allocated to local agencies by formula. Approximately \$361.6 million in Local Fair Share payments have been provided to local agencies as of the end of this quarter.

See [pages 49-50](#) for funding allocation by local agency.

STREETS AND ROADS

OCTA - Funded Signal Synchronization Projects (2008 - present)



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TRANSIT

HIGH FREQUENCY METROLINK SERVICE ▾

PROJECT R

Project R will increase rail services within the County and provides additional Metrolink service north of Fullerton to Los Angeles. The program provides for track improvements, the addition of trains and parking capacity, upgraded stations, and safety enhancements to allow cities to establish quiet zones along the tracks. This program also includes funding for grade crossing improvements at high volume arterial streets, which cross Metrolink tracks.

Project: Metrolink Grade Crossing Improvements

Status: PROJECT COMPLETE

Contact: Jennifer Bergener, Rail • (714) 560-5462



Summary: Enhancement at 50 of the designated 52 Orange County at-grade rail-highway crossings were completed in support of the Metrolink Service Expansion Program (MSEP) in October 2012. As a result of one private crossing which did not allow for OCTA to make enhancements and one street closure that eliminated the need for enhancements, the final count of enhanced rail-highway crossings was 50. Completion of the safety improvements provided each corridor city with the opportunity to establish a “quiet zone” at their respective crossings. Quiet zones are intended to prohibit the sounding of train horns through designated crossings, except in the case of emergencies, construction work, or safety concerns identified by the train engineer. The Cities of Anaheim, Dana Point, Irvine, Orange, Santa Ana, San Clemente, San Juan Capistrano, and Tustin have established quiet zones within their communities.

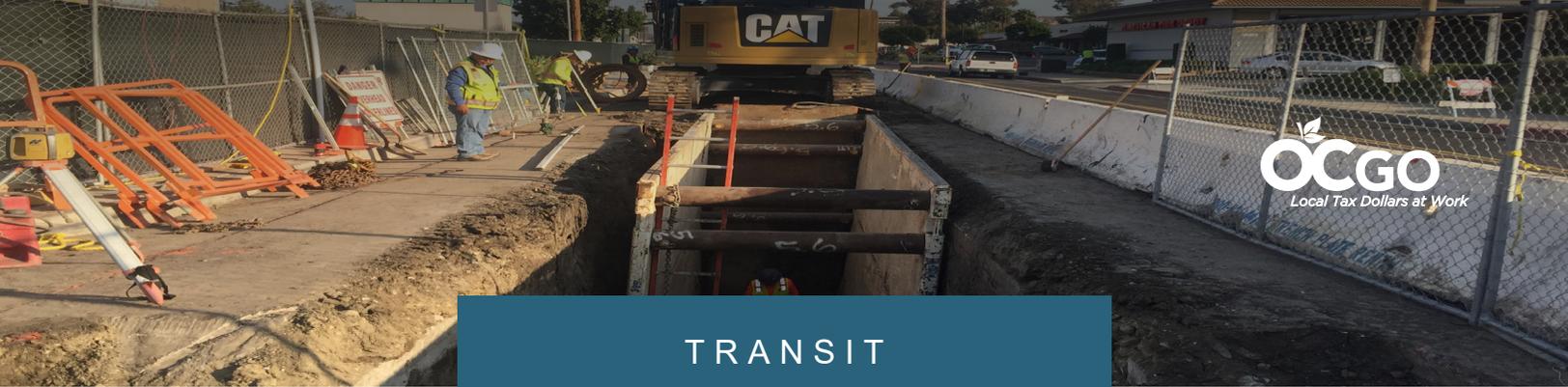
Project: Metrolink Service Expansion Program

Status: Service Ongoing

Contact: Jennifer Bergener, Rail • (714) 560-5462

Summary: Following the completion of the MSEP improvements in 2012, OCTA deployed a total of ten new Metrolink intra-county trains operating between Fullerton and Laguna Niguel/Mission Viejo, primarily during the midday and evening hours. Efforts to increase ridership through a redeployment of the trains without significantly impacting operating costs have been underway since 2014. Average daily passenger boardings on the ten intra-county trains combined has increased by 19 percent, from 288 boardings in Fiscal Year (FY) 2012-13 to 344 boardings averaged for the first six months of FY 2018-19.

In April 2015, several schedule changes were implemented to connect a 91/Perris Valley Line train to an intra-county service train, at Fullerton. This allowed a later southbound peak evening departure option from Los Angeles to Orange County. Ridership on these two trains combined has increased by 38 percent since the improvement was implemented, from 130 boardings in FY 2015-16 to 180 boardings averaged for the first six months of FY 2018-19.



TRANSIT

Part of OCTA's re-deployment plan involves providing new trips from Orange County to Los Angeles. SCRRA continues to work on behalf of its members, the RCTC, LA Metro, and OCTA, to negotiate an agreement with the BNSF Railway for the shared use of their corridor and associated indemnification and liability. This agreement is necessary to secure 24 additional operating slots to provide more passenger rail service on railroad ROW owned by the BNSF. Operation of additional Metrolink trains to Los Angeles is contingent on the indemnification and liability agreement, following completion of the triple track project in early 2019, on the BNSF Railway between Fullerton and Los Angeles. The timing of getting an agreement in place is unknown, however OCTA is hopeful that with a new Metrolink CEO negotiations will resume soon.

Rail Corridor and Station Improvements

Additionally, under MSEP, funding is provided for rail line and station improvements to accommodate increased service. Rail station parking lot expansions, better access to platforms, among other improvements have been made or are underway. For schedule information on station improvement projects, please see the CAP pages on [pages 51-55](#) at the back of this report.

Segment: Anaheim Canyon Metrolink Station Improvements

Status: Design Phase Underway

Contact: Jim Beil, Capital Programs • (714) 560-5646

Summary: This OCTA-led project will include construction of a second main track and platform, lengthening the existing platform, and improved pedestrian circulation. The project will also include the addition of benches, shade structures, and ticket vending machines. The design plans have been completed to 60 percent and are being advanced to 90%. Plans are expected to be complete and ready to bid in August 2019. Construction of the project is expected to begin in December 2019 with completion anticipated in early 2021.

Segment: Fullerton Transportation Center Improvements

Status: Construction Phase Underway - 80% Complete

Contact: Jim Beil, Capital Programs • (714) 560-5646

Summary: Completed early on, a new 5-level parking structure was constructed to provide additional transit parking at the Fullerton Transportation Center for both intercity rail service and commuter rail passengers. This City-led project was completed on June 19, 2012. After completion, an elevator upgrade project was initiated with leftover savings. The elevator project will modify the existing pedestrian bridge to add two new traction elevators, one on each side. The City of Fullerton is the lead on this project as well. Work on the elevators was delayed due to construction contractor's elevator subcontractor issues. Work is complete on the elevator towers, and the elevator installation began in December, 2018. The project will be completed in February 2019. This project is marked "red" in the CAP, signifying a delay of more than three months.



TRANSIT

Segment: Laguna Niguel/Mission Viejo Metrolink Station Americans with Disabilities Act (ADA) Ramps

Status: PROJECT COMPLETE

Contact: Jim Beil, Capital Programs • (714) 560-5646



Summary: The Laguna Niguel/Mission Viejo station accessibility improvements project was completed in September 2017. Improvements include new ADA-compliant access ramps on either side of the pedestrian undercrossing and a unisex ADA-compliant restroom, vending machine room, and three passenger canopies. Construction acceptance from the cities was obtained on September 20, 2017 and OCTA has turned over the maintenance responsibilities to the cities and commenced the one-year warranty. Close-out activities and final costs are underway.

Segment: Orange Transportation Center Metrolink Parking Structure

Status: Construction Phase Underway - 95% Complete

Contact: Jim Beil, Capital Programs • (714) 560-5646

Summary: This project will include a 611-space, 5-level, shared use parking structure that will be located on Lemon Street between Chapman Avenue and Maple Street in Orange. Per a cooperative agreement between OCTA and the City of Orange, the City of Orange is the lead on the design phase, and OCTA is the lead on the construction phase of the project. Construction began on July 17, 2017. All surface decks on the parking structure are completed as well as the structural elevator towers and stairs. Installation of precast brick panels has been completed. Grading, utility connections and landscape work has begun. The project is expected to be completed in February 2019.

Segment: Placentia Metrolink Station Improvements and Parking Structure

Status: Design Complete - Ready for Advertisement subject to BNSF construction and maintenance agreement

Contact: Jim Beil, Capital Programs • (714) 560-5646

Summary: Plans for the proposed Placentia Metrolink Station Project were near completion when the City of Placentia requested to modify them to include a parking structure to be built where surface parking had been designed. On June 27, 2016, the Board approved a new Cooperative Agreement with the City of Placentia that revised the project's scope and budget, and with the changes the City of Placentia will contribute towards the cost. The station will include platforms, parking, a new bus stop, and passenger amenities. OCTA is the lead for design and construction of the project. The project will also include a third track which should assist with the on-time performance of train operations and provide operational flexibility for both freight and passenger trains. BNSF will be the lead on the rail construction. Design plans for the station are complete and will be ready to advertise for bidding once a Construction and Maintenance (C&M) agreement with BNSF is in place. It is not known at this time when this agreement will be in place, as negotiations on a Shared Use Agreement between



TRANSIT

SCRRA and Metrolink will need to be in place before BNSF will begin negotiations on the C&M Agreement. SCRRA has a new CEO as of December 2018, so it is hopeful that these negotiations will resume.

Segment: San Clemente Pier Station Lighting

Status: PROJECT COMPLETE

Contact: Jim Beil, Capital Programs • (714) 560-5646



Summary: This project was completed on March 17, 2017 and is in the closeout phase. OCTA was the lead for design and installation of this project which added lighting to the existing platform and new decorative hand rails at the San Clemente Pier Station.



Additional rail corridor improvements include: completed Control Point project at Fourth Street in the City of Santa Ana, which provide rail operational efficiencies; replacement of the San Juan Creek railroad bridge in the City of San Juan Capistrano, which will also accommodate a future bike trail on the south end along the creek (design is 90 percent complete and ROW acquisition is in progress); the Railroad ROW Slope Stabilization project, which includes eight locations within the OCTA-owned LOSSAN rail corridor that have been identified for improvements to prevent future erosion and slope instability (construction began in June 2018 and is 25 percent complete); and continued implementation of video surveillance systems and Positive Train Control.

Segment: Sand Canyon Grade Separation

Status: PROJECT COMPLETE

Contact: Rose Casey, Capital Projects • (714) 560-5729



Summary: The project separated the local street from railroad tracks in the City of Irvine by constructing an underpass for vehicular traffic. The westbound lanes were opened to traffic on June 12, 2014, and the eastbound lanes were opened to traffic on July 14, 2014. A road opening ceremony was held on August 11, 2014. The project is complete and construction acceptance was obtained from the City of Irvine on January 15, 2016. The project completed the one-year warranty period and no repairs were identified. The project closed out in January 2017.

Segment: Tustin Metrolink Station Parking Structure

Status: PROJECT COMPLETE

Contact: Jim Beil, Capital Programs • (714) 560-5646



Summary: Also completed early on, this project provided additional parking at the Tustin Metrolink Station to meet increased requirements associated with the MSEP by constructing a new 4-story parking structure with



approximately 735 spaces, plus on-site surface parking. The parking structure was opened to the public on September 22, 2011.

Segment: Laguna Niguel to San Juan Capistrano Passing Siding Project

Status: Construction package advertised for bids.

Contact: Jim Beil, Capital Programs • (714) 560-5646

Summary: Project currently in the advertise and award phase, this project will add approximately 1.8-miles of new passing siding railroad track adjacent to the existing mainline track, which will enhance operational efficiency of passenger services within the LOSSAN rail corridor. The project was advertised on August 27 and seven bids were publicly opened on October 23. The lowest bidder was \$3 million over the engineers estimate and as a result staff reevaluated the project budget. Construction is expected to begin in early-2019 after Board approval. This project is marked “red” in the CAP, signifying a delay of 25 months due to design coordination with utilities and water quality control permitting concerns with the City of San Juan Capistrano.

TRANSIT EXTENSIONS TO METROLINK ▼

In order to broaden the reach of Metrolink to other Orange County cities, communities, and activity centers, Project S includes a competitive program which allows cities to apply for funding to connect passengers to their final destination via transit extensions. There are currently two categories for this program: a fixed guideway program (street car) and a rubber tire transit program.

Project: OC Streetcar

PROJECT S

Status: Full Funding Grant Agreement (FFGA) Executed, Limited Notice To Proceed Issued to Construction Contractor, Operation and Maintenance Request For Proposals Released, Vehicle Exterior Design Selected, Utility Relocation Work Ongoing

Contact: Mary Shavalier, Rail • (714) 560-5725

Summary: The OC Streetcar Project will serve the Santa Ana Regional Transportation Center through downtown Santa Ana, and the Civic Center to Harbor Boulevard in the City of Garden Grove. OCTA is serving as the lead agency for the project.

On November 30, 2018 OCTA and FTA executed the FFGA in the amount of \$148,955,409. A groundbreaking event following the execution was held at the Santa Ana Regional Transportation Center to commemorate this milestone as well as the initiation of construction work.

OCTA executed a Limited Notice to Proceed to Walsh Construction Company on November 19, 2018 to begin mobilizing, start work on long lead items and prepare key safety, quality and schedule submittals. Notice To



Proceed will be executed next quarter.

On November 12, 2018 an exterior vehicle design was approved by the Board to submit to Siemens Industries, Inc. An update on the vehicle design process was also provided to the Board. Also, at that meeting, the Board approved the release of a Request for Proposals (RFP) for operations and maintenance of the OC Streetcar. Staff attended a design review workshop at the Siemens facility in Sacramento to review a preliminary vehicle cab mock-up and discuss owner furnished equipment for the vehicle. Final approval was received from the California Public Utilities Commission for the OC Streetcar’s grade crossings certification.

Work continues to progress on other key OC Streetcar activities, including final possession of remaining required ROW, coordination with third parties on utility relocation and permit approvals, and continued coordination with the FTA.

Project: Bus and Station Van Extension Projects

Status: Service Ongoing for Anaheim Canyon Metrolink Bus Connection

Contact: Joseph Alcock, Planning • (714) 560-5372

Summary: Bus and Station Van Extension projects help enhance the frequency of service in the Metrolink corridor by linking communities within the central core of Orange County to commuter rail. To date, the Board has approved one round of funding for bus and van extension projects, totaling over \$730,000. One project located within the City of Anaheim and three proposals within the City of Lake Forest were approved for funding by the Board on July 23, 2012. Currently, the Anaheim project is in service and the Lake Forest projects have been canceled. The Anaheim Canyon Metrolink Station Bus Connection began service in February 2013 and is anticipated to continue providing service between the station and the Anaheim Resort area through 2020.

METROLINK GATEWAYS ▼

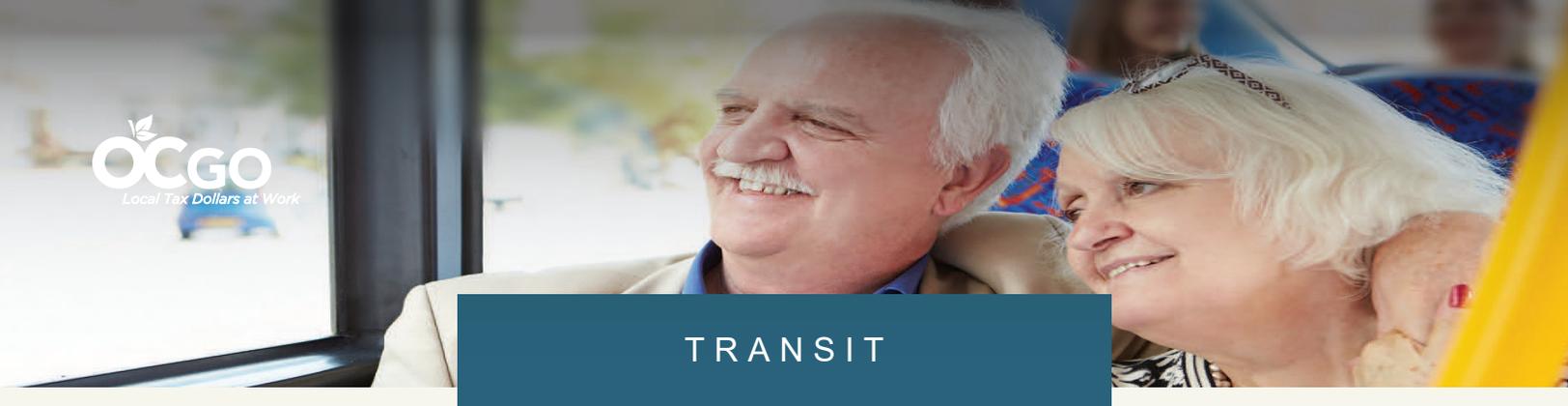
Status: PROJECT COMPLETE

Contact: Jennifer Bergener, Rail • (714) 560-5462



PROJECT T

Summary: This project constructed the Anaheim Regional Transportation Intermodal Center (ARTIC) located at 2626 East Katella Avenue in the City of Anaheim. In addition to providing transit connections for OCTA bus service, Metrolink and Amtrak service, shuttle and charter bus service, taxis, bikes, and other public and private transportation services, ARTIC also accommodates future high-speed rail trains. The City of Anaheim, which led the construction effort, opened the facility to rail and bus service on December 6, 2014. A ribbon-cutting ceremony was held on December 8, 2014, with a grand opening celebration hosted on December 13, 2014. This facility replaced the former Anaheim Station that was located on the opposite side of the freeway in the Angel Stadium parking lot.



TRANSIT

EXPAND MOBILITY CHOICES FOR SENIORS AND PERSONS WITH DISABILITIES ▾

Project U expands mobility choices for seniors and persons with disabilities, and includes the SMP, the SNEMT Program, and the Fare Stabilization Program. Since inception, approximately \$62.6 million in Project U funding has been provided under M2.

PROJECT U

Project: Senior Mobility Program

Status: Ongoing

Contact: Beth McCormick, Transit • (714) 560-5964

Summary: This program provides one percent of net M2 revenues to continue and expand local community transportation service for seniors under the SMP. According to the SMP Funding and Policy Guidelines, M2 revenue is allocated to local jurisdictions proportionally, relative to the total county's senior population, by the residents age 60 and above multiplied by available revenues. Remaining unallocated funds are distributed to the M2 Project U Fare Stabilization Program.

Since inception, approximately \$18.5 million and 2,096,000 boardings have been provided for seniors traveling to medical appointments, nutrition programs, shopping destinations, and senior and community center activities. This quarter, approximately \$551,000 was paid⁵ out to the 31 participating cities during the month of November. Additionally, on November 26, 2018 the Board approved revised Guidelines for the program.

Project: Senior Non-emergency Medical Transportation Program

Status: Ongoing

Contact: Beth McCormick, Transit • (714) 560-5964

Summary: This program provides one percent of net M2 revenues to supplement existing county-wide senior non-emergency medical transportation services. Since inception, more than \$20 million and 796,000 SNEMT boardings have been provided. This quarter, approximately \$582,000 in SNEMT funding was paid⁵ to the County of Orange in the month of November.

Project: Fare Stabilization Program

Status: Ongoing

Contact: Sean Murdock, Finance • (714) 560-5685

Summary: Between years 2011-2015, one percent of net M2 revenues was dedicated to stabilizing fares and provide fare discounts for bus services and specialized ACCESS services for seniors and persons with disabilities. Effective January 28, 2016, an amendment to the M2 Ordinance No. 3, adjusted this amount to 1.47 percent of net M2 revenues to be dedicated to the Fare Stabilization Program.



TRANSIT

Approximately \$855,000 in revenue was allocated⁵ this quarter to support the Fare Stabilization Program. The amount of funding utilized each quarter varies based on ridership. During the quarter, based on 3,300,000 program-related boardings recorded on fixed route and ACCESS services, approximately \$905,000 was utilized. Since inception of the program, more than \$24 million and 102 million program-related boardings have been provided.

COMMUNITY BASED TRANSIT/CIRCULATORS ▼

Status: Service Updates

PROJECT V

Contact: Joseph Alcock, Planning • (714) 560-5372

Summary: This program provides funding for local jurisdictions to develop local bus transit services such as community-based circulators and shuttles that complement regional bus and rail services and meet needs in areas not adequately served by regional transit. On June 24, 2013, the Board approved the first round of funding for \$9.8 million to fund six projects. Funding was approved to implement vanpool services from local employment centers to transportation hubs, special event and seasonal services that operate during heavy traffic periods, and local community circulators that carry passengers between various shopping, medical, and transportation-related centers.

On June 13, 2016 the Board approved the second round of Project V funding in the amount of \$26.7 million for 17 transit projects and \$323,780 for seven planning studies. On June 25, 2018 the Board awarded \$5.2 million to fund five Community-Based Transit Circulators Projects. Additionally, the Board authorized a contingent award of \$1.6 million for a sixth project in the City of San Clemente, contingent on submittal of ridership and usage documentation. Ultimately, the City's 2018 contingent award was cancelled as part of the September 2018 Semi-Annual Review process. Instead, the Board authorized the use of the 2016 awarded funds to extend the demonstration project out to FY 22-23.

OCTA receives ridership reports from local agencies on a regular basis to monitor the success of these services against performance measures adopted by the Board. Staff will continue to monitor these services to ensure that performance standards are met. The most recent Project V Ridership report was presented to the Transit Committee on July 12, 2018 and Board on July 23, 2018.

Out of the transit circulator projects programmed by OCTA: 18 are currently active; 6 have been canceled (primarily due to low ridership); and one has been completed. Currently, most of these services are generally meeting their required performance standards. The next Project V Ridership report is scheduled for February 2019. Lessons learned from the success of implemented services are incorporated into recommendations for future funding guidelines and programming recommendations.

⁵Payments are made every other month (January, March, May, July, September, and November). July payments are based on June accruals, and therefore counted as June payments. The amount totaled for one fiscal year quarter either covers one or two payments, depending on the months that fall within that quarter.



TRANSIT

SAFE TRANSIT STOPS ▼

PROJECT W

Status: City-Initiated Improvements Underway or Complete; Mobile Ticketing Underway

Contact: Joseph Alcock, Planning • (714) 560-5372

Summary: This program provides funding for passenger amenities at the 100 busiest transit stops across the County. Stop improvements are designed to ease transfers between bus lines and provide passenger amenities such as improved shelters and lighting.

To date, the Board has approved up to \$1,205,666 to support 51 city-initiated improvements and \$370,000 for OCTA-initiated improvements. The City of Anaheim postponed development of eight stops. Of the remaining 43 stops, 14 stops have been completed and the remaining 29 stop improvements are currently in the project closeout process. Closeout of all projects allocated in 2014 is anticipated to occur by the end next quarter.

For OCTA-initiated improvements funds were initially programmed for the Text for Next Program and were ultimately reallocated to support OCTA's mobile ticketing application. However, this program was funded by another grant source, and other uses are currently being evaluated for these funds.

In October 2018, the Board authorized a second Project W allocation process; providing up to \$3.0 million (in total) to eligible agencies to make bus stop amenity improvements including installation of bus benches or seating, shelters, lighting, and other passenger related amenities. Eligible agencies (including OCTA) may potentially qualify to receive between \$20,000 to 35,000 (per eligible bus stop) in order to make passenger amenity improvements. Final funding recommendations are anticipated to be presented to the Board in the early 2019.

ENVIRONMENTAL

CLEAN UP HIGHWAY AND STREET RUNOFF THAT POLLUTES BEACHES ▼

Project: Environmental Cleanup Program

Status: Ongoing

PROJECT X

Contact: Dan Phu, Planning • (714) 560-5907

Summary: This program implements street and highway-related water quality improvement programs and projects that assist agencies countywide with federal Clean Water Act standards for urban runoff. It 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. The ECAC is charged with making recommendations to the Board on the allocation of funds for the ECP. These funds are allocated on a countywide, competitive basis to assist agencies in meeting the Clean Water Act standards for controlling transportation-related pollution.

Project X is composed of a two-tiered funding process focusing on early priorities (Tier 1), and a second program designed to prepare for more comprehensive capital investments (Tier 2). To date, there have been eight rounds of funding under the Tier 1 grants program. A total of 166 projects, amounting to approximately \$22.5 million, have been awarded by the Board since 2011. There have been two rounds of funding under the Tier 2 grants program. A total of 22 projects in the amount of \$27.89 million have been awarded by the Board since 2013⁶. To date, all Orange County cities plus the County of Orange have received funding under this program. The next Tier 1 call for projects is anticipated in spring 2019 with in the amount of approximately \$2.8 million. Staff anticipates the next Tier 2 call in 2021, dependent on projected cash flow and local jurisdictions' interest in potential viable Tier 2 projects.

Staff estimates that over 6.2 million cubic feet of trash has been captured as a result of the installation of Tier 1 devices since the inception of the Tier 1 Program in 2011. This is equivalent to over 2,600 forty-foot shipping containers. Over time, the volume of trash captured is expected to increase. It is estimated that the funded Tier 2 projects, once fully functional, will have an annual groundwater recharge potential of approximately 157 million gallons of water from infiltration or through pumped and treated recharge facilities.

⁶ To date, seven Tier 1 and two Tier 2 projects totaling \$2.3 million have been cancelled.



ENVIRONMENTAL

FREEWAY MITIGATION ▼

Project: Environmental Mitigation Program

Status: Biological Permits Issued and Conservation Plan in Place

Contact: Dan Phu, Planning • (714) 560-5907

Summary: In June 2017, the United States Fish and Wildlife Service, and the California Department of Fish and Wildlife (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. As a result, the environmental process will be streamlined, allowing OCTA to move forward with the M2 freeway projects (as described in the Conservation Plan) with little additional coordination from the Wildlife Agencies. The OCTA Conservation Plan is unique as it is only the second state/federal conservation plan approved in Orange County.

The Conservation Plan also includes a streamlined process for coordination for streambed alteration agreements for portions of freeway projects that cross through streams and riverbeds. In 2017, the United States Army Corps of Engineers (Corps) issued a programmatic permit to OCTA and Caltrans (as owner/operator of the state highway system). The State Board provided a letter to OCTA in 2018, which further secured assurances related to advanced mitigation and freeway project permit issuance. These efforts are the result of years of collaboration between OCTA, the Corps, and State Board, and constitute another groundbreaking milestone for the M2 Environmental Mitigation Program.

The program is proceeding as planned, with seven properties (Preserves) acquired (1,300 acres), and 12 restoration projects approved for funding by the Board, totaling approximately 350 acres. The restoration project plans have been approved by the wildlife agencies and are currently at various stages of implementation. The Board authorized \$42 million (inclusive of setting aside funds for long-term land management) for property acquisitions, \$10.5 million to fund habitat restoration activities, and \$2.5 million for conservation plan development and program support, for a total of approximately \$55 million.

As part of the Conservation Plan requirement, an endowment has been established to pay for the long-term management of the Preserves. It is estimated that it will take approximately 12 years to fully fund the endowment with deposits annually. The third and most recent deposit was made in August 2018. Staff will continue to oversee and provide endowment updates to the Finance and Administration and the Environmental Oversight Committee (EOC) on a regular basis.

Resource management plans (RMPs) for the Preserves were finalized in September 2018. These RMPs guide the management of the Preserves as outlined within the Conservation Plan. Staff will continue to oversee and manage the Preserves until a long-term manager(s) is established.

In consultation with the local fire authority, staff has begun to work with a consultant to draft fire management plans (Plans) 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



ENVIRONMENTAL

with conservation and stewardship responsibilities. These Plans are a requirement of the Conservation Plan and will require approval by the Wildlife Agencies. The Plans are anticipated to be complete in 2020.

To date, multiple freeway projects have utilized the Conservation Plan and/or the Clean Water Act streamlined permitting process. Some of the projects that benefit from these mechanisms include: Project K (I-405 Improvement Project from SR-73 to I-605) and Project C (I-5 from SR-73 to El Toro Road), and Project M (I-605 and Katella Interchange Project). If these mechanisms were not in place, it is anticipated that these projects would incur an additional \$700,000 to \$2.5 million (in 2018 dollars) in mitigation related costs and unknown schedule risks. Furthermore, a strong partnership has been forged through collaboration with the environmental community.

OCTA provides docent led hikes and equestrian rides in the Preserves. A list of scheduled 2019 wilderness Preserve tours is available on the M2 website at www.PreservingOurLegacy.org.

As part of the safeguards in place for the M2 Program, a 12-member EOC makes recommendations on the allocation of environmental freeway mitigation funds and monitors the implementation of the Conservation Plan between OCTA and state and federal Wildlife Agencies. The EOC has led efforts with policy recommendations to the Board and has operated in an open and transparent manner that has garnered the trust of stakeholders, ranging from the environmental community to the recreational community to Orange County citizens.

See map of Preserves and funded restoration properties on the following page.



PROGRAM MANAGEMENT

PROGRAM MANAGEMENT OFFICE ▼

Contact: Tami Warren, PMO Manager • (714) 560-5590

The M2 PMO provides inter-divisional coordination for all M-related projects and programs. To ensure agency-wide compliance, the PMO holds a bi-monthly committee meeting comprised of executive directors and key staff from each of the divisions, who meet to review significant issues and activities within the M2 programs. This quarter, the focus of the PMO has been on several major items, including the following.

Market Conditions Forecast and Risk Analysis

In September 2017, the Board was presented with a Next 10 Market Conditions Forecast and Risk Analysis Report conducted by Dr. Wallace Walrod and Dr. Marlon Boarnet. The consultant's analysis identified a strong potential for OCTA to experience an increasing cost environment during the Next 10 delivery years. This, coupled with a reduction in revenue, could present the potential for significant challenges in the delivery of M2 and Next 10.

Given this analysis, the Board directed staff to continue to work with the consultant to monitor and track key early warning indicators and provide the Board with updates in a timeline consistent with updates on the M2 sales tax revenue forecast. The scope includes providing presentations on a summary of findings from the monitoring effort to the Board bi-annually and, if noteworthy, more frequent updates will be provided through these M2 quarterly progress reports. With a rapidly changing construction market, staff looked to our contracted local economists for insights to better anticipate cost implications to our freeway program delivery. The consultant team analyzed annual trends in material costs, labor costs, and general economic conditions to determine a range of potential cost impacts and a presentation was provided at the Board meeting on September 10, 2018.

Next 10 Delivery Plan

On November 14, 2016, the Board adopted the Next 10 Delivery Plan providing staff guidance on the delivery of M2 projects and programs between 2017 and 2026. The PMO monitors the progress on the ten deliverables identified in the Plan and reports on them in this report. See [pages 3-6](#) for status on deliverables.

Annually, OCTA reviews the M2 program assumptions and updates the cash flows as needed based on changes to the revenue forecast. In July 2018, the Board received a preliminary revised M2 sales tax revenue forecast of \$13.1 billion, which was \$400 million lower than the previous year. As a result of a lower revenue forecast and the potential of higher costs in the near term as it relates to freeway delivery, staff prepared an updated 2018 Next 10 Plan, which incorporated protections into the cash flow. During the cash flow update, staff developed and analyzed two scenarios: one with current programmed commitments, which assumed current law with SB 1 (Chapter 5, Statutes of 2017) in place, and a second scenario in the event of a repeal. The result of this effort demonstrated a delivery plan that remains solvent. The Next 10 Plan provides staff guidance on M2 delivery through 2026 and the deliverables remain virtually the same as originally adopted in 2016 with a few minor exceptions.



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The updated 2018 Next 10 Plan was approved by the Board at the September 10, 2018 meeting. On November 6, 2018, California voters rejected the gas tax repeal, preserving SB 1 which stabilizes state external revenue and provides for reduced risk to the Next 10 deliverables.

M2 Performance Assessment

The M2 ordinance includes a requirement for a performance assessment to be conducted at least once every three years to evaluate OCTA's efficiency and effectiveness in delivery of M2 as promised to the voters. Three prior performance assessments have been completed covering fiscal years FY 2006-07 through FY 2008-09, FY 2009-10 through FY 2011-12, and FY 2012-13 through FY 2014-15. Findings and recommendations from assessments are presented to the Board and recommendations are implemented as appropriate. A fourth assessment began in July 2018 and covers the period between July 1, 2015 and June 30, 2018. During this quarter, the consultant, Sjoberg Evashenk Consulting, wrapped up interviews with staff and external stakeholders and their review of M2 related documents, held two staff briefings on their findings, and submitted an initial set of findings and report outline. A draft report will be presented to staff in early 2019 and a final report is anticipated to be brought to the Board in spring 2019.

M2 Ordinance Tracking Matrix

The M2 Ordinance and Transportation Investment Plan (Ordinance No. 3) includes numerous requirements that staff must follow in order to keep the promise to Orange County voters through the passage of M2. The PMO annually updates the M2 Ordinance Tracking Matrix to verify that OCTA is in compliance with all requirements detailed in Ordinance No. 3. During the quarter, the matrix was updated by the PMO in coordination with the responsible OCTA point of contact to ensure compliance and includes links to electronic documents verifying the response. Once completed, the matrix is shared with the Taxpayer Oversight Committee as part of their annual public hearing and compliance finding which is scheduled for April 9, 2019.

PMO M2 Tracking Tools

The PMO has developed several tracking tools to assist in reporting consistency and increased transparency of the M2 program. See the following for a brief explanation of PMO M2 tracking tools and their current status:

Local Jurisdiction Fact Sheets

Fact Sheets have been created for the County of Orange and each of Orange County's 34 cities. The Fact Sheets provide data on transportation and transit projects (funded through Measure M, state, and federal grants) in a format which emphasizes key points concisely on a single printed page. The City Fact Sheets are utilized when speaking with the jurisdictions to provide a summary overview of how OCTA has provided the local agency with funding and transportation improvements. During the quarter, staff began updating the City Fact Sheets



PROGRAM MANAGEMENT

to include the 2018 Tier 1 ECP projects approved by the Board on September 10, 2018, the September 2018 semi-annual review of CTFP projects approved by the Board on December 10, 2018, and programming updates. Updated City Fact Sheets will be completed next quarter.

M2 Financial Picture

The M2 Financial Picture report provides a summary of each M2 project's total expenditures to date (external and internal), programmed funding, current estimate at completion per the latest quarter, and M2 program cash flow assumptions through 2041. This document allows the PMO to appropriately track and answer questions regarding the M2 investment. The FY 2018-19 1st quarter Financial Picture was updated in November 2018.

Next 10 Tracking

The Next 10 Tracking report compares the current Next 10 Delivery Plan cash flow assumptions with the latest Project Controls quarterly assumptions. It highlights variances for a project's estimate at completion, project costs, and contingency utilization. The purpose of the Next 10 Tracking report is to highlight the impact to the bottom line when variances occur from the current plan and each quarterly update. The FY 2018-19 1st quarter Next 10 Tracking report was updated in November 2018.

Engineer's Estimate versus Bids Tracking

The Estimate versus Bid Tracking process allows the PMO to monitor the bidding environment for capital projects in the M2 Program. Capital projects that were planned for and began construction early in the M2 program have shown cost savings due to a favorable bidding environment during the recession. For these earlier M2 projects, savings can be primarily traced back to construction costs.

More recent market conditions analysis have suggested that OCTA will experience an increasing cost environment related to increased demand for construction services, lack of labor resources, and increased construction material costs. It should be noted that the engineer's estimate is based on a number of factors – such as bidding history and historical and current market rates (materials, labor, equipment, etc.) – and adjusted accordingly for the project's conditions. Because the estimate uses prior information, there may be a lag between an uptick or downtick in the market.

During the quarter, the bid for the I-5 Improvements between SR-55 and SR-57, was awarded to the lowest bidder, OHL. This project was advertised in March 2018, but after all bidders were deemed "unresponsive" as each did not meet the bidding requirements, the project was re-advertised and new bids were opened on October 18, 2018. The lowest responsible bid came in 2.15% under the revised engineer's estimate and the contract was awarded on December 28, 2018. Projects currently being advertised or being assessed for bid responsiveness include the San Juan Capistrano-Laguna Niguel Passing Siding project and the I-5 between Oso Parkway to Alicia Parkway/La Paz Road Interchange project.

PROGRAM MANAGEMENT

M2 Administrative Safeguards

M2 includes a one percent cap on administrative expenses for salaries and benefits of OCTA administrative staff on an annual basis. In a legal opinion on M2, it was determined that in years where administrative salaries and benefits are above one percent, only one percent can be allocated with the difference borrowed from other, non-M2 fund sources. Conversely, in years where administrative salaries and benefits are below one percent, OCTA can still allocate the full one percent for administrative salaries and benefits but may use the unused portion to repay the amount borrowed from prior years in which administrative salaries and benefits were above one percent.

Based on the original M2 revenue projections, OCTA expected to receive \$24.3 billion in M2 funds, with one percent of total revenues available to fund administrative salaries and benefits over the life of the program. As M2 revenue projections declined (currently \$13.1 billion or 46 percent lower) as a result of economic conditions, the funds available to support administrative salaries and benefits have also declined from the original expectations. While revenue has declined, the administrative effort needed to deliver M2 remains the same. Additionally, the initiation of the Early Action Plan (EAP) in 2007 required administrative functions four years prior to revenue collection. While the EAP resulted in project savings and significant acceleration of the program, administrative functions were required during this time with associated administrative costs.

As a result of the aforementioned factors, OCTA has incurred higher than one percent administrative costs. OCTA currently has Board approval to use funds from the Orange County Unified Transportation Trust (OCUTT) fund to cover costs above the one percent, with the understanding that those funds will be repaid with interest in future years that OCTA administrative costs fall below the one percent cap. As of June 30, 2012, OCTA had borrowed approximately \$5.2 million from OCUTT. Over the last few years, OCTA has experienced under-runs in the one percent administration cap and has made payments to OCUTT to reduce the outstanding balance. As of the most recent December 2018 Taxpayer Oversight Committee Report, the outstanding balance was \$1 million.

Staff meets quarterly to review all labor costs to ensure proper cost allocation under M2. After the quarter ended, staff met on July 18, 2018 to review labor reports for this quarter to ensure costs attributed to the one percent cap were accurately reported and there were no misplaced project related costs, as well as to ensure project costs were applied to the correct projects. Staff will meet again on October 17, 2018 to conduct this quarterly review.

Taxpayer Oversight Committee

The M2 Ordinance requires a Taxpayer Oversight Committee (TOC) oversee the implementation of the M2 plan and ensure compliance with all requirements of Measure M2 Ordinance No. 3. With the exception of the elected Auditor/Controller of Orange County who is identified as the chair in the Ordinance, all other members are not elected or appointed officials. Members are recruited and screened for expertise and experience independently by the Orange County Grand Jurors Association and are selected from the qualified pool by lottery. The TOC meets every other month. The TOC upholds the integrity of the measure by monitoring the use of M2 funds and ensuring compliance. The responsibilities of the 11-member Measure M2 TOC are to:



PROGRAM MANAGEMENT

- Ensure all transportation revenue collected from M2 is spent on the projects approved by the voters as part of the plan
- Ratify any changes in the plan and recommend any major changes go back to the voters for approval
- Participate in ensuring that all jurisdictions in Orange County conform with the requirements of M2 before receipt of any tax monies for local projects
- Hold annual public meetings regarding the expenditure and status of funds generated by M2
- Review independent audits of issues regarding the plan and performance of the Orange County local Transportation Authority regarding the expenditure of M2 sales tax monies
- Annually certify whether M2 funds have been spent in compliance with the plan.

The TOC's normally scheduled meeting for December 2018 has been merged with the February 12th, 2019 meeting. TOC members will be receiving Measure M2 Quarterly Review and Expenditure Reports for June and September via email. In February, the TOC will have the opportunity to see items from the January AER Subcommittee meeting. Stanley. F Counts has resigned from the TOC due to health reasons and OCTA staff is following the succession order of the TOC new member lottery to fill this vacancy.

Two subcommittees assist the TOC with their safeguard responsibilities: the Annual Eligibility Review (AER) Subcommittee and the Audit Subcommittee. The AER Subcommittee meets a few times per year, as needed, to ensure local jurisdictions have submitted the following documents in order to be deemed eligible to receive M2 funding: Congestion Management Program, Mitigation Fee Program, Local Traffic Signal Synchronization Plan, Pavement Management Plan, and an Expenditure Report. The Audit Subcommittee meets bi-monthly and is responsible for reviewing the quarterly M2 Revenue and Expenditure Reports and the Annual M2 Audit, as well as any other items related to M2 audits.

M2 FINANCING AND SCHEDULE OF FUNDING ▼

Contact: Sam Kaur, Revenue and Grants • (714) 560-5685

Revenue Forecast and Collection

OCTA contracts with three universities (Chapman University; University of California, Los Angeles; and California State University, Fullerton) to provide a long-range forecast of taxable sales to forecast M2 revenues for purposes of planning projects and program expenditures. In the past, OCTA has taken an average of the three university taxable sales projections to develop a long-range forecast of M2 taxable sales. On March 28, 2016, as part of the FY 2016-17 budget development process, the Board approved a new sales tax forecast methodology. This methodology includes a more conservative approach by utilizing MuniServices, Inc forecast for the first five years and the three-university average for the remaining years. Historically, MuniServices, Inc. has been more conservative than the three universities over the first five years of M2 revenue collection.



PROGRAM MANAGEMENT

Revenue forecast information is updated quarterly based on the actual revenues received for the previous quarter. As required by law, OCTA pays the California Department of Tax and Fee Administration (CDTFA) a fee to collect the sales tax. The M2 Ordinance estimated this fee to be 1.5 percent of the revenues collected over the life of the program.

Current Forecast

Based on long-term forecasts updated in November 2018, OCTA staff forecasts total nominal sales tax collections over the life of M2 to be approximately \$13.1 billion. Original projections in 2005 during the development of M2 estimated total nominal M2 sales tax collections at \$24.3 billion. Impacted by the Great Recession and changes in consumer spending habits, the current estimated forecast is \$13.1 billion. This indicates sales tax revenue will run approximately \$11.2 billion (46 percent) less than the original 2005 projection.

Beginning in FY 2018, there was a change in the agency that administers sales tax and in the methodology of sales tax distribution. The new agency, CDTFA, is now responsible for collecting, processing and distributing sales tax. CDTFA encountered problems to process returns with their newly implemented system. As a result, OCTA did not receive the balance of the FY 2018 sales tax receipts until December 2018. The actual growth rate for FY 2018 is 4.8 percent and the total annual sales tax receipts is \$320 million, compared to the 3.3 percent growth rate assumed in the budget for FY 2018. The forecasted amount of sales tax to support the M2 Program remains at \$13.1 billion, as reported to the Board in November.

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FINANCING

Schedule of Revenues, Expenditures and Changes in Fund Balance as of December 31, 2018 (Unaudited) Schedule 1

<i>(\$ in thousands)</i>	Quarter Ended Dec 31, 2018	Year to Date Dec 31, 2018 <i>(A)</i>	Period from Inception to Dec 31, 2018 <i>(B)</i>
Revenues:			
Sales taxes	\$ 95,251	\$ 176,844	\$ 2,251,907
Other agencies' share of Measure M2 costs:			
Project related	22,397	23,286	647,596
Non-project related	-	-	454
Interest:			
Operating:			
Project related	(330)	(167)	425
Non-project related	2,380	4,523	27,635
Bond proceeds	-	898	52,216
Debt service	106	171	478
Commercial paper	-	-	393
Right-of-way leases	-	3	914
Proceeds on sale of assets held for resale	-	-	12,201
Donated assets held for resale			
Project related	2,071	2,071	2,071
Non-project related	(2,071)	(1,700)	371
Miscellaneous:			
Project related	-	-	270
Non-project related	-	-	100
Total revenues	119,804	205,929	2,997,031
Expenditures:			
Supplies and services:			
Sales tax administration fees	855	1,758	24,577
Professional services:			
Project related	9,364	10,484	355,594
Non-project related	1,229	2,044	24,045
Administration costs:			
Project related	2,432	4,861	68,042
Non-project related:			
Salaries and Benefits	633	1,266	23,799
Other	1,284	2,568	39,281
Other:			
Project related	20	37	4,978
Non-project related	13	12	4,019
Payments to local agencies:			
Project related	28,919	45,085	883,019
Capital outlay:			
Project related	31,859	37,152	893,854
Non-project related	-	-	31
Debt service:			
Principal payments on long-term debt	-	-	42,335
Interest on long-term debt and commercial paper	13	10,340	168,278
Total expenditures	76,621	115,607	2,531,852
Excess (deficiency) of revenues over (under) expenditures	43,183	90,322	465,179
Other financing sources (uses):			
Transfers out:			
Project related	(138,729)	(141,581)	(180,188)
Transfers in:			
Project related	842	842	83,542
Bond proceeds	-	-	358,593
Total other financing sources (uses)	(137,887)	(140,739)	261,947
Excess (deficiency) of revenues over (under) expenditures and other sources (uses)	\$ (94,704)	\$ (50,417)	\$ 727,126

FINANCING

Schedule of Revenues, Expenditures and Changes in Fund Balance as of December 31, 2018 (Unaudited) Schedule 2

<i>(\$ in thousands)</i>	Quarter Ended Dec 31, 2018 (actual)	Year to Date Dec 31, 2018 (actual) (C.1)	Period from Inception through Dec 31, 2018 (actual) (D.1)	Period from January 1, 2019 through March 31, 2041 (forecast) (E.1)	Total (F.1)
Revenues:					
Sales taxes	\$ 95,251	\$ 176,844	\$ 2,251,907	\$ 10,822,520	\$ 13,074,427
Operating interest	2,380	4,523	27,635	140,156	167,791
Subtotal	<u>97,631</u>	<u>181,367</u>	<u>2,279,542</u>	<u>10,962,676</u>	<u>13,242,218</u>
Other agencies share of M2 costs	-	-	454	-	454
Miscellaneous	-	-	100	-	100
Total revenues	<u>97,631</u>	<u>181,367</u>	<u>2,280,096</u>	<u>10,962,676</u>	<u>13,242,772</u>
Administrative expenditures:					
Sales tax administration fees	855	1,758	24,577	121,992	146,569
Professional services	1,229	2,044	20,269	84,753	105,022
Administration costs:					
Salaries and Benefits	633	1,266	23,799	108,208	132,007
Other	1,284	2,568	39,281	177,268	216,549
Other	13	12	4,019	19,811	23,830
Capital outlay	-	-	31	-	31
Environmental cleanup	2,548	2,652	37,400	216,416	253,816
Total expenditures	<u>6,562</u>	<u>10,300</u>	<u>149,376</u>	<u>728,448</u>	<u>877,824</u>
Net revenues	<u>\$ 91,069</u>	<u>\$ 171,067</u>	<u>\$ 2,130,720</u>	<u>\$ 10,234,228</u>	<u>\$ 12,364,948</u>
		(C.2)	(D.2)	(E.2)	(F.2)
Bond revenues:					
Proceeds from issuance of bonds	\$ -	\$ -	\$ 358,593	\$ 1,600,000	\$ 1,958,593
Interest revenue from bond proceeds	-	898	52,216	9,488	61,704
Interest revenue from debt service funds	106	171	478	4,705	5,183
Interest revenue from commercial paper	-	-	393	-	393
Total bond revenues	<u>106</u>	<u>1,069</u>	<u>411,680</u>	<u>1,614,193</u>	<u>2,025,873</u>
Financing expenditures and uses:					
Professional services	-	-	3,776	5,600	9,376
Bond debt principal	-	-	42,335	2,055,143	2,097,478
Bond debt and other interest expense	13	10,340	168,278	784,550	952,828
Total financing expenditures and uses	<u>13</u>	<u>10,340</u>	<u>214,389</u>	<u>2,845,293</u>	<u>3,059,682</u>
Net bond revenues (debt service)	<u>\$ 93</u>	<u>\$ (9,271)</u>	<u>\$ 197,291</u>	<u>\$ (1,231,100)</u>	<u>\$ (1,033,809)</u>

FINANCING

Schedule of Revenues, Expenditures and Changes in Fund Balance as of December 31, 2018 (Unaudited) Schedule 3

Project	Description	Net Revenues through Dec 31, 2018	Total Net Revenues
(G)		(H)	(I)
(\$ in thousands)			
Freeways (43% of Net Revenues)			
A	I-5 Santa Ana Freeway Interchange Improvements	\$ 83,983	\$ 487,366
B	I-5 Santa Ana/SR-55 to El Toro	53,642	311,292
C	I-5 San Diego/South of El Toro	112,038	650,169
D	I-5 Santa Ana/San Diego Interchange Upgrades	46,101	267,533
E	SR-22 Garden Grove Freeway Access Improvements	21,442	124,434
F	SR-55 Costa Mesa Freeway Improvements	65,399	379,523
G	SR-57 Orange Freeway Improvements	46,226	268,259
H	SR-91 Improvements from I-5 to SR-57	25,016	145,173
I	SR-91 Improvements from SR-57 to SR-55	74,423	431,889
J	SR-91 Improvements from SR-55 to County Line	62,933	365,213
K	I-405 Improvements between I-605 to SR-55	191,695	1,112,439
L	I-405 Improvements between SR-55 to I-5	57,126	331,513
M	I-605 Freeway Access Improvements	3,574	20,739
N	All Freeway Service Patrol	26,803	155,542
	Freeway Mitigation	45,810	265,846
	Subtotal Projects	916,211	5,316,930
	Net (Bond Revenue)/Debt Service	-	-
	Total Freeways	\$ 916,211	\$ 5,316,930
	%		
Street and Roads Projects (32% of Net Revenues)			
O	Regional Capacity Program	\$ 213,074	\$ 1,236,510
P	Regional Traffic Signal Synchronization Program	85,226	494,582
Q	Local Fair Share Program	383,530	2,225,691
	Subtotal Projects	681,830	3,956,783
	Net (Bond Revenue)/Debt Service	-	-
	Total Street and Roads Projects	\$ 681,830	\$ 3,956,783
	%		

FINANCING

Schedule of Revenues, Expenditures and Changes in Fund Balance as of December 31, 2018 (Unaudited) Schedule 3

Expenditures through Dec 31, 2018 (J)	Reimbursements through Dec 31, 2018 (K)	Net M2 Cost (L)
\$ 6,711	\$ 2,322	\$ 4,389
9,157	5,706	3,451
124,892	44,730	80,162
1,985	527	1,458
4	-	4
19,267	8,081	11,186
49,747	11,923	37,824
34,741	824	33,917
21,835	6,131	15,704
6,935	5,294	1,641
367,395	33,756	333,639
9,188	6,496	2,692
2,082	16	2,066
2,341	-	2,341
52,340	2,310	50,030
<u>708,620</u>	<u>128,116</u>	<u>580,504</u>
<u>43,547</u>	<u>-</u>	<u>43,547</u>
<u>\$ 752,167</u>	<u>\$ 128,116</u>	<u>\$ 624,051</u>
		36.3%
\$ 729,858	\$ 450,884	\$ 278,974
50,556	4,984	45,572
<u>363,288</u>	<u>77</u>	<u>363,211</u>
1,143,702	455,945	687,757
<u>48,369</u>	<u>-</u>	<u>48,369</u>
<u>\$ 1,192,071</u>	<u>\$ 455,945</u>	<u>\$ 736,126</u>
		42.8%

FINANCING

Schedule of Revenues, Expenditures and Changes in Fund Balance as of December 31, 2018 (Unaudited) Schedule 3

Project	Description	Net Revenues through Dec 31, 2018	Total Net Revenues
R	High Frequency Metrolink Service	\$ 199,919	\$ 1,233,220
S	Transit Extensions to Metrolink	188,093	1,091,538
T	Metrolink Gateways	29,246	63,200
U	Expand Mobility Choices for Seniors and Persons with Disabilities	68,116	428,756
V	Community Based Transit/Circulators	42,603	247,233
W	Safe Transit Stops	4,702	27,288
	Subtotal Projects	532,679	3,091,235
	Net (Bond Revenue)/Debt Service	-	-
	Total Transit Projects	\$ 532,679	\$ 3,091,235
	%		
	Measure M2 Program	\$ 2,130,720	\$ 12,364,948
	Environmental Cleanup (2% of Revenues)		
X	Clean Up Highway and Street Runoff that Pollutes Beaches	\$ 45,591	\$ 264,844
	Net (Bond Revenue)/Debt Service	-	-
	Total Environmental Cleanup	\$ 45,591	\$ 264,844
	%		
	Taxpayer Safeguards and Audits		
	Collect Sales Taxes (1.5% of Sales Taxes)	\$ 33,779	\$ 196,116
	%		
	Oversight and Annual Audits (1% of Revenues)	\$ 22,795	\$ 132,422
	%		

FINANCING

Schedule of Revenues, Expenditures and Changes in Fund Balance as of December 31, 2018 (Unaudited) Schedule 3

Expenditures through Dec 31, 2018	Reimbursements through Dec 31, 2018	Net M2 Cost
\$ 289,906	\$ 99,000	\$ 190,906
36,876	2,133	34,743
98,224	60,956	37,268
64,277	88	64,189
6,312	463	5,849
358	26	332
495,953	162,666	333,287
27,051	-	27,051
<u>\$ 523,004</u>	<u>\$ 162,666</u>	<u>\$ 360,338</u>
		20.9%
<u><u>\$ 2,467,242</u></u>	<u><u>\$ 746,727</u></u>	<u><u>\$ 1,720,515</u></u>
<u>\$ 37,400</u>	<u>\$ 292</u>	<u>\$ 37,108</u>
<u>-</u>	<u>-</u>	<u>-</u>
<u>\$ 37,400</u>	<u>\$ 292</u>	<u>\$ 37,108</u>
		1.6%
<u>\$ 24,577</u>	<u>\$ -</u>	<u>\$ 24,577</u>
		1.1%
<u>\$ 23,799</u>	<u>\$ 1,004</u>	<u>\$ 22,795</u>
		1.0%

LOCAL FAIR SHARE

M2 Funds		
ENTITY	2nd Quarter FY 2018-19	FUNDS TO DATE
ALISO VIEJO	\$132,958	\$4,510,847
ANAHEIM	\$1,139,618	\$39,221,557
BREA	\$185,811	\$6,517,361
BUENA PARK	\$277,201	\$10,250,492
COSTA MESA	\$482,115	\$16,511,537
CYPRESS	\$167,230	\$6,039,327
DANA POINT	\$112,194	\$3,752,673
FOUNTAIN VALLEY	\$199,428	\$7,079,591
FULLERTON	\$424,619	\$14,798,861
GARDEN GROVE	\$481,898	\$16,940,964
HUNTINGTON BEACH	\$636,620	\$22,080,753
IRVINE	\$922,537	\$30,410,638
LAGUNA BEACH	\$83,648	\$2,903,621
LAGUNA HILLS	\$111,225	\$3,880,396
LAGUNA NIGUEL	\$212,702	\$7,604,532
LAGUNA WOODS	\$40,992	\$1,454,804
LA HABRA	\$169,236	\$5,997,180
LAKE FOREST	\$261,235	\$8,971,722

LOCAL FAIR SHARE

M2 Funds		
ENTITY	2nd Quarter FY 2018-19	FUNDS TO DATE
LA PALMA	\$49,310	\$1,907,353
LOS ALAMITOS	\$42,476	\$1,475,962
MISSION VIEJO	\$301,863	\$10,664,118
NEWPORT BEACH	\$360,532	\$12,499,769
ORANGE	\$540,097	\$18,735,750
PLACENTIA	\$155,828	\$5,410,537
RANCHO SANTA MARGARITA	\$138,119	\$4,824,223
SAN CLEMENTE	\$186,263	\$6,374,765
SAN JUAN CAPISTRANO	\$122,620	\$4,311,629
SANTA ANA	\$909,219	\$31,655,280
SEAL BEACH	\$79,546	\$2,872,584
STANTON	\$96,381	\$3,419,388
TUSTIN	\$294,361	\$10,148,908
VILLA PARK	\$17,021	\$594,388
WESTMINSTER	\$281,275	\$9,744,303
YORBA LINDA	\$197,063	\$6,826,405
COUNTY UNINCORPORATED	\$655,067	\$21,228,877
TOTAL M2 FUNDS	\$10,468,309	\$361,621,097

CAPITAL ACTION PLAN

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Bold = Forecasted/Actual

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast			
		Begin Environmental	Begin Design	Begin Construction	Complete Construction
Freeway Projects:					
I-5, SR-55 to SR-57	\$38.1	Jul-11	Jun-15	Dec-17	Apr-21
Project A	\$41.6	Jun-11	Jun-15	Nov-18	Apr-21
I-5, I-405 to SR-55	TBD	May-14	TBD	TBD	TBD
Project B	TBD	May-14	TBD	TBD	TBD
I-5, Pico to Vista Hermosa	\$113.0	Jun-09	Jun-11	Dec-14	Aug-18
Project C	\$83.0	Jun-09	Jun-11	Dec-14	Aug-18
I-5, Vista Hermosa to Pacific Coast Highway	\$75.6	Jun-09	Jun-11	Dec-13	Mar-17
Project C	\$73.9	Jun-09	Jun-11	Jun-14	Jul-17
I-5, Pacific Coast Highway to San Juan Creek Road	\$70.7	Jun-09	Jun-11	Oct-13	Sep-16
Project C	Cost/Schedule Risk \$75.5	Jun-09	Jun-11	Dec-13	Jul-18
I-5, SR-73 to Oso Parkway	\$151.9	Sep-11	Mar-15	Dec-18	Jan-24
Project C & D	Cost/Schedule Risk \$188.1	Oct-11	Mar-15	Dec-19	Jan-25
I-5, Oso Parkway to Alicia Parkway	\$196.2	Sep-11	Nov-14	Jun-18	Feb-23
Project C & D	Cost/Schedule Risk \$203.1	Oct-11	Nov-14	Feb-19	Nov-23
I-5, Alicia Parkway to El Toro Road	\$133.6	Sep-11	Mar-15	May-19	Jun-23
Project C	Cost/Schedule Risk \$164.2	Oct-11	Mar-15	Jun-20	Jul-24
I-5, SR-73 to El Toro Road (Landscape)	TBD	N/A	TBD	TBD	TBD
Project C	\$12.4	N/A	Jan-22	Jun-24	Dec-25
I-5, I-5/El Toro Road Interchange	TBD	Apr-17	TBD	TBD	TBD
Project D	TBD	Apr-17	TBD	TBD	TBD
I-5, I-5/Ortega Interchange	\$90.9	Sep-05	Jan-09	Aug-12	Sep-15
Project D	\$75.2	Sep-05	Jan-09	Aug-12	Jan-16

*Status through December 2018. For detailed project information, please refer to the individual project section within this report.

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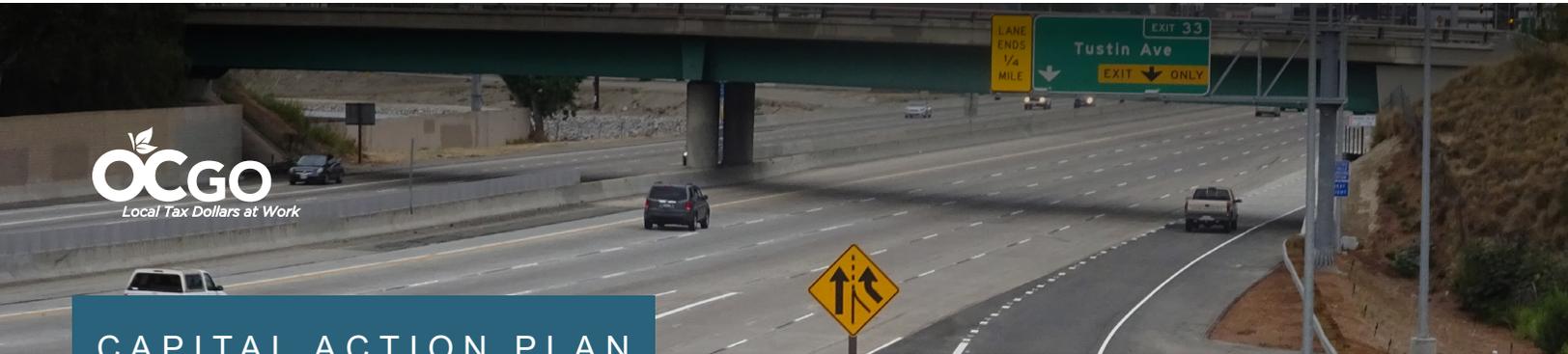
Red = Forecast milestone is over three months later than plan

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Bold = Forecasted/Actual

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast			
		Begin Environmental	Begin Design	Begin Construction	Complete Construction
I-5, I-5/Ortega Interchange (Landscape)	N/A	N/A	N/A	N/A	N/A
Project D	N/A	N/A	Jan-14	Sep-15	Sep-16
SR-55, I-405 to I-5	\$410.9	Feb-11	Sep-17	Jul-21	Aug-25
Project F Cost/Schedule Risk	\$410.9	May-11	Sep-17	Jul-21	Aug-25
SR-55, I-5 to SR-91	TBD	Dec-16	TBD	TBD	TBD
Project F	TBD	Dec-16	TBD	TBD	TBD
SR-57 Northbound (NB), Orangewood Avenue to Katella Avenue	TBD	Apr-16	TBD	TBD	TBD
Project G	TBD	Apr-16	TBD	TBD	TBD
SR-57 (NB), Katella Avenue to Lincoln Avenue	\$78.7	Apr-08	Jul-08	Aug-11	Sep-14
Project G	\$38.0	Apr-08	Aug-08	Oct-11	Apr-15
SR-57 (NB), Katella Avenue to Lincoln Avenue (Landscape)	N/A	N/A	N/A	N/A	N/A
Project G	N/A	N/A	May-09	Sep-17	Jun-18
SR-57 (NB), Orangethorpe Avenue to Yorba Linda Boulevard	\$80.2	Aug-05	Feb-08	Oct-10	May-14
Project G	\$52.3	Aug-05	Feb-08	Oct-10	Nov-14
SR-57 (NB), Yorba Linda Boulevard to Lambert Road	\$79.3	Aug-05	Feb-08	Oct-10	Sep-14
Project G	\$54.1	Aug-05	Feb-08	Oct-10	May-14
SR-57 (NB), Orangethorpe Avenue to Lambert Road (Landscape)	N/A	N/A	N/A	N/A	N/A
Project G	N/A	N/A	Oct-14	Feb-18	Apr-19
SR-57 (NB), Lambert Road to Tonner Canyon	TBD	TBD	TBD	TBD	TBD
Project G	TBD	Jul-20	TBD	TBD	TBD
SR-91 Westbound (WB), I-5 to SR-57	\$78.1	Jul-07	Oct-09	Nov-12	Apr-16
Project H	\$59.2	Jul-07	Mar-10	Jan-13	Jun-16

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Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast			
		Begin Environmental	Begin Design	Begin Construction	Complete Construction
SR-91 Westbound (WB), I-5 to SR-57 (Landscape) Project H	N/A	N/A	N/A	N/A	N/A
SR-91, SR-57 to SR-55 Project I	TBD	Jan-15	TBD	TBD	TBD
	Cost/Schedule Risk	Jan-15	TBD	TBD	TBD
SR-91 (WB), Tustin Interchange to SR-55 Project I	\$49.9	Jul-08	Jul-11	Oct-13	Jul-16
	\$42.6	Jul-08	Jun-11	Oct-13	Jul-16
SR-91, SR-55 to SR-241 Project J	\$128.4	Jul-07	Jun-09	Sep-11	Dec-12
	\$79.7	Jul-07	Apr-09	May-11	Mar-13
SR-91, SR-55 to SR-241 (Landscape) Project J	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	May-12	Oct-13	Feb-15
SR-91 Eastbound, SR-241 to SR-71 Project J	\$104.5	Mar-05	Jul-07	Jul-09	Nov-10
	\$57.8	Mar-05	Jul-07	Aug-09	Jan-11
I-405, I-5 to SR-55 Project L	TBD	Dec-14	TBD	TBD	TBD
	TBD	Dec-14	TBD	TBD	TBD
I-405, SR-55 to I-605 (Design-Build) Project K	\$1,900.0	Mar-09	Mar-14	Nov-16	May-23
	\$1,900.0	Mar-09	Mar-14	Nov-16	May-23
I-605, I-605/Katella Interchange Project M	TBD	Aug-16	TBD	TBD	TBD
	TBD	Aug-16	TBD	TBD	TBD
Grade Separation Projects:					
Raymond Avenue Railroad Grade Separation Project O	\$77.2	Feb-09	Mar-10	May-13	Aug-18
	\$125.1	Feb-09	Mar-10	Feb-14	May-18

*Status through December 2018. For detailed project information, please refer to the individual project section within this report.

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Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast			
		Begin Environmental	Begin Design	Begin Construction	Complete Construction
State College Boulevard Railroad Grade Separation (Fullerton)	\$73.6	Dec-08	Jul-06	May-13	May-18
Project O	\$100.3	Dec-08	Jul-06	Feb-14	Jan-18
Placentia Avenue Railroad Grade Separation	\$78.2	Jan-01	Jan-09	Jun-11	Nov-14
Project O	\$64.5	Jan-01	Jan-09	Jul-11	Dec-14
Kraemer Boulevard Railroad Grade Separation	\$70.4	Jan-01	Jan-09	Aug-11	Oct-14
Project O	\$63.8	Jan-01	Feb-09	Sep-11	Dec-14
Orangethorpe Avenue Railroad Grade Separation	\$117.4	Jan-01	Feb-09	May-12	Sep-16
Project O	\$108.6	Jan-01	Feb-09	Jan-13	Oct-16
Tustin Avenue/Rose Drive Railroad Grade Separation	\$103.0	Jan-01	Feb-09	Aug-12	May-16
Project O	\$98.3	Jan-01	Feb-09	Feb-13	Oct-16
Lakeview Avenue Railroad Grade Separation	\$70.2	Jan-01	Feb-09	May-13	Mar-17
Project O	\$110.6	Jan-01	Feb-09	Nov-13	Jun-17
Rail and Station Projects:					
17th Street Railroad Grade Separation	TBD	Oct-14	TBD	TBD	TBD
Project R	TBD	Oct-14	TBD	TBD	TBD
Sand Canyon Avenue Railroad Grade Separation	\$55.6	N/A	Jan-04	Feb-11	May-14
Project R	\$61.9	N/A	Jan-04	Feb-11	Jan-16
Rail-Highway Grade Crossing Safety Enhancement	\$94.4	Jan-08	Jan-08	Aug-09	Dec-11
Project R	\$90.4	Jan-08	Jan-08	Aug-09	Dec-11

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Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast			
		Begin Environmental	Begin Design	Begin Construction	Complete Construction
San Clemente Beach Trail Safety Enhancements	\$6.0	Sep-10	Feb-12	Oct-12	Jan-14
Project R	\$5.0	Sep-10	Feb-12	May-13	Mar-14
San Juan Capistrano Passing Siding	\$25.3	Aug-11	Mar-15	Dec-16	Jan-19
Cost/Schedule Risk	\$34.1	Aug-11	Mar-15	Jan-19	Feb-21
Placentia Metrolink Station and Parking Structure	\$34.8	Jan-03	Oct-08	TBD	TBD
Project R	\$34.8	Jan-03	Oct-08	Oct-19	Jun-21
Anaheim Canyon Station	\$27.9	Jan-16	Mar-19	Nov-19	Mar-21
	\$27.9	Jan-16	Mar-18	Nov-19	Mar-21
Orange Station Parking Expansion	\$33.2	Dec-09	Nov-10	Nov-16	Feb-19
	\$32.3	Dec-09	Nov-10	Jun-17	Feb-19
Fullerton Transportation Center - Elevator Upgrades	\$3.5	N/A	Jan-12	Sep-14	Mar-17
Cost/Schedule Risk	\$4.6	N/A	Jan-12	Apr-15	Feb-19
Laguna Niguel/Mission Viejo Station ADA Ramps	\$3.5	Jul-13	Jul-13	Jan-15	Apr-17
	\$5.2	Jul-13	Jul-13	Oct-15	Sep-17
Anaheim Regional Transportation Intermodal Center	\$227.4	Apr-09	Jun-09	Jul-12	Nov-14
Project R & T	\$232.2	Apr-09	Jun-09	Sep-12	Dec-14
OC Streetcar	\$424.4	Aug-09	Feb-16	Aug-18	Aug-21
Project S	\$424.4	Aug-09	Feb-16	Sep-18	Nov-21

*Status through December 2018. For detailed project information, please refer to the individual project section within this report.

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January 2018

FREEWAY IMPROVEMENT PROGRAM

Interstate 5 (I-5) Projects

- A** I-5, SR-55 to SR-57
- B** I-5, El Toro "Y" Area to SR-55
- C** I-5, SR-73 to El Toro Road
- C** I-5, Avenida Pico to San Juan Creek Road
- D** I-5 Highway Interchanges

State Route 22 (SR-22) Projects

- E** SR-22 Access Improvements

State Route 55 (SR-55) Projects

- F** SR-55, I-405 to I-5
- F** SR-55, I-5 to SR-91

State Route 57 (SR-57) Projects

- G** SR-57 NB, Orangewood 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 Tonner Canyon Road

State Route 91 (SR-91) Projects

- H** SR-91 WB, I-5 to SR-57
- I** SR-91, SR-57 to SR-55
- J** SR-91, SR-55 to Riverside County Line

Interstate 405 (I-405) Projects

- K** I-405, I-605 to SR-73
- L** I-405, SR-55 to El Toro "Y" Area

Interstate 605 (I-605) Projects

- M** I-605 Katella Interchange Improvements

Freeway Mitigation Restoration Projects
Part of Projects A-M

Freeway Mitigation Acquisition Projects
Part of Projects A-M

STREETS & ROADS

- O** Grade Separation Program (shown)
- P** Signal Synchronization Project Corridors

TRANSIT PROJECTS

- R** Grade Separation and Station Improvement Projects
- S** Transit Extensions to Metrolink
- T** Metrolink Station Conversion to accept Future High-Speed Rail Systems

OC GO PROJECTS NOT SHOWN

Project N: Freeway Service Patrol

Project O: Streets & Roads - Regional Capacity Program

Project Q: Local Fair Share Program

Project R: Grade crossing and Trail Safety Enhancements
Metrolink Service Expansion Program

Project U: Senior Mobility Program (SMP), Senior Non-emergency Medical Transportation Program (SNEMT), and Fare Stabilization Programs

Project V: Community Based Transit/Circulators

Project W: Safe Transit Stops

Project X: Environmental Cleanup Program



March 4, 2019

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is positioned to the right of the "From:" line.

Subject: 2019 Measure M2 Environmental Cleanup Program Call for Projects

Overview

The Measure M2 Environmental Cleanup Program provides grants to projects that protect Orange County waterways and beaches from roadway runoff. Updated Environmental Cleanup Program Tier 1 Call for Projects Program Guidelines are submitted for review and approval. Board of Directors' authorization is also requested to initiate the 2019 Environmental Cleanup Program Tier 1 call for projects.

Recommendations

- A. Approve the proposed revisions to Chapter 11 of the Comprehensive Transportation Funding Programs Guidelines.
- B. Authorize staff to issue the 2019 Environmental Cleanup Program Tier 1 call for projects for approximately \$2.8 million.

Background

The Environmental Cleanup Program (ECP) provides for the allocation of two percent of annual Measure M2 (M2) revenues to improve overall water quality in Orange County. Funding is allocated on a countywide competitive basis to assist local agencies in controlling transportation-related pollution. These funds are intended to supplement, not supplant, existing transportation-related water quality programs. Funds are awarded to priority projects that improve water quality in streams, harbors, and other waterways that have a nexus to transportation-related pollution, consistent with the Orange County Transportation Authority's (OCTA) Ordinance No. 3 (Ordinance). The Ordinance calls for establishment of an Oversight Allocation Committee to advise the Board of Directors (Board) on priorities and processes for use of these funds.

In May 2010, the Board approved a two-tiered approach to fund the M2 ECP. The Tier 1 Grant Program consists of funding for equipment purchases and upgrades to existing storm drains and related best management practices. The Tier 2 Grant Program consists of funding for regional, potentially multijurisdictional, and more capital-intensive projects.

In September 2018, the Board approved funding for 12 Tier 1 projects. To date, the Tier 1 Program has funded 166 projects, totaling approximately \$22 million. There have been two Tier 2 calls for projects (call) to date, and the program has funded 22 projects, totaling approximately \$28 million. The current call focuses on the M2 ECP Tier 1 Program.

Discussion

OCTA staff worked with local agencies and the Environmental Cleanup Allocation Committee (ECAC) to determine areas of the M2 ECP Tier 1 Program Guidelines (Guidelines) that needed to be adjusted, as well as reviewed issues that emerged out of previous calls. The proposed modifications to the Guidelines are included in Attachment A.

The proposed changes were reviewed and endorsed by the ECAC at the January 10, 2019 meeting. The changes are minimal and include the following:

- An update to the ECP Tier 1 call application schedule and identification of a \$2.8 million funding commitment to support the 2019 call, and
- An update to the acceptable formats for electronic submittal of project applications. Electronic versions of application materials should be submitted on a thumb drive or via Dropbox, rather than on a CD/DVD.

It should also be noted that 2018 call Guidelines changes, including cost/benefit analysis and targeted pollutant scoring criteria, are proposed to remain in the Guidelines. Based on the results from last year's call, the ECAC concurred that these scoring criteria proved to be effective in providing a quantitative method to score applications.

The ECAC also discussed the long-term funding disposition of the ECP. This included whether there is going to be an ongoing need for the Tier 1 funding program where the focus is to capture trash and debris. The ECAC felt that with the state's recently adopted regulations requiring more stringent trash capturing devices, there will be an ongoing need for Tier 1-funded projects well into the foreseeable future. Based upon this conclusion, the ECAC agreed that maintaining an annual \$2.8 million call for Tier 1 projects is both appropriate and sufficient. Future Tier 2 calls may also be recommended following various need assessments that are under development by the County of Orange.

Next Steps

Upon Board approval of the staff recommendations, OCTA will notify local agencies of the call, which is anticipated to commence March 11, 2019. During the call, staff will offer a workshop, tentatively scheduled for March or April 2019, and one-on-one meetings by appointment to assist local agencies with the application process. Applications will be due to OCTA on or before May 9, 2019, and staff will return to the Board with final programming recommendations by late summer 2019. Upon Board approval of final programming recommendations, funds will become available to the selected projects.

Summary

OCTA staff is recommending revisions to the Guidelines and is requesting authorization to issue the 2019 call for the ECP Tier 1 Grant Program, totaling approximately \$2.8 million.

Attachment

- A. Comprehensive Transportation Funding Programs Guidelines Excerpt, Proposed Revisions

Prepared by:



Joseph Alcock
Section Manager Local Programs
(714) 560-5372

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741

**Comprehensive Transportation Funding Programs
Guidelines Excerpt**

Proposed Revisions

Chapter 11 - Environmental Cleanup Program (Project X)

Overview

The Project X/Environmental Cleanup Program (ECP) provides for Measure M2 (M2) revenues to improve overall water quality in Orange County from transportation-generated pollution. Specifically, the Orange County Local Transportation Authority's Ordinance No. 3 (Ordinance), dated July 24, 2006, provides 2 percent of gross M2 revenues dedicated to protecting Orange County beaches and waterways from the conveyance of urban runoff associated with transportation-generated pollution. The ECP ensures that funds will be used on a countywide competitive basis to meet federal Clean Water Act standards for controlling transportation-generated pollution by funding nationally recognized Best Management Practices (BMPs).

As required by the Ordinance, an Environmental Cleanup Allocation Committee (ECAC), representing a broad cross-section of the water quality community, was formed in October 2007 to provide guidance on program design and funding. The goal of the ECP is to fund projects on a countywide, competitive basis. This will assist the County of Orange and Orange County cities in reducing transportation-related water quality pollution by meeting Clean Water Act standards for local waterways and beaches.

Proposed projects must demonstrate a direct nexus (connection) to a reduction of transportation-related pollution as developed and defined by the ECAC in conformity with the Ordinance. All proposing agencies must demonstrate an understanding of how their proposed projects meet the following transportation pollution nexus definition:

- Transportation-related activities can be a contributor of pollutants and/or impairments to receiving waters via aerial deposition, storm, and non-storm water discharges. Transportation-related activities are associated with the operation, construction, and maintenance of public roads, highways, and other ground transportation systems.
- The conveyance of transportation-related pollutants to surface and groundwater can occur from precipitation, runoff, and leaching entering or discharging from public roads, highways, and other ground transportation systems via drainage systems, such as catch basins, curbs, gutters, ditches, manmade channels, retention basins, or storm drains. The quality and quantity of these discharges vary considerably and are affected by hydrology, geology, land use, season, and sequence and discharge of hydrologic events.
- Pollutant sources can encompass right-of-way, properties, facilities, and activities related to motor vehicles, highway maintenance, construction site runoff, maintenance facility runoff, illegal dumping, spills, and landscaping care. Pollutant categories include but are not limited to metals (such as copper, lead, and zinc), organic chemicals and compounds (hydrocarbons and pesticides), sediment, nutrients (nitrogen and phosphorus), litter, oxygen demanding substances (decaying

vegetation, animal waste, and other organic matter), groundwater dewatering discharges, and pathogenic material.

ECP funds are designed to supplement, not supplant, existing water quality programs. Proposed projects must improve and not replace existing pollution reduction efforts by an eligible party. Funds will be awarded to the most competitive projects with the highest benefit to water quality.

The intent of the ECP is to provide funding for water quality projects that do not replace existing transportation water quality expenditures. In other words, if a project has components which would replace features already in place or which would fulfill project specific mitigation, those components would not be eligible for funding consideration. Some upgrades and expansions may be eligible.

Proposed projects, which support compliance with the 2015 adopted Trash Provisions, are eligible for ECP funding provided the funds would not replace established and programmed funds and the funds are not applied to any mandated project design features or required mitigation measures.

The eligibility of the project and its components will be determined during the evaluation process. Contact Joseph Alcock at (714) 560-5372, or jalcock@octa.net with questions.

Tier 1 Grant Program

Overview

The Tier 1 Grant Program is designed to mitigate the more visible forms of pollutants, such as litter and debris, which collect on the roadways and in the catch basins (storm drains) prior to being deposited in waterways and the ocean. It consists of grant funding for Orange County local governments to purchase equipment and upgrades for existing catch basins and other related BMPs (i.e., “street-scale” low flow diversion projects). Examples include screens, filters, and inserts for catch basins, as well as other devices designed to remove the above-mentioned pollutants. To date, eight Tier 1 calls for projects have been held. Through this process, many of the opportunities for street-scale BMPs have been fulfilled. Water quality projects, regardless of technology, are eligible for Tier 1 funding provided they have a verifiable benefit to water quality and fall within the maximum per project programming cap. The intent of this funding program is for project applicants to complete the work generally within one year from the letter agreement execution.

Tier 1 Project Types

The Tier 1 projects funded in the past included the following types. A description of each project type is provided below:

- 1) Automatic Retractable Screen and other debris screens or inserts: screen or insert units prevent debris from entering the storm drain system.
- 2) Irrigation system retrofits to reduce runoff: these projects decrease runoff from highway medians by using more efficient irrigation systems and/or replacing existing landscape to reduce the amount of water used in irrigation.
- 3) Continuous Deflection Separator (CDS): CDS units screen, separate, and trap debris, sediment, oil, and grease from storm water runoff.
- 4) Linear Radial Gross Solid Removal Device (GSRD): GSRDs are certified full capture systems which efficiently remove large solids from runoff water flows.
- 5) Marina Trash Skimmer: these devices draw in floating debris, such as plastics, bottles, paper, oil sheen, and drift wood. The installation of marina trash skimmers will reduce the amount of trash and debris reaching the open ocean.
- 6) Bioswales and Bioretention systems: pollutants and sedimentation are captured and subsequently removed from stormwater runoff.
- 7) Trash Boom: a floating boom placed across a channel captures trash and debris that have reached flood channels from being further conveyed to downstream receiving waters.

Pre-Application Process

In order to ensure the best use of M2 funds and assist eligible jurisdictions with the Tier 1 Grant Program, applicants may engage in a pre-application process with OCTA staff in project planning, cost estimate development, and determination of likely projected competitiveness. Specific meeting times will be established once the call is initiated. After the call for projects deadline and submittal of the grant application, applicants will not be able to change the content of the application or scope of the project.

Eligible Applicants

ECP funds can be used to implement street and highway-related water quality improvement projects to assist Orange County cities and the County of Orange to meet federal Clean Water Act standards for urban runoff and State Water Resources Control Board requirements for trash capture. Applicants eligible for ECP funds include the 34 Orange County cities plus the County of Orange. Eligible applicants must meet the transportation requirements discussed in the M2 Ordinance.

Third parties, such as water and wastewater public entities, environmental resource organizations, nonprofit 501(c) environmental institutions, and homeowners' associations cannot act as the lead agency for a proposed project, however; these agencies can jointly apply with an Orange County city and/or the County of Orange.

Two or more agencies may participate in a project. If a joint application among agencies and/or third-party entities is submitted, a preliminary agreement with joint or third-party entities must be provided as part of the application. In order to meet Ordinance requirements, an eligible applicant must be the lead agency for the funding application. If a project includes more than one jurisdiction and is being submitted as a joint application, one agency shall act as lead agency and must provide a resolution of support from all joint applicants.

Each eligible jurisdiction must meet the eligibility criteria as set forth in Chapter 1 of these guidelines.

Project Programming

The Tier 1 Grant Program approach is designed to be consistent with Chapter 2 of these Comprehensive Transportation Funding Program (CTFP) Guidelines regarding the provisions below:

- Program Consolidation
- Funding Projections
- Programming Adjustments
- Project Cost Escalation

- Programming Policies
- Schedule Change Requests
- Project Advancements
- Semi-Annual Review

Refer to Chapter 2 for explanations of the above provisions.

Funding Estimates

Approximately \$2.8 million is available for the 2019 Tier 1 call for projects.

The maximum amount for the Tier 1 Grant Program is \$500,000 per project. The maximum amount that an applicant can receive in a funding period is \$500,000.

Matching Funds

For the Tier 1 Grant Program, a minimum local match of 20 percent of the eligible project cost is required. The matching funds shall be provided as a cash contribution.

Retroactive expenditures cannot be credited towards the matching fund threshold.

Overmatch

For the Tier 1 Grant Program, administering agencies may “overmatch” ECP projects; that is, additional cash match may be provided for the project. Applicants will receive additional points in the evaluation process for matching with cash above the minimum requirement. Proposals that exceed the 20 percent minimum funding match will be given an additional one-half point for every five percent over the minimum cash match (up to five bonus points).

Additionally, administering agencies must commit to cover any future cost overruns if the project is underfunded. Any work not eligible for ECP reimbursement must be funded by other means by the project applicant and cannot count as match. These non-eligible items should not be included in the cost estimate breakdown in the application.

Reimbursements

For the Tier 1 Grant Program, OCTA will release funds through two payments. The initial payment will constitute 75 percent of the contract award or programmed amount at contract award. OCTA will disburse the final payment, approximately 25 percent of eligible funds, after approval of the final report. Further information on reimbursements can be located within Chapter 9 of these Guidelines.

Scope Reductions/Modifications and Cost Savings

Any proposed scope reductions of an approved project must be submitted to OCTA to ensure consistency with the Tier 1 Grant Program requirements. If the proposed scope reduction is approved by OCTA, cost savings will be proportionally shared between OCTA and the grantee - a reduction in ECP funds must be applied proportionally to maintain the

approved local match percentage. All cost savings will be returned to the Tier 1 Grant Program for reallocation for the subsequent call of projects.

Any minor scope modifications, such as BMP device quantities and/or the adjustment of device locations, must be submitted to OCTA for administrative approval prior to the implementation of the project. The proposed modifications must mitigate the same pollutants, affect the same waterways, and meet all other provisions as stipulated in these guidelines.

2019 Tier 1 Call for Projects

2019 Tier 1 Call for Projects applications must be received by OCTA **no later than 5:00 p.m. on Thursday, May 9, 2019**. Projects that do not award construction contracts by June 30, 2020 will not be considered. OCTA allocates funds on July 1 of each year. Tier 1 projects are not eligible for delay requests; please refer to precept number 17 for additional information. Funds will become available upon execution of a letter agreement.

After the Tier 1 applications are reviewed by OCTA, an advisory panel will review and rank projects. Following a review by the ECAC, a recommended priority list of projects will be forwarded to the OCTA Board for approval in summer 2019. Funds allocated for projects are final once approved by the OCTA Board. No additional funds will be allocated to the project. Grantees are responsible for any costs exceeding the allocated amount.

Tier 1 Selection Criteria

OCTA will evaluate all proposals that meet the mandatory prerequisites based on competitive selection criteria (Exhibit 11-1) with the following categories:

- Problem and source identification
- Project design
- Operations and maintenance
- Project benefits
- Performance metrics
- Project implementation and readiness
- Secondary attributes*

*Note: Project elements which may qualify for points under the “secondary attributes” category do not need to be eligible expenditures. See Eligible Expenditures and Ineligible Expenditures sections for further information.

Each proposal can receive a maximum of 100 points, exclusive of five bonus points for cash overmatch. See Exhibit 11-1 for scoring categories and point distribution.

Exhibit 11-1 (Tier 1 Scoring Criteria)

Scoring Criteria	Points Possible												
1. Describe the need for the selected BMP(s), including nexus to transportation pollutants, and detail the benefits to water quality the BMP(s) will achieve. (up to 15 Points)	15												
2. Cost/Benefit (Up to 16 points): Based on information provided by the applicant, a cost/benefit calculation will be conducted to compare the total project cost to the area of priority land uses treated by the proposed BMP(s). Applicant is required to provide ¹ : <ul style="list-style-type: none"> • Types(s) of BMP(s) proposed • Number of each BMP type • Total drainage area(s) contributing to each BMP type • Percent of drainage area(s) that is/are considered priority land uses (i.e., high density residential, industrial, commercial, mixed urban, public transportation stations) The applicant must also provide geospatial information (through ArcGIS and/or Google Earth) that identifies the drainage area(s) and BMP location(s) for the project.	16												
3. Pollutant Reduction Benefits: Based on treatment capacity and BMP type, project benefit will be calculated using the scoring equation: $(A \times 3) + (B \times 3) + (C \times 6) =$ (up to 12 points) ¹	12												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Line</th> <th style="width: 60%;">Factor</th> <th style="width: 30%;">Points Available</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td>Fractional percent of 1 year, 1-hour event flowrate discharging from priority land uses to the BMP(s)</td> <td style="text-align: center;">0 to 1</td> </tr> <tr> <td style="text-align: center;">B</td> <td>Fractional percent of 85th percentile, 24-hr design event that is treated by a low-impact development (LID) or treatment control BMP²</td> <td style="text-align: center;">0 to 1.5</td> </tr> <tr> <td style="text-align: center;">C</td> <td> BMP Multiplier: <ul style="list-style-type: none"> ▪ 1/3 point for high capacity systems ▪ 2/3 point for filters/biofilters ▪ 1 point for zero-discharge BMPs </td> <td style="text-align: center;">0 to 1</td> </tr> </tbody> </table>	Line	Factor	Points Available	A	Fractional percent of 1 year, 1-hour event flowrate discharging from priority land uses to the BMP(s)	0 to 1	B	Fractional percent of 85th percentile, 24-hr design event that is treated by a low-impact development (LID) or treatment control BMP ²	0 to 1.5	C	BMP Multiplier: <ul style="list-style-type: none"> ▪ 1/3 point for high capacity systems ▪ 2/3 point for filters/biofilters ▪ 1 point for zero-discharge BMPs 	0 to 1	
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C	BMP Multiplier: <ul style="list-style-type: none"> ▪ 1/3 point for high capacity systems ▪ 2/3 point for filters/biofilters ▪ 1 point for zero-discharge BMPs 	0 to 1											
4. How effective will the proposed project be in dealing with the more visible forms of pollutants, such as a litter and debris? (up to 10 points)	10												
5. What other BMP types were considered for this project? Why was the proposed BMP chosen? (5 points)	5												
6. Provide information on proposed BMP performance efficiency and/or effectiveness, including pollutant capture, storage capacity, flow capacity, etc. (up to 6 points)	6												
7. Project Readiness: The project schedule will be reviewed by the evaluation committee to determine when the proposed BMP will be operational following the OCTA Board of Directors approval. (up to 6 points):	6												
Less than 4 Months (6 points) 8 - 12 months (2 points) 4 - 8 months (4 points) More than 12 months (1 point)													

¹Applicants are not expected to calculate the score for question 2 and question 3. OCTA's technical consultant will provide the analysis for these questions based on the application materials provided by the applicant.

²Examples include high capacity systems (i.e. hydrodynamic separators), filters/biofilters, or zero-discharge BMPs (i.e., retention/infiltration).

8. Secondary Attributes: Will the proposed project provide any benefits beyond water quality improvement (i.e., water use efficiency, public awareness, flooding control, recreation, habitat, sustainability)? (up to 5 points)	5
9. What is the methodology for measuring pollutant reduction before and after the BMP is implemented? How frequently will monitoring and performance assessment occur? (up to 10 points)	10
10. Provide an operations and maintenance plan for the lifespan of the proposed project. Include schedule of inspections, cleaning, removal and disposal of pollutants, repairs, etc. (up to 15 points)	15
<hr/>	
	100
12. BONUS: Are local matching funds in excess of the 20% minimum cash being proposed? If yes, at what percentage? (.5 point for each 5% cash overmatch, up to 5 points)	5
<hr/>	
Note: overmatch bonus points can only be granted to projects with a cash match.	105

Application Process

The following information, which is to be completed within the Tier 1 Grant Application Form, available electronically from OCTA, is required to evaluate and select projects. A checklist is included in the Tier 1 Grant Application Form to assist eligible agencies in assembling project proposals. The following project information will be necessary as part of the application process:

- Project Title
- Lead Agency Information
- Proposed Schedule
- Project Management
- Description and Scope of Proposed Project
- Integrated Regional Water Management Plan identification (if applicable)
- Project Readiness
- Performance Metrics
- Detailed Project Estimate
- GIS/KMZ data files for each BMP type
- Minimum 20% Local Match (cash match only)
- Joint-Application (if applicable)

In addition to the completed Tier 1 Grant Application, the following documentation is required as part of the application process:

- Project design or concept drawings, including preliminary design calculations, of proposed BMP
- Precise maps to show tributary drainage area and proposed location(s) for BMP installation including geospatial information (through ArcGIS and/or Google Earth)

- Digital project site photos
- Preliminary agreements with joint and/or third-party entities if part of the funding application (if applicable)
- A city council resolution specific to each proposed project and funding commitment. A final resolution authorizing request for funding consideration with a commitment of local match funding must be provided with the project application. **If a draft copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board. See Exhibit 11-2 for a sample resolution.

For the Tier 1 Grant Program, an unbound original and two copies (total of three) of the completed application form and supporting documentation are to be submitted, plus an ~~CD/DVD~~ electronic copy of the complete application materials. Electronic application materials can be submitted via email, USB drive, or Dropbox. CD/DVD files are not accepted. Use separate sheets of paper if necessary.

There is no maximum length for proposals. All pages must be numbered and printed on 8 1/2 x 11 sheets of white paper. Maps and drawings can be included on 11 x 17 sheets, folded into the proposal. The original proposal should be left unbound for reproduction purposes.

Submitted applications are considered final. Any applications that do not contain all required information and documentation will be disqualified.

Exhibit 11-2 (Tier 1 Sample Resolution)

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL/BOARD OF THE CITY/COUNTY OF _____

AUTHORIZING AN APPLICATION FOR FUNDS FOR THE ENVIRONMENTAL CLEANUP, TIER 1 GRANT PROGRAM UNDER ORANGE COUNTY LOCAL TRANSPORTATION ORDINANCE NO. 3 FOR (PROJECT NAME).

WHEREAS, Orange County Local Transportation Ordinance No.3, dated July 24, 2006, and is known and cited as the Renewed Measure M Transportation Ordinance and Investment Plan makes funds available through the Environmental Cleanup Program to help protect Orange County beaches and waterways from transportation-generated pollution (urban runoff) and improve overall water quality.

WHEREAS, the Environmental Cleanup, Tier 1 Grant Program consists of funding purchases and installation to catch basins with Best Management Practices, such as screens, filters, inserts, and other "street-scale" low flow diversion projects.

WHEREAS, OCTA has established the procedures and criteria for reviewing proposals; and

WHEREAS, (ADMINISTERING AGENCY) possesses authority to nominate water quality improvement projects that have a transportation pollution nexus to finance and construct the proposed project; and

WHEREAS, by formal action the (GOVERNING BODY) authorizes the nomination of (PROJECT NAME), including all understanding and assurances contained therein, and authorizes the person identified as the official representative of the (ADMINISTERING AGENCY) to act in connection with the nomination and to provide such additional information as may be required; and

WHEREAS, the (ADMINISTERING AGENCY) will maintain and operate the equipment acquired and installed; and

WHEREAS, the (ADMINISTERING AGENCY) will give OCTA's representatives access to and the right to examine all records, books, papers or documents related to the funded Tier 1 Grant Project; and

WHEREAS, the (ADMINISTERING AGENCY) will cause work on the project to be commenced within a reasonable time after receipt of notification from OCTA and that the project will be carried to completion with reasonable diligence; and

WHEREAS, the (ADMINISTERING AGENCY) will comply where applicable with provisions of the California Environmental Quality Act, the National Environmental Policy Act, the American with Disabilities Act, and any other federal, state, and/or local laws, rules and/or regulations;

WHEREAS, the (ADMINISTERING AGENCY) must include all projects funded by Net Revenues in the seven-year Capital Improvement Program as part of the Renewed Measure M Ordinance eligibility requirement.

WHEREAS, the (ADMINISTERING AGENCY) authorizes a formal amendment to the seven-year Capital Improvement Program to add projects approved for funding upon approval from the Orange County Transportation Authority Board of Directors.

WHEREAS, the City/County of _____ will provide a minimum of 20% in matching funds for the (PROJECT NAME) as required by the Orange County Comprehensive Transportation Funding Programs Guidelines.

NOW, THEREFORE, BE IT RESOLVED that the City/County of _____ hereby authorizes (NAME OF AGENCY REPRESENTATIVE) as the official representative of the (ADMINISTERING AGENCY) to accept funds for the Environmental Cleanup, Tier 1 Grant Program for (PROJECT NAME).

BE IT FURTHER RESOLVED that the City/County of _____ agrees to fund its share of the project costs and any additional costs over the identified programmed amount.

Eligible Expenditures

- ECP funds must be for capital improvement. Construction management and project management cannot exceed 15 percent of the total construction costs.
- ECP funds can only be used for facilities that are in public ownership for public use; however, water quality improvements on private property, which are connected to municipal separate storm sewer systems, are eligible. (For example, a homeowner association can apply for funding through an eligible agency if the proposed project is connected to a public facility.)
- Reducing volume of surface flows is an integral factor of improving water quality, therefore, projects that have water-saving features (i.e., drip systems) are eligible for funding considerations.

Ineligible Expenditures

- Operations and maintenance costs are not eligible expenditures. Operations and maintenance costs cannot be utilized as a source of matching funds.
- ECP funds are not to be used for planning.
- Expenditures prior to the grantee executed letter agreement date cannot be considered eligible for funding or match.
- Landscaping installation and replacement are not eligible for funding consideration.
- Replacement of equipment funded with ECP funds that is still within its anticipated useful life (based on manufacturer's specifications).
- Capital equipment purchases related to regular on-going street maintenance efforts, including, but not limited to: trash receptacles, vacuum trucks and/or equipment, street sweepers, signage, etc.

Reporting and Reimbursement

A final report must be filed within 180 days of the project being completed with information as shown in Form 10-16. See Chapter 9 for the process and requirements regarding reimbursements and reporting for the Tier 1 Grant Program.

Additionally, an exception to Precept #36: Agencies may appeal to the ECAC and the OCTA Board on any issues that the agency and OCTA cannot resolve, as such are the approving bodies for this program.

Technical and/or Field Review

Once an agency submits a final report for a project, OCTA shall review the report for compliance with the CTFP guidelines and may conduct a field review. OCTA will use the project cost estimate forms submitted with the application and revised where appropriate, project accounting records and the final report as the primary items to conduct the review. Agencies must maintain separate records for projects (i.e., expenditures, interest)

to ensure compliance. Only CTFP eligible items listed on a project's cost estimate form will be reimbursed. See Chapter 10 for independent audit requirements beyond the technical and/or field review.

Additional Information

Completed applications and questions regarding these procedures and criteria should be directed to:

By mail:

Joseph Alcock
Orange County Transportation Authority
P.O. Box 14184
Orange, CA 92863-1584
Tel: (714) 560-5673
Fax: (714) 560-5794

In person:

Orange County Transportation Authority
600 South Main Street
Orange, CA 92863-1584

Via email (for electronic submittal):

jalcock@octa.net



March 13, 2019

To: Finance and Administration Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Environmental Mitigation Program Endowment Fund Investment Report for December 31, 2018

Overview

The Orange County Transportation Authority has developed a Natural Community Conservation Plan/Habitat Conservation Plan, acquired conservation properties, and funded habitat restoration projects to mitigate the impacts of Measure M2 freeway projects. California Community Foundation manages the non-wasting endowment required to pay for the long-term management of the conservation properties. Each quarter, the California Community Foundation publishes a comprehensive report detailing the composition of the pool and its performance. Attached is the quarterly investment report for the Endowment Pool for the period ending December 31, 2018. The report has been reviewed and is consistent with the pool objectives.

Recommendation

Receive and file as an information item.

Background

On September 26, 2016, the Board of Directors approved the selection of the California Community Foundation (CCF) as an endowment fund manager for the Measure M2 Freeway Environmental Mitigation Program. Approximately \$2.9 million on an annual basis will be deposited in the endowment. As of December 31, 2018, the Orange County Transportation Authority has made three deposits to the Endowment Pool, each in the amount of \$2,877,000. These annual deposits are expected to continue for ten to 12 years, or until the fund totals approximately \$46.2 million.

Discussion

As of December 31, 2018, total pool assets in the CCF Endowment Pool were \$1.015 billion. Total foundation assets were \$1.66 billion. Performance for the Endowment Pool was -4.3 percent for the month, 0.2 percent below the benchmark; -8.0 percent for the quarter, exceeding the benchmark by 0.2 percent. The one-year return was -4.8 percent, exceeding the benchmark by 1.6 percent.

The balance as of December 31, 2018, was \$8,568,159. This balance is less than the projected balance of \$9,097,957 due to the poor performance of equities in the fourth quarter of 2018. Equities fell by more than ten percent in the fourth quarter based on volatility in the stock market due to uncertainty caused by trade disputes, rising interest rates and the slowing global economy. Despite the poor performance of equities in the fourth quarter the stock market rebounded in January. Though not part of the fourth quarter results, based on the rebound of the stock market in January the endowment balance as of January 31, 2019, was \$9,009,153, which puts the balance near the December 31, 2018 projected balance.

The projected annualized cost for administration services for the endowment was 0.75 percent based on indications received during the due diligence process. Based on the current balance of the endowment the cost for administration services is 0.25 percent.

Summary

The Orange County Transportation Authority is submitting a copy of the California Community Foundation Investment Report to the Board of Directors. The report is for the quarter ending December 31, 2018.

Attachments

- A. California Community Foundation Fund Statement - December 31, 2018
- B. California Community Foundation Endowment Pool Investments – December 31, 2018

Prepared by:



Sean Murdock
Director,
Finance and Administration
714-560-5685

Approved by:



Andrew Oftelie
Chief Financial Officer
714-560-5649



Fund Name: OCTA - Measure M2 Environmental Mitigation Program Fund
Fund Start Date: 2/28/2017
Investment Pool(s): Endowment Pool

FUND STATEMENT

OCTA - Measure M2 Environmental Mitigation Program Fund (V398)

10/1/2018 - 12/31/2018

Fund Summary

	This Period 10/01/2018 - 12/31/2018	Calendar YTD 1/1/2018 - 12/31/2018
Opening Fund Balance	\$9,311,197.08	\$6,220,553.14
Contributions	0.00	2,877,000.00
Investment Activity, net	(743,038.31)	(511,794.70)
Administration & Grant Management Fees	0.00	(17,599.67)
Net Changes to Fund	<u>(743,038.31)</u>	<u>2,347,605.63</u>
Ending Balance	<u>\$8,568,158.77</u>	<u>\$8,568,158.77</u>

Investment Pool Performance as of 12/31/2018

	This Qtr.	1 - Year	3 - Years	5 - Years	10 - Years
Endowment Pool	-8.0%	-4.8%	5.9%	3.3%	7.4%
Social Impact Endowment Pool	-8.1%	-3.8%	5.1%	4.4%	7.9%
Conservative Balanced Pool	3.2%	-0.1%	3.9%	3.4%	n/a
Short Duration Bond Pool	1.5%	1.4%	1.4%	n/a	n/a
Capital Preservation Pool	0.6%	1.9%	1.0%	0.6%	0.6%

Endowment Pool - invested for long-term growth and appreciation while providing a relatively predictable stream of distributions that keeps pace with inflation over time. The target asset allocation is 50% equities, 14% hedge funds, 22% fixed income and 14% real assets. Investment management fees are 66 basis points.

Social Impact Endowment Pool - invested in a diversified pool aiming for capital growth for long-term grantmaking; underlying instruments undergo rigorous environmental and social analysis, with an asset allocation of approximately 60%-75% equities and 25%-40% fixed income. Investment management fees are 68 basis points.

Conservative Balanced Pool - designed to aim for moderate growth and to offer diversified exposure to the U.S. equity market and to investment grade fixed income with maturities from one to five years and an asset allocation of 70% fixed income and 30% equities investments. Investment management fees are 9 basis points.

Short Duration Bond Pool - invested to offer diversified exposure to investment grade fixed income with maturities from one to five years for the purposes of grants over a near-term one to four year horizon. Investment management fees are 5 basis points.

Capital Preservation Pool - designed to preserve principal and provide liquidity for present grantmaking needs through investment in short-term fixed income and cash instruments. Investment management fees are 10 basis points.

The Endowment Pool returned -4.3% for the month of December 2018, 20 basis points behind its benchmark. For the trailing year, the pool returned -4.8%, 160 basis points ahead of its benchmark.

Total Pool Assets

\$1.015 billion (Endowment Pool), \$1.66 billion (total foundation assets) as of December 31, 2018.

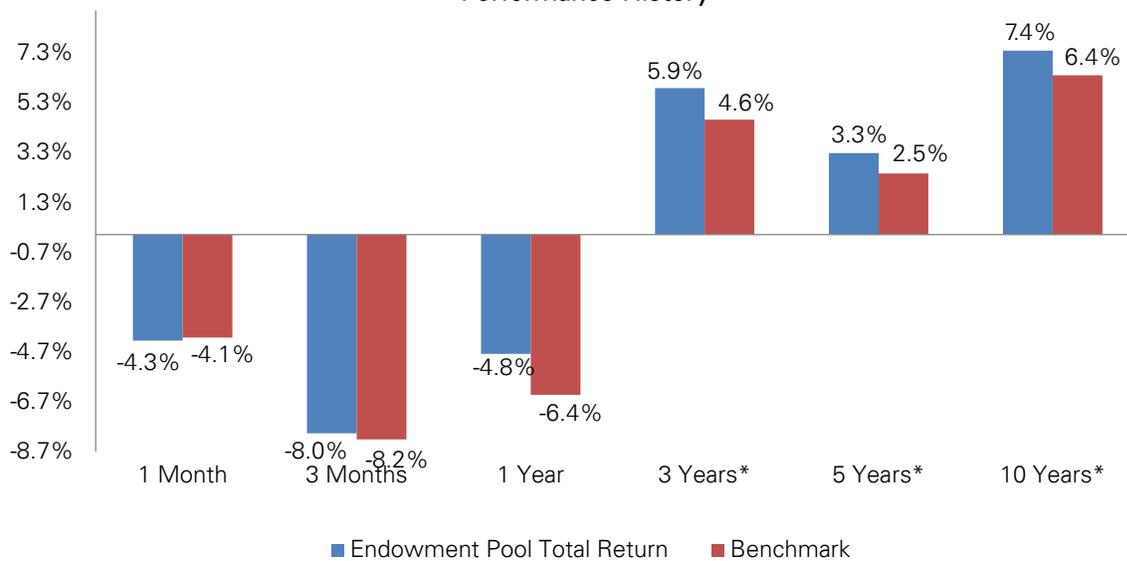
Pool Objective

Preserve the real (i.e., inflation-adjusted) purchasing power of the investment pool net of annual distributions for grants and expenses. An additional objective is to provide a relatively predictable, stable stream of distributions for grants and expenses that keep pace with inflation over time.

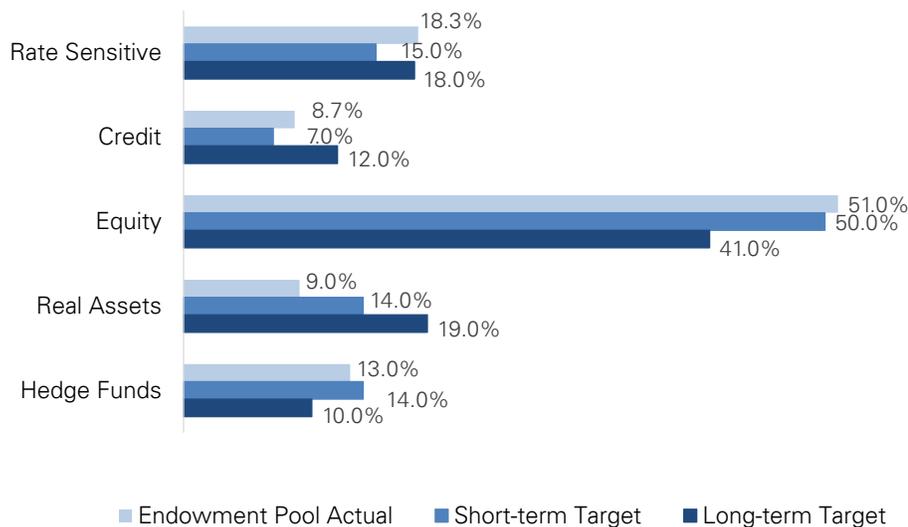
Investment Consultant

Meketa Investment Group

Performance History



Asset Allocation



*Represents annualized returns.

- 1) Investment expense ratio approximates 0.63%, excluding fund manager incentive fees.
- 2) Investment performance is presented net of investment expenses, including fund manager incentive fees.
- 3) Total Fund Benchmark is a combination of: 50% MSCI ACWI / 14% HFR FOF / 14% S&P Real Assets Indx / 15% Barc Agg. / 7% Barc High Yield.
- 4) Short-term target allocation is over 2-5 years, long-term target allocation is over 5-10 years.



April 1, 2019

To: Regional Planning and Highways Committee
From: Darrell E. Johnson, Chief Executive Officer 
Subject: Fiscal Year 2019-20 Measure M2 Eligibility Guidelines

Overview

The Orange County Transportation Authority Ordinance No. 3 specifies requirements that local jurisdictions must satisfy in order to be eligible to receive Measure M2 funds. Measure M2 Eligibility Guidelines are used to assist local jurisdictions in navigating through eligibility requirements and submittal processes. Proposed updates to the Measure M2 Eligibility Guidelines are presented for Board of Directors review and approval.

Recommendations

- A. Approve the fiscal year 2019-20 Measure M2 Eligibility Guidelines.
- B. Direct staff to return in summer 2019 with more detailed procedures related to finding a local agency ineligible to receive Measure M2 funds.

Background

The Measure M2 (M2) Eligibility Guidelines (Guidelines) specify requirements and procedures that local jurisdictions need to adhere to in order to establish eligibility to receive M2 funds (for both local fair share and competitive program funds). Staff has completed its annual update of the Guidelines, and proposed changes are being recommended for Board of Directors (Board) consideration and approval.

Discussion

Proposed changes include updates to required due dates, an update to the Master Plan of Arterial Highways (MPAH) Centerline Mileage Report, inclusion of updated sample ordinances for the MPAH Circulation Element Consistency Requirement, Mitigation Fee Programs, and Pavement Management Plan submittals. Other changes include minor updates to the Guidelines

Checklist (Appendix D), as well as general wording and technical clarifications throughout the document and appendices.

These proposed changes incorporate feedback received during previous eligibility review cycles and are anticipated to streamline eligibility processes both for this cycle and on an ongoing basis. A summary of proposed modifications is provided in Attachment A, and the revised redlined Guidelines are included as Attachment B.

Due to recent issues raised by the Orange County Local Transportation Authority Measure M2 Agreed-Upon Procedures Reports, staff is also recommending that more detailed procedures be developed should a local agency fail to meet specific eligibility requirements. These procedures are expected to return for Board approval in summer 2019.

Upon Board approval of the proposed Guidelines, the fiscal year (FY) 2019-20 eligibility cycle will be initiated. In addition to public outreach and a workshop, staff will coordinate with all local jurisdictions throughout the eligibility process in order to facilitate timely submittal of all required M2 eligibility components for this FY. Upon completion of the FY 2019-20 eligibility cycle, staff will return to the Board to seek approval of eligibility findings and recommendations.

Summary

Proposed modifications to the Guidelines are recommended in order to support the initiation of the FY 2019-20 eligibility cycle, and better assist local jurisdictions and staff with upcoming eligibility submittal processes. Once eligibility submittal processes have been completed, staff will return to the Board to seek final approval of eligibility findings and recommendations.

Attachments

- A. Revisions to the Measure M2 Eligibility Guidelines
- B. Measure M2 Eligibility Guidelines, Fiscal Year 2019/2020

Prepared by:



Joseph Alcock
Section Manager, Local Programs
(714) 560-5372

Approved by:



Kia Mortazavi
Executive Director, Planning
714 (560)-5741

Revisions to the Measure M2 Eligibility Guidelines

Proposed Substantive Changes:

- **Page 5** – Updating deadlines of eligibility requirements table consistent with eligibility requirements discussed in Chapter 2.
- **Page 9** – Updating Exhibit 1 with the latest centerline mileage that is used to calculate local fair share payments.
- **Page 12** – Clarifying that maintenance of efforts expenditures must be for street and road purposes.
- **Page 16** – Updating deadlines for eligibility requirements on Exhibit 3.
- **Page 17** – Clarifying that funds received through bonding or borrowing against local fair share (LFS) must be used for LFS eligible expenditures.
- **Pages 21 and 22** – Clarifying the annual eligibility review subcommittee and the tax payer oversight committees' role in eligibility.
- **Page 23** – General clarifications on eligibility non-compliance consequences and appeals process.
- **Appendix E** – Including sample resolutions for Master Plan of Arterial Highway circulation element consistency and mitigation fee programs, in addition to the Pavement Management Plan adoption draft resolution.



MEASURE M2 ELIGIBILITY GUIDELINES

FISCAL YEAR 2019 / 2020



ORANGE COUNTY TRANSPORTATION AUTHORITY

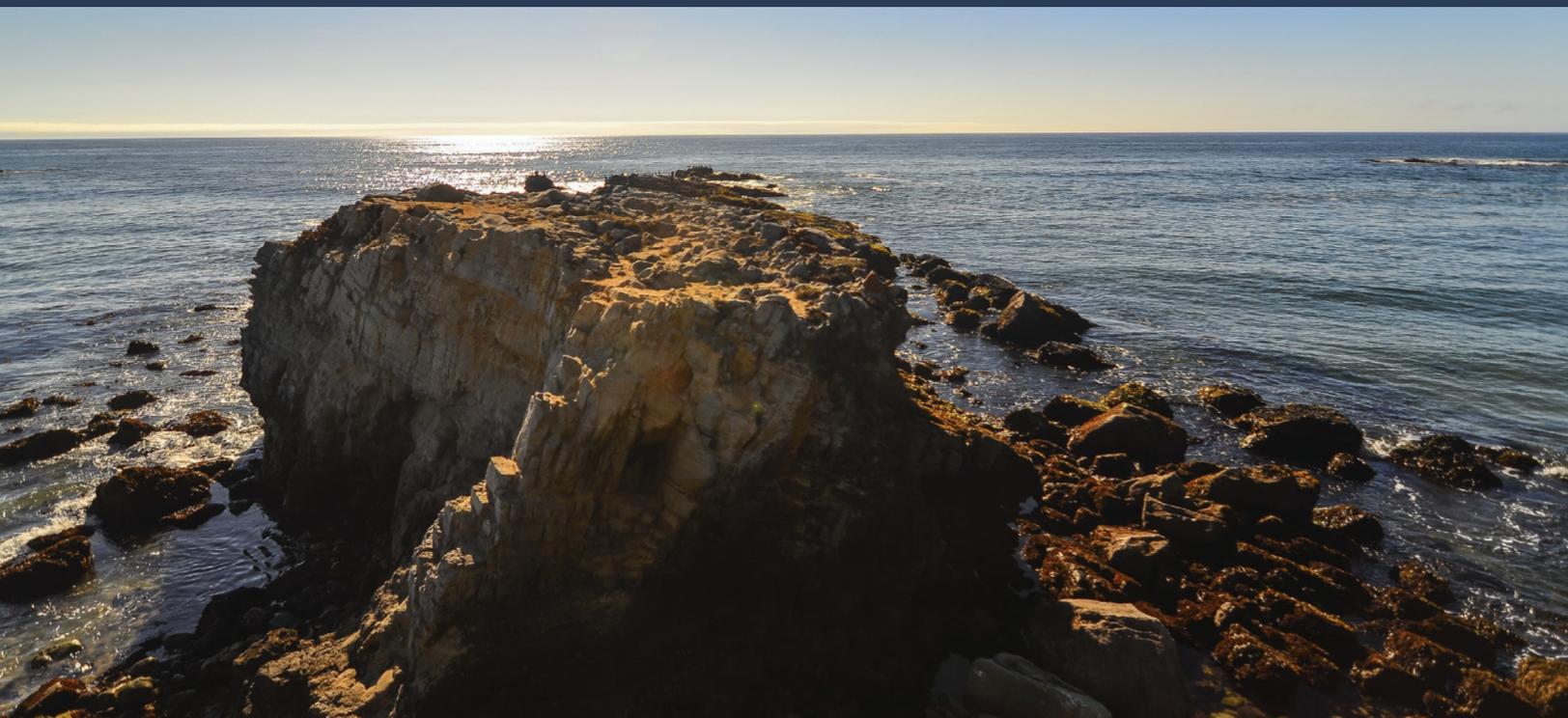


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Chapter 1 – Eligibility Overview

1.1 Introduction

On November 6, 1990, the voters in Orange County approved a ½-cent sales tax for transportation improvements known as Measure M. On November 7, 2006, voters approved a renewal of the original sales tax measure (M2) to continue the ½-cent sales tax for thirty years, beginning in 2011. Major improvement plans target Orange County freeways, streets and roads, transit and environmental programs.

The Ordinance, included as Appendix A, outlines the eligibility requirements that local jurisdictions must satisfy annually in order to receive M2 Net Revenues. The M2 Eligibility Guidelines (Eligibility Guidelines) provide the resources local jurisdictions need to remain eligible to participate in M2 funding programs. Guidelines for newly incorporated cities are outlined in Appendix B.

Net Revenues are generated from the transactions and use tax plus any interest or other earnings, after allowable deductions. Net Revenues may be allocated to local jurisdictions for a variety of programs and the Orange County Transportation Authority (OCTA) shall allocate the Net Revenues to freeways, environmental, transit, and streets and roads projects.

Freeway Projects

Orange County freeways will receive forty-three percent (43%) of Net Revenues. Relieving congestion on State Route 91 is the centerpiece of the freeway program. Other major projects include improving Interstate 5 (I-5) in south Orange County, Interstate 405 (I-405) in west Orange County and State Route 57 in North Orange County. Under the plan, major traffic chokepoints on almost every freeway will be improved.

Environmental Programs

To address any environmental impact of freeway improvements, five percent (5%) of the allocated freeway funds will be used for environmental mitigation programs. A Master Agreement between OCTA and state and federal resource jurisdictions will provide higher-value environmental benefits such as habitat protection, wildlife corridors and resource preservation in exchange for streamlined project approvals for the freeway program as a whole. Funds are also available under the Environmental Cleanup Program (ECP) to implement water quality improvement projects.

Transit Projects

Orange County's rail and bus service will receive twenty-five percent (25%) of Net Revenues. These funds will be used to add transit extensions to the Metrolink corridor, reduce bus fares for senior citizens and persons with disabilities, and establish local bus circulators.

Streets and Roads Projects

Orange County has more than 7,300 lane miles of streets and roads; many in need of repair and rehabilitation. This sales tax measure will allocate thirty-two percent (32%) of Net Revenues to streets and roads. These funds will help fix potholes, improve intersections, synchronize traffic signals countywide, and make the existing network of streets and roads safer and more efficient.

The allocation of thirty-two percent (32%) of the Net Revenues for Streets and Roads Projects shall be made as follows:

1. Ten percent (10%) of the Net Revenues shall be allocated to Project O, Regional Capacity Program (RCP).
2. Four percent (4%) of the Net Revenues shall be allocated to Project P, Regional Traffic Signal Synchronization Program (RTSSP).
3. Eighteen percent (18%) of the Net Revenues shall be allocated to Project Q, Local Fair Share (LFS) Program.

1.2 Competitive Funds

OCTA shall select projects through a competitive process for the RCP, RTSSP, various transit programs (Projects S, T, V, and W), and the ECP (Project X). The criteria for selecting these projects are included in the Comprehensive Transportation Funding Programs (CTFP) Guidelines. The process for calculating and distributing LFS funds are described in Section 1.3.

1.3 Local Fair Share (LFS) Funds

The LFS Program is a formula-based allocation provided to eligible jurisdictions for use on allowable transportation planning and implementation activities. It is funded through an eighteen percent (18%) allocation from Net Revenues and is distributed to eligible jurisdictions on a formula basis as determined by the following:

- Fifty percent (50%) is divided between eligible jurisdictions based upon the ratio of the jurisdiction's population to the County's total population, each from the previous calendar year.
- Twenty-five percent (25%) is divided between eligible jurisdictions based upon the ratio of the jurisdiction's existing Master Plan of Arterial Highways (MPAH) centerline miles to the total MPAH centerline miles within the County as determined annually by OCTA.
- Twenty-five percent (25%) is divided between eligible jurisdictions based upon the ratio of the jurisdiction's total taxable sales to the total taxable sales for the County, each from the previous calendar year.
- OCTA contracts with three universities (Chapman University; University of California, Los Angeles; and California State University, Fullerton) to provide a long-range forecast of taxable sales to forecast M2 revenues for the purposes of planning projects and program expenditures. In the past, OCTA has taken an average of the three university taxable sales projections to develop a long-range forecast of taxable sales. On March 28, 2016, as part of the FY 2016-17 budget development process, the Board approved a new sales tax forecast methodology. The new methodology includes a more conservative approach by utilizing a five-year forecast from MuniServices, Inc. The resulting revenue estimates are used for programming of competitive funds and as a guide for local jurisdiction planning within their respective Capital Improvement Programs (CIPs).

1.4 Eligibility Requirements for Net Revenues

Every year, OCTA determines if a local jurisdiction is eligible to receive M2 Net Revenues. A local jurisdiction must satisfy certain requirements as outlined in the Ordinance. Specifically, a jurisdiction must:

- Comply with the conditions and requirements of the Orange County Congestion Management Program (CMP)
- Establish a policy which requires new development to pay its fair share of transportation-related improvements associated with their new development
- Adopt a General Plan Circulation Element consistent with the MPAH
- Adopt and update a Capital Improvement Program (CIP)
- Participate in Traffic Forums
- Adopt and maintain a Local Signal Synchronization Plan (LSSP)
- Adopt and update biennially a Pavement Management Plan (PMP)
- Adopt and provide an annual Expenditure Report to OCTA
- Provide OCTA with a Project Final Report within six months following completion of a project funded with Net Revenues
- Agree to expend Net Revenues received through M2 within three years of receipt
- Satisfy Maintenance of Effort (MOE) requirements
- Agree that Net Revenues shall not be used to supplant developer funding
- Consider, as part of the eligible jurisdiction's General Plan, land use and planning strategies that accommodate transit and non-motorized transportation

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Chapter 2 – Eligibility Requirements

The annual eligibility process relies upon a variety of reporting methods to verify local jurisdiction compliance. Most methods leverage tools routinely used in the public planning process while others require certification forms or specialized reports. Templates, forms, and report formats are included as appendices to these guidelines and are available in electronic format. The table below summarizes certification frequency and documentation requirements.

Compliance Category	Schedule	Documentation
Capital Improvement Program (CIP)	Annual Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Electronic, hard copy City Council/Board of Supervisors approval
Circulation Element/MPAH Consistency	Biennial Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Resolution (Appendix E) Circulation Element Exhibit Arterial Highway Mileage Change Report (Appendix H) Certify that the Circulation Element is consistent with MPAH in the Eligibility Checklist (Appendix D)
Congestion Management Program (CMP)	Odd numbered years Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Eligibility Checklist item in Appendix D Include projects to address deficient intersections in CIP (if applicable) CMP Checklist (Appendix C)
Expenditure Report	Annual – six months after end of fiscal year Next submittal is due December 31, 2019.	<ul style="list-style-type: none"> Expenditure Report and resolution (Appendix G)
Local Signal Synchronization Plan (LSSP)	Every three years Next submittal is due June 30, 2020	<ul style="list-style-type: none"> Copy of plan Resolution
Maintenance of Effort (MOE)	Annual Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> MOE Certification form (Appendix I) signed by Finance Director or equivalent designee that meets/exceeds MOE Benchmark in Exhibit 2 Budget excerpts and fund key
Mitigation Fee Program (MFP)	Biennial Next submittal is due June 28, 2019. ¹	<ul style="list-style-type: none"> Eligibility Checklist item in Appendix D Copy of nexus study, revised impact fee schedule, or process methodology Resolution (Appendix E)
No Supplanting Existing Commitments	Annual Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Eligibility Checklist item in Appendix D
Pavement Management Plan (PMP)	Every two years Next submittal for odd year agencies is due June 28, 2019. Refer to Exhibit 3 to determine the required PMP submittal schedule.	<ul style="list-style-type: none"> PMP Submittal Template (Appendix F) with PMP Certification form signed by Public Works Director or City Engineer CD with pavement report, and street listings Adoption - Resolution (Appendix E) or City Council/Board of Supervisors approved adoption recommendation
Project Final Report	Within 6 months of project completion	<ul style="list-style-type: none"> Final Report
Timely Expenditure of Funds	Annual Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Eligibility Checklist item in Appendix D
Traffic Forums	Annual Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Eligibility Checklist item in Appendix D
Transit/Non-motorized Transportation in General Plan	Annual Next submittal is due June 28, 2019.	<ul style="list-style-type: none"> Eligibility Checklist item in Appendix D Letter outlining land use planning strategies that accommodate transit and active transportation Excerpts of policies from the land use section of the General Plan

¹ Jurisdictions must submit their updated program and revised fee schedule or process methodology when the jurisdiction updates their mitigation program and/or nexus study regardless of eligibility submittal schedule.

2.1 Capital Improvement Program (CIP)

A CIP is a multi-year funding plan to implement capital transportation projects and/or programs including, but not limited to, capacity, safety, operations, maintenance, and rehabilitation projects. For purposes of eligibility, the Ordinance specifies that each jurisdiction must prepare a CIP. The annual seven-year CIP updates are required to enable timely review of eligible use of funds. The CIP shall include all capital transportation projects, such as projects funded by Net Revenues (i.e. ECP, RTSSP, RCP, [other M2 Competitive Programs](#), and LFS projects) and transportation projects required to demonstrate compliance with signal synchronization, pavement management, and CMP requirements (See section 2.3 for the CIP's relevance to the CMP).

Projects funded by M2 Net Revenues include:

Project Description	Project
Freeway Environmental Mitigation	A-M
Regional Capacity Program (RCP)	O
Regional Traffic Signal Synchronization Program (RTSSP)	P
Local Fair Share Program (LFS)	Q
High Frequency Metrolink Service	R
Transit Extensions to Metrolink	S
Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems	T
Community Based Transit/Circulators	V
Safe Transit Stops	W
Environmental Cleanup Program (ECP) – Water Quality	X

Each eligible jurisdiction must include projects in their CIP that are needed to meet and maintain the adopted Traffic Level of Service and Performance Standards. The CIP shall also include all projects proposed to receive M2 funding. Local jurisdictions are encouraged, but not required, to include all transportation related projects regardless of M2 funding participation.

If M2 funding needed for a project is not reflected on the current CIP, an amended CIP should be adopted with contract award prior to expending funds. The revised CIP should be submitted to OCTA in hard copy format with evidence of council approval.

Submittal Frequency: Minimum annual or as needed to add M2 projects that are not reflected on the current CIP. Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Required

Verification Method: Each jurisdiction must submit an electronic (online) and hard copy of its CIP with evidence of City Council/Board of Supervisors approval. The OCTA provides a web-based database called the Web Smart CIP used countywide for reporting approved CIP information. A separate CIP User's Manual has been developed to assist local jurisdictions with the preparation of the seven-year CIP.

The CIP User's Manual is available for download at <https://www.octa.net/M2Eligibility>.

2.2 Circulation Element/MPAH Consistency

A Circulation Element is one component of a jurisdiction's General Plan that depicts a planned multimodal network and related policies. Each jurisdiction is required to adopt and maintain a Circulation Element that is consistent with the OCTA MPAH, which defines the minimum planned lane configurations for major regionally significant roads in Orange County.

MPAH Consistency

Through a cooperative process, OCTA, the City Engineers Association, the City Managers Association, and the County of Orange developed criteria for determining consistency with the MPAH. Criteria and policies for determining MPAH Consistency are included in a separate manual titled "Guidance for Administration of the Orange County Master Plan of Arterial Highways" and are summarized below:

- The local jurisdiction's Circulation Element is to have the minimum planned carrying capacity equivalent to the MPAH for all MPAH links within its jurisdiction. "Planned carrying capacity" is the number of through lanes on each arterial highway as shown on the local Circulation Element.
- Local jurisdictions will not be found inconsistent with the MPAH due to existing capacity limitations on arterials not yet constructed to the ultimate capacity shown on the MPAH.
- Every two years, each local jurisdiction must submit a resolution adopted by the governing body attesting that no unilateral reduction in lanes has been made on any MPAH arterial.
- The local jurisdiction will be ineligible to participate in M2 programs if a roadway on the MPAH has been unilaterally removed from or downgraded on their Circulation Element and/or does not meet the planned capacity criteria. Eligibility may be reinstated upon completion of a cooperative study that resolves the inconsistency. Additionally, the local jurisdiction can re-establish eligibility upon restoring its Circulation Element to its previous state of MPAH consistency.
- The local jurisdiction must adopt a General Plan Circulation Element that does not preclude implementation of the MPAH.
- A local jurisdiction is inconsistent with the MPAH as of the date the governing body takes unilateral action reducing the number of existing and/or planned through lanes on an MPAH arterial built to its ultimate configuration to less than the ultimate capacity shown on the MPAH. "Unilateral action" means physical action such as striping, signing, or other physical restrictions executed by the local jurisdiction.
- A local jurisdiction may be permitted to reduce existing through lanes, if prior to acting, it can demonstrate to the OCTA that such action is temporary and can be justified for operational reasons. The local jurisdiction must enter into a binding agreement to restore capacity upon demand by OCTA, in which case OCTA may recommend that the local jurisdiction remain eligible on a conditional basis. If it is found to be ineligible, it may regain eligibility upon physical restoration of the arterial to the original state that is consistent with the MPAH.
- Traffic calming measures shall be administered on MPAH facilities per the latest version of the Guidance for the Administration of the Orange County MPAH.
- If a local jurisdiction requests a change to the MPAH and enters into a cooperative study to analyze the request, it may be considered conditionally consistent. No change shall be made

to its Circulation Element until after the cooperative study is completed and agreement is reached on the proposed amendment.

Submittal Frequency: Odd year requirement. Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Required (Appendix E)

Verification Method: Each jurisdiction must provide the following every odd year:

- Document within the Eligibility Checklist (Appendix D) that confirms the Circulation Element is consistent with the MPAH.
- A copy of the most current Circulation Element Exhibit biennially showing all arterial highways and their individual arterial designations. Any proposed changes and/or requests for changes to the MPAH should also be included.
- Resolution adopted by the governing body of the local jurisdiction.
- The Arterial Highway Mileage Change Report (Appendix H). Changes are in actual (built or annexed) MPAH centerline miles since the previous MPAH Consistency Review are to be reported to the nearest 0.01 mile, excluding State highways. Data should be current as of April 30 of the reporting year. Exhibit 1 lists the current MPAH centerline miles by jurisdiction that is used to calculate Local Fair Share.

OCTA shall review the materials submitted, and determine whether the local jurisdiction Circulation Elements are consistent with the MPAH, meaning there is a minimum planned carrying capacity equivalent to the MPAH for all MPAH links within the local agency's jurisdiction.

Exhibit 1: MPAH Centerline Miles

As of August 1, 2018

Local Jurisdiction	Centerline Mileage
Aliso Viejo	14.85
Anaheim	148.69
Brea	20.57
Buena Park	34.44
Costa Mesa	49.33
County of Orange	59.36
Cypress	24.93
Dana Point	20.16
Fountain Valley	35.28
Fullerton	62.18
Garden Grove	63.59
Huntington Beach	93.05
Irvine	134.82
La Habra	17.13
La Palma	7.23
Laguna Beach ²	14.01
Laguna Hills	20.73
Laguna Niguel	35.94
Laguna Woods	5.77
Lake Forest	37.47
Los Alamitos	6.44
Mission Viejo	43.77
Newport Beach	48.92
Orange	85.24
Placentia	25.01
Rancho Santa Margarita	18.20
San Clemente	25.57
San Juan Capistrano	18.55
Santa Ana	100.21
Seal Beach	12.24
Stanton	9.48
Tustin	41.28
Villa Park	3.49
Westminster	35.75
Yorba Linda	32.67
	1,406.35

² Laguna Beach credited with State Highway mileage by agreement of the TAC.

2.3 Congestion Management Program (CMP)

With the passage of Proposition 111 Gas Tax increase in June 1990, urbanized areas of California were required to adopt a CMP. OCTA was designated as the County's Congestion Management Agency (CMA), and as such, is responsible for the development, monitoring, and biennial updating of Orange County's CMP. Orange County's CMP is a countywide program established in 1992 to support regional mobility and air quality objectives through the effective use of transportation funds, coordinated land use, and development planning practices. Required elements of the County's CMP include traffic level of service (LOS) standards, performance measures, travel demand assessment methods and strategies, land use analysis programs, and Capital Improvement Programs.

The goals of Orange County's CMP are to support regional mobility and air quality objectives by reducing traffic congestion, providing a mechanism for coordinating land use and development decisions that support the regional economy, and determining gas tax eligibility. Each jurisdiction must comply with the following conditions and requirements of the Orange County CMP pursuant to the provisions of Government Code Section 65089 to be considered eligible for both gas tax revenues and M2 funding:

- Level of Service – Highways and roadways designated by OCTA must operate at an established LOS of no less than LOS "E" (unless the LOS from the baseline CMP dataset was lower).
- Deficiency Plans – Any CMP intersections that do not comply with the LOS standards must have a deficiency plan prepared by the responsible local jurisdiction that identifies the cause and necessary improvements for meeting LOS standards (certain exceptions apply).
- Land Use Analysis – Jurisdictions must analyze the impacts of land use decisions on the transportation system, using a designated methodology, consistent with the CMP Traffic Impact Analysis guidelines. The analysis must also include estimated cost to mitigate associated impacts.
- Modeling and Data Consistency – A jurisdiction utilizing a local area model for traffic impact analysis must conform to the Orange County Sub-Area Modeling guidelines, prepared by OCTA.
- CIP – Jurisdictions must submit an adopted seven-year CIP that includes projects to maintain or improve the LOS on CMP facilities or adjacent facilities.

Submittal Frequency: Odd years – Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Not Required

Verification Method: The CMP checklist, as shown in Appendix C, must be submitted to demonstrate compliance with CMP requirements. If a deficient intersection is identified, the jurisdiction must include a project in their CIP to address the issue or develop a deficiency plan. OCTA will use the M2 CIP prepared by each local jurisdiction as the default CMP CIP rather than require a separate submittal. Projects intended to address CMP deficiencies should be clearly identified in the project description within the CIP. Appendix C is available for download at <https://www.octa.net/M2Eligibility>.

2.4 Expenditure Report

The expenditure report is a detailed financial report that tracks financial activity for M2 and other improvement revenue sources. Each jurisdiction must adopt an annual Expenditure Report to account for M2 funds, developer/traffic impact fees, and funds expended by the jurisdiction that satisfy the MOE requirements. This report is used to validate eligible uses of funds and to report actual MOE expenditures.

- Report required within six months of jurisdiction's end of fiscal year.
- Report to include all Net Revenue, fund balances, and interest earned. If interest earnings are negative, an explanation should be included to explain why.
- Reported expenditures shall be identified by activity type (i.e. construction, maintenance/operations, indirect and/or overhead) and funding source for each M2 program and/or project.

Submittal Frequency: Annual – within 6 months of the end of the fiscal year. The deadline is December 31 for jurisdictions following a state fiscal year (July-June).

City Council/Board of Supervisors approval: Required ([Appendix G](#))

Verification Method: The expenditure report signed by the jurisdiction's Finance Director and City council/Board of Supervisors resolution attesting to the adoption is required. The expenditure report template, instructions, and resolution are provided in Appendix G. Appendix G is available for download at <https://www.octa.net/M2Eligibility>.

2.5 Local Signal Synchronization Plan (LSSP)

The LSSP³ is a three-year plan identifying traffic signal synchronization, street routes and traffic signals to be improved in eligible jurisdictions. The LSSP shall be consistent with the Regional Traffic Signal Synchronization Master Plan (RTSSMP). The LSSP will outline the costs associated with the identified improvements, funding and phasing of capital, and the operations and maintenance of the street routes and traffic signals. Inter-jurisdictional planning of traffic signal synchronization is also a component of the LSSP. Local jurisdictions must update LSSPs every three years and include a performance assessment which compares the information in the current report to prior cycle activities.

Submittal Frequency: Every 3 years - Next LSSP update submittal is due by June 30, 2020.

City Council/Board of Supervisors approval: Required

Verification Method: Local jurisdictions must ensure that their LSSP is in conformance with the RTSSMP. LSSPs must be updated and adopted every three years starting June 30, 2014. At a minimum, a Public Works Director must sign the LSSP Consistency Review Checklist. A separate document prepared by OCTA, "Guidelines for the Preparation of Local Signal Synchronization Plans," provides additional detail for agency submittal and is available for download at <https://www.octa.net/M2Eligibility>.

³ A local match reduction of ten percent (10%) is provided for competitive grant applications submitted through the Regional Capacity Program (Project O) if the local jurisdiction has adopted a LSSP consistent with the RTSSMP.

2.6 Maintenance of Effort (MOE)

The MOE Certification is a financial reporting document, which provides annual certification of planned/budgeted maintenance, construction and indirect/other transportation related expenditures and the comparison to the annual MOE Benchmark Requirements for the fiscal year. Each jurisdiction must provide annual certification to OCTA that the MOE requirements of Section 6 of the Ordinance have been satisfied. MOE applies to transportation-related discretionary expenditures using General Funds or other non-transportation discretionary funds by local agencies for street and road expenditures.

MOE Certification Process

M2 funds may be used to supplement, not replace, existing local revenues being used for transportation improvements and programs. A local jurisdiction cannot redirect discretionary funding such as general fund currently being used for transportation purposes to other uses and replace the redirected funds with M2 revenues.

Each jurisdiction is required to maintain a minimum level of local streets and roads expenditures to conform to the MOE requirement. The original minimum level of expenditures was based upon an average of General Fund expenditures for local street maintenance and construction over the period from Fiscal Year 1985-86 through Fiscal Year 1989-90. The expenditure information was obtained from the Orange County Transportation Commission's (OCTC's) Annual Report data collection sheets. The established benchmark was reported in constant dollars and was not adjusted for inflation. Annexation of land into an existing jurisdiction does not affect the MOE.

Per the Ordinance, the MOE benchmark must be adjusted in 2014 and every three years thereafter based upon Caltrans' Construction Cost Index (CCI) for the preceding three-years. The CCI-based adjustment cannot exceed growth rate in General Fund revenues during the update period. The current MOE benchmark is reflected in Exhibit 2. The next MOE benchmark adjustment will be effective July 1, 2020.

Submittal Frequency: Annual - Next MOE submittal is due **June 28, 2019**.

City Council/Board of Supervisors approval: Not Required

Verification Method: An MOE reporting form must be completed, signed by the jurisdiction's finance director and submitted on an annual basis. The form is included in the Eligibility Guidelines as Appendix I and is available for download at <https://www.octa.net/M2Eligibility>.

In addition, excerpts from the jurisdiction's annual budget showing referenced MOE expenditures and dedication of General Funds should be included in the annual submittal to substantiate planned relevant discretionary fund (General Funds) expenditures. MOE expenditures should be budgeted carefully, with clear focus upon benefits to local streets and roads, which can withstand periodic expenditure audit processes.

Any California State Constitution Article XIX street and road eligible expenditure may be "counted" in a local jurisdiction's annual calculation of MOE if the activity is supported (funded) by a local jurisdiction's General Fund. This is the same definition used for Gas Tax expenditures. The California State Controller also provides useful information on Article XIX and Streets and Highways Code eligible expenditures. These guidelines do not replace statutory or legal authority, but explain the general information found in California Constitution Article XIX and the Streets and Highways Code. Additional expenditures for which the jurisdiction can demonstrate that the funds were spent in support of streets and roads may also be eligible.

Exhibit 2: MOE Benchmark by Local Jurisdiction

Local Jurisdiction	MOE Benchmark
Aliso Viejo	\$ 462,004
Anaheim	\$ 10,058,292
Brea	\$ 719,028
Buena Park	\$ 3,743,072
Costa Mesa	\$ 7,383,205
Cypress	\$ 3,117,765
Dana Point	\$ 1,313,011
Fountain Valley	\$ 1,342,115
Fullerton	\$ 3,785,870
Garden Grove	\$ 3,378,344
Huntington Beach	\$ 5,607,203
Irvine	\$ 7,050,145
La Habra	\$ 1,529,313
La Palma	\$ 173,004
Laguna Beach	\$ 1,549,454
Laguna Hills	\$ 310,467
Laguna Niguel	\$ 908,566
Laguna Woods	\$ 89,705
Lake Forest	\$ 194,440
Los Alamitos	\$ 162,506
Mission Viejo	\$ 2,538,900
Newport Beach	\$ 10,871,763
Orange	\$ 2,917,858
Placentia	\$ 660,496
Rancho Santa Margarita	\$ 390,747
San Clemente	\$ 1,135,209
San Juan Capistrano	\$ 422,472
Santa Ana	\$ 7,755,107
Seal Beach	\$ 551,208
Stanton	\$ 245,213
Tustin	\$ 1,455,691
Villa Park	\$ 321,697
Westminster	\$ 1,548,761
Yorba Linda	\$ 2,279,688
Annual Total Orange County	\$ 85,972,319

2.7 Mitigation Fee Program (MFP)

The MFP is a locally established fee program, which assesses fees used to mitigate effects of new development on transportation infrastructure. Appropriate mitigation measures, including payment of fees, construction of improvements, or any combination thereof, will be determined through an established and documented process by each jurisdiction.

Each eligible jurisdiction must assess traffic impacts of new development and require new development to pay a fair share of necessary transportation improvements attributable to the new development. To insure eligibility, each jurisdiction must have a clearly defined mitigation program.

Submittal Frequency: Odd years - Next MFP submittal is due by **June 28, 2019**.⁴

City Council/Board of Supervisors approval: Required ([Appendix E](#))

Verification Method: The eligibility submittal should include a copy of the nexus study improvement list, a current fee schedule or the process methodology, and the City Council/Board of Supervisors resolution approving the MFP. Where mitigation measures, including fair share contributions and construction of direct impact improvements are used in lieu of an AB1600 compliant Nexus Study fee program, each jurisdiction shall provide a council resolution adopting the mitigation policy.

At such time that a jurisdiction updates their mitigation program and/or nexus study, they must submit their updated program and revised fee schedule or process methodology for the following review cycle. In addition, a MFP resolution must be submitted biennially to reaffirm that council concurs with the existing MFP. It is the local jurisdiction's responsibility to ensure fee programs and mitigation measures are updated periodically and meet the infrastructure needs of their community.

2.8 No Supplanting of Developer Commitments

Eligible jurisdictions must ensure that M2 funding will not be used to supplant existing or future development funding commitments for transportation projects. Development must be required to continue paying their fair share for new transportation improvements that are necessary because of the new traffic their project(s) create.

- Development must continue to pay their fair share for needed infrastructure improvements and transportation projects
- Net revenues must not supplant development funding or contributions which have been previously committed to transportation projects through payment of fees in a defined program, fair share contribution, Community Facilities District (CFD) financing, or other dedicated contribution to a specific transportation improvement

Submittal Frequency: Annual - Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Not Required

Verification Method: Each jurisdiction must document within the Eligibility Checklist (Appendix D) that there has been no supplanting of developer commitments for transportation projects as outlined in the Ordinance. Appendix D is available for download at <https://www.octa.net/M2Eligibility>.

⁴ Jurisdictions must submit their updated program and revised fee schedule or process methodology when the jurisdiction updates their mitigation program and/or nexus study on an even year. Annual cost adjustments should be reported but do not constitute an "update" on the Eligibility Checklist (Appendix D).

2.9 Pavement Management Plan (PMP)

A PMP⁵ is a plan to manage the preservation, rehabilitation, and maintenance of paved roads by analyzing pavement life cycles, assessing overall system performance costs, and determining alternative strategies and costs necessary to improve paved roads. MicroPaver or StreetSaver will be used for countywide consistency. The software must be consistent with ASTM Standard D6433-11.

Each jurisdiction must biennially adopt and update a PMP consistent with the specific requirements outlined in the Ordinance, and issue, using a common format (Appendix F) approved by OCTA, a report regarding the status of road pavement conditions and implementation of the PMP including, but not limited to, the following elements:

- The current status of pavement roads
- A seven-year plan for road maintenance and rehabilitation, including projects, funding, and unfunded backlog of pavement needs
- Projected pavement conditions resulting from improvements
- Alternative strategies and estimated costs to improve road pavement conditions

The Countywide PMP Guidelines have been prepared by OCTA to assist local jurisdictions with the PMP submittal. Local jurisdictions should refer to the guidelines for additional PMP submittal criteria. The Countywide PMP Guidelines can be downloaded from OCTA's Eligibility webpage: <https://www.octa.net/M2Eligibility>.

Submittal Frequency: Biennial – 14 local jurisdictions submit PMP updates in odd years (i.e. **June 28, 2019**) and 21 local jurisdictions submit PMP updates in even years (i.e. **June 30, 2020**). Refer to Exhibit 3 to determine the local jurisdiction's required PMP submittal schedule.

City Council/Board of Supervisors approval: Required ([Appendix E](#))

Verification Method: To establish eligibility, each jurisdiction must complete and submit the adopted PMP Submittal Template (Appendix F). The adoption must be approved by the City Council/Board of Supervisors as a staff report recommendation or through a resolution. A sample resolution is provided in Appendix E. The PMP certification form included in the template must be signed by the Public Works Director or City Engineer. These appendices are available for download at <https://www.octa.net/M2Eligibility>.

The Executive Summary should include a brief overview of their PMP highlighting issues that have developed between review cycles and provide additional information regarding the projects funded through the program. At a minimum, the Executive Summary should include Pavement Condition Index (PCI) reports, Projected PCI, and Alternative Funding Levels.

⁵ RCP includes an incentive for successful PMP implementation. A local match reduction of ten percent (10%) is provided for competitive grant applications submitted through the Regional Capacity Program (Project O) if the jurisdiction either has measurable improvement of paved road conditions during the previous reporting period as determined through the countywide pavement management rating standards, or has road pavement conditions during the previous reporting period which are within the highest twenty percent (20%) of the scale for road pavement conditions in conformance with the Ordinance, defined as a PCI of 75 or higher, otherwise defined as "good condition".

Exhibit 3: Submittal Schedule for Periodic Components

Local Jurisdiction	Updated PMP	CMP	MPAH Consistency	MFP ⁶	Project Final Reports	LSSP
Aliso Viejo	Even Year	Odd Years (Next submittal is due by June 28, 2019)	Odd Years (Next submittal is due by June 28, 2019)	Odd Years (Next submittal is due by June 28, 2019)	Within 6 months of project completion	Every 3 years (Next submittal is due June 30, 2020)
Anaheim	Odd Year					
Brea	Odd Year					
Buena Park	Even Year					
Costa Mesa	Even Year					
County of Orange	Odd Year					
Cypress	Odd Year					
Dana Point	Odd Year					
Fountain Valley	Even Year					
Fullerton	Even Year					
Garden Grove	Even Year					
Huntington Beach	Even Year					
Irvine	Odd Year					
Laguna Beach	Even Year					
Laguna Hills	Even Year					
Laguna Niguel	Even Year					
Laguna Woods	Even Year					
Lake Forest	Odd Year					
La Habra	Odd Year					
La Palma	Even Year					
Los Alamitos	Odd Year					
Mission Viejo	Even Year					
Newport Beach	Odd Year					
Orange	Even Year					
Placentia	Even Year					
Rancho Santa Margarita	Even Year					
San Clemente	Odd Year					
San Juan Capistrano	Odd Year					
Santa Ana	Even Year					
Seal Beach	Even Year					
Stanton	Odd Year					
Tustin	Odd Year					
Villa Park	Even Year					
Westminster	Even Year					
Yorba Linda	Even Year					

⁶ Jurisdictions must submit their updated program and revised fee schedule or process methodology when the jurisdiction updates their mitigation program and/or nexus study regardless of allocated submittal schedule.

2.10 Project Final Report

Each jurisdiction must provide OCTA a Project Final Report within six months following completion of a project funded with Net Revenues. Final report formats follow the template used by the CTFP. The CTFP Guidelines define the term "project phase completion" as the date all final third-party contractor invoices have been paid and any pending litigation has been adjudicated either for the engineering phase or for the right-of-way phase, and all liens/claims have been settled for the construction phase. The date of project phase completion will begin the 180-day requirement for the submission of a project final report as required by the Ordinance.

[City Council/Board of Supervisors approval:](#) Not Required

[Verification Method:](#) To establish eligibility, a jurisdiction must submit a copy of the CTFP Project Final Report for each project utilizing Net Revenues. Each Final Report must be individually submitted to OCTA within six months of the completion of a project funded by Net Revenues, regardless of the eligibility review cycle. For the purposes of reporting non-project work (indirect and/or overhead, maintenance, repair, and other non-project related costs) funded by LFS funds, the annual Expenditure Report shall satisfy reporting requirements. If LFS funds are used for capital projects, the local jurisdiction shall also include a list of those funds and/or other M2 funds in the Project Final Report.

2.11 Time Limit for Use of Net Revenues

The timely expenditure of funds is a policy which must be adopted by each local jurisdiction to ensure Net Revenues are expended and accounted for within 3 years. The local jurisdiction must certify that the receipt and use of all M2 funds received will adhere to the time limits for use as outlined in the Ordinance.

Competitive Programs

- Jurisdictions must agree that Net Revenues for RCP projects and/or RTSSP projects shall be expended or encumbered by the end of the fiscal year for which Net Revenues are programmed. Refer to the CTFP Guidelines for additional information regarding expenditure deadlines and extension requests.

Local Fair Share (LFS)

- Net Revenues received by local jurisdictions through the LFS program shall be expended or encumbered within three years. An extension may be granted but is limited to a total of five years from the date of receipt of funds. OCTA uses the check date as the date of receipt of funds. Requests for extension must be submitted as part of the semi-annual review process prior to the end of the third year from the date of receipt of funds. Requests for extension must include a plan of expenditure.
- Expired funds including interest earned and related revenues must be returned to OCTA. These funds shall be returned for redistribution within the same source program.
- Use of LFS revenues for bonding (including debt service) shall be limited to 25% of the jurisdiction's annual LFS revenues. [Bonding or loan must clearly support work that is otherwise eligible for LFS funds. The Board may consider an exception to the percentage limitation](#) policy on a case-by-case basis.

Interest Derived from Net Revenues

- Interest from any M2 competitive funding program and LFS must be held in separate accounts.
- Local M2 interest proceeds must be spent by the local jurisdiction on transportation activities consistent with LFS eligible transportation activities.
- Interest revenues must be expended within 3 years of receipt.
- Interest may be accumulated for substantive projects where necessary, with prior OCTA approval, provided that the account balance does not exceed aggregate LFS payments received in the preceding three (3) years of reporting period.
- All interest accumulated at the conclusion of M2 is to be expended within three years of the program sunset date (March 31, 2041).

Submittal Frequency: Annual. Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Required if an extension is requested.

Verification Method: Each jurisdiction must document within the Eligibility Checklist (Appendix D) confirmation that the jurisdiction complies with the timely use of Net Revenues throughout the year as outlined in the Ordinance. Net Revenue and Interest balances are reported on the annual Expenditure Report.

2.12 Traffic Forums

Traffic Forums are working group sessions that include local jurisdictions and OCTA. Traffic forums provide a venue for local jurisdictions to discuss general traffic and transportation issues, traffic circulation between participating jurisdictions, the coordination of specific projects, and the overall RTSSP. Each jurisdiction must participate in Traffic Forums on an annual basis to ensure eligibility.

Submittal Frequency: Annual. Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Not Required

Verification Method: Each jurisdiction must document within the Eligibility Checklist (Appendix D) evidence of its annual participation in a Traffic Forum.

2.13 Transit/Non-motorized Transportation in General Plan

As part of the eligible jurisdiction's land use section of the General Plan, the jurisdiction must consider land use planning strategies that accommodate transit and non-motorized transportation. Multi-modal options are vital to a comprehensive transportation network. General Plans should include policies and language that demonstrate a thoughtful approach toward land use planning that encourages and facilitates mobility options.

Submittal Frequency: Annual. Next submittal is due by **June 28, 2019**.

City Council/Board of Supervisors approval: Not Required

Verification Method: Each jurisdiction must document within the Eligibility Checklist (Appendix D) that it considers, as part of the land use section of the General Plan, land use planning strategies that accommodate transit and non-motorized transportation. A letter outlining the approach to land use planning strategies or policies that accommodate transit and non-motorized transportation

should be provided with supporting General Plan excerpts. Policy summaries that directly tie land use planning to alternative modes are required.

These may include:

- Pedestrian friendly neighborhoods
- Transit Oriented Development (TOD)
- Transportation Demand Management (TDM) programs
- Mixed-use development

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Chapter 3 - Eligibility Determination

3.1 Submittal Review Process

The Eligibility submittal process has two distinct phases.

First Phase

In the first phase, local jurisdictions submit the eligibility checklist, CIP, MOE and land use planning strategies considered in the General Plan on an annual basis. In addition, the PMP, CMP, MFP, and adoption of the Circulation Element for MPAH consistency are due on a biennial basis. The LSSP is due every three years. The periodic submittal schedule of the eligibility requirements is included in Exhibit 3. The applicable eligibility components for a given year must be submitted to OCTA by June 30 (except the expenditure report).

To assist in the initiation of the eligibility process, OCTA hosts eligibility workshops attended by local jurisdictions to prepare for the June 30 submittals. The workshops outline any changes and provide instructions as to the requirements of the current fiscal year's eligibility. Eligibility package development begins for most local jurisdictions in April and concludes with submittal to OCTA by the June 30 deadline each year.

Second Phase

The second phase includes the submittal of the Expenditure Report, which is due six months following the end of the local jurisdiction's fiscal year per the Ordinance. All local jurisdictions must submit their expenditure reports annually by December 31. OCTA staff typically holds a workshop in July/August to go over the eligibility requirements for submitting an expenditure report that is compliant with the Ordinance. The OCTA Finance department reviews expenditure reports.

3.2 Approval Process

Annual eligibility determinations are based upon satisfactory submittal of the required documentation of eligibility outlined in the Ordinance and further described in Chapter 2 of these guidelines. OCTA and/or its representatives perform an administrative review of the data to determine eligibility compliance for M2 funds. Once all eligibility submittals have been received as satisfactory and complete, the applicable submittals must be prepared for review and [confirmation that the process has been followed](#) by the Taxpayer Oversight Committee (TOC).

TOC

M2 established the TOC to provide an enhanced level of accountability for expenditure of Net Revenues under the Ordinance. The TOC is an independent citizens' committee established for overseeing compliance with the Ordinance and ensuring that safeguards are in place to protect the integrity of the overall program. TOC responsibilities include:

- Approval of any amendment to the Ordinance proposed by OCTA which changes the funding categories, programs or discrete projects identified for improvements in the Funding Plan.
- Review of select documentation establishing annual eligibility by a jurisdiction including a jurisdiction's CMP, MFP, Expenditure Report, LSSP, and PMP.
- Verification that the OCTA is proceeding in accordance with the M2 Plan and is meeting the performance standards outlined in the Ordinance.

The TOC designates the Annual Eligibility Review (AER) subcommittee to review five of the thirteen eligibility requirements listed in the Ordinance. The AER subcommittee reviews the CMP, MFP, Expenditure Report, LSSP, and PMP for each local jurisdiction on an annual basis. The AER subcommittee confirms it has completed the eligibility determination process to the TOC.

In addition, OCTA staff will review items that do not directly require TOC approval and confirm compliance. After TOC and OCTA review all eligibility requirements, OCTA staff will prepare eligibility recommendations for the OCTA Board of Directors (Board). The OCTA Regional Planning and Highways Committee reviews the item prior to being considered by the full Board. The Board will make final determination as to whether or not a local jurisdiction remains eligible for M2 funding on an annual basis.

Chapter 4 – Failure to Meet Eligibility Requirements

4.1 Non-Compliance Consequences

M2 extends a legacy of successful public funding investment in transportation throughout Orange County. The eligibility process includes a review of required compliance components to ensure that programs and funding guidelines are met as defined by Ordinance. Article XIX of the California Constitution, provides guidance regarding the use of tax revenues for transportation purposes, and provides a useful definition of eligible transportation planning/implementation activities.

OCTA routinely conducts an audit of local jurisdictions' annual eligibility materials and financial records. Full cooperation is expected to complete the process in a timely manner. A finding of non-compliance may be made if either of the following conditions exists:

- Use of M2 funding for non-transportation or non-eligible activities, or
- Failure to meet eligibility requirements

If a determination is made that a local jurisdiction has [misspent](#) M2 funds [those](#) funds must be fully repaid and the jurisdiction [may](#) be deemed ineligible to receive Net Revenues for a period of five (5) years. A finding of ineligibility is determined by the Board. Failure to adhere to eligibility compliance components may result in suspension of funds until satisfactory compliance is achieved.

4.2 Appeals Process

Eligibility review and determination is a multi-step process, which relies upon an objective review of information by OCTA staff [with a final determination made by the Board](#). An appeal of findings may be [presented to the Board as part of the required Board hearing to determine a local jurisdiction as ineligible](#).

4.3 Re-establishing MPAH Eligibility

If a Circulation Element is found to be inconsistent with the MPAH and a local jurisdiction is determined ineligible for M2 funds, the local jurisdiction may re-establish eligibility by requesting to undertake a cooperative study with OCTA. The study will be designed to do the following:

- Ascertain the regional transportation system needs
- Make provisions to meet those needs in the local jurisdiction's General Plan
- Re-establish consistency with the MPAH

Any changes to a local jurisdiction's General Plan or the MPAH shall be mutually acceptable to the jurisdiction and OCTA. Until such a study has been completed and an agreement reached on the proposed amendment, the jurisdiction shall be ineligible to apply for and/or receive M2 competitive funds.

[THIS CHAPTER IS UNDER REVIEW BY STAFF AND RECOMMENDED CHANGES TO LANGUAGE WILL BE PROVIDED TO THE BOARD IN THE SUMMER OF 2019.](#)

4.4 For Additional Information

The Eligibility Guidelines have been developed to assist local jurisdictions located throughout Orange County to understand and continue to implement all eligibility requirements to receive M2 funding. The Guidelines provide general summary information regarding all eligibility requirements as well as a comprehensive summary of all responsibilities and actions for which a local jurisdiction must follow to continue their eligibility.

Please contact the following OCTA staff when seeking additional information or clarification regarding any of the Eligibility Guidelines:

Joe Alcock
Section Manager
(714) 560-5372
JAlcock@octa.net

Appendices:

Appendix A: Ordinance

The Ordinance can be found on the Eligibility Website:
<https://www.octa.net/M2Eligibility>

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Appendix B: Eligibility for New Cities

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Eligibility for New Cities

Eligibility for Fair Share Funds - New Cities

At the time of incorporation, a new city may adopt current practices previously established by the County of Orange, which have already established eligibility under the current M2. As new cities mature, they will adopt their own general plan and growth strategies.

To provide for this transition period, the OCTA Board of Directors (Board) has previously adopted the following new city eligibility process for Fair Share funds:

- A new city may, at its discretion, adopt the approved PMP of the predecessor governing body as its own, providing these policies are fully enforced.
- Prior to incorporation, the proposed new city must work with OCTA and the Local Agency Formation Commission (LAFCO) to identify the variables used in the LFS funds calculation (population, taxable sales, and MPAH mileage). Preliminary data must be identified prior to the date of incorporation.
- The new city will begin accruing LFS funds as of the date of incorporation.
- OCTA will reserve the accrued funds for the new city, pending the determination of eligibility by the Board within one year of the date of incorporation.
- For the new city to receive the reserved accrued funds, OCTA must receive all necessary elements of the eligibility package, complete the necessary review and approval of the package, and the Board must determine the new city eligible to receive M2 funds within one year of the date of incorporation. OCTA recommends the city submit its eligibility package within six months of incorporation to allow sufficient time for OCTA review and approval processes.
- Upon determination of eligibility by the Board, the new city will receive its first LFS payment including the reserved accrued funds, on the first regular payment cycle following the eligibility determination.
- The first LFS payment will be adjusted to reflect final calculation (population, taxable sales, and MPAH miles) as determined through the new city eligibility process.
- In the event a new city is determined to be ineligible to receive LFS funds by the Board, the reserved accrued funds and interest on the funds, shall be distributed to the eligible local jurisdictions on a pro-rata basis, until such time that the new city attains eligibility.
- Such new city will begin to accrue funds as of the first day of the first regular accrual period following its determination of eligibility by the Board and receive its first LFS payment on the corresponding regular payment cycle.

Eligibility for Competitive Funds-New Cities

In addition to the new city eligibility process for LFS funds, the Board has adopted the following process for eligibility for competitive funds:

- A new city may apply for competitive funding upon the date of incorporation, however, may not be awarded competitive funding until the new city has been determined eligible to receive LFS funds by Board, as described above.
- A new city must include an adopted PMP that is consistent with countywide pavement condition assessment standards (Arterial Highway Rehabilitation Program), a General Plan Circulation Element consistent with the MPAH, and a City Council resolution attesting that no unilateral reduction in lanes have been made on any MPAH arterials in its eligibility package for review and approval by the Board.

- Applications for competitive funding by new cities will be considered until such time in the process of the competitive funding program that projects are ranked for award. If the new city has not been determined eligible by the Board by the time projects are ranked for award, any application by the new city for competitive funding will be withdrawn from further consideration. OCTA staff will work with the new city to revise the schedule specific to its time of incorporation in relation to the current competitive funding program process.

New Cities – MOE

M2 requires the development of a method to apply the MOE to new cities without five years of streets and roads data, including cities incorporated during the thirty years the tax is in effect. New cities unable to meet this requirement may use the appeals process to establish a benchmark number that more accurately reflects network needs. A phase-in period of two years has been established for new cities to achieve the approved MOE expenditure requirement.

The approved method uses the following formula to calculate the MOE for new cities:

$$\frac{\text{Total MOE benchmark for the county}}{\text{Total county population}} = \text{Per capita expenditure}$$

$$\text{Per capita expenditure X city population} = \text{MOE benchmark for the city}$$

Appeals Process

New cities may appeal the formula benchmark determination above where there is a dispute regarding the city population. OCTA shall use the most recent Census or figures from the State of California Department of Finance. Appeals will be submitted first to the TAC and then to the Board for final determination.

Appendix C: Congestion Management Program Checklist

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APPENDIX C

Congestion Management Program (CMP)

Jurisdiction: _____

CMP Monitoring Checklist: Level of Service (LOS)					
CMP Checklist		YES	NO	N/A	
1.	Check "Yes" if either of the following apply: <ul style="list-style-type: none"> There are no CMP intersections in your jurisdiction. Factoring out statutorily-exempt activities¹, all CMP intersections within your jurisdiction are operating at LOS E (or the baseline level, if worse than E) or better. 	<input type="checkbox"/>	<input type="checkbox"/>		
NOTE: ONLY THOSE AGENCIES THAT CHECKED "NO" FOR QUESTION 1 NEED TO ANSWER THE REMAINING QUESTIONS.					
2.	If any, please list those intersections that are not operating at the CMP LOS standards. <ul style="list-style-type: none"> _____ _____ _____ 			<input type="checkbox"/>	
3.	Will deficient intersections, if any, be improved by mitigation measures to be implemented in the next 18 months or improvements programmed in the first year of any recent funding program (i.e. local jurisdiction CIP, Measure M CIP)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	a. If not, has a deficiency plan been developed for each intersection that will be operating below the CMP LOS standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments:					

¹The following activities are statutorily-exempt from deficiency determinations: interregional travel, traffic generated by the provision of low and very low income housing, construction rehabilitation or maintenance of facilities that impact the system, freeway ramp metering, traffic signal coordination by the state or multi-jurisdictional agencies, traffic generated by high-density residential development within 1/4 mile of a fixed-rail passenger station, traffic generated by mixed-use residential development within 1/4 mile of a fixed-rail passenger station.



APPENDIX C

Congestion Management Program (CMP)

CMP Monitoring Checklist: Deficiency Plans				
CMP Checklist		YES	NO	N/A
1.	Check "Yes" if either of the following apply: <ul style="list-style-type: none"> • There are no CMP intersections in your jurisdiction. • Factoring out statutorily-exempt activities², all CMP Highway System (CMPHS) intersections within your jurisdiction are operating at LOS E (or the baseline level, if worse than E) or better. 	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: ONLY THOSE AGENCIES THAT CHECKED "NO" FOR QUESTION 1 NEED TO ANSWER THE REMAINING QUESTIONS.				
2.	If any, please list those intersections that are not operating at the CMP LOS standards. <ul style="list-style-type: none"> • _____ • _____ • _____ 			<input type="checkbox"/>
3.	Are there improvements to bring these intersections to the CMP LOS standard scheduled for completion during the next 18 months or programmed in the first year of the CIP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NOTE: ONLY THOSE AGENCIES THAT CHECKED "NO" FOR QUESTION 3 NEED TO ANSWER THE REMAINING QUESTIONS.				
4.	Has a deficiency plan or a schedule for preparing a deficiency plan been submitted to OCTA?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Does the deficiency plan fulfill the following statutory requirements? :			
	a. Include an analysis of the causes of the deficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Include a list of improvements necessary to maintain minimum LOS standards on the CMPHS and the estimated costs of the improvements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Include a list of improvements, programs, or actions and estimates of their costs, which will improve LOS on the CMPHS and improve air quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. Do the improvements, programs, or actions meet the criteria established by South Coast Air Quality Management District (SCAQMD) (see the CMP Preparation Manual)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

²The following activities are statutorily-exempt from deficiency determinations: interregional travel, traffic generated by the provision of low and very low income housing, construction rehabilitation or maintenance of facilities that impact the system, freeway ramp metering, traffic signal coordination by the state or multi-jurisdictional agencies, traffic generated by high-density residential development within 1/4 mile of a fixed-rail passenger station, traffic generated by mixed-use residential development within 1/4 mile of a fixed-rail passenger station.



APPENDIX C

Congestion Management Program (CMP)

CMP Monitoring Checklist: Land Use Coordination				
CMP Checklist		YES	NO	N/A
1.	Have you maintained the CMP traffic impact analysis (TIA) process you selected for the previous CMP?	<input type="checkbox"/>	<input type="checkbox"/>	
	a. If not, have you submitted the revised TIA approach and methodology to OCTA for review and approval?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Did any development projects require a CMP TIA during this CMP cycle? ³	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: ONLY THOSE AGENCIES THAT CHECKED "YES" FOR QUESTION 2 NEED TO ANSWER THE REMAINING QUESTIONS.				
3.	If so, how many?	_____		
4.	Please list any CMPHS links & intersections that were projected to not meet the CMP LOS standards (indicate whether any are outside of your jurisdiction). • _____ • _____ • _____	<input type="checkbox"/>		
	a. Were mitigation measures and costs identified for each and included in your seven-year CIP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. If any impacted links & intersections were outside your jurisdiction, did your jurisdiction coordinate with other jurisdictions to develop a mitigation strategy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	If a local traffic model was/will be used, did you follow the data and modeling consistency requirements as described in the CMP Preparation Manual (available online at http://www.octa.net/pdf/cmpprepremanual.pdf)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional Comments:				

³Exemptions include: any development generating less than 2,400 daily trips, any development generating less than 1,600 daily trips (if it directly accesses a CMP highway), final tract and parcel maps, issuance of building permits, issuance of certificate of use and occupancy, and minor modifications to approved developments where the location and intensity of project uses have been approved through previous and separate local government actions prior to January 1, 1992.

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Appendix D: Eligibility Checklist

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APPENDIX D

Eligibility Checklist

Jurisdiction:	
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Capital Improvement Program (CIP)		YES	NO
1.	Did you submit your draft or adopted Measure M2 (M2) seven-year CIP to OCTA by June 30?	<input type="checkbox"/>	<input type="checkbox"/>
	a. Did you utilize the required OCTA CIP database?	<input type="checkbox"/>	<input type="checkbox"/>
	b. Have you included projects required to demonstrate compliance with signal synchronization, pavement maintenance and environmental clean-up commitments?	<input type="checkbox"/>	<input type="checkbox"/>
	c. Are there any non-transportation related projects included in your M2 CIP?	<input type="checkbox"/>	<input type="checkbox"/>
	d. Did you include all projects that are partially, fully, or potentially funded by M2 Net Revenues?	<input type="checkbox"/>	<input type="checkbox"/>
	e. The City Council/Board of Supervisors approval date* to adopt the final 7-Year CIP is: _____ *Must be prior to July 31		
Maintenance of Effort (MOE)		YES	NO
2.	Did you submit the MOE certification form (Appendix I) to OCTA by June 30?	<input type="checkbox"/>	<input type="checkbox"/>
	a. Did you provide supporting budget documentation?	<input type="checkbox"/>	<input type="checkbox"/>
	b. Has the MOE Reporting form been signed by the Finance Director or appropriate designee?	<input type="checkbox"/>	<input type="checkbox"/>
Pavement Management Program (PMP)		YES	N/A
3.	Are you required to submit a PMP update to OCTA for this eligibility cycle? If you are not required to submit a PMP update, check N/A. Refer to Exhibit 3 for PMP submittal schedule.	<input type="checkbox"/>	<input type="checkbox"/>
	a. If yes, did you use the current PMP Submittal Template (Appendix F)?	<input type="checkbox"/>	<input type="checkbox"/>
	b. If yes, is the adopted PMP consistent with the OCTA Countywide Pavement Management Program?	<input type="checkbox"/>	<input type="checkbox"/>
4.	If you answered "N/A" to question 3, did you submit a PMP Update to OCTA through the previous eligibility cycle by June 30?	<input type="checkbox"/>	<input type="checkbox"/>
Resolution of Master Plan of Arterial Highways (MPAH) Consistency		YES	NO
5.	Did you submit a resolution demonstrating consistency with the MPAH?	<input type="checkbox"/>	<input type="checkbox"/>
	a. Have you enclosed a figure representing your most current circulation element?	<input type="checkbox"/>	<input type="checkbox"/>
6.	If the requirement is not due as part of the current cycle, has there been an update to the circulation element since the last report period? If yes, include a copy of the latest circulation element.	<input type="checkbox"/>	<input type="checkbox"/>
Local Signal Synchronization Plan (LSSP)		YES	N/A
7.	Did you adopt and submit an update to the LSSP as part of the current cycle?	<input type="checkbox"/>	<input type="checkbox"/>
	a. Is your LSSP consistent with the Regional Traffic Signal Synchronization Master Plan?	<input type="checkbox"/>	<input type="checkbox"/>



APPENDIX D

Eligibility Checklist

Time Limits for Use of Net Revenues		YES	NO
8.	Has your jurisdiction complied with the three-year time limit for the use of Net Revenues over the last year per the requirements outlined in the Ordinance?	<input type="checkbox"/>	<input type="checkbox"/>
	a. If no, has a time extension been requested through the semi-annual review process for funds subject to expiration?	<input type="checkbox"/>	<input type="checkbox"/>
Supplanting of Developer Commitments		YES	NO
9.	Has your jurisdiction ensured they have not supplanted developer commitments for transportation projects and funding with M2 funds?	<input type="checkbox"/>	<input type="checkbox"/>
Mitigation Fee Program (MFP)		YES	NO
10.	Does your jurisdiction currently have a defined development impact MFP in place?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Has an update to the MFP occurred since the last reporting period?	<input type="checkbox"/>	<input type="checkbox"/>
12.	If yes to 11, has your jurisdiction submitted a copy of the current MFP or City Council/Board of Supervisors approved policy?	<input type="checkbox"/>	<input type="checkbox"/>
	a. Have you included a copy of your current impact fee schedule; or	<input type="checkbox"/>	<input type="checkbox"/>
	b. Have you provided OCTA with a copy of your mitigation fee nexus study; or	<input type="checkbox"/>	<input type="checkbox"/>
	c. Have you provided OCTA with a copy of your City Council/Board of Supervisors resolution approving the MFP?	<input type="checkbox"/>	<input type="checkbox"/>
Planning Strategies		YES	NO
13.	Does your jurisdiction consider as part of its General Plan, land use planning strategies that accommodate transit and non-motorized transportation?	<input type="checkbox"/>	<input type="checkbox"/>
14.	Have you provided a letter identifying land use planning strategies that accommodate transit and non-motorized transportation consideration in the General Plan?	<input type="checkbox"/>	<input type="checkbox"/>
Traffic Forums		YES	NO
15.	Did representatives of your jurisdiction participate in the regional traffic forum(s)?	<input type="checkbox"/>	<input type="checkbox"/>
	a. If you answered yes, provide date of attendance: _____		
Congestion Management Program (CMP)		YES	NO
16.	Has your jurisdiction completed the required CMP checklist? (Appendix C)	<input type="checkbox"/>	<input type="checkbox"/>

Name (Print)

Signature

Date

Appendix E: Sample Resolutions

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**[SAMPLE RESOLUTION FOR MPAH CIRCULATION ELEMENT CONSISTENCY AND
MITIGATION FEE PROGRAMS]**

A RESOLUTION OF THE CITY COUNCIL/BOARD OF SUPERVISORS OF THE CITY/COUNTY OF _____
CONCERNING THE STATUS AND UPDATE OF THE CIRCULATION
ELEMENT, AND MITIGATION FEE PROGRAM FOR THE MEASURE M (M2) PROGRAM

WHEREAS, the City/County of _____ desires to maintain and
improve the streets within its jurisdiction, including those arterials contained in the Master Plan
of Arterial Highways (MPAH) and

WHEREAS, the City/County of _____ had endorsed a definition
of and process for, determining consistency of the City's/County's Traffic Circulation Plan with
the MPAH, and

WHEREAS, the City/County has adopted a General Plan Circulation Element which does
not preclude implementation of the MPAH within its jurisdiction, and

WHEREAS, the City/County is required to adopt a resolution biennially informing the
Orange County Transportation Authority (OCTA) that the City/County's Circulation Element is in
conformance with the MPAH and whether any changes to any arterial highways of said
Circulation Element have been adopted by the City/County during Fiscal Years (FY) 2017-18 and
FY 2018-19, and

WHEREAS, the City/County is required to send biennially to the OCTA all recommended
changes to the City/County Circulation Element and the MPAH for the purposes of re-qualifying
for participation in the Comprehensive Transportation Funding Programs;

WHEREAS, the City/County is required to adopt a resolution biennially certifying that
the City/County has an existing Mitigation Fee Program that assesses traffic impacts of new
development and requires new development to pay a fair share of necessary transportation
improvements attributable to the new development; and

NOW, THEREFORE, BE IT RESOLVED that the City Council/Board of Supervisors for the
City/County of _____, does hereby inform OCTA that:

- a) The arterial highway portion of the City/County Circulation Element of the
City/County is in conformance with the MPAH.
- b) The City/County attests that no unilateral reduction in through lanes has been
made on any MPAH arterials during FY 2017-18 and FY 2018-19.
- c) The City/County reaffirms that Council concurs with the existing Mitigation Fee
Program.

PASSED, APPROVED AND ADOPTED THIS [Insert Day] day of [Insert Month], [Insert Year].

[SAMPLE RESOLUTION FOR PAVEMENT MANAGEMENT PLAN ADOPTION]

A RESOLUTION OF THE CITY COUNCIL/BOARD OF SUPERVISORS OF THE CITY/COUNTY OF _____ CONCERNING THE STATUS AND UPDATE OF THE PAVEMENT MANAGEMENT PLAN FOR THE MEASURE M2 (M2) PROGRAM

WHEREAS, the local jurisdiction is required to meet eligibility requirements and submit eligibility verification packages to Orange County Transportation Authority (OCTA) in order to remain eligible to receive M2 funds.

WHEREAS, the local jurisdiction is required to adopt and update a Pavement Management Plan (PMP), using the required format, regarding the status of road pavement conditions and implementation of the PMP on a biennial basis; and

WHEREAS, the local jurisdiction is required to provide a plan that manages the preservation, rehabilitation, and maintenance of paved roads by analyzing pavement life cycles, assessing overall system performance costs, and determining alternative strategies and costs necessary to improve paved roads.

NOW, THEREFORE, BE IT RESOLVED that the City Council/Board of Supervisors for the City/County of _____ does hereby inform OCTA that:

- a) The PMP is in conformance with the PMP Submittal Template provided in the Countywide Pavement Management Plan Guidelines.
- b) The City/County hereby adopts a PMP and has provided an updated PMP report, using the required format, to OCTA.
- c) The Public Works Director, City Engineer or designee is authorized to sign the PMP certification form.

PASSED, APPROVED, AND ADOPTED THIS [Insert Day] day of [Insert Month], [Insert Year].

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Appendix F: PMP Submittal Template

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Agency

Pavement Management Plan

Prepared by: [Author name]
Submitted to OCTA:[Date]



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I. Pavement Management Plan Certification

The City/County of *Type Here* certifies that it has a Pavement Management Plan in conformance with the criteria stated in the Orange County Transportation Authority Ordinance No. 3. This ordinance requires that a Pavement Management Plan be in place and maintained to qualify for allocation of revenues generated from renewed Measure M2.

The plan was developed by *Type here** using *Type here*, a pavement management system, confirming to American Society of Testing and Materials (ASTM) Standard D6433, and contains, at a minimum, the following elements:

- Inventory of MPAH and local routes reviewed and updated biennially. The last update of the inventory was completed on *Month, Year* for Arterial (MPAH) streets and *Month, Month* for local streets.
- Assessment of pavement condition for all routes in the system, updated biennially. The last field review of pavement condition was completed on *Month, Year*.
- Percentage of all sections of pavement needing:
 - Preventative Maintenance: *Type here*%
 - Rehabilitation: *Type here*%
 - Reconstruction: *Type here*%
- Budget needs for Preventative Maintenance, Rehabilitation, and/or Reconstruction of deficient sections of pavement for:
 - Current biennial period \$*Type here*
 - Following biennial period \$*Type here*
- Funds budgeted or available for Preventative Maintenance, Rehabilitation, and/or Reconstruction:
 - Current biennial period \$*Type here*
 - Following biennial period \$*Type here*
- Backlog by year of unfunded pavement rehabilitation, restoration, and reconstruction needs.
- The Pavement Management Plan is consistent with countywide pavement condition assessment standards as described in the OCTA Countywide Pavement Management Plan Guidelines adopted by the OCTA Board of Directors.

*An electronic copy of the Pavement Management Plan (with Micro Paver or StreetSaver compatible files) has been, or will be, submitted with the certification statement.

A copy of this certification is being provided to the Orange County Transportation Authority.

Submitted by:

Click here to enter text.
Name (Print)

Click here to enter text.
Jurisdiction

Signed

Click here to enter a date.
Date

Click here to enter text.
Title



II. Executive Summary

Click here to enter text.



III. Background (Optional)

Click here to enter text.



IV. Current Pavement Conditions (PCI)

Current Network PCI	Current MPAH PCI	Current Local PCI
Click here to enter	Click here to enter	Click here to enter

V. Projected Pavement Conditions (PCI)

Should be by projected PCI by year under existing or expected funding levels for next seven fiscal years (“Today” is before June 30).

Fiscal Year	Current Funding	Entire Network PCI	MPAH	Local
Today	Click here to enter			
2019-20	Click here to enter			
2020-21	Click here to enter			
2021-22	Click here to enter			
2022-23	Click here to enter			
2023-24	Click here to enter			
2024-25	Click here to enter			
2025-26	Click here to enter			



VI. Alternative Funding Levels

Maintain Existing Average Network PCI

Fiscal Year	Maintain Funding	Entire Network PCI	MPAH	Local
Today	Click here to enter			
2019-20	Click here to enter			
2020-21	Click here to enter			
2021-22	Click here to enter			
2022-23	Click here to enter			
2023-24	Click here to enter			
2024-25	Click here to enter			
2025-26	Click here to enter			

Improve Average Network PCI

Fiscal Year	Current Funding	Entire Network PCI	MPAH	Local
Today	Click here to enter			
2019-20	Click here to enter			
2020-21	Click here to enter			
2021-22	Click here to enter			
2022-23	Click here to enter			
2023-24	Click here to enter			
2024-25	Click here to enter			
2025-26	Click here to enter			



VII. Current and Projected Backlog by Year of Pavement Maintenance Needs

Fiscal Year	Current Funding Backlog	Maintain PCI Backlog	Increase PCI Backlog
Current	Click here to enter	Click here to enter	Click here to enter
2019-20	Click here to enter	Click here to enter	Click here to enter
2020-21	Click here to enter	Click here to enter	Click here to enter
2021-22	Click here to enter	Click here to enter	Click here to enter
2022-23	Click here to enter	Click here to enter	Click here to enter
2023-24	Click here to enter	Click here to enter	Click here to enter
2024-25	Click here to enter	Click here to enter	Click here to enter
2025-26	Click here to enter	Click here to enter	Click here to enter

VIII. Centerline Mileage

Entire Pavement Network	MPAH	Local Roads
Click here to enter	Click here to enter	Click here to enter



IX. Percentage of Network in Each of Five Condition Categories Based on Centerline Miles

Condition Category	PCI Range	Network	Percent Area of Total Pavement	Area of Pavement (sf)	Percent Centerline Mileage of Network	Centerline Mileage of Network
Very Good	86-100	MPAH	Click here to enter%	Click here to enter	Click here to enter%	Click here to enter
		Local	Click here to enter%	Click here to enter		Click here to enter
Good	75-85	MPAH	Click here to enter%	Click here to enter	Click here to enter%	Click here to enter
		Local	Click here to enter%	Click here to enter		Click here to enter
Fair	60-74	MPAH	Click here to enter%	Click here to enter	Click here to enter%	Click here to enter
		Local	Click here to enter%	Click here to enter		Click here to enter
Poor	41-59	MPAH	Click here to enter%	Click here to enter	Click here to enter%	Click here to enter
		Local	Click here to enter%	Click here to enter		Click here to enter
Very Poor	0-40	MPAH	Click here to enter%	Click here to enter	Click here to enter%	Click here to enter
		Local	Click here to enter%	Click here to enter		Click here to enter



X. Reduction in Local Match

A local agency match reduction of 10% of the eligible cost for projects submitted for consideration of funding through the Comprehensive Transportation Funding Programs (CTFP) call for projects is available if the local agency either:

- a. Shows measurable improvement of paved road conditions during the previous reporting period defined as an overall weighted (by area) average system improvement of one Pavement Condition Index (PCI) point with no reduction in the overall weighted (by area) average PCI in the Master Plan of Arterial Highways (MPAH) or local street categories;

or

- b. Have road pavement conditions during the previous reporting period, within the highest 20% of the scale for road pavement conditions in conformance with OCTA Ordinance No. 3, defined as a PCI of 75 or higher, otherwise defined as in "good condition".

If applicable, please use the space below to justify the local agency's eligibility for a reduction in Local Match based on the statement above.

[Click here to enter text.](#)



XI. Appendix A – Seven-Year Road Maintenance and Rehabilitation Plan Based on Current or Expected Funding Level

The seven-year plan for road maintenance and rehabilitation should be based on current and projected budget. Street sections selected for treatment should be identified here. Specific data to be submitted should follow the format below:

MPAH								
	Limits of Work							
Street Name	From	To	Length of Segment	Width of Segment	Pavement Area	Type of Treatment	Cost of Treatment	Year of Treatment

LOCAL								
	Limits of Work							
Street Name	From	To	Length of Segment	Width of Segment	Pavement Area	Type of Treatment	Cost of Treatment	Year of Treatment

Please attach the seven-year road maintenance and rehabilitation plan, following the above template, after this sheet. The plan should be labeled Appendix A.



XII. Appendix B – Complete Listing of Current Street Conditions

A complete listing of current pavement conditions should be included in this report. Specific data to be submitted should follow the format below:

MPAH						
Street Name	From	To	Width of Segment	Area	Current PCI	Most Recent Inspection Date

LOCAL						
Street Name	From	To	Width of Segment	Area	Current PCI	Most Recent Inspection Date

Please attach the complete street listing, following the above template, after this sheet. The pages should be labeled Appendix B.



XIII. Appendix C – Quality Assurance/Quality Control Plan

Introduction

When performing data collection in any field, the need for quality control is paramount as it is essential for accurate planning, analysis and design. This is particularly true for collecting pavement distress data for a pavement management system.

The Quality Assurance/Quality Control (QA/QC) Plan establishes minimum quality standards for performance and procedures for updates of the pavement management system.

If applicable, utilize the space below to include information on the agency's QA/QC policies:

Click here to enter text.

Objectives

This document constitutes a formal QA/QC Plan for the City/County. It was prepared on Select date and last revised on Select date.

Specifically, it is intended for the Year Applicable Pavement Management Plan Update. The focus is on the collection of network-level pavement distress data (defined by National Cooperative Highway Research Program (NCHRP) Synthesis 401 Quality Management of Pavement Data Collection, as "Network-level data collection involves collection of large quantities of pavement condition data, which is often converted to individual condition indices or aggregated into composite condition indices.")

This document also addresses the QA/QC plan requirements of the Orange County Transportation Authority (OCTA)'s "Countywide Pavement Management Plan Guidelines" (section 2.4), adopted in May 2010.

Structure of QA/QC Plan

The following components are addressed in this QA/QC Plan:

- Condition survey procedures used
- Accuracy required for data collection
- Inspector qualifications and experience
- Safety



Condition Survey Procedures

The governing document in performing condition surveys for the *Enter agency name* is ASTM D6433 “Standard Practice for Roads and Parking Lots Pavement Condition Index (PCI) Surveys.” Both asphalt concrete (AC) and Portland cement concrete (PCC) pavements are included in this protocol. The following distresses are collected for each pavement type.

Asphalt Concrete AC Pavements

1. Alligator (fatigue) cracking
2. Bleeding
3. Block cracking
4. Bumps and sags
5. Corrugation
6. Depression
7. Edge cracking
8. Joint reflection cracking
9. Lane/Shoulder drop off
10. Longitudinal & Transverse cracking
11. Patching and utility cut patching
12. Polished aggregate
13. Potholes
14. Railroad crossing
15. Rutting
16. Shoving
17. Slippage cracking
18. Swell
19. Weathering
20. Raveling

Portland Cement Concrete (Jointed)

1. Blowup/buckling
2. Corner breaks
3. Divided slab
4. Durability (“D”) cracking
5. Faulting
6. Joint seal damage
7. Lane/shoulder drop off
8. Linear cracking
9. Patching (large) and utility cuts
10. Patching (small)
11. Polished aggregate
12. Popouts
13. Pumping
14. Punchout
15. Railroad crossing
16. Scaling, map cracking and crazing
17. Shrinkage cracks
18. Spalling (corner)
19. Spalling (joint)

Any exceptions to the above procedures are discussed before any surveys are performed. They are documented in the paragraphs below.

[Note to agency: these are usually related to distresses or situations that are not covered in the manuals. Examples include roller check marks or edge cracking on streets with no curbs and gutters. Others include the raveling of surface seals or the use of open-graded asphalt concrete mixes where the surface appears to have large voids present. Any modifications must be documented and included in this document. Photos are extremely helpful.]

All surveys are performed as *Indicate type of surveys* – walking, windshield, semi-automated etc. surveys, and a minimum 10% sampling rate is utilized. Field crews are typically composed of *Click here to enter field crew information* (Typically a one-person crew on residential streets and some collectors, and up to two-person crews for major arterials, depending on traffic volumes and speeds. *Edit as appropriate*). The safety of field personnel is paramount in all instances.



The sample unit selected must be representative of the entire pavement section. This assumes that the section is homogenous; if it is not homogeneous, then the section must be split according to the criteria agreed upon by the agency. Typically, the criteria used are:

- Pavement condition
- Construction age, if known
- Maintenance history, if known
- Traffic volumes (or functional classification as a surrogate)
- Surface types (e.g. asphalt concrete or Portland cement concrete)
- Geometric elements (e.g. widths)

Any modifications to the section inventory data are documented in the pavement management report.

A sample unit must be between $2,500 \pm 1,000$ square feet in conformance with ASTM D6433 protocols. Typical sample unit dimensions are 100 feet long by the width of the street. Streets that are wider than 40 feet wide will have shorter lengths (generally 50 feet) or if they are divided by a raised median, separate sample units will be taken in each direction.

Any pavement areas that are not representative of the section will be noted and surveyed as an additional sample unit.

Accuracy Required for Data Collection

The accuracy required for data collection has two components, both of which are further described in the following paragraphs.

- Re-inspections
- PCI comparisons with past surveys

Random and Systematic Re-Inspections

Random Re-inspections

Random re-inspections will include a representative selection across the following categories:

- Functional classes (i.e. MPAH, locals);
- Surface types (e.g. asphalt concrete or Portland cement concrete);
- Pavement conditions (e.g. good, fair, poor);
- Inspectors;
- Geographical areas, if applicable.

Systematic Re-inspections

For systematic re-inspections, this could be due to noticed trends such as specific treatment types (e.g. open-graded mixes), a specific inspector or geographical area. In such cases, more than 5% will be re-inspected.



Acceptability Criteria

At the time of re-inspection, the actual distresses will be re-inspected and verified, and any corrections made, if necessary. Distress types and severities must be the same and re-measured quantities within ±10% of the original measured quantity.

If corrections are required on more than 10% of the re-inspected sample unit, then an additional 5% will be re-inspected. This will continue until more than 95% of the re-inspected sections meet the acceptability criteria.

PCI Comparison with Past Surveys

As another level of quality control, the new PCIs are compared with the previous PCIs. If they differ by more than ±10 PCI points, these sections are automatically flagged for further investigation.

If PCI Increases 10 points

The section is investigated to see if a maintenance and rehabilitation event has occurred since the last survey, but has not been recorded. Typically, it may include activities such as:

- Crack sealing activities – changes medium or high severity cracking to low severity
- Patching activities – alligator cracking that has been removed and patched, so that the resultant PCI is increased.
- Surface seals
- Overlay
- Others

Therefore, an up to date maintenance and rehabilitation history file in the pavement management database is desirable, both for historical accuracy as well as to provide additional quality control.

If PCI decreases 10 points

The section is checked to see if the average deterioration rate (usually 3 to 4 points per year) is exceeded. If the drop in PCI is within range of what is acceptable, no further action is required. If the drop is more than the acceptable range, a re-inspection will be performed. The default performance curves in the pavement management software form the basis for what is acceptable.

Inspector’s Qualifications and Experience

The [Enter agency here](#) inspectors have attended formal training on pavement condition distress surveys. This training was conducted prior to performing any work using the ASTM D6433 protocols, consistent with OCTA’s requirements.

Inspector Name	Date of ASTM D6433 Training	Training Conducted By:
Click here to enter	Click here to enter	Click here to enter
Click here to enter	Click here to enter	Click here to enter
Click here to enter	Click here to enter	Click here to enter
Click here to enter	Click here to enter	Click here to enter

Resumes of the technicians utilized on this project are included as an attachment.



Safety Procedures

The *Enter agency here* administers a health and safety program in compliance with the Cal Occupational Safety and Health Administration (OSHA) Title VIII, Section 3203. The program is documented in *Enter document name here*.

Generally, the safety procedures include (Edit as applicable to agency):

- Inspectors to wear Class 2 or 3 safety vest at all times;
- Flashing beacon on all vehicles utilized for surveys; and
- Stopped vehicles to be parked at locations away from moving traffic (e.g. nearby parking, shoulders, etc.).
- *Enter safety protocol here*

On streets where there is a high volume of traffic or high speeds, additional measures may be necessary, such as:

- Surveys to occur during off-peak periods or on weekends;
- Additional inspector to watch out for traffic; and
- Traffic flaggers in extreme cases.

Attachment – Appendix C: Resumes of Field Inspectors

---End of QA/QC Plan---



XIV. Appendix D – Pavement Management Data Files

The Pavement Management data files shall be submitted to OCTA in spreadsheet format. This must include the following information:

- Street name and limits for all public streets
- Street identifiers (Branch ID, Section ID)
- Direction (if applicable)
- Beginning and ending of each section
- Length, widths, and true areas
- Functional Classification (MPAH, Local)
- Number of travel lanes
- PCI and date of inspection
- Type of recommended treatment
- Cost of recommended treatment

The Pavement Management data files are attached here as a CD, or included as Appendix D

XV. Appendix E – GIS Maps – Current Conditions (Optional)

If included, attach and label Appendix E.

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Appendix G: M2 Expenditure Report Template, Instructions & Resolution

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Measure M2 Expenditure Report Template

Schedule 1: Summary Statement of Beginning and Ending Balances

Lines 1 – 12: Balances at Beginning of Fiscal Year

Report all fund balances and interest intended for transportation purposes at the beginning of the fiscal year. These balances should be classified by funding source as illustrated in the table below. To provide for continuity of reporting, the beginning balances of any restricted funds must agree with the ending balances of such funds as shown in the prior year’s report.

Project	Description
A-M	Freeway Environmental Mitigation
O	Regional Capacity Program (RCP)
P	Regional Traffic Signal Synchronization Program (RTSSP)
Q	Local Fair Share
R	High Frequency Metrolink Service
S	Transit Extensions to Metrolink
T	Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems
U	Senior Mobility Program or Senior Non-Emergency Medical Program
V	Community Based Transit/Circulators
W	Safe Transit Stops
X	Environmental Cleanup Program (Water Quality)
Other	Please provide description for other categories

Line 13: Balances at Beginning of Fiscal Year - TOTAL

Sum of Lines 1 – 12 in the “Amount” and “Interest” columns

Line 14: Monies Made Available During Fiscal Year

Report total available monies (revenues) from Schedule 2, Line 13 in the “Amount” and “Interest” columns

Line 15: Total Monies Available

Sum of Lines 13 - 14 in the “Amount” and “Interest” columns

Line 16: Expenditures During Fiscal Year

Report total available monies (revenues) from Schedule 2, Line 26 in the “Amount” and “Interest” columns

Lines 17 - 28: Balances at End of Fiscal Year

Report by funding source all fund balances and interest for transportation purposes at the end of the fiscal year. To provide for continuity of reporting, the beginning balances of the fund sources in next year’s report must agree with the ending balances of such funds as shown in this year’s report (or otherwise reconciled).

**M2 Expenditure Report
Fiscal Year Ended June 30, 20____
Beginning and Ending Balances**

Description	Line No.	Amount	Interest
Balances at Beginning of Fiscal Year			
A-M Freeway Environmental Mitigation	1		
O Regional Capacity Program (RCP)	2		
P Regional Traffic Signal Synchronization Program (RTSSP)	3		
Q Local Fair Share	4		
R High Frequency Metrolink Service	5		
S Transit Extensions to Metrolink	6		
T Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems	7		
U Senior Mobility Program or Senior Non-Emergency Medical Program	8		
V Community Based Transit/Circulators	9		
W Safe Transit Stops	10		
X Environmental Cleanup Program (Water Quality)	11		
Other*	12		
Balances at Beginning of the Fiscal Year (Sum Lines 1 to 12)	13		
Monies Made Available During Fiscal Year	14		
Total Monies Available (Sum Lines 13 & 14)	15		
Expenditures During Fiscal Year	16		
Balances at End of Fiscal Year			
A-M Freeway Environmental Mitigation	17		
O Regional Capacity Program (RCP)	18		
P Regional Traffic Signal Synchronization Program (RTSSP)	19		
Q Local Fair Share	20		
R High Frequency Metrolink Service	21		
S Transit Extensions to Metrolink	22		
T Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems	23		
U Senior Mobility Program or Senior Non-Emergency Medical Program	24		
V Community Based Transit/Circulators	25		
W Safe Transit Stops	26		
X Environmental Cleanup Program (Water Quality)	27		
Other*	28		

* Please provide a specific description

Measure M2 Expenditure Report

Schedule 2: Summary Statement of Sources and Uses

Lines 1 - 12: Report the Following Revenue Sources and Interest on the Appropriate Line

Project	Description
A-M	Freeway Environmental Mitigation
O	Regional Capacity Program (RCP)
P	Regional Traffic Signal Synchronization Program (RTSSP)
Q	Local Fair Share
R	High Frequency Metrolink Service
S	Transit Extensions to Metrolink
T	Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems
U	Senior Mobility Program or Senior Non-Emergency Medical Program
V	Community Based Transit/Circulators
W	Safe Transit Stops
X	Environmental Cleanup Program (Water Quality)
Other	Please provide description for other categories

Line 13: Total Revenues

Sum of Lines 1 - 12 (should match Total in Schedule 1, Line 14 in the "Amount" and "Interest" columns)

Lines 14 - 25: Report the Following Expenditures on the Appropriate Line

Project	Description
A-M	Freeway Environmental Mitigation
O	Regional Capacity Program (RCP)
P	Regional Traffic Signal Synchronization Program (RTSSP)
Q	Local Fair Share
R	High Frequency Metrolink Service
S	Transit Extensions to Metrolink
T	Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems
U	Senior Mobility Program or Senior Non-Emergency Medical Program
V	Community Based Transit/Circulators
W	Safe Transit Stops
X	Environmental Cleanup Program (Water Quality)
Other	Please provide description for other categories

Line 26: Total Expenditures

Sum of Lines 14 - 25 (Should match Total in Schedule 1, Line 16 in the "Amount" and "Interest" columns)

Line 27: Total Balance

Subtract Line 26 from Line 13 in the "Amount" and "Interest" columns

City/County of: _____

Schedule 2

**M2 Expenditure Report
Fiscal Year Ended June 30, 20____
Sources and Uses**

	Description	Line No.	Amount	Interest
	Revenues:			
A-M	Freeway Environmental Mitigation	1		
O	Regional Capacity Program (RCP)	2		
P	Regional Traffic Signal Synchronization Program (RTSSP)	3		
Q	Local Fair Share	4		
R	High Frequency Metrolink Service	5		
S	Transit Extensions to Metrolink	6		
T	Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems	7		
U	Senior Mobility Program or Senior Non-Emergency Medical Program	8		
V	Community Based Transit/Circulators	9		
W	Safe Transit Stops	10		
X	Environmental Cleanup Program (Water Quality)	11		
	Other*	12		
	TOTAL REVENUES: (Sum Lines 1 to 12)	13	\$	\$
	Expenditures:			
A-M	Freeway Environmental Mitigation	14		
O	Regional Capacity Program	15		
P	Regional Traffic Signal Synchronization Program	16		
Q	Local Fair Share	17		
R	High Frequency Metrolink Service	18		
S	Transit Extensions to Metrolink	19		
T	Convert Metrolink Station(s) to Regional Gateways that connect Orange County with High-Speed Rail Systems	20		
U	Senior Mobility Program or Senior Non-Emergency Medical Program	21		
V	Community Based Transit/Circulators	22		
W	Safe Transit Stops	23		
X	Environmental Cleanup Program (Water Quality)	24		
	Other*	25		
	TOTAL EXPENDITURES: (Sum Lines 14 to 25)	26	\$	\$
	TOTAL BALANCE (Subtract line 26 from 13)	27	\$	\$

* Please provide a specific description

Measure M2 Expenditure Report Template Instructions

Schedule 3: Summary Statement of Detailed Use of Funds

Line 1: Indirect and/or Overhead

This line covers local agency costs that cannot be readily identified to a specific project. The costs listed in this line item represent an equitable share of expenditures for activities not directly allocated to right-of-way, construction, or other categories. Allocations must be based on a reasonable, documented methodology.

This includes, but is not limited to:

Payroll	General accounting/finance
Personnel	Departmental accounts/finance
Purchasing/Procurement	Facilities
Advertising	Data processing
Legal costs	Top management
General government	Bids

Lines 2 - 7: Construction

Construction expenditures include the following:

- Projects developing new streets, bridges, lighting facilities, storm drains, etc., in locations that formerly had no such facilities, or projects departing to such an extent from existing alignment and grade that no material salvage value is realized from the old facilities.
- Additions and betterments to the street system and its rights-of-way, including grade separations and urban extensions.
- Any work that materially increases the service life of the original project.
- Resurfacing to a thickness greater than one inch.
- Resurfacing to a thickness less than one inch if the project has been certified by a lead agency as construction.
- Construction of traffic islands and other traffic safety devices.
- Transit facilities including, but not limited to, bus stops, shelters, and maintenance facilities.
- Streetscape including original landscaping, tree planting, and similar work.
- Acquisition and installation of street lighting facilities, traffic signals, and/or street signs (only when such signs are installed in connection with developing new streets).
- Planning, environmental, or design related to construction.
- Salaries and expenses of employees in connection with construction (direct costs).

Line 8: Total Construction

Sum of Lines 2 - 7

Line 9: Right-of-Way Acquisition

Right-of-way expenditures include the following:

- The acquisition of land or interest for use as a right-of-way in connection with the city's street system; the amount reported should include the cost of acquisition of any improvements situated on the real property at the date of its acquisition by the city.
- The cost of removing, demolishing, moving, resetting, and altering buildings or other structures that obstruct the right-of-way.
- The court costs of condemnation proceedings.

- Title searches and reports.
- Salaries and expenses of employees and right-of-way agents in connection with the acquisition of rights-of-way (direct costs).
- Severance damage to property sustained due to the city's street projects.
- All other costs of acquiring rights-of-way free and clear of all physical obstructions and legal encumbrances.

Line 10: Total Construction and Right-of-Way

Sum of Lines 8-9

Line 11 - 15: Maintenance / Operations

Maintenance expenditures include the following:

- The preservation and keeping of rights-of-way, street structures, and facilities in the safe and usable condition, to which they have been improved or constructed, but not reconstruction or other improvements.
- General utility services such as roadside planting, tree trimming, street cleaning, snow removal, and general weed control.
- Repairs or other work necessitated by damage to street structures or facilities resulting from storms, slides, settlements, or other causes unless it has been determined by the city engineer that such work is properly classified as construction.
- Maintenance of traffic signal equipment, coordination and timing on the city streets, as well as the city's share of such expenditures covering traffic signals situated at intersections of city streets and state highways within the incorporated area of the city.
- Salaries and expenses of employees in connection with maintenance and/or operations (direct costs).

Line 16: Total Maintenance

Sum of Lines 11 - 15

Line 17: Other

Please provide description for other categories. For example: transit, Senior Mobility Program, water quality, transit operations such as vehicle leases and other related operating expenses, etc.

Line 18: Grand Totals

Sum of Lines 1, 10, 16, and 17

City/County of: _____

Schedule 3

**M2 Expenditure Report
Fiscal Year Ended June 30, 20____
Streets and Roads Detailed Use of Funds**

Type of Expenditure	Line Item	MOE ²	Developer / Impact Fee ⁺	O	O Interest	P	P Interest	Q	Q Interest	X	X Interest	Other M2 ³	Other M2 Interest	Other*	TOTAL
Indirect and/or Overhead	1														\$
Construction & Right-of-Way															
New Street Construction	2														\$
Street Reconstruction	3														\$
Signals, Safety Devices, & Street Lights	4														\$
Pedestrian Ways & Bike paths	5														\$
Storm Drains	6														\$
Storm Damage	7														\$
Total Construction¹	8														\$
Right of Way Acquisition	9														\$
Total Construction & Right-of-Way	10														\$
Maintenance															
Patching	11														\$
Overlay & Sealing	12														\$
Street Lights & Traffic Signals	13														\$
Storm Damage	14														\$
Other Street Purpose Maintenance	15														\$
Total Maintenance¹	16														\$
Other	17														\$
GRAND TOTALS (Sum Lines 1, 10, 16, 17)	18	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$

¹ Includes direct charges for staff time

² Local funds used to satisfy maintenance of effort (MOE) requirements

³ Other M2 includes A-M, R, S, T, U, V, and W

+ Transportation related only

* Please provide a specific description

Measure M2 Expenditure Report Template Instructions

Schedule 4: Summary Statement of Local Fair Share Project List

List the project titles and brief description (maximum of two sentences) for all projects that utilized any portion of Measure M2 (M2) Local Fair Share funding. Please include the total amount of **M2 Local Fair Share** funds only that were expended.

City/County of: _____

Signature Page

**M2 Expenditure Report
Fiscal Year Ended June 30, 20____**

I certify that the interest earned on Net Revenues allocated pursuant to the Ordinance shall be expended only for those purposes for which the Net Revenues were allocated and all the information attached herein is true and accurate to the best of my knowledge:

Director of Finance (Print Name)

Date

Signature

[EXPENDITURE REPORT RESOLUTION]

A RESOLUTION OF THE CITY COUNCIL/BOARD OF SUPERVISORS OF THE CITY/COUNTY OF _____ CONCERNING THE MEASURE M2 (M2) EXPENDITURE REPORT FOR THE CITY/COUNTY OF _____.

WHEREAS, local jurisdictions are required to meet eligibility requirements and submit eligibility verification packages to Orange County Transportation Authority (OCTA) in order to remain eligible to receive M2 funds.

WHEREAS, local jurisdictions are required to adopt an annual Expenditure Report as part one of the eligibility requirements.

WHEREAS, local jurisdictions are required to account for Net Revenues, developer/traffic impact fees, and funds expended by the local jurisdiction in the Expenditure Report that satisfy the Maintenance of Effort requirements; and

WHEREAS, the Expenditure Report shall include all Net Revenue fund balances, interest earned and expenditures identified by type and program or project; and

WHEREAS, the Expenditure Report must be adopted and submitted to the OCTA each year within six months of the end of the local jurisdiction’s fiscal year to be eligible to receive Net Revenues as part of M2.

NOW, THEREFORE, BE IT RESOLVED that the City Council/Board of Supervisors for the City/County of _____ does hereby inform OCTA that:

- a) The Expenditure Report is in conformance with the template provided in the Measure M2 Eligibility Guidelines and accounts for Net Revenues including interest earned, expenditures during the fiscal year and balances at the end of fiscal year.
- b) The M2 Expenditure Report is hereby adopted by the City/County of _____.
- c) The City/County of _____ Finance Director is hereby authorized to sign and submit the M2 Expenditure Report to OCTA for the fiscal year ending _____.

PASSED, APPROVED, AND ADOPTED THIS [Insert Day] day of [Insert Month], [Insert Year].

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Appendix H: Arterial Highway Mileage Change Report

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Appendix I: Maintenance of Effort Reporting Form

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APPENDIX I

Maintenance of Effort (MOE) Reporting Form

Jurisdiction: _____

Type of GENERAL FUND Transportation Expenditures:

Please attach supporting budget documentation for each line item listed below.

MAINTENANCE	Total Expenditure
Subtotal Maintenance	\$

CONSTRUCTION	Total Expenditure
Subtotal Construction	\$

INDIRECT /OTHER	Total Expenditure
Subtotal Indirect /Other	\$

Total General Fund Transportation Expenditures	\$
(Less Total MOE Exclusions ¹)	\$
MOE Expenditures	\$
MOE Benchmark Requirement	\$
(Shortfall)/Surplus	\$

Certification:

I hereby certify that the City/County of _____ has budgeted and will meet the Maintenance of Effort (MOE) requirement for Fiscal Year _____.

Finance Director Signature

Finance Director
(Print Name)

Date

¹Funding sources include Measure M, federal, state, redevelopment, and bond financing.

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Appendix J: Acronyms

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APPENDIX J

Acronyms

Acronym	Description
AHRP	Arterial Highway Rehabilitation Program
CCI	Construction Cost Index
CFD	Community Facilities District
CIP	Capital Improvement Program
CMP	Congestion Management Program
CTFP	Comprehensive Transportation Funding Programs
ECP	Environmental Cleanup Program (Project X)
LAFCO	Local Agency Formation Commission
LOS	Level of Service
LSSP	Local Signal Synchronization Plan
MOE	Maintenance of Effort
MPAH	Master Plan of Arterial Highways
OCTA	Orange County Transportation Authority
OCTC	Orange County Transportation Commission
PCI	Pavement Condition Index
PMP	Pavement Management Plan
RCP	Regional Capacity Program (Project O)
RTSSMP	Regional Traffic Signal Synchronization Master Plan (Project P)
SCAQMD	South Coast Air Quality Management District
TAC	Technical Advisory Committee
TDM	Traffic Demand Management
TOC	Taxpayer Oversight Committee
TOD	Transit Oriented Development
TSC	Technical Steering Committee