



# AGENDA

## *Highways Committee Meeting*

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### **Committee Members**

Paul Glaab, Chairman  
Cathy Green, Vice Chairman  
Jerry Amante  
Carolyn Cavecche  
Richard Dixon  
Allan Mansoor  
Chris Norby  
Curt Pringle

Orange County Transportation Authority Headquarters  
600 South Main Street, First Floor - Room 154  
Orange, California

**Monday, September 21, 2009, at 10:00 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, telephone (714) 560-5676, no less than two (2) business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

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.

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

### **Call to Order**

### **Pledge of Allegiance**

Committee Vice Chairman Green

### **1. Public Comments**

### **Special Calendar**

There are no Special Calendar matters.



# **AGENDA**

## ***Highways Committee Meeting***

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### **Consent Calendar (Items 2 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.

#### **2. Approval of Minutes**

Of the August 17, 2009, Highways Committee meeting.

#### **3. Cooperative Agreements with the City of Buena Park for Allocation of Regional Surface Transportation Program Funds and the County of Orange for the Transfer of Regional Surface Transportation Program Funds** Abbe McClenahan/Kia Mortazavi

##### ***Overview***

The City of Buena Park and the County of Orange have requested programming commitments for federal Regional Surface Transportation Program funds. The Firestone Boulevard reconstruction and Antonio Parkway widening projects are eligible projects to receive federal funding, and the City of Buena Park and County of Orange will be direct recipients of federal funds and provide an 11.47 percent local match. Funding cooperative agreements are presented for Board of Directors' review and approval.

##### ***Recommendations***

- A. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-9-0605 with the City of Buena Park to identify funding responsibilities for the Firestone Boulevard reconstruction project.
- B. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-9-0608 with the County of Orange for transfer of Regional Surface Transportation Program funds from existing Orange County projects to the Antonio Parkway widening project.
- C. Direct staff to prepare and submit any necessary programming amendments to the Regional Transportation Improvement Program and enter into any necessary agreements to facilitate the above actions.





# AGENDA

## Highways Committee Meeting

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**4. Extend Agreement with the California State University, Fullerton Center for Demographic Research Services for Fiscal Year 2009-10**

Anup Kulkarni/Kia Mortazavi

### **Overview**

The Center for Demographic Research at California State University, Fullerton develops population, employment, and other demographic projections used by the Orange County Transportation Authority for transportation planning studies and environmental documents. A recommendation to continue this agreement for one additional year is provided for Board of Directors' review and approval.

### **Recommendation**

Authorize the Chief Executive Officer to execute Amendment 4 to Agreement No. C-6-0191, for an amount not to exceed \$152,000, with the California State University, Fullerton Center for Demographic Research, and to extend the agreement through June 30, 2010, bringing the total contract value to \$499,342.

**5. Proposition 1B Traffic Light Synchronization Program - Substitution of Valley View Street/Bolsa Chica Road with El Toro Road**

Ronald Keith/Kia Mortazavi

### **Overview**

On March 24, 2008, the Board of Directors approved ten corridors for the state Proposition 1B Traffic Light Signal Synchronization Program. On May 14, 2009, the state allocated \$1.55 million to the Orange County Transportation Authority for fiscal year 2008-09, allowing work to start on the first three corridor projects: Alicia Parkway, Beach Boulevard, and Chapman Avenue. For fiscal year 2009-10, the state has indicated that it will be postponing the allocation of additional Proposition 1B funds to a future date. To respond to this delay, as well as ensure coordination with the upcoming construction of the West County Connectors Project, staff is recommending a substitute corridor for the Valley View Street/Bolsa Chica Road project. Staff, in coordination with the local agencies, has identified El Toro Road (Laguna Canyon Road to Live Oak Canyon) as a candidate replacement project.



# **AGENDA**

## ***Highways Committee Meeting***

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### **5. (Continued)**

#### ***Recommendations***

- A. Authorize the Chief Executive Officer to submit El Toro Road as a substitute corridor for Valley View Street/Bolsa Chica Road to the California Department of Transportation and the California Transportation Commission as part of the Proposition 1B Traffic Light Synchronization Program.
- B. Authorize staff to make all necessary amendments to the Regional Transportation Improvement Program and State Transportation Improvement Program and execute any necessary agreements to facilitate the above action.

### **Regular Calendar**

#### **6. Combined Transportation Funding Program Project Delivery Options** Roger M. Lopez/Kia Mortazavi

#### ***Overview***

As the sunset of Measure M approaches, staff has performed a detailed analysis of the Combined Transportation Funding Program and has forecasted a potential balance of unobligated funds. In response to the current project delivery trend and this potential funding balance, staff has prepared options for the mitigation of this trend to ensure the full delivery of the program.

#### ***Recommendations***

- A. Approve phase one of the Combined Transportation Funding Program project delivery mitigation strategy recommended by the Technical Advisory Committee.
- B. Authorize staff to develop phase one guidelines to implement the mitigation plan and return with the guidelines in October 2009.



# AGENDA

## Highways Committee Meeting

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### 7. **Central County Corridor Major Investment Study Update - Reduced Set of Alternative Strategies**

Tamara Warren/Kia Mortazavi

#### **Overview**

The Orange County Transportation Authority is conducting a major investment study for the central Orange County area. Preliminary analysis of a broad range of alternatives is complete. A reduced set of options has been identified and is presented for Board of Directors' review and approval.

#### **Recommendations**

- A. Approve the initial screening report recommending a reduced set of five alternative strategies for additional engineering and environmental analysis.
- B. Direct staff to return to the Board of Directors by April 2010 to provide an update on the analysis of the reduced set of alternative strategies.

### **Discussion Items**

#### 8. **Chief Executive Officer's Report**

#### 9. **Committee Members' Reports**

#### 10. **Closed Session**

There is no Closed Session scheduled.

#### 11. **Adjournment**

The next regularly scheduled meeting of this Committee will be held at **10:00 a.m. on October 5, 2009**, at the OCTA Headquarters.





# **MINUTES**

## ***Highways Committee Meeting***

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### ***Committee Members Present***

*Paul Glaab, Chairman  
Cathy Green, Vice Chairman  
Jerry Amante  
Carolyn Cavecche  
Richard Dixon  
Allan Mansoor  
Chris Norby  
Curt Pringle*

### ***Staff Present***

*Will Kempton, Chief Executive Officer  
James S. Kenan, Deputy Chief Executive Officer  
Wendy Knowles, Clerk of the Board  
Laurena Weinert, Assistant Clerk of the Board  
Kennard R. Smart, Jr., General Counsel  
OCTA Staff and members of the General Public*

### ***Committee Members Absent***

*None*

## **Call to Order**

The August 17, 2009, regular meeting of the Highways Committee was called to order by Committee Chairman Glaab at 10:00 a.m.

## **Pledge of Allegiance**

Director Cavecche led in the Pledge of Allegiance.

### **1. Public Comments**

No public comments were received.

## **Special Matters**

There were no Special Calendar items.

## **Consent Calendar (Items 2 through 4)**

### **2. Approval of Minutes**

A motion was made by Committee Vice Chairman Green, seconded by Director Cavecche, and declared passed by those present, to approve minutes of the July 20, 2009, meeting.

Director Norby was not present to vote on this matter.



# **MINUTES**

## ***Highways Committee Meeting***

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### **3. Cooperative Agreements with the California Department of Transportation and the City of Seal Beach for the San Diego Freeway (Interstate 405) West County Connectors Project**

A motion was made by Committee Vice Chairman Green, seconded by Director Cavecche, and declared passed by those present, to:

- A. Authorize the Chief Executive Officer to execute Cooperative Agreement No. C-9-0628 between the Orange County Transportation Authority and the California Department of Transportation for construction of the east segment project of the West County Connectors Project, in an amount not to exceed \$17,500,000.
- B. Authorize the Chief Executive Officer to execute Cooperative Agreement No. C-9-0631 between the Orange County Transportation Authority and the City of Seal Beach, in an amount not to exceed \$7,174,000, to be received by the Orange County Transportation Authority from the City of Seal Beach for construction related to the widening of the Seal Beach Boulevard overcrossing, as part of the west segment project of the West County Connectors Project.

Director Norby was not present to vote on this matter.

### **4. Selection of Consultants for Construction Management Services for the San Diego Freeway (Interstate 405) West County Connectors Project**

A motion was made by Committee Vice Chairman Green, seconded by Director Cavecche, and declared passed by those present, to:

- A. Select Caltrop Corporation as the firm to perform construction management services for the west segment project of the San Diego Freeway (Interstate 405) West County Connectors Project.
- B. Select Harris & Associates, Inc., as the firm to perform construction management services for the east segment project of the San Diego Freeway (Interstate 405) West County Connectors Project.
- C. Authorize the Chief Executive Officer to request cost proposals from Caltrop Corporation and Harris & Associates, Inc., and negotiate an agreement for services.



# MINUTES

## Highways Committee Meeting

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### 4. (Continued)

- D. Authorize the Chief Executive Officer to execute Agreement No. C-9-0363 between the Orange County Transportation Authority and Caltrans Corporation to perform construction management services for the west segment of the San Diego Freeway (Interstate 405) West County Connectors Project.
- E. Authorize the Chief Executive Officer to execute Agreement No. C-9-0630 between the Orange County Transportation Authority and Harris & Associates, Inc., to perform construction management services for the east segment of the San Diego Freeway (Interstate 405) West County Connectors Project.

Directors Amante and Cavecche abstained on this matter.

Director Norby was not present to vote on this matter.

### Regular Calendar

### 5. Update on Project Alternatives for the San Diego Freeway (Interstate 405) Improvement Project

Rose Casey, Program Manager of Highway Project Delivery, presented an update regarding the project location, current and projected traffic analysis, four build alternatives findings, right-of-way analysis, funding, environmental phase schedule, and Policy Working Group/public outreach meetings.

Director Cavecche requested costs per minute versus benefits for improvement projects related to the high-occupancy vehicle (HOV) lanes development/conversion.

Director Glaab requested data regarding short-term benefits of project alternatives for the Interstate 405 (I-405) improvement project.

Directors Amante, Cavecche, and Pringle expressed concerns that Alternative 3, the high-occupancy toll (HOT) lanes (or Express Lane) option, would take away the existing HOV lanes. Staff stated that the proposed Alternative 3 would add one new Express Lane and include the existing HOV lane within the two-lane Express Lanes facility in each direction. The HOV lanes is not being eliminated or taken away. This alternative would also add one new general purpose (free) lane in each direction to fulfill the Renewed Measure M.



# MINUTES

## Highways Committee Meeting

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### 5. (Continued)

Staff will present at future Committee and Board meetings further information regarding the proposed Express Lanes concept, as well as the results of the traffic and revenue analysis. This information will also be provided for the Board's consideration before setting any operation and tolling policies for the HOV lanes and proposed Express Lanes facility for the I-405 improvement project.

Director Glaab requested data that the Express Lanes facility could significantly alleviate congestion on the I-405 by providing additional capacity. He also requested the feedback from the City Council briefings, as well as the stakeholder working group meetings.

Los Angeles Metropolitan Transportation Authority (Metro) and Caltrans District 7 are working on an I-405 design-build project to add a northbound HOV lane. In addition, their congestion pricing demonstration program is for Interstate 110 and 10, which will review converting the existing carpool lanes to toll lanes.

No action was taken on this receive and file information item.

### 6. **American Recovery and Reinvestment Act Program Update and Amendments to Transit and Surface Transportation Programs**

Abbe McClenahan, Capital Programs Manager, provided an update on the delivery status of the program of projects, discretionary grant programs, and requesting amendments to program transit funds for fixed-route operating assistance and re-program highway infrastructure cost savings.

There was additional discussion regarding:

- The Supplemental Appropriations Act of 2009 allows recipients of American Recovery and Reinvestment Act transit capital assistance an opportunity to use 10 percent towards fixed-route operating.
- Director Dixon requested that for future reference a clarification of the Pacific Surfliner corridor.
- Staff reported that the cities of Santa Ana and Tustin requested an OCTA letter of support for their Transportation Investment Generating Economic Recovery (TIGER) projects, which will be submitted directly to the Federal Highways Administration (FHWA).
- The Committee requested that the letters of support to be letters of facts. Staff will return to this Committee and Board with the letters of facts, provide information on Santa Ana's and Tustin's projects, and explain the TIGER funding/process.





# MINUTES

## Highways Committee Meeting

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### 6. (Continued)

- The TIGER program allows agencies to individually submit applications directly to the FHWA.
- Staff interacted with the Orange County agencies to come up with a comprehensive Orange County TIGER list of projects for the State, which was approved by the Board.
- The State has a TIGER stakeholder group, which represents the ports, transit, and regional agencies. The stakeholder group will prioritize the recommended projects going forward to the FHWA.

A motion was made by Committee Vice Chairman Green, seconded by Director Dixon, and declared passed by those present, to:

- A. Authorize staff to direct \$7.68 million of American Recovery and Reinvestment Act transit funds to fixed-route operating assistance.
- B. Authorize staff to apportion cost savings from the Riverside Freeway (State Route 91) Widening Project to the Garden Grove Freeway (State Route 22) West County Connectors Project.
- C. Direct staff to prepare and submit any necessary programming amendments to the Regional Transportation Improvement Program, submit necessary Federal Transit Administration grant applications, and execute any necessary agreements to facilitate above actions.

### Discussion Items

#### 7. Costa Mesa Freeway (State Route 55) Access Study Update

Tammy Warren, Project Manager, reported that at the May 18 Highways Committee meeting, Director Mansoor requested that staff meet with the cities of Costa Mesa, Huntington Beach, and Newport Beach to discuss the appropriate led agency and review the project study report agreement.

Staff and the three cities met and agreed that a business and economic study needed to be completed or initiated by Costa Mesa. The City of Costa Mesa is drafting a scope of work for that study. In addition, OCTA staff will return to this Committee and Board within a few months with a draft cooperative agreement.

Director Norby inquired about the speed harmonization status. James Pinheiro, Caltrans District 12, Deputy District Director of Operations, responded that a follow-up report would be presented to this Committee in October 2009.



# **MINUTES**

## ***Highways Committee Meeting***

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### **8. Chief Executive Officer's Report**

Chief Executive Officer, Will Kempton, reported on upcoming OCTA meetings, events, and presentations.

On Tuesday, August 18, Director Cavecche and Kristine Essner, State Relations, will attend the Regional Targets Advisory Committee meeting in Sacramento.

### **9. Committee Members' Reports**

There were no Committee Members' reports.

### **10. Closed Session**

A Closed Session was not conducted at this meeting.

### **11. Adjournment**

The meeting adjourned at 11:15 a.m. The next regularly scheduled meeting of this Committee will be held at **10:00 a.m. on September 21, 2009**, at the OCTA Headquarters.

ATTEST

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Laurena Weinert  
Assistant Clerk of the Board

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Paul Glaab  
Committee Chairman





**September 21, 2009**

**To:** Highways Committee

**From:** Will Kempton, Chief Executive Officer

**Subject:** Cooperative Agreements with the City of Buena Park for Allocation of Regional Surface Transportation Program Funds and the County of Orange for the Transfer of Regional Surface Transportation Program Funds

**Overview**

The City of Buena Park and the County of Orange have requested programming commitments for federal Regional Surface Transportation Program funds. The Firestone Boulevard reconstruction and Antonio Parkway widening projects are eligible projects to receive federal funding, and the City of Buena Park and County of Orange will be direct recipients of federal funds and provide an 11.47 percent local match. Funding cooperative agreements are presented for Board of Directors' review and approval.

**Recommendations**

- A. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-9-0605 with the City of Buena Park to identify funding responsibilities for the Firestone Boulevard reconstruction project.
- B. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-9-0608 with the County of Orange for transfer of Regional Surface Transportation Program funds from existing Orange County projects to the Antonio Parkway widening project.
- C. Direct staff to prepare and submit any necessary programming amendments to the Regional Transportation Improvement Program and enter into any necessary agreements to facilitate the above actions.

***Discussion***

On July 16, 2009, the City of Buena Park (City) requested the use of Regional Surface Transportation Program (RSTP) funds for the Firestone Boulevard reconstruction project to complement the Santa Ana Freeway (Interstate 5) Gateway Improvement Project. The total project cost is \$3,566,000, including a local match of \$409,000. The RSTP funding, in the amount of \$3,156,980, is made available as a result of project saving's from other completed RSTP funded projects. This project is currently programmed in the Regional Transportation Improvement Program (RTIP) and has obtained the required federal environmental clearance. The Orange County Transportation Authority Interstate 5 (I-5) Gateway Improvement Project includes widening of the Artesia Boulevard on- and off-ramps at the intersection of Firestone Boulevard, resulting in increased traffic volumes. The proposed Firestone Boulevard reconstruction project will complement the I-5 Gateway Improvement Project and improve freeway operations by ensuring the orderly clearing of the northbound traffic at the widened off-ramp. Design is currently underway and funds requested will be used for construction beginning in the fourth quarter of fiscal year (FY) 2009-10.

On June 27, 2005, the Board of Directors (Board) authorized RSTP funding to the County of Orange (County), in the amount of \$5,825,000, \$6,100,000, and \$3,573,814, for the Ortega Highway, La Pata Avenue, and Alton Parkway projects, respectively. On April 23, 2009, the County requested that the RSTP funds be transferred from the referenced projects to the Antonio Parkway widening project for construction expenditures expected in FY 2010-11. The total project cost is \$32,553,000, including \$15,498,814 of the transferred RSTP funds. The project is waiting analysis by the Southern California Association of Governments and to be included in the Regional Transportation Plan and subsequent RTIP. The County agrees to backfill funding to the projects from which the funding is being transferred.

Staff is seeking Board approval for the Chief Executive Officer to enter into cooperative agreements (Attachments A and B) with the City and County. Staff further requests authorization to amend the RTIP to program the funds. The City and County are eligible recipients of RSTP funds and will

**Cooperative Agreements with the City of Buena Park for Allocation of Regional Surface Transportation Program Funds and the County of Orange for the Transfer of Regional Surface Transportation Program Funds**

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**Page 3**

be direct recipients of these funds through the California Department of Transportation (Caltrans). The City and County are the lead agencies for the projects. Funding is subject to continuing resolution of the federal Safe, Accountable, Flexible Efficient Transportation Equity Act.

Fiscal Impact

None.

***Summary***

The City and the County have requested use of RSTP funding for the Firestone Boulevard reconstruction and the Antonio Parkway widening projects, respectively. The City and County will be direct recipients of RSTP funds through Caltrans and are the lead agencies for the projects. Funding cooperative agreements are presented for the Board's review and approval. The City and County will provide a local match contribution. Funding is subject to continuing resolution of the federal Safe, Accountable, Flexible Efficient Transportation Equity Act.

**Cooperative Agreements with the City of Buena Park for  
Allocation of Regional Surface Transportation Program Funds  
and the County of Orange for the Transfer of Regional  
Surface Transportation Program Funds**

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**Page 4**

***Attachments***

- A. Draft Cooperative Agreement No. C-9-0605 Between Orange County Transportation Authority and City of Buena Park for Firestone Boulevard Project
- B. Draft Cooperative Agreement No. C-9-0608 Between Orange County Transportation Authority and County of Orange for Antonio Parkway Project

**Prepared by:**



Abbe McClenahan  
Capital Programs Manager  
(714) 560-5673

**Approved by:**



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



Virginia Abadessa  
Director, Contracts Administration and  
Materials Management  
(714) 560-5623

**DRAFT****COOPERATIVE AGREEMENT NO. C-9-0605****BETWEEN****ORANGE COUNTY TRANSPORTATION AUTHORITY****AND****CITY OF BUENA PARK****FOR****FIRESTONE BOULEVARD PROJECT**

**THIS AGREEMENT** is effective this \_\_\_\_\_ day of \_\_\_\_\_ 2009, by and between the Orange County Transportation Authority, 550 South Main Street, P.O. Box 14184, Orange, California 92863-1584, a public corporation of the State of California (hereinafter referred to as "AUTHORITY"), and the City of Buena Park, 6650 Beach Boulevard, California 90622, a municipal corporation (hereinafter referred to as "CITY").

**RECITALS:**

**WHEREAS**, AUTHORITY and the CITY desire to enter into a Cooperative Agreement to define the roles and responsibilities related to funding between the AUTHORITY and CITY for right-of-way acquisition, final design, construction management and construction of the widening and realignment of Firestone Blvd.; (hereinafter referred to as "PROJECT"); and

**WHEREAS**, PROJECT is related to the I-5 project and relieves capacity on the I-5 during peak hours; and

**WHEREAS**, CITY is an eligible recipient of Federal funding under the Regional Transportation Surface Program (RSTP) and the PROJECT is eligible for RSTP funding; and

**WHEREAS**, the AUTHORITY's Board of Directors, on August 24, 2009, approved funding providing \$3,156,980 of RSTP funds, and identifying \$409,020 of CITY local match for a total of \$3,566,000; and

**WHEREAS**, AUTHORITY and CITY agree that Caltrans and Federal Highway Administration (FHWA) authorization is required following the AUTHORITY's amendment to the



1 Regional Transportation Improvement Program (RTIP), and in order to proceed or commence each  
2 phase of PROJECT for performance under this Agreement; and

3 **WHEREAS**, AUTHORITY and CITY agree that the Federal Safe, Accountable, Flexible,  
4 Efficient Transportation Equity Act - A Legacy for Users which provides the RSTP funding and was  
5 passed by the federal government in 2005 will expire in September of 2009 and that RSTP funding  
6 for the PROJECT is contingent on funding being available through this Act and the PROJECT  
7 maintaining its eligibility for this funding; and

8 **WHEREAS**, AUTHORITY and CITY agree that the CITY is the direct recipient for RSTP  
9 funds through Caltrans; and

10 **WHEREAS**, CITY and AUTHORITY agree that the total full funding for the PROJECT  
11 including right-of-way acquisition, final design, construction management and construction shall be  
12 Three Million Five Hundred Sixty Six Thousand Dollars (\$3,566,000) in accordance with the funding  
13 schedule shown as Exhibit 1, which is attached herein and incorporated by reference; and

14 **WHEREAS**, CITY agrees to act as lead agency for final design, right-of-way acquisition,  
15 construction management and construction of said PROJECT; and

16 **WHEREAS**, this Cooperative Agreement defines the specific terms and conditions and  
17 funding responsibilities between AUTHORITY and CITY for completion of the PROJECT.

18 **WHEREAS**, the AUTHORITY's Board of Directors approved the Cooperative Agreement on  
19 August 24, 2009; and

20 **NOW, THEREFORE**, it is mutually understood and agreed by AUTHORITY and CITY as  
21 follows:

22 **ARTICLE 1. COMPLETE AGREEMENT**

23 A. This Agreement, including any exhibits and documents incorporated herein and made  
24 applicable by reference, constitute the complete and exclusive statement of the terms and conditions  
25 of this Agreement between AUTHORITY and CITY concerning funding of PROJECT. The above-  
26 referenced Recitals are true and correct and are incorporated by reference herein.

B. AUTHORITY'S failure to insist on any instance(s) of CITY's performance of any term(s) or condition(s) of this Agreement shall not be construed as a waiver or relinquishment of AUTHORITY's right to such performance or to future performance of such term(s) or condition(s), and CITY's obligation in respect thereto shall continue in full force and effect. Changes to any portion of this Agreement shall not be binding upon AUTHORITY except when specifically confirmed in writing by an authorized representative of AUTHORITY by way of a written amendment to this Agreement and issued in accordance with the provisions of this Agreement.

**ARTICLE 2. RESPONSIBILITIES OF AUTHORITY**

AUTHORITY agrees to the following responsibilities for PROJECT:

A. AUTHORITY shall formally request on behalf of the CITY that the Southern California Association of Governments (SCAG) amend the Regional Transportation Improvement Program (RTIP) to program \$3,566,000 dollars in accordance with the funding plan and schedule outlined in Exhibit 1, whereby AUTHORITY's performance under this Agreement is contingent upon SCAG and FHWA approval.

B. AUTHORITY shall provide assistance to CITY in securing the RSTP funds.

C. AUTHORITY shall not be obligated to program any amount beyond what has been identified in this Article.

D. AUTHORITY shall process any required RTIP amendments.

**ARTICLE 3 RESPONSIBILITIES OF CITY**

CITY agrees to the following responsibilities for PROJECT:

A. CITY will act as the lead agency for the final design, right-of-way, construction and construction management of the PROJECT.

B. CITY is responsible for preparing and submitting all necessary Caltrans required documentation including Request for Authorization to Proceed (E-76). CITY cannot proceed with any work prior to (E-76) authorization.

1 C. CITY agrees to provide \$409,020 as their local match funding in an amount not less  
2 than \$409,020; and

3 D. CITY is responsible for completing the PROJECT in accordance with the funding  
4 schedule (Exhibit 1), timely use of funds requirements, and to abide by all RSTP programming  
5 guidelines and any and all other requirements of the federal, state, and Caltrans related to the  
6 RSTP.

7 E. CITY is responsible for immediately notifying the AUTHORITY in writing of any  
8 changes to the PROJECT schedule that would jeopardize funding of the PROJECT.

9 F. CITY agrees that the overall budget for this PROEJCT is a not-to-exceed amount of  
10 Three Million Five Hundred Sixty Six Thousand Dollars (\$3,566,000); contingent on full funding from  
11 reauthorization or extension of SAFETLU.

12 G. CITY agrees that any cost overruns shall be the responsibility of the CITY.

13 H. CITY will submit periodic invoices to the California Department of Transportation.  
14 In addition, CITY shall submit final invoices to the U.S. Department of Transportation within 180  
15 days of PROJECT's completion and request the due RSTP funds.

16 I. In addition to meeting the requirements of Article 3, paragraph D, City will submit  
17 semi-annual report for the period of January 1 through June 30 due on July 31 of each year and for  
18 the period of July 1 through December 31 due on January 31 of each year to AUTHORITY providing  
19 summary information that includes brief summary of overall project progress, project schedule and  
20 adherence or deviations, project budget by phase and by source, funds spent by source and RSTP  
21 funds reimbursed through Caltrans.

22 J. CITY will comply with all federal, state and local laws and regulations.

23 K. CITY agrees to comply with all Federal Highway Administration third party  
24 contracting laws and regulations pursuant to including but not limited to federal, state, and local  
25 laws, and shall include all laws and regulations in any PROJECT related contract entered into by the  
26 CITY.

L. CITY shall indemnify, defend and hold harmless AUTHORITY, its officers, directors, employees and agents from and against any and all claims (including attorney's fees and reasonable expenses for litigation or settlement) for any loss or damages, bodily injuries, including death, worker's compensation subrogation claims, damage to or loss of use of property alleged to be caused by the negligent acts, omissions or willful misconduct by CITY, its officers, directors, employees or agents in connection with or arising out of the performance of this Agreement.

**ARTICLE 4. DELEGATED AUTHORITY**

The actions required to be taken by CITY in the implementation of this Agreement are delegated to its Director of Public Works or his designee and the actions required to be taken by AUTHORITY in the implementation of this Agreement are delegated to its Chief Executive Officer.

**ARTICLE 5. AUDIT AND INSPECTION**

CITY shall maintain a complete set of records in accordance with generally accepted accounting principles. Upon reasonable notice, CITY shall permit the authorized representatives of AUTHORITY to inspect and audit all work, materials, payroll, books, accounts and other data and records of CITY for a period of four (4) years after final payment, or until any on-going audit is completed. AUTHORITY shall also have the right to reproduce any such books, records and accounts. Contracts with CITY's contractors shall include the above provision with respect to audits.

**ARTICLE 6. IT IS MUTUALLY UNDERSTOOD AND AGREED:**

All parties agree to the following mutual responsibilities regarding PROJECT:

A. This Agreement shall continue in full force and effect through final acceptance of PROJECT by AUTHORITY or PROJECT close out date of December, 30 2011, or whichever is later. This Agreement may only be extended upon mutual agreement by both parties.

B. This Agreement may be terminated by either party after giving thirty (30) days written notice. This Agreement shall not be terminated without mutual agreement of both parties.

C. This Agreement may be amended in writing at any time by the mutual consent of both parties. No amendment shall have any force or effect unless executed in writing by both parties.

D. The persons executing this Agreement on behalf of the parties hereto warrant that

they are duly authorized to execute this Agreement on behalf of said parties and that, by so executing this Agreement, the parties hereto are formally bound to the provisions of this Agreement.

E. All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of said notices in person or by depositing said notices in the U.S. mail, registered, or certified mail and addressed as follows:

To CITY:	To AUTHORITY:
City of Buena Park	Orange County Transportation Authority
6650 Beach Boulevard,  Buena Park, CA 90622	550 South Main Street  P. O. Box 14184  Orange, CA 92863-1584
Attention: Jim Biery  Director of Public Works  cc. Nabel Henein	Attention: Venita Todd  Senior Contract Administrator cc: Abbe McClenahan, Capital Programs Manager
Tel: (714) 562-3685	Tel: (714) 560-5427; Fax: (714) 560-5734
Email: nhenein@buenapark.com	Email: vtodd@octa.net

F. The headings of all sections of this Agreement are inserted solely for the convenience of reference and are not part of and not intended to govern, limit or aid in the construction or interpretation of any terms or provision thereof.

G. The provision of this Agreement shall bind and inure to the benefit of each of the parties hereto and all successors or assigns of the parties hereto.

H. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or otherwise unenforceable, to any extent, by any court of competent jurisdiction, the remainder to this Agreement shall not be affected thereby, and each term, provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

I. This Agreement may be executed and delivered in any number of counterparts, each of which, when executed and delivered shall be deemed an original and all of which together shall

constitute the same agreement. Facsimile signatures will be permitted.

J. Either party shall be excused from performing its obligations under this Agreement during the time and to the extent that it is prevented from performing by an unforeseeable cause beyond its control, including but not limited to: any incidence of fire, flood; acts of God; commandeering of material, products, plants or facilities by the federal, state or local government; national fuel shortage; or a material act or omission by the other party; when satisfactory evidence of such cause is presented to the other party, and provided further that such nonperformance is unforeseeable, beyond the control and is not due to the fault or negligence of the party not performing.

This Agreement shall be effective upon execution by both parties.

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement No. C-9-0605 to be executed on the date first above written.

**CITY OF BUENA PARK**

**ORANGE COUNTY TRANSPORTATION AUTHORITY**

By: \_\_\_\_\_  
Don McCay  
Mayor

By: \_\_\_\_\_  
Will Kempton  
Chief Executive Officer

**ATTEST:**

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
Shalice Reynoso  
City Clerk

By: \_\_\_\_\_  
Kennard R. Smart, Jr.  
General Counsel

**APPROVED AS TO FORM:**

Steve L Dorsey,  
City Attorney

**APPROVAL RECOMMENDED:**

By: \_\_\_\_\_  
Deputy City Attorney

By: \_\_\_\_\_  
Kia Mortazavi  
Executive Director, Development

Dated: \_\_\_\_\_

Dated: \_\_\_\_\_

## Funding Schedule

AGREEMENT NO. C-9-0605

Exhibit 1

Funding Source	Fiscal Year Funding Available	Funding Amount	Phase	RSTP Funds Recipient
City Funds	2009-10	\$409,000	Construction	
RSTP	2009-10	\$3,157,000	Construction	City direct recipient
<b>Total</b>		<b>\$ 3,566,000</b>		

RSTP - Regional Surface Transportation Program

City - City of Buena Park

DRAFT

COOPERATIVE AGREEMENT NO. C-9-0608

BETWEEN

ORANGE COUNTY TRANSPORTATION AUTHORITY

AND

COUNTY OF ORANGE

FOR

ANTONIO PARKWAY PROJECT

**THIS AGREEMENT** is effective this \_\_\_\_\_ day of \_\_\_\_\_ 2009, by and between the Orange County Transportation Authority, 550 South Main Street, P.O. Box 14184, Orange, California 92863-1584, a public corporation of the State of California (hereinafter referred to as "AUTHORITY"), and the COUNTY of ORANGE, a political subdivision of the State of California (hereinafter referred to as "COUNTY").

**RECITALS:**

**WHEREAS**, AUTHORITY and the COUNTY desire to enter into a Cooperative Agreement to define the roles and responsibilities related to funding between the AUTHORITY and COUNTY for right-of-way acquisition, final design, construction management and construction of the buildout of Antonio Parkway to widen road from four to six lanes; beginning at the junction of Ortega Highway (State Route 74) and Antonio Parkway to Ladera Ranch community (hereinafter referred to as "PROJECT"); and

**WHEREAS**, COUNTY is an eligible recipient of Federal funding under the Regional Transportation Surface Program (RSTP) and the project is eligible for RSTP funding; and

**WHEREAS**, the AUTHORITY's Board of Directors, on August 24, 2009, approved revised funding providing \$15,499,000 of RSTP funds, and identifying \$17,054,000 of COUNTY local match for a total of \$32,553,000; and



**WHEREAS** , AUTHORITY and COUNTY agree that RSTP funds will be transferred from previously funded Ortega Highway, La Pata Avenue and Alton Parkway projects to the PROJECT; and

**WHEREAS**, COUNTY agrees to seek to secure full funding to replace transferred funds for Ortega Highway, La Pata Avenue and Alton Parkway projects

**WHEREAS**, AUTHORITY and COUNTY agree that Caltrans and Federal Highway Administration (FHWA) authorization is required following the AUTHORITY's amendment to the Regional Transportation Improvement Program (RTIP), and in order to proceed or commence each phase of PROJECT for performance under this Agreement; and

**WHEREAS**, AUTHORITY and COUNTY agree that the Federal Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users which provides the RSTP funding and was passed by the federal government in 2005 will expire in September of 2009 and that RSTP funding for the PROJECT is contingent on funding being available through extension or reauthorization of this Act and the PROJECT maintaining its eligibility for this funding; and

**WHEREAS**, AUTHORITY and COUNTY agree that the COUNTY is the recipient of RSTP funds through Caltrans; and

**WHEREAS**, COUNTY and AUTHORITY agree that the total full funding for the PROJECT including right-of-way acquisition, final design, construction management and construction shall be Thirty Two Million and Five Hundred Fifty Three Thousand Dollars (\$32,553,000) in accordance with the funding schedule shown as Exhibit 1, which is attached herein and incorporated by reference; and

**WHEREAS**, COUNTY agrees to act as lead agency for final design, right-of-way acquisition, construction management and construction of said PROJECT; and

**WHEREAS**, this Cooperative Agreement defines the specific terms and conditions and funding responsibilities between AUTHORITY and COUNTY for completion of the PROJECT.

1       **WHEREAS**, the AUTHORITY's Board of Directors approved the Cooperative Agreement on  
2 August 24, 2009; and

3       **NOW, THEREFORE**, it is mutually understood and agreed by AUTHORITY and COUNTY as  
4 follows:

5 /

6       **ARTICLE 1. COMPLETE AGREEMENT**

7       A. This Agreement, including any exhibits and documents incorporated herein and made  
8 applicable by reference, constitute the complete and exclusive statement of the terms and conditions  
9 of this Agreement between AUTHORITY and COUNTY concerning funding of PROJECT. The  
10 above-referenced Recitals are true and correct and are incorporated by reference herein.

11       B. AUTHORITY'S failure to insist on any instance(s) of COUNTY's performance of any  
12 term(s) or condition(s) of this Agreement shall not be construed as a waiver or relinquishment of  
13 AUTHORITY's right to such performance or to future performance of such term(s) or condition(s),  
14 and COUNTY's obligation in respect thereto shall continue in full force and effect. Changes to any  
15 portion of this Agreement shall not be binding upon AUTHORITY except when specifically confirmed  
16 in writing by an authorized representative of AUTHORITY by way of a written amendment to this  
17 Agreement and issued in accordance with the provisions of this Agreement.

18       **ARTICLE 2. RESPONSIBILITIES OF AUTHORITY**

19       AUTHORITY agrees to the following responsibilities for PROJECT:

20       A. AUTHORITY shall formally request on behalf of the COUNTY that the Southern  
21 California Association of Governments (SCAG) amend the Regional Transportation Improvement  
22 Program (RTIP) to program \$15,499,000 dollars in accordance with the funding plan and schedule  
23 outlined in Exhibit 1, whereby AUTHORITY's performance under this Agreement is contingent upon  
24 SCAG and FHWA approval.

25       B. AUTHORITY shall provide assistance in securing the RSTP funds.

26       C. AUTHORITY shall monitor PROJECT's adherence to schedule and programming

requirements.

D. AUTHORITY shall not be obligated to program any amount beyond what has been identified in this Article.

F. AUTHORITY shall process any required RTIP amendments.

G. AUTHORITY shall indemnify, defend and hold harmless COUNTY, its officers, directors, employees and agents from and against any and all claims (including attorney's fees and reasonable expenses for litigation or settlement) for any loss or damages, bodily injuries, including death, worker's compensation subrogation claims, damage to or loss of use of property alleged to be caused by the negligent acts, omissions or willful misconduct by AUTHORITY, its officers, directors, employees or agents in connection with or arising out of the performance of this Agreement.

### **ARTICLE 3 RESPONSIBILITIES OF COUNTY**

COUNTY agrees to the following responsibilities for PROJECT:

A. COUNTY will act as the lead agency for the final design, right-of-way, construction and construction management of the PROJECT.

B. COUNTY is responsible for preparing and submitting all necessary Caltrans required documentation including Request for Authorization to Proceed (E-76). COUNTY cannot proceed with any work prior to (E-76) authorization.

C. COUNTY agrees to provide a local match funding in an amount not less than \$17,054,000; and

D. COUNTY is responsible for completing the PROJECT in accordance with the funding schedule (Exhibit 1), timely use of funds requirements, and to abide by all RSTP programming guidelines and any and all other requirements of the federal, state, and Caltrans related to the RSTP.

E. COUNTY is responsible for immediately notifying the AUTHORITY in writing of any changes to the PROJECT schedule that would jeopardize funding of the PROJECT.

F. COUNTY agrees that the overall budget for this PROEJCT is a not-to-exceed

amount of Thirty Two Million Five Hundred Fifty Three Thousand Dollars (\$32,553,000); contingent on full funding from reauthorization of SAFETLU.

G. COUNTY agrees that any cost overruns shall be the responsibility of the COUNTY.

H. COUNTY will submit periodic invoices to the California Department of Transportation. In addition, COUNTY shall submit final invoices to the Department of Transportation within 180 days of PROJECT's completion and request the due RSTP funds.

I. In addition to meeting the requirements of Article 3, paragraph D, COUNTY will submit semi-annual report for the period of January 1 through June 30 due on July 31 of each year and for the period of July 1 through December 31 due on January 31 of each year to AUTHORITY providing summary information that includes brief summary of overall project progress, project schedule and adherence or deviations, project budget by phase and by source, funds spent by source and RSTP funds reimbursed through Caltrans.

J. COUNTY will comply with all federal, state and local laws and regulations.

K. COUNTY agrees to comply with all Federal Highway Administration third party contracting laws and regulations pursuant to including but not limited to federal, state, and local laws. COUNTY is responsible for ensuring all federal requirements with and included in all COUNTY Agreements.

L. COUNTY shall indemnify, defend and hold harmless AUTHORITY, its officers, directors, employees and agents from and against any and all claims (including attorney's fees and reasonable expenses for litigation or settlement) for any loss or damages, bodily injuries, including death, worker's compensation subrogation claims, damage to or loss of use of property caused by the negligent acts, omissions or willful misconduct by COUNTY, its officers, directors, employees or agents in connection with or arising out of the performance of this Agreement.

#### **ARTICLE 4. DELEGATED AUTHORITY**

The actions required to be taken by COUNTY in the implementation of this Agreement are delegated to its \_\_\_\_\_ or his designee and the actions required to be taken by

AUTHORITY in the implementation of this Agreement are delegated to its Chief Executive Officer.

**ARTICLE 5. AUDIT AND INSPECTION**

COUNTY shall maintain a complete set of records in accordance with generally accepted accounting principles. Upon reasonable notice, COUNTY shall permit the authorized representatives of AUTHORITY to inspect and audit all work, materials, payroll, books, accounts and other data and records of COUNTY for a period of four (4) years after final payment, or until any on-going audit is completed. AUTHORITY shall also have the right to reproduce any such books, records and accounts. Contracts with COUNTY's contractors shall include the above provision with respect to audits.

**ARTICLE 6. IT IS MUTUALLY UNDERSTOOD AND AGREED:**

All parties agree to the following mutual responsibilities regarding PROJECT:

A. This Agreement shall continue in full force and effect through final acceptance of PROJECT by AUTHORITY or PROJECT close out date of June 30, 2012. This Agreement may only be extended upon mutual agreement by both parties.

B. This Agreement may be terminated by either party after giving thirty (30) days written notice. This Agreement shall not be terminated without mutual agreement of both parties.

C. This Agreement may be amended in writing at any time by the mutual consent of both parties. No amendment shall have any force or effect unless executed in writing by both parties.

D. The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that, by so executing this Agreement, the parties hereto are formally bound to the provisions of this Agreement.

E. All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of said notices in person or by depositing said notices in the U.S. mail, registered, or certified mail and addressed as follows:

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/

/

/

To COUNTY:	To AUTHORITY:
County of Orange	Orange County Transportation Authority
P.O. Box 4048	550 South Main Street
Santa Ana, CA 92702-4048	P. O. Box 14184
	Orange, CA 92863-1584
Attention:	Attention: Venita Todd
cc.	Senior Contract Administrator
	cc: Abbe McClenahan, Capital Programs Manager
Tel:	Tel: (714) 560-5427; Fax: (714) 560-5792

F. The headings of all sections of this Agreement are inserted solely for the convenience of reference and are not part of and not intended to govern, limit or aid in the construction or interpretation of any terms or provision thereof.

G. The provision of this Agreement shall bind and inure to the benefit of each of the parties hereto and all successors or assigns of the parties hereto.

H. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or otherwise unenforceable, to any extent, by any court of competent jurisdiction, the remainder to this Agreement shall not be affected thereby, and each term, provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

I. This Agreement may be executed and delivered in any number of counterparts, each of which, when executed and delivered shall be deemed an original and all of which together shall constitute the same agreement. Facsimile signatures will be permitted.

J. Either party shall be excused from performing its obligations under this Agreement during the time and to the extent that it is prevented from performing by an unforeseeable cause beyond its control, including but not limited to: any incidence of fire, flood; acts of God; commandeering of material, products, plants or facilities by the federal, state or local government; national fuel shortage; or a material act or omission by the other party; when satisfactory evidence of such cause is presented to the other party, and provided further that such nonperformance is unforeseeable, beyond the control and is not due to the fault or negligence of the party not performing.

This Agreement shall be effective upon execution by both parties.

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement No. C-9-0608 to be executed on the date first above written.

**COUNTY OF ORANGE**

**ORANGE COUNTY TRANSPORTATION AUTHORITY**

By \_\_\_\_\_  
Patricia C. Bates  
Chairman, Board of Supervisors

By \_\_\_\_\_  
Will Kempton  
Chief Executive Officer

By: \_\_\_\_\_  
Darlene J. Bloom  
Clerk of the Board of Supervisors

**APPROVED AS TO FORM:**

**APPROVAL RECOMMENDED:**

Date: \_\_\_\_\_

By \_\_\_\_\_  
Tony Rackauckas  
County Counsel  
Orange County, California

By \_\_\_\_\_  
Kennard R. Smart, Jr.  
General Counsel

## Funding Schedule

AGREEMENT NO. C-9-0608  
Exhibit 1

Funding Source	Fiscal Year Funding Available	Funding Amount	Phase	RSTP Funds Recipient
County Funds	2009-10	\$7,000	Design, ROW	City direct recipient
County Funds	2010-11	\$10,054	Construction	City direct recipient
RSTP	2010-11	\$15,499	Construction	City direct recipient
<b>Total</b>		<b>\$ 32,553</b>		

RSTP - Regional Surface Transportation Funding  
County - County of Orange  
ROW - Right-of-way  
City - City of Buena Park



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**September 21, 2009**

**To:** Highways Committee  
**From:** Will Kempton, Chief Executive Officer  
**Subject:** Extend Agreement with the California State University, Fullerton Center for Demographic Research Services for Fiscal Year 2009-10

### **Overview**

The Center for Demographic Research at California State University, Fullerton develops population, employment, and other demographic projections used by the Orange County Transportation Authority for transportation planning studies and environmental documents. A recommendation to continue this agreement for one additional year is provided for Board of Directors' review and approval.

### **Recommendation**

Authorize the Chief Executive Officer to execute Amendment 4 to Agreement No. C-6-0191, for an amount not to exceed \$152,000, with the California State University, Fullerton Center for Demographic Research, and to extend the term of the agreement through June 30, 2010.

### **Discussion**

Since 1996, the Orange County Transportation Authority (OCTA) and other agencies have jointly funded the Center for Demographic Research (CDR) at California State University, Fullerton for the preparation of demographic projections for use in various planning activities. The CDR is sponsored by OCTA, the County of Orange, Orange County Council of Governments (OCCOG), Transportation Corridor Agencies, Orange County Sanitation District, Municipal Water District of Orange County, and the Orange County Water District.

Each agency contributes funding toward a series of ongoing demographic data deliverables including Orange County projections, a critical data source used by OCTA and others for travel demand forecasting and planning. For example, the 2006 Long-Range Transportation Plan relies upon population, housing, and employment forecasts developed by CDR and subsequently adopted by

OCCOG. The OCCOG-adopted demographics are also Orange County's input into the growth forecasts for the Southern California Association of Governments (SCAG) Regional Transportation Plan. Each local agency is directly involved in demographic data development with CDR and this "bottom up" approach has worked well in addressing issues early in the process. Other CDR activities include the preparation of the annual Orange County Progress Report and other documents.

As part of this agreement extension, CDR will provide technical work to support the additional efforts required to develop growth forecasts related to SB 375 (Chapter 728, Statutes 2008). These additional demographic forecasts will be at a finer level of detail than traditional traffic-zone levels that CDR has produced for OCTA in the past. CDR will coordinate the development of demographic forecasts with Orange County local agencies, OCCOG, SCAG, Chapman University, and others for use in the Sustainable Community Strategy as part of SB 375. CDR will also participate in appropriate technical advisory committees as it relates to the development of the additional demographic forecasts, including the OCCOG Technical Advisory Committee.

### ***Procurement Approach***

On May 22, 2006, the Board of Directors (Board) approved Agreement No. C-6-0191 with CDR for demographic services. The agreement was for a one-year initial term with two one-year option terms subject to Board approval. The first option year was approved by the Board in March 2007 and the second option year was approved by the Board in April 2008. The services provided through CDR have been valuable to support the various planning activities of OCTA. Amending the contract will allow CDR to continue providing the information and data to OCTA and other partner agencies utilizing these services.

### **Fiscal Impact**

OCTA's commitment for FY 2009-10 under this extension is \$152,000. Funding for this agreement is included in the OCTA FY 2009-10 Budget, Strategic Planning Division, Account No. 0001-7519-M0001-F10.

***Summary***

Staff recommends Board of Directors' approval of Amendment No. 4 to Agreement No. C-6-0191, for an amount not to exceed \$152,000, with the California State University, Fullerton Center for Demographic Research. With approval, staff will extend the agreement to account for fiscal year 2009-10.

***Attachment***

- A. California State University, Fullerton, Center for Demographic Research, Agreement No. C-6-0191 Fact Sheet

**Prepared by:**

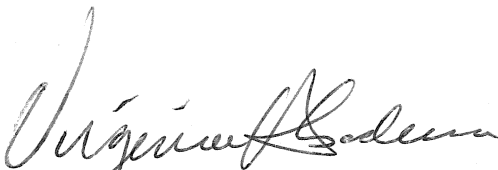


Anup Kulkarni  
Section Manager, Regional Modeling  
(714) 560-5867

**Approved by:**



Kia Mortazavi  
Executive Director, Development  
(714) 560-5471



Virginia Abadessa  
Director, Contracts Administration and  
Materials Management  
(714) 560-5623

**California State University, Fullerton  
Center for Demographic Research  
Agreement No. C-6-0191 Fact Sheet**

1. May 22, 2006, Agreement No. C-6-0191 for \$110,003 approved by Board of Directors with two one-year option terms.
  - Provide demographic services for the Orange County Transportation Authority, County of Orange, Orange County Division of the League of California Cities, Transportation Corridor Agencies, Orange County Sanitation District, Municipal Water District of Orange County, Orange County Water District, and the County of Orange Clerk-Recorder.
  - Initial term is effective July 1, 2006 through June 30, 2007.
2. January 11, 2007, Amendment No. 1 to Agreement No. C-6-0191, administrative change only with no increase to the agreement amount.
  - Add Orange County Council of Governments and delete Orange County League of Cities as a sponsoring agency.
3. March 26, 2007, Amendment No. 2 to Agreement No. C-6-0191, \$114,396, approved by the Board of Directors.
  - Amendment to exercise the first option term and extend agreement through June 30, 2008.
4. April 14, 2008, Amendment No. 3 to Agreement No. C-6-0191, \$122,943, approved by the Board of Directors.
  - Amendment to exercise the second option term and extend agreement through June 30, 2009.
5. September 28, 2009, Amendment No. 4 to Agreement No. C-6-0791, \$152,000, pending approval by the Board of Directors.
  - Add funding and extend the termination date of the agreement for fiscal year 2009-10. in addition, remove County of Orange Clerk-Recorder as a sponsoring agency.
  - Develop additional growth forecasts for the Orange County Transportation Authority related to Senate Bill 375 (Chapter 728, Statutes 2008) Sustainable Community Strategy.

Total committed to the California State University, Fullerton Center for Demographic Research after approval of Amendment No. 4 to Agreement No. C-6-0191 will be: \$499,342.

**5.**

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**September 21, 2009**

**To:** Highways Committee

**From:** Will Kempton, Chief Executive Officer

**Subject:** Proposition 1B Traffic Light Synchronization Program - Substitution of Valley View Street/Bolsa Chica Road with El Toro Road

**Overview**

On March 24, 2008, the Board of Directors approved ten corridors for the state Proposition 1B Traffic Light Signal Synchronization Program. On May 14, 2009, the state allocated \$1.55 million to the Orange County Transportation Authority for fiscal year 2008-09, allowing work to start on the first three corridor projects: Alicia Parkway, Beach Boulevard, and Chapman Avenue. For fiscal year 2009-10, the state has indicated that it will be postponing the allocation of additional Proposition 1B funds to a future date. To respond to this delay, as well as ensure coordination with the upcoming construction of the West County Connectors Project, staff is recommending a substitute corridor for the Valley View Street/Bolsa Chica Road project. Staff, in coordination with the local agencies, has identified El Toro Road (Laguna Canyon Road to Live Oak Canyon) as a candidate replacement project.

**Recommendations**

- A. Authorize the Chief Executive Officer to submit El Toro Road as a substitute corridor for Valley View Street/Bolsa Chica Road to the California Department of Transportation and the California Transportation Commission as part of the Proposition 1B Traffic Light Synchronization Program.
- B. Authorize staff to make all necessary amendments to the Regional Transportation Improvement Program and State Transportation Improvement Program and execute any necessary agreements to facilitate the above action.

---

***Background***

Expanding signal synchronization is a cost-effective way to increase roadway throughput without major new construction. Proposition 1B, approved by the voters on November 7, 2006, included a program to fund traffic light synchronization projects and other technology-based improvements to improve safety, operations, and provide optimum capacity of local streets and roads. In 2008, the California Transportation Commission (CTC) released a call for competitive projects statewide for the design and construction of these types of projects. The Orange County Transportation Authority (OCTA) received a funding commitment of \$4 million from the CTC for its proposed projects to synchronize ten significant arterial corridors. Combined with matching Measure M funds of \$4 million, the available funding for OCTA's Traffic Light Synchronization Program (TLSP) projects totals \$8 million.

The current TLSP program and schedule includes the following corridors:

Arterial	Budget	Start Date (Fiscal Year [FY])
Alicia Parkway	\$3.1 million	2008-09
Beach Boulevard		
Chapman Avenue		
Brookhurst Street	\$2.9 million	2009-10
Irvine Center Drive/ Moulton Parkway/ Golden Lantern		
Valley View Street/Bolsa Chica Road		
Orangethorpe Avenue		
La Palma Avenue	\$1.9 million	2010-11
Yorba Linda Boulevard		
Katella Avenue		

Funding has been allocated by the CTC, allowing work to start on the first three projects as part of FY 2008-09 (see the above table). The California Department of Transportation (Caltrans) has notified OCTA that the funding allocation on the next set of projects is expected to be postponed until the end of FY 2009-10. OCTA's schedule had anticipated the start date of the Valley View Street/ Bolsa Chica Road project to be in July 2009. This was in order to complete the



project in advance of the West County Connectors (WCC) Project that is due to commence in March of 2010 and last for three years. The WCC Project will result in ongoing changes in travel patterns and includes traffic mitigation as part of its efforts to address the changes in travel throughout the three-year construction period. As a result, timing along Valley View Street/Bolsa Chica Road should be optimized only after the completion of the WCC, which would extend OCTA's TLSP projects completion date of 2011.

As a result of these issues, staff is recommending that the Valley View Street/Bolsa Chica Road project no longer be included as part of the TLSP and be substituted with a similar corridor that has the same travel characteristics including length and average daily traffic. OCTA has been working with the local agencies and together have identified El Toro Road (Laguna Canyon Road to Live Oak Canyon) as a candidate replacement project to satisfy the goals and objectives of the TLSP. Caltrans is supportive of this change given the delay in state funds as well as the construction impacts of the WCC Project.

### ***Discussion***

Staff worked with the members of the Intelligent Transportation Systems Roundtable, a local advisory committee, to develop a suitable replacement for Valley View Street/Bolsa Chica Road. Key issues discussed included similarity between any replacement corridor and Valley View Street/Bolsa Chica Road and local agency support for the replacement corridor.

The El Toro Road and Valley View Street/Bolsa Chica Road corridors have very similar traffic characteristics. Both are approximately 11 miles long and have average daily traffic between 52,000 and 54,000 vehicles. Additionally, El Toro Road involves seven agencies while Valley View Street/Bolsa Chica Road involves eight agencies. Initial review indicates that both corridors would require the same amount and type of infrastructure modifications and enhancements. As a result, no change in funding is required. Conversations between OCTA and Caltrans confirm that this exchange of corridors is acceptable. The El Toro Road project would be scheduled for implementation in FY 2009-10.

Staff will continue to work with the local agencies along El Toro Road to develop cooperative agreements between the agencies as part of the project. Additionally, OCTA will also work with the local agencies along Valley View Street/Bolsa Chica Road to include the corridor in future OCTA efforts when appropriate. It is possible the Valley View/Bolsa Chica Road project will be an early priority for Renewed Measure M signal synchronization funds, contingent on Board of Directors' approval of a countywide signal synchronization plan.

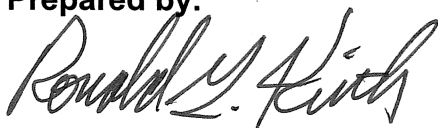
***Summary***

Staff, in coordination with local jurisdictions and Caltrans, has identified an acceptable substitute candidate TLSP corridor for the Valley View Street/ Bolsa Chica Road project. El Toro Road is recommended as replacement corridor given its similarity to the previous corridor in overall length, physical infrastructure, synchronization requirements, and funding to accomplish the project. No additional funding or changes in project schedules are anticipated.

***Attachment***

- A. Revised Traffic Light Synchronization Program

**Prepared by:**



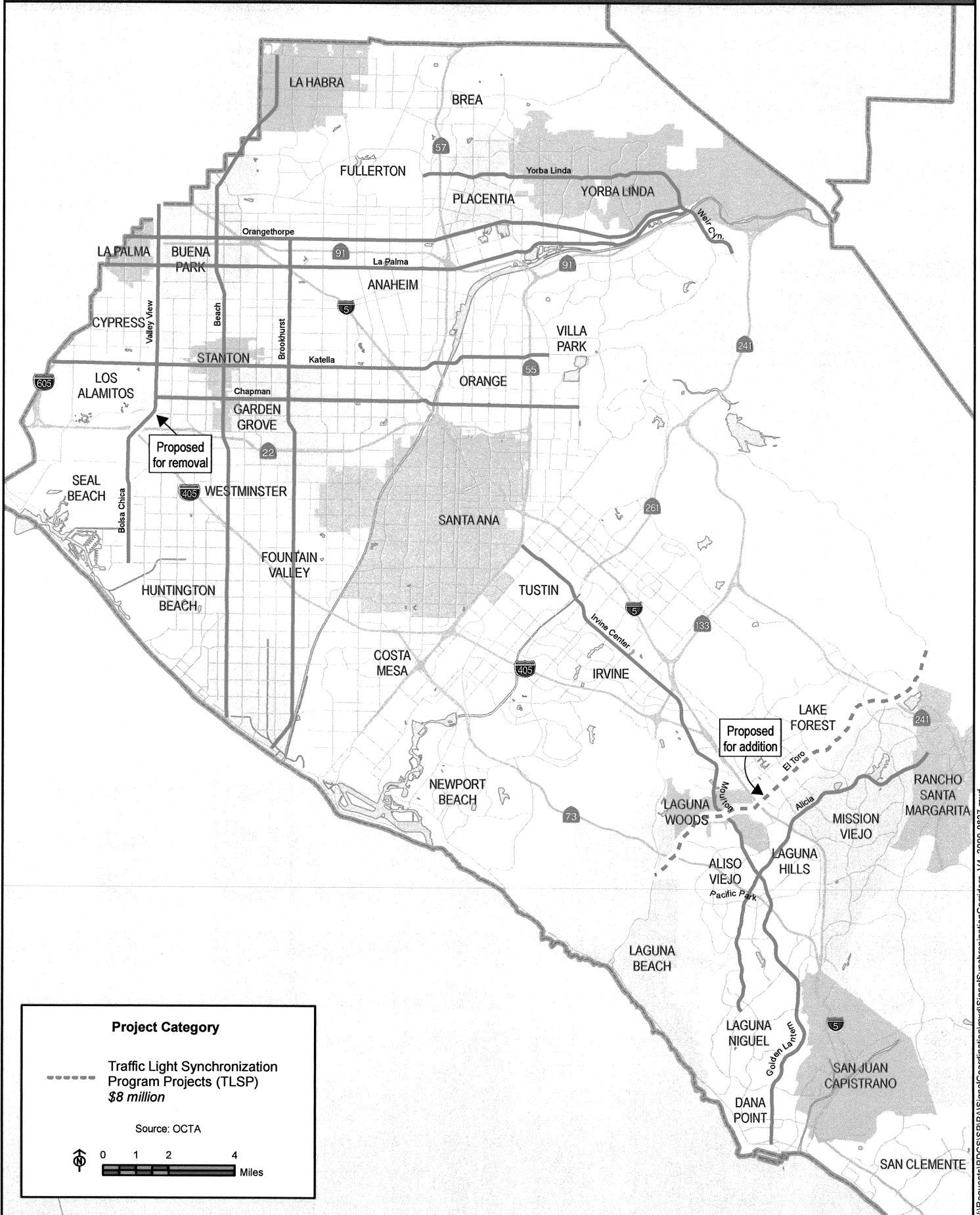
Ronald Keith  
Principal Traffic Engineer  
(714) 560-5990

**Approved by:**



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

# Revised Traffic Light Synchronization Program








**September 21, 2009**

**To:** Highways Committee

**From:** Will Kempton, Chief Executive Officer 

**Subject:** Combined Transportation Funding Program Project Delivery Options

### **Overview**

As the sunset of Measure M approaches, staff has performed a detailed analysis of the Combined Transportation Funding Program and has forecasted a potential balance of unobligated funds. In response to the current project delivery trend and this potential funding balance, staff has prepared options for the mitigation of this trend to ensure the full delivery of the program.

### **Recommendations**

- A. Approve phase one of the Combined Transportation Funding Program project delivery mitigation strategy recommended by the Technical Advisory Committee.
- B. Authorize staff to develop phase one guidelines to implement the mitigation plan and return with the guidelines in October 2009.

### **Background**

The Combined Transportation Funding Program (CTFP) is the mechanism the Orange County Transportation Authority (OCTA) uses to administer funding for streets and roads projects throughout Orange County. The CTFP was created to provide local agencies with a common set of guidelines and projects for a variety of funding programs. The program has successfully delivered hundreds of projects across Orange County. Currently, 91 percent of the program time has elapsed; however, only 70 percent of the total project allocations have been expended to date.

The guidelines for the CTFP require that all programmed funds be obligated by the local agencies by March 2011. Programmed funds are obligated when the local agency awards a contract and submits its 90 percent initial payment

request. All projects must then be completed and closed-out within three years after the obligation deadline per the Measure M (M1) Ordinance.

Staff developed a forecast to determine the potential status of the program at its sunset if the current project delivery trends continue. The forecast indicates there could be a balance in the M1 streets and roads program of approximately \$40 million when it sunsets in 2011. The anticipated balance is dependent on the stability of future sales tax revenue as well as a historic delivery rate by the local agencies.

This information was presented to the Highways Committee (Committee) on July 20, 2009. The Committee directed staff to work with the Technical Steering Committee (TSC) and Technical Advisory Committee (TAC) to develop potential options for the mitigation of the delivery trend in an effort to ensure that the full program is obligated by the program sunset. In addition, the Board of Directors (Board) also requested more frequent updates. In response, the Measure M Quarterly Report was expanded to include a quarterly CTFP project delivery update.

### ***Discussion***

A number of different options were presented to the TSC on August 12, 2009. The options presented generally included canceling projects, extending the obligation deadlines, or a combination of both. These options were discussed and refined, and a phased approach was developed. The phased approach discussed below was presented to the TAC on August 26, 2009, and was further refined. A number of factors were considered by staff when developing a plan for mitigating the current delivery trends. The options developed had to address not only the timely use of the street and roads money, but also some of the fundamental reasons that current projects are experiencing delays and other delivery issues. The phased approach was developed with the intent to insure that the CTFP is able to deliver the most projects possible in the time remaining. As each phase is completed, a reassessment will be done to determine its effectiveness. The results of the assessment will be brought before the Board for review and, at that time, staff will seek approval for the next phase. The details of each of the respective phases are presented below.

#### **Phase One**

Phase one would involve the implementation of two separate modifications to the current CTFP, making two options available to the local agencies. The modifications would be specific to the current M1 CTFP and would not impact the Renewed Measure M (M2) Regional Capacity Program (RCP) guidelines that are currently being developed.

The first modification would involve changing the current CTFP guidelines to give local agencies the option to self-direct the cancellation and re-allocation of funds. This would be similar to the modifications recently approved by the Board with regard to the Smart Street Program. Agencies could request the cancellation of an existing project allocation and subsequently request the transfer of these funds to another existing project within the same M1 funding program. Significant restrictions would be placed on these funds. No delay requests would be granted to allocations that made use of this option. A "timely use" provision would also be added. This provision would require that the project be obligated within a set period of time, as an example, within 90 days of the approval of the transfer. This option would assist projects that are experiencing funding shortfalls and allow the local agencies to prioritize projects that are of the greatest benefit locally and those that are ready to be delivered. These requests for cancellation and re-allocation would be made as part of the semi-annual review (SAR).

The TAC also requested that the option be made available to request the cancellation and re-allocation of funds between projects that are not in the same funding program. These requests would be considered on a case-by-case basis and may require further Board actions.

The second modification to the CTFP guidelines would give local agencies the option to request a delay to fiscal year 2011-12. This would effectively extend the M1 obligation deadline to March 31, 2012, for those agencies that request it; however, these delay requests would come with significant restrictions. A city council resolution would be required as part of the request. Additionally, this request would be with the understanding that any funding allocations made as part of the first call for projects (Call) for the M2 RCP would not be programmed until that specific agency's M1 CTFP allocations were fully obligated.

Agencies could choose either the self-directed cancellation and re-allocation or the deadline extension, but could not combine these options on the same project. It is anticipated that requests for the self-directed cancellation and re-allocation of funds would be made as part of the September SAR. This will result in the September SAR being delayed pending Board approval of the proposed M1 CTFP program modifications. It is also anticipated that requests for the obligation deadline extension would be made as part of the March 2010 SAR. Detailed guidelines and an implementation timeline will be presented to the Board in October 2009.

### Phase Two

Phase two would involve the development of a project cancellation list and the issuance of a new M1 CTFP Call using modified program guidelines.

In July 2010, staff would perform another analysis and forecast of the program to determine the current status after the phase one modifications have been implemented. Based on the results of that analysis, phase two could begin. Phase two would involve working with local agencies to develop a list of project cancellations. These would be projects that were not in a position to benefit from the modifications made as part of phase one and that can not demonstrate continued feasibility. Once this list was developed and approved, and an additional funding pool is made available, a new Call would occur using modified program guidelines. The approved grants would be subject to a strict obligation timeframe and a no delay request policy.

Regarding this proposed Call, it was the recommendation of the TAC that the guidelines be modified to allow for the submission of rehabilitation projects. This requires further review to ensure consistency with the intent of the M1 streets and roads program. Details regarding the implementation of phase two and the modifications to the Call would be brought to the Board in July 2010.

### Phase Three

As a final step, phase three involves the cancellation of any projects that have not requested a deadline extension and have not been obligated as of March 31, 2011. These funds would be transferred into the M2 RCP for a subsequent Call.

### Next Steps

Upon approval of the phase one approach outlined above, staff will begin the development of the CTFP guideline modifications and a detailed implementation plan. These will be brought before the Committee, and subsequently the Board, in October 2009. Future phases will return to the Board in 2010 and 2011.

### ***Summary***

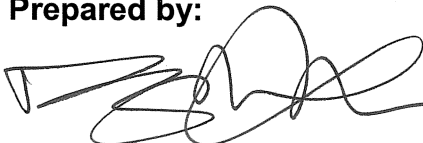
Staff has worked with the TSC and TAC to develop a plan to mitigate the current project delivery issues being experienced in the CTFP. As a result, a phased approach was developed to ensure the full delivery of the program and is being presented to the Committee for approval.



***Attachment***

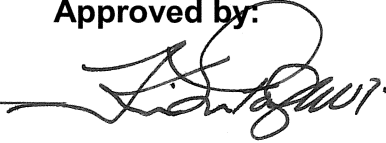
None.

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**September 21, 2009**

**To:** Highways Committee  
**From:** Will Kempton, Chief Executive Officer  
**Subject:** Central County Corridor Major Investment Study – Reduced Set of Alternative Strategies

**Overview**

The Orange County Transportation Authority is conducting a major investment study for the central Orange County area. Preliminary analysis of a broad range of alternatives is complete. A reduced set of options has been identified and is presented for Board of Directors' review and approval.

**Recommendations**

- A. Approve the initial screening report recommending a reduced set of five alternative strategies for additional engineering and environmental analysis.
- B. Direct staff to return to the Board of Directors by April 2010 to provide an update on the analysis of the reduced set of alternative strategies.

**Background**

In July 2008, the Orange County Transportation Authority (OCTA) launched the second phase of the Central County Corridor Major Investment Study (CCCMIS). The study's objective is to develop consensus on a locally preferred strategy (LPS) of multi-modal transportation improvements to be implemented over the next 25 years. This major investment study (MIS) follows a three phase process, with the same set of tasks and decision milestones as other MIS's previously conducted in Orange County. In Phase I, the CCCMIS mobility problem and statement of purpose and need, as well as the initial set of alternative strategies were approved by the

Board of Directors (Board) for screening. Phase II involved refining, analyzing, and screening the initial set. The results of this screening process, along with a recommended reduced set of alternative strategies are presented in this staff report. Phase III of the study will recommend a LPS for the CCCMIS in spring 2010.

As with previous studies, OCTA is committed to facilitating public involvement opportunities and seeking feedback throughout the major investment study process. To this end, the CCCMIS includes a public involvement program that includes a stakeholder working group, ongoing outreach to cities and neighborhood groups, as well as web-based communications. Additionally, the public involvement program will, in consultation with the CCCMIS Policy Advisory Committee (PAC) and the OCTA Board, include open houses and other methods for gathering public feedback, input, and concerns as the study moves forward. Attachment A provides an overview of OCTA's outreach activities to date.

### ***Discussion***

The purpose of Phase II of this study was to reduce the number of alternative strategies that will undergo more detailed evaluation. The CCCMIS Initial Screening Report Executive Summary (Attachment B) describes the process and key technical findings used to identify the reduced set of alternative strategies for the CCCMIS. This screening analysis applied evaluation criteria that weighed the relative benefits, costs, and impacts of each alternative strategy. Focus was placed on criteria that measured the performance of the alternatives relative to the study's purpose and need statement. Each of the alternatives was analyzed under future year 2035 travel conditions. These criteria included mobility benefits such as travel time savings, improvement in levels of congestion, and transit ridership. In addition, environmental considerations such as potential impacts to existing land uses and to the natural environment were considered. Rough estimates of project costs were also developed for the various options. The evaluative information produced during the screening was then used to provide the technical rationale and basis of discussion for narrowing the range of alternative strategies. Community and agency input on the screening results for the refined alternatives helped shape the recommendation for the CCCMIS reduced set of alternative strategies.

The CCCMIS Technical Working Group (TWG), made up of technical staff from each of the study area cities, reviewed each of the strategies and provided input on the elements that the TWG believed should move forward and those to

be eliminated based on the criteria stated above. Extensive discussion took place on the major widening of the Costa Mesa Freeway (State Route 55) contained in Strategy C of the executive summary and the Orange Freeway (State Route 57) arterial extension proposal contained in Strategy D8 of the executive summary. The TWG determined that although there were performance benefits to both the major widening of State Route 55 (SR-55) and the arterial extension of State Route 57 (SR-57), the level of improvement as compared to the high cost and high impacts did not warrant moving either forward. This recommendation from the TWG was brought to the PAC on August 27, 2009, for its consideration. The CCCMIS PAC approved the TWG's recommendation of a reduced set of five alternative strategies for additional analysis and evaluation. Although, the major widening of the SR-55 and the arterial extension of the SR-57 were not included in the reduced set for further study, the PAC did recommend that the analysis developed to date on both of those elements be utilized for cost benefit comparison purposes when developing a recommendation for a LPS. As a result, these strategies could be re-introduced into the MIS depending on the outcome of the cost-benefit analysis.

#### **Reduced Set of Alternative Strategies**

Based on the screening results and various committees' feedback to date, five alternative strategies are recommended for consideration by the Board to be carried forward in this MIS. This reduced set of strategies provides a range of choices with emphasis on different approaches toward meeting purpose and need. These strategies are described in detail in the CCCMIS Initial Screening Report Executive Summary and summarized below.

#### **ALTERNATIVE 1: 2035 Baseline**

This alternative represents the future baseline transportation system for the planning horizon year of 2035. The 2035 baseline includes not only facilities and services in place today, but also those transportation improvements funded and committed for implementation prior to 2035. Examples of future baseline projects in the central Orange County study area include: improvements along the San Diego Freeway (Interstate 405) as planned in the Renewed Measure M Early Action Plan, high-occupancy vehicle (HOV) connector improvements at the Garden Grove Freeway (State Route 22)/Interstate 405 (I-405)/San Gabriel Freeway (Interstate 605) interchange, high-frequency Metrolink service, implementation of smart street strategies, and traffic signal synchronization on key arterial roadways, express bus, and bus rapid transit (BRT) on Harbor Boulevard, Westminster Avenue, and State College Boulevard/Bristol Street.

**ALTERNATIVE 2:** Includes Alternative 1 + Transportation Systems Management (TSM)/Transportation Demand Management (TDM) + Low Transit

The TSM/TDM alternative consists primarily of operational investments, policies and actions aimed at improving traffic movement, promoting travel safety, and increasing transit usage and rideshare participation in the central Orange County study area. These TSM/TDM measures are generally classified as soft improvements that do not require extensive construction, right-of-way acquisition, and the resulting high capital cost to fund those improvements. The proposed TSM/TDM freeway measures include auxiliary lanes and minor interchange improvements such as ramp widening and intersection improvements at ramp termini. On the arterial system, the TSM/TDM measures include signal coordination, bus turnouts, and other safety and operational improvements. The freeway and arterial improvements are coupled with technology to maximize traffic information gathering and sharing to improve systemwide efficiency. In addition, transit and intermodal improvements such as increased bus service, new park and ride facilities, and bicycle and pedestrian improvements are included, as well as rideshare programs, marketing and educational initiatives on alternative modes, and workplace flex time. Further, this alternative also includes expanded express bus and enhanced BRT over what is included in the baseline. All of these transit and multi-modal improvements, in addition to what is already identified in the baseline alternative, constitute “Low Transit.”

**ALTERNATIVE 3:** Includes Alternative 1, 2, + Low Freeway Improvements + Low Arterial Improvements + High Transit Improvements

This alternative includes completing key elements of the Master Plan of Arterial Highways (MPAH) and improving a freeway chokepoint by building a second HOV on the Santa Ana Freeway (Interstate 5) between the SR-55 and the SR-57. In addition, Alternative 3 contains major investments in transit including the following: Go Local Step 2 projects, enhanced BRT, high-capacity fixed guideways (Anaheim and Santa Ana), community-based transit circulators; Anaheim Regional Transportation Intermodal Center (ARTIC) with high-speed train service, intermodal stations, and two north-south BRT routes in dedicated lanes on Harbor Boulevard and on State College Boulevard/Bristol Street, connecting John Wayne Airport to ARTIC.

**ALTERNATIVE 4:** Includes Alternative 1, 2, + Medium Freeway Improvements + Medium Arterial Improvements + High Transit Improvements

This alternative includes a full buildout of the MPAH and frontage road improvements along the SR-55 in Costa Mesa. For freeways, Alternative 4 proposes widening SR-55 with general purpose and auxiliary lanes between Interstate 5 (I-5) and I-405, and a HOV lane between I-405 and 19<sup>th</sup> Street in Costa Mesa. HOV drop ramps are proposed on I-405 at Bear Street as well as the development of an interchange at Meats Avenue on SR-55 in the City of Orange. Additionally, Alternative 4 includes the same high level of transit improvements as described in Alternative 3 with the addition of a BRT spur line along the Pacific Electric right-of-way (PE ROW).

**ALTERNATIVE 5:** Includes Alternative 1, 2, + High Freeway Improvement + High Arterial Improvements + Medium Transit Improvements

This alternative proposes a significant investment in arterials including capacity enhancements beyond the buildout of the MPAH. For freeways, Alternative 5 does not propose significant freeway widening in the study area beyond Alternatives 3 and 4; however, it does include several key freeway related projects. These include the following: direct HOV connectors between SR-55 and State Route 22 (SR-22), SR-22/SR-57/I-5 interchange reconstruction, SR-22 direct access ramps to downtown Santa Ana via the PE ROW, and the extension of the SR-55 from its terminus to Industrial Way. Alternative 5 will also explore investment strategies involving the toll roads such as subsidizing tolls (Shadow Toll) or building an HOV lane on portions of the toll roads. It also contains a medium investment in transit that includes everything described in Alternative 3, except the two north-south BRT routes in dedicated lanes.

A matrix of the five reduced set of alternative strategies is provided in Attachment C.

### ***Summary***

OCTA is working to develop strategies to improve travel in the central Orange County area. The draft CCCMIS reduced set of alternative strategies is presented for Board consideration. Technical analysis and public outreach efforts will guide the evaluation of these alternatives, producing a recommended LPS that is anticipated to be brought to the Board for review in Spring 2010.

***Attachments***

- A. Central County Corridor Major Investment Study – Overview of the Orange County Transportation Authority's Outreach Activities
- B. Central County Corridor Major Investment Study – Draft Initial Screening Report Executive Summary
- C. Central County Corridor Major Investment Study – Draft Reduced Set of Alternative Strategies

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## **Central County Corridor Major Investment Study Overview of the Orange County Transportation Authority's Outreach Activities**

The Orange County Transportation Authority (OCTA) is committed to facilitating public feedback and input throughout the Central County Corridor Major Investment Study (CCCMIS) process. In light of professional demands, personal and family commitments as well as competing interests, generating public participation can prove challenging, especially beyond that segment of stakeholders that is most directly interested in and/or motivated by the study. In an effort to receive feedback, OCTA has implemented an outreach effort that includes a policy advisory committee (PAC), technical working group (TWG), and a stakeholder working group (SWG). Additionally, OCTA seeks to proactively communicate with community stakeholders and other interested parties by using both traditional and digital communications, including community-based presentations, web-based communications, and open houses.

To date, OCTA has conducted the following outreach activities:

- Conducted 12 one-on-one meetings with senior staff (i.e., city managers, directors of public works, planning directors, and city engineers) from each of the study area cities and the California Department of Transportation. Held toward the outset of the study process, the purpose of the meetings was to collect senior-level technical input on transportation and land use priorities, needs and concerns and to, in turn, consider and/or factor this input into the study process as necessary, possible and/or appropriate.
- Organized and conducted a technical meeting/workshop with agencies of jurisdiction to consider and discuss the strategic concept to extend the Orange Freeway (State Route 57) down the Santa Ana River Channel. Participating agencies of jurisdiction included the Army Corps of Engineers, the Orange County Flood Control District, the Orange County Water District, and several other key agencies. The meeting served to identify the technical, operational, logistical and administrative opportunities, and limitations facing the extension concept.
- Established the CCCMIS SWG to provide community residents, stakeholders, and/or other interested parties a community-based meeting forum to provide feedback and input on the study, its progress, and emerging results and recommendations. SWG attendees include representatives from residential/homeowner groups, medical facilities, school districts, civic, environmental and special interest groups, and other public and private entities. The SWG has met three times and was generally supportive of the recommended reduced set of alternatives as prepared by the study team and approved by the TWG.

- Delivered presentations to the city councils of the cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Newport Beach, Santa Ana, and Tustin. In addition to delivering a timely study update, the purpose of the presentations were to provide an opportunity for local policy-makers to offer direct input, feedback and/or questions relative to the entire study or individual study elements. Presently, staff is in the process of scheduling update presentations to the cities of Anaheim, Irvine, Stanton, and Westminster.
- Delivered eight update presentations to neighborhood/homeowner associations, namely along the Santa Ana River Channel. As part of this outreach, staff participated in extended question and answer sessions and received comments on the study and/or individual elements. Additionally, staff invited attendees to attend both PAC and SWG meetings and/or visit the study web page to view study information.
- Created and maintained a study web page that provides background information on the study, PAC, and TWG rosters, meeting dates, times, and locations as well as other presentation materials and study related information.
- Created an online survey (currently posted) seeking responses on priorities as well as preferred (or otherwise) transportation strategies or concepts for central Orange County. As part of this effort, developed and distributed a news release announcing the CCCMIS online survey.
- Communicated via email updates with people interested in the study.



## 1.0 EXECUTIVE SUMMARY

### 1.1 PURPOSE OF CENTRAL COUNTY CORRIDOR MAJOR INVESTMENT STUDY

Central Orange County's transportation mobility challenges need to be addressed in order to maintain this region's vitality and continued economic growth. Currently, the Central County Corridor study area lacks vital linkages providing north-south mobility between northern Orange County, the South Coast Metro area, and the coast; for both existing and future travel demand. The majority of the travel demand in the Central County Corridor is currently served by SR-55, I-405 via SR-22 and major arterials, such as Beach Boulevard, Brookhurst Street, and Harbor Boulevard. However, the lack of transportation system capacity negatively impacts local streets and communities by forcing regional trips onto local arterials. The CCC Phase I Purpose and Need identified the deficiency in north-south capacity through the study area. Policy makers have become increasingly aware that improving mobility in this corridor will be vital to the long-term quality of life in central Orange County and the County as a whole. There are no easy solutions and not all stakeholders agree on what solutions should be further developed.

In 2005, the population in the central Orange County study area reached over 1,000,000 persons, which represents approximately 33 percent of Orange County's total population. By 2035, the study area's population will surpass 1,160,000 persons, representing a population increase of approximately 15 percent. Population density for the central Orange County study area in 2005 was approximately 9,000 persons per square mile. By 2035, this number is projected to climb to approximately 10,500 persons per square mile. Population densities of this magnitude are typically more characteristic of cities in the Eastern United States like Baltimore, Maryland or Washington D.C.

The central Orange County region also comprises over 25% of Orange County's total employment base, with 1.5 million jobs. By 2035, the region's employment base is expected to increase by 26.5 percent to over 2 million jobs.

The Central County Corridor Major Investment Study (CCC MIS) is an 18-month planning effort intended to produce a recommended "locally preferred strategy" (LPS). If approved by the OCTA Board of Directors, the LPS will ultimately help guide transit, street, and freeway enhancements in central Orange County, as well as address future travel demand. This effort builds on the Central County Corridor Phase I Study, which was completed in 2004. The current effort will update this previous study and further analyze and reevaluate both issues and opportunities in the central Orange County study area. Through this process, the CCC MIS will quantify the impacts, costs, and benefits of each conceptual alternative strategy, and perform further evaluative analyses in order to produce a recommended LPS. The LPS will be a guide to implementing these solutions and provide consensus moving forward.

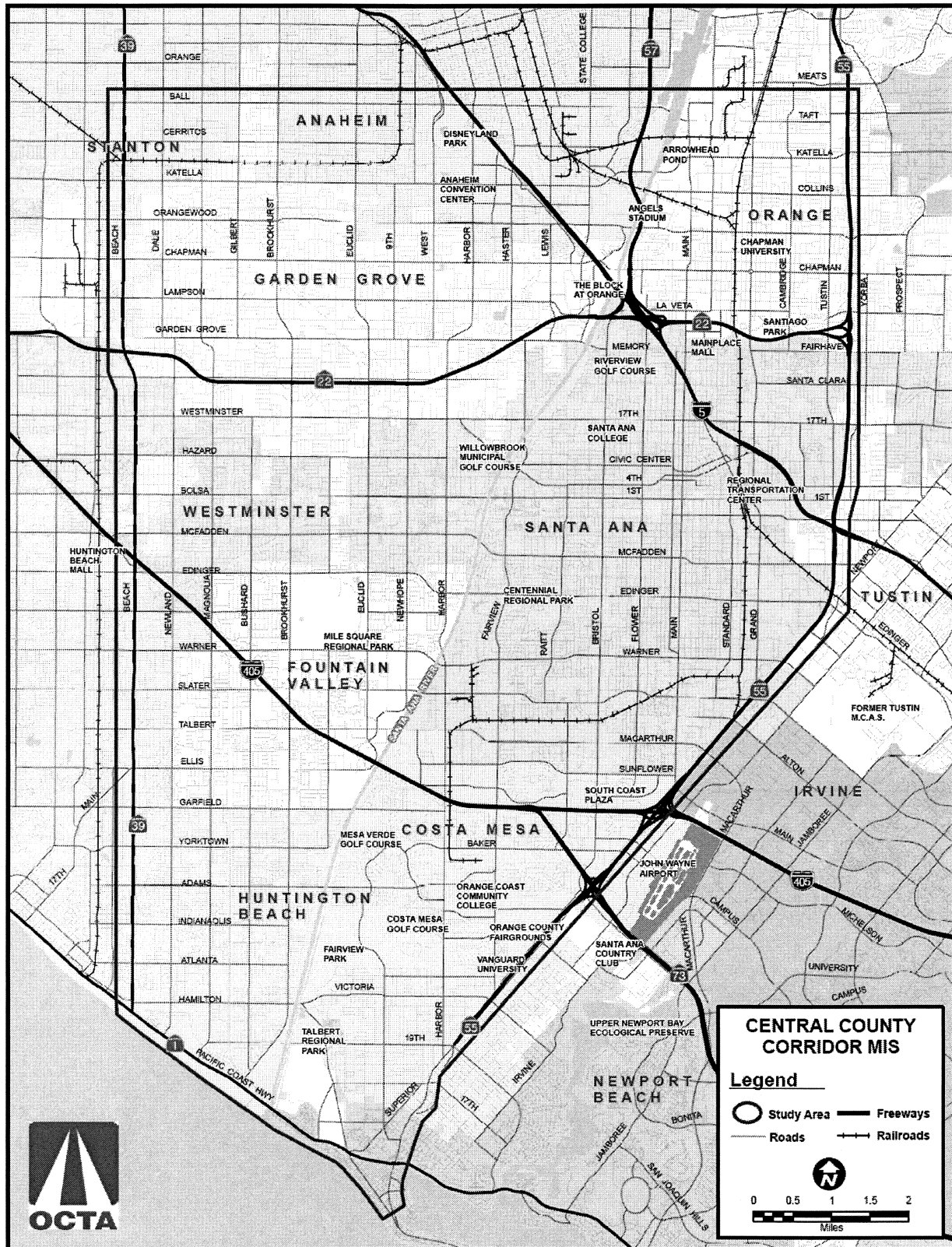
### 1.2 PROJECT LIMITS

The project boundaries are not static fixed points but rather represent the general boundaries of the study area. Transportation elements in close proximity to these boundaries, albeit outside them, may still be considered and analyzed during the project. Figure ES-1 illustrates the project



study area. The project area boundaries include SR-55 to the east, Beach Boulevard to the west, Pacific Coast Highway to the south and Ball Road to the north.

**Figure ES-1 Central Orange County MIS Study Area**



### **1.3 OBJECTIVES OF ALTERNATIVES SCREENING**

The Central Orange County MIS contains a series of milestones/key decision points, with the Alternatives Screening phase representing an intermediate milestone in the study. At this phase of study, this Initial Screening Report has been developed describing the process and key technical findings used to identify a Reduced Set of Alternative Strategies for further analyses in Phase III.

To achieve this objective, screening level analyses were performed on the project's initial alternative strategies. This level of analysis is less detailed than analyses performed in subsequent phases of study. The results of the analysis provide evaluative information on each strategy's relative benefits, costs, and impacts, as compared to Baseline. This screening analysis focused primarily on mobility benefits such as travel time savings, improvement in levels of congestion, and transit ridership. In addition, high-level environmental considerations such as potential impacts to existing land uses were examined. Rough estimates of project costs were also developed for the various options. The evaluative information produced during screening was used to provide the technical rationale and basis of discussion for narrowing the range of initial alternative strategies to a reduced set of the five most competitive alternative strategies. Community and agency input on the screening results and on the initial alternatives also helped shape the recommendation for the Reduced Set of Alternative Strategies.

### **1.4 PURPOSE AND NEED**

The Alternatives Screening phase builds on previous milestones completed for the Central Orange County MIS. In late 2004, the OCTA Board of Directors approved a Purpose and Need Statement.

During the Purpose and Need phase, a technical assessment was performed to identify the issues and problems related to the transportation system in the central Orange County study area and their underlying root causes. Analysis of the transportation system coupled with community input led to the development of five key issues to be addressed by the Central Orange County MIS. These key issue areas represent problems that need to be addressed as well as opportunities for improvement. Taken together, the five issue areas establish the Purpose and Need for transportation improvements in the central Orange County study area:

- Highway and Arterial Mobility
- Safety and Operations
- Travel Choices
- Land Use and Economic Development
- Implementation

The key issues in the Purpose and Need Statement led to the determination of specific study objectives that provide the framework for the development of transportation alternative strategies. The project's Purpose and Need also helps identify which of those alternative

strategies should move forward for further evaluation and consideration. Table ES-1 summarizes the Purpose and Need objectives.

**Table ES-1 – Purpose and Need Objectives**

Issue	Study Objectives
<b>Highway and Arterial Mobility</b>	<ul style="list-style-type: none"> <li>▪ Relieve current and future freeway peak hour congestion in the corridor.</li> <li>▪ Relieve current and future arterial congestion in the corridor, particularly in the north-south direction.</li> <li>▪ Increase capacity of freeway corridors within and adjacent to the study area.</li> <li>▪ Build in design flexibility within the freeway corridor for capacity improvements beyond 2035.</li> <li>▪ Provide continuity of facilities and capacity (lane balance) along all freeways within the study area.</li> <li>▪ Provide continuity of facilities and capacity (lane balance) along major arterial streets experiencing chokepoints within the study area.</li> <li>▪ Implement MPAH requirements on arterial streets experiencing chokepoints within the study area.</li> <li>▪ Provide better travel times on the freeways and additional transportation choices as an alternative to using arterials.</li> </ul>
<b>Operations</b>	<ul style="list-style-type: none"> <li>▪ Reduce the number of conflict points that could contribute to incidents and accidents in the study area.</li> <li>▪ Provide physical improvements and employ enhanced operational techniques (TSM) to better manage the impacts of incidents.</li> </ul>
<b>Travel Choices</b>	<ul style="list-style-type: none"> <li>▪ Implement higher capacity and faster transit services on new and existing routes.</li> <li>▪ Implement increased transit connectivity between study area and residential and employment centers.</li> <li>▪ Provide expanded transit service to better accommodate the needs of transit dependent residents in the study area.</li> </ul>

## 1.5 ALTERNATIVES DEVELOPMENT

The conceptual alternative strategies for the Central Orange County MIS were developed using a framework that took into account the multimodal character of central Orange County's transportation system, including arterial roadways, freeways, rail, and bus transit. During alternatives development, a build-up approach was utilized starting with identifying transportation elements representing projects, programs, and improvements to the transportation system and then packaging these transportation elements into ascending levels of investment in the different transportation modes and facilities. These modal levels of investment became the building blocks for the conceptual alternatives. The proposed improvements included in the conceptual alternatives respond to different aspects of the study's Purpose and Need Statement.

The conceptual alternatives for the central Orange County study are cumulative in nature in that higher level alternatives generally contain all the transportation improvements of the preceding

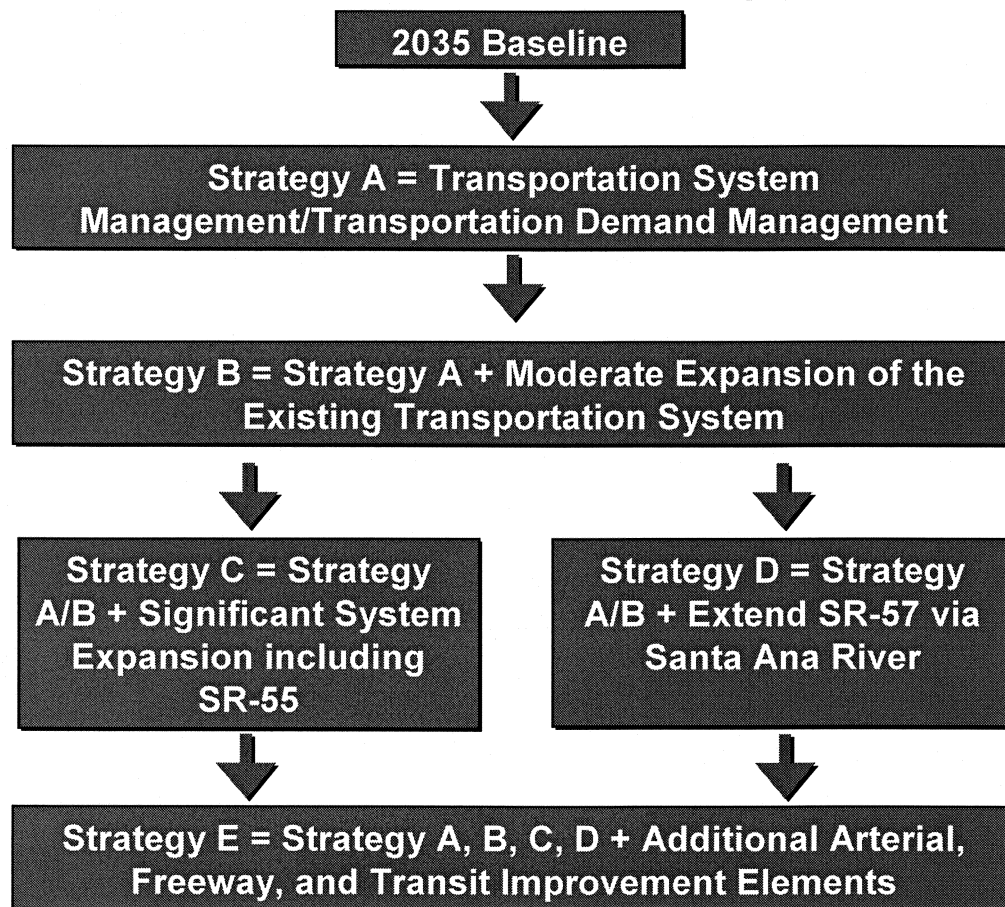


alternatives. This was done intentionally so that the increase in the level of transportation investment associated with each alternative could be isolated and thus analyzed during the course of the study. This framework for the conceptual alternatives also allows for the eventual phasing of selected transportation improvements.

## 1.6 INITIAL SET OF ALTERNATIVE STRATEGIES

Figure ES-2 illustrates the framework used for the conceptual alternatives that comprise the Initial Set of Alternative Strategies that was approved by the OCTA Board in March 2009.

**Figure ES – 2 – Conceptual Alternatives Framework**



A summary description of the Initial Set of Alternative Strategies that was evaluated during the alternatives screening phase of the Central Orange County MIS is provided as follows. A more comprehensive description, including detailed lists of the transportation improvements included in each alternative, can be found in the document entitled Refined Alternative Strategies.

- 2035 Baseline: The 2035 Baseline/No-Build Alternative Strategy consists of the existing transportation system, as well as projects with committed funding that are included in the



2008 Regional Transportation Improvement Program (RTIP) and/or have received environmental clearance.

- Strategy A: Transportation Systems Management (TSM) / Transportation Demand Management (TDM) Strategy: The TSM/TDM Strategy consists primarily of operational investments, policies, and actions aimed at improving traffic movement, promoting travel safety, and increasing transit usage and rideshare participation in central Orange County.
- Strategy B: Strategy B includes moderate expansion of existing systems. It includes improvements from Strategy A and adds a multimodal package of transportation improvements that provide moderate investments to all modes. This strategy includes projects within the renewed Measure M program and is generally within the existing right-of-way.
- Strategy C: Strategy C builds upon Strategies A and B and emphasizes significant investment in expansion of the freeway system (beyond existing right-of-way) — including the significant expansion of SR-55 within central Orange County.
- Strategy D: Strategy D also builds upon Strategies A and B; however, it focuses on extension of the SR-57 generally south via the Santa Ana River alignment. It proposes a highway or expressway facility at or below existing bridges. Five options for the SR-57 extension element were identified that include a variety of modes.
- Strategy E: Also called the “Plan to meet post 2035 demand,” Strategy E examines how travel would improve in central Orange County, if a maximum capital investment were made in the freeway system, the arterial roadway system, and the regional transit system. Two transit options were identified for Strategy E. Option E1, BRT in dedicated lanes and Option E2, a technology neutral grade separated transit facility from ARTIC to John Wayne Airport.

#### **OCTA Board Approved Refined Alternative Strategies**

At the Orange County Transportation Authority’s (OCTA) Board of Directors (Board) meeting on March 23, 2009 the Board approved alternative strategies A, B, C, and E as recommended. However, in regard to Strategy D (the State Route 57 Extension Strategy) extensive discussion took place regarding the various concepts recommended for consideration.

Ultimately, the Board directed staff to eliminate Options D1 (an intermittently operated highway on the riverbed shared with the flood control channel), D2 (a freeway on the riverbed with the flood control channel diverted in a tunnel below), and D5 (a transitway in an underground tunnel below the river channel) from further consideration. As a result, these three options will no longer be studied.

Additionally, the Board approved staff’s recommendation to continue studying and initiate screening of conceptual Options D3 (freeway cut and cover tunnel below the river channel) and D4 (freeway in dual bore tunnel below the river channel). The Board also approved the introduction of D7, a new option to study a freeway facility in a dual bore tunnel with an

unconstrained alignment. This option would not limit the alignment to the river channel but instead seek the best alignment to connect State Route 57 with Interstate 405. As a reminder, these are all underground freeway concepts.

Lastly, the Board held extensive discussions on the need and value of objectively measuring the performance of strategies that could substantially address central Orange County's mobility needs and relieve congestion. While the Board did not approve the PAC's recommendation to reconsider studying an on-structure freeway facility via the Santa Ana River, it did vote to introduce D8 (an arterial/street concept down the river channel). D8 would limit the profile of the roadway to the existing bridges that cross the river channel. As envisioned, the arterial/street concept would intersect with and be signalized at existing bridges. As such, commuters could potentially have opportunities to turn west or east at each bridge crossing between State Route 57 and Interstate 405, or directly connect through a freeway on/off ramp with either of these freeways.

The bullet list below summarizes the final Board approved Refined Alternative Strategies:

- **Baseline** – Funded and/or Environmentally Cleared Projects
- **Strategy A** – Transportation System Management (TSM)/Transportation Demand Management (TDM)
- **Strategy B** – Strategy A + Moderate Expansion of the Existing Transportation System
- **Strategy C** – Strategy A + Strategy B + Moderate Expansion of the Existing Transportation System
- **Strategy D** – Strategy A + Strategy B + Extension of the SR-57 via the Santa Ana River:
  - **D3** – Freeway in Cut and Cover Tunnel
  - **D4** – Dual Bore Freeway Tunnel
  - **D7** – Freeway Tunnel Unconstrained Alignment (SR-57 to I-405)
  - **D8** – Bridge Level Arterial with Intersections
- **Strategy E** – Strategy A + B + C + D + Additional Arterial, Freeway, and Transit Improvements
  - **E1** – Transit Option with BRT in Dedicated Lane
  - **E2** – Transit Option with Technology Neutral Grade Separated Transit Facility from ARTIC to John Wayne Airport

## **1.7 SCREENING ANALYSIS**

Each of the Initial Set of Alternative Strategies was taken through a preliminary screening analysis. The analysis applied screening criteria that weighed the relative benefits, costs, and impacts of the alternatives. The focus was placed on criteria that measured the performance of the alternatives relative to the study's Purpose and Need Statement. The alternatives were analyzed under year 2035 travel conditions.

### **1.7.1 Mobility Benefits**

An important criterion in the screening analysis was how well each of the respective alternatives reduced congestion within the central Orange County study area. By the year 2035, the arterial roadways and freeways in the study area are projected to experience a great deal of congestion, particularly in the AM and PM peak periods and even during the weekends.

#### **Travel Time Savings**

Each of the initial alternatives contain transportation improvements that reduce year 2035 vehicle hours of delay – a measure of travel time savings – to various degrees. As expected, Strategy E, the “Kitchen Sink Alternative,” which contains the highest level of capacity improvements to the freeway system, the arterial roadways, and the rail and bus transit network, realizes the greatest amount of travel time savings. Travel time savings for Strategy E ranges from about 69,600 to 70,700 hours per day. However, Strategy C also brings a high level of travel time savings at about 52,700 per day. This solid performance is likely attributable to full buildout of the MPAH system and because it adds freeway capacity to the segments of SR-55 that are predicted to experience the highest levels of congestion in the future. Travel time savings for Strategy D with four options ranges between 47,900 and 51,500 hours per day. Strategy D Option D3/D4 results in travel time savings of 47,900, Option D7 in travel time savings of 51,500, and Option D8 in travel time savings of 49,300 hours per day. This performance is attributable to the full buildout of the MPAH and new facilities, including a freeway in tunnel and an at grade arterial following the Santa Ana River. While realizing significant travel time savings they do not match the savings from Strategy C. Strategy B also includes the full buildout of the MPAH but has a lower level of freeway investment and results in 43,700 hours per day saved.

#### **Freeway Levels of Service**

A measure used to quantify the level of congestion on a specific roadway or freeway facility is level of service (LOS). Freeway LOS is largely calculated based on a ratio of the amount of travel demand (vehicles desiring to use the freeway) compared to the design capacity of the freeway (number of vehicles the facility is designed to carry). During screening analysis, it was found that none of the alternatives completely eliminates forecast congestion on the freeways in the study area. When examining freeway levels of service during the AM peak period in the year 2035, even Strategy E has segments of I-5, I-405, SR-55, and SR-22 with volumes that exceed their design capacity. However, each alternative does result in measurable improvements to the freeways when compared to the 2035 Baseline condition. In terms of overall freeway LOS improvement, the alternative strategies generally performed in the following order from most to least improved:

- Strategy E Option 1 and 2 (include Strategies A, B, C, and D)
- Strategy D, Option 7 (tunnel from SR-57 to SR-73)
- Strategy D, Options 3 and 4 (cut/cover or tunnel from SR-57 to I-405)
- Strategy C (includes major widening of SR-55)
- Strategy D, Option 8 (bridge level arterial from SR-57 to I-405 following Santa Ana River)
- Strategy B (full buildout of MPAH and freeway chokepoint projects)
- Strategy A (TSM/TDM)

The Strategies with the highest level of freeway investment (Strategy E Options 1 and 2), and/or highest number of new freeway lane miles (Strategy D Options 3, 4, and 7), show the best results in terms of improving freeway LOS over Baseline in the central Orange County study area.

### **Transit Ridership**

Each of the initial alternatives are multimodal in that they contain different levels of investment in local and community bus service, express bus service, community shuttles, Metrolink feeder / distributor service, bus rapid transit (BRT) options, and high-capacity transit systems. The screening analysis confirmed that forecasted rail and bus transit ridership increases in response to the higher levels of transit investment. Strategy E Option 2 packaged with the highest level of transit investment achieves the best ridership at 60,600 additional boardings per day or an 18% increase over Baseline. Strategy C, Strategy D, and Strategy E Option 1 result in a forecast increase of between 45,900 and 47,600 boardings per day, an approximate 14% increase over Baseline. Strategy B with a lower level of transit investment equates to 41,200 daily boardings followed by the Strategy A TSM/TDM at 39,700 daily boardings, both increases are approximately 11% over Baseline.

### **1.7.2 Potential for Right of Way Impacts**

A preliminary analysis was also undertaken during alternatives screening to identify those alternatives which have the greatest potential for land use impacts adjacent to major transportation facilities due to the need for additional right of way. The screening level analysis was qualitative using information from agency planning documents, such as city General Plan Circulation Elements. Each strategy was evaluated as a whole, not the impacts of individual projects. The assessment used the following criteria to determine impacts: are the improvements included in the strategy generally within existing right-of-way or generally outside of existing right-of-way? Three levels of impacts were used to represent the potential for right-of-way impacts for both arterials and freeways; minor, moderate, or major. Additionally, some combination of these levels, such as moderate-major may be used.

The screening level analysis for potential right-of-way impacts determined that only the Baseline and Strategy A (TSM/TDM) would have Minor impacts on both the arterials and freeways.

Strategy B, because it includes the full buildout of the MPAH that may include some arterial segments outside of existing right-of-way, was assigned a Moderate designation for arterials and a Minor designation for freeways. Strategies C, D3, D4, D7 and D8 also include the full buildout of the MPAH and were assigned a Moderate designation for arterials. Strategy C was assigned a Major designation for freeways due to the fact that the major widening of the SR-55 included in Strategy C will have extensive right-of-way needs outside of existing right-of-way. Strategies D3, D4, and D7 were all assigned Major/Moderate for freeways. The higher freeway right-of-way impact is due to the right-of-way needs at the daylighting areas for these below ground options. Strategy D8 was assigned Moderate for freeways because the connection of the bridge level arterial in the Santa Ana River corridor to the SR-57 and I-405 is not entirely within existing right-of-way. Strategy E was assigned a Major designation for both arterials and freeways. This strategy includes arterial capacity enhancements beyond MPAH that will include segments outside of existing right-of-way and includes the freeway elements of all the strategies with the potential for right-of-way impacts on several freeways.

### 1.7.3 Cost estimates

During the screening analysis, it was important to develop estimates of project costs in addition to the mobility benefits in order to gauge the effectiveness of the alternatives in light of their relative project costs. All costs are shown in terms of current year dollars (2009) to provide an even comparison across the alternatives.

#### Estimated Total Strategy Cost – Freeway / Arterial / Transit

Preliminary cost estimates were developed for the initial alternatives compared to the 2035 baseline condition. The freeway, arterial, and transit system cost elements of the alternatives were assessed as an integrated package for each alternative. These cost estimates take into account the capital cost to construct the proposed improvements but do not include the cost to acquire right of way as needed or potential future operations and maintenance costs. The rough order of magnitude costs are based upon recent estimates from OCTA, Caltrans, city studies, as well as national data.

Strategy E Option 2 has the highest cost at \$18.6 Billion as it includes all of the other strategies plus a transit tunnel from ARTIC to John Wayne Airport. Strategy E Option 1 has the second highest total cost at \$12.9 Billion, the only difference being the removal of the transit tunnel. Strategy D Options 3, 4, 7, and 8 range in cost from \$5.9 Billion to \$8.8 Billion with Option 8 (bridge level arterial) being the least expensive and Option 7 (tunnel from SR-57 to SR-73) being the most expensive. Strategy C with major SR-55 widening is estimated to cost \$5.9 Billion. Strategies C and D all have the same level of transit investment. Strategy B is estimated to cost \$1.7 Billion and Strategy A (TSM/TDM) is estimated to cost \$700 million.

#### Cost Effectiveness – Freeway / Roadway / Transit

When the roadway cost estimates are annualized, they can be used to develop a cost/benefit ratio for each alternative. Annual costs were divided by the annual travel time savings for each alternative to provide an estimate of cost per vehicle hour saved within the central Orange County study area. The lower the dollar cost per vehicle hour saved, the better the alternative. The cost/benefit ratios for each of the alternatives are shown as follows:

Strategy B performs the best according to this measure at \$15 per vehicle hour saved followed by Strategy A (TSM/TDM) at \$30 per vehicle hour saved. This means that the Strategy B (primarily the Renewed Measure M program of projects) and Strategy A (TSM/TDM) result in the best cost benefit ratio. Strategy D Option 8 and Strategy C are next at \$42 and \$44 per vehicle hour saved respectively. Strategy D Options 3 and 4 are projected at \$57 per vehicle hour saved while Strategy D Option 7 is projected at \$67 per vehicle hour saved. Strategy E performs the worst with regard to cost-effectiveness. For Strategy E Options 1 and 2, the added cost for the highest level of investment does not translate to an equivalent increase in mobility benefits.

### **Estimated Cost – Rail and Bus Transit**

While transit costs were included in the Total Strategy Cost and the Cost Effectiveness they are also provided here separately. Similar to the roadway elements of the alternatives, capital costs were estimated for the rail and bus transit improvements in current year (2009) dollars using local and national data. Fare revenue and operating and maintenance costs were not included in the screening level of analysis. However, “hard” dollar cost items such as transit vehicles, stations, track, and tunnel/trench sections for the rail options were incorporated into the estimates.

The estimated cost of the integrated package of transit elements included in the Strategy A (TSM/TDM) is the lowest at \$99 million. The total estimated capital cost of the Strategy B rail/transit improvements is also comparatively low at \$297 million. Strategies C and D include all of the transit elements from Strategy A and B plus additional transit improvement elements. The total estimated transit costs for Strategies C and D is \$1,024 million (just over one billion). Strategy E Option 1 estimated cost for transit elements (includes Strategy A, B, C, and D) is \$2,262 million. Strategy E Option 2 that includes the transit tunnel from ARTIC to John Wayne Airport is estimated to cost \$7,925 million.

## **1.8 SCREENING OF ALTERNATIVES**

Screening of alternatives, where some alternatives and options are carried forward into the reduced set of alternative strategies for further study and others are eliminated, took place in a sequence of steps. This was necessary due to the complexity of the Initial Set of Alternative Strategies.

In order to narrow the range of initial alternatives, including all of the different roadway options, a decision tree method was employed. The objective was to evaluate and compare the major components of the alternatives based on a series of key questions drawn from the technical screening analysis and that were found to be critical to the Purpose and Need for transportation improvements in central Orange County. These included:

- Must the strategy be carried forward in order to meet federal planning requirements<sup>1</sup>?
- Must the strategy be included in the reduced set of strategies to be consistent with Renewed Measure M?

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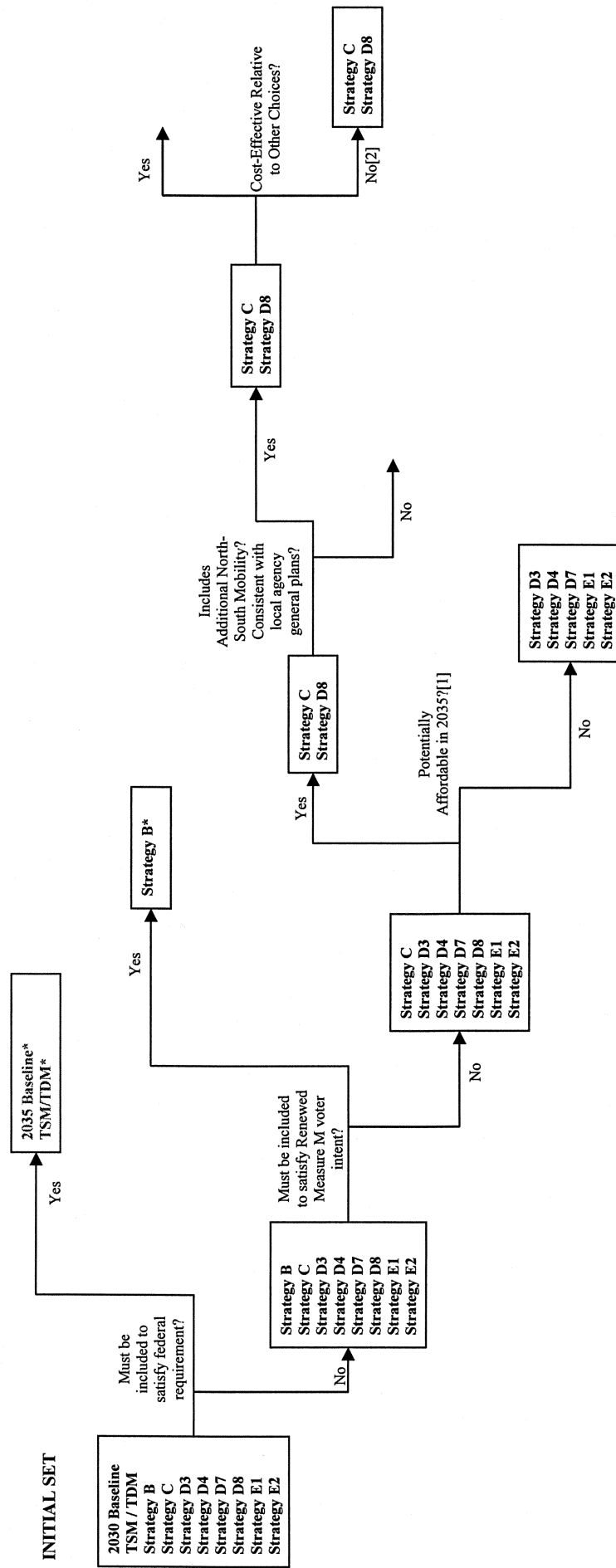
<sup>1</sup> Pursuant to federal requirements, every MIS must include a TDM/TSM alternative.

- Does the strategy include rail and bus transit improvements to address these aspects of Purpose and Need?
- Is the strategy economically feasible by the year 2035?
- Does the strategy respond to the need for additional north-south mobility?
- Is the strategy cost-effective relative to other choices?
- Is the strategy consistent with local agencies' general plans?

At each step of the decision tree analysis, a key question was asked and answered for each alternative. If the answer was “yes,” then the alternative was carried forward to the next step on the decision ladder. If the answer was “no,” it was then dropped from further consideration at that stage. Some of the key screening questions represent fatal flaws. A graphic depicting the decision tree process is shown in Figure ES-3.



Figure ES – 3 – Decision Tree Process



**\*RECOMMENDED FOR THE REDUCED SET OF ALTERNATIVES**

[1] – Less than \$6 Billion

[2] – Although C, D, and E Strategies are recommended to be screened out, major elements from each are recommended to be carried forward and are described in Tables ES-3 through ES-5





This process, along with input received from the Central Orange County MIS Technical Working Group, led to a technical screening recommendation on the major roadway and transit concepts and options of the Initial Set of Alternatives as summarized in Table ES-2.

**Table ES-2 – Technical Screening Recommendations – Initial Set of Refined Strategies**

Alternative	Recommended Action	Rationale
2035 Baseline Alternative	Carry forward for further study	<ul style="list-style-type: none"> <li>• Satisfies federal requirement</li> </ul>
Strategy A TSM/TDM Alternative	Carry forward for further study	<ul style="list-style-type: none"> <li>• Satisfies federal requirement</li> <li>• Relatively low cost, operational improvements</li> <li>• Near-term phasing option</li> </ul>
Strategy B	Carry forward for further study	<ul style="list-style-type: none"> <li>• Satisfies Renewed Measure M voter intent</li> <li>• Provides congestion relief at key chokepoints</li> <li>• Boosts transit service</li> </ul>
Strategy C	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Not cost effective relative to other choices</li> <li>• Extensive right-of-way requirements</li> <li>• Significant environmental impacts</li> <li>• Solid mobility benefits (reduced delay and congestion)</li> </ul>
Strategy D3	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Cost is prohibitively high relative to volumes it is projected to carry</li> <li>• Extensive right-of-way requirements at day-lighting areas</li> </ul>
Strategy D4	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Cost is prohibitively high relative to volumes it is projected to carry</li> <li>• Extensive right-of-way requirements at day-lighting areas</li> </ul>
Strategy D7	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Cost is prohibitively high relative to volumes it is projected to carry</li> <li>• Extensive right-of-way requirements at day-lighting areas</li> </ul>
Strategy D8	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Not cost effective relative to other choices</li> <li>• Significant right-of-way requirements</li> <li>• Significant environmental impacts</li> <li>• Solid mobility benefits (reduced delay and congestion)</li> </ul>
Strategy E1	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Prohibitively high cost relative to mobility benefits</li> <li>• Cumulative benefits of Strategies A-D do not justify the cumulative cost and impacts</li> </ul>

**Table ES-2 – Technical Screening Recommendations – Initial Set of Refined Strategies  
(continued)**

Alternative	Recommended Action	Rationale
Strategy E2	Drop from further consideration (Carry forward individual elements see Tables ES3 – ES5)	<ul style="list-style-type: none"> <li>• Prohibitively high cost relative to mobility benefits</li> <li>• Cumulative benefits of Strategies A-D do not justify the cumulative cost and impacts</li> </ul>

Additionally, the initial alternatives contain rail and transit elements as well as several roadway features which also underwent a preliminary screening analysis. Rail and transit improvements were examined based on mobility criteria such as travel times, accessibility, estimated ridership and productivity (ridership per vehicle service hour). Roadway elements were analyzed based upon levels of service, reductions of delay, and operational benefits. Potential for impacts and feasibility / constructability issues were also taken into account during the screening analysis.

Preliminary analysis was performed as part of the screening analysis so that the most competitive features of the initial set of alternatives could be brought forward and included in the Reduced Set of Alternative Strategies. In some cases, such as with arterial capacity enhancements and grade separations, the screening analysis led to modifications of the proposed improvements in order to improve their relative performance. In other cases, certain features were eliminated from further study, such as with the transit tunnel from ARTIC to John Wayne Airport. The technical recommendations that resulted from this step in the screening analysis are presented in Tables ES-3 through ES-5.



**Table ES-3 – Arterial Screening Recommendations – Key Features and Elements**

Key Feature / Element	Recommended Action	Rationale/Benefits
Arterial Grade Separations [Strategy E]	<p>Carry forward for further study at the following locations:</p> <ul style="list-style-type: none"> <li>• Beach Blvd. at Katella Ave.</li> <li>• Beach Blvd. at Warner Ave.</li> <li>• Beach Blvd. at Westminster Ave.</li> <li>• Bristol St. at 17<sup>th</sup> St.</li> <li>• Harbor Blvd. at Adams Ave.</li> <li>• 19<sup>th</sup> St. at SR-55</li> </ul>	<ul style="list-style-type: none"> <li>• Approximately 100,000 vpd or greater total approach volume</li> <li>• Total volume on minor street greater than 40,000 vpd</li> <li>• Relieves potential bottlenecks, improving traffic flow along key north-south corridors</li> </ul>
Arterial Capacity Enhancements Beyond MPAH [Strategy E]	<p>Carry forward for further study at the following locations:</p> <ul style="list-style-type: none"> <li>• Euclid Ave. – Warner Ave. to Westminster Ave.</li> <li>• Newhope St. – Warner Ave. to Westminster Ave.</li> <li>• Harbor Blvd. – Warner Ave. to 17<sup>th</sup> St.</li> <li>• Standard Ave. – Warner Ave. 1<sup>st</sup> St.</li> <li>• Victoria St. - Brookhurst St. to SR-55</li> <li>• Adams Ave. – Brookhurst St. to Harbor Blvd.</li> <li>• Chapman Ave. – Brookhurst St. to Haster St.</li> </ul>	<ul style="list-style-type: none"> <li>• Projected peak hour volumes in excess of MPAH buildout capacity</li> <li>• Addresses Purpose and Need by enhancing north-south arterial capacity or facilitating east-west connections to key north-south corridors</li> <li>• More capacity for higher projected volumes with improved LOS</li> </ul>



**Table ES-4 – Freeway Screening Recommendations – Key Features and Elements**

Key Feature / Element	Recommended Action	Rationale/Benefits
SR-55 Meats Avenue Interchange [Strategy B]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Included in Renewed Measure M</li> <li>• High projected utilization</li> <li>• Reduces demand on adjacent interchanges</li> </ul>
SR-55 Extension beneath Newport Blvd, 19 <sup>th</sup> to Industrial Way [Strategy C]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Significantly reduces congestion at SR-55 terminus</li> <li>• Improves access to PCH/Newport Beach</li> <li>• Provides needed capacity to accommodate added traffic projected with extension of 19<sup>th</sup> Street to Brookhurst St.</li> <li>• Significantly improves intersection LOS in area</li> <li>• Projected 50% decrease in ADT on Newport Blvd</li> </ul>
SR-22/SR-55 HOV Direct Connectors [Strategy C]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Reasonable projected peak period utilization - 4,500-7,300 ADT on connector ramps</li> <li>• Improves efficiency and utilization of HOV system</li> <li>• Reduces interchange congestion, weaving, and accidents benefiting general purpose lanes</li> </ul>
SR-55/I-5 Reconstruction (Strategy C)	Drop from further consideration (included as part of Strategy C to accommodate SR-55 widening outside of right-of-way)	<ul style="list-style-type: none"> <li>• Would reduce bottleneck on SR-55 with future widening (PSR) and reduce existing bottleneck on I-5</li> <li>• Prohibitively high cost</li> <li>• Significant delay projected at interchange even with reconstruction</li> </ul>
SR-55 Frontage Road Improvements [Strategy C]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Operational improvements at freeway on/off ramp intersections</li> </ul>



**Table ES-4 – Freeway Screening Recommendations – Key Features and Elements (continued)**

Key Feature / Element	Recommended Action	Rationale/Benefits
HOV Drop Ramps on the I-405 to the Bear Street OC [Strategy C & D]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Reasonable projected utilization</li> <li>• Direct HOV/transit access to South Coast Plaza with highest concentration of transit transfers in county</li> <li>• Potential for combination with BRT and HOT Lane system for added benefit</li> </ul>
SR-22 Ramp Connectors to PE ROW [Strategy E]	Carry forward for further study	<ul style="list-style-type: none"> <li>• High projected utilization (25,000 vpd) operating at LOS D or better</li> <li>• Provides direct connection to center of study area</li> <li>• Addresses Purpose and Need at a reasonable cost</li> <li>• Reduces volumes at SR-22/I-5/SR-57 Interchange</li> </ul>
SR-22/I-5/SR-57 Interchange Reconstruction [Strategy E]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Provides significant congestion relief at a regionally important interchange in the study area</li> <li>• Alternative 4 reduces travel time from Magnolia to Horseshoe by 70% or more with LOS C on SR-22 up to City Drive and LOS D/E from City Drive through horseshoe to I-5/SR-57</li> <li>• Reasonable cost for delay reduction</li> <li>• Peak period demand on Horseshoe projected to be 5,200 in 2035; this concept provides capacity for 5,400.</li> </ul>
SR-91/SR-241 Connectors	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Moving forward independent of CCC MIS based on recommendation of SR-91 MIS</li> <li>• Integral part of any toll road option</li> </ul>



**Table ES-4 – Freeway Screening Recommendations – Key Features and Elements (continued)**

Shadow Tolls on SR-241/SR-261	Carry forward for further study	<ul style="list-style-type: none"><li>• Not modeled in screening</li><li>• Provides opportunity for increased capacity without widening existing facilities</li><li>• Closely coordinate with TCA</li></ul>
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**Table ES – 5 – Transit Screening Recommendations – Key Features and Elements**

Key Feature / Element	Recommended Action	Rationale/Benefits
Enhanced BRT Service (6 routes) [Strategy B]	Carry forward for further study	<ul style="list-style-type: none"> <li>Mixed-flow BRT is a relatively cost-effective service improvement</li> <li>6,000 new miles of service, 13,000-20,000 increase in ridership</li> </ul>
Go Local Projects: <ul style="list-style-type: none"> <li>ARTIC to Fullerton</li> <li>ARTIC to Anaheim Cyn</li> <li>West Anaheim Shuttles</li> <li>Bolsa Chica Intercounty Express</li> <li>Fountain Valley Express</li> <li>Little Saigon/Fountain Valley/Huntington Beach Express</li> <li>North/South Commuter Express</li> </ul> [Strategy B]	Carry forward for further study	<ul style="list-style-type: none"> <li>Not modeled in screening</li> <li>Moving forward independent of CCC MIS based on Go Local Step 1 justification</li> </ul>
High Capacity Fixed Guideways, Anaheim & Santa Ana [Strategy C]	Carry forward for further study	<ul style="list-style-type: none"> <li>Moving forward independent of CCC MIS based on Step 1 justification</li> <li>ARTIC to Anaheim Resort Fixed Transit Guideway – 2.4 to 2.6 million riders/year</li> <li>SARTIC to Harbor Blvd – 4.2 to 4.8 million riders/year</li> <li>Using a factor of 340 days/year: <ul style="list-style-type: none"> <li>ARTIC to Anaheim Resort Fixed Transit Guideway – 7,050 to 7,650 riders/day</li> <li>SARTIC to Harbor Blvd – 12,500 to 14,300riders/day</li> </ul> </li> </ul>





**Table ES – 5 – Transit Screening Recommendations – Key Features and Elements (continued)**

Key Feature / Element	Recommended Action	Rationale/Benefits
Community Based Transit Circulators [Strategy C]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Renewed Measure M</li> </ul>
Westminster/17 <sup>th</sup> BRT Spur utilizing PE ROW [Strategy C & D]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Provides a faster route to SARTIC that also serves a complementary market to the baseline 17<sup>th</sup> Street route</li> </ul>
New Intermodal Stations [Strategy C & D]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Facilitate transfers from auto to new transit facilities</li> <li>• Important factor in overall transit system performance</li> </ul>
ARTIC Phase II [Strategy D]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Moving forward independent of CCC MIS</li> <li>• Renewed Measure M Project, relating to the need for an intermodal gateway that will link Orange County with California's emerging high-speed networks</li> <li>• Located at the confluence of two Bravo routes – Katella and State College</li> <li>• Serves as a transfer hub for OCTA's bus network</li> </ul>
High Speed Train at ARTIC [Strategy E]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Moving forward independent of CCC MIS based on HSRA analysis/funding</li> <li>• Provides a new mode of transportation in study area with regional connectivity</li> </ul>
Transit utilizing PE ROW north of Garden Grove Civic Center [Strategy E]	Carry forward for further study	<ul style="list-style-type: none"> <li>• Not modeled in screening</li> <li>• Moving forward based in recommendations of LA/OC Transportation Study</li> </ul>



**Table ES – 5 – Transit Screening Recommendations – Key Features and Elements (continued)**

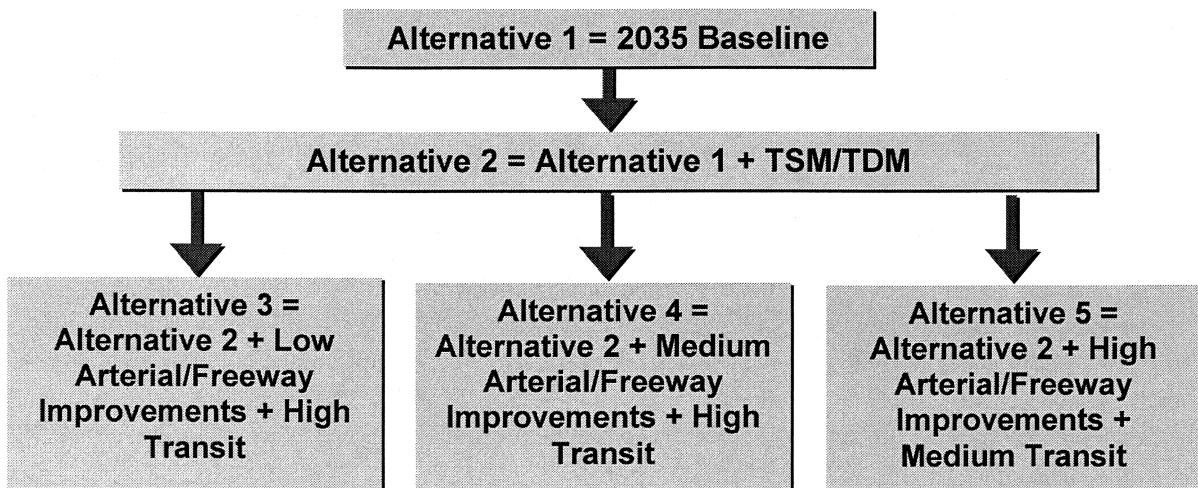
Key Feature / Element	Recommended Action	Rationale/Benefits
Technology Neutral Grade Separated Transit Facility from ARTIC to JWA [Strategy E]	Drop from further consideration	<ul style="list-style-type: none"> <li>11-mile system with prohibitively high cost and lower ridership potential relative to other transit choices</li> </ul>
BRT in Dedicated Lane (Harbor and State College/Bristol) [Strategy E]	Carry forward for further study (both potential routes)	<ul style="list-style-type: none"> <li>Need for faster and higher-capacity service to complement robust level of local transit service in the study area.</li> <li>Good productivity</li> <li>Improved connectivity with other proposed high-capacity transit services</li> </ul>

## 1.9 RECOMMENDED ALTERNATIVE STRATEGIES

As a result of alternatives screening, five alternative strategies were recommended for approval by the PAC to the OCTA Board of Directors. These recommended alternatives incorporate refinements that occurred through the screening process. The Reduced Set of Alternative Strategies provides a range of choices for further study that seek to provide insight into the potential performance of various packages and levels of multimodal investment.

The reduced set of five alternative strategies has been labeled 1 through 5 and is illustrated in Figure ES-4:

**Figure ES – 4 – Reduced Set of Alternative Strategies**



## 1.10 NEXT STEPS

The Reduced Set of Alternative Strategies will undergo further technical analyses and then seek public input. Conceptual layouts will be developed as necessary to provide order of magnitude cost estimates and an assessment of the environmental and community impacts and benefits of each alternative. Travel demand forecasts will be performed to estimate the future usage of proposed transportation improvements included in each alternative. A conceptual level financial analysis will also be conducted to assess the financial implications of each alternative as well as to identify potential funding sources.

# Central Orange County Major Investment Study

## Draft Reduced Set of Alternative Strategies

### ALTERNATIVE 1 – 2035 BASELINE

The 2035 Baseline includes not only facilities and services in place today but also those transportation improvements funded and committed for implementation prior to 2035

### ALTERNATIVE 2 – TSM/TDM ALTERNATIVE

TSM/TDM ARTERIAL: Arterial/Intersection Optimization & Synchronization from Strategy A (15 corridors, 47 intersections)

TSM/TDM FREEWAY: Eastbound MacArthur Boulevard – Northbound/Southbound Costa Mesa Freeway (State Route 55) Ramp Widening, State Route 55 (SR-55) Chokepoint/Operational Improvements, and Santa Ana Freeway (Interstate 5)/SR-55 1<sup>st</sup> Street/4<sup>th</sup> Street Improvement

LOW TRANSIT: Express Bus Service, Local Bus Service Improvements on North/South Routes, Enhanced Bus Rapid Transit (BRT), Pedestrian/Bicycle Improvements with Arterial Optimization and BRT, and Park & Ride Improvements

MODE	Alternative 3 (Includes ALT 1 / ALT 2) Low Arterial/Freeway Investment with High Transit	Alternative 4 (Includes ALT 1 / ALT 2) Medium Arterial/Freeway Investment with High Transit	Alternative 5 (Includes ALT 1 / ALT 2) High Arterial/Freeway Investment with Medium Transit
Brief Description	Addresses arterial congestion with key Master Plan of Arterial Highways (MPAH) widening, eliminates a freeway high-occupancy vehicle (HOV) chokepoint on Interstate 5 (I-5), and provides a major investment in transit to significantly increase ridership providing a multimodal solution.	Significantly reduces arterial congestion through the full buildout of the MPAH, provides key freeway widening and interchange improvements to reduce congestion, and provides a major investment in transit to significantly increase ridership providing a multimodal solution.	A major investment in arterial capacity and grade separations to reduce congestion and improve travel time, several major key freeway infrastructure projects to improve access and reduce chokepoints, and provides a significant investment in transit to substantially increase ridership providing a multimodal solution.
ARTERIAL	<ul style="list-style-type: none"> <li>Strategy B Optimization &amp; Synchronization (7 corridors, 14 intersections)</li> <li>Widening of selected MPAH facilities: <ul style="list-style-type: none"> <li>Baker Street – Bear Street to San Joaquin</li> <li>Transportation Corridor (State Route 73)</li> <li>Beach Boulevard – @ San Diego Freeway (Interstate 405) Interchange</li> <li>1<sup>st</sup> Street – Grand Avenue to Standard Avenue</li> <li>Edinger Avenue – Bristol Street to Main Street</li> <li>Euclid Avenue – McFadden Avenue to Edinger Avenue</li> <li>Grand Avenue – Santa Clara Avenue to Garden Grove Freeway (State Route 22)</li> <li>Grand Avenue – I-5 to 4<sup>th</sup> Street</li> <li>Warner Avenue – Raitt Street to Grand Avenue</li> </ul> </li> </ul>	<p>[Includes ALT 3 Arterial Improvements]</p> <ul style="list-style-type: none"> <li>Full MPAH Buildout <ul style="list-style-type: none"> <li>Alton Parkway Overcrossing</li> <li>Pacific Electric Right-of-Way (PE ROW)</li> </ul> </li> <li>SR-55 Frontage Road Improvements <ul style="list-style-type: none"> <li>SR-55 Ramps at Paulmarino Avenue and Baker Street</li> </ul> </li> </ul>	<p>[Includes ALT 3 &amp; 4 Arterial Improvements]</p> <ul style="list-style-type: none"> <li>Arterial Widening Beyond MPAH: <ul style="list-style-type: none"> <li>Euclid Avenue – Warner Avenue to Westminster Boulevard</li> <li>Newhope Street – Warner Avenue to Westminster Boulevard</li> <li>Harbor Boulevard – Warner Avenue to 17<sup>th</sup> Street</li> <li>Standard Avenue – Warner Avenue to 1<sup>st</sup> Street</li> <li>Victoria Street – Brookhurst Street to SR-55</li> <li>Adams Avenue – Brookhurst Street to Harbor Boulevard</li> <li>Chapman Avenue – Brookhurst Street to Haster Street</li> </ul> </li> <li>Grade Separations: <ul style="list-style-type: none"> <li>Beach Boulevard at Katella Avenue</li> <li>Beach Boulevard at Warner Avenue</li> <li>Beach Boulevard at Westminster Boulevard</li> <li>Bristol Street at 17<sup>th</sup> Street</li> <li>Harbor Boulevard at Adams Avenue</li> <li>19<sup>th</sup> Street at SR-55</li> </ul> </li> </ul>

TSM – Transportation System Management  
TDM – Transportation Demand Management

# Central Orange County Major Investment Study

## Draft Reduced Set of Alternative Strategies

MODE	Alternative 3 (Includes ALT 1 / ALT 2) Low Arterial/Freeway Investment with High Transit	Alternative 4 (Includes ALT 1 / ALT 2) Medium Arterial/Freeway Investment with High Transit	Alternative 5 (Includes ALT 1 / ALT 2) High Arterial/Freeway Investment with Medium Transit
FREEWAY	<ul style="list-style-type: none"> <li>• HOV on I-5 – SR-55 to Costa Mesa Freeway (State Route 57)</li> <li>• SR-55/I-5 Interchange – 1<sup>st</sup> Street/4<sup>th</sup> Street Interchange Improvements</li> </ul>	<p>[Includes ALT 3 Freeway Improvements]</p> <ul style="list-style-type: none"> <li>• HOV on SR-55 – I-405 to 19<sup>th</sup> Street</li> <li>• SR-55 Project Study Report Widening</li> <li>• HOV direct access ramps at Bear Street</li> <li>• Meats Avenue Interchange on SR-55</li> </ul>	<p>[Includes ALT 3 and ALT 4 Freeway Improvements]</p> <ul style="list-style-type: none"> <li>• State Route 22 (SR-22)/SR-55 HOV Direct Connector Ramps</li> <li>• SR-22/PE ROW Ramp Connectors</li> <li>• SR-55/Newport Extension (with 19<sup>th</sup> Street Santa Ana River Crossing)</li> <li>• SR-22/I-5 Interchange Reconstruction</li> <li>• Shadow Toll Option</li> </ul>
TRANSIT/ MULTI- MODAL	<ul style="list-style-type: none"> <li>• Enhanced BRT</li> <li>• Park &amp; Ride Improvements</li> <li>• Go Local Step 2</li> <li>• High Capacity Fixed Guideways <ul style="list-style-type: none"> <li>◦ Anaheim</li> <li>◦ Santa Ana</li> </ul> </li> <li>• Community Based Transit Circulators</li> <li>• New Intermodal Stations at Key Locations</li> <li>• Anaheim Regional Transportation Intermodal Center (ARTIC)</li> <li>• High Speed Train – ARTIC to Los Angeles Union Station (LAUS)</li> <li>• BRT in Dedicated Lane (John Wayne Airport (JWA) to ARTIC/Anaheim Resort) <ul style="list-style-type: none"> <li>◦ Via Harbor Boulevard</li> <li>◦ Via State College Boulevard/Bristol Street</li> </ul> </li> </ul> <p>(BRT spur along PE ROW is not included because the MPAH is not built out in this alternative, which is a prerequisite for this improvement)</p>	<ul style="list-style-type: none"> <li>• Enhanced BRT</li> <li>• Park &amp; Ride Improvements</li> <li>• Go Local Step 2</li> <li>• High Capacity Fixed Guideways <ul style="list-style-type: none"> <li>◦ Anaheim</li> <li>◦ Santa Ana</li> </ul> </li> <li>• BRT Spur along PE ROW</li> <li>• Community Based Transit Circulators</li> <li>• New Intermodal Stations at Key Locations</li> <li>• ARTIC</li> <li>• High Speed Train – ARTIC to LAUS</li> <li>• BRT in Dedicated Lane (JWA to ARTIC/Anaheim Resort) <ul style="list-style-type: none"> <li>◦ Via Harbor Boulevard</li> <li>◦ Via State College Boulevard/Bristol Street</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced BRT</li> <li>• Park &amp; Ride Improvements</li> <li>• Go Local Step 2</li> <li>• High Capacity Fixed Guideways <ul style="list-style-type: none"> <li>◦ Anaheim</li> <li>◦ Santa Ana</li> </ul> </li> <li>• BRT Spur along PE ROW</li> <li>• Community Based Transit Circulators</li> <li>• New Intermodal Stations at Key Locations</li> <li>• ARTIC</li> <li>• High Speed Train – ARTIC to LAUS</li> </ul> <p>(Medium transit does not include BRT in dedicated lane)</p>