



Committee Members

Joseph Muller, Chairman
Barbara Delgleize, Vice Chair
Lisa A. Bartlett
Doug Chaffee
Katrina Foley
Patrick Harper
Mark A. Murphy

Orange County Transportation Authority
Board Room
550 South Main Street
Orange, California

Monday, November 7, 2022 at 10:30 a.m.

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 at (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.

Agenda Descriptions

Agenda descriptions are intended to give members of the public a general summary of items of business to be transacted or discussed. The posting of the recommended actions does not indicate what action will be taken. The Committee may take any action which it deems to be appropriate on the agenda item and is not limited in any way by the notice of the recommended action.

Public Availability of Agenda Materials

All documents relative to the items referenced in this agenda are available for public inspection at www.octa.net or through the OCTA Clerk of the Board's office at 600 South Main Street, Orange, California.

Meeting Access and Public Comments on Agenda Items

Members of the public can either attend in person (subject to OCTA's Coronavirus (COVID-19) safety protocols) or listen to audio live streaming of the Board and Committee meeting at: [Board of Directors - Live and Archived Audio](#).

Members of the public may address the Board regarding any item two ways:

In Person Comment

Members of the public may attend in person (subject to OCTA's COVID-19 safety protocols) and address the Board regarding any item. Members of the public will be required to complete a COVID-19 symptom and temperature screening.

Please complete a speaker's card and submit it to the Clerk of the Board or notify the Clerk of the Board the item number on which you wish to speak. Speakers will be recognized by the Chairman at the time the agenda item is to be considered. A speaker's comments shall be limited to three minutes.



Written Comment

Written public comments may also be submitted by emailing them to ClerkOffice@octa.net, and must be received no later than **5:00 p.m. the day prior to the meeting**. If you wish to comment on a specific agenda item, please identify the item number in your email. All public comments that are timely received will be part of the public record and distributed to the Board. Public comments will be made available to the public upon request.

Call to Order

Pledge of Allegiance

Director Harper

Special Calendar

There are no Special Calendar matters.

Consent Calendar (Items 1 through 5)

All items on the Consent Calendar are to be approved in one motion unless a Committee Member or a member of the public requests separate action or discussion on a specific item.

1. Approval of Minutes

Recommendation

Approve the minutes of the October 3, 2022 Regional Planning and Highways Committee meeting.

2. Regional Planning Update

Angel Garfio/Kia Mortazavi

Overview

Regular updates on regional planning matters are provided to highlight current transportation planning issues impacting the Orange County Transportation Authority and the Southern California region. This update focuses on the Southern California Association of Governments' 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy, its Regional Advanced Mitigation Planning effort, and the California Department of Transportation's 2022 Interregional Transportation Strategic Plan Addendum.



Recommendation

Receive and file as an information item.

3. Measure M2 Annual Eligibility Review
Cynthia Morales/Kia Mortazavi

Overview

The Measure M2 Ordinance requires that all local jurisdictions annually satisfy specific eligibility requirements to receive Measure M2 net revenues. Required annual documentation for the review period ending June 30, 2022, has been received and reviewed by the Taxpayer Oversight Committee and Orange County Transportation Authority staff. Board of Directors' approval is requested to find all Orange County local jurisdictions eligible to continue receiving Measure M2 net revenues.

Recommendation

Approve all 35 Orange County local jurisdictions as eligible to continue to receive Measure M2 net revenues.

4. Comprehensive Transportation Funding Programs - Project X Tier 1 2022 Call for Projects Programming Recommendations
Alison Army/Kia Mortazavi

Overview

The Orange County Transportation Authority's Environmental Cleanup Program provides Measure M2 funding for water quality improvement projects to address transportation-generated pollution. The fiscal year 2022-23 Tier 1 Grant Program call for projects was issued on March 14, 2022. Evaluations of grant applications are complete, and a list of projects recommended for funding is presented for Board of Directors' review and approval.

Recommendations

- A. Approve the allocation of \$3,120,217 in Tier 1 Environmental Cleanup Program funding for 13 projects.
- B. Grant pre-award authority for this cycle of awarded projects to enable local jurisdictions to meet the timely use of funds requirements.



5. **Amendment to Agreement for Regional Modeling-Traffic Operations Support Staffing Services**
Alicia Yang/Kia Mortazavi

Overview

On February 8, 2021, the Orange County Transportation Authority Board of Directors approved the selection of W.G. Zimmerman Engineering, Inc., as the firm to provide on-call support staffing services for the Regional Modeling and Traffic Operations section for a two-year initial term with two, two-year option terms. In order to maintain these services, Board of Directors approval is requested to exercise the first option term to extend the term effective March 1, 2023, to February 28, 2025.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Agreement No. C-0-2608 between the Orange County Transportation Authority and W.G. Zimmerman Engineering, Inc., to exercise the first option term, in the amount of \$400,000, to continue providing regional modeling-traffic operations support staffing services effective March 1, 2023, to February 28, 2025. This will increase the maximum obligation of the agreement to a total contract value of \$800,000.

Regular Calendar

6. **Interstate 405 Improvement Project Update**
Jeff Mills/James G. Beil

Overview

The Orange County Transportation Authority is currently underway with the implementation of the Interstate 405 Improvement Project. This report provides a project update.

Recommendation

Receive and file as an information item.



- 7. South Orange County Multimodal Transportation Study – Recommended Locally Preferred Strategy**
Gregory Nord/Kia Mortazavi

Overview

The Orange County Transportation Authority has developed a long-range multimodal transportation study for the south Orange County area. This study documents transportation issues and opportunities and utilizes input from key stakeholders, partner agencies, and the public to identify potential long-term multimodal solutions. The recommended locally preferred strategy and next steps are presented for review and consideration.

Recommendation

Direct staff to finalize the South Orange County Multimodal Transportation Study and incorporate the locally preferred strategy and recommended actions into the Long-Range Transportation Plan.

- 8. Regional Traffic Signal Synchronization Program Update**
Alicia Yang/Kia Mortazavi

Overview

The Orange County Transportation Authority has been working with cities, the County of Orange, and the California Department of Transportation to fund and implement key regional traffic signal synchronization projects. This report provides an update on the Measure M2 Regional Traffic Signal Synchronization Program, including results from recently completed projects.

Recommendation

Receive and file as an information item.

Discussion Items

- 9. Public Comments**
- 10. Chief Executive Officer's Report**
- 11. Committee Members' Reports**



12. Closed Session

There are no Closed Session items scheduled.

13. Adjournment

The next regularly scheduled meeting of this Committee will be held at **10:30 a.m. on Monday, December 5, 2022**, at the OCTA Headquarters, 550 South Main Street, Orange, California.



Committee Members Present

Joseph Muller, Chairman
Lisa A. Bartlett
Katrina Foley
Patrick Harper
Mark A. Murphy

Staff Present

Darrell E. Johnson, Chief Executive Officer
Jennifer L. Bergener, Deputy Chief Executive Officer
Allison Cheshire, Clerk of the Board Specialist, Senior
Gina Ramirez, Clerk of the Board Specialist, Senior
James Donich, General Counsel
OCTA Staff Members

Committee Members Absent

Barbara Delgleize, Vice Chair
Doug Chaffee

Call to Order

The October 3, 2022, regular Regional Planning and Highways Committee meeting was called to order by Committee Chairman Muller at 10:30 a.m.

Consent Calendar (Items 1 through 5)

1. Approval of Minutes

A motion was made by Director Murphy, seconded by Director Bartlett, and passed by those present, to approve the minutes of the Regional Planning and Highways Committee meeting of August 1, 2022.

Director Foley was not present to vote on this item.

2. Amendment to Agreement for Program Management Consultant Services for the Interstate 405 Improvement Project from State Route 73 to Interstate 605

A motion was made by Director Murphy, seconded by Director Bartlett, and passed by those present, to authorize the Chief Executive Officer to negotiate and execute Amendment No. 34 to Agreement No. C-2-1513 between the Orange County Transportation Authority and Parsons Transportation Group, Inc., in the amount of \$5,367,969, for additional program management consultant services for the Interstate 405 Improvement Project from State Route 73 to Interstate 605, and to extend the term of the agreement for an additional 13 months through June 30, 2024. This will increase the maximum cumulative obligation of the agreement to a total contract value of \$138,170,682.

Director Foley was not present to vote on this item.



3. Amendment to Cooperative Agreement with the Orange County Flood Control District for the Interstate 405 Improvement Project

A motion was made by Director Murphy, seconded by Director Bartlett, and passed by those present, to authorize the Chief Executive Officer to negotiate and execute Amendment No. 2 to Cooperative Agreement No. C-5-3617 between the Orange County Transportation Authority and the Orange County Flood Control District, in the amount of \$500,000, for additional project support services for the Interstate 405 Improvement Project. This will increase the agreement amount to \$2,000,000.

Director Foley was not present to vote on this item.

4. Cooperative Agreement with the California Department of Transportation for the Interstate 5 Replacement Planting Project Between State Route 73 and El Toro Road

A motion was made by Director Murphy, seconded by Director Bartlett, and passed by those present, to:

- A. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-2-2807 between the Orange County Transportation Authority and the California Department of Transportation, in the amount of \$12,335,000, for the Interstate 5 Replacement Planting Project between State Route 73 and El Toro Road.
- B. Authorize the use of up to \$0.79 million in Surface Transportation Block Grant funds for design services for the Interstate 5 Replacement Planting Project between State Route 73 and El Toro Road in lieu of Measure M2 funding.
- C. Authorize staff to process all necessary amendments to the Federal Transportation Improvement Program and execute or amend all necessary agreements to facilitate the above actions.

Director Foley was not present to vote on this item.



5. Amendments to the Master Plan of Arterial Highways

A motion was made by Director Murphy, seconded by Director Bartlett, and passed by those present, to:

- A. Conditionally approve the following amendments to the Master Plan of Arterial Highways for the facilities listed below within the City of Anaheim:
 - 1. Remove Douglass Road, a secondary (four lane, undivided) arterial, between Cerritos Avenue and Katella Avenue from the Master Plan of Arterial Highways network.
 - 2. Remove Cerritos Avenue, a secondary (four lane, undivided) arterial, between Sunkist Street and Douglass Road from the Master Plan of Arterial Highways network.
 - 3. Add River Road as a primary (four lane, divided) arterial from Katella Avenue to Ball Road to the Master Plan of Arterial Highways network.

The proposed amendment will become final, contingent upon the Orange County Transportation Authority receiving documentation that the City of Anaheim has amended its general plan and has complied with the requirements of the California Environmental Quality Act.

If the City of Anaheim does not update its general plan within three years to reflect the Master Plan of Arterial Highways amendment, the contingent approval of this requested amendment will expire but can be returned to the Orange County Transportation Authority Board of Directors for reconsideration and action.

If the original proposed Master Plan of Arterial Highways amendment is modified as a result of the California Environmental Quality Act and/or general plan amendment process, the modified Master Plan of Arterial Highways amendment shall be returned to the Orange County Transportation Authority Board of Directors for consideration and action.

- B. Direct the Executive Director of Planning, or his designee, to file a Notice of Exemption from the California Environmental Quality Act in support of the Master Plan of Arterial Highways amendment.
- C. Receive and file a status report on the active Master Plan of Arterial Highways amendments.

Director Foley was not present to vote on this item.



Discussion Items

6. Directions 2045 – Long-Range Transportation Plan - Board of Directors Workshop Preview

Kia Mortazavi, Executive Director, Planning, provided a presentation on this item.

A discussion ensued among the Members and staff regarding the following:

- Possible inclusion of a Laguna Canyon Road median beach shuttle
- Relief alternatives for the bottleneck at Interstate 5 and State Route 55
- Metrolink costs versus low demand for service

Following the discussion, no action was taken on this item.

7. Public Comments

No public comments were received.

8. Chief Executive Officer's Report

Darrell E. Johnson, Chief Executive Officer, reported that President Biden signed a bill to extend government funding through December 16, averting a shutdown.

9. Committee Members' Reports

There were no Committee Member's reports.

10. Closed Session

A Closed Session was not scheduled for this meeting.

11. Adjournment

The meeting adjourned at 10:44 a.m.

The next regularly scheduled meeting of this Committee will be held at **10:30 a.m. on Monday, November 7, 2022**, at the OCTA Headquarters, Board Room, 550 South Main Street, Orange, California.

ATTEST

Allison Cheshire
Clerk of the Board Specialist, Senior



November 7, 2022

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Regional Planning Update

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is written over the "To:" and "From:" lines of the memo.

Overview

Regular updates on regional planning matters are provided to highlight current transportation planning issues impacting the Orange County Transportation Authority and the Southern California region. This update focuses on the Southern California Association of Governments' 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy, its Regional Advanced Mitigation Planning effort, and the California Department of Transportation's 2022 Interregional Transportation Strategic Plan Addendum.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) regularly coordinates with other planning and regulatory agencies within the Southern California region. This coordination is conducted at many levels, involving the OCTA Board of Directors (Board), executives, and technical staff. Some examples of the regional planning forums in which OCTA participates include:

- Southern California Association of Governments (SCAG) Regional Council, policy committees, and technical working groups,
- State Route 91 Advisory Committee,
- Regional Chief Executive Officers meetings,
- South Coast Air Quality Management District working groups, and
- Interregional planning coordination meetings (OCTA, SCAG, the San Diego Association of Governments, and the California Department of Transportation [Caltrans] districts 7, 11, and 12).

Staff provided a regional planning update to the Board in June 2022. The status of items previously presented and other ongoing regional planning activities is summarized in Attachment A. This includes a matrix that identifies lead agencies, a summary of each activity, key dates, OCTA's interests, and current involvement.

Since the June 2022 update, new activities have emerged:

- Progress toward the development of SCAG's 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS);
- Update on SCAG's Regional Advanced Mitigation Planning (RAMP) Advisory Task Group (ATG) and SoCal Greenprint; and
- Release of Caltrans' 2022 Draft Interregional Transportation Strategic Plan (ITSP) Addendum.

A discussion of each of these new activities is provided below.

Discussion

Progress Toward the Development of SCAG's 2024-2050 RTP/SCS

The RTP/SCS documents significant transportation investments in the SCAG region over a 20-year horizon and is required to be updated every four years under state and federal law. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic and environmental goals. Additionally, the RTP/SCS will identify a combination of transportation and land-use strategies that help the SCAG region achieve state greenhouse gas emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, and support goods movement. In preparation for the 2024-2050 RTP/SCS, OCTA has been coordinating with SCAG to provide an initial list of projects consistent with the OCTA Long-Range Transportation Plan (LRTP). This initial submittal provides project data to allow SCAG to begin its technical analysis. Coordination will continue throughout the development of the RTP/SCS to make necessary refinements to the Orange County project listing.

The development process for the 2024-2050 RTP/SCS is divided into four phases, which include the development of foundations and frameworks, data collection and policy development, outreach and analysis, and draft plan creation/adoption, outlined in Attachment B. The framework for the 2024-2050 RTP/SCS is centered on maintaining and better managing the transportation network we have in the region for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investment in transit and complete streets. SCAG is currently in the data collection and policy development phase, and they anticipate completing this phase in winter 2023.

Outreach and analysis is expected to begin in spring 2023 and last through summer 2023. Completion and adoption of the 2024-2050 RTP/SCS is expected in spring 2024. SCAG is also responsible for preparing a Program Environmental Impact Report (PEIR) for the upcoming 2024-2050 RTP/SCS. On September 1, 2022, at SCAG's Energy and Environmental Committee, SCAG announced that a Notice of Preparation (NOP) would formally kick off the PEIR process. On October 6, 2022, SCAG's Regional Council (RC) authorized the release of the NOP and initiated a 30-day public review period beginning on October 17, 2022, and ending on November 16, 2022. Subsequent environmental milestones include a public review of the draft PEIR in fall 2023 and certification of the final PEIR in spring 2024. OCTA staff will provide the Board with a more detailed update on SCAG's RTP/SCS in mid-2023.

Update on SCAG's RAMP-ATG and SoCal Greenprint

RAMP is a process that considers the environmental impacts and mitigation needs of multiple planned infrastructure and development projects. This process seeks to identify those land uses that could potentially satisfy mitigation requirements early in the project planning and environmental review process. In December 2021, SCAG established the RAMP-ATG to develop a whitepaper and policy framework to support the use of RAMP in the SCAG region. The policy framework would also help to guide the development of the SoCal Greenprint, which is a web-based tool intended to provide data and scenario visualizations to support project lead agencies in pursuing RAMP or other environmental mitigations.

From December 2021 to April 2022, the RAMP-ATG met monthly. On April 26, 2022, SCAG staff presented a final draft of the RAMP policy framework to the RAMP-ATG to accept and forward to SCAG's RC for approval. The draft whitepaper and policy framework identifies regional goals for advance mitigation. It outlines data policies, governance standards, user guidelines, data selection criteria, and data parameter requirements for establishing the SoCal Greenprint tool. However, the RAMP-ATG decided to continue consideration for at least two additional weeks due to requests from the business community.

SCAG continued stakeholder outreach activities through May 2022 and revised the RAMP policy framework, but also faced unspecified delays. Due to a lack of updates on this process, a letter from eight SCAG RC members, which included representatives from the City of Mission Viejo and the County of Orange, was sent to SCAG on August 29, 2022 (Attachment C). The letter questioned why the RAMP-ATG had not held a meeting since April 2022. In response, SCAG convened a public sector workshop on October 12, 2022, to discuss the revised RAMP policy framework and the process for developing the SoCal Greenprint tool.

At the workshop, SCAG indicated that they expect to complete the revised draft RAMP policy framework by late 2022 and will present the final report to the RC in early 2023. SCAG also stated that they intend to relaunch development of the SoCal Greenprint tool sometime in 2023. Finally, SCAG explained that they will continue to seek input from public sector stakeholders on the composition and role of a technical advisory committee that is intended to help ensure that the SoCal Greenprint tool aligns with local priorities and becomes a useful resource for RAMP.

Release of Caltrans' 2022 Draft ITSP Addendum

The 2021 ITSP provides a policy framework to guide Caltrans and partner agencies in developing comprehensive, multimodal corridor plans. The ITSP aligns with many other Caltrans documents including but not limited to the California Transportation Plan 2050, the Climate Action Plan for Transportation Infrastructure, and the Caltrans Freight Mobility Plan. The ITSP provides direction to programs, districts, and partner agencies on the policies and strategies that should be considered when assessing the interregional transportation system and identifying improvements.

The 2022 draft ITSP Addendum (draft addendum) identifies 11 statewide corridors and classifies Orange County within the "South Coast – Central Coast Strategic Interregional Corridor". This corridor includes Interstate 5, United States Highway 101, and State Route 74 (SR-74), along with the Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor. The draft addendum builds on the 2021 ITSP by providing specific information and examples for each of the 11 corridors.

The draft addendum was released for public comments from August 4, 2022, to September 30, 2022. OCTA provided a comment letter (Attachment D) within the public comment time frame. The letter generally recommends specific improvements for climate and resiliency planning strategies in Orange County, adding planning strategies along SR-74, and calls into question the draft addendum's methodologies and planning strategies. The comment letter specifically requests the inclusion of the LOSSAN Rail Corridor in south Orange County to be added within the resiliency infrastructure improvements list. Caltrans will review public comments and incorporate feedback into the final 2022 ITSP addendum, which is scheduled for release in December 2022.

Summary

Staff is engaged in ongoing activities regarding planning in Orange County and Southern California. As drafts of these planning documents are released, staff will review and provide comments as needed to protect the interests of OCTA. Staff will continue to keep the Board informed on the status of these ongoing activities.

Attachments

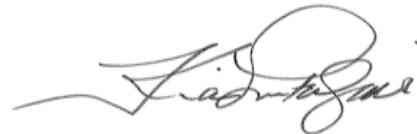
- A. Regional Planning Activities, November 2022
- B. Connect SoCal, 2024 RTP/SCS Preliminary Milestones
- C. Letter to Kome Ajise, Executive Director, Southern California Association of Governments, From Donald P. Wagner, Vice Chair of the Orange County Supervisors, Et al., Dated August 29, 2022, RE: Regional Advance Mitigation Planning – Advisory Task Group
- D. Letter to Kathleen Hanley, Interregional Transportation Strategic Plan Program Manager, California Department of Transportation, From Charles Larwood, Manager, Transportation Planning, Dated September 29, 2022, Subject: Draft 2022 Interregional Transportation Strategic Plan Addendum – Orange County Transportation Authority Comment Letter

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Approved by:



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**Regional Planning Activities
November 2022**

California Department of Transportation (Caltrans)

	Summary	Key Dates	OCTA Interest	OCTA Role
Interstate 5 (I-5) High-Occupancy Toll (HOT) Lanes	Caltrans District 12 is studying implementation of HOT lanes on I-5 between the Los Angeles County Line and State Route 55. District 12 finalized a project study report (PSR) and a concept of operations (ConOps) in November 2019 and presented a summary to OCTA in December 2019. The OCTA Board requested that Caltrans include a high-occupancy vehicle (3+ occupancy) alternative as part of the subsequent environmental studies that are currently underway. Caltrans provided an update on the ongoing studies to OCTA in August 2022.	<p><u>November 2019</u> – Caltrans finalized ConOps and PSR</p> <p><u>May 2022</u> – Caltrans initiated environmental studies for I-5 managed lanes</p> <p><u>Summer 2023</u> – Draft environmental document</p> <p><u>Winter 2023</u> – final environmental document</p> <p><u>2023</u> – Caltrans anticipated to initiate design</p> <p><u>2026</u> – Caltrans anticipated to initiate constructions</p>	<p>Prioritize corridor-wide (general purpose and carpool lanes) operational benefits and reliability.</p> <p>Development of toll policies, integration with adjacent toll facilities, equity considerations, support for transit services, and any necessary mitigation for vehicle miles traveled.</p>	<p>Coordinate Executive level meetings.</p> <p>Assist with planning efforts and provide technical support to Caltrans and other partner agencies throughout development of the ConOps, PSR, and subsequent studies.</p>

Board – Board of Directors

OCTA – Orange County Transportation Authority

Regional Planning Activities November 2022

California Air Resources Board (CARB)

	Summary	Key Dates	OCTA Interest	OCTA Role
2022 Scoping Plan for Achieving California's 2030 Greenhouse Gas (GHG) Target	The Scoping Plan identifies how the State can reach 2030 climate targets to reduce GHG emissions by 40 percent from 1990 levels and lay out a path to achieve carbon neutrality by 2045.	<p><u>June 2021</u> – Initiation of workshops and meetings on Scoping Plan development</p> <p><u>Spring 2022</u> – Completion of workshops and meetings on Scoping Plan development</p> <p><u>May 2022</u> – Release of Draft Scoping Plan</p> <p><u>Fall 2022</u> – Release of Final Scoping Plan</p> <p><u>Winter 2022</u> – CARB adopts Scoping Plan</p>	Ensure that OCTA plans or projects are consistent with the state's 2030 GHG targets.	Review and comment on technical documents.

Regional Planning Activities November 2022

South Coast Air Quality Management District (AQMD)

	Summary	Key Dates	OCTA Interest	OCTA Role
2022 Air Quality Management Plan (AQMP)	<p>The AQMP identifies strategies for achieving attainment with the National Ambient Air Quality Standards in the South Coast Air Basin.</p> <p>The AQMP provides input into the California State Implementation Plan (federally required air quality plan).</p>	<p><u>March 2022</u> – Release draft AQMP</p> <p><u>March/April 2022</u> – Regional workshops and environmental scoping meeting</p> <p><u>May 2022</u> – Release draft 2022 AQMP</p> <p><u>July 2022</u> – Regional hearings</p> <p><u>August 2022</u> – AQMD and CARB consideration of AQMP and submittal to Environmental Protection Agency (EPA)</p> <p><u>December 2022</u> – AQMD release of revised draft 2022 AQMP for AQMD Board approval</p>	<p>Support development of attainment strategies that are within AQMD’s regulatory authority.</p> <p>Ensure economic impacts are considered.</p> <p>Minimize impacts to mobility.</p> <p>Ensure 2020 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS) input is accurately incorporated.</p>	<p>Participate in advisory committee meetings.</p> <p>Review and comment on technical documents.</p>

Regional Planning Activities November 2022

Southern California Association of Governments (SCAG)

	Summary	Key Dates	OCTA Interest	OCTA Role
<p>2024 RTP/SCS</p>	<p>The 2024 RTP/SCS is a federally required transportation planning document. The 2024 RTP/SCS addresses needs over a 20-plus year planning horizon and is constrained by a reasonably foreseeable revenue forecast. It must also demonstrate air quality conformity and GHG emission reductions with budgeted levels set by the United States EPA and CARB.</p> <p>The 2024 RTP/SCS is an update to 2020 RTP/SCS. Commonly known as Connect SoCal.</p>	<p><u>2021-2022</u> – Initiate plan development process and establish foundation and frameworks</p> <p><u>Spring 2022 – Fall 2022</u> – Data collection and policy development; OCTA to submit projects consistent with 2022 LRTP (due fall 2022)</p> <p><u>Winter 2023</u> – Outreach and analysis</p> <p><u>Spring 2023</u> – Draft plan policy discussions</p> <p><u>Fall 2023</u> – Draft plan, transportation conformity determination, and environmental document</p> <p><u>Spring 2024</u> – OCTA to submit comments on the draft 2024 RTP/SCS; comment response report and plan changes review; final plan, transportation conformity determination, and environmental document</p>	<p>Ensure inclusion of projects identified in the 2022 Long-Range Transportation Plan (LRTP).</p> <p>Support policies that are consistent with OCTA positions.</p>	<p>Coordinate with SCAG and other partner agencies.</p> <p>Participate in working groups.</p> <p>Monitor SCAG policy committees.</p> <p>Review and comment on related materials.</p>

Regional Planning Activities November 2022

Los Angeles County Metropolitan Transportation Authority (Metro)

Summary	Key Dates	OCTA Interest	OCTA Role
<p>2028 Olympics</p> <p>The Greater Los Angeles Area must begin preparing for the 2028 Olympics. This will include more involved coordination efforts between OCTA, Metro, and other planning agencies in the area.</p> <p>Metro's draft initial project list (210 total projects) is comprised of the following:</p> <ul style="list-style-type: none"> • Congestion reduction (34 projects) • First-last mile and active transportation (32 projects) • Bus (32 projects) • Rail (56 projects) • Systemwide (25 projects) • Regional rail (17 projects) • Goods movement (14 projects) 	<p><u>December 2020</u> – Metro Board approved Mobility Concept Plan</p> <p><u>April 2022</u> – Mobility Concept Plan presented to stakeholders</p> <p><u>To Be Determined (TBD)</u> – Submittal of project list for consideration by the Games Mobility Executives</p> <p><u>TBD</u> – Metro Board approval of project list</p>	<p>Coordinate with Metro and the City of Los Angeles as preparations begin for the 2028 Olympics.</p> <p>Monitor development of financing/ funding strategy and potential implementation of program of projects.</p>	<p>Coordinate with Metro and other partner agencies.</p>
<p>Metro L (Gold) Line Eastside Transit Corridor Phase 2</p>	<p>Environmental process and advanced conceptual engineering for extending the Metro L (Gold) further east from its current terminus at Pomona Boulevard and Atlantic Boulevard in East Los Angeles potentially through the cities of Commerce, Montebello, Pico Rivera, Santa Fe Springs, Whittier, and the unincorporated communities of East Los Angeles and West Whittier-Los Nietos.</p>	<p><u>February 2020</u> – Metro Board of Directors approved proceeding with the California Environmental Quality Act only for the project's environmental process and withdrawing the State Route 60 and combined alternatives from further consideration in the environmental study</p> <p><u>2023</u> – Anticipated completion of environmental process</p> <p><u>2028</u> – Completion of final design</p> <p><u>2029</u> – Start of construction</p> <p><u>2035</u> – Phase 2 in service</p>	<p>Support alternatives that create potential for future connections into Orange County.</p> <p>Monitoring.</p>

Regional Planning Activities November 2022

Metro (continued)

	Summary	Key Dates	OCTA Interest	OCTA Role
West Santa Ana Branch Transit Corridor Project	<p>In January 2022, the Metro Board of Directors approved Los Angeles Union Station as the northern terminus and the 14.8-mile route from Slauson/A (Blue) Line to Pioneer Boulevard in the City of Artesia as the locally preferred alternative for the initial segment between the City of Artesia and downtown Los Angeles. The new light rail transit line that would connect downtown Los Angeles to southeastern Los Angeles County, which could provide potential for a future extension into Orange County along the Pacific Electric right-of-way.</p>	<p><u>July 2021</u> – Draft environmental document for public comment</p> <p><u>January 2022</u> – Selection of a locally preferred alternative and project terminus</p> <p><u>2041</u> – Anticipate opening service of initial segment</p>	<p>Support alternatives that create potential for future connections into Orange County.</p>	<p>Monitoring.</p>

Regional Planning Activities November 2022

Transportation Corridor Agencies (TCA)

	Summary	Key Dates	OCTA Interest	OCTA Role
<p>Transportation Control Measure (TCM) substitution</p>	<p>TCA is seeking to remove the TCM designation from three portions of TCA facilities: 1) the San Joaquin Hills Transportation Corridor (ORA10254), 2) the Eastern Transportation Corridor (ORA050), and 3) the Foothill Transportation Corridor-North (ORA051).</p> <p>TCA is working with OCTA and SCAG on the formal substitution and participated in interagency consultation through SCAG's Transportation Conformity Working Group (TCWG).</p>	<p><u>Summer 2020</u> – Initiated substitution process with SCAG</p> <p><u>June 2020</u> – Presentation to SCAG TCWG</p> <p><u>June 2021</u> – Presentation to SCAG TCWG</p> <p><u>August 2021</u> – Presentation to the SCAG TCWG</p> <p><u>February 2022</u> – Presentation to the SCAG TCWG</p> <p><u>April 2022</u> – Present to the SCAG Energy and Environment Committee (EEC) for approval</p> <p><u>May 2022</u> – Present to the SCAG Regional Council (RC) for approval</p> <p><u>Winter 2022</u> – Anticipate CARB and EPA concurrence</p>	<p>Avoid potential impacts to regional transportation funding.</p>	<p>Coordinating with SCAG and TCA.</p>

Regional Planning Activities November 2022

OCTA

	Summary	Key Dates	OCTA Interest	OCTA Role
Express Lanes Network Study	<p>The OCTA 2018 LRTP's Short-Term Action Plan recommended an Express Lanes Network Study to identify planning and policy positions in response to an initiative by Caltrans to implement express lanes in Orange County. The study will establish OCTA's priorities for tolled express lanes implementation by evaluating quantitative and qualitative factors against stated goals and objectives to determine a preferred approach.</p>	<p><u>May 2019</u> – Study initiated</p> <p><u>December 2019</u> – Study update presented to OCTA Board</p> <p><u>Fall 2022</u> – Draft recommendations on a preferred approach for next steps to be presented to OCTA Board</p>	<p>Establish OCTA's priorities for tolled express lanes.</p>	<p>Study effort led by OCTA.</p>
South Orange County Multimodal Transportation Study (SOCMTS)	<p>SOCMTS is a strategic transportation study that will consider transportation needs of residents, commuters, and visitors to the area. Through collaboration with local stakeholders, the study will identify a broad range of improvement recommendations for all modes of transportation, including streets, transit, freeways and bikeways. The study will address south Orange County's mobility needs through the year 2045 and beyond.</p> <p>Study objectives</p> <ul style="list-style-type: none"> • Work collaboratively with stakeholders • Leverage all modes of transportation • Address long-term mobility needs • Develop consensus on a set of transportation improvements across all modes 	<p><u>Summer/Fall 2020</u> – Phase 1: Identify issues and opportunities; develop purpose and need; and develop initial alternative strategies</p> <p><u>August 2020</u> – Study update presented to OCTA Board</p> <p><u>Winter 2020 - Spring 2021</u> – Phase 2: Analysis of alternative strategies</p> <p><u>February 2021</u> – Study update presented to OCTA Board</p> <p><u>Summer 2021 - Summer 2022</u> - Phase 3: Further analysis of reduced set of alternative strategies; recommend a locally preferred strategy</p> <p><u>June 2022</u> – Study update to be presented to OCTA Board</p> <p><u>Fall 2022</u> – OCTA Board to consider study recommendations</p>	<p>Establish a locally preferred strategy for south Orange County.</p>	<p>Study effort lead by OCTA.</p>

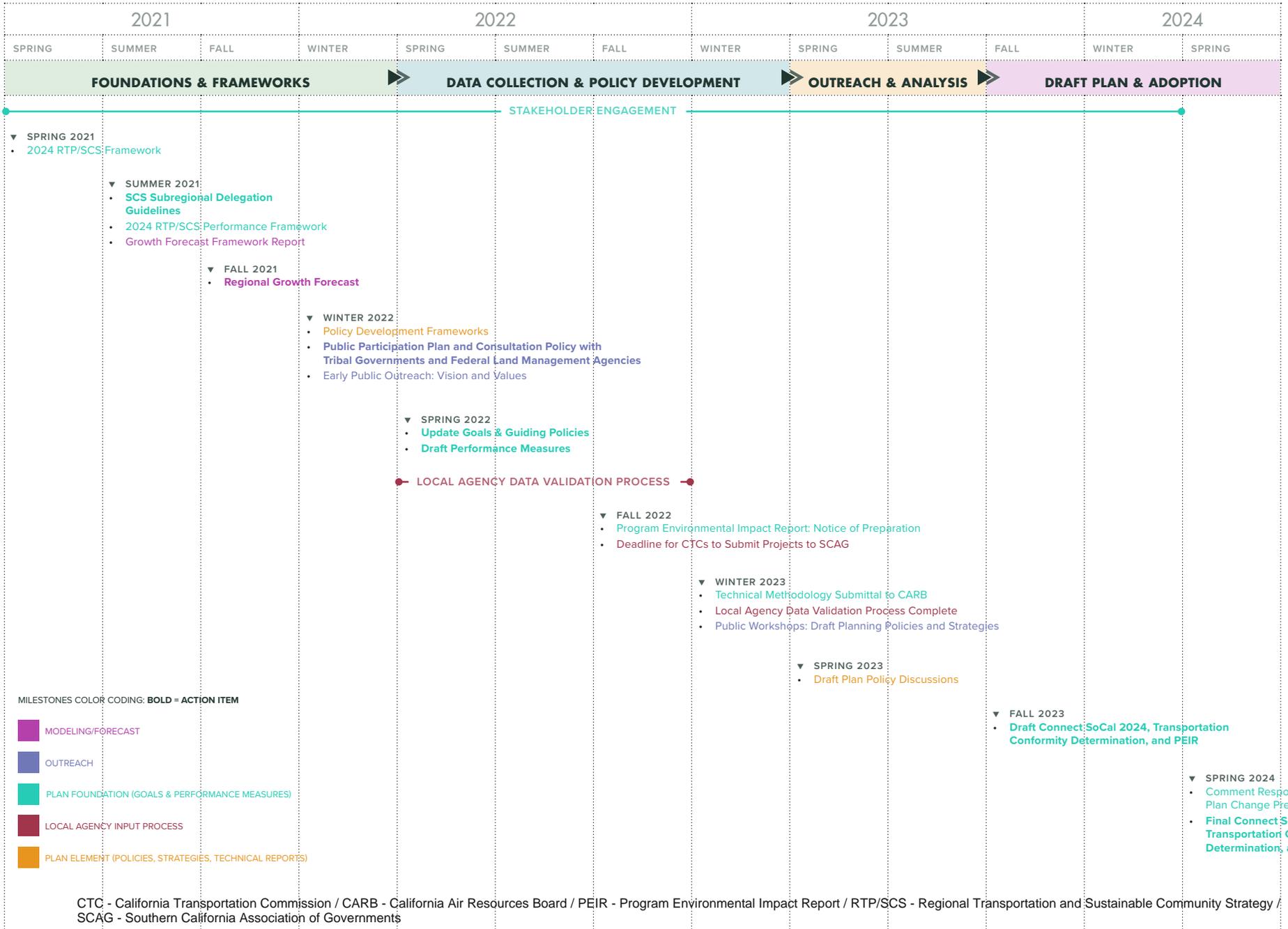
Regional Planning Activities November 2022

OCTA (continued)

	Summary	Key Dates	OCTA Interest	OCTA Role
State Route 91 (SR-91) Comprehensive Multimodal Corridor Plan	This study will explore opportunities to improve mobility options and provide transportation choices on and around the corridor while preserving the character of the local communities.	<u>January 2022</u> – Study initiated <u>February-April 2022</u> – Public engagement <u>May 2022</u> – Draft plan <u>Fall 2022</u> – Final plan	Improving the SR-91 corridor in a manner, which is consistent with sales tax measures of Orange and Riverside counties, as well as previously completed studies.	Study effort lead by OCTA, in partnership with the Riverside County Transportation Commission, and in coordination with Caltrans, TCA, and corridor cities.
Got TCM Substitution	The County of Orange has cancelled the Hazard Avenue Bikeway Project (ORA170205), which is a committed TCM. Additionally, schedule updates to two OCTA projects (Placentia Commuter Rail Transit Station [ORA030612] and Paratransit Expansion Vehicle Purchase [ORA130099]) also require TCM substitutions. OCTA is working with SCAG on next steps, including a formal substitution for the two OCTA projects. The bikeway project will follow an administrative substitution process. OCTA will participate in interagency consultation on TCM substitutions through the SCAG Transportation Conformity Working Group (TCWG).	<u>June 2021</u> – Presentation to SCAG TCWG <u>February 2022</u> – Presentation to SCAG TCWG <u>April 2022</u> – Presentation to SCAG TCWG <u>June 2022</u> – Present to SCAG EEC for approval <u>July 2022</u> – Present to SCAG RC for approval <u>Winter 2022</u> – Anticipate CARB and EPA concurrence	Avoid potential impacts to regional transportation funding.	Coordinating with SCAG.



2024 RTP/SCS PRELIMINARY MILESTONES



August 29, 2022

Mr. Kome Ajise
Executive Director
Southern California Association Of Governments
900 Wilshire Blvd. Ste. 1700
Los Angeles, CA 90017

RE: Regional Advance Mitigation Planning – Advisory Task Group

Director Ajise and Staff,

As stated on the SCAG website, the “purpose of the Regional Advance Mitigation Planning – Advisory Task Group (RAMP-ATG) is to establish a policy framework for advance mitigation in the SCAG region, and to ensure the SoCal Greenprint is aligned with related policy objectives.” The RAMP-ATG comes in response to several contentious Regional Council meetings where the SoCal Greenprint was discussed and, on multiple occasions, paused.

Per the SCAG website, the RAMP-ATG last met April 26, 2022 and has yet to have a single in-person meeting to address the underlying subjects. The SCAG website further states that the RAMP-ATG will “disband upon reporting to the Regional Council and Energy & Environment Committee meetings, which is expected to occur in summer/fall 2022.”

As August dawns, and fall draws near, we are concerned to note that no RAMP-ATG meetings have occurred since April. This causes considerable unease for policy makers as to the status of the RAMP-ATG and the disposition of the SoCal Greenprint process. Such concerns include but are not limited to:

1. When will the next RAMP-ATG meeting take place?
2. If no meetings are scheduled, will there be an official announcement dissolving the RAMP-ATG?
3. What is the final work product of the RAMP-ATG?
4. What steps have been taken to resolve the numerous issues identified by the Regional Council with the SoCal Greenprint and its developmental process?
5. How will all of this be reported to the Regional Council?

With these questions posed, we respectfully request the Regional Council and staff to immediately address the aforementioned concerns. Further, we urge you to

commit to resolving the issues surrounding the SoCal Greenprint in a clear, comprehensive and transparent manner and make resolving this matter a top priority.

Thank you for your thoughtful consideration.

Sincerely,



Supervisor Donald P. Wagner
County of Orange



Supervisor Karen Spiegel
County of Riverside



Mayor Pro Tem Alan Wapner
(Past President) City of Ontario



Mayor Dennis Michael
City of Rancho Cucamonga



Councilmember Elizabeth Becerra
City of Victorville



Councilman Steve Tye
City of Diamond Bar



Mayor Ben J. Benoit
City of Wildomar



Mayor Wendy Bucknum
City of Mission Viejo



AFFILIATED AGENCIES

Orange County
Transit District

Local Transportation
Authority

Service Authority for
Freeway Emergencies

Consolidated Transportation
Service Agency

Congestion Management
Agency

September 29, 2022

Ms. Kathleen Hanley
Interregional Transportation Strategic Plan Program Manager
California Department of Transportation Headquarters
Division of Transportation Planning, Office of Multimodal System Planning
P. O. Box 942873
Sacramento, CA 94273

**Subject: Draft 2022 Interregional Transportation Strategic Plan Addendum
– Orange County Transportation Authority Comment Letter**

Dear Ms. Hanley:

Thank you for providing the Orange County Transportation Authority (OCTA) with the Draft 2022 Interregional Transportation Strategic Plan (ITSP) addendum. The following questions and comments are provided for your consideration.

- Page 7 - "ITSP Strategies and Strategic Interregional Corridors" table, "Southcoast - Central Coast Corridor" column - "Provide STAA Access, Truck Climbing and/or Passing Lanes in Locations with Steep Grades and Expand First/Last Mile Rail Station Access" strategies remain unchecked. It is unclear why these strategies remain unchecked?
 - Please consider including "Truck Climbing and/or Passing Lanes in Locations with Steep Grades" strategy options for State Route 74 (SR-74).
 - Please note, the San Juan Capistrano Metrolink Station is within proximity (less than .5 mile) to the SR-74, which can be considered for additional expansion of "First/Last Mile Rail Station Access" strategies.
- Page 17 - Priority Interregional Facilities Map - blank icon - please denote SR-74 on the icon.
- Page 17 - "Highest Percent Freight Traffic (SR-74)" - please confirm the statistic with the California Department of Transportation District 12.
- Page 20 - "Increase Intercity Passenger Rail Service Frequency Consistent with the California State Rail Plan" - This ITSP Strategy identifies "the need for substantial resilience infrastructure to protect against sea level rise and cliff erosion" specifically, at the Del Mar Bluffs. Please consider including the Los Angeles-San Luis Obispo-San Diego Rail Corridor, specifically in the Southern Orange County Coastal Area in the cities of San Clemente and Dana Point which need substantial resilience infrastructure improvements to protect against sea level rise and beach erosion.

Ms. Kathleen Hanley
September 29, 2022
Page 2

- Page 23 – “Increase Connectivity and Accessibility to Modal Options” - Please consider updating the associated map to reflect recent updates and expansions to the Orange County Bike Loops network. Please reference the “Orange County Bike Loops” map attachment.
- In response to natural disasters, specifically wildfires, climate resiliency strategies such as escape routes are listed throughout various sections of the addendum. Please consider including SR-74 as an escape route for wildfires in the South Coast - Central Coast Strategic Interregional Corridor.
- What was the process for selecting specific strategies for the Needs Assessment section?
 - Are these strategies prioritized in a certain manner?
 - What are the implications of including/not including specific strategies amongst the corridors?

Throughout the development of the 2022 ITSP addendum, OCTA staff would be happy to collaborate on any matters discussed herein. If you have any questions or comments, please feel free to contact me at (714) 560-5683 or at clarwood@octa.net.

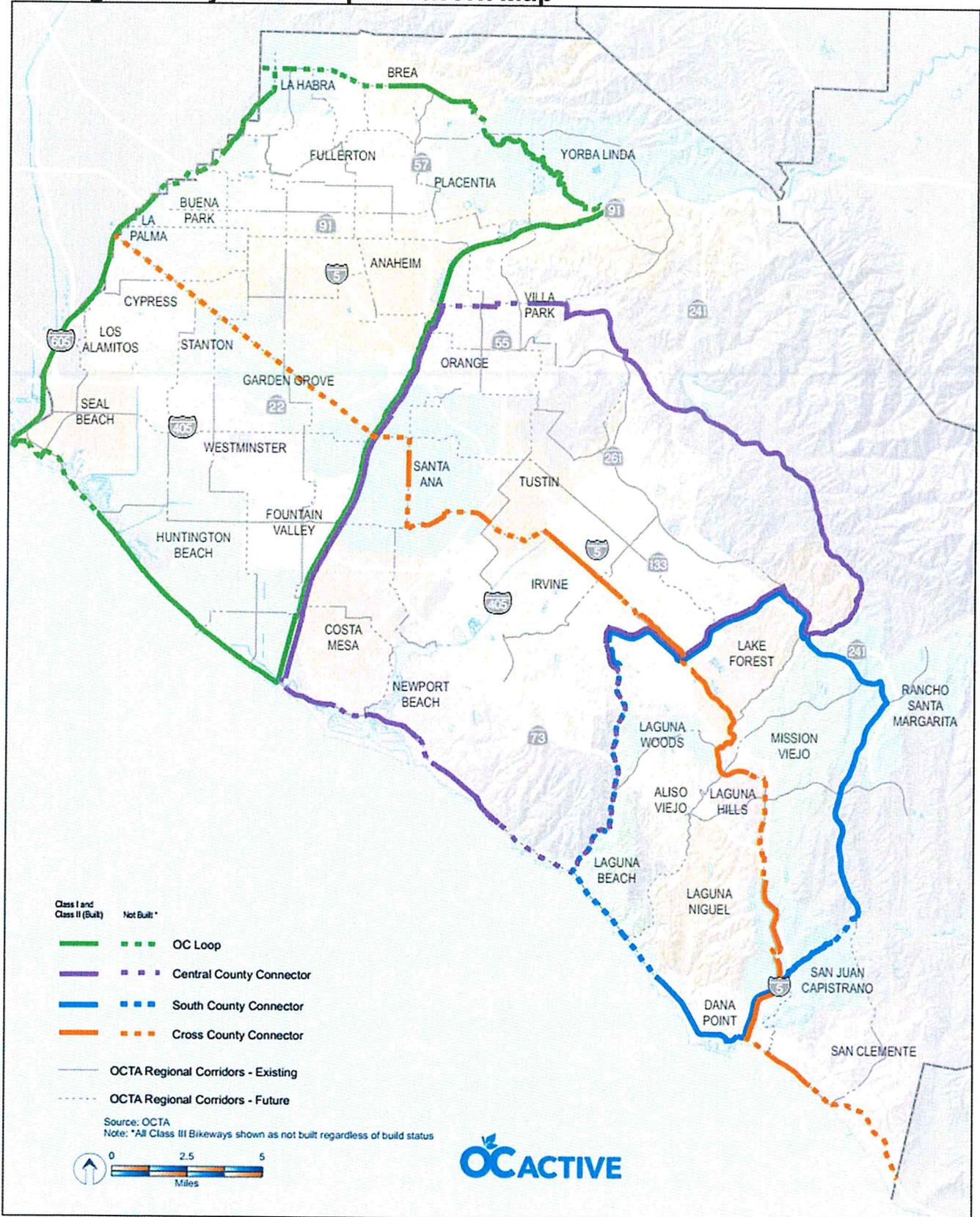
Sincerely,



Charlie Larwood
Manager, Transportation Planning

CL:ag
Attachment

Orange County Bike Loops Network Map





November 7, 2022

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Measure M2 Annual Eligibility Review

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is written over the "From:" line of the header.

Overview

The Measure M2 Ordinance requires that all local jurisdictions annually satisfy specific eligibility requirements to receive Measure M2 net revenues. Required annual documentation for the review period ending June 30, 2022, has been received and reviewed by the Taxpayer Oversight Committee and Orange County Transportation Authority staff. Board of Directors' approval is requested to find all Orange County local jurisdictions eligible to continue receiving Measure M2 net revenues.

Recommendation

Approve all 35 Orange County local jurisdictions as eligible to continue to receive Measure M2 net revenues.

Background

Local jurisdictions must meet Measure M2 (M2) eligibility requirements and submit eligibility verification packages to the Orange County Transportation Authority (OCTA) annually to remain eligible to receive M2 net revenues. There are 13 eligibility requirements that local jurisdictions must satisfy. However, not all 13 eligibility components require verification during each eligibility cycle. For reference, a summary of M2 eligibility requirements and due dates is provided in Attachment A.

While OCTA staff reviews and confirms all M2 eligibility components, the M2 Ordinance also requires the Taxpayer Oversight Committee (TOC) to review five requirements. These include the Congestion Management Plan, Mitigation Fee Program, Local Signal Synchronization Plan, Pavement Management Plan (PMP), and Expenditure Report.

Generally, local jurisdictions must submit the required documentation on or before June 30, 2022. These submittals are reviewed by staff and the TOC in the fall. Expenditure reports are due on December 31, 2022, six months after the close of the fiscal year, and are reviewed in the spring. This item addresses the submittals due for the June 30, 2022, submittal cycle.

Discussion

All 35 local jurisdictions submitted the required M2 eligibility verification documents prior to OCTA's June 30, 2022 deadline. OCTA staff reviewed all local jurisdictions' eligibility verification documents to ensure completion, accuracy, and consistency with M2 Ordinance requirements. The eligibility requirements reviewed by OCTA staff included the Capital Improvement Program, maintenance of effort, no supplanting of developer fees, PMP, timely submittal of project final reports, timely use of net revenues, traffic forum participation, and transit and non-motorized transportation land-use planning strategies. All the submitted documents were in conformance with the M2 requirements.

The TOC-designated Annual Eligibility Review (AER) Subcommittee was convened to review the PMP¹ eligibility component, which was the only component requiring TOC review this cycle. Based on the AER Subcommittee's review, the TOC formally confirmed its required review at its October 11, 2022 meeting.

The review of all required eligibility documentation is complete. All local jurisdictions submitted the appropriate documentation, which was reviewed and deemed complete. OCTA staff recommends that all Orange County local jurisdictions be found eligible to continue to receive M2 net revenues. A summary of the findings for the eight M2 eligibility components that were due for this cycle is provided in Attachment B.

Summary

In October 2022, the Orange County Transportation Authority Taxpayers Oversight Committee convened and affirmed it had received and reviewed the required Measure M2 eligibility documentation due at this time for all 35 Orange County local jurisdictions. The Orange County Transportation Authority staff has also reviewed the other submittals required for this cycle and found them to be in conformance with the requirements. Given this review, Board of Directors' approval is requested to find all 35 of Orange County's local jurisdictions eligible to continue receiving Measure M2 net revenues.

¹ For this eligibility review cycle, PMPs were required from 21 local jurisdictions. The remaining 14 local jurisdictions' PMPs will be submitted and reviewed during the next eligibility review cycle.

Attachments

- A. Measure M2 Eligibility and Submittal Schedule Summary, Due June 30, 2022 and December 31, 2022
- B. Fiscal Year 2022-23, M2 Eligibility Review Summary

Prepared by:



Cynthia Morales
Transportation Funding Analyst
(714) 560-5905

Approved by:



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

**Measure M2 Eligibility Requirements and Submittal Schedule Summary
Due June 30, 2022 and December 31, 2022**

Compliance Category	Frequency	Required
Capital Improvement Program	Annual (June 30)	✓
Circulation Element/Master Plan of Arterial Highways Consistency	Biennial (June 30)	
Congestion Management Program	Biennial (June 30)	
Expenditure Report	Annual (December 31)	✓
Local Signal Synchronization Plan	Every Three Years (i.e. June 30)	
Maintenance of Effort	Annual (June 30)	✓
Mitigation Fee Program (MFP)	Biennial (June 30) ¹	
No Supplanting of Developer Fees	Annual (June 30)	✓
Pavement Management Plans (PMP)	Biennial (June 30) ²	✓
Timely Submittal of Project Final Reports	Within Six Months of Project Completion	✓
Timely Use of Net Revenues	Annual (June 30)	✓
Traffic Forum Participation	Annual (June 30)	✓
Transit and Non-Motorized Transportation Land-Use Planning Strategies	Annual (June 30)	✓

¹ A local jurisdiction must submit their updated program and revised fee schedule or process methodology when the local jurisdiction updates their MFP and/or nexus study.

² 21 local jurisdictions update their PMPs on odd-numbered fiscal years, while 14 local jurisdictions update their PMPs on even-numbered fiscal years.

Fiscal Year 2022-23
M2 Eligibility Review Summary

Local Jurisdiction	Capital Improvement Program	Expenditure Report ¹	Maintenance of Effort	No Supplanting of Developer Fees	Pavement Management Plan ²	Timely Submittal of Final Reports	Timely Use of Net Revenues	Traffic Forum	Land-Use Planning Strategies
Aliso Viejo	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Anaheim	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Brea	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Buena Park	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Costa Mesa	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
County of Orange	Satisfactory	Pending	N/A ³	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Cypress	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Dana Point	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Fountain Valley	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Fullerton	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Garden Grove	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Huntington Beach	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Irvine	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
La Habra	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
La Palma	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Laguna Beach	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Laguna Hills	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Laguna Niguel	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Laguna Woods	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Lake Forest	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Los Alamitos	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Mission Viejo	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Newport Beach	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Orange	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Placentia	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Rancho Santa Margarita	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
San Clemente	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
San Juan Capistrano	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Santa Ana	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Seal Beach	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Stanton	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Tustin	Satisfactory	Pending	Satisfactory	Satisfactory	N/A	Satisfactory	Satisfactory	✓	Satisfactory
Villa Park	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Westminster	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Yorba Linda	Satisfactory	Pending	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	✓	Satisfactory
Totals	35	-	35	35	21	35	35	35	35

¹ M2 Expenditure Reports are not due until December 31, 2022.

² 14 local jurisdictions update their PMPs on odd-numbered fiscal years, while 21 local jurisdictions update their PMPs on even-numbered fiscal years.

³ Maintenance of effort is based on a three-year average of discretionary fund expenditures for transportation purposes prior to 1990, plus adjustments permitted by the M2 Ordinance. However, Orange County Public Works and their predecessor agencies did not and do not use discretionary funds for transportation purposes. The sources of their transportation funds have been various restricted or partially restricted funds (e.g., Highway Users Tax Account (HUTA), federal grants, assessment districts, developer impact fees, community facilities districts, Subdivision Map Act Highway, and bridge fees etc.). It should be noted that about 40 percent of the HUTA revenues that come to Orange County local jurisdictions go to the County.

Note: Circulation Element/ MPAH Consistency, Congestion Management Plan, Local Signal Synchronization Plan, and Mitigation Fee Program are not shown on the table due to these components not being required during this eligibility cycle.

Acronyms

MPAH - Master Plan of Arterial Highways

M2 - Measure M2

N/A - Not applicable

PMP - Pavement Management Plan



November 7, 2022

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Comprehensive Transportation Funding Programs – Project X
Tier 1 2022 Call for Projects Programming Recommendations

Overview

The Orange County Transportation Authority’s Environmental Cleanup Program provides Measure M2 funding for water quality improvement projects to address transportation-generated pollution. The fiscal year 2022-23 Tier 1 Grant Program call for projects was issued on March 14, 2022. Evaluations of grant applications are complete, and a list of projects recommended for funding is presented for Board of Directors’ review and approval.

Recommendations

- A. Approve the allocation of \$3,120,217 in Tier 1 Environmental Cleanup Program funding for 13 projects.
- B. Grant pre-award authority for this cycle of awarded projects to enable local jurisdictions to meet the timely use of funds requirements.

Background

In May 2010, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved a two-tiered approach to fund the Measure M2 (M2) Project X Environmental Cleanup Program (ECP). The Tier 1 Grant Program is designed to reduce more visible forms of pollutants, such as litter and debris collecting on roadways and in catch basins prior to being deposited in waterways and, ultimately, the ocean. The Tier 2 Grant Program provides funding for larger projects, allowing for multi-jurisdictional, capital-intensive structural treatment Best Management Practice (BMP) projects.

Tier 1 funds are available for Orange County local jurisdictions to purchase and install equipment and other BMPs that supplement, not supplant, existing water quality programs. Examples include screens, filters, and inserts for catch basins,

as well as other devices designed to remove the aforementioned pollutants. Projects must demonstrate a direct nexus to the reduction of transportation-related pollution, as developed and defined by OCTA's Environmental Cleanup Allocation Committee (ECAC).

To date, the Board has approved funding for 199 Tier 1 projects, totaling approximately \$30 million. It is estimated that more than 45 million gallons of trash have been captured since the inception of the ECP in 2011. Over time, the volume of trash captured is expected to increase. On March 14, 2022, the Board approved the issuance of the current 2022 ECP Tier 1 call for projects (call), making available approximately \$3 million to support a 12th call for the ECP Tier 1 program.

Discussion

The ECP Tier 1 call application deadline was June 16, 2022. As of that date, 14 applications were submitted to OCTA from 14 local jurisdictions. However, one application was withdrawn during the evaluation process. The 13 remaining applications were reviewed and evaluated by an application review committee consisting of OCTA staff and the ECAC Chairman. Project applications were evaluated based on Board-approved selection criteria, which include the following:

- Effectiveness at removing trash and debris;
- Cost/benefit analyses;
- Pollution reducing benefits;
- Project readiness;
- Adequacy of proposed operations and maintenance plans; and
- Submission of clear and detailed work plans with specific implementation timing documented

On October 6, 2022, the ECAC met and concurred with the application review committee's conclusions and recommended that 13 projects in the amount of \$3,120,217 be considered by the Board for funding (Attachment A). While the recommended award amount is higher than the Board-authorized target of \$3 million, the funding recommendation aligns with award recommendations from previous cycles, which may be slightly below or above the Board-authorized target. It should also be noted that funding in excess of call target amounts is offset by previous ECP Tier 1 unallocated call balances, including approximately \$102,000 from the 2021 call.

The projects being recommended for funding consist of catch basin debris screen devices, including 1,508 connector pipe screens (CPS), 288 automatic retractable screens (ARS), 170 grated inlet trash screens (GITS), one debris separating baffle box (DSBB), and one in-line trash trap unit.

More detailed project descriptions and visual examples are provided in Attachment B and Attachment C, respectively. A brief overview of these project types is provided below.

- Catch basin debris screen devices: These metal screen devices cover catch basins and prevent debris from entering the storm drain system and primarily consist of CPS, ARS, and GITS type devices.
- A DSBB is an advanced stormwater treatment system utilizing a non-clogging screen technology and hydrodynamic separation to capture pollutants. The non-clogging screening system stores trash and debris in a dry state, suspended above sedimentation chambers that allows for easier maintenance.
- An in-line trash trap unit is a precast concrete structure designed to reduce pollutants present in stormwater and urban runoff by capturing trash and solids from incoming flows using disposable mesh nets. The design of the trash trap unit effectively uses the energy of water flow to drive pollutants into nets to separate and capture trash, debris, and sediment. All particles larger than one millimeter are captured. Oil absorption material can be placed inside or outside the nets to absorb oil sheen and grease.

As part of this program, local jurisdictions agree to contribute a minimum match of 20 percent of total project costs. All recommended projects meet this requirement.

Upon approval from the Board, OCTA will execute letter agreements with each awarded local jurisdiction. Construction contracts are required to be awarded by the local jurisdiction within 12 months of the letter agreement and may not be executed before the letter agreement is finalized. However, due to extenuating circumstances in securing application review committee participants this call, it has taken longer than in previous cycles to advance the project funding recommendations to the Board for approval. Therefore, to hold local jurisdictions harmless for the reduced time to meet the construction contract requirement (i.e., 12 months from execution of letter agreements), staff is recommending that pre-award authority be granted upon Board approval for the 13 projects. Pre-award authority allows local jurisdictions to enter into construction contracts ahead of execution of letter agreements, which can take several months after Board approval for final execution by cities and OCTA.

Staff continues to engage the ECAC for the recruitment of additional application review committee members for future Tier 1 call evaluations to mitigate potential delays in the future.

Next Steps

Upon Board approval and once funding awards are finalized, local jurisdictions will be required to execute a letter amendment to their M2 master agreement. As noted above, recommended pre-award authority will help local jurisdictions avoid any delays in project delivery. OCTA will monitor and report on project status and delivery through the CTFP semi-annual review and M2 quarterly reporting processes.

Summary

OCTA's ECP provides grant funding to local jurisdictions for projects that support water quality improvements related to transportation infrastructure. The 2022 Tier 1 call has concluded, and staff is recommending Board approval to program \$3,120,217 in ECP funds to 13 local jurisdiction projects.

Attachments

- A. Project X 2022 Tier 1 Call for Projects, Programming Recommendations
- B. Project X 2022 Tier 1 Call for Projects – Project Summaries
- C. Visual Samples of Recommended Best Management Practice Project Types

Prepared by:



Alison Army
Principal Transportation Analyst
(714) 560-5537

Approved by:



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

**Project X 2022 Tier 1 Call for Projects
Programming Recommendations**

Projects Recommended for Funding						
Agency	Project	Project Description	Local Match	Score	Recommended M2 Project Allocation	Cumulative Funding
Laguna Hills	Connector Pipe Screen and Automatic Retractable Screen Project, Phase XI	Install 62 CPS-mod systems and 129 ARS-CL Curb Screens	20%	86	\$ 200,000	\$ 200,000
Stanton	Stanton Catch Basin Full Trash Capture System Installations - 2022	Install 26 CPS-mod systems and Five GITS devices	20%	83	\$ 61,890	\$ 261,890
Mission Viejo	Trash and Runoff Abatement Project: Northerly Area	Install 33 CPS-mod systems and 111 ARS-CL curb screens	20%	83	\$ 160,000	\$ 421,890
Seal Beach	2022 Environmental Cleanup Project	Install 57 CPS-mod systems, 117 GITS devices, and 48 ARS-FX curb-opening screens	20%	80	\$ 396,000	\$ 817,890
Anaheim	The Catch Basin Screen Installation Project - 2022	Install 373 CPS units	20%	80	\$ 499,366	\$ 1,317,256
Fullerton	Installation of Full Capture Trash Devices in Catch Basins - 2022	Install 24 CPS-mod systems and 48 GITS devices	20%	79.5	\$ 173,761	\$ 1,491,017
San Juan Capistrano	San Juan Capistrano High Priority CPS Screen Installation	Install 100 CPS units	20%	78	\$ 147,200	\$ 1,638,217
Orange	Debris Separating Baffle Box and Connector Pipe Screen BMP Installation	Install One DSBB and seven CPS units	20%	78	\$ 400,000	\$ 2,038,217
Costa Mesa	2022 Connector Pipe Screen Installation Project	Install 300 CPS units	20%	71	\$ 160,000	\$ 2,198,217
Huntington Beach	Huntington Beach Trash Removal Project Phase II - Atlanta Avenue Pump Station Retrofit	Install one in-line trash trap unit	33.5%	69	\$ 500,000	\$ 2,698,217
Westminster	2022 Catch Basin Screen Installation Project	Install 100 CPS units	20%	66	\$ 69,600	\$ 2,767,817
Laguna Niguel	Purchase and Installation of Trash Control Devices on Stormwater Catch Basins 2022	Install 196 CPS units	20%	65	\$ 196,000	\$ 2,963,817
Irvine	Citywide Catch Basin Connector Pipe Screen Installation Project - Phase 3	Install 230 CPS units	20%	65	\$ 156,400	\$ 3,120,217

Withdrawn by Applicant				
Agency	Project	Project Description	Score	M2 Funding Request
Newport Beach	Newport Bay Trash Boom System	Install one trash boom system	N/A	\$ 150,000

Acronyms

ARS - Automatic Retractable Screen
 BMP - Best Management Practice
 CPS - Connector Pipe Screen
 DSBB - Debris Separating Baffle Box
 GITS - Grated Inlet Trash Screen

M2 - Measure M2
 N/A - Not Applicable

Project X 2022 Tier 1 Call for Projects – Project Summaries

Project Descriptions		
Agency	Project Title	Project Highlights
Anaheim	The Catch Basin Screen Installation Project - 2022	The City of Anaheim proposes to install 373 CPS units at existing storm drain catch basins at strategic high-traffic sites located throughout the Anaheim watershed and storm drain system, protecting the Carbon Creek, Westminster, and Santa Ana River Watersheds.
Costa Mesa	2022 Connector Pipe Screen Installation Project	The City of Costa Mesa proposes to install 300 CPS units along priority land use drainage areas, downstream of bus stops and along transportation corridors. The project area falls within two principal watersheds, the Newport Bay watershed and the Santa Ana River watershed.
Fullerton	Installation of Full Capture Trash Devices in Catch Basins - 2022	The City of Fullerton proposes to install 24 CPS-mod systems and 48 GITS devices, prioritizing high-traffic areas with heavy pedestrian and vehicle traffic, such as industrial zones, commercial plazas, and apartments. The project area is expected to reduce the amount of transportation-related pollution entering Orange County's surface and groundwater systems.
Huntington Beach	Huntington Beach Trash Removal Project Phase II - Atlanta Avenue Pump Station Retrofit	The City of Huntington Beach proposes to install one in-line trash trap unit that would be located entirely within the City-owned Atlanta Avenue pump station yard, next to the Huntington Channel. The project area receives storm flows and runoff from a 247-acre watershed, of which 187 acres is a priority land use area.
Irvine	Citywide Catch Basin Connector Pipe Screen Installation Project - Phase 3	The City of Irvine proposes to install 230 CPS units at various locations throughout Irvine in order to protect the Upper Newport Bay. The specific locations were selected considering development areas, increased vehicle/pedestrian traffic, the absence of stormwater treatment by a natural treatment system, drainage from priority land use areas, and drainage to downstream receiving waters listed on the Clean Water Act List of Impaired Water Bodies.
Laguna Hills	Connector Pipe Screen & Automatic Retractable Screen Project, Phase XI	The City of Laguna Hills proposes to install 62 CPS-mod systems and 129 ARS-CL curb screens in catch basins in the northwest, central and south, and east side of Laguna Hills. These devices receive stormwater runoff from 234 total acres, of which 172 acres are in priority land use areas. The proposed project will protect water quality in three watersheds.
Laguna Niguel	Purchase and Installation of Trash Control Devices on Stormwater Catch Basins 2022	The City of Laguna Niguel proposes to install 196 CPS units that currently do not have trash control devices or have a trash control device that does not meet state requirements, largely in alternative land use areas.
Mission Viejo	Trash and Runoff Abatement Project: Northerly Area	The City of Mission Viejo proposes to install 33 CPS-mod systems and 111 ARS-CL curb screens in the northern area of Mission Viejo, protecting two watersheds, the San Juan Creek and Aliso Creek watersheds. All proposed project areas are considered priority land use areas, reducing stormwater pollution in commercial and high-density residential areas.
Orange	Debris Separating Baffle Box and Connector Pipe Screen Best Management Practice Installation	The City of Orange proposes to install one DSBB and seven CPS units. The DSBB would be located in the existing storm drain system that ultimately discharges into Buckeye Channel, collecting runoff from watershed 6 as described in the City of Orange Master Plan of Drainage. The CPS units would be installed within the City of Orange watersheds 6, 11, and 30.
San Juan Capistrano	San Juan Capistrano High Priority CPS Screen Installation	The City of San Juan Capistrano proposes to install 100 CPS units in catch basins located in high-density residential and commercial areas with high concentrations of industrial and commercial uses, as well as bus stops and driving routes that have a direct nexus to transportation-related activities affecting the San Juan Creek watershed.
Seal Beach	2022 Environmental Cleanup Project	The City of Seal Beach proposes to install 57 CPS-mod systems, 117 GITS devices, and 48 ARS-FX curb-opening screens in the not-yet-protected priority land use area of Leisure World Seal Beach, preventing pollution runoff for the San Gabriel watershed.
Stanton	Stanton Catch Basin Full Trash Capture System Installations - 2022	The City of Stanton (City) proposes to install 26 CPS-mod systems and five GITS devices in 31 City-owned catch basins, prioritizing those that do not already have a full trash capture device installed. The City proposes to target areas predominantly featuring high pedestrian and vehicular traffic, such as apartments, schools, and commercial zones.
Westminster	2022 Catch Basin Screen Installation Project	The City of Westminster proposes to install 100 CPS units servicing priority land use areas. The first priority is 31 catch basins in priority land use areas, and the second priority is for 69 residential catch basins to offset a portion of the trash from catch basins in priority land use areas that are not able to be equipped with CPS units.

Acronyms

ARS - Automatic Retractable Screen
 CPS - Connector Pipe Screen
 DSBB - Debris Separating Baffle Box
 GITS - Grated Inlet Trash Screen

**Visual Samples of Recommended Best Management Practice
Project Types***

Connector Pipe Screen



Automatic Retractable Screen



Visual Samples of Recommended Best Management Practice Project Types*

Grate Inlet Trash Screen Unit



Debris Separating Baffle Box



Visual Samples of Recommended Best Management Practice Project Types*

In-Line Trash Trap



*Photographs are for visualization purposes. Actual final devices installed may be different depending on final procurement, site characteristics, final specs, etc.



November 7, 2022

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

A handwritten signature in blue ink, appearing to read "Darrell Johnson", is written over the "From:" line.

Subject: Amendment to Agreement for Regional Modeling-Traffic Operations Support Staffing Services

Overview

On February 8, 2021, the Orange County Transportation Authority Board of Directors approved the selection of W.G. Zimmerman Engineering, Inc., as the firm to provide on-call support staffing services for the Regional Modeling and Traffic Operations section for a two-year initial term with two, two-year option terms. In order to maintain these services, Board of Directors approval is requested to exercise the first option term to extend the term effective March 1, 2023, to February 28, 2025.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Agreement No. C-0-2608 between the Orange County Transportation Authority and W.G. Zimmerman Engineering, Inc., to exercise the first option term, in the amount of \$400,000, to continue providing regional modeling-traffic operations support staffing services effective March 1, 2023, to February 28, 2025. This will increase the maximum obligation of the agreement to a total contract value of \$800,000.

Discussion

The Orange County Transportation Authority (OCTA) has been designated by local agencies to administer and lead over 15 regionally significant traffic signal synchronization projects. These projects are currently underway or in early development. Staff has limited resources to provide this service to local agencies in support of the Regional Traffic Signal Synchronization Program (RTSSP). When internal resources within OCTA are unavailable for projects of a special or unique nature, OCTA retains external, qualified consultant services for that function.

Project management assistance is required and is requested by OCTA in support of its traffic engineering needs for the RTSSP and other transportation engineering and planning projects on an as-needed basis. On February 8, 2021, the Board of Directors (Board) approved W.G. Zimmerman Engineering, Inc. (WGZE), to provide support staff, which includes one on-site engineer and off-site support staff to OCTA with the flexibility of engaging and delivering simultaneous traffic signal synchronization projects, as well as meet the delivery schedules and assist staff in day-to-day tasks required as part of signal synchronization projects.

Procurement Approach

The original procurement was handled in accordance with OCTA's Board-approved procedures for professional and technical services. On February 8, 2021, the Board approved the award of the agreement with WGZE. The original agreement was awarded on a competitive basis and included a two-year initial term with two, two-year option terms, in the amount of \$400,000 to provide regional modeling-traffic operations support staffing services. The initial term expires on February 28, 2023. There have been no prior amendments issued to the agreement as noted in Attachment A.

The proposed Amendment No. 1 will be issued to exercise the first option term of the agreement effective March 1, 2023, through February 28, 2025. The budget for this amendment is \$400,000, which is based on current and anticipated usage for support staffing services. The hourly rates for the first option term were originally negotiated when the agreement was established; however, the Contracts Administration and Materials Management Department was able to negotiate with WGZE to hold most of the hourly rates from the initial term through the first option term. Exercising the first option term will allow WGZE to continue providing necessary regional modeling-traffic operations support services through February 28, 2025.

WGZE has provided services to OCTA that meet expectations throughout the term of the agreement. In order to continue these services, and based on WGZE's performance, staff recommends the Board approve this amendment to exercise the first option term.

Fiscal Impact

Funds for this project are included in OCTA's Fiscal Year 2022-23 Budget, Account No. 0017-7519-SP001-P2U, and are funded through Measure M2.

Summary

Staff recommends the Board of Directors authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Agreement No. C-0-2608 between the Orange County Transportation Authority and W.G. Zimmerman Engineering, Inc., to exercise the first option term of the agreement, in the amount of \$400,000, to continue providing regional modeling-traffic operations support staffing services effective March 1, 2023, through February 28, 2025. This will increase the maximum obligation of the agreement to a total contract value of \$800,000.

Attachment

- A. W.G. Zimmerman Engineering, Inc., Agreement No. C-0-2608 Fact Sheet

Prepared by:



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Approved by:



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**W.G. Zimmerman Engineering, Inc.
Agreement No. C-0-2608 Fact Sheet**

1. February 8, 2021, Agreement No. C-0-2608, \$400,000, approved by the Board of Directors (Board).
 - Agreement for Regional Modeling-Traffic Operations staffing support services.
 - Initial term of the agreement is effective March 1, 2021, through February 28, 2023, with two, two-year option terms.
2. November 14, 2022, Amendment No. 1 to Agreement No. C-0-2608, \$400,000, pending approval by the Board.
 - Amendment to exercise the first option term of the agreement effective March 1, 2023, through February 28, 2025.

Total committed to W.G. Zimmerman Engineering, Inc., under Agreement No. C-0-2608: \$800,000.



November 7, 2022

To: Regional Planning and Highways Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: Interstate 405 Improvement Project Update

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is written over the "To:" and "From:" lines of the header.

Overview

The Orange County Transportation Authority is currently underway with the implementation of the Interstate 405 Improvement 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 California Department of Transportation and the cities of Costa Mesa, Fountain Valley, Huntington Beach, Seal Beach, and Westminster, is implementing the Interstate 405 (I-405) Improvement Project between State Route 73 (SR-73) and Interstate 605 (I-605) (Project). The Project will add one general purpose lane in each direction from Euclid Street to I-605, consistent with Measure M2 Project K, and will add an additional lane in each direction that will combine with the existing high-occupancy vehicle lane to provide dual express lanes in each direction of I-405 from SR-73 to I-605, otherwise known as the 405 Express Lanes.

On November 14, 2016, the OCTA Board of Directors (Board) awarded the design-build (DB) contract to OC 405 Partners (OC405), a joint venture. OCTA executed the DB contract with OC405 and issued Notice to Proceed (NTP) No. 1 on January 31, 2017. NTP No. 1 was a limited NTP for mobilization, design, and administrative activities. On July 26, 2017, the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan agreement was executed between OCTA and the United States Department of Transportation (USDOT). On July 27, 2017, OCTA issued NTP No. 2 to OC405. NTP No. 2 was a full NTP for all activities, including construction.

Discussion

The Project is over 85 percent complete from a DB perspective. A number of activities are ongoing as construction work continues to advance. The following provides a more detailed status of Project activities.

Financing and TIFIA Loan

In July 2017, OCTA executed a TIFIA loan agreement with the USDOT's Build America Bureau (Bureau) for up to approximately \$629 million. In October 2020, OCTA staff received Board approval to pursue a reset of the interest rate on the TIFIA loan. After approximately one year of working with the Bureau, OCTA successfully executed a new TIFIA loan agreement with the Bureau on September 9, 2021, establishing OCTA as the first agency to close a rate reset loan for a TIFIA loan that had been drawn upon. As part of the new TIFIA loan, the interest rate was reset from 2.91 percent to 1.95 percent. The lower interest rate will result in a net present value savings of approximately \$158 million.

Tolling Contracts

In early 2018, the Board selected Kapsch TrafficCom USA, Inc., (Kapsch) to provide toll lanes system integration services for design, installation, operation, and maintenance of the electronic toll and traffic management (ETTM) system on both the 405 and 91 Express Lanes. Kapsch is currently under contract and is working closely with the design-builder to deliver fully functional express lanes upon opening in late 2023. Kapsch has received approval for the ETTM infrastructure final design to be used for the 405 Express Lanes, including equipment types and configurations. Kapsch continues to coordinate with the design-builder's construction activities related to ETTM site infrastructure and turnover of areas of the project for Kapsch to install their equipment. The Traffic Operations Center (TOC) will be located at OCTA's Santa Ana Bus Base and will be staffed by Kapsch for 405 Express Lanes operations. The TOC improvements at the Santa Ana Bus Base are complete and ready for Kapsch to occupy and prepare for installation and testing of the 405 Express Lanes.

In late 2021, the Board selected WSP USA Services, Inc. (WSP) to provide back-office system and customer service center operations for the 405 Express Lanes. Over the past several months, WSP has continued the development of project documentation and held multiple workshops with OCTA staff to review the functional requirements of the back-office system. These workshops will continue over the next several months along with the development of system documentation. Additionally, WSP continues to provide input on the design and required equipment for the Customer Service and Operations Center (CSOC).

Also in late 2021, the Board authorized the Chief Executive Officer to negotiate and execute a lease with C.J. Segerstrom & Sons for the 405 Express Lanes CSOC. The lease was executed in February 2022. The CSOC will house both a customer service walk-up center, as well as the call center and other support for the 405 Express Lanes. This location is separate from the TOC location as it needs to be readily accessible to the public for customer and motorist service purposes. Construction bids for tenant improvements have been received and reviewed for the facility. Construction on the tenant improvements is anticipated to commence before the end of the year.

In June 2022, a request for proposals was issued for marketing services for both the 405 and 91 Express Lanes. Marketing services for the 405 Express Lanes will include development of the 405 Express Lanes brand and implementation of branding awareness campaigns, in addition to other marketing and creative design developments. In September 2022, the Board selected Webb and Duffy, Inc., doing business as Truth and Advertising, as the firm to provide the noted marketing services.

Design

The final design is substantially complete at this time. The DB process allows for design refinements, and that process will continue throughout the remainder of construction.

Right-of-Way (ROW) Acquisition

Construction of the Project impacts 288 properties, including 179 residential properties, 71 commercial/industrial properties, 37 public properties, and one railroad property. There are 287 properties identified as partial acquisitions and one property identified as a full acquisition at the owner's request. The ROW required to construct the Project is comprised of a combination of fee acquisitions, permanent easements, temporary construction easements, permanent and temporary ground lease reductions, and access control rights. This ROW is required for roadway and bridge construction, soundwalls and retaining walls, drainage systems, and for the installation of above ground and underground facilities, including electrical, telecommunication, water, sewer, gas, and storm drain systems.

The ROW acquisition program is on schedule. Since July 2020, OCTA has had possession of the required property rights for all 288 property impacts, which retired a significant risk to OCTA. The overall ROW process continues as OCTA works with certain property owners to finalize remaining agreements on costs related to certain acquisitions. As this is a DB project, minor additional ROW needs may become necessary in the future as construction continues. Of the 288 total properties impacted, 288 offers were presented and the

ROW is in OCTA's possession for construction. There were 60 resolutions of necessity (RON) approved by the Board and no additional RONs are anticipated.

Utility Relocations

There are currently 143 utilities that require relocation to accommodate the Project. OCTA has been coordinating with 24 impacted utility owners to identify and resolve conflicts and relocation issues. To date, OCTA has executed 92 percent of the necessary utility relocation agreements and is in the process of finalizing the remaining utility agreements. There are a handful of remaining potential utility relocation risks, including Southern California Edison (SCE) facilities, as well as a system of overhead and underground facilities in the City of Seal Beach belonging to Frontier Communications, for which staff continues to develop and implement mitigation plans, as utilities are a shared risk between OCTA and OC405. Many critical utility relocations that had previously been considered to pose some risk, such as facilities owned by Frontier Communications, Chevron USA, Crimson Pipeline, Southern California Gas Company, and SCE have been successfully completed. OCTA continues to take an active role in coordinating utility relocations with both OC405 and utility owners, including coordinating construction schedules to ensure that utility construction activities are completed in a timely manner to mitigate any potential risks to the Project schedule.

Roadway and Wall Construction

OC405 began construction in March 2018. Initial construction activities included restriping portions of the freeway and setting up concrete barriers on the outside of the freeway to protect work areas for activities, such as tree removals and grading. These initial construction activities are complete. Clearing and grubbing, including tree and ground cover removal, and rough grading activities are also substantially complete at this time.

Significant roadway construction activities, including installation of drainage systems, retaining walls and soundwalls, and paving operations began in earnest in 2019, and will continue through the end of the Project. Construction has been initiated on all Orange County Flood Control District facilities, which require improvements associated with the Project, including the Bixby, East Garden Grove Wintersburg, Fountain Valley, Gisler, Greenville Banning, Milan, Montecito, Newland, Ocean View, and Santa Ana River channels. Work on these flood control facilities is at various stages of construction and is anticipated to be substantially complete by the end of 2022. Additionally, approximately 95 percent of the retaining walls and soundwalls needed for the Project are currently complete. Paving operations are approximately 85 percent complete with significant paving continuing through early next year. Lastly, approximately 95 percent of the ramps being reconstructed as part of the Project are complete.

Bridge Construction

Bridges that are being replaced as part of the Project are being reconstructed in either one or two stages. Bridges being built in one stage are closed to traffic on both sides of I-405 during demolition and reconstruction of that bridge, and traffic is detoured to other adjacent bridges crossing the freeway. The first one-stage bridge completed was the Slater Avenue bridge, which opened to traffic in fall 2019. Opening the Slater Avenue bridge allowed for demolition and construction activities to commence on Bushard Street and Talbert Avenue. The Bushard Street bridge was completed and opened to traffic in October 2020, and the Talbert Avenue bridge construction was completed and opened to traffic in April 2021. After the opening of the Talbert Avenue bridge, demolition and construction activities were able to commence on Ward Street, which is anticipated to open to traffic early next year. Further north within the Project limits, the McFadden Avenue bridge was opened to traffic in October 2020 and the Edinger Avenue bridge was also opened to traffic in December 2021. Opening of the Edinger Avenue bridge allowed for demolition and construction activities to recently commence on the Newland Street bridge, which was the last full bridge to be demolished as part of the Project. Lastly, the Edwards Street bridge was opened to traffic in September 2021. Opening the Edwards Street bridge allowed for demolition and construction activities to commence on Springdale Street.

Bushard Street, Edinger Avenue, Edwards Street, McFadden Avenue, Newland Street, Slater Avenue, Springdale Street, Talbert Avenue, and Ward Street are all one-stage bridges.

Bridges being built in two stages maintain traffic on a portion of the bridge while the new bridge is being constructed. Significant bridge construction progressed at the two-stage bridges at the Bolsa Avenue, Brookhurst Street, Fairview Road, Goldenwest Street, Warner Avenue, and Westminster Boulevard bridges. The Magnolia Street bridge was the first two-stage bridge to be fully opened to traffic in May 2021. Opening the Magnolia Street bridge allowed for demolition and construction activities to commence on the Warner Avenue bridge. The Bolsa Chica Road bridge was the second two-stage bridge to be fully opened to traffic in December 2021. The Fairview Road bridge also fully opened to traffic in May 2022. The first halves of the new Bolsa Avenue, Goldenwest Street, and Westminster Boulevard bridges opened last year, and the full bridges are anticipated to be opened early next year with the exception of Westminster Boulevard which fully opened in August 2022. The last two-stage bridge to start construction was at Brookhurst Street. The first half of the Brookhurst Street bridge was opened to traffic in February 2022 and construction continues on the second half of the new bridge.

Lastly, the Heil pedestrian overcrossing bridge was demolished in late 2020, and the new pedestrian was opened in August 2022.

Following is a tabular summary of the anticipated openings of the Project's 18 bridges that cross over the freeway and require replacement:

Overcrossing Bridge	Number of Stages	Anticipated Opening Date	
Bolsa Chica Road	Two	Open	
Springdale Street	One		June 2023
Westminster Boulevard	Two	Open	
Edwards Street	One	Open	
Goldenwest Street	Two		February 2023
Bolsa Avenue	Two		March 2023
McFadden Avenue	One	Open	
Edinger Avenue	One	Open	
Newland Street	One		July 2023
Heil Avenue (pedestrian)	One	Open	
Magnolia Street	Two	Open	
Warner Avenue	One		March 2023
Bushard Street	One	Open	
Slater Avenue	One	Open	
Brookhurst Street	Two		March 2023
Talbert Avenue	One	Open	
Ward Street	One		January 2023
Fairview Road	Two	Open	

In addition to the bridge replacements noted above, the widening of four existing freeway bridges and construction of three new on-ramp bridges continued over Beach Boulevard, Bolsa overhead railroad crossing, Harbor Boulevard, Santa Ana River, and an old United States Navy railroad crossing. Lastly, the construction of the new connector between the medians of I-405 and SR-73 that will connect the 405 Express Lanes to SR-73 commenced last year.

Looking ahead, the remainder of 2022 and 2023 will remain busy related to bridge, wall, paving, and tolling work.

Project Challenges

As would be expected on a project of this magnitude, certain challenges have been encountered, including the following:

- Oversight and approvals from many different agencies and third parties
- Cost and availability of construction resources and materials in this active construction market

- Dispute resolution and change management
- Minimizing impacts and disruptions to the public
- Timely performance of third-party utility work
- Project schedule impacts and mitigations

Additionally, in September 2019, there was a discovery of archaeological resources within the Project site. Additional discoveries have impacted construction intermittently since that time. OCTA continues to follow established state procedures for this type of discovery, and is working with the responsible parties to ensure appropriate and respectful procedures are followed. This discovery and subsequent discoveries have impacted construction at a specific location; however, construction at that location has since resumed.

OCTA has worked closely with its partners and OC405 to mitigate schedule delays when identified. Significant schedule mitigations have been implemented during the course of construction. These include expediting construction of several key bridges and extended overnight and daytime freeway lane closures to take advantage of the significantly reduced traffic volumes on the freeway at certain times in the past two years related to the coronavirus (COVID-19) pandemic. The objectives of the schedule mitigations are to minimize schedule delay impacts while balancing the minimization of traffic impacts.

Risks Remaining

Many of the Project risks that were realized during the design phase and the first 85 percent of construction have since been retired. However, there are risks for the remaining construction moving forward. The COVID-19 pandemic continues to be a risk as the effects and duration of the pandemic remain unknown. OCTA, its partners, and OC405 remain vigilant in taking the appropriate safety measures to minimize impacts to the workforce and construction progress. Additional archaeological discoveries also continue to be a risk as excavation in certain areas of the Project will continue to take place this year. OCTA has taken a proactive approach with the appropriate stakeholders to minimize impacts if there are future discoveries. The timely relocation of utilities is always a risk and the team will remain very focused on these efforts. Construction labor and materials availability is a risk that has been increasing recently. From a tolling standpoint, the coordination near the end of the Project when Kapsch will be installing and testing the tolling equipment, concurrent with the completion of construction by OC405, is key to remaining on schedule. Coordination efforts to plan for this timeframe at the end of the Project are ongoing and have been effective to date. Lastly, WSP's development of the tolling back office system is also key to remaining on schedule for opening the 405 Express Lanes in late 2023.

Project Cost and Schedule

The overall Project cost is \$2,080,234,000. The Project milestones for substantial completion and opening of the 405 Express Lanes remain on schedule and are planned for late 2023.

Public Outreach

Between July 2022 and September 2022, the outreach team conducted virtual meetings with communities in the cities of Huntington Beach, Fountain Valley, and Westminster regarding construction activities for the Warner Avenue bridge and the 405 Forward program. Virtual-meeting participation continues to exceed that of historical in-person meetings. And community members have consistently indicated through polling that they would like to receive major construction updates virtually. The team will continue to hold virtual meetings with key stakeholders to maximize outreach efforts and look for opportunities for in-person meetings as appropriate.

The team continued utilizing a variety of tools to reach our diverse communities within the project corridor. These tools include maintaining project helplines staffed by Spanish and Vietnamese speaking specialists, updating Spanish and Vietnamese information on the project website, developing translated Spanish and Vietnamese project helpline graphics to advertise on social media, as well as providing regular communication and outreach to local businesses and community-based organizations (CBO). When reaching out to CBOs, we provided key project information, 405 Forward program information, translated website links, and also offered a Project briefing or presentation.

During the third quarter, the outreach team responded to more than 380 comments and questions from the public. These calls, emails, and social media inquiries continue to focus on construction activities, Project schedule, upcoming closures and detours, and maintenance requests.

The team continues to use print and digital communication methods to highlight key Project milestones and share major activities, closures, and detours. From July 2022 through September 2022, nearly 11,000 flyers were canvassed to addresses in the project corridor, and more than 120 email alerts were sent to our databases, which contain approximately 13,900 total contacts. These notifications alerted the community to activities, such as paving, striping and utility work, ramp reconstruction, soundwall work, as well as bridge and ramp openings.

Tools such as social media and location-based advertising on smartphones and tablets continue to be beneficial, cost-effective methods for communicating major project activities. During the third quarter, the team reached more than 350,000 Facebook, Twitter, and Instagram users combined. We continue to

analyze monthly metrics and tailor posts to make them more engaging and more discoverable.

These efforts drive traffic to our Project website, updated daily, which hosts resources such as links to our latest virtual meetings and email alerts, as well as a sortable list of Project closures and detours. We also update our interactive project map daily, which allows users to learn about key activities at every major interchange along the Project corridor.

The team also relaunched the popular video series highlighting Project milestones, benefits, and accomplishments, originally released in spring 2022. To date, it has reached more than 40,890 and continues to be a successful way to promote the Project in the community.

The 405 Community Outreach Team recently received awards from the California Association of Public Information Officers (CAPIO) and the Public Relations Society of America (PRSA) at their annual recognition events. The awards were for Multicultural Communication for the 405 Forward business outreach program, Most Innovative Communications for geofencing advertising campaigns, and Live Streaming/Live Stories for virtual neighborhood meetings.

Looking to 2023, the team anticipates continuing to share Project milestones and the status of activities at the remaining bridges under construction, as well as paving, ramp, and wall work.

Summary

Construction continues to advance. Currently, construction, utility relocations, tolling elements, public outreach, and other activities are in process to continue the construction phase of the Project.

Attachment

None.

Prepared by:



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Approved by:



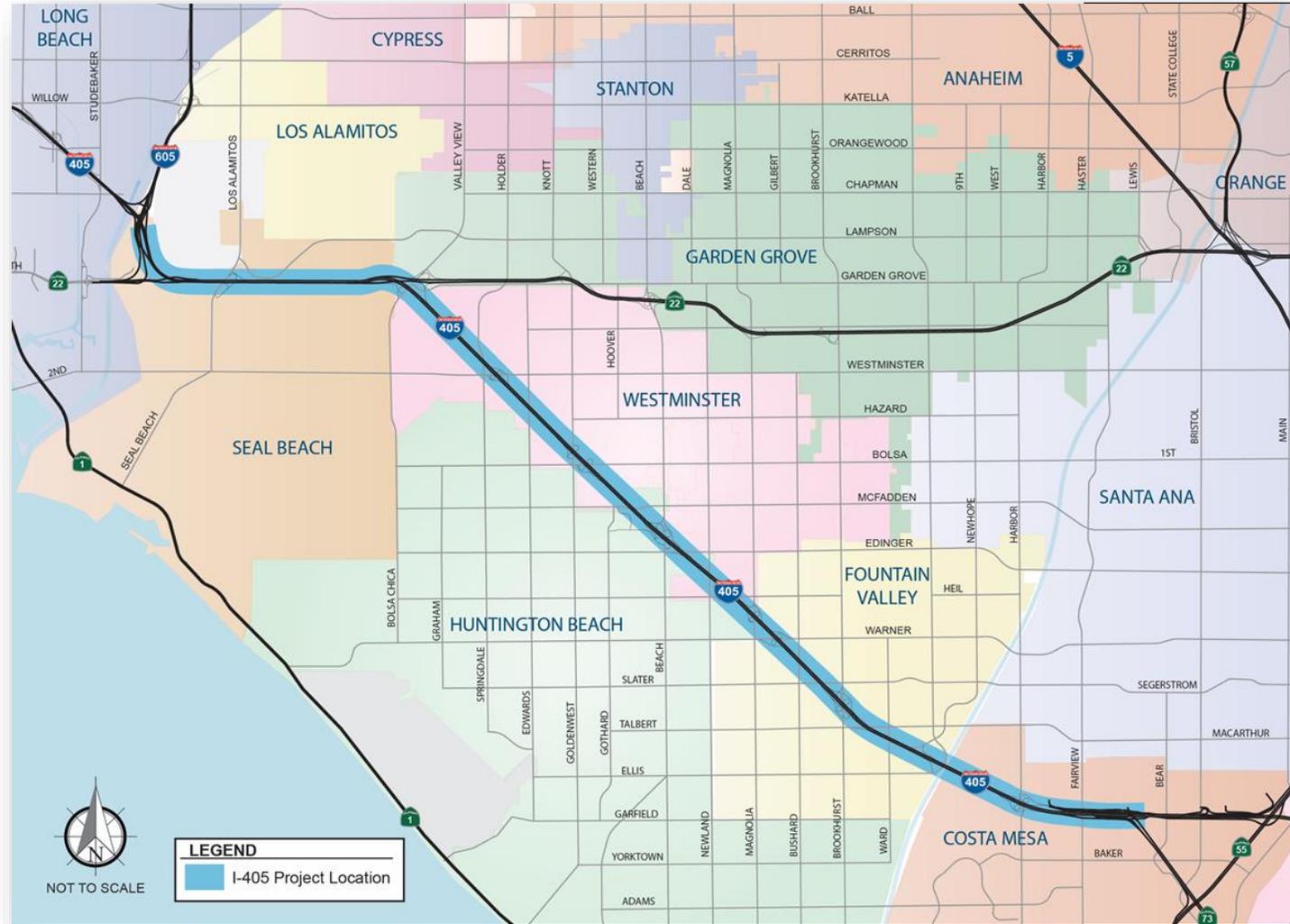
James G. Beil, P.E.
Executive Director, Capital Programs
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Interstate 405 Improvement Project Update



Project Location and Key Features



Background



Milestone	Completion Date
Environmental clearance	May 2015
Orange County Transportation Authority Board of Directors awards design-build contract to OC 405 Partners (OC405)	November 2016
Notice to Proceed (NTP) No. 1 issued	January 2017
TIFIA* loan executed	July 2017
NTP No. 2 issued	July 2017
Construction began	March 2018
Anticipated substantial completion	Late 2023

* Transportation Infrastructure Finance and Innovation Act

Design-Build Project Update



General

- Over 85 percent complete with Interstate 405 (I-405) Improvement Project
- Substantially complete with both design and right-of-way possession

Construction

- 11 of 18 bridge replacements complete (all remaining bridges under construction)
- Approximately 95 percent of walls complete
- Approximately 95 percent of ramps complete
- Approximately 85 percent of paving complete

405 Express Lanes Update



- Toll Lane Systems Integrator
 - Selected Kapsch TrafficCom USA, Inc., (Kapsch) in 2018 to provide services for in-lane systems, electronic message signs, corridor cameras, traffic operations center staffing, etc.
 - Kapsch currently working with OC405 to design system and coordinate needs
- Back-Office System and Customer Service Center
 - Selected WSP USA Services, Inc., (WSP) in late 2021 to provide back-office system and customer service center operations for the 405 Express Lanes
 - Tenant improvements for customer service center to begin late this year
- Traffic Operations Center
 - Utilizing Santa Ana Bus Base location and build out recently completed
- Marketing Services
 - Selected vendor in September 2022

Construction Update



Fairview Road



Talbert Avenue



Slater Avenue



Bushard Street



Magnolia Street



Edinger Avenue



McFadden Avenue



Edwards Street



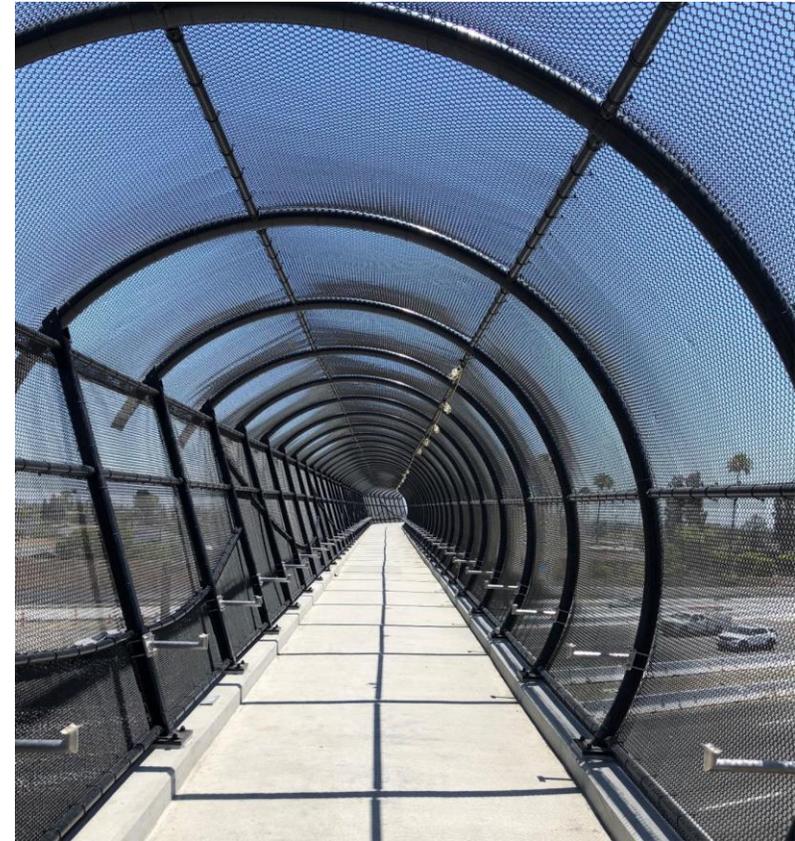
Bolsa Chica Road

Eleven bridge replacements complete and open to traffic

Construction Update



Westminster Boulevard



Heil Avenue (pedestrian)

Eleven bridge replacements complete and open to traffic

Construction Update



I-405/State Route 73 (SR-73) median connector bridge construction

Construction Update



Ward Street bridge construction



Brookhurst Street bridge construction

Construction Update



Warner Avenue bridge construction



Newland Street bridge construction

Construction Update



Bolsa Avenue bridge construction



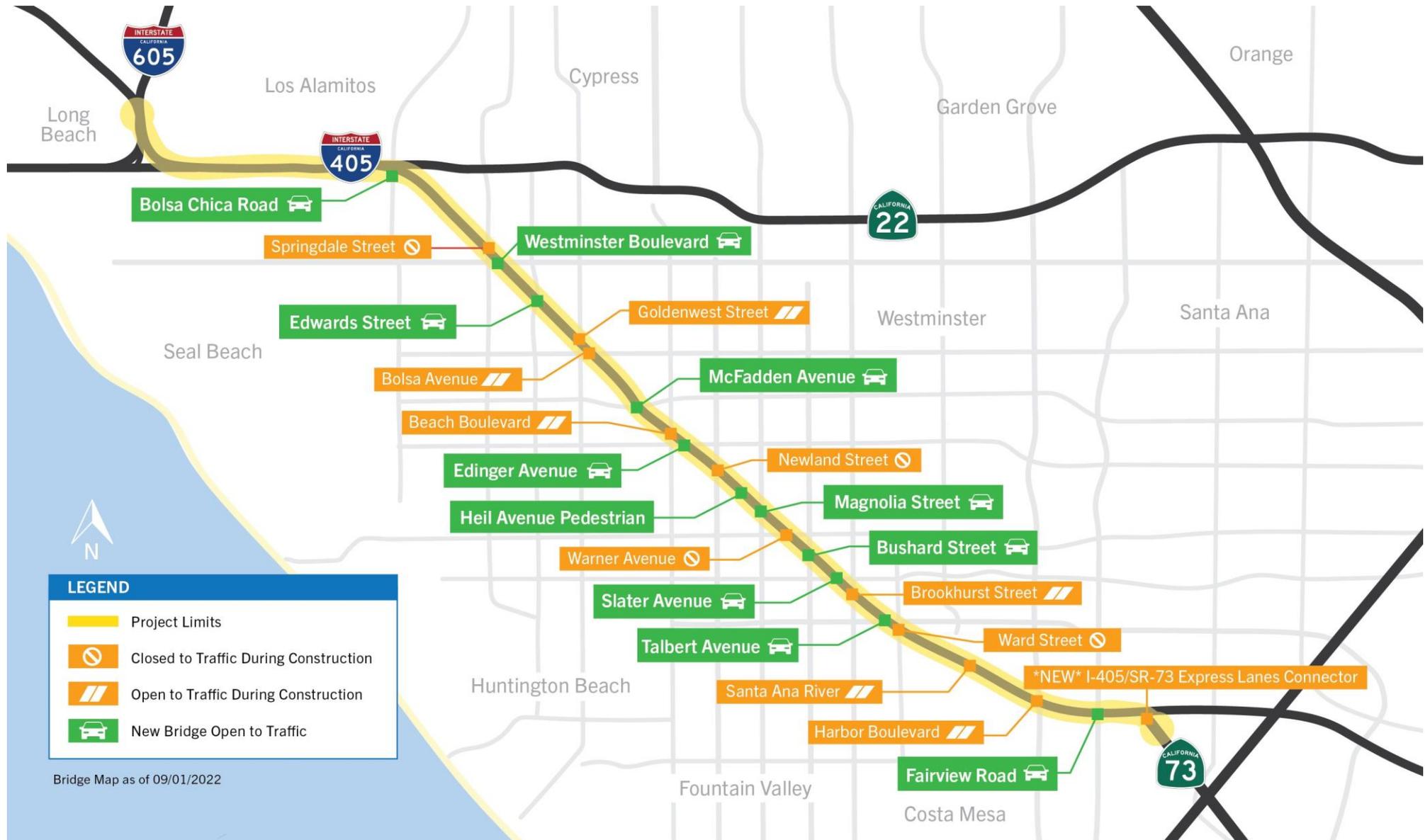
Goldenwest Street bridge construction

Construction Update



Springdale Street bridge construction

Bridge Construction Map



LEGEND

- Project Limits
- Closed to Traffic During Construction
- Open to Traffic During Construction
- New Bridge Open to Traffic

Bridge Map as of 09/01/2022

Status of 18 Bridge Replacements



Overcrossing Bridge	Number of Stages	Anticipated Opening Date	
Bolsa Chica Road	Two	Open	
Springdale Street	One		June 2023
Westminster Boulevard	Two	Open	
Edwards Street	One	Open	
Goldenwest Street	Two		February 2023
Bolsa Avenue	Two		March 2023
McFadden Avenue	One	Open	
Edinger Avenue	One	Open	
Newland Street	One		July 2023
Heil Avenue (Pedestrian)	One	Open	
Magnolia Street	Two	Open	
Warner Avenue	One		March 2023
Bushard Street	One	Open	
Slater Avenue	One	Open	
Brookhurst Street	Two		March 2023
Talbert Avenue	One	Open	
Ward Street	One		January 2023
Fairview Road	Two	Open	

Major Risks Remaining



Design-build risks:

- Archaeological resources
- Coronavirus (COVID-19)
- Utility relocation delays
- Design-builder labor/material availability and cost escalation/pressure

Tolling risks:

- Design-builder/toll lanes system integrator coordination and equipment installation
- Tolling vendor delivery of back-office system services

Outreach Metrics



Category	July – September 2022	April – June 2022
Public Comments, Questions	382	261
Location-Based Advertising	135,283 impressions	403,332 impressions
Construction Alerts	126 (43% average open rate)	157 (43% average open rate)
Web Page Views	23,020	22,688
Interactive Map Users	7,178	7,524
Social Media Reach	353,628	354,826
Flyers	10,824	31,470

Upcoming Outreach



- Major activity notifications
 - I-405/SR-73 connector
 - Paving and striping
- Bridge openings
 - Goldenwest Street
 - Ward Street
 - Brookhurst Street
 - Bolsa Avenue
- Diverse, equity and inclusion
 - Continue to engage with community-based organizations





November 7, 2022

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: South Orange County Multimodal Transportation Study –
Recommended Locally Preferred Strategy

A handwritten signature in blue ink, appearing to read "Darrell Johnson", is written over the "From:" line of the email header.

Overview

The Orange County Transportation Authority has developed a long-range multimodal transportation study for the south Orange County area. This study documents transportation issues and opportunities and utilizes input from key stakeholders, partner agencies, and the public to identify potential long-term multimodal solutions. The recommended locally preferred strategy and next steps are presented for review and consideration.

Recommendation

Direct staff to finalize the South Orange County Multimodal Transportation Study and incorporate the locally preferred strategy and recommended actions into the Long-Range Transportation Plan.

Background

The Orange County Transportation Authority (OCTA) conducts planning studies to address the long-term transportation needs of Orange County. Multimodal transportation studies serve as the foundation of the long-range planning process by engaging stakeholders, analyzing corridor-specific transportation issues, and recommending a vision for the study area. This vision is often referred to as the locally preferred strategy (LPS).

Developing an LPS involves engagement from local jurisdictions, transportation and environmental resource agencies, elected officials, residents, businesses, and other key community organizations in the decision-making processes. As such, the LPS recommendations represent a locally-inspired vision for the study area's long-term transportation needs.

OCTA initiated a long-range multimodal transportation study for the south Orange County area in early 2020, referred to as the South Orange County Multimodal Transportation Study (SOCMTS). In August 2020, a SOCMTS update was presented to the Board of Directors (Board). This update reviewed the study area, background, phasing, stakeholder and partner agency engagement approach, and study area transportation issues and opportunities. In February 2021, the study Purpose and Need Statement and the initial multimodal solutions were presented to the Board. In September 2021, the initial screening of multimodal solutions and the development of a reduced set of multimodal solutions were presented. And, in June 2022, a reduced set of multimodal solutions, preliminary performance findings, and multimodal vision alternatives were presented. This report provides an overview of the public and stakeholder engagement process, the resulting LPS, and recommended actions to support the LPS.

Discussion

The SOCMTS study is informed by analysis of the transportation system that has been refined through stakeholder, partner agency, and public input, as summarized below:

- Eight meetings of the Technical Working Group comprised of technical planning and public works staff from cities within the study area.
- Eight meetings of the Transportation Agency Working Group comprised of staff from the California Department of Transportation (Caltrans), the Transportation Corridor Agencies (TCA), the Southern California Association of Governments, the San Diego Association of Governments, the Southern California Regional Rail Authority (Metrolink), the North County Transit District, the Federal Transit Administration, and the Federal Highway Administration.
- Individual agency meetings (offered to all stakeholder agencies) were accepted by Caltrans, Metrolink, TCA, and the cities of Dana Point, Irvine, Laguna Beach, Laguna Hills, Laguna Niguel, Laguna Woods, and Newport Beach.
- Two city council presentations to the cities of Lake Forest and San Clemente.
- Two presentations to the South Orange County Economic Coalition.
- Three key stakeholder roundtables, three elected official roundtables, two public webinars, two virtual meeting rooms, one telephone town hall, and three online surveys.

- The online surveys, public webinars, and telephone town hall were promoted through a social media campaign, e-blasts, communications toolkits sent to cities and stakeholders, news releases, and to members of the Citizens Advisory Committee, Accessible Transit Advisory Committee, and the Diverse Community Leaders group. Postcards printed in English and Spanish were also mailed to low-income and disadvantaged communities with Mandarin, Korean, and Vietnamese interpretations offered.
- The telephone town hall meeting was attended by up to 350 callers and included a Spanish simulcast.
- The three online surveys were available in English, Spanish, Mandarin, Korean, Vietnamese, and through a multilingual project information telephone helpline. The first online survey had 360 responses and the responses were included in the February 2021 Board item. The second online survey had more than 1,700 responses and the results were included in the September 2021 Board item. The third online survey had more than 310 responses and the results were included in the June 2022 item.

The complete summary of public engagement is documented in the SOCMTS Public Involvement Program Final Report (Attachment A).

Locally Preferred Strategy

The LPS responds to public and stakeholder input and includes a mix of projects, programs, and policy strategies designed to meet the study's Purpose and Need Statement, as documented in the Draft Executive Summary (Attachment B).

The core elements of the LPS include projects and programs defined in Measure M2 (M2) and the following three improvements identified at the conclusion of the South County Traffic Relief Effort in 2020:

- Improving connectivity of and access to Los Patrones Parkway as a non-tolled facility from Cow Camp Road to Avenida La Pata.
 - Status: County of Orange in preliminary engineering phase.
- Improving Ortega Highway between Calle Entradero and Reata Road.
 - Status: Caltrans in final design phase.
- Completing the Interstate 5 carpool lane system from Avenida Pico to the San Diego County Line.
 - Status: OCTA and Caltrans in project approval and environmental document phase.

The LPS builds on these core elements by adding strategic elements that further improve mobility for non-automobile travel modes, increase the efficiency of the transportation system, and reduce single-occupant vehicle travel. This is accomplished while also addressing equity and climate-related risks. The LPS strategic elements that build on the core elements are described in the table below.

SOCMTS LPS

Strategic Element	Objective
Roadway Infrastructure and Operations Improvements	Improve the operational efficiency of the south Orange County roadway network without adding capacity beyond buildout of the Master Plan of Arterial Highways
High-Frequency Transit	Provide enhanced bus and rail services on major corridors, enabling more travelers to utilize transit
Local Circulators/Shuttles	Continue and expand the Project V Community Circulator program, providing tailored local connectivity and first/last mile service
Mobility Hubs	Provide convenient, centralized locations where various transportation services connect
Microtransit/OC Flex	Establish and expand on-demand local transportation zones which address gaps in the OC Bus network and improve access to high-frequency transit
Active Transportation	Improve connectivity and safety for the bicycle and pedestrian network, including connections to transit and mobility hubs
Transportation Demand Management (TDM)	Enhance system performance by encouraging travel when/where capacity exists, including reducing peak-hour trips and promoting transit and active transportation modes

The LPS aims to provide south Orange County residents and workers with a variety of cost-effective, convenient, and safe travel options. For example, high-frequency transit improvements on major corridors work together with mobility hubs and local circulator/shuttle services to allow travelers to conveniently make connections and complete their trips.

As a long-term strategy, the LPS does not define individual projects; however, the LPS provides an overall framework and direction to focus OCTA's future planning efforts. This can then be developed into more specific recommendations for project and program implementation.

LPS Recommended Actions

The creation of the LPS establishes a foundational basis for future transportation plans, programs, projects, and policies in south Orange County. SOCMTS also recommends actions to implement the LPS in partnership with other local and state agencies and transportation providers. The actions recommended for each strategic element are outlined below.

Roadway Infrastructure and Operations Improvements

OCTA is currently conducting the Freeway Chokepoint Improvement Study to evaluate future freeway conditions with full implementation of the M2 Freeway program. This study will identify future chokepoint locations throughout the county and recommend improvement projects.

To coordinate roadway operations, a countywide Transportation System Management and Operations (TSMO) plan should be developed. This plan would require coordination with Caltrans and local agencies along major corridors to enhance operational capabilities, including signal synchronization, advanced traffic management systems, adaptive signal systems, signal performance measures, and integrated corridor management.

A portion of M2 allocates funding for regional traffic signal synchronization projects. OCTA could consider expanding this program to support a broader TSMO program. Looking beyond the sunset of M2 in 2041, a new source of funding will be needed to support a regional roadway operations program. Emerging technologies, such as connected and autonomous vehicles, should continue to be monitored to identify potential applications or policies within the purview of OCTA and local agencies, which have the potential to enhance traffic efficiency and safety.

SOCMTS recommended actions:

- Pursue project-level development for priority chokepoints,
- Develop countywide TSMO plan,
- Develop a post-2041 funding strategy for roadway operations projects, and
- Explore potential emerging technology strategies.

High-Frequency Transit

The OC Transit Vision (2018) provides the long-term vision for transit service throughout Orange County. The OC Bus improvements included in the LPS, such as freeway Bus Rapid Transit services and improved frequency on select corridors, are consistent with the OC Transit Vision. Near-term improvements to OC Bus will be driven by the Making Better Connections Study currently underway, which acknowledges pandemic-related shifts in travel demand and supports the travel needs of essential workers. Any elements of the Making Better Connections Study that may relate to or impact the OC Transit Vision will be addressed through an update to the OC Transit Vision that is anticipated to begin in 2023.

Recognizing that regional and intercity passenger rail is an effective form of transit in south Orange County, OCTA will actively participate in planning and implementation of Metrolink’s Southern California Optimized Rail Expansion (SCORE) program of improvements and the increased service levels they will enable. This will require monitoring of ridership demand to appropriately adjust Metrolink service levels. In addition, to support service integration with any justified passenger rail service frequency increases, OCTA will also need to assess and improve OC Bus and other mobility connections to Metrolink stations, as appropriate.

SOCMTS recommended actions:

- Refine the OC Transit Vision to align with the Making Better Connections Study and updated long-term transit ridership data,
- Develop corridor-level plans and recommendations for improvements identified in the OC Transit Vision,
- Participate in planning and developing recommendations related to the Metrolink SCORE program and future service levels, and
- Periodically assess and recommend modifications to multimodal connections at rail stations.

Local Circulators/Shuttles

Local circulators are currently funded through M2 (Project V), which allows local agencies to compete for funding to operate local circulator services. As a financially unconstrained plan, SOCMTS assumes the continuation of M2-funded programs. However, SOCMTS also recognizes that a new source of funding will be needed for these programs to continue operating beyond 2041.

As OCTA begins planning beyond the 2041 sunset of M2, it is important to consider the long-term vision for local circulators. These types of services have proven to be effective in responding to peak demand periods and addressing community-level travel needs, particularly in south Orange County's coastal communities.

Local circulator programs could potentially be implemented in new areas and applied to address a variety of local travel needs. For example, local circulators can serve the travel needs of workers, visitors, shoppers, and students by providing convenient connections to community destinations throughout the day.

SOCMTS recommended actions:

- Develop a post-2041 funding strategy for local circulators,
- Consider opportunities to expand local circulator services, and
- Encourage consideration of all potential users in local planning for circulator services.

Mobility Hubs

OCTA is currently developing a countywide mobility hubs strategy, which will provide direction regarding mobility hub implementation in the coming years. This strategy will provide valuable data for considering a potential mobility hub pilot project in the short-term. A pilot project will help provide the experience necessary to successfully advance a larger network of mobility hubs.

Mobility hub improvements could be funded through existing M2 programs, such as the Local Fair Share Program, or potential future funding sources. This includes provisions for OCTA to provide administrative services or design/construction oversight where needed to support local capacity. Additionally, OCTA may consider funding programs for local communities to partner with vendors to deploy shared mobility options, such as electric bicycles (E-bikes) and electric scooters, at mobility hubs.

SOCMTS recommended actions:

- Pursue project-level studies and a potential mobility hub pilot project to advance mobility hubs in south Orange County consistent with the countywide mobility hubs strategy, and
- Identify funding opportunities for mobility hubs.

Microtransit

OCTA currently operates an on-demand shared-ride service known as OC Flex. This service provides curb-to-curb rides in an area covering parts of Aliso Viejo, Mission Viejo, and Laguna Niguel with unlimited rides all day for a single fare.

The experience gained from this service can be utilized to evaluate service operating guidelines and performance thresholds when considering implementation of expanded microtransit services in additional areas.

Studies could result in services similar to the current OC Flex, or may recommend a different form of microtransit. For example, there is another microtransit model currently operating in the City of San Clemente known as SC Rides. These types of services partner with Transportation Network Companies and offer a subsidy to users traveling within a defined area.

Detailed market analysis of potential microtransit expansion zones will help OCTA determine which operating concept will be applied in each zone, how operations will work, and what sources of funding exist for capital and operations. Analysis of potential zones could include a prioritization component to establish which zones are slated for implementation in the short-, mid-, and longer-term timeframes. Logistical concerns could be addressed to improve operations and passenger experiences. Following deployment of any new services, OCTA would also need to implement procedures to monitor microtransit performance on a regular basis and adjust the program as needed to respond to changing conditions.

SOCMTS recommended actions:

- Develop guidelines for implementing additional microtransit service areas,
- Conduct market analysis and recommend priority areas for microtransit, and
- Develop a monitoring program for any new services to support the achievement of key performance indicators.

Active Transportation

While active transportation improvements are generally within the purview of local agencies to implement, OCTA has led efforts to coordinate and prioritize the implementation of a regional bikeway system. This regional system supports the local networks and improves connectivity to transit and regional destinations. In addition to planning and implementing regional and local active transportation networks, supporting the design of attractive streetscapes that are safe for active travelers would provide for a “low-stress” network.

Most of the low-stress street improvements will be the responsibility of the local agencies with the jurisdiction of the streets. However, OCTA can support these efforts through collaborative planning and by providing incentives to implement prioritized improvements. This could include developing a program to help fund the studies and implementation costs.

OCTA may also consider incentives for travelers to utilize the active transportation network, such as an income-based E-bike voucher program to subsidize the higher cost of E-bikes and required safety training. E-bikes can help overcome challenges due to terrain and distance. Regional wayfinding improvements, including signage and publicity about the low-stress street network, could also help encourage more active transportation trips by increasing the public's awareness of and familiarity with the facilities.

SOCMTS recommended actions:

- Continue coordinated planning and implementation of the regional bikeway system,
- Consider programs to support the implementation of low-stress streets, and
- Consider programs to support active transportation use.

TDM

OCTA secured a Sustainable Transportation Planning Grant through Caltrans to develop a countywide TDM strategy. This study will begin in early 2023 and will recommend practices to reduce vehicle miles traveled and identify next steps to take in the coming years. SOCMTS goals related to trip reduction and mobility will be considered as part of the study. The recommended TDM practices will be considered in locations where they can effectively target markets (types of travelers, trip purposes, travel modes, and corridors). Implementation of the recommendations will require coordination with partners; therefore, the study will also define recommended roles and responsibilities for the various partners. Finally, the study will outline key performance indicators for consideration as part of a monitoring program.

The TDM strategy will likely consider programs that provide residents in areas adjacent to transit and planned mobility hubs with free or reduced fare ride passes or provide residents and workers likely to use carpool facilities with information and carpool matching. Additionally, the recent popularity of remote work presents opportunities for growth that could be supported through programs to encourage employers and employees to take advantage of flexible and remote work arrangements when feasible.

SOCMTS Recommended Actions:

- Pursue implementation of TDM programs and actions identified in the upcoming countywide TDM strategy.

Next Steps

Upon direction from the Board, the LPS will be reflected in the draft Long-Range Transportation Plan (LRTP), which will be circulated for public review later this fall and into early 2023. Once finalized, the LRTP will serve as OCTA's formal input into SCAG's 2024 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). With the incorporation of this study's LPS into the LRTP and RTP/SCS, OCTA will look to further develop the conceptual strategic elements into project-level plans that can be considered for future implementation.

The LRTP will also include considerations and recommendations for broader countywide issues. These are often systemic strategies that overlap with the south Orange County area, such as adaptation planning that considers strategies to ensure the sustainability of Orange County's infrastructure. An example of this is ensuring safe operations along the rail corridor, including planning a long-term solution for the coastal rail challenges in the City of San Clemente. Another example is collaborating with Caltrans and TCA to evaluate toll road operations in the future and potential mobility improvements within the corridors.

It is also important to note that equity is a foundational component within the LPS, and it is recommended to be incorporated as a guiding factor within the implementation of all the recommended strategy areas. This includes ensuring that the travel needs within defined communities are assessed and that input from community representatives is appropriately reflected in decision-making processes.

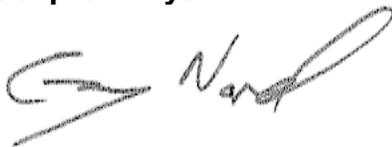
Summary

SOCMTS is a long-range multimodal transportation study for the south Orange County area. This study has been developed using input from key stakeholders, partner agencies, and the public to recommend an LPS consisting of a set of long-term multimodal solutions. The LPS and recommended actions are presented to consider for incorporation into the OCTA LRTP.

Attachments

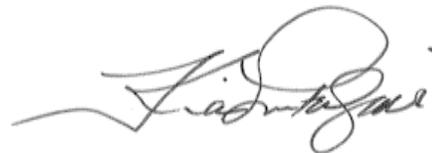
- A. South Orange County Multimodal Transportation Study, Public Involvement Program Final Report, August 2022
- B. South Orange County Multimodal Transportation Study, Executive Summary, October 2022

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South Orange County Multimodal Transportation Study

Public Involvement Program Final Report

August 2022



Prepared by:



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Appendices

APPENDIX A	Survey Summary Reports
Appendix A.1	Phase 1 Survey Summary Report
Appendix A.2	Phase 2 Survey Summary Report
Appendix A.3	Phase 3 Survey Summary Report

Executive Summary

The Orange County Transportation Authority (**OCTA**) has concluded a comprehensive Public Involvement Program (**PIP**) for the South Orange County Multimodal Transportation Study (**Study**). Throughout the Study, three different outreach phases were implemented which included a range of engagement methods, both traditional and digital, to maximize public participation and garner thoughtful feedback to support the analysis of multimodal transportation strategy options in order for OCTA to develop a recommendation for a Locally Preferred Strategy (**LPS**). Each phase included engagement with stakeholders, residents, and elected officials.

Through the various outreach methodologies, the PIP was implemented throughout the Study and public input was collected from a wide variety of audiences. The feedback gathered assisted in the development of the recommended alternatives for the Study.

Public Engagement

Public engagement was conducted from the start of the Study to establish a trusted relationship and offer transparency to the stakeholders in the Study area while building a comprehensive stakeholder database. Comprehensive communications tactics were implemented to broadly engage the public, keeping in mind that it can be challenging to get feedback on long-term vision planning.

Each of the three phases of outreach had engagement methods and tailored messaging that aligned with the stages of the Study process. The Project webpage, octa.net/SouthOCStudy, was updated throughout the phases to promote the latest Study survey and upcoming public meetings while also providing an overview of the Study, outreach materials, public comment form and Frequently Asked Questions section.

To align with OCTA's diversity, equity, and inclusion goals, several outreach tactics were implemented to engage diverse and hard-to-reach communities and encourage meaningful engagement with all people regardless of ethnicity or socioeconomic backgrounds. The online qualitative surveys and fact sheet were translated in Spanish, Vietnamese, Korean, and Mandarin. In addition, a helpline was available for people who preferred to call or did not have internet access so they could leave comments and ask questions. Postcards were also mailed to targeted disadvantaged and low-income communities in the South County area so they received information about the surveys, helpline number and public meetings.

Communications toolkits were sent to all south Orange County cities, key stakeholders, local churches, school districts, higher education facilities and OCTA's Citizens Advisory Committee, Accessible Transit Advisory Committee and Diverse Community Leaders Group. Targeted Facebook and geofencing ads were also placed in the aforementioned multiple languages.

Phase one of the Study took place in the fall of 2020, and included an online public webinar, a key stakeholder virtual roundtable and a virtual meeting with south county elected officials. A qualitative survey (online and hard copy) was conducted and designed to assess public perception of transportation challenges and improvement strategies in south Orange County.

The second phase of the Study took place in Summer 2021 and included a virtual stakeholders roundtable, elected official's roundtable, a public Telephone Townhall and a Virtual Meeting Room (VMR). A qualitative survey (online and hard copy) was also conducted with the goal of assessing the public's priorities on draft strategies and transportation solutions.

The third and final phase of public involvement took place in winter/spring 2022 and included a virtual stakeholder roundtable, virtual elected official's roundtable, a virtual community meeting, and a VMR. A final qualitative survey (online and hard copy) was designed to determine participants' priorities on proposed multimodal alternatives that improve streets, transit, freeways and bikeways in south Orange County.

During the duration of the study, respondents shared the following feedback:

Phase One – Fall 2020

- Reduce traffic congestion
- Increase frequency and accessibility of multimodal transportation, and,
- Increase safety and efficiency for all modes of travel

Phase Two – Summer 2021

- Increase availability of and improvements to public transit/ rail
- Provide more alternatives to driving and enhance accessibility (light rail, trolleys, biking, walking, mass transit, etc.)
- Offer flexible roadway pricing based on demand
- Toll roads are not effective in reducing traffic congestion, and,
- Focus on current roads and freeways to expand, improve and better connect paths for active transportation (pedestrian, bicycle, etc.)

Phase 3 – Winter/Spring 2022

- Improve bike and pedestrian pathways, and,
- Increase frequency and accessibility of bus and train services

Table 1: Summary of Public Involvement Program

Outreach Method	Audience	Stats
Survey	<ul style="list-style-type: none"> • South Orange County residents and business community • Low income and disadvantaged communities • Stakeholder database (including survey participants, community organizations, city staff, major businesses, etc.) • OCTA’s Citizens Advisory Committee, Accessible Transit Advisory Committee, and Diverse Community Leaders Group 	<ul style="list-style-type: none"> • Phase 1: 360 surveys <ul style="list-style-type: none"> ○ 351 English ○ 8 Spanish ○ 1 Mandarin • Phase 2: 1,708 surveys <ul style="list-style-type: none"> ○ 1,706 English ○ 2 Spanish • Phase 3: 313 surveys <ul style="list-style-type: none"> ○ 307 English ○ 6 Spanish
Community Meetings	<ul style="list-style-type: none"> • South Orange County residents and business community • Low income and disadvantaged communities • Stakeholder database (survey participants, community organizations, city staff, major businesses, etc.) • OCTA’s Citizens Advisory Committee, Accessible Transit Advisory Committee, and Diverse Community Leaders Group 	<ul style="list-style-type: none"> • Phase 1 Virtual Community Meeting: 36 attendees • Phase 2 Telephone Townhall: 350 callers • Phase 3 Virtual Community Meeting: 14 attendees
Local Community Events	Local residents and stakeholders	<ul style="list-style-type: none"> • Phase 3: <ul style="list-style-type: none"> ○ Aliso Viejo Farmers Market <ul style="list-style-type: none"> ▪ Surveys 8 ▪ People talked to: 20 ○ San Juan Capistrano’s Spring Eggstravaganza

Outreach Method	Audience	Stats
		<ul style="list-style-type: none"> ▪ Surveys: 8 ▪ People talked to: 26
Postcard	<ul style="list-style-type: none"> • Low income and disadvantaged communities 	<ul style="list-style-type: none"> • Phase 1: 13,000 postcards • Phase 2: 13,200 postcards • Phase 3: 13,300 postcards
Facebook	<ul style="list-style-type: none"> • South Orange County zip codes with a high Spanish, Korean, Vietnamese and Mandarin Population • OCTA Facebook Followers and General Public 	<ul style="list-style-type: none"> • Phase 1: <ul style="list-style-type: none"> ○ 4 Facebook Ads (3,724 reach) ○ 11 Regular Posts (7,710 reach) • Phase 2: <ul style="list-style-type: none"> ○ 15 Facebook Ads (31,174 reach) ○ 4 Regular Posts (2,670 reach) • Phase 3: <ul style="list-style-type: none"> ○ 11 Facebook Ads (25,023 reach) ○ 2 Regular Posts (457 reach)
Twitter	OCTA Twitter Followers and General Public	<ul style="list-style-type: none"> • Phase 1: <ul style="list-style-type: none"> ○ 6 Posts <ul style="list-style-type: none"> ▪ 12 Likes ▪ 9 Retweets • Phase 2: <ul style="list-style-type: none"> ○ 5 Posts <ul style="list-style-type: none"> ▪ 8 Likes ▪ 7 Retweets • Phase 3: <ul style="list-style-type: none"> ○ 2 Posts <ul style="list-style-type: none"> ▪ 8 Likes ▪ 7 Retweets
Geofencing Advertising	<ul style="list-style-type: none"> • South Orange County • Zip codes with a high Spanish, Korean, Vietnamese and Mandarin Population 	<ul style="list-style-type: none"> • Phase 2: <ul style="list-style-type: none"> ○ Impressions: 400,009 • Phase 3: <ul style="list-style-type: none"> ○ Impressions: 377,076
Digital <ul style="list-style-type: none"> - Eblasts - OCTA On the Move blog 	<ul style="list-style-type: none"> • Stakeholder database (including Phase 1 and Phase 2 participants, HOAs, community organizations, city staff, major businesses, etc.) 	<ul style="list-style-type: none"> • Phase 1: <ul style="list-style-type: none"> ○ Eblast: SOCMTS stakeholder database (830+) and OCTA customer database (36,540).

Outreach Method	Audience	Stats
<ul style="list-style-type: none"> - Linking to project website and survey 	<ul style="list-style-type: none"> • OCTA customer database • Media Outlets 	<ul style="list-style-type: none"> ○ Blog article: 12,700 readers • Phase 2: <ul style="list-style-type: none"> ○ Eblast: SOCMTS Database (900+) and OCTA customer database (36,540). ○ Blog article: 12,700 readers • Phase 3: <ul style="list-style-type: none"> ○ Eblast: SOCMTS stakeholders (1,300+) and OCTA customer database (36,540). ○ Blog article: 12,700 readers
<p>Communications Toolkit</p>	<ul style="list-style-type: none"> • South county cities and the County of Orange • OCTA’s Citizens Advisory Committee, Accessible Transit Advisory Committee, and Diverse Community Leaders Group • Transportation partners • Environmental Community • HOAs • Chambers of Commerce • Churches • Schools and School Districts 	
<p>Virtual Meeting Room</p>	<ul style="list-style-type: none"> • South Orange County • Stakeholder database (including Phase 1 and Phase 2 participants, HOAs, community organizations, city staff, major businesses, etc.) 	<ul style="list-style-type: none"> • Phase 2: <ul style="list-style-type: none"> ○ 171 users ○ 14 registrations ○ 7 comment forms • Phase 3: <ul style="list-style-type: none"> ○ 74 users ○ 4 registrations ○ 1 comment form

1. Outreach

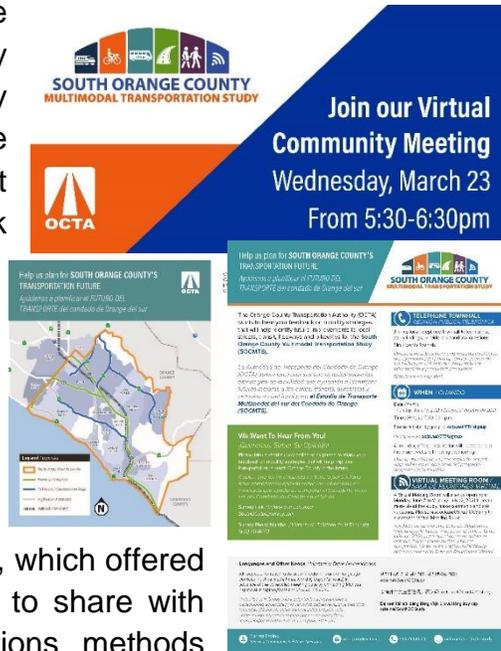
1.1 Outreach Methods

Several channels were utilized to notify the south Orange County target audiences about the Study and encourage participation through the course of the Study. The engagement methods included outreach to gain feedback from stakeholders, residents, and elected officials, and qualitative surveys. Notification included targeted advertisement through geofencing and Facebook, mailed postcards, social media, and communication toolkits distributed to cities, churches, school districts and stakeholders within the project area. A telephone helpline was also provided, which enabled people to call in if they preferred not to comment online or they did not have access to the internet.

1.1.1 Notifications

Traditional methods as well as digital media were utilized to disseminate consistent up-to-date Study information on a broader platform to effectively engage a wide range of stakeholders and maximize participation. Electronic noticing was a component in engaging with stakeholders (those who live, work and visit) in the area, using methods such as social media campaigns, email broadcasts, location-based geofencing advertisements, and the OCTA blog as well as linking the survey to the project webpage.

Additionally, a digital communications toolkit was shared with key stakeholders within the study area, which offered pre-written messaging and graphics for agencies to share with their local constituents. Traditional communications methods included a direct mail postcard that was targeted to low-income and disadvantaged communities and promoted the project information phone line, and making announcements at each community meeting.



1.1.2 Public Meetings and Community Events

Virtual public meetings, Virtual Meeting Rooms, and participation in local community events served as the primary method of engagement to distribute study information to the greatest diversity of geographic and demographic representation. The goal of the public events was to involve stakeholders, especially at the start of the Study, to maximize public participation, stimulate discussion and encourage feedback from diverse stakeholders, while identifying local community concerns. At each public event, study information was disseminated, the survey was promoted, and the public was directed toward the project webpage or project helpline for more information. All virtual meetings were recorded and posted on the Study website to provide additional opportunities to view the virtual meetings for those who were not able to attend.



Due to Covid-19 and government health regulations, during Phase 1 and Phase 2, events were only hosted virtually. During Phase 3, two local community events were attended in-person in addition to the virtual events. In total, the Study was shared at seven events which engaged in nearly 700 members of the public.

Table 2: Public Meetings and Community Events Summary

Public Meeting / Event	Representatives/ Attendance
Phase 1 Virtual Community Meeting w/ Spanish Simulcast	<ul style="list-style-type: none"> • Online Attendees: 33 • Phone Attendees: 3
Phase 2 Telephone Townhall w/ Spanish Simulcast	<ul style="list-style-type: none"> • 350 Callers • Pushed to 99,723 Callers
Phase 2 Virtual Meeting Room	<ul style="list-style-type: none"> • 171 Users
Phase 3 Virtual Community Meeting w/ Spanish Simulcast	<ul style="list-style-type: none"> • 14 Attendees
Phase 3 Virtual Meeting Room	<ul style="list-style-type: none"> • 74 Users
Phase 3 Local Community Events (2)	<ul style="list-style-type: none"> • 46 Attendees

1.1.3 Stakeholder Roundtables and Briefings

Stakeholder roundtables and briefings took place to provide an avenue for key stakeholders to discuss topics such as mobility, planning, access, and safety. The briefings provided updates on Study goals and progress as well as an opportunity to promote the surveys. The invited stakeholders were business and community based organizations. There was a total of three stakeholder roundtables, one during each phase of the Study, and a briefing with the South Orange County Economic Coalition during Phase 2.

Table 3: Stakeholder Roundtables and Briefings Summary

Roundtable	Representatives/ Attendance
<p>Phase 1 Stakeholder Roundtable</p>	<ul style="list-style-type: none"> • 10 Attendees <ul style="list-style-type: none"> ○ Friends of Harbors, Beaches, and Parks ○ University of California, Irvine ○ City of Irvine, Department of Public Works and Transportation ○ South Coast Metro Alliance ○ Rancho Mission Viejo ○ Transportation Corridor Agencies ○ Lake Forest Chamber of Commerce ○ FivePoint ○ Shop at Mission Viejo ○ Community Action Partnership of Orange County
<p>Phase 2 Stakeholder Roundtable</p>	<ul style="list-style-type: none"> • 13 Attendees <ul style="list-style-type: none"> ○ Chapman University ○ OC Fair Event Center ○ City of Costa Mesa ○ Laguna Hills Traffic Commission ○ Friends of Harbors, Beaches, and Parks ○ South Orange County Economic Coalition ○ Boys & Girls Clubs of Capistrano Valley ○ Santa Ana Unified School District ○ Capistrano Bay District ○ Community Action Partnership of OC ○ The Toll Roads

Roundtable	Representatives/ Attendance
Phase 2 South OC Economic Coalition Meeting	<ul style="list-style-type: none"> • 45 Attendees
Phase 3 Stakeholder Roundtable	<ul style="list-style-type: none"> • 8 Attendees <ul style="list-style-type: none"> ○ City of Costa Mesa ○ City of Irvine ○ Rancho Mission Viejo ○ Orange County Business Council ○ Orange County Council of Governments ○ Community Action Partnership of Orange County ○ John Wayne Airport ○ Santa Ana Unified School District

1.1.4 Elected Official Roundtables

Elected official representatives from each City within the Study area were invited to participate in project roundtables during each phase of the Study. The elected official roundtables were conducted after the public community meetings to provide an update on public feedback. OCTA Government Relations maintained contact with staff of local-elected official offices to keep them apprised of the Study’s progress and facilitate disseminating project information to their constituents. Briefings were made available upon request.

Table 4: Elected Official Roundtables Summary

Roundtable	Representatives/ Attendance
Phase 1 Elected Official Roundtable	<ul style="list-style-type: none"> • 18 Attendees <ul style="list-style-type: none"> ○ OCTA Board ○ Caltrans D12 ○ OC District 5 ○ Newport Beach ○ Laguna Woods ○ Laguna Beach ○ Laguna Niguel ○ San Juan Capistrano ○ Councilmember Khan ○ Aliso Viejo ○ Costa Mesa ○ Irvine
Phase 2 Elected Official Roundtable	<ul style="list-style-type: none"> • 27 Attendees <ul style="list-style-type: none"> ○ OCTA Board

Roundtable	Representatives/ Attendance
	<ul style="list-style-type: none"> ○ OC District 5 ○ Caltrans D12 ○ Aliso Viejo ○ Costa Mesa ○ County of Orange ○ Dana Point ○ Irvine ○ Laguna Beach ○ Laguna Niguel ○ Laguna Woods ○ Mission Viejo ○ San Clemente ○ San Juan Capistrano ○ Santa Ana ○ Tustin
<p>Phase 3 Elected Official Roundtable</p>	<ul style="list-style-type: none"> ● 31 Attendees <ul style="list-style-type: none"> ○ Aliso Viejo ○ Costa Mesa ○ County of Orange ○ Dana Point ○ Irvine ○ Laguna Beach ○ Laguna Hills ○ Laguna Niguel ○ Laguna Woods ○ Lake Forest ○ Mission Viejo ○ Newport Beach ○ Rancho Santa Margarita ○ San Clemente ○ San Juan Capistrano ○ Tustin ○ OCTA Board ○ OC District 5 ○ Caltrans D12

1.1.5 Technical Working Group

A Technical Working Group (TWG) was formed at the Study's inception in 2020. A total of seven TWG meetings took place from August 13, 2020 through March 7, 2022. The 24-member group was comprised of a mix of city public works and planning staff and agency department representatives from the study area.

1.1.6 Technical Advisory Working Group

A Technical Advisory Working Group (TAWG) was formed at the Study's inception in 2020. A total of seven TAWG meetings took place from September 2, 2020 through March 8, 2022. The Technical Advisory Working Group was comprised of staff from Caltrans, TCA, SCAG, the San Diego Association of Governments (SANDAG), the Southern California Regional Rail Authority, and the Federal Highway Administration.

1.2 Survey Process

Throughout the Study, three qualitative surveys were conducted to assess participants' multimodal transportation priorities in south Orange County to improve transportation and mobility. All surveys were available online and as a hard copy. Each phase utilized a different survey platform to align with the objectives and goals of the current phase. The survey findings were used to guide and enhance the development of the recommended LPS.

Phase 1, 2 and 3 survey highlights:

- All surveys were conducted in English, Spanish, Mandarin, Korean, and Vietnamese
- 2,381 surveys were collected during the Study
 - English: 2,364 total
 - Spanish: 16 total
 - Mandarin: 1 total
- Surveys were distributed online and offered through the project information phone line with a live operator to conduct the survey verbally

The survey research was qualitative, which means that results cannot be considered representative of the total population of interest. Informal research methods are useful to explore a group's opinions and views, allowing for the collection of verifiable data. This data can reveal information that may warrant further study and is often a cornerstone for generating new ideas. The survey accomplished the following objectives:

- Solicited public input to include in the study findings report, and,
- Disseminated study information and the online survey to a vast target audience.

1.2.1 Phase 1 Survey Results Summary

The first qualitative survey was available from September 25 to October 30, 2020, both online (utilizing SurveyMonkey) as well as through the project information phone line with a live person answering and conducting the survey. The survey was designed to assess public perception of transportation challenges and improvement strategies in south Orange County and provide feedback from respondents to inform the Study.

The survey had 17 questions that focused on the respondent’s geographic location, mobility use, transportation and mobility concerns and challenges, and useful strategies to address these challenges. A total of 360 surveys were collected (351 English, 8 Spanish, 1 Mandarin). The helpline number was listed on all survey distribution materials; however, no responses were collected through the information phone line.

There was a diverse mix of income and geographic locations based on work and home zip codes.

The collected survey results offered insight that showed respondents recognize the need to address transportation challenges and want to see:

- An increase in alternative transportation frequency and accessibility,
- A reduction in traffic congestion, and,
- Overall safer conditions for all modes of travel.

The summary below displays the top-ranked results related to transportation preferences, perceived challenges, and opportunities for improvement. Respondents had the ability to select up to two or three responses depending on the question.

The complete Phase 1 Survey Summary Report can be found in the Appendix.

Table 5: Phase 1 Summary of Key Findings

Survey Question	Top Ranked	Second Ranked	Third Ranked
When you travel in and around Orange County, how do you normally get from place to place?	Drive alone 41%	Walk/jog/run 14%	Carpool/vanpool 13%
What is the most important issue concerning transportation in south Orange County? (Pick 2)	Traffic congestion on freeways/highways 27%	Traffic congestion on local streets and roads 22%	Not enough transportation choices (bus, rail, or on-demand microtransit service)

Survey Question	Top Ranked	Second Ranked	Third Ranked
			19%
What is the primary challenge to bus and rail travel in south Orange County? (Pick 2)	Access to/from destinations 38%	Service frequency 30%	Travel time 19%
What is the primary challenge of using local streets in south Orange County? (Pick 2)	Traffic congestion 36%	Safety for all users (drivers, pedestrians, cyclists) 26%	Intersection delays 25%
What is the primary challenge to using freeways/highways in south Orange County? (Pick 2)	Traffic congestion 44%	Unpredictable commute time 25%	Back-up at freeway off ramps 16%
What is the most significant barrier to active transportation (walking, cycling) in south Orange County? (Pick 2)	Safety concerns (lack of physical separation from cars, lack of pedestrian accommodations) 32%	Long distances between trip origins and destinations 26%	Gaps in the bikeway and sidewalk network 24%
Which set of transportation solutions is most important to you? (Pick 2)	Freeway maintenance, on and off ramp enhancements, and projects to improve overall traffic flow 26%	Pothole repairs, signal synchronization, and intersection improvements 21%	Bike lanes, bikeway networks, and pedestrian pathways 19%
Considering that south Orange County's population is expected to continue growing into the foreseeable future, which strategy would provide the most long-term benefits?	Land-use planning (coordinating new development with transportation) 39%	Bus, rail, and other transit services 22%	Technology to minimize traffic (signal synchronization, autonomous vehicles) 21%
What do you think is the most useful strategy to reduce traffic congestion	Work from home programs	Mobility hubs (shared activity centers for	Pricing (tolled express lanes, charge for parking)

Survey Question	Top Ranked	Second Ranked	Third Ranked
in south Orange County? (Pick 2)	38%	connecting bus/shuttle/rideshare/etc.) 27%	13%
Given limited space to widen freeways without impacting businesses and residences, which could help manage south Orange County freeway congestion the most? (Pick 2)	Fix chokepoints (high congestion areas) 37%	Encourage carpools, vanpools, and ridesharing 20%	Other 13%
What is the best way to address traffic congestion through land-use planning (coordinating new development with transportation) in south Orange County? (Pick 2)	Concentrate business development around transit (bus/rail) centers 31%	Encourage walkability and complete streets (streets designed and operated safely for all users like drivers, cyclists, pedestrians) 28%	Concentrate new housing developments around transit (bus/rail) centers 23%

**Percentages do not equal 100% because the answers were ranked.*

1.2.2 Phase 2 Survey Results Summary

The Phase 2 qualitative survey was available for public participation June 7 to July 12, 2021, both online as well as through the project information phone line with a live person answering and conducting the survey. The 23-question online survey was created using MetroQuest to provide an interactive experience while collecting more detailed responses. The objective of the Phase 2 survey was to assess the public’s priorities on draft strategies and transportation solutions in south Orange County. The survey was designed to:

- Rank transportation goals and needs,
- Evaluate budget priorities for various transportation strategies,
- Rate effectiveness of strategies for improving transportation,
- Collect demographic data, and,
- Receive new contact information.

A total of 3,273 individuals visited the survey website, and 1,708 surveys were collected (1,706 English, 2 Spanish). There was a diverse mix of income and over half of the respondents indicated they both lived and worked in south Orange County.

The survey's compiled results showed respondents value the following:

- Increasing availability and making improvements to public transit/ rail,
- Increasing accessibility to driving alternatives (biking, walking, etc.),
- Offering flexible roadway pricing based on demand,
- Toll roads are not effective in reducing traffic congestion, and,
- Focusing on current roads and freeways to expand and improve.

The summary below presents the top-ranked results related to participants priorities on transportation and mobility strategies, improvements, and goals. Reference the Appendix for the full Phase 2 Survey Summary Report.

Table 6: Phase 2 Summary of Key Findings

Top Ranked	Second Ranked	Third Ranked
Priority Ranking – Transportation Needs (1,429 responses ranked a strategy as the top priority)		
Making public transit, bicycling, and walking more convenient and accessible 28%	Protecting the environment and preserving transportation infrastructure 26%	Decreasing the overall number of trips made each day 24%
Set Your Budget – Transportation Strategy Budget Allocation (\$100 budget allocation)		
Reduce freeway bottlenecks Average Amount: \$23.99	Make rail and transit improvements Average Amount: \$16.83	Implement technology-based improvements Average Amount: \$13.48
Effective Strategy Rating (1-5 star rating scale)		
Enhanced Train and Bus Service (1,677 individuals rated 5 stars)		
More Train Service 34%	Reliable Bus Service 26%	Freeway Bus Routes 20%
Efficient Roads and Freeways (1,832 individuals rated 5 stars)		
Technology 37%	Freeway Performance 37%	Freeway Access 26%
Improved Active Transportation (1,590 individuals ranked 5 stars)		
Safety Improvements 38%	Connect Paths 34%	Road Space Reconfiguration 28%
Reduced Car Dependency (1,590 individuals rated 5 stars)		

Top Ranked	Second Ranked	Third Ranked
Transit 24%	Integrated Trip Planner 22%	Biking and Walking Incentives 20%
Pricing Strategies (687 individuals rated 5 stars)		
User Pricing 37%	Incentivize Toll Roads (e.g. 241 Toll Road) 33%	Price-Managed Lanes (e.g. tolled 91 Express Lanes) 29%
New Technologies (1,271 individuals rated 5 stars)		
Broadband 40%	Electric Vehicles 38%	Self-Driving Vehicles 21%

1.2.3 Phase 3 Survey Results Summary

The third qualitative survey was available March 14 to April 15, 2022. The 5-question survey was conducted through an online survey tool, Typeform, as well as hard copy surveys offered at two in-person local community events in the cities of Aliso Viejo and San Juan Capistrano. The survey was designed to focus on prioritizing the transportation strategies based on the study’s results from Phases 1 and 2.

A total of 1,137 individuals visited the website (all languages combined), and 313 surveys were collected (307 English, 6 Spanish). There was a diverse mix of age and income and over half of the respondents indicated they both lived and worked in south Orange County.

From the 300+ survey respondents, a majority would like OCTA to:

- Improve bike and pedestrian pathways, and,
- Increase frequency and accessibility of bus and train services.

The summary below presents the top-ranked results related to participants’ priorities on proposed transportation and mobility strategies, improvements and goals. Reference the Appendix for the full Phase 3 Survey Summary Report.

Table 7: Phase 3 Summary of Key Findings

Survey Question	Top Ranked	Second Ranked	Third Ranked
1. Recognizing that future funding is limited, rank the following types of transportation services for funding priority. (Rank from highest to lowest priority.)	Improved bike and pedestrian paths/trails and bike amenities 26%	More frequent and reliable train service 22%	More frequent and reliable bus service 20%
2. Choosing a non-car travel option can help reduce emissions and congestion. Prioritize the	Increased walking and biking safety measures,	Universal fare pass that works across multiple	Easy connections between multiple transportation

Survey Question	Top Ranked	Second Ranked	Third Ranked
following in order of how likely you would consider a non-car travel option. (Rank from most to least likely.)	including separation from vehicle traffic 24%	transportation services 21%	services (such as Metrolink to bikeshare) 19%
3. Providing a safe and comfortable environment for all people who use the street is one way to encourage more walking, bicycling, and transit ridership. How important are the following for creating safe and easy-to-use streets? (Ranked from very important to unimportant.) *	Sidewalks wide enough to allow pedestrians to walk comfortably, separated from traffic. 70%	Bicycle lanes/paths that are safe for riders of all ages and experience levels. 69%	Street roundabouts, curb extensions, and other elements that increase safety for pedestrians and bicyclists. 43%
4. Various incentives are being considered to encourage use of travel options other than driving alone. How likely would the following incentives encourage you to consider alternative travel options? (Ranked from definitely to definitely not) *	Metrolink and bus pass subsidies 42%	Telework subsidies 36%	Microtransit/shared ride (OC Flex and Uber/Lyft) subsidies 24%
5. Assume in the future that you are charged \$10 per day to park your car when driving alone to work/school. How likely would you consider the following alternative options to avoid paying to park? (Ranked from definitely to definitely not)*	Telework 47%	Walk or bike 35%	Take transit (such as Metrolink and bus) 32%

*Percentages do not equal 100% because each question was ranked.

2. Conclusion

Public engagement was a key component to the Study process and set a foundation for future stages of development. Throughout the PIP a total of seven public events were hosted engaging nearly 700 members of the community. The survey and project information reached more than 400,000 people, which resulted in a total of 2,381 surveys collected. The feedback collected during each phase of the PIP had a common theme that the public and stakeholders would like to see more alternatives to driving such as light rail, trolleys, active transportation and improved public transit by increasing the availability and accessibility. Overall, the feedback collected shows the community recognizes the need to address transportation challenges and reduce traffic congestion. The public indicated a willingness to use alternative modes of transportation if the benefits and ease of use were more appealing than using a personal vehicle.



South Orange County Multimodal Transportation Study Executive Summary

October 2022

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1

Intent of the South Orange County Multimodal Transportation Study

The Orange County Transportation Authority (OCTA) conducts planning studies to identify and plan for the future transportation needs of Orange County. Multimodal transportation studies which also look at innovative technologies serve as the foundation of the long-range planning process by engaging stakeholders to identify priorities, providing focused analysis of transportation opportunities and issues, and recommending a vision for the study area.

OCTA initiated the South Orange County Multimodal Transportation Study (SOCMTS) as an update to the 2008 South Orange County Major Investment Study (SOCMIS). SOCMIS analyzes how mobility in Orange County is expected to evolve between the base year of 2016 and the planning horizon year of 2045. The purpose of SOCMTS is to recommend a long-range vision for the transportation system in south Orange County by identifying potential multimodal transportation improvements and adopting a new Locally Preferred Strategy (LPS) to provide a framework for future transportation system project development. As shown in Figure ES-1, this study will provide input into OCTA's Long-Range Transportation Plan (LRTP), the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and ultimately state and federal funding programs through the Federal Transportation Improvement Program (FTIP).

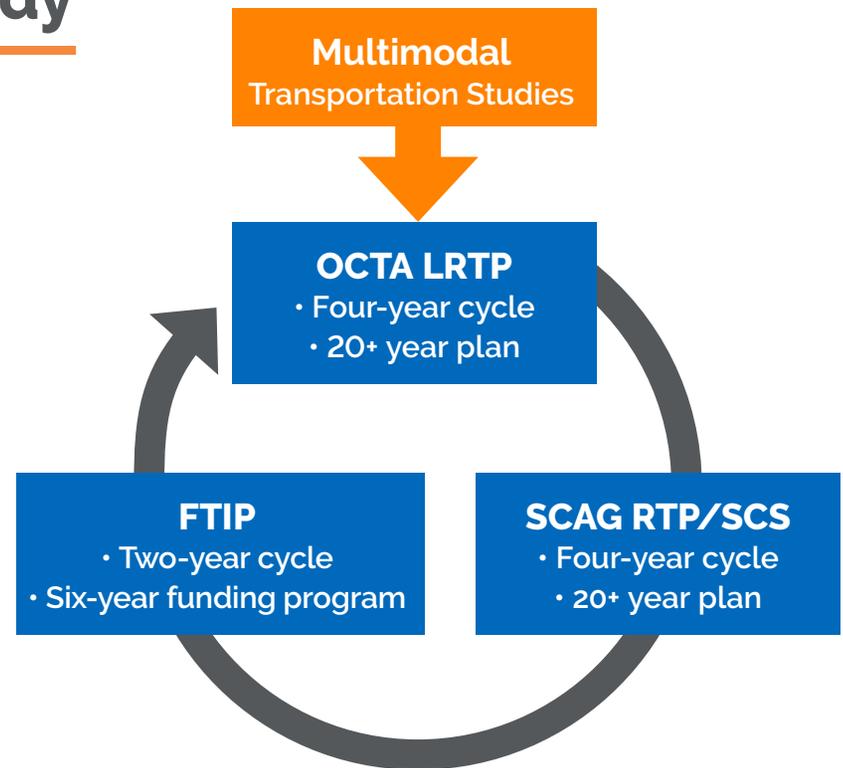


Figure ES-1: Planning and Funding Cycle

*Note: Numbers in parentheses () in the Executive Summary refer to relevant page numbers in the SOCMTS Final Report and Appendices.

2

Study Area

The south Orange County study area (Figure ES-2) is bounded by State Route 55 (SR-55), Santiago Canyon Road, the San Diego County Line, and the Pacific Ocean coastline. The south Orange County transportation network in 2016 (the study's base year for forecasting travel patterns) includes:

- A system of freeways, toll roads, arterial highways and local streets. I-5 and I-405 serve as the main spines of the highway network within the study area.
- The Los Angeles - San Diego - San Luis Obispo (LOSSAN) Rail Corridor, served by Metrolink and Amtrak Pacific Surfliner trains at six station locations
- Local, express, and community bus routes, including shuttles and circulators
- Hundreds of miles of bike lanes, shared-use paths, and sidewalks

With a population of 1.1 million in 2016, the south Orange County study area contains approximately 35 percent of the County's total residents. South Orange County is forecast to grow slightly faster than the County as a whole, with 16 percent growth anticipated between 2016 and 2045 compared with 11 percent for overall Orange County. Population growth can increase pressures on the local and regional transportation network when more people are traveling along the same congested corridors.



Figure ES-2: SOCMTS Study Area

3

Public and Stakeholder Engagement

Throughout the study, three different outreach phases were implemented which included a range of engagement methods, both traditional and digital, to maximize public participation and garner thoughtful feedback. This input supported the analysis of multimodal transportation strategy options in order for OCTA to develop a recommendation for a LPS. Each phase included engagement with stakeholders, residents, and elected officials. (The full Public and Stakeholder Participation Report can be found in Appendix A.)

Phase one of the study took place in fall 2020, and included an online public webinar, a key stakeholder virtual roundtable, and a virtual meeting with South county elected officials. A qualitative survey (online and hard copy) was conducted and designed to assess public perception of transportation challenges and improvement strategies in south Orange County. The first phase input helped to define the study's Purpose & Need statement.

The second phase of the study took place in summer 2021 and included a virtual stakeholders roundtable, elected official's roundtable, a public telephone townhall, and a Virtual Meeting Room (VMR). A qualitative survey (online and hard copy) was also conducted with the goal of assessing the public's priorities on draft strategies and transportation solutions. The second phase input helped to identify the types of multimodal strategies most suitable for south Orange County.

The third and final phase of public involvement took place in winter/spring 2022 and included a virtual stakeholder roundtable, virtual elected official's roundtable, a virtual community meeting, and a VMR. A final qualitative survey (online and hard copy) was designed to determine participants' priorities on proposed multimodal alternatives that improve streets, transit, freeways and bikeways in South Orange County. The third phase input helped to define the SOCMTS LPS.

Public engagement was a key component of the study process and set a foundation for futures stages of development. In total, seven public events were hosted engaging nearly 700 members of the community. The survey and project information reached more than 400,000 people, which resulted in a total of 2,381 surveys collected. The feedback collected during each phase had a common theme that the public and stakeholders would like to see more alternatives to driving such as light rail, trolleys, active transportation, and improved public transit availability and accessibility. The public indicated a willingness to use alternative modes of transportation if the benefits and ease of use were more appealing than using a personal vehicle.



**SOUTH ORANGE COUNTY
MULTIMODAL TRANSPORTATION STUDY**

**Join our Virtual
Community Meeting**
Wednesday, March 23
From 5:30-6:30pm



Purpose and Need

Freeway and arterial lane additions will soon reach their practical limit in south Orange County due to limited availability of right-of-way. In order to improve mobility and long-term sustainability, future transportation improvements need to enhance system efficiency and make multimodal travel more convenient and effective. With this in mind, the Purpose and Need Statement, summarized in Figure ES-3, was developed in coordination with local and regional stakeholders. (See page 23 for full Purpose and Need Statement.)

Figure ES-3: SOCMTS Purpose and Need

Need	Purpose/Objectives	Why is this Important?
Make public transit, bicycling, and walking more convenient and accessible	<ul style="list-style-type: none"> • Increase availability of transit service and infrastructure for biking and walking • Provide convenient connections between travel modes (ex. transit and biking) • Coordinate with and land-use development 	Historical land development patterns and transportation network favor driving. Convenience and accessibility of transit, biking, and walking must be improved to make these modes viable alternatives to auto travel.
Decrease the overall number of trips made each day and improve safety and efficiency	<ul style="list-style-type: none"> • Reduce overall travel demand • Enhance transportation safety and efficiency • Better utilize available freeway lanes, carpool lanes, high-occupancy vehicle (HOV) lanes, and street space 	Population, employment, and travel demand continue to grow, and increasing traffic congestion makes it harder for travelers to know how long their trip will take. With limited opportunity to increase roadway system capacity, future travel reliability can be improved by enhancing safety, making the transportation system more efficient, and eliminating the need for some travel.
Protect the environment and preserve transportation infrastructure	<ul style="list-style-type: none"> • Increase zero-emission vehicles • Improve access to clean, affordable travel options • Preserve transportation infrastructure from natural disasters • Minimize adverse environmental impacts 	Vehicular travel is a significant contributor to air pollution and greenhouse gas emissions, which negatively affect air quality and worsen climate change. Risks like rising sea level and wildfires threaten some elements of the transportation system. Environmental protection and system preservation will be important considerations in making transportation decisions.
Adapt to new transportation technologies and services	<ul style="list-style-type: none"> • Consider autonomous vehicles or electric charging infrastructure • Pursue proven technologies • Support equity and innovation • Support telework strategies 	Technology is emerging rapidly, and travel behavior is evolving, accelerated by the COVID-19 pandemic. Transportation strategies need to incorporate flexibility so future decisions can take advantage of new technologies and adapt to new conditions.

5

Completed Projects and 2045 Core Elements

Since completing SOCMIS in 2008, numerous improvement projects representing nearly \$1.4 billion of investment have been constructed or are under construction in south Orange County – many of them as part of Measure M2, Orange County's voter-approved half-cent sales tax program to improve transportation. Figure ES-4 illustrates major projects that have been completed or are under construction.

In addition to the types of projects shown on the map, improvements have included arterial street enhancements, intersection enhancements, street rehabilitation, traffic signal synchronization, rail crossing improvements, bicycle and pedestrian facilities, and senior mobility programs. Table ES-1 summarizes the projects constructed or under construction since 2008 by type of project.

Table ES-1: Summary of Improvements in South Orange County 2008-2022

Type of Project	No. of Projects	Cost (\$ Million)
Freeway/Interchange Improvements	3	\$878
Arterial Improvements	51	\$142
Arterial Intersection Improvements	18	\$11
Street rehabilitation	42	\$21
Traffic Signal Synchronization	46	\$54
Railroad Improvements	1	\$33
Rail Crossing Improvements/Grade seps	18	\$109
Bicycle and Pedestrian Facilities	22	\$18
Train Station Improvements	6	\$51
Community Transit	17	\$33
Senior Mobility Programs	14	\$11
Environmental Mitigation Projects	21	\$9
Miscellaneous Improvements	32	\$15
TOTAL		\$1,385

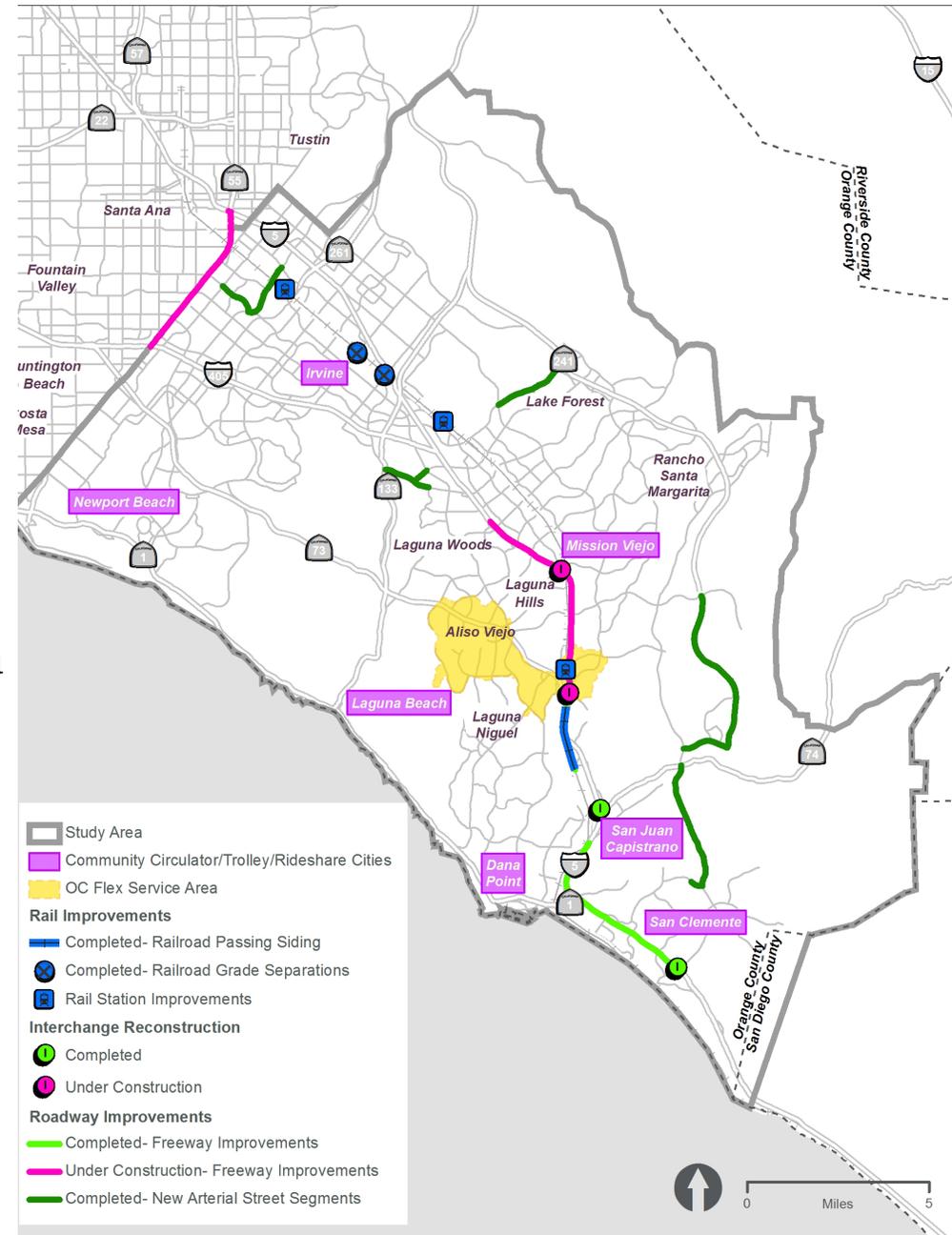


Figure ES-4: New Arterial Streets and Freeway, Rail, and Community Transit Improvements 2008-2022

2045 CORE ELEMENTS

The Core Elements are south Orange County projects that have not yet started construction in 2022, but are funded or committed to be implemented by 2045. The Core Elements include projects funded by Measure M2, projects identified at the conclusion of the South County Traffic Relief Effort in 2020, planned improvements on the Orange County Master Plan of Arterial Highways (MPAH), and a rail improvement project from the Metrolink SCORE (Southern California Optimized Rail Expansion) program. The Core Elements are shown in Table ES-2 and Figure ES-5.

Table ES-2: 2045 Core Elements

Project	Source
I-5 Improvements between I-405 and SR-55	Measure M2
I-405 Improvements between I-5 and SR-55	Measure M2
El Toro Road/I-5 Interchange Improvement	Measure M2
I-5 HOV Lane from Avenida Pico to San Diego County Line	South County Traffic Relief Effort
Los Patrones Parkway Extension from Cow Camp Road to Avenida La Pata	South County Traffic Relief Effort
Ortega Highway Widening between Calle Entradero and Reata Road	South County Traffic Relief Effort
Planned MPAH Improvements	Orange County Master Plan of Arterial Highways
Serra Siding Double-Tracking Project	Metrolink SCORE Program

The SOCMTS modeling and performance analysis shows the need for additional multimodal strategies beyond the 2045 Core Elements to address the study’s Purpose and Need and move south Orange County toward a more sustainable future (see pages 29-30). Highways and arterial streets are reaching their practical limit in terms of available right-of-way, and roadway improvements alone are unlikely to address some of the region’s long-term goals. Multimodal strategies are needed that address overall transportation demand, system efficiency, transit accessibility, capacity, reliability, and equity.

Multimodal strategies applicable to south Orange County were identified through assessment of local and national best practices, current transportation policies and programs, and public and stakeholder input. Recommended strategies are identified in the LPS section which follows.

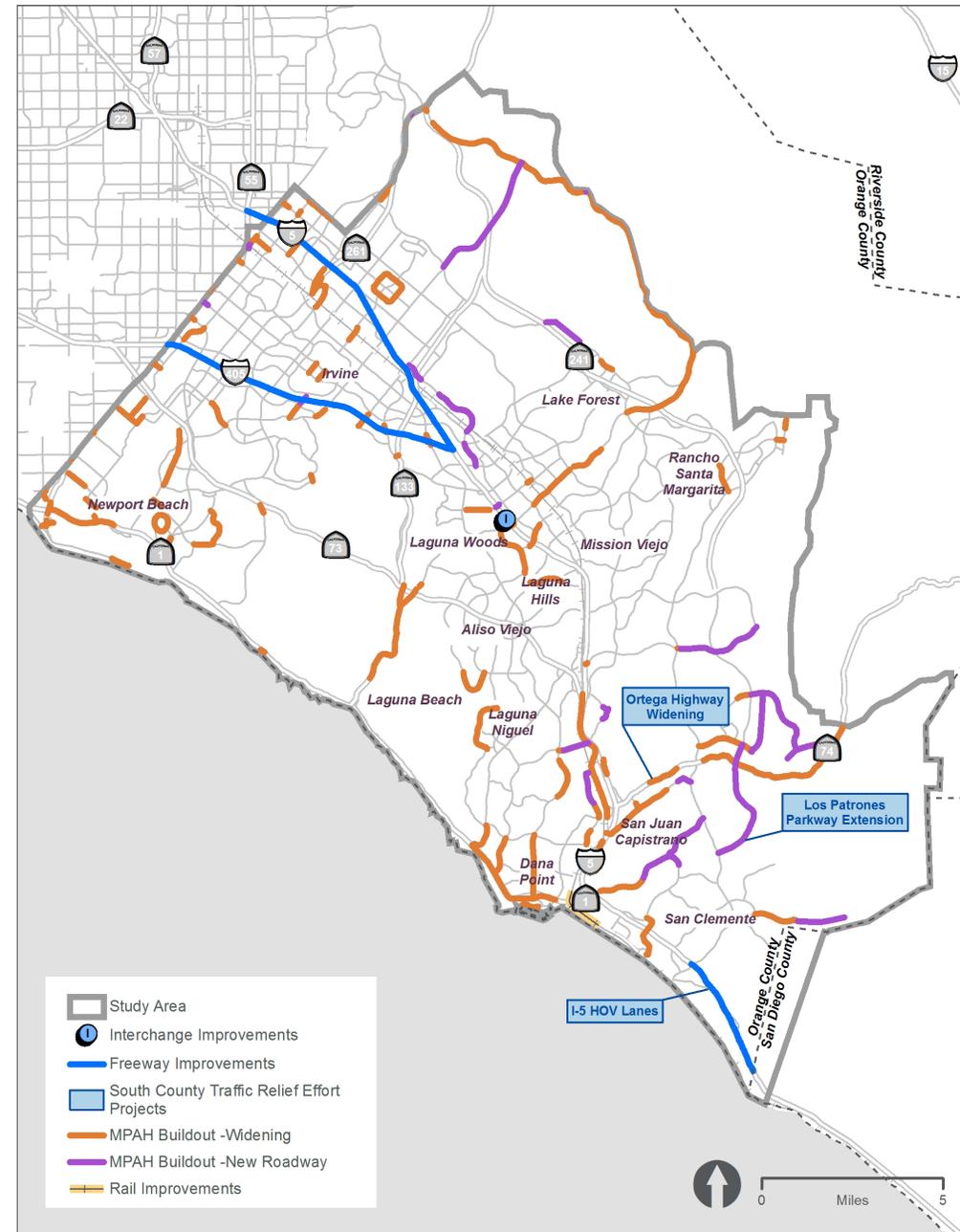


Figure ES-5: 2045 Core Elements

6

Locally Preferred Strategy and Implementation Actions

The SOCMTS LPS includes a mix of projects, programs, and policy strategies designed to meet the study's Purpose and Need and arrive at an equitable action plan for implementation. The foundation of the LPS is the Core Elements set of projects shown in Figure ES-5 above, including the commitments from Measure M2 to improve I-5 and I-405, three near-term arterial and HOV improvements and a rail passing siding. The multimodal strategy elements that comprise the LPS are shown in Table ES-3, and illustrated in Figures ES-6 through ES-9.

The LPS elements represent a group of interlinked components that work together to provide south Orange County residents, workers, and visitors with more varied, cost-effective, convenient, and safe travel options. As a long-term strategy, the LPS provides an overall framework and direction that OCTA will use to shape its transportation decision-making processes. Once the vision is established, recommendations for new projects and programs can be considered in the future for inclusion in OCTA's LRTP and SCAG's RTP/SCS, for subsequent funding and implementation. Potential projects identified during the SOCMTS analysis are shown to illustrate each strategy element.

Actions needed to implement the LPS are summarized in Figure ES-10. (The full action plan can be found on pages 41-44 of the SOCMTS report.) Implementing the improvement strategies will require ongoing coordination with state and local agencies which have jurisdiction over elements of the study area's transportation system.

EQUITY IN THE LPS

Equity will continue to be a foundational component in the identification, prioritization, and implementation of transportation improvements in south Orange County. SOCMTS has identified areas with socioeconomic or environmental disadvantages to better understand the impacts of transportation decisions on those communities. The following actions are recommended so that Equity can be incorporated as a guiding factor within the implementation of all the recommended strategy areas.

- Assess travel patterns and mobility needs of the Equity Focus Communities identified in south Orange County
- Develop grassroots engagement in the transportation decision-making process with Equity Focus Community members

Additional information on the SOCMTS equity analyses is included in Appendix E of the SOCMTS Final Report.

Table ES-3: SOCMTS LPS

Strategy Element	Complete 2045 Core Elements	Roadway Infrastructure & Operations Improvements	High-Frequency Transit	Local Circulators/Shuttles
Objective	Complete Measure M2 and other project commitments	Improve the operational efficiency of the south Orange County roadway and freeway network	Provide enhanced bus and rail services on major corridors, enabling more travelers to utilize transit	Continue the Project V community circulator program, providing tailored local connectivity and first/last mile service
Potential Projects	<p>[see Figure ES-5 on page ES-6]</p> <ul style="list-style-type: none"> • I-5 Improvements between I-405 and SR-55 • I-405 Improvements between I-5 and SR-55 • El Toro Road/I-5 Interchange Improvement • I-5 HOV Lanes from Avenida Pico to San Diego County Line • Los Patrones Parkway Extension from Cow Camp Road to Avenida La Pata • Ortega Highway Widening between Calle Entradero and Reata Road • Improvements planned in the Orange County Master Plan of Arterial Highways MPAH • Serra Siding Double-Tracking Project 	<p>Chokepoint Improvements</p> <ul style="list-style-type: none"> • Northbound I-5 truck climbing lane in San Clemente • SB SR-133 / SB I-5 ramp weave • Other chokepoint improvements identified in ongoing Freeway Chokepoint Improvement Study <p>Operations Improvements</p> <ul style="list-style-type: none"> • Signal synchronization • Advanced Traffic Management Systems • Transportation Systems Management and Operations (TSMO) • Intelligent Transportation Systems • Integrated Corridor Management 	<ul style="list-style-type: none"> • Increased Metrolink train frequency • Bus Rapid Transit (BRT) on I-5 and SR-55 (consistent with the Freeway BRT Concept Study) 	<ul style="list-style-type: none"> • Dana Point Trolley • Laguna Beach Trolley • San Clemente Trolley • Mission Viejo Shuttle • iShuttle • Balboa Peninsula Trolley • San Juan Capistrano Trolley • New circulators in other communities that qualify

Figure ES-6: Potential Project Examples



Advanced Traffic Management Systems



Metrolink



Local Circulators

Table ES-3 (continued): SOCMTS LPS

Strategy Element	Mobility Hubs	Microtransit / OC Flex	Active Transportation	Transportation Demand Management
Objective	Provide convenient, centralized locations where various transportation services connect	Expand on-demand local transportation zones which address gaps in the OC Bus network and improve access to high-frequency transit	Improve connectivity and safety for the bicycle and pedestrian network, including connections to transit and mobility hubs	Enhance system performance by encouraging travel when/where capacity exists, including reducing peak-hour trips and promoting transit and active transportation modes
Potential Projects	<ul style="list-style-type: none"> • New South Orange County Rail Station • Laguna Hills Transportation Center • Network of Regional, Local, and Neighborhood Hubs based on the ongoing orange county mobility Hubs Study (see map of conceptual hub locations in Figure ES-7) 	<ul style="list-style-type: none"> • Aliso Viejo / Laguna Niguel / Mission Viejo • San Clemente • Tustin/Irvine • Irvine Spectrum • Laguna Beach • UC Irvine / Newport Center • Laguna Hills / Lake Forest • Costa Mesa / Newport Beach • Dana Point / San Juan Capistrano (see map of potential microtransit zones in Figure ES-8)	<ul style="list-style-type: none"> • Complete OC Connect, OC Central Loop, OC South Loop, and regional bikeways (see map in Figure ES-9 below) • Provide protected bicycle facilities or improved bikeways on arterial streets connecting residential and employment concentrations and mobility hubs • Provide local bicycle feeder routes to mobility hubs, regional bikeways, and the regional transit network • Create safe, walkable routes for circulation in high activity areas 	<ul style="list-style-type: none"> • Specific TDM elements to be identified in upcoming OCTA TDM Strategy Study, possibly including: <ul style="list-style-type: none"> o Transit Subsidies for Students o Support for carpools, vanpools, schoolpools o Transit passes for potential users of mobility hubs o Incentives for Active Transportation Use o Support for Telework

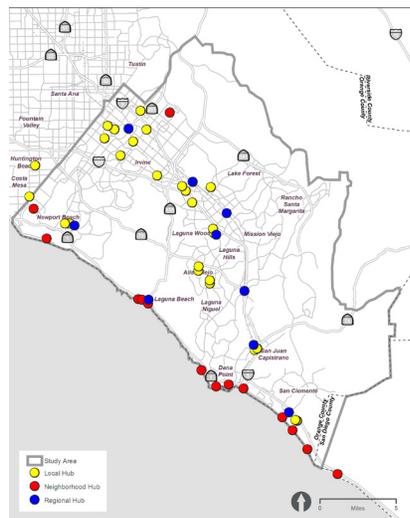


Figure ES-7: Conceptual Mobility Hubs (full-size map in SOCMTS Final Report, Figure 4-1)

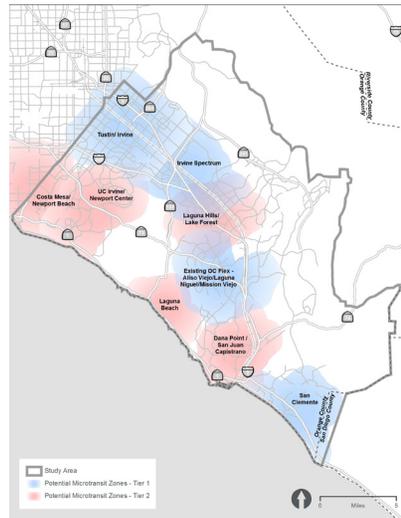


Figure ES-8: Potential Microtransit Zones (full-size map in SOCMTS Final Report, Figure 4-2)

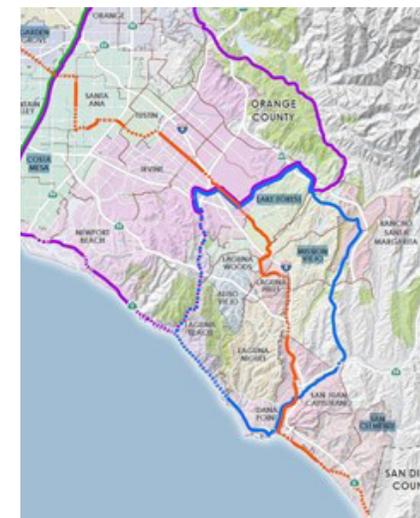


Figure ES-9: Regional Bikeways to be completed (full-size map in SOCMTS Final Report, Figure 4-3)

Figure ES-10: Implementation Actions

The following presents a list of actions for moving forward to implement the strategy elements of the LPS.

*Note: Numbers in parentheses () refer to relevant page numbers in the SOCMTS Final Report and Appendices.

2045 Core Elements (pg 27)

Continue project development process to implement:

- The extension of Los Patrones Parkway as a non-tolled facility from Cow Camp Road to Avenida La Pata
- Widening and restriping of Ortega Highway between Calle Entradero and Reata Road
- The southern extension of carpool lanes on Interstate 5 from Avenida Pico to the San Diego County line
- I-5 improvements between I-405 and SR-55
- I-405 improvements between I-5 and SR-55
- El Toro Road/I-5 interchange improvement
- Planned MPAH improvements
- Serra Siding double-tracking project

Local Circulators/Shuttles (pg 42)

- Develop a post-2041 funding strategy for local circulators
- Consider opportunities to expand local circulator service
- Encourage consideration of all potential users in local planning for circulator services

Active Transportation (pg 43)

- Continue coordinated planning and implementation of the regional bikeway system
- Consider programs to support the implementation of low-stress streets
- Consider programs to support active transportation use

Roadway Infrastructure & Operations Improvements (pg 41)

- Pursue project-level development for priority chokepoints
- Develop countywide TSMO plan
- Develop a post-2041 funding strategy for roadway operations projects
- Explore potential emerging technology strategies

Mobility Hubs (pg 42)

- Pursue project-level studies and a potential mobility hub pilot project to advance mobility hubs in south Orange County consistent with the countywide mobility hubs strategy
- Identify funding opportunities for mobility hubs

Transportation Demand Management (pg 44)

- Pursue implementation of TDM programs and actions identified in the upcoming countywide TDM Strategy

High-Frequency Transit (pg 41)

- Develop corridor-level plans and recommendations for improvements identified in the OC Transit Vision
- Refine the OC Transit Vision to align with the Making Better Connections Study and updated data on long-term transit ridership trends
- Participate in planning and developing recommendations related to the Metrolink SCORE program and future service levels
- Periodically assess and recommend modifications to multimodal connections at rail stations

Microtransit (pg 43)

- Develop guidelines for implementing additional microtransit service areas
- Conduct market analysis and recommend priority areas for microtransit
- Develop a monitoring program for any new services to support the achievement of key performance indicators



Prepared for the Orange County
Transportation Authority by:



In association with:
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Land CM
Nelson Nygaard
PlaceWorks
System Metrics Group
UrbanTrans
VCS Environmental



SOUTH ORANGE COUNTY

MULTIMODAL TRANSPORTATION STUDY

Recommended Locally Preferred Strategy

Study Objectives

- Identify long-term mobility needs and challenges through 2045 and beyond
- Conduct robust public and stakeholder engagement
- Develop consensus on a multimodal transportation system vision
- Provide direction to develop focused strategies and project-level studies



Purpose and Need Statement

Make public transit, bicycling, and walking more convenient and accessible

Increase availability of transit service and infrastructure for biking and walking | Provide convenient connections between travel modes (ex. transit and biking) | Coordinate with land-use development

Decrease the overall number of trips made each day

Reduce overall travel demand | Enhance transportation safety and efficiency | Better utilize available freeway lanes, carpool lanes (high-occupancy vehicle lanes), and street space

Protect the environment and preserve transportation infrastructure

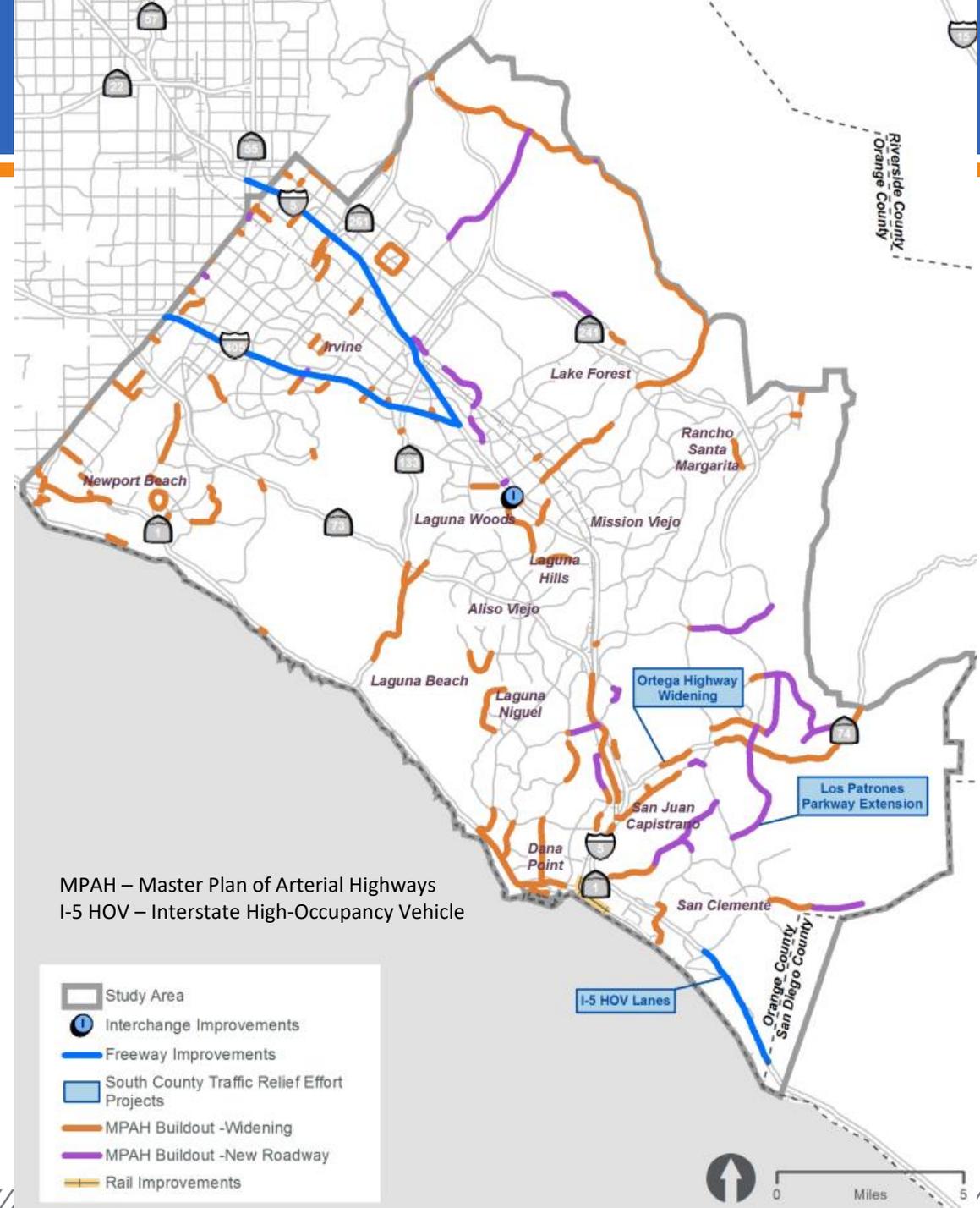
Increase zero-emission vehicles | Improve access to clean, affordable travel options | Preserve transportation infrastructure from natural disasters | Minimize adverse environmental impacts

Adapt to new transportation technologies and services

Consider autonomous vehicles or electric charging infrastructure | Pursue proven technologies | Support equity and innovation | Support telework strategies

Core Elements

- Measure M2-funded projects and programs
- **Los Patrones Parkway improvements**
 - Status: preliminary engineering phase
- **Ortega Highway improvements**
 - Status: final design phase
- **Interstate 5 carpool lane completion**
 - Status: project approval and environmental document phase



Strategic Elements



Strategic Element

Roadway Infrastructure and Operations Improvements

Objective

Improve operational efficiency without adding capacity



High-Frequency Transit

Enhance bus and rail services



Local Circulators/Shuttles

Tailor local transit connectivity and first/last mile service



Mobility Hubs

Provide centralized transportation connections

Strategic Elements (continued)

Strategic Element

Objective

Microtransit/OC Flex

Add local on-demand transportation zones

Active Transportation

Improve connectivity and safety for bicycles and pedestrians

Transportation Demand Management (TDM)

Promote alternatives to single-occupant vehicle trips



Locally Preferred Strategy (LPS) Performance

Performance Metrics	Target	2045 No-Build	2045 Baseline	LPS
Non-single-occupant vehicle mode share	60.5%	51%	51%	56%
Vehicle miles traveled per capita reduction	8% from 2016 levels	3%	1%	10%
Greenhouse gas per capita reduction (metric tons of CO ₂ e per year)	13% from 2016 levels	34%	32%	37%
Person hours of delay per capita reduction	14% from 2016 levels	7%	3%	52%
Vehicle hours of delay per capita reduction	14% from 2016 levels	6%	3%	52%
Legend:	Meets Target			

Action Plan

Roadway Infrastructure and Operations

- Project-level development for priority chokepoints
- Countywide Transportation System Management and Operations plan
- Post-2041 funding strategy for roadway operations projects
- Explore emerging technologies

High-Frequency Transit

- OC Transit Vision update
- Corridor-level planning consistent with the OC Transit Vision
- Participate in planning the Metrolink SCORE program
- Assess multimodal connections at Metrolink stations

Local Circulators/Shuttles

- Post-2041 funding strategy for local circulators
- Consider expansion of local circulator service
- Consider local circulators for school service needs and continue student fare subsidies

Mobility Hubs

- Plan a mobility hub pilot project
- Identify funding for mobility hubs

Microtransit

- Develop microtransit service area guidelines
- Identify microtransit priority areas
- Develop a monitoring program

Active Transportation

- Plan and implement the regional bikeway system
- Support low-stress streets
- Promote active transportation use

TDM

- Develop a countywide transportation demand management strategy

Public Engagement

- Three stakeholder roundtables
- Three elected roundtables
- Two public webinars
- One telephone town hall
- Three online surveys
- Multiple presentations
- Digital media
- Postcards to disadvantaged communities
- Multilingual materials and helpline



Next Steps

- Incorporate South Orange County Multimodal Transportation Study (SOCMTS) LPS and Action Plan into the Long-Range Transportation Plan
- Pursue action plan implementation, incorporating:
 - Diversity, equity, and inclusion
 - Public and partner engagement
- Evaluate the need for SOCMTS revisions as appropriate



November 7, 2022

To: Regional Planning and Highways Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: Regional Traffic Signal Synchronization Program Update

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is located to the right of the "From:" field.

Overview

The Orange County Transportation Authority has been working with cities, the County of Orange, and the California Department of Transportation to fund and implement key regional traffic signal synchronization projects. This report provides an update on the Measure M2 Regional Traffic Signal Synchronization Program, including results from recently completed projects.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) provides funding and assistance to implement multiagency signal synchronization as part of the Measure M2 (M2) Regional Traffic Signal Synchronization Program (Project P). Annually, OCTA provides competitive grants dedicated to the coordination of traffic signals across jurisdictional boundaries. The goal of Project P is to improve traffic flow by developing and implementing regional signal coordination that crosses local agencies' boundaries and maintains coordination through freeway interchanges, where possible.

Since 2008, OCTA and local agencies have implemented 98 signal synchronization projects within Orange County. The projects have improved travel times, reduced delays and congestion, and increased the number of successive green lights drivers experience in their travels. The results of the program translate into direct benefits to motorists and the environment measured in time and cost savings from lower fuel consumption, a reduction of greenhouse gas (GHG) emissions, and air pollution. Additionally, the program includes signal infrastructure upgrades to improve signal operations and safety for all modes of travel along and crossing the project corridors.

Discussion

Signal synchronization is a cost-effective way to maximize roadway throughput without major new construction. M2 Project P provides funding for signal synchronization projects through annual calls for projects (call), with 80 percent of funding from M2 Project P and 20 percent from local agencies' matching funds. Supplemental funding is used whenever available, including SB 1 (Chapter 5, Statutes of 2017) Local Partnership Program funds, and Solutions for Congested Corridors Program grants. In addition to M2 Project P, various sources have been used in the past to fund signal synchronization projects, including Measure M1, Proposition 1B Traffic Light Signal Synchronization Program, and air quality funds.

Projects are corridor-based beginning with detailed field review and evaluation of existing vehicle, bicycle, and/or pedestrian clearance intervals to ensure these basic parameters meet the minimum standard approved by the agency that operates them. The new optimized signal timings are developed based on current traffic conditions and travel patterns and ultimately give users an overall better travel experience. Key to these efforts is regular dialogue between partner agencies and the California Department of Transportation to ensure the project addresses the unique operational needs of the corridor, resulting in agencies working together towards the multijurisdictional goal of the program.

Signal synchronization projects implement a coordination strategy involving time-based synchronization of the respective agencies' signal systems, including the necessary upgrades to the traffic signal infrastructure. Eligible signal infrastructure improvements include traffic signal devices, central system upgrades, and solutions that enhances the operation and increases the safety for all modes of travel. This includes modifications that prepare for future connected and autonomous vehicle technologies and applications. Existing synchronization on crossing arterials is incorporated when and where possible. Optimized timings are developed and implemented for identified peak periods, which are typically weekday mornings, midday, and evenings. For weekend operations, the peak is typically mid-morning through early evening. To quantify signal synchronization benefits, "before" and "after" travel time studies are conducted to evaluate the improvements from these new optimized timing plans.

These studies are conducted during peak traffic periods with specially equipped vehicles that have computer-linked global positioning system devices to collect traffic data. Several runs are made in each direction with the car "floating" in the middle of the traffic platoon of vehicles for each run. These studies showed improvements across all performance measures, including travel time, number of stops, and average safe speed. Additionally, fuel consumption, GHG, and other vehicle emission data is also captured. Historically, signal synchronization efforts

nationwide have resulted in the range between five and 15 percent of travel time and speed improvements, as well as a reduction in stops. Comparisons of the corridors’ before and after studies indicate results in the high-end of this range due to the combination of the optimized traffic signal timing plans, cooperation between all participating agencies, and minor signal upgrades to maximize traffic flow.

Signal Synchronization Projects

The signal synchronization program’s target is to regularly synchronize 2,000 signalized intersections, as expressed in the M2 voter guide. OCTA and local agencies have completed 98 signal synchronization projects since 2008, of which 21 projects were a revisit and retiming of a previously completed corridor. A total of 3,445 signalized intersections and 886 centerline miles of streets have been implemented. The total Board of Directors (Board) grant awards for the completed projects were approximately \$88.3 million. The completed projects are identified on the map in Attachment A.

The completed projects have reduced average travel time by 13 percent and the average number of stops by 28 percent (Attachment B). Average speed improved by 14 percent. Consumers will save approximately \$224.8 million (at \$3.90 per gallon in today’s dollars) on fuel costs and reduce GHG emissions by approximately 1.16 billion pounds over the three-year project cycle. The reduction of GHG emissions is made possible by reducing the number of stops, smoothing the flow of traffic, and reducing the amount of acceleration and deceleration of vehicles. These results are comparable to signal synchronization efforts nationwide.

The following table lists four signal synchronization projects, where new timing plans were implemented within the last two years, along with the corresponding travel time and speed improvements:

Corridor	Limits	Length (Miles)	Travel Time Improvements	Average Speed Improvements
Fairview Road	Garden Grove Boulevard to Vanguard Way	8.97	27 percent	30 percent
Garden Grove Boulevard	Valley View Street to Bristol Street	8.66	14 percent	16 percent
La Palma Avenue	Woodland Drive to Chrisden Street	11.24	7 percent	6 percent
Katella Avenue	Interstate 605 On-Ramp to Jamboree Road	19.62	9 percent	10 percent

Note that these four projects faced significant challenges due to traffic patterns that fluctuated because of the pandemic. Most projects resulted in significant improvements in both travel time and speeds. As part of the projects, advanced signal operation equipment and software were also installed, which will greatly benefit future retiming efforts to quickly account for a change in traffic volumes. Traffic engineers continue to monitor and update the signal timing to respond to changes in traffic patterns and to ensure travelers experience benefits from the completed projects.

There are currently 27 signal synchronization projects, funded by OCTA, that are in various stages of implementation. The total Board grant awards for the planned projects is approximately \$66.5 million, including external funds. Once completed, these funded projects will synchronize an additional 1,234 signals and 257 miles of roadway.

It is best practice to periodically resynchronize traffic signals to make sure they consider changes in traffic. The OCTA M2 Signal Synchronization Program allows previously completed streets and highways projects to compete again for funding during the annual call. Previous investments made as part of earlier projects are incorporated into revisited projects. An example of this would be the three recently completed projects on Fairview Road, La Palma Avenue, and Katella Avenue. The signals along these corridors were synchronized prior to 2015. The result is a program that can regularly coordinate intersections as the basis for synchronized operation across Orange County.

Next Steps

OCTA continues to work with local agencies through various venues, including the Technical Steering Committee, Technical Advisory Committee, and the traffic forum to identify corridors that are eligible for funding and would benefit from signal program funding as part of the annual call. On March 14, 2022, OCTA staff provided a summary of the Countywide Signal Synchronization Plan Study that identified opportunities for enhancements to the signal program. The next generation of Project P will begin with a cooperative partnership to leverage external funds and implement a countywide signal synchronization baseline project that will retime approximately 2,500 signals in Orange County.

Summary

OCTA and local agencies have successfully implemented new cooperative traffic signal synchronization timing on 98 corridors. Another 27 projects are planned or underway. The synchronization of traffic signals along these regional corridors continually results in significant improvements to traffic flow by reducing total travel times, stops per mile, and improving average safe speeds while decreasing fuel costs, GHG, and overall vehicle emissions.

Attachments

- A. OCTA-Funded Signal Synchronization Projects, (2008 – Present)
- B. Summary of Results for Completed Regional Traffic Signal Synchronization Projects

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Summary of Results for Completed Regional Traffic Signal Synchronization Projects

	Corridor Name	Timing Completed	Lead Agency	Length (Miles)	Signals	M1 / M2 Grant Board Allocation	Estimated Project Life Gas Savings (Dollars)^	Estimated Project Life Greenhouse Gas Savings (lbs.)	Travel Time Improvement	Average Speed Improvement	Stops Improvement
1	Euclid Street	2008	OCTA	15	62	\$ 480,083	\$ 3,091,631	16,188,276	20%	24%	43%
2	Pacific Park Drive/Oso Parkway	2009	OCTA	9	34	\$ 248,272	\$ 3,647,370	19,098,249	22%	29%	50%
3	Alicia Parkway ¹	2010	OCTA	11	41	\$ 939,144	\$ 806,001	4,220,358	13%	12%	40%
4	Beach Boulevard ¹	2010	OCTA	21	70	\$ 1,243,859	\$ 10,469,722	54,821,202	14%	21%	28%
5	Chapman Avenue (South) ¹	2010	OCTA	14	52	\$ 798,161	\$ 3,244,679	16,989,696	16%	18%	46%
6	Edinger Avenue/Irvine Center Drive/ Moulton Parkway ¹	2011	OCTA	22	109	\$ 846,217	\$ 4,609,706	24,137,220	11%	14%	34%
7	Harbor Boulevard ¹	2011	OCTA	16	107	\$ 890,377	\$ 3,226,111	16,892,430	11%	12%	23%
8	Orangethorpe Avenue ¹	2011	OCTA	17	47	\$ 697,585	\$ 2,659,036	13,923,183	17%	20%	42%
9	State College Boulevard/Bristol Street ¹	2011	OCTA	17	97	\$ 574,639	\$ 4,089,735	21,414,531	15%	18%	28%
10	Westminster Avenue ¹	2011	OCTA	13	48	\$ 308,847	\$ 4,233,390	22,166,736	14%	17%	35%
11	Brookhurst Street ¹	2012	OCTA	16	56	\$ 631,764	\$ 7,850,213	41,105,031	19%	18%	31%
12	El Toro Road ¹	2012	OCTA	11	40	\$ 478,916	\$ 3,302,828	17,294,160	19%	24%	32%
13	Katella Avenue ¹	2012	OCTA	17	69	\$ 673,845	\$ 4,435,716	23,226,165	14%	14%	36%
14	La Palma Avenue ¹	2012	OCTA	18	61	\$ 803,999	\$ 6,281,546	32,391,229	18%	22%	27%
15	Bastanchury Road	2013	Fullerton	8	27	\$ 539,936	\$ 1,053,007	5,513,723	13%	15%	49%
16	Euclid Street*	2013	Fullerton	17	66	\$ 1,000,000	\$ 4,316,031	22,599,458	15%	17%	39%
17	Lambert Avenue	2013	La Habra	10	26	\$ 520,000	\$ 4,578,312	23,972,807	14%	16%	41%
18	Tustin Avenue/Rose Drive	2013	OCTA	10	43	\$ 683,200	\$ 2,309,842	12,094,717	15%	17%	37%
19	Yorba Linda Boulevard ¹	2013	OCTA	12	46	\$ 521,837	\$ 1,813,693	9,496,799	12%	10%	21%
20	Lincoln Avenue	2014	Anaheim	13	53	\$ 777,910	\$ 1,564,300	8,190,935	9%	15%	25%
21	Valley View Street	2014	Buena Park	3	20	\$ 280,000	\$ 3,056,089	16,002,194	28%	24%	37%
22	17th Street	2014	Costa Mesa	3	9	\$ 220,000	\$ 123,098	644,563	7%	3%	0%
23	Baker Street/Placentia Avenue	2014	Costa Mesa	8	27	\$ 519,960	\$ 540,228	2,828,724	14%	16%	34%
24	Fairview Road/Street	2014	Costa Mesa	8	31	\$ 620,001	\$ 1,735,472	9,087,220	11%	12%	24%
25	Victoria Street	2014	Costa Mesa	3	11	\$ 200,000	\$ 124,820	653,581	22%	15%	25%
26	Brea Boulevard	2014	Fullerton	4	16	\$ 320,000	\$ 813,531	4,259,783	12%	13%	43%
27	Commonwealth Avenue	2014	Fullerton	8	30	\$ 600,000	\$ 803,023	4,204,761	11%	12%	36%
28	Lemon Street/Anaheim Boulevard	2014	Fullerton	2	13	\$ 280,000	\$ 531,872	2,784,969	16%	21%	40%
29	Placentia Avenue	2014	Fullerton	4	15	\$ 380,000	\$ 570,921	2,989,436	18%	22%	48%
30	Culver Drive	2014	Irvine	11	39	\$ 779,856	\$ 3,625,648	18,984,498	12%	12%	19%
31	Jamboree Road	2014	Irvine	9	27	\$ 230,608	\$ 3,173,217	16,615,495	9%	9%	19%
32	Jeffrey Road	2014	Irvine	9	40	\$ 410,032	\$ 1,910,910	10,005,845	9%	10%	26%
33	La Habra Boulevard/Central Avenue/ State College Boulevard	2014	La Habra	6	23	\$ 460,000	\$ 1,550,184	8,117,025	10%	11%	27%
34	Paseo de Valencia	2014	Laguna Hills	3	12	\$ 190,742	\$ 169,859	889,411	8%	5%	34%
35	Ball Road	2014	OCTA	11	38	\$ 733,416	\$ 1,532,115	8,022,411	5%	7%	13%

Summary of Results for Completed Regional Traffic Signal Synchronization Projects

	Corridor Name	Timing Completed	Lead Agency	Length (Miles)	Signals	M1 / M2 Grant Board Allocation	Estimated Project Life Gas Savings (Dollars)^a	Estimated Project Life Greenhouse Gas Savings (lbs.)	Travel Time Improvement	Average Speed Improvement	Stops Improvement
36	Crown Valley Parkway	2014	OCTA	9	30	\$ 367,200	\$ 556,861	2,915,820	4%	3%	20%
37	Edinger Avenue*	2014	OCTA	12	38	\$ 753,800	\$ 1,264,832	6,622,870	2%	5%	25%
38	First Street/Bolsa Avenue	2014	OCTA	12	49	\$ 980,000	\$ 3,506,276	18,359,448	11%	12%	26%
39	Lake Forest Drive	2014	OCTA	2	10	\$ 119,679	\$ 685,904	3,591,510	19%	23%	33%
40	Los Alisos Boulevard	2014	OCTA	7	21	\$ 332,617	\$ 27,876	145,962	5%	3%	16%
41	MacArthur Boulevard/Talbert Avenue	2014	OCTA	7	24	\$ 392,256	\$ 524,129	2,744,427	7%	8%	13%
42	Magnolia Street	2014	OCTA	16	54	\$ 399,943	\$ 2,208,937	11,566,362	10%	12%	26%
43	Marguerite Parkway	2014	OCTA	9	31	\$ 323,056	\$ 609,084	3,189,264	11%	12%	21%
44	Pacific Park Drive/Oso Parkway*	2014	OCTA	8	32	\$ 490,222	\$ 1,912,481	10,014,071	16%	19%	29%
45	Warner Avenue	2014	OCTA	13	43	\$ 621,848	\$ 1,797,186	9,410,366	8%	6%	15%
46	Avenida Pico	2014	San Clemente	4	21	\$ 416,453	\$ 705,991	3,696,687	9%	10%	21%
47	El Camino Real	2014	San Clemente	4	19	\$ 359,998	\$ 1,482,733	7,763,838	9%	10%	25%
48	Del Obispo Street	2014	San Juan Capistrano	4	16	\$ 138,800	\$ 992,762	5,198,269	13%	10%	11%
49	Knott Avenue	2015	Buena Park	7	28	\$ 448,000	\$ 1,918,098	10,043,483	23%	26%	37%
50	Newport Coast Drive	2015	Newport Beach	5	15	\$ 260,000	\$ 651,984	3,413,896	10%	0%	6%
51	San Joaquin Hills Road	2015	Newport Beach	4	11	\$ 220,000	\$ 584,913	3,062,701	11%	12%	32%
52	Jeronimo Road ¹	2015	OCTA	6	16	\$ 267,360	\$ 1,508,063	7,896,471	12%	3%	35%
53	Santa Margarita Parkway	2015	OCTA	5	20	\$ 311,912	\$ 1,705,334	8,929,416	15%	18%	41%
54	Trabuco Road ¹	2015	OCTA	5	16	\$ 266,971	\$ 1,294,844	6,780,018	15%	18%	32%
55	Avenida Vista Hermosa	2015	San Clemente	3	17	\$ 305,856	\$ 252,899	1,324,219	17%	19%	54%
56	Camino De Los Mares	2015	San Clemente	2	13	\$ 248,208	\$ 1,806,683	3,153,365	27%	37%	57%
57	Artesia Boulevard	2016	Buena Park	2	11	\$ 422,142	\$ 795,156	4,163,572	20%	16%	38%
58	Alton Parkway	2016	Irvine	14	48	\$ 1,209,396	\$ 3,082,089	16,138,332	12%	14%	39%
59	Barranca Parkway	2016	Irvine	13	44	\$ 2,106,434	\$ 2,734,900	14,320,395	10%	11%	26%
60	Adams Avenue ¹	2016	OCTA	5	17	\$ 1,042,374	\$ 2,065,973	10,817,781	7%	14%	27%
61	Antonio Parkway ¹	2016	OCTA	10	27	\$ 1,156,920	\$ 2,274,125	11,907,699	16%	19%	23%
62	Bake Parkway	2016	OCTA	6	19	\$ 532,603	\$ 1,434,344	7,510,464	12%	12%	28%
63	La Paz Road	2016	OCTA	8	23	\$ 328,192	\$ 1,951,861	10,220,270	14%	16%	21%
64	Newport Avenue/Boulevard (North) ¹	2016	OCTA	7	24	\$ 946,045	\$ 581,731	3,046,041	12%	15%	36%
65	Newport Boulevard (South)	2016	OCTA	7	33	\$ 1,304,596	\$ 944,446	4,945,276	5%	7%	17%
66	State College Boulevard* ¹	2016	OCTA	5	35	\$ 1,041,579	\$ 1,484,920	7,775,289	10%	11%	16%
67	Seal Beach Boulevard/Los Alamitos Boulevard	2016	Seal Beach	3	13	\$ 586,720	\$ 1,016,379	5,321,931	10%	11%	31%
68	Anaheim Boulevard	2017	Anaheim	4	18	\$ 787,940	\$ (95,430)	(499,686)	-1%	0%	9%
69	Harbor Boulevard*	2017	Anaheim	4	22	\$ 731,867	\$ 1,414,593	7,407,047	8%	9%	15%
70	Birch Street/Rose Drive	2017	Brea	4	14	\$ 664,230	\$ 629,603	3,296,709	23%	30%	37%

Summary of Results for Completed Regional Traffic Signal Synchronization Projects

	Corridor Name	Timing Completed	Lead Agency	Length (Miles)	Signals	M1 / M2 Grant Board Allocation	Estimated Project Life Gas Savings (Dollars) ¹	Estimated Project Life Greenhouse Gas Savings (lbs.)	Travel Time Improvement	Average Speed Improvement	Stops Improvement
71	Bristol Street*	2017	OCTA	8	45	\$ 1,884,620	\$ 1,649,926	8,639,290	7%	8%	13%
72	Goldenwest Street	2017	OCTA	8	32	\$ 380,800	\$ 374,406	1,960,454	11%	7%	23%
73	Harbor Boulevard*	2017	Santa Ana	10	46	\$ 1,852,080	\$ 4,320,825	22,624,563	10%	10%	15%
74	Sunflower Avenue	2018	Costa Mesa	3	14	\$ 617,960	\$ 631,288	3,305,529	15%	32%	38%
75	Imperial Highway/SR-90	2018	La Habra	10	46	\$ 2,760,001	\$ 6,317,107	33,077,428	14%	17%	22%
76	El Toro Road*	2018	Laguna Woods	3	15	\$ 514,000	\$ 1,116,724	5,847,356	17%	20%	33%
77	Moulton Parkway*	2018	Laguna Woods	11	37	\$ 645,440	\$ 939,620	4,920,008	12%	2%	41%
78	Marguerite Parkway*	2018	Mission Viejo	9	30	\$ 759,232	\$ 1,663,372	8,709,695	8%	9%	18%
79	Olympiad Road-Felipe Road	2018	Mission Viejo	6	18	\$ 515,656	\$ 197,900	1,036,240	3%	3%	6%
80	Chapman Avenue*	2018	OCTA	14	55	\$ 2,344,044	\$ 2,322,428	12,160,622	8%	9%	0%
81	Kraemer Boulevard/Glassell Street/ Grand Avenue	2018	OCTA	15	61	\$ 2,433,520	\$ 1,722,240	441,600	12%	7%	8%
82	Orangewood Avenue	2019	Anaheim	3	15	\$ 683,328	\$ 1,140,726	5,973,032	17%	22%	46%
83	Irvine Boulevard	2019	Irvine	7	29	\$ 378,166	\$ 2,757,359	14,437,996	17%	21%	37%
84	Irvine Center Drive/Edinger Avenue*	2019	Irvine	9	39	\$ 1,824,000	\$ 3,402,931	17,818,317	16%	19%	31%
85	Von Karman Avenue/Tustin Ranch Road	2019	Irvine	8	30	\$ 1,439,980	\$ 2,231,534	11,684,688	13%	14%	27%
86	Alicia Parkway*	2019	OCTA	11	40	\$ 1,847,200	\$ 3,550,240	18,589,652	12%	13%	31%
87	Coast Highway	2019	OCTA	9	27	\$ 1,799,210	\$ 1,907,001	9,985,376	5%	5%	8%
88	El Toro Road*	2019	OCTA	7	25	\$ 1,112,447	\$ 4,079,112	21,358,911	20%	25%	42%
89	Westminster Avenue/17th Street*	2019	OCTA	16	63	\$ 2,820,102	\$ 141,754	742,246	5%	5%	16%
90	Camino Vera Cruz	2019	San Clemente	1	5	\$ 192,686	\$ 145,831	763,596	9%	8%	35%
91	La Palma Avenue ²	2020	Anaheim	11	39	\$ 2,518,146	\$ 6,957,096	36,428,521	7%	6%	16%
92	Fairview Road ²	2020	Costa Mesa	9	34	\$ 1,695,150	\$ 8,987,055	47,057,724	27%	30%	45%
93	Brookhurst Street ²	2020	OCTA	17	59	\$ 2,895,884	\$ 12,421,778	65,042,507	19%	25%	35%
94	Los Alisos Boulevard Route ¹²	2020	OCTA	11	40	\$ 1,777,782	\$ 550,476	2,882,383	2%	2%	19%
95	Magnolia Street ²	2020	OCTA	16	50	\$ 2,711,694	\$ 276,528	1,447,948	2%	0%	3%
96	Garden Grove Boulevard ¹²	2021	OCTA	9	34	\$ 2,116,670	\$ 3,086,850	16,163,261	14%	16%	30%
97	Main Street ¹²	2021	OCTA	12	67	\$ 3,058,176	\$ 3,120,385	16,338,858	14%	15%	28%
98	Katella Avenue ¹²	2022	OCTA	20	73	\$ 3,924,488	\$ 4,645,486	24,324,540	9%	10%	24%
Summary of All Projects				886	3445	\$ 88,270,884	\$ 224,814,394	1,161,782,745	13%	14%	28%

* Project is a revisit and retiming of a previously funded corridor.

¹ Project Board allocation includes external funding.

² After study runs for these corridors were collected after the breakout of the coronavirus pandemic and results could be negatively impacted.

[^] \$3.90 per gal gasoline price used to estimate savings.

Note: Improvements are averaged across both directions over the full corridor.

Board - Board of Directors

gal - gallons

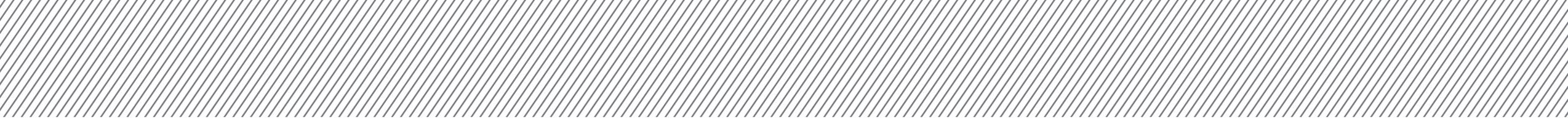
lbs - pounds

M1 - Measure 1

M2 - Measure M2

OCTA - Orange County Transportation Authority

SR-90 - State Route 90



Regional Traffic Signal Synchronization Program Update

Signal Synchronization Program Overview

Program

- M2: RTSSP or Project P
- Various sources have been used to fund signal synchronization projects, including external funding (SB 1 {Chapter 5, Statutes of 2017} LPP and SCCP grants)

Goal

- Improve the flow of traffic by developing and implementing regional signal coordination projects that cross jurisdictional boundaries

Approach

- Target over 2,000 signalized intersections across the County
- Release an annual competitive call for projects for local cities and the County to apply
- Local agencies to contribute 20 percent of the costs to deliver awarded projects

Typical Scope of Work

PRIMARY IMPLEMENTATION PHASE

O&M PHASE

Data Collection

Agency-Provided
Information

Detailed Field
Review

Traffic Counts

Travel Time
Studies

Design

Design Plans for
Capital
Improvements

Basic Timing
Settings

Optimize Timing
Plans

Implementation

Field Devices
Central System
Software

Updated Basic
Timing Settings

New Optimized
Timing Plans

Ongoing
Monitoring and
Support for
Two Years

Signal Operation

Capital Improvements

Sample Signal Infrastructure Improvements

Central System



Advanced Traffic Management System



Video Management System



Traffic Responsive Timing Plans

Field Devices



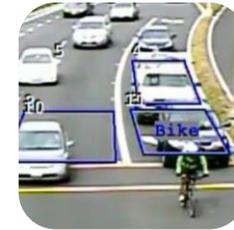
Fiber Optic Communications



Advanced Traffic Signal Controller



Closed Circuit Television Camera



Vehicle/Bicycle Detection System

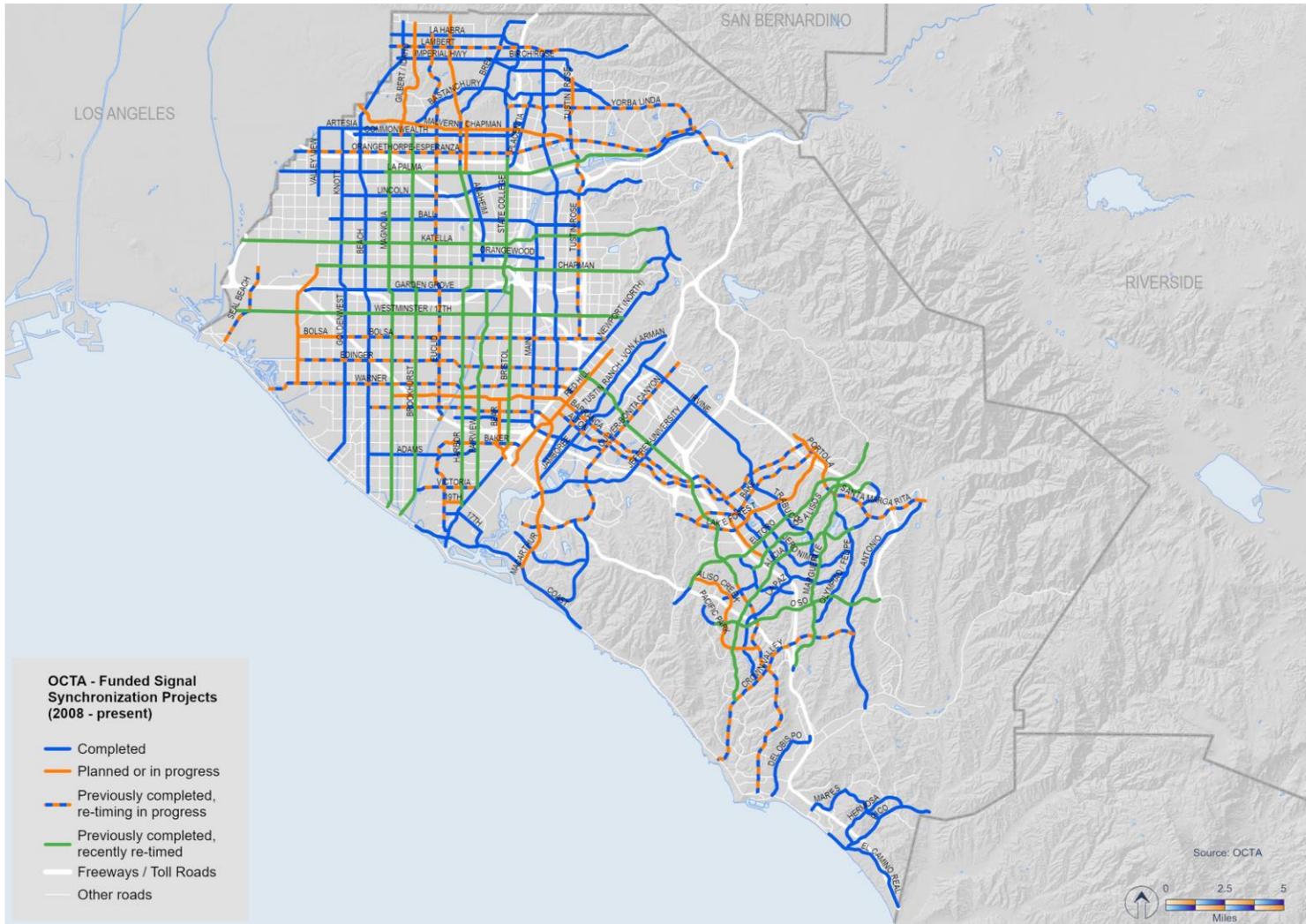


Emergency Vehicle Preemption



Accessible Pedestrian Signals

Projects Completed, Planned, or In-Progress



Funded Signal Synchronization Projects (2008 – present)

98 COMPLETED

- 77 Completed
- 21 Previously completed, recently re-timed

27 UNDERWAY

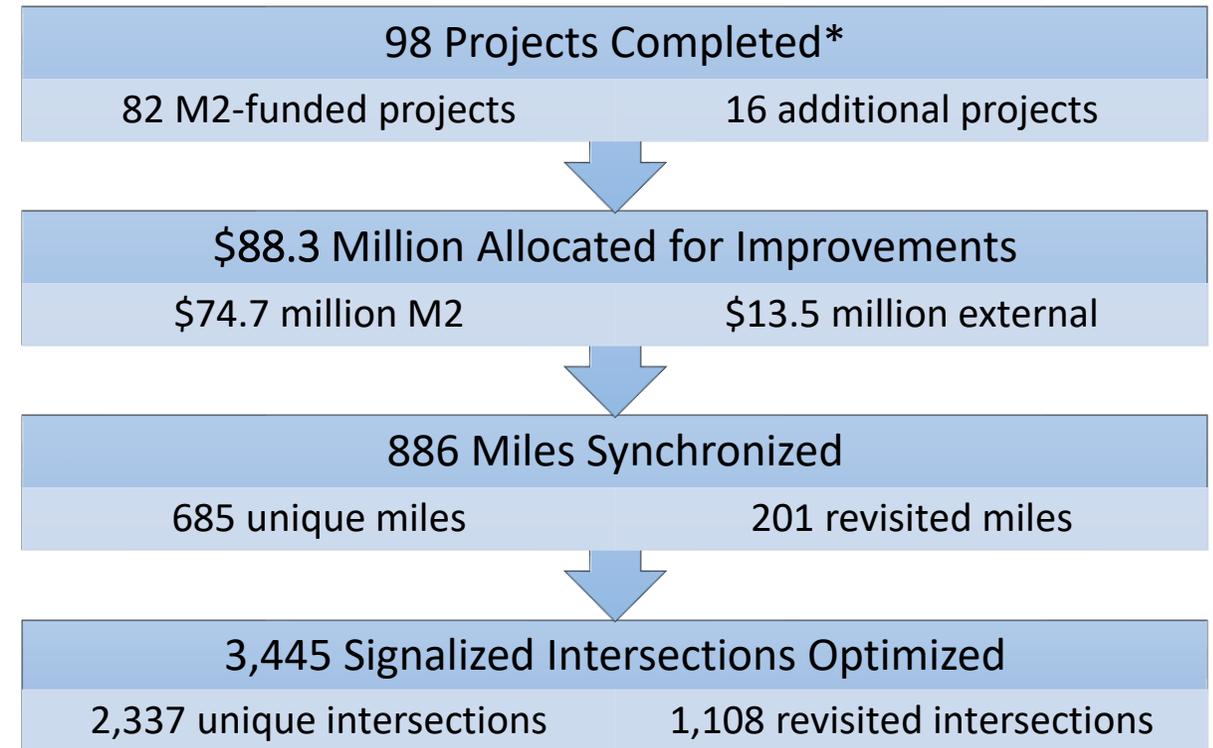
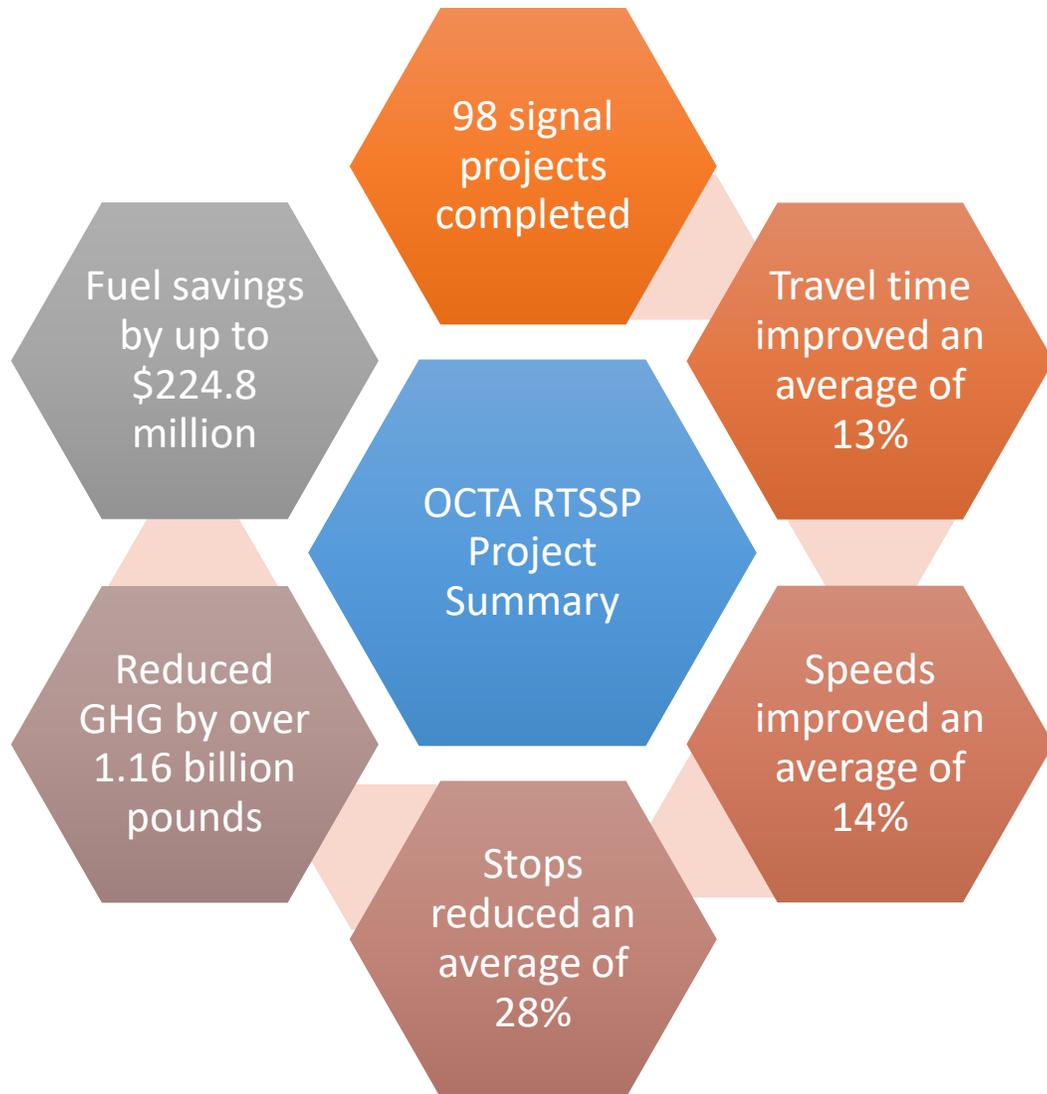
- 11 Planned or in progress
- 16 previously completed, re-timing in progress

Recently Completed Projects

	Fairview Road*	Garden Grove Boulevard	La Palma Avenue*	Katella Avenue*
Lead Agency	City of Costa Mesa	OCTA	City of Anaheim	OCTA
Project Limits	Garden Grove Boulevard to Vanguard Way	Valley View Street to Bristol Street	Woodland Drive to Chrisden Street	Interstate 605 On-Ramp to Jamboree Road
Timing Completed	2020	2021	2020	2022
Length (miles)	8.97	8.66	11.24	19.62
Signalized Intersections	34	34	39	73
Travel Time Improvement	27% 	14% 	7% 	9% 
Average Speed Improvement	30% 	16% 	6% 	10% 
Stops Improvement	45% 	30% 	16% 	24% 

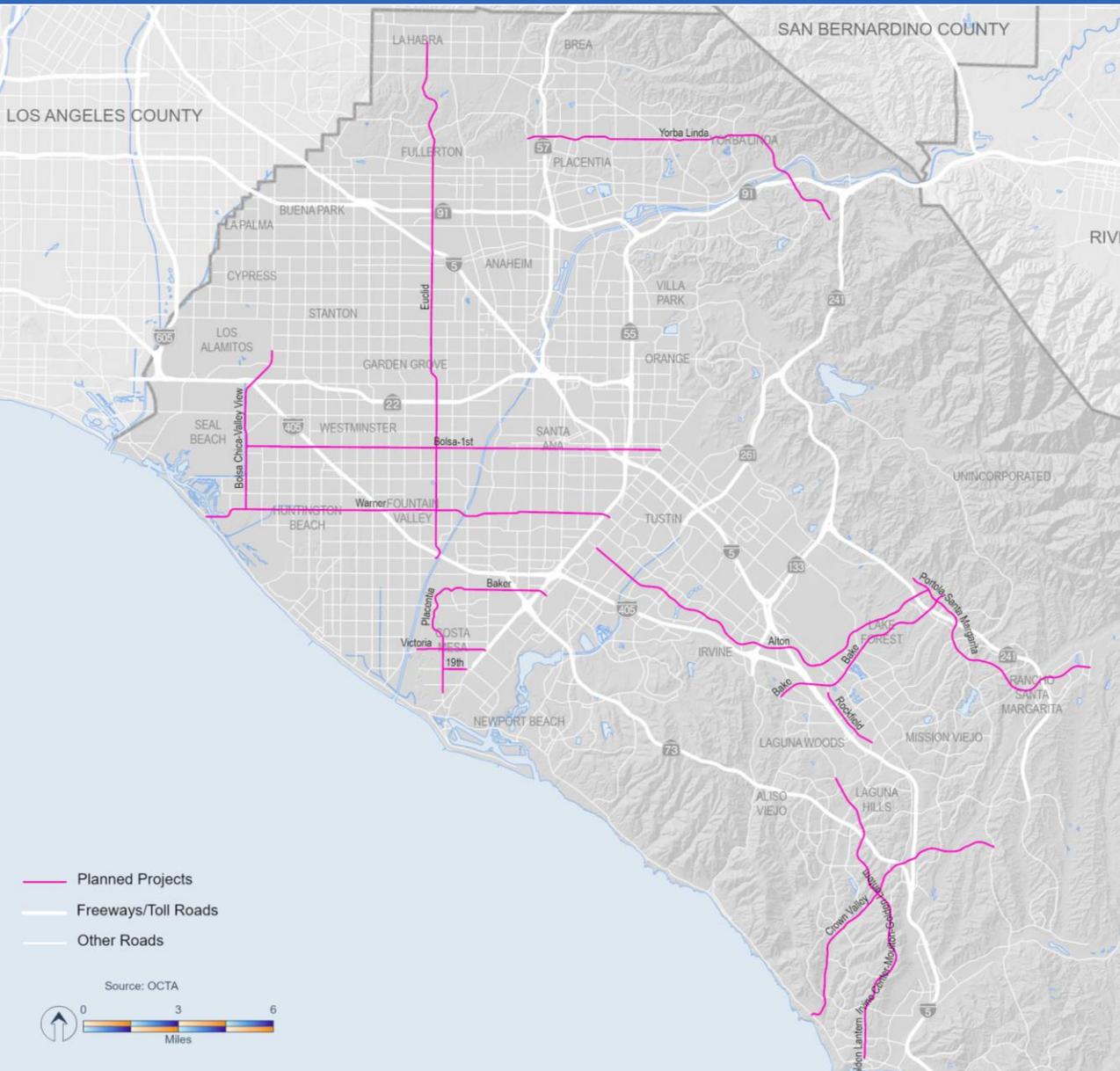
* Denotes a corridor that has been revisited

Results for All Completed Projects



* 21 projects are a revisit of a previously completed corridor

Planned Projects



- 6 corridors (North OC)
- \$19.92 million improvements along approximately 71 miles and 388 signals
- 5 corridors (South OC)
- \$12.84 million improvements along approximately 48 miles and 316 signals

Next Steps

- Review applications submitted for Project P on October 20, 2022, as part of the competitive call for projects (Cycle 13)
- Continue to work with local agencies to identify corridors that are eligible for funding and would benefit from signal program funding as part of the annual call for projects
- Implement a countywide signal synchronization baseline that will set the stage for the next phase of the signal program