# AGENDA

***Transit Committee Meeting***

**Committee Members**
Tim Shaw, Chairman
Al Murray, Vice Chairman
Andrew Do
Steve Jones
Miguel Pulido
Tom Tait
Gregory T. Winterbottom

Orange County Transportation Authority
Headquarters
550 South Main Street,
Board Room – Conf. Room 07
Orange, California
**Thursday, May 11, 2017 at 9:00 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 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
Director Pulido

**1. Public Comments**

## Special Calendar

There are no Special Calendar matters.

## Consent Calendar (Items 2 through 9)

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**

Approval of the Minutes of the Transit Committee meeting of April 27, 2017.

**3. Rail Programs and Facilities Engineering Quarterly Report**
Jennifer Bergener/James G. Beil

**Overview**

The Rail Programs and Facilities Engineering departments are responsible for the Orange County Transportation Authority's rail project development, rail capital programs, rail operations, and transit facilities engineering projects. This report provides an update on rail and facilities engineering programs through the third quarter (January, February, and March) of fiscal year 2016-17.

**Recommendation**

Receive and file as an information item.

**4. OC Streetcar and Bus-Rail Interface Title VI Analysis**
Mary Shavalier/James G. Beil

**Overview**

As a recipient of federal funding, the Orange County Transportation Authority is required to fulfill the requirements of Title VI of the Civil Rights Act of 1964 by operating its programs without regard to race, color, or national origin. Staff has completed the review of the OC Streetcar project and the Bus-Rail Interface Plan, in accordance with Title VI requirements, and is seeking Board of Directors' approval to authorize and submit the Title VI analysis to the Federal Transit Administration.

**Recommendation**

Approve the 2017 OC Streetcar and Bus-Rail Interface Title VI Analysis and direct staff to submit to the Federal Transit Administration Headquarters Office of Civil Rights.

**5. Amendment to Agreement for the Design of the OC Streetcar Project**
Mary Shavalier/James G. Beil

**Overview**

On September 14, 2015, the Orange County Transportation Authority Board of Directors approved an agreement with HNTB Corporation for preparation of plans, specifications, and estimates for the OC Streetcar project. An amendment to the agreement is required for additional design services.

**5. (Continued)**

**Recommendation**

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Agreement No. C-5-3337 between the Orange County Transportation Authority and HNTB Corporation, in the amount of $866,639, for additional design services for the OC Streetcar project. The amendment will increase the maximum cumulative obligation of the agreement to a contract value of $17,784,560.

**6. Amendment to Cooperative Agreement with the County of Orange, Orange County Sheriff's Department**
Katrina Faulkner/Kenneth Phipps

**Overview**

On May 11, 2015, the Board of Directors approved a five-year agreement with the County of Orange, Orange County Sheriff's Department, to provide Transit Police Services. The firm-fixed total cost to the Orange County Transportation Authority for services provided for a 12-month period is determined annually by the Orange County Sheriff's Department and approved by the Orange County Transportation Authority's Board of Directors.

**Recommendation**

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Cooperative Agreement No. C-5-3342 between the Orange County Transportation Authority and County of Orange, Orange County Sheriff's Department, in the amount of $7,538,093, for Transit Police Services, effective July 1, 2017 through June 30, 2018. This will increase the maximum obligation of the agreement to a total contract value of $21,532,496.

**7. Agreement for Coach Operator, Operations Instructor, and Field Supervisor Uniforms**
Joy Rosin/Beth McCormick

**Overview**

The Orange County Transportation Authority provides a uniform program for coach operators, operations instructors, and field supervisors pursuant to the Collective Bargaining Agreement, as well as the Personnel and Salary Resolution. A request for proposals was issued to procure services for uniform products and services.

**7. (Continued)**

**Recommendations**

A. Approve the selection of Becnel Uniforms, as the firm to provide coach operator, operations instructor, and field supervisor uniforms on an as-needed basis.

B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-6-1442 between the Orange County Transportation Authority and Becnel Uniforms, in the amount of $821,852, for an initial three-year term with two, one-year option terms to provide coach operator, operations instructor, and field supervisor uniforms on an as-needed basis.

**8. Amendment to Cooperative Agreement with Regional Center of Orange County**
Curt Burlingame/Beth McCormick

**Overview**

The Orange County Transportation Authority has had a long-standing revenue agreement with the Regional Center of Orange County to share in the cost of providing paratransit service to Regional Center of Orange County consumers. The initial term of the current agreement expires June 30, 2017, and an amendment is required to exercise the second option term and extend the term of the agreement.

**Recommendation**

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Cooperative Agreement No. C-3-1625 between the Orange County Transportation Authority and the Regional Center of Orange County to exercise the second option term to share in the cost of paratransit services provided to Regional Center of Orange County consumers through June 30, 2018.

**9. Amendments to Cooperative Agreements with Special Agencies ProvidingParatransit Services**
Curt Burlingame/Beth McCormick

**Overview**

The Orange County Transportation Authority has engaged in cost-sharing arrangements with several special agencies to assist in managing the demand and cost of ACCESS service. In May 2013, the Board of Directors approved cooperative agreements with six agencies to provide transportation to five adult day healthcare programs and one Regional Center day program. Contract amendments are required to increase the maximum obligation and extend these agreements through June 30, 2018.

**Recommendations**

A. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1619 between the Orange County Transportation Authority and Acacia Adult Day Services to exercise the second option term, in an amount of $535,500, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $3,125,125.

B. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-6-1056 between the Orange County Transportation Authority and Alzheimer's Orange County to exercise the first option term, in an amount of $170,170, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $539,001.

C. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1620 between the Orange County Transportation Authority and Alzheimer's Family Center to exercise the second option term, in an amount of $813,925, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $2,663,039.

D. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Cooperative Agreement No. C-3-1622 between the Orange County Transportation Authority and Community SeniorServ to exercise the second option term, in an amount of $605,793, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $4,242,596.

**9. (Continued)**

E. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1623 between the Orange County Transportation Authority and Orange County Adult Achievement Center to exercise the second option term, in an amount of $1,919,301, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $7,433,315.

F. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1624 between the Orange County Transportation Authority and Sultan Adult Day Health Care to exercise the second option term, in an amount of $1,339,875, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $5,930,483.

## Regular Calendar

**10. OC Streetcar Full Funding Grant Agreement**
Mary Shavalier/James G. Beil

**Overview**

Design of the OC Streetcar project is advancing rapidly, and staff is ready to submit the final documentation demonstrating the Orange County Transportation Authority's readiness to receive a Full Funding Grant Agreement through the federal Section 5309 Capital Investment Grant Program. Staff is seeking Board of Directors' approval to request and enter into a Full Funding Grant Agreement with the Federal Transit Administration for the OC Streetcar project.

**Recommendations**

A. Approve the revised OC Streetcar project funding plan consistent with the outcome of the Federal Transit Administration Risk Assessment Workshop conducted on the 60 percent design.

B. Authorize the use of an additional $1.43 million in Congestion Mitigation Air Quality Improvement Program funding, increasing the total project funding from $297.91 million to $299.34 million.

C. Approve the Interim Comprehensive Business Plan and Financial Commitment Policy Statement to address the Orange County Transportation Authority's commitments to its bus and rail operations as required to support the request for a Full Funding Grant Agreement.

**10. (Continued)**

D. Authorize the Chief Executive Officer to request and enter into a Full Funding Grant Agreement to secure a federal contribution of $148.96 million through the Section 5309 Capital Investment Grant Program.

E. Authorize staff to make all necessary amendments to the Federal Transportation Improvement Program and execute any required agreements or amendments to facilitate the recommendation above.

**11. OC Bus 360º Update**
Kurt Brotcke/Kia Mortazavi

**Overview**

The Orange County Transportation Authority is implementing a comprehensive effort to reposition the bus system in response to changing market conditions. The goals are to reverse ridership declines by reducing passenger travel times, improving travel speeds, and designing services to benefit existing customers and attract new customers. A status report on major OC Bus 360º elements is presented for review.

**Recommendation**

Receive and files as an information item.

**12. October 2017 Service Change Proposal**
Gary Hewitt/Kia Mortazavi

**Overview**

The Orange County Transportation Authority implements schedule and route revisions to selected bus routes three times a year. Staff is proposing service reductions for the October 2017 Bus Service Change Program in order to improve productivity and reduce peak vehicle requirements.

**Recommendation**

Receive and file as an information item.

**13. Transit Master Plan - Investment Framework**
Gary Hewitt/Kia Mortazavi

**Overview**

The Transit Master Plan will develop an integrated bus, rail, and paratransit plan for Orange County. This plan will identify future potential transit corridor studies and recommended changes to existing transit service. The Transit Investment Framework will assist the Orange County Transportation Authority in decision-making when allocating resources for bus service and future transit capital projects.

**Recommendation**

Direct staff to return to the Board of Directors in July 2017, with draft Transit Opportunity Corridors and short-term bus service recommendations.

## Discussion Items

**14. Fiscal Year 2017-18 Budget Workshop Follow-up**
Victor Velasquez/Andrew Oftelie

**Overview**

Budget staff is available for follow-up questions, issues, or concerns that may have arisen at and/or since the budget workshop conducted with the Board on May 8, 2017.

**15. Chief Executive Officer's Report**

**16. Committee Members' Reports**

**17. Closed Session**

There are no Closed Session items scheduled.

**18. Adjournment**

The next regularly scheduled meeting of this Committee will be held at **9:00 a.m. on Thursday, June 8, 2017**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07, Orange, California.

# MINUTES

***Transit Committee Meeting***

***Committee Members Present***
*Al Murray, Vice Chairman*
*Andrew Do*
*Steve Jones*
*Tom Tait*
*Greg Winterbottom*

***Staff Present***
*Ken Phipps, Acting Chief Executive Officer*
*Olga Prado, Assistant Clerk of the Board*
*Mary K. Burton, Deputy Clerk of the Board*
*Cassie Trapesonian, Acting General Counsel*
*OCTA Staff and members of the General Public*

***Committee Members Absent***
*Committee Chairman Shaw*
*Director Pulido*

## Call to Order

The April 27, 2017 meeting of the Transit Committee was called to order by Committee Vice Chairman Murray at 9:03 a.m.

## Pledge of Allegiance

Director Jones led in the Pledge of Allegiance

**1. Public Comments**

## Special Calendar

There were no Special Calendar matters.

## Consent Calendar (Items 2 through 4)

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**

A motion was made by Director Jones, seconded by Director Winterbottom, and declared passed by those present, to approve minutes of the April 13, 2017 meeting.

Director Tait was not present to vote on this item.

**3. Agreement for Bus Parking Wheel Stops and Fence Repair at the Anaheim Bus Base**

A motion was made by Director Jones, seconded by Director Winterbottom, and declared passed by those present, to authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1553 between the Orange County Transportation Authority and Creative Home, doing business as CHI Construction, the lowest responsive, responsible bidder, in the amount of $67,425, for bus parking wheel stops and fence repair at the Anaheim Bus Base.

Director Tait was not present to vote on this item.

**4. Agreement for Hydrogen Gas Detection Upgrades and Ventilation System Modification at the Santa Ana Bus Base**

A motion was made by Director Jones, seconded by Director Winterbottom, and declared passed by those present, to authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1529 between the Orange County Transportation Authority and Clean Energy, a California corporation, the lowest responsive, responsible bidder, in the amount of $80,405, for hydrogen gas detection upgrades and a ventilation system modification at the Santa Ana Bus Base.

Director Tait was not present to vote on this item.

## Regular Calendar

There were no Regular Calendar items scheduled.

## Discussion Items

**5. Hydrogen Fuel Cell Electric Bus Update**

Sue Zuhlke, Director of Maintenance and Motorists Services, provided a PowerPoint presentation that included an update on two hydrogen fuel cell electric bus projects.

Ms. Zuhlke also provided a video presentation that showed the latest hydrogen fuel cell technology throughout the world. Ms. Zuhlke stated that the California Air Resources Board is working on the advance clean transit rule to ensure that all buses have zero emissions by 2040.

**5. (Continued)**

In the future, when more data is available, Director Tait would like staff to provide an analysis on the new fuel technologies and include the ranges, weights, and costs.

Director Do expressed his concern about endorsing any type of technology and how it relates to Sacramento as they consider different types of fuel and measuring of zero emissions.

Ms. Zuhlke responded that Orange County Transportation Authority's (OCTA) message in Sacramento is agnostic. OCTA's Manager of Maintenance, Cliff Thorne, is conducting a thorough cost-analysis from "cradle to grave" to see what the costs are to operate a consolidated natural gas bus, an electric bus, and a hydrogen fuel cell bus.

Committee Vice Chairman Murray asked if the video was available for viewing, and Ms. Zuhlke responded that it is; however, she indicated that it may be too early to share as most of the information that the Air Resources Board has put out has been based on hypothetical calculations. Ms. Zuhlke suggested that "real world experience" data would be the data to share.

**6. Chief Executive Officer's Report**

Mr. Phipps, Deputy Chief Executive Officer, reported on the following:

- The Angels Express service carried 323 passengers last night, bringing the total year-to-date boardings to almost 5,000. This is lower than last year's numbers; however, this may be due to fewer Friday night games.

- This Saturday, April 29th, there will be an equestrian ride at the Ferber Ranch Preserve to showcase OCTA's open space acquisition.

- To kick-off Bike Month in May, OCTA is hosting its annual Bike Festival on Sunday, April 30th. OCTA has teamed up with the City of Dana Point to include the festival as part of the Dana Point Grand Prix, which is one of the premier bike races in the United States.

## 7. Committee Members' Reports

There were no Committee Members' reports.

## 8. Closed Session

There were no Closed Session items scheduled.

## 9. Adjournment

The meeting adjourned at 9:45 a.m.

The next regularly scheduled meeting of this Committee will be held at **9:00 a.m. on Thursday, May, 11, 2017**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07, Orange, California.

ATTEST

Mary Burton
Deputy Clerk of the Board

Al Murray
Committee Vice Chairman

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Rail Programs and Facilities Engineering Quarterly Report

## *Overview*

The Rail Programs and Facilities Engineering departments are responsible for the Orange County Transportation Authority's rail project development, rail capital programs, rail operations, and transit facilities engineering projects. This report provides an update on rail and facilities engineering programs through the third quarter (January, February, and March) of fiscal year 2016-17.

## *Recommendation*

Receive and file as an information item.

## *Background*

The Rail Programs and Facilities Engineering departments (Departments) are responsible for implementing the Orange County Transportation Authority's (OCTA) railroad capital projects, including station parking enhancements and expansions, new station developments, expanded rail services, OC Streetcar, and transit facilities engineering. Additionally, the Departments are responsible for improved and expanded operations of Orange County's rail system by providing rail service that supports and matches the growth and development patterns of Orange County and the region.

## *Discussion*

This report provides an update on the Departments' programs and the projects, including Rail Capital, Transit Extensions to Metrolink, Rail Operations, and Transit Facilities Engineering.

Rail Capital

Rail Capital projects include a wide range of projects necessary to sustain existing passenger rail service and support future increases in service. This includes new station developments, station parking expansions and enhancements, grade separations and grade-crossing enhancements, and various other track and infrastructure projects.

Station Improvements

The Laguna Niguel/Mission Viejo Metrolink Station improvements project provides Americans with Disabilities Act (ADA)-compliant access ramps that will replace the existing elevators. Since the existing elevators are currently out of service, bus service is required to transport passengers from one side of the station to the other. The existing elevator rooms are being converted to a restroom, a vending machine, and storage rooms. The project scope also includes additional benches, shade structures, and relocation of Moulton Niguel Water District's 33-inch sewer line, which is in conflict with the project. The construction notice to proceed (NTP) was issued on February 23, 2016. The contractor has completed the relocation of the sewer main and is continuing with the construction of the ADA ramps on both sides of the pedestrian underpass. Three new canopy structures were erected along platform 2 with public use anticipated by the end of May 2017. Construction is anticipated to be completed in July 2017.

The Orange Transportation Center parking structure project represents a long-standing effort between the City of Orange and OCTA to increase the parking capacity to accommodate future growth in ridership of the Metrolink system. Plans, specifications, and estimates for a 611-space parking structure were completed by the City of Orange in June 2016. Per a cooperative agreement between OCTA and the City of Orange, OCTA is the lead on the construction phase of the project and issued an invitation for bids (IFB) in July 2016. Bids were received in September 2016, but the procurement was canceled. The plans and specifications were revised and re-released for bid in November 2016. Bids were opened in January 2017. Several bid protests were received, and staff discovered that each of the four bids received includes bidding errors, which makes awarding the contract problematic. The current IFB was canceled, and a new IFB will be issued in May 2017.

The proposed Placentia Metrolink Station will be located on BNSF Railway (BNSF) and City of Placentia-owned right-of-way (ROW). The station will include platforms, parking, and passenger amenities. OCTA is the lead for design and construction of the project. Previously completed design plans are being revised to include a parking structure in lieu of surface parking. The project will also include a third track, which should assist with the on-time performance of train operations and provide operational flexibility for both freight and passenger

trains. BNSF will be the lead on the rail construction, and a construction and maintenance agreement with BNSF for this work will need to be in place before the IFB for construction can be released. The plans are anticipated to be complete and, pending the BNSF agreement, will be advertised for bid in October 2017 with an anticipated completion date of September 2019.

The Anaheim Canyon Metrolink Station Improvement project includes the addition of a second station track, platform, the extension of the existing platform to accommodate longer train consists, and associated passenger amenities, including ticket vending machines, benches, canopies, and signage. OCTA is the lead agency on all phases of project development, including construction. Preliminary engineering (30 percent plans) and California Environmental Quality Act (CEQA) clearance was obtained in January 2017, and National Environmental Policy Act (NEPA) clearance is pending. A request for proposal (RFP) for final plans, specifications, and estimates was released on April 10, 2017. Construction is expected to begin in June 2019 and be completed in August 2020.

The City of Fullerton is the lead agency on a project to add a second elevator to each side of the existing railroad pedestrian bridge and modify the restrooms to be ADA compliant at the Fullerton Transportation Center. The City of Fullerton issued the construction NTP in January 2016, and renovations to the restrooms have been completed. The contractor has experienced delays on the elevator work due to subcontractor issues and dry utility conflicts, which may push out the expected January 2018 completion date.

The San Clemente Pier Metrolink/Amtrak Station lighting project, which added light bollards on the station platform, was completed in March 2017 and is currently in the close-out stage.

Rail Corridor Improvements

Rail corridor improvements consist of capital and rehabilitation projects that improve the safety, operations, or reliability of the rail infrastructure. OCTA owns over 45 miles of operating railroad.

There are currently six grade separation projects along the Los Angeles – San Diego – San Luis Obispo (LOSSAN) rail corridor that have completed project study reports or environmental clearance and are not currently advancing due to lack of funds.

The 17$^{th}$ Street Grade Separation project is progressing through the environmental clearance phase. The project report equivalent document was approved by the Southern California Regional Rail Authority (SCRRA) and is currently being reviewed by the City of Santa Ana. The Office of Historic Preservation reviewed the Historical Property Survey Report submitted by the California Department of Transportation (Caltrans) and determined that one of the properties impacted by

the project is eligible for listing in the National Register of Historical Places. The Finding of Effects (FOE) documentation was prepared and submitted to Caltrans for review and approval. Upon completion of the FOE, Caltrans will complete the NEPA determination, currently projected to be eligible for Categorical Exclusion. The City of Santa Ana, upon review of the project documents, will provide the CEQA determination, currently projected to be eligible for statutory exemption. The environmental phase is anticipated to be completed in June 2017; however, some of the final approval actions are taking longer than anticipated.

The Laguna Niguel to San Juan Capistrano passing siding project will add approximately 1.8 miles of new passing siding railroad track adjacent to the existing mainline track. The project will enhance operational efficiency of passenger services within the LOSSAN rail corridor. Proposed modifications to the existing Rancho Capistrano private crossing, associated with the addition of passing track, were discussed with all the stakeholders, including the California Public Utilities Commission (CPUC). Alternatives to address concerns raised by CPUC have been developed in coordination with the stakeholders. The project design schedule has been impacted by an additional six months, extending to December 2017. All advanced San Diego Gas & Electric (SDG&E) power pole relocation activities were completed in November 2016, with the exception of one pole awaiting communication tenants to relocate its facilities from the SDG&E pole.

The San Juan Creek railroad bridge in the City of San Juan Capistrano was built in 1917. The existing 300-foot long bridge carries a single mainline track for passenger and freight rail traffic over San Juan Creek and is in need of replacement. The replacement bridge will be constructed adjacent to the existing bridge to minimize disruption of rail traffic. Additionally, the new railroad bridge will incorporate a future bikeway underpass on the south end of the track along the creek. OCTA and SCRRA are working with the County of Orange to develop a cooperative agreement to identify the roles, responsibilities, and funding to design and construct the additional bikeway underpass to enhance the County's network of trails and bikeways. SCRRA is the overall project lead, and OCTA is the ROW acquisition lead. SCRRA has advanced the design to 60 percent completion. The current total project cost is $38.3 million. The project received CEQA clearance in June 2016, and will obtain NEPA environmental clearance by mid-2017. OCTA staff will seek Board approval to acquire the necessary ROW for the project. The ROW acquisition is anticipated to take up to 18 months, and the project will be construction-ready by the third quarter 2018.

The Control Point (CP) Fourth project is located in the City of Santa Ana between Fourth Street and Chestnut Avenue, between mile posts 175.45 and 175.80, and will provide rail operational efficiencies. Metrolink operations utilize Centralize Traffic Control (a traffic control system) in which a dispatcher controls the railroad traffic through the use of signal blocks. A CP is a set of railroad signals and switches controlled by the dispatcher and authorizes a train to proceed or stop within the block of track it controls. The project includes installation of an automated turnout

to a Union Pacific Railroad spur track, along with related civil, signal, and communication modifications and improvements. On June 13, 2016, the OCTA Board approved a cooperative agreement with SCRRA to define the roles and responsibilities and the funding requirements of the project. SCRRA completed design and began procurement of signal and track materials and contractors. The project is expected to be complete by the second quarter of 2018.

The railroad ROW Slope Stabilization project includes eight locations within the OCTA-owned LOSSAN rail corridor that have been identified for improvements to prevent future erosion and slope instability. OCTA's consultant has provided a 60 percent design submittal. Final utility potholing and design exceptions approval from SCRRA are pending.

Metrolink continues the implementation of positive train control (PTC) throughout the system. In September 2016, Metrolink achieved a significant milestone, becoming the first commuter railroad in the nation to receive approval of conditional PTC system certification from the Federal Railroad Administration (FRA). Metrolink staff is working to achieve full PTC system certification in 2017.

Transit Extensions to Metrolink: OC Streetcar

The Transit Extensions to Metrolink Program is intended to broaden the reach of Orange County's backbone rail system to key employment, population, and activity centers. The OC Streetcar project will serve the Santa Ana Regional Transportation Center through downtown Santa Ana, and the Civic Center to Harbor Boulevard in the City of Garden Grove.

In January 2017, the Federal Transit Administration (FTA) approved the OC Streetcar project into the engineering phase of the New Starts process. This significant milestone was preceded by the completion of 60 percent design in December 2016. During the reporting period, staff continued to submit project readiness documents to FTA as required for the Full Funding Grant Agreement (FFGA) application. The FFGA application is anticipated to be submitted in May 2017, pending Board approval. FTA conducted a Risk Assessment workshop in March 2017, based upon the Project's cost, schedule, and scope as defined by the 60 percent design plans. Results of the Risk Assessment workshop will be presented to the Board in May 2017.

The construction manager performed an initial constructability review and provided input on construction elements, including schedule, phasing, and contract specifications. The effort will be further refined upon 90 percent design completion, anticipated in late April 2017.

Staff continued meetings with utility owners to narrow utility conflicts and assist with utility owner's response to relocation claim letters. Additionally, negotiations continued regarding acquisition of the properties required for the maintenance

and storage facility, with staff continuing to provide relocation assistance to the residential and commercial tenants.

Meetings were held with the Safety and Security Committee to review the 60 percent design plans, as well as with the CPUC to discuss the at-grade railroad crossing applications, traffic-related elements required for streetcar operations, as well as approval of the required safety and security certification plan.

A preproposal meeting was held for the vehicle manufacturing and delivery solicitation in January 2017, and staff conducted interviews for the Public Awareness Campaign (PAC) RFP. Vehicle manufacturer proposals are due in late May 2017, and the award of the PAC contract is scheduled for April 2017.

Based upon an evaluation of multiple organizational models, as well as a set of key considerations, the Board approved moving forward to contract out operations and maintenance services for the OC Streetcar project. An RFP is anticipated to be released for the operations and maintenance services in Fall 2017.

Rail Operations

As one of five member agencies that comprise Metrolink, OCTA participates in the design and operation of Metrolink service in Orange County. Rail Operations staff serve as the liaison with Metrolink and are involved in route and service planning, funding, and implementation. In addition to coordination of daily Metrolink operations, the team coordinates the StationLink service, special trains, promotional activities, and outreach.

- The Rams' returned to Los Angeles (LA) for the 2016-17 football season, and Metrolink operated special train service on four lines, the Orange County (OC), San Bernardino, Antelope Valley, and 91/ Perris Valley lines (91/PV), to LA Union Station for six weekend home games. Metrolink's $10 weekend day pass was valid for a round trip and includes transfers to Metro Rail to bring fans to the LA Coliseum. Ridership on the OC and 91/PV lines on game days served 2,177 average boardings, more than double the ridership of regular Sundays not served by Rams Trains (973 average boardings).

- The Metrolink Angels Express service began this quarter with two pre-season games on March 30, 2017, and will serve 54 weekday home games on the OC Line, including 15 Friday night games on the Inland Empire – Orange County (IEOC) Line, with an extension from Perris Valley. Baseball fans helped OCTA kick-off the Angels Express with a rally at the Irvine Metrolink Station for the home opener on Friday, April 7, 2017.

- Metrolink has received the first of 40 new Tier 4 clean emissions locomotives, but has yet to launch the locomotives into revenue service due to required slight design modifications. Once the FRA approves the modification, Metrolink expects to continue testing and have the locomotives in operation later this year.

The total fiscal year (FY) 2016-17 third quarter ridership (weekday and weekend) for the three Metrolink lines serving Orange County was 1.108 million, a 0.6 percent increase compared to 1.102 million boardings during the same period in FY 2015-16. Metrolink ridership increased by 3.1 percent on the OC Line and 0.8 percent on the 91/PV Line, and decreased by 4.2 percent on the IEOC Line.

Average weekday boardings on the three lines serving Orange County have remained relatively steady for the last three years, at above 16,000 boardings in the third quarter, as shown in Attachment A.

Rail Operations staff also represent OCTA's interests in the LOSSAN Joint Powers Authority, including the ongoing coordination and service integration efforts on the LOSSAN rail corridor.

Transit Facilities Engineering

Transit Facilities Engineering is responsible for the development and implementation of capital rehabilitation, facility modifications, and new capital projects for all OCTA transit facilities, including the five bus bases and seven park-and-ride lots. Design is underway on six projects, including removal of liquefied natural gas underground storage tanks at the Anaheim and Garden Grove bus bases, minor rehabilitation of the bus dock platform at Fullerton Park-and-Ride, facility modifications for hydrogen buses at the Santa Ana Bus Base, video surveillance system replacement at the Santa Ana and Garden Grove bus bases, bus wash building metal framing and siding repairs at the Irvine Construction Circle (ICC) Bus Base, and the liquid hydrogen fueling station at the Santa Ana Bus Base. In addition, a procurement is underway for the Transit Security Operations Center preliminary engineering and environmental clearance.

There are four projects in the bid phase for construction, including replacement of heating and ventilation units at the Garden Grove Bus Base maintenance shop, bus yard pavement striping and markings at the Garden Grove Bus Base, fence repair and bus parking stall wheel stops at the Anaheim Bus Base, and hydrogen gas detection upgrades at the Santa Ana Bus Base for the single hydrogen bus demonstration project.

Six projects were under construction this period, three were completed, including replacement of heating and evaporative cooling units at the ICC Bus Base

maintenance shop, fall protection at maintenance bays and skylights at all bus bases, and pavement repairs at the Garden Grove Bus Base and Fullerton Park-and-Ride. Construction continued on two projects, including the vehicle inspection station equipment canopy at the Garden Grove Bus Base, bus wash water run-off mitigation modifications at all bus bases, and one new project was started early March 2017 to repair the bridge at the Laguna Beach Transportation Center.

***Summary***

The Departments are responsible for OCTA's rail project development, rail capital improvement programs, rail operations, and transit facilities engineering projects. For the period covering the third quarter of FY 2016-17, projects generally progressed consistent with scope and schedule.

***Attachment***

None.

**Prepared by:**

Jennifer Bergener
Director, Rail Programs and Facilities Engineering
(714) 560-5462

**Approved by:**

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

# Rail Programs and Facilities Engineering Quarterly Report

# Station Improvements

| Project | Cost (millions) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|
| Laguna Niguel/Mission Viejo Metrolink Station/Americans with Disabilities Act Ramp Improvements | $8.52 | | | | | | | | |
| Orange Metrolink Station Parking Structure | $29.07 | | | | | | | | |
| Placentia Metrolink Station | $31.20 | | | | | | | | |
| Anaheim Canyon Metrolink Station Improvements | $20.05 | | | | | | | | |
| Fullerton Transportation Center Elevator Upgrades | $4.00 | | | | | | | | |
| Total | $92.84 | Note: All Costs do not include right-of-way (ROW) expenses. | | | | | | | |

Project Definition Report

Project Approval/Environmental Document (PA/ED)

Final Design

Construction

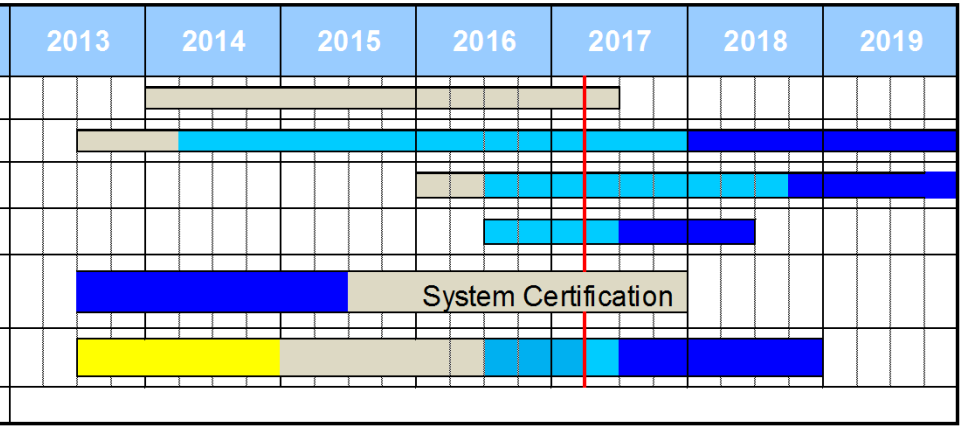
Funding Approval

Project On Hold At City's Request

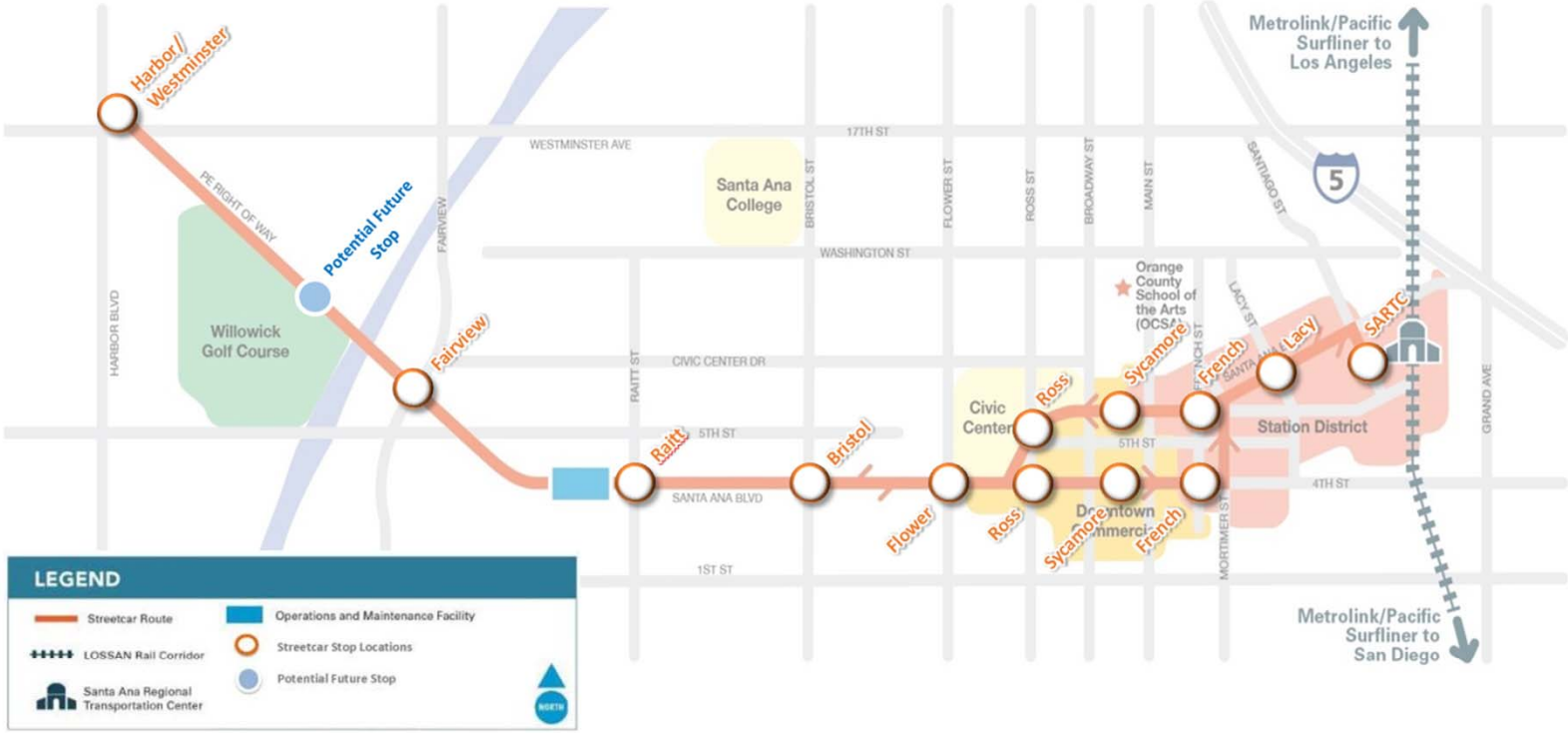
# Rail Corridor Improvements

**Schedule / Cost**

| Project | Cost (millions) |
|---|---|
| 17th Street Grade Separation | $ 55.00 |
| Laguna Niguel-San Juan Capistrano Passing Siding | $ 30.83 |
| San Juan Creek Bridge Replacement | $ 34.20 |
| Control Point Fourth | $ 8.51 |
| Positive Train Control Program (Orange County Transportation Authority (OCTA) Share) | $ 39.92 |
| Rail Right-of-Way Slope Stabilization | $ 2.00 |
| **Total** | **$ 170.46** |



# OC Streetcar




| Schedule | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| Alternatives Analysis, state/federal environmental clearance, and conceptual engineering | | | | | | | | |
| Project Development/Preliminary Engineering/ Engineering* | | | | | | | | |
| Construction** | | | | | | | | |

* Phases partially funded (Future programming and budget action subject to Board of Directors' approval)

** Pursuing federal New Starts

# Rail Operations

## Rams Train

- Special Orange County (OC) Line and 91/Perris Valley Line Metrolink Rams trains served six home games from September 18, 2016 to January 1, 2017
- $10 weekend day pass promoted - round trip on game days served compared to previous Sundays
- Average ridership for the OC and 91/PV lines more than doubled


## Lunar New Year

- Special OC Line train on Saturday, February 4, 2017 to Los Angeles
- $10 weekend day pass promoted - round trip
- OCTA event at the Irvine Metrolink Station
- More than 1,200 boardings on special trains

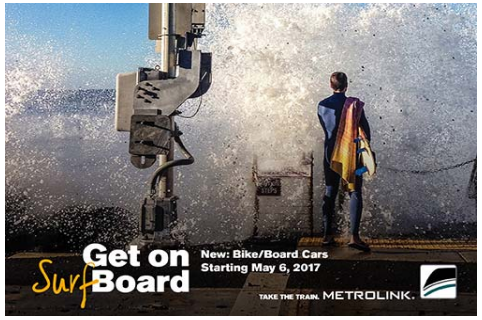


## Angels Express

- Special service to 54 home games from March 30 through September 29, 2017
- Two pre-season games served on March 30 and 31, 2017 sold 547 Angels Express round trip tickets
- Over 250 fans attended the Angels Express Rally at the Irvine Metrolink Station on April 7, 2017
- Angels Express tickets are $7 round trip
- Mobile Source Air Pollution Reduction Review Committee grant funded

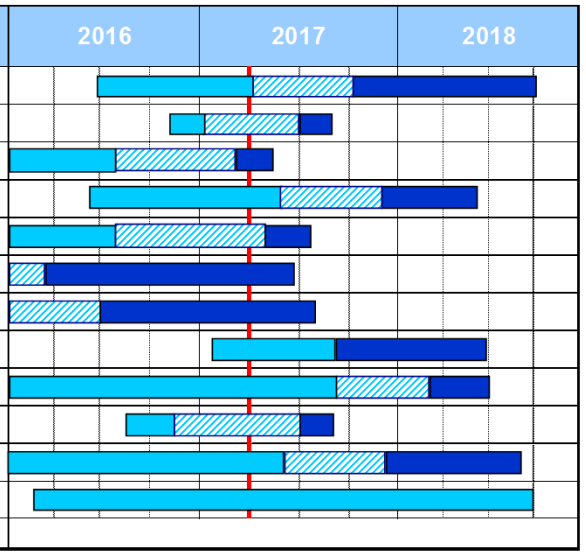
## Surfboards On Metrolink

- Starting in May 2017, Metrolink will allow surfboards inside trains
- Special 'bike/board' cars will be deployed on the Inland Empire - OC Line
- Storage area with netting allows up to five surfboards per 'bike/board' car



# Facilities Engineering

| Project | Cost (millions) |
|---|---|
| Ana, GG Bases - LNG Underground Storage Tanks Removal | $ 1.50 |
| Ana Base - Fence Repair and Bus Parking Stall Wheel Stops | $ 0.07 |
| LBTC - Bridge Assessment and Repair | $ 0.20 |
| FPNR - Bus Dock Platform Minor Rehabilitation | $ 0.25 |
| GG Base - Maintenance Building HV Unit Replacement | $ 0.29 |
| GG Base - Vehicle Inspection Station Equipment Canopy | $ 0.26 |
| All Bases - Bus Wash Run-Off Mitigation | $ 0.65 |
| SA Base - Liquid Hydrogen Fueling Station | $ 4.77 |
| SA Base - Facility Modifications for Hydrogen Buses | $ 1.13 |
| GG Base - Bus Yard Pavement Striping | $ 0.07 |
| SA, GG Bases - Video Surveillance System | $ 1.20 |
| TSOC - Preliminary Engineering and Environmental Clearance | $ 0.92 |
| **TOTAL** | **$ 11.31** |




OCTA Facility Legend:

| | |
|---|---|
| Ana | Anaheim Bus Base |
| FPNR | Fullerton Park-and-Ride |
| GG | Garden Grove Bus Base |
| Irv CC | Irvine Construction Circle Bus Base |
| Irv SC | Irvine Sand Canyon Bus Base |
| BPNR | Brea Park-and-Ride |
| GWTC | Golden West Transportation Center |
| NPTC | Newport Transportation Center |
| LBTC | Laguna Beach Transportation Center |
| SA | Santa Ana Bus Base |
| TSOC | Transit Security Operations Center |

GG Vehicle Inspection Equipment Canopy

LBTC Bridge Repair Project

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** OC Streetcar and Bus-Rail Interface Title VI Analysis

## *Overview*

As a recipient of federal funding, the Orange County Transportation Authority is required to fulfill the requirements of Title VI of the Civil Rights Act of 1964 by operating its programs without regard to race, color, or national origin. Staff has completed the review of the OC Streetcar project and the Bus-Rail Interface Plan, in accordance with Title VI requirements, and is seeking Board of Directors' approval to authorize and submit the Title VI analysis to the Federal Transit Administration.

## *Recommendation*

Approve the 2017 OC Streetcar and Bus-Rail Interface Title VI Analysis and direct staff to submit to the Federal Transit Administration Headquarters Office of Civil Rights.

## *Background*

The Federal Transit Administration (FTA) Circular 4702.1B provides recipients of FTA financial assistance with guidance and instructions necessary to carry out the United States Department of Transportation Title VI regulations (49 CFR part 21) and integrate anti-discrimination practices into its transit-related programs and services. On September 13, 2012, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved updated policies and plans to comply with the Title VI requirements. Under these policies, the implementation of streetcar and the corresponding revisions to the bus service would constitute a 'Major Service Change', requiring an analysis to ensure that the revisions do not result in any disparate impact on minority populations or disproportionate burden on low-income populations.

***Discussion***

Design work on the streetcar has been progressing since February 2016, with 90 percent design completed in late April 2017. Staff are working towards finalizing the procurement for the construction invitation for bid in the fall. A formal request for a Full Funding Grant Agreement (FFGA) is scheduled to be submitted to FTA in late May 2017, pending Board authorization.

As part of the work to design the streetcar, an analysis of the supporting bus service was undertaken. The analysis focused on modifying the bus service to achieve the following:

- Minimizing service duplication between the bus service and streetcar
- Enhancing connectivity between the streetcar and the supporting bus service
- Maximizing ridership potential with the bus and streetcar service

As a result of the analysis, a program of bus service revisions was developed. The revisions included the elimination of bus routes or route segments, realignment of several route segments, adding service to several bus routes to increase service frequency, or extend the service span and realigning bus stops on several bus routes to provide closer connections to the streetcar.

In accordance with FTA requirements, OCTA must determine whether the OC Streetcar and supporting bus service revisions, termed the Bus-Rail Interface Plan, constitute a 'Major Service Change', and require a Title VI evaluation. The review and the analysis, if required, must be submitted to the FTA as a part of the demonstration that the project meets the requirements to receive a FFGA. Board approval of the analysis is required.

Staff reviewed the program of service additions and revisions, and determined that it will constitute a 'Major Service Change' as defined by the Title VI policies adopted by the OCTA Board in 2012. The reasons include the addition of new service, elimination and realignment of bus routes and bus stops, and increased service levels on several routes.

Work to evaluate the service revisions was then undertaken to determine if there are any disparate impacts to minority populations or disproportionate burdens to low-income populations. The analysis considered the amount of service, travel time, service availability, and cost to both communities and transit riders. The report with the analysis and findings is included as Attachment A.

Overall, the evaluation found that the streetcar and corresponding bus service revisions would not result in any disparate impact on minority populations or place a disproportionate burden on low income populations within the study area.

In general, there would be an increased level of transit service within the study area through the enhanced service and improved bus-rail service connectivity, with travel time and cost savings to most passengers.

As a recipient of federal financial assistance, OCTA must ensure that all programs do not intentionally or inadvertently subject individuals to discrimination based on race, color, or national origin, pursuant to Title VI of the Civil Rights Act of 1964. The OC Streetcar and Bus-Rail Interface Title VI Analysis report has been prepared and is being submitted for review. The report incorporates all of the guidance requirements from FTA Circular 4702.1B, as well as the Title VI policies adopted by the OCTA Board on September 13, 2012. With the review and approval from the Board, staff will submit the document to the FTA Headquarters Office of Civil Rights.

***Summary***

Review, approve, and direct staff to submit the OC Streetcar and Bus-Rail Interface Title VI Analysis report to the FTA Headquarters Office of Civil Rights in support of OCTA's request to enter into a FFGA.

***Attachment***

A. Draft OC Streetcar and Bus-Rail Interface Title VI Analysis

**Prepared by:**

Mary Shavalier
Program Manager
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**Approved by:**

James G. Beil, P.E.
Executive Director, Capital Programs
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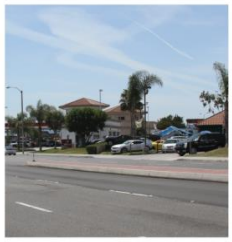
**ATTACHMENT A**

# DRAFT
# OC Streetcar and Bus-Rail Interface Title VI Analysis




*Submitted by*

Orange County Transportation Authority

*May 26, 2017*

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# 1.0 Introduction

## 1.1 Project Description

Orange County Transportation Authority (OCTA) is proposing the "Santa Ana/Garden Grove Streetcar", a new transit connection between the Santa Ana Regional Transportation Center Metrolink Station in Santa Ana, and a new multimodal transit hub at Harbor Boulevard/Winchester Avenue in Garden Grove (see **Figure 1**). The 4.15-mile project includes 10 stops in each direction, a maintenance and storage facility, and connections to 18 OCTA bus routes.

### Figure 1. Santa Ana/Garden Grove Streetcar Map


## 1.2 Purpose of Report

As part of its ongoing commitment to fulfill the requirements of Title VI of the Civil Rights Act of 1964 by operating its programs without regard to race, color, or national origin, OCTA has completed this Title VI review for the proposed Streetcar and Bus-Rail Interface Plan in accordance with the Federal Transit Administration (FTA) Title VI requirements and guidelines to determine whether the proposed service changes would result in any discrimination against the Title VI-protected populations. This report contains a description of the methodology used to identify minority and low-income populations and evaluate potential disparate impact and disproportionate burden caused by the proposed service changes.

# 2.0 Regulatory Setting

## 2.1 Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination by recipients of Federal financial assistance on the basis of race, color, and national origin, including the denial of meaningful access for limited English proficient (LEP) persons. Under the U.S. Department of Transportation (USDOT) Title VI regulations, recipients of Federal financial assistance are prohibited from, among other things, using "criteria or methods of administering its program which have the effect of subjecting individuals to discrimination based on their race, color, or national origin."

## 2.2 FTA Circular 4702.1B: Title VI Requirements and Guidelines for Federal Transit Administration Recipients

Circular 4702.1B provides recipients of FTA financial assistance guidance and instructions necessary to carry out USDOT Title VI regulations. Chapter IV of the Circular outlines specific requirements for fixed route transit providers to evaluate service and fare changes. The analysis methodologies used in this report comply with these requirements and guidelines.

## 2.3 OCTA Title VI Guidance

As a recipient of federal funds, OCTA must ensure that all programs implemented do not intentionally or inadvertently subject individuals to discrimination based on their race, color, or national origin. In order to respond to FTA requirements clarifying when equity evaluations should occur, OCTA proposes a Service and Fare Change Evaluation Policy to define "Major Service Change", "Fare Change', and "Disparate Impact/Disproportional Burden Thresholds"[1] and describe how the changes should be evaluated. Activities defined as Major Service Changes and all fare changes including fare media would require a Title VI equity analysis. According to the proposed Service and Fare Change Evaluation Policy, major service changes would meet at least one of the following criteria:

1. Route Alignment Reduction or Elimination
    - Reducing an existing route by more than 50% of directional route miles or;
    - Reducing an existing route by more than 50% of bus stops.
2. Route Alignment Extension or New Route

[1] OCTA "Service and Fare Change Evaluation Policy" and "Systemwide Bus Service Standards and Policies", October 2012.

- Adding a new route or a route segment that increases directional route miles of an existing route by more than 50% and;
- When more than 50% of the new service bus stops are along currently unserved street segments

3. Route-Level Service Hour Change
   - Increase or decrease of the following levels of service on a route within 12-months:
     - Weekday Service increase or decrease of 25% or more annualized Vehicle Revenue Hours or
     - Weekend Service increase or decrease of 25% or more annualized Vehicle Revenue Hours
4. System-Wide Service Hour Change
   - Increase or decrease of 25% of annualized Vehicle Revenue Hours for all routes within 12-months.

Implementation of the proposed Streetcar and Bus-Rail Interface Plan constitutes a major service change, as defined above (new route and route alignment reduction or elimination and fare structure). Therefore, a Title VI equity analysis is required to determine if any disparate impact to minority populations or disproportional burden to low-income populations would be caused by the project.

# 3.0 Methodology and Data Sources

## 3.1 Minority and Low-Income Population

As defined in Circular 4702.1B, minority persons include 1) American Indian and Alaska Native, 2) Asian, 3) Black or African American, 4) Hispanic or Latino, and 5) Native Hawaiian or Other Pacific Islander. In this report, people identified as "other race" or "two or more races" are also considered as minorities.

Low-income populations are not a protected class under Title VI. However, recognizing the inherent overlap of environmental justice principles in this area, and because it is important to evaluate the impacts of service and fare changes on passengers who are transit-dependent, FTA requires transit providers to evaluate proposed service and fare changes to determine whether low-income populations will bear a disproportionate burden of the changes. According to Circular 4702.1B, a low-income person is one whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines. The Circular also encourages Transit providers to use a locally developed threshold that is at least as inclusive as the HHS poverty guidelines (i.e. at or below 150% of the poverty line) to define low-income populations. In this report, the 150% of the census-defined poverty level was used as the criteria to define low-income persons.

## 3.2 Study Area

According to Circular 4702.1B, passengers will generally walk up to one-quarter mile to a bus stop or one-half mile to a light or heavy rail station. Therefore, a one-quarter mile buffer is recommended as the study area for a bus route. A geographic information systems (GIS) platform was used to identify a quarter-mile buffer around the proposed Streetcar alignment and all the existing bus routes within half mile of the Streetcar alignment. American Community Survey (ACS) 2011 – 2015 data were used to map and quantify minority and low-income populations at the block group level. For this analysis, each census block group that intersects or is completely within the quarter-mile buffer is included in the study area**. Figures 2** and **3** exhibit the minority and low-income populations in the study area.

## 3.3 Method for Determination of Disparate Impact and Disproportionate Burden

FTA Circular 4702.1B defines disparate impact as "a racially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's (of FTA financial assistance) policy or practice lacks a substantial

legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin." Disproportionate burden refers to "a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations." A finding of disproportionate burden requires the recipient to evaluate alternatives and mitigate burdens where practicable.

The overall project Title VI finding is based on whether the proposed Streetcar alignment and the associated Bus-Rail Interface Plan would result in disparate impact on minority populations or disproportionate burden on low-come populations in the study area. Five analyses are conducted to determine if any adverse impacts of the proposed service changes will be predominantly borne by the minority and/or low-income populations: route-level minority and low-income population comparison, route-level ridership comparison, travel time comparison, travel cost comparison, and service availability comparison.

The following key steps represent the general approach for all analyses:

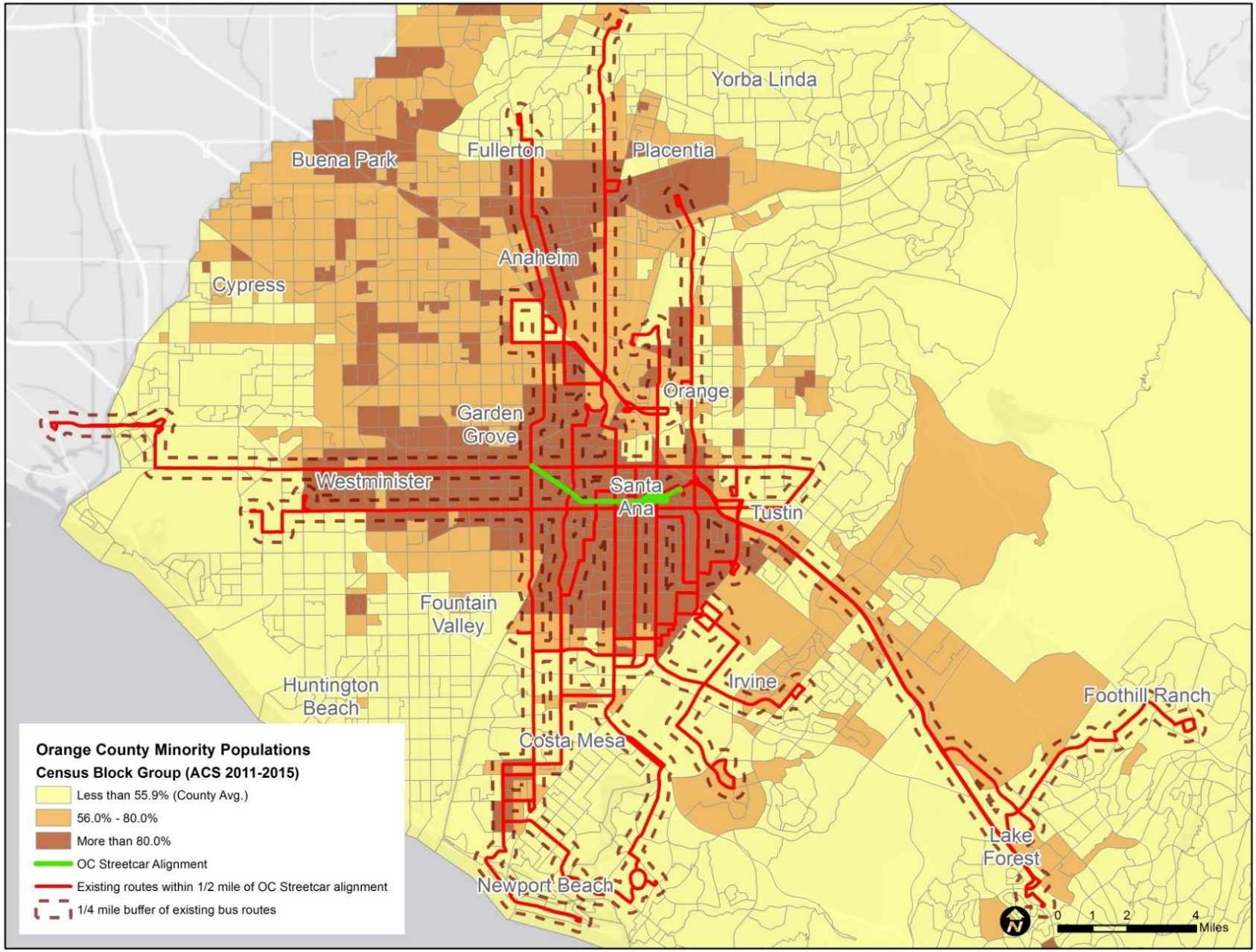
- Determine the existing service level (population, ridership, travel time, travel cost, etc.) for each impacted bus route;
- Determine the new service level after the proposed service changes;
- Compare the service level change before and after the proposed service changes;
- Calculate the change borne by minority and low-income populations;
- Compare the percentage change to the average in the service area, and determine if there is any disparate impact or disproportionate burden.

## 3.4 Data Sources

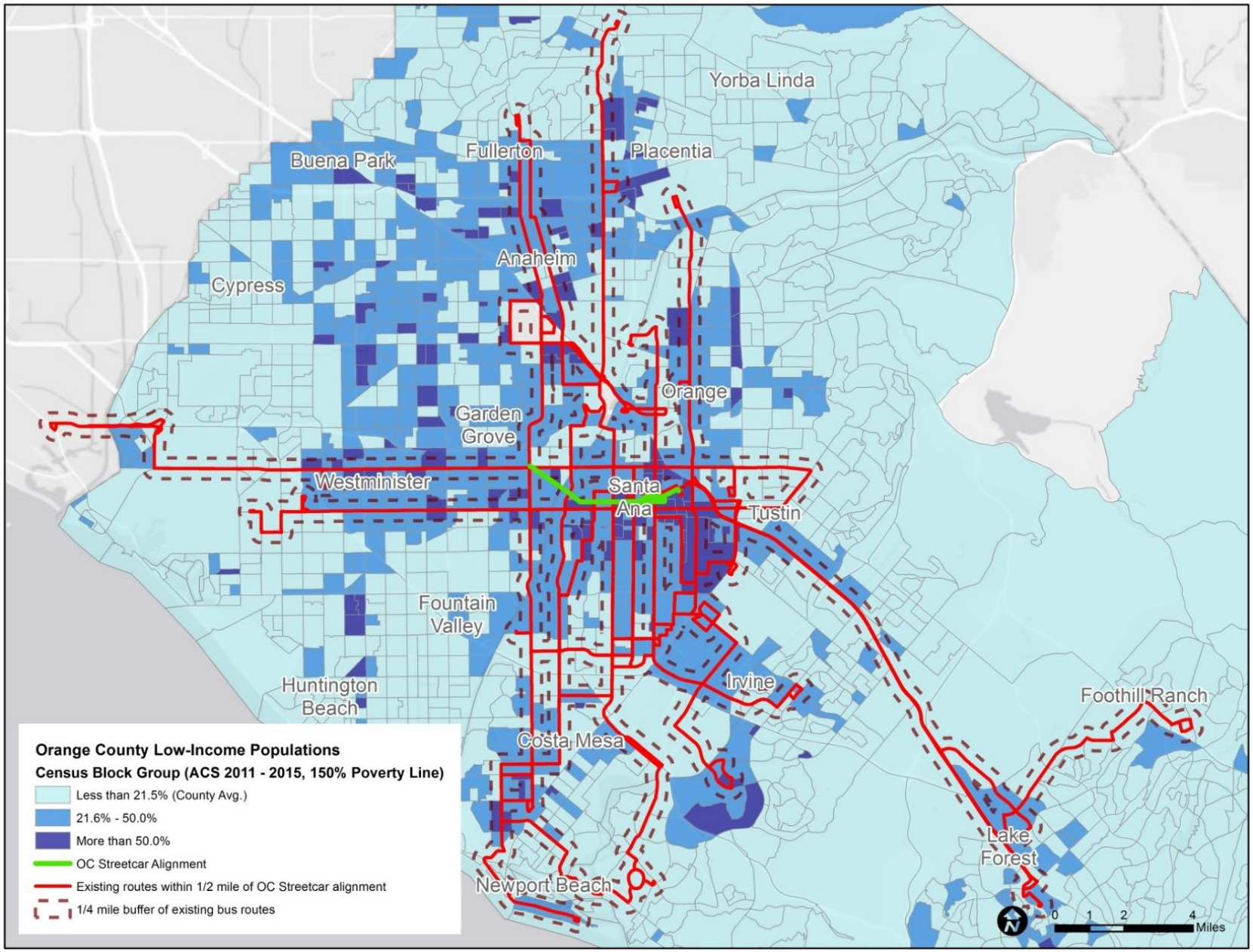
The following data sets are used in this Title VI analysis report:

- Decennial Census 2010 SF1 100% Data: Table P9
- American Community Survey (ACS) 2011- 2015: Table B17002
- OCTA 2015 Daily Average Ridership by Route
- OCTA 2013 On-Board Survey Report Services
- OCTA Bus-Rail Interface Plan GTFS

## Figure 2. Study Area Minority Population by Census Block Group



## Figure 3. Study Area Low-Income Population by Census Block Group



# 4.0 Title VI Analysis

This section is comprised of six separate analyses. The route-level minority and low-income population comparison considers the project's impact on local residents, including both existing and potential passengers. It aims to capture simultaneous service-area change and service-level change, especially for routes that have both proposed realignment and frequency change. The route-level ridership comparison considers the impact on existing passengers of routes that have proposed service reduction or elimination. The travel time and travel cost comparisons consider the project's indirect impacts on passengers from the customer experience and fair equity perspectives. The service availability comparison considers the impact of routes with proposed stop changes. Lastly, this section includes an analysis of the effects of a proposed cashless fare payment system on minority and low-income populations.

A complete description of all service changes associated with the proposed Bus Rail Interface Plan is provided in a draft report dated 04-10-2017 under the title **Bus Rail Interface Plan**.

## 4.1 Route-level Minority and Low-Income Population Comparison

In order to capture the impact of service area change and service level change at the same time, the "People-Trips" concept is adopted in the analysis[2]. For each route, the "People-Trips" is calculated by multiplying the route service area population by annual service trips. "Minority People-Trips" and "Low-Income People-Trips" are calculated by applying the route service area minority and low-income population percentages to the "People-Trips". The "People-Trips", "Minority People-Trips", and "Low-Income people-Trips" before and after the proposed service change are compared to determine if the impacts are disparately borne by the minority and low-income populations.

**Table 1** shows the route-level comparison before and after the proposed service change. The key findings of the results include:

- The proposed Streetcar alignment would have 94.1% of its service allocated to minority populations and 46.1% allocated to low-income populations. These percentages are higher than the service area average minority and low-income percentages; therefore, minority and low-income populations would benefit more from the proposed new service.

[2] Title VI Methodology, Remix. https://www.remix.com/title-vi

- Route 47, 53, 55, 59, and 543 would have service increases (positive People-Trips change) and the percentages of service change borne by minority and low-income populations are higher than the percentages of minority and low-income populations in the service area. Therefore, minority and low-income populations would benefit more from these proposed service increases.
- Route 83 and 560 would have overall service increases (positive People-Trips change); however, the service would shift from minority and low-income areas to non-minority, non-low-income areas (negative Minority People-Trips change and Low-Income People-Trips change). The proposed route realignments and segment eliminations are due to service duplication with the proposed Streetcar; therefore, the resulting impacts would be offset by the new Streetcar service.
- Route 462 would be eliminated due to service duplication with Streetcar. The impacts on the minority and low-income populations within the route's service area would be offset by the new Streetcar service.
- Overall, the Streetcar and Bus-Rail Interface Plan would increase the service (positive People-Trips change) in the study area, 86.0% of the service increase would be allocated to minority populations, and 39.2% of the service increase would be allocated to low-income populations. These percentages are higher than the service area average minority and low-income percentages therefore, minority and low-income populations would benefit from the project.

# Table 1. Route Level "People-Trips" Comparison

| | Before | | | | After | | | | Difference | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Route** | **Population (within 1/4 mi)** | **Minority** | **Low Income** | **Trips (Annually)** | **Population (within 1/4 mi)** | **Minority** | **Low Income** | **Trips (Annually)** | **People-Trips (Population * Trips)** | **Minority People-Trips** | **Low Income People-Trips** | **Change Borne by Minorities** | **Change Borne By Low Income** |
| 43 | 179,293 | 74.5% | 32.7% | 19,061 | 179,293 | 74.5% | 32.7% | 19,061 | 0 | 0 | 0 | 0.0% | 0.0% |
| 47L | 238,880 | 74.6% | 32.0% | 6,205 | 238,880 | 74.6% | 32.0% | 6,616 | 98,179,680 | 73,223,349 | 31,452,577 | 74.6% | 32.0% |
| 47S | 236,270 | 76.4% | 32.8% | 12,215 | 236,270 | 76.4% | 32.8% | 12,215 | 0 | 0 | 0 | 0.0% | 0.0% |
| 53L | 134,530 | 77.7% | 32.0% | 11,200 | 134,530 | 77.7% | 32.0% | 11,460 | 34,977,800 | 27,193,400 | 11,184,123 | 77.7% | 32.0% |
| 53S | 104,417 | 84.9% | 36.6% | 17,862 | 104,417 | 84.9% | 36.6% | 17,862 | 0 | 0 | 0 | 0.0% | 0.0% |
| 55 | 178,648 | 66.6% | 33.6% | 15,441 | 181,788 | 67.1% | 34.0% | 16,078 | 164,283,696 | 124,466,341 | 67,543,152 | 75.8% | 41.1% |
| 57L | 211,991 | 70.4% | 26.5% | 17,747 | 211,991 | 70.4% | 26.5% | 17,747 | 0 | 0 | 0 | 0.0% | 0.0% |
| 57S | 156,168 | 83.9% | 33.0% | 11,542 | 156,168 | 83.9% | 33.0% | 11,542 | 0 | 0 | 0 | 0.0% | 0.0% |
| 59L | 109,298 | 66.9% | 33.0% | 6,630 | 109,298 | 66.9% | 33.0% | 6,885 | 27,870,990 | 18,656,055 | 9,210,171 | 66.9% | 33.0% |
| 59S | 87,004 | 69.7% | 32.3% | 4,026 | 87,004 | 69.7% | 32.3% | 4,292 | 23,143,064 | 16,135,028 | 7,475,188 | 69.7% | 32.3% |
| 60L | 172,440 | 70.5% | 30.1% | 8,341 | 172,440 | 70.5% | 30.1% | 8,341 | 0 | 0 | 0 | 0.0% | 0.0% |
| 60WDS | 140,511 | 79.3% | 34.5% | 9,180 | 140,511 | 79.3% | 34.5% | 9,180 | 0 | 0 | 0 | 0.0% | 0.0% |
| 60WES | 123,731 | 84.5% | 37.4% | 2,032 | 123,731 | 84.5% | 37.4% | 2,032 | 0 | 0 | 0 | 0.0% | 0.0% |
| 64L | 157,014 | 84.3% | 39.4% | 4,080 | 157,014 | 84.3% | 39.4% | 4,080 | 0 | 0 | 0 | 0.0% | 0.0% |
| 64S | 152,249 | 85.8% | 40.3% | 17,942 | 152,249 | 85.8% | 40.3% | 17,942 | 0 | 0 | 0 | 0.0% | 0.0% |
| 83L | 202,772 | 73.0% | 32.0% | 10,214 | 186,283 | 71.4% | 30.2% | 11,135 | 3,147,997 | -32,526,222 | -35,243,458 | - | - |
| 83WDS | 137,152 | 71.5% | 30.7% | 2,805 | 111,811 | 66.7% | 26.2% | 3,570 | 14,453,910 | -8,820,705 | -13,382,086 | - | - |
| 83WES | 103,080 | 82.3% | 41.8% | 324 | 0 | | | 0 | -33,397,920 | -27,492,372 | -13,973,998 | 82.3% | 41.8% |
| 150 | 156,632 | 88.9% | 35.5% | 4,080 | 156,632 | 88.9% | 35.5% | 4,080 | 0 | 0 | 0 | 0.0% | 0.0% |
| 206 | 149,051 | 69.2% | 27.5% | 765 | 149,051 | 69.2% | 27.5% | 765 | 0 | 0 | 0 | 0.0% | 0.0% |
| 462 | 37,460 | 92.8% | 55.4% | 3,825 | 0 | | | 0 | -143,284,500 | -132,976,125 | -79,384,516 | 92.8% | 55.4% |
| 463A | 83,106 | 75.2% | 29.1% | 2,040 | 83,106 | 75.2% | 29.1% | 2,040 | 0 | 0 | 0 | 0.0% | 0.0% |
| 463P | 84,709 | 75.4% | 29.1% | 1,530 | 84,709 | 75.4% | 29.1% | 1,530 | 0 | 0 | 0 | 0.0% | 0.0% |
| 543 | 127,668 | 83.4% | 34.2% | 19,770 | 127,668 | 83.4% | 34.2% | 20,911 | 145,669,188 | 121,522,205 | 49,831,936 | 83.4% | 34.2% |
| 560L | 150,526 | 76.9% | 34.5% | 7,650 | 155,660 | 73.7% | 31.9% | 7,650 | 39,275,100 | -7,229,250 | -17,399,118 | - | - |
| 560S | 118,597 | 88.9% | 41.0% | 7,395 | 123,731 | 84.5% | 37.4% | 7,395 | 37,965,930 | -6,988,275 | -17,243,830 | - | - |
| 801 Streetcar | 0 | | | 0 | 72,710 | 94.1% | 46.1% | 32,140 | 2,336,899,400 | 2,198,600,980 | 1,077,365,370 | 94.1% | 46.1% |
| All Changes | 3,733,197 | 77.2% | 33.6% | 223,902 | 3,636,945 | 76.8% | 33.0% | 256,549 | 2,749,184,335 | 2,363,764,409 | 1,077,435,511 | 86.0% | 39.2% |

| | Minority | Low Income |
|---|---|---|
| Change Borne By | 86.0% | 39.2% |
| Area Average | 55.9% | 21.5% |
| Delta | 30.1% | 17.7% |

Source: Decennial Census 2010 SF1 100% Data: Table P9
American Community Survey (ACS) 2011 - 2015: Table B17002

## 4.2 Route-level Ridership Comparison

Different from the population comparison which captures the demographic characteristics in a route's entire service area, the ridership comparison aims to evaluate the potential impact with a focus on existing passengers. This is particularly important for bus routes with proposed service reduction or elimination since such changes would directly impact the passengers who are currently using the routes. FTA Circular 4702.1B also recommends using existing ridership information (if available) as the appropriate comparison population since it better reflects the existing passenger components and helps to determine if the route is heavily used by minorities or low-income populations and therefore if there would be any disparate impact or disproportionate burden.

In the Bus-Rail Interface Plan, Route 83 is proposed to be removed in the Civic Center area and Route 462 is proposed to be eliminated due to duplication with the proposed Streetcar service. In order to determine if these proposed service changes would result in any disparate impact or disproportionate burden on the existing passenger, Table 2 below summarizes the ridership comparison of these two routes from the 2013 Passenger On-Board Survey.

### Table 2. Ridership Comparison for Routes with Service Reduction

| Bus Route | Daily Ons | Minority | Income <$30K |
|---|---|---|---|
| 83 (Local) | 2,838 | 82% | 61% |
| All Local Routes | 156,461 | 80% | 71% |
| 462 (Stationlink) | 137 | 64% | 4% |
| All Stationlink Routes | 1,411 | 59% | 13% |

*Source: OCTA 2015 Daily Average Ridership by Route, OCTA 2013 On-Board Survey Data*

The percentages of minority passengers on Route 83 and Route 462 are slightly higher than the system average, which means there could be a potential disparate impact on the minority passengers of these two routes. However, since the proposed service elimination of these two routes is due to service duplication with Streetcar, the potential impacts on the minority populations within the routes' service area would be offset by the new Streetcar service.

Both Route 83 and Route 462 have lower percentages of low-income passengers than the system average. Therefore, the proposed service reduction on these two routes would not have disproportionate burden on the low-income populations.

## 4.3 Travel Time Comparison

This analysis compares the travel time to key destinations for minority and low-income areas and non-minority, non-low-income areas before and after project. Five key destinations are selected from "**Table ES.4 – Most Accessed Destinations"** in the OCTA 2013 On-Board Survey Report. Three minority and low-income neighborhoods (Origin 1-3) and three non-minority, non-low-income neighborhoods (Origin 4-6) are randomly selected in the study area using GIS. **Figure 4** exhibits the location of the selected origins and destinations and **Table 3** shows the travel time comparison results.

### Table 3. Travel Time Comparison (minutes per trip)

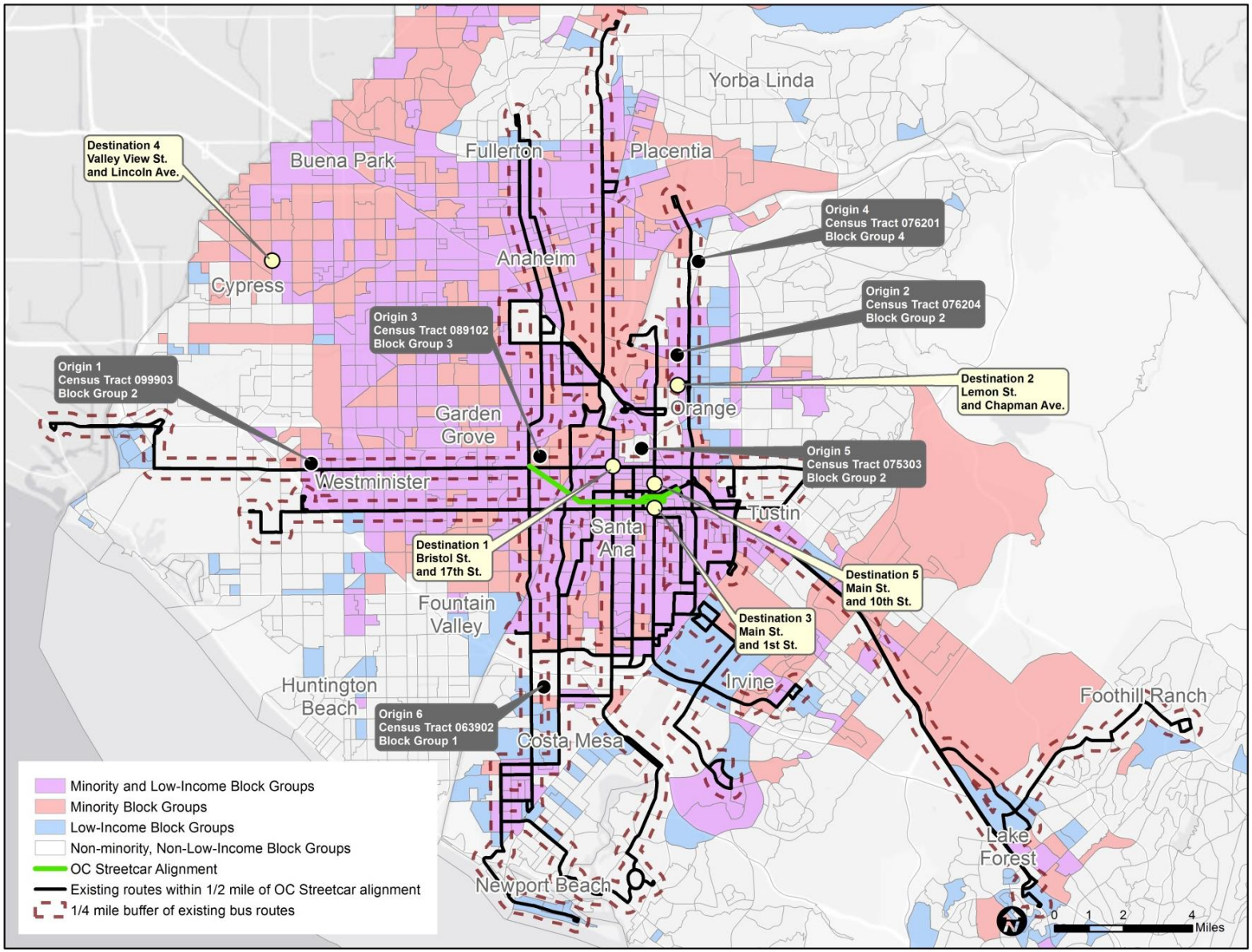
| Travel Time (min) | Bristol Street and 17th Street | | Lemon Street and Chapman Avenue | | Main Street and 1st Street | | Valley View Street and Lincoln Avenue | | Main Street and E 10th Street | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Before | After | Before | After | Before | After | Before | After | Before | After |
| Origin 1 (M/L) | 39 | 42 | 65 | 66 | 65 | 74 | 50 | 50 | 51 | 54 |
| Origin 2 (M/L) | 33 | 35 | 24 | 24 | 30 | 30 | 81 | 81 | 24 | 25 |
| Origin 3 (M) | 15 | 18 | 44 | 49 | 36 | 27 | 69 | 72 | 27 | 31 |
| Minority, Low-Income Average | **29** | **32** | **44** | **46** | **44** | **44** | **67** | **68** | **34** | **37** |
| Origin 4 (NM/NL) | 61 | 63 | 27 | 28 | 55 | 54 | 65 | 65 | 58 | 50 |
| Origin 5 (NM/NL) | 14 | 14 | 36 | 36 | 22 | 23 | 100 | 101 | 17 | 19 |
| Origin 6 (NM/NL) | 42 | 46 | 70 | 74 | 59 | 55 | 114 | 109 | 55 | 59 |
| Non-Minority, Non-Low-Income Average | **39** | **41** | **44** | **46** | **45** | **44** | **93** | **92** | **43** | **43** |

Notes:
- Existing travel time and cost are generated from Google Map on Feb 23rd, 2017 between 10:00AM - 4:30PM:
- Future travel time and cost are generated from Bus-Rail Interface GTFS with the following assumptions:
  - Passenger would use the same routes and stop locations before and after the service change
  - Walking time from origin to the boarding stop and waiting time at the transfer stop would not change before and after the service change
  - Sample trips would occur during the same time period of the day before and after the service change
- When multiple routing options are available, the fastest one is selected; for routing options with similar travel times, the one with less transfers/lower cost is selected.
- M – Minority, L – Low-Income, NM – Non-Minority, NL – Non-Low-Income

In general, the average travel time for the selected Origin-Destination (O/D) pairs would not change much before and after the project. For the selected minority and low-income neighborhoods (Origin 1-3), the average travel time would slightly increase by 2 minutes after the project. For the selected non-minority, non-low-income neighborhoods (Origin 4-6), the average travel time would slightly increase by less than 1 minute after the project. Given the

negligible travel time change for all selected locations, there is no disparate impact or disproportionate burden on minority and low-income populations.

## Figure 4. Travel Time Analysis Origin and Destination Locations



## 4.4 Travel Cost Analysis

In addition to travel time, we also compare the fare cost change for minority and low-income populations and non-minority, non-low-income population due to the project. The same O/D pairs used for the travel time comparison are used in this analysis to determine if there is any fare cost change for passengers to make the same trip due to a required additional transfer.

**Table 4** below summarizes the fare cost comparison results.

### Table 4. Fare Cost Comparison

| Travel Cost (dollar) | Bristol Street and 17th Street | | Lemon Street and Chapman Avenue | | Main Street and 1st Street | | Valley View Street and Lincoln Avenue | | Main Street and E 10th Street | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Before** | **After** | **Before** | **After** | **Before** | **After** | **Before** | **After** | **Before** | **After** |
| Origin 1 (M/L) | $2.00 | $2.00 | $4.00 | $4.00 | $4.00 | $4.00 | $4.00 | $4.00 | $2.00 | $2.00 |
| Origin 2 (M/L) | $4.00 | $4.00 | $2.00 | $2.00 | $2.00 | $2.00 | $4.00 | $4.00 | $2.00 | $2.00 |
| Origin 3 (M) | $2.00 | $2.00 | $4.00 | $4.00 | $4.00 | $2.00 | $4.00 | $4.00 | $2.00 | $2.00 |
| Minority, Low-Income Average | **$2.67** | **$2.67** | **$3.33** | **$3.33** | **$3.33** | **$2.67** | **$4.00** | **$4.00** | **$2.00** | **$2.00** |
| Origin 4 (NM/NL) | $4.00 | $4.00 | $2.00 | $2.00 | $4.00 | $4.00 | $2.00 | $2.00 | $4.00 | $4.00 |
| Origin 5 (NM/NL) | $2.00 | $2.00 | $4.00 | $4.00 | $2.00 | $2.00 | $4.00 | $4.00 | $2.00 | $2.00 |
| Origin 6 (NM/NL) | $4.00 | $4.00 | $4.00 | $4.00 | $2.00 | $2.00 | $6.00 | $6.00 | $4.00 | $4.00 |
| Non-Minority, Non-Low-Income Average | **$3.33** | **$3.33** | **$3.33** | **$3.33** | **$2.67** | **$2.67** | **$4.00** | **$4.00** | **$3.33** | **$3.33** |

Notes:

- Existing travel time and cost are generated from Google Map on Feb 23rd, 2017 between 10:00AM - 4:30PM:
- Future travel time and cost are generated from Bus-Rail Interface GTFS with the following assumptions:
  - Passenger would use the same routes and stop locations before and after the service change
  - Walking time from origin to the boarding stop and waiting time at the transfer stop would not change before and after the service change
  - Sample trips would occur during the same time period of the day before and after the service change
- When multiple routing options are available, the fastest one is selected; for routing options with similar travel times, the one with less transfers/lower cost is selected.
- Travel cost include adult cash fare for one-way trip

M – Minority, L – Low-Income, NM – Non-Minority, NL – Non-Low-Income

As shown in the table, the fare cost for all the selected O/D pairs would not change after the project except for Origin 3 – Main Street/1st Street, which allows passengers to get to the destination without any transfer, thus resulting in a fare reduction (benefit) with the proposed Streetcar project. As a result, no disparate impact or disproportionate burden is expected from the project.

## 4.5 Service Availability Comparison

This analysis compares the number of bus stops within minority and low-income neighborhoods and non-minority and non-low-income neighborhoods for routes that have proposed bus stop changes that may include bus stop elimination. **Table 5** below summarizes the comparison results.

### Table 5. Route-Level Bus Stop Location Comparison

| Bus Route | Before | | | After | | |
|---|---|---|---|---|---|---|
| | Total Number of Stops | % in Minority Census BG | % in Low-Income Census BG | Total Number of Stops | % in Minority Census BG | % in Low-Income Census BG |
| 43 | 137 | 69% | 75% | 137 | 69% | 75% |
| 53 | 100 | 68% | 72% | 100 | 68% | 72% |
| 55 | 182 | 62% | 61% | 180 | 61% | 61% |
| 83 | 74 | 65% | 74% | 56 | 54% | 66% |
| 543 | 29 | 86% | 76% | 29 | 86% | 76% |
| All Bus Lines | 6054 | 47% | 40% | 6053 | 47% | 40% |

The percentage of bus stops within minority and low-income census block groups will not change much before and after the proposed service change. Compared with the system-wide average, these five routes have significantly more bus stops located in minority and low-income areas with or without the project; therefore, the proposed bus stop changes would not cause any disparate impact or disproportionate burden on minority and low-income populations.

# 5.0 Evaluation of Impacts

Based on the results from Section 4, the Title VI review of the OC Streetcar Bus-Rail Interface Plan Options finds that, the project would not result in any disparate impact on minority populations or disproportionate burden low-income populations in the study area. In general, the project would increase the level of transit service to all the communities that are within the study area by improving the bus-rail service connectivity and contributing to travel time and cost savings for most passengers.

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Amendment to Agreement for the Design of the OC Streetcar Project

## *Overview*

On September 14, 2015, the Orange County Transportation Authority Board of Directors approved an agreement with HNTB Corporation for preparation of plans, specifications, and estimates for the OC Streetcar project. An amendment to the agreement is required for additional design services.

## *Recommendation*

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Agreement No. C-5-3337 between the Orange County Transportation Authority and HNTB Corporation, in the amount of $866,639, for additional design services for the OC Streetcar project. The amendment will increase the maximum cumulative obligation of the agreement to a contract value of $17,784,560.

## *Discussion*

The Orange County Transportation Authority (OCTA) entered into an agreement with HNTB Corporation (HNTB) on February 1, 2016, for the design of the OC Streetcar project (Project). Design has proceeded on schedule with 30, 60, and 90 percent submittals in June 2016, December 2016, and April 2017, respectively. The final plans, specifications, and estimates for the release of an invitation for bids (IFB) for construction of the Project are due on September 8, 2017.

As the design progressed, additional analysis and design work were determined to be required to address conditions that were encountered, and to develop alternative design solutions. As authorized by Amendments No. 1, 2, and 3, HNTB performed additional potholing and survey work to identify utility conflicts; is preparing a Phase 2 Environmental Site Assessment along the Pacific Electric right-of-way (PE ROW) requiring soil sample collections and related laboratory testing for detection of potential contaminants; prepared plat maps and legal descriptions for verification of property easements; and undertook a traction power load flow analysis to support a request by the City of Santa Ana (City) to relocate

a traction power substation (TPSS) to the Santa Ana Regional Transportation Center. New maintenance and storage facility design elements (in-ground pit, wheel truing machine, and provisions for overhead catenary in all repair bays) were also added to support operational efficiency and reduce long-term operations and maintenance costs.

Amendment No. 4 will authorize the consultant to perform design services for the following Project modifications:

- Santa Ana River Bridge - based upon the Orange County Flood Control District feedback, the design of the new streetcar bridge was revised from two to three spans in order to eliminate an at-grade crossing with the maintenance and recreational trail on the west side of the Santa Ana River. Additional work is required to design the pier, new foundation, and short span;
- Shelter design - based upon last fall's effort to prepare conceptual designs for the shelters, the design of the shelters at streetcar stops was revised to have a longer canopy to address community requests for enhanced shade protection. Additional work is required to design the longer shelters, as well as develop two types of shelters – a center platform shelter and side platform shelter;
- Additional field survey - required to confirm building encroachments into the PE ROW, top of slope conflicts with a cart path at the Willowick Golf Course, and to match curbs reconstructed during design. An additional plat map and legal description were determined to be necessary, south of Sasscer Park;
- Additional utility coordination - a greater number of utility conflicts were identified, requiring increased efforts to coordinate with utility owners on mitigation and or relocation strategies, prepare exhibits, and update utility base maps;
- Track and civil – an increased level of effort is required to adjust the track profile to accommodate existing drainage structures in Downtown Santa Ana in lieu of the major reconstruction of the City's storm drainage system;
- Pedestrian safety enhancements - California Public Utilities Commission (CPUC) and the State Safety Oversight Agency requested additional improvements to enhance rail safety. These improvements include a new pedestrian crosswalk with pedestrian push buttons and flashing warning lights at Santa Ana Boulevard and Forest Street, and a new pedestrian signal at the Fairview grade crossing;
- CPUC directed additional safety enhancements, including raised medians and protected left turn signals along Santa Ana Boulevard, as well as blank-out signs, which are signs that illuminate when a streetcar is approaching. The optional task, when directed by the CPUC will need to be incorporated in the final design specifications for inclusion into the construction documents.

### *Procurement Approach*

The procurement was handled in accordance with OCTA Board-approved procedures for architectural and engineering professional services, which conform to both federal and state laws. On September 14, 2015, the Board approved an agreement with HNTB, in the amount of $16,434,022. The agreement was previously amended to increase funding for a total contract value of $16,917,921 (Attachment A). It has become necessary to amend the existing agreement for additional design services for completion of the project design.

OCTA staff negotiated the required level of effort with HNTB and requested a price proposal. Staff found HNTB's price proposal, in the amount of $866,639, to be fair and reasonable relative to the negotiated level of effort.

Proposed Amendment No. 4 to Agreement No. C-5-3337, in the amount of $866,639, will bring the total contract value to $17,784,560, for additional design services for completion of the Project design.

Fiscal Impact

Funding for the Project is approved in OCTA's Fiscal Year 2016-17 Budget, Capital Programs Division, Account 0051-7519-TS010-Z82, and will be funded through Measure M2 and federal Congestion Mitigation and Air Quality funds.

### *Summary*

Staff requests Board of Directors' approval for the Chief Executive Officer to negotiate and execute Amendment No. 4 to Agreement No. C-5-3337 with HNTB Corporation, in the amount of $866,639, for additional design services for the OC Streetcar project.

***Attachment***

A. HNTB Corporation – Agreement No. C-5-3337 Fact Sheet

**Prepared by:**

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Director, Contracts Administration and
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**Approved by:**

James G. Beil, P.E.
Executive Director, Capital Programs
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**ATTACHMENT A**

**HNTB Corporation**
**Agreement No. C-5-3337 Fact Sheet**

1. September 14, 2015, Agreement No. C-5-3337, $16,434,022, approved by the Board of Directors (Board).

   - The Agreement was executed on February 1, 2016, to provide design services to prepare the plans, specifications, and estimates for the OC Streetcar project.

2. December 15, 2016, Amendment No. 1 to Agreement No. C-5-3337, $239,192, approved by Contracts Administration and Materials Management (CAMM) Department.

   - Provide for additional design services for field survey and potholing work.

3. February 27, 2017, Amendment No. 2 to Agreement No. C-5-3337, $37,434, approved by CAMM Department.

   - Provide for additional design services required for relocation of the traction power substation and right-of-way (ROW) legal documentation.

4. April 28, 2017, Amendment No. 3 to Agreement No. C-5-3337, $207,273, approved by CAMM Department.

   - Provide additional design support services necessary for modifications to the maintenance and storage facility and for additional potholing services necessary at various locations within the project alignment.

9. May 22, 2017, Amendment No. 4 to Agreement No. C-5-3337, $866,639, pending Board approval.

   - Provide additional design services as a result of streetcar stop modifications, various governmental agency requests, and ROW studies.

Total funds committed to HNTB Corporation after approval of Amendment No. 4 to Agreement No. C-5-3337: $17,784,560.

OCTA

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Amendment to Cooperative Agreement with the County of Orange, Orange County Sheriff's Department

## *Overview*

On May 11, 2015, the Board of Directors approved a five-year agreement with the County of Orange, Orange County Sheriff's Department, to provide Transit Police Services. The firm-fixed total cost to the Orange County Transportation Authority for services provided for a 12-month period is determined annually by the Orange County Sheriff's Department and approved by the Orange County Transportation Authority's Board of Directors.

## *Recommendation*

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Cooperative Agreement No. C-5-3342 between the Orange County Transportation Authority and County of Orange, Orange County Sheriff's Department, in the amount of $7,538,093, for Transit Police Services, effective July 1, 2017 through June 30, 2018. This will increase the maximum obligation of the agreement to a total contract value of $21,532,496.

## *Discussion*

The County of Orange, Orange County Sheriff's Department (OCSD), has provided Transit Police Services (TPS) for the Orange County Transportation Authority's (OCTA) patrons, employees, and properties since 1993. On May 11, 2015, OCTA's Board of Directors (Board) approved a cooperative agreement for five years with the OCSD to provide TPS.

After the fiscal year (FY) budget is developed during each year of the five-year agreement, OCSD submits the budget to OCTA for review and approval. A contract amendment is then required to authorize payment for the next FY. For FY 2017-18, OCTA did not request any changes to the level of service provided by OCSD for TPS. The $7,538,093 budget request represents an

increase of 3.61 percent over the amount budgeted for FY 2016-17. This increase is associated with the higher cost of salaries and benefits resulting from the negotiated labor contract for OCSD.

Services provided by OCSD are listed on Attachment A. In addition, OCSD provides countywide services such as the Hazardous Devices Squad, Special Weapons and Tactics team, Special Victims Unit, and the Orange County Intelligence Assessment Center. OCSD deputies assigned to TPS carry full police authorities, allowing them to conduct investigations and make misdemeanor and felony arrests.

Fiscal Impact

Amendment No. 4 to Cooperative Agreement No. C-5-3342 is included in the OCTA Proposed FY 2017-18 Budget, Transit Division. $5,039,233 is budgeted for fixed-route service and Orange County Taxi Administration Program support, $2,076,236 for Right of Way rail support, and $7,123 for General Services. Lastly, there is $415,501 budgeted for special services, which includes Explosive Detection Canine Team, Visible Intermodal Prevention and Response Team, Counter Terrorism Team, fixed-route special operations, Angel Express, and Measure M2 patrol services.

***Summary***

Staff recommends the Board authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Cooperative Agreement C-5-3342 with the County of Orange, Orange County Sheriff's Department, in the amount of $7,538,093, for the provision of Transit Police Services from July 1, 2017 through June 30, 2018, bringing the maximum contract obligation to $21,532,496.

***Attachments***

A. County of Orange, Orange County Sheriff's Department Services Provided
B. County of Orange, Orange County Sheriff's Department Cooperative Agreement No. C-5-3342 Fact Sheet

**Prepared by:**

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**Approved by:**

Ken Phipps
Deputy Chief Executive Officer
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**ATTACHMENT A**

**County of Orange, Orange County Sheriff's Department**
**Services Provided**

The following services will be provided:

- Uniformed patrol and plainclothes enforcement at Orange County Transportation Authority (OCTA)-owned properties, on railroad rights-of-way, and on-OCTA buses
- Response to calls for service as needed
- Traffic enforcement as it relates to the operation of fixed-route vehicles
- Special enforcement team for investigation and prevention of graffiti
- Taxicab applicant review
- Specialized and internal investigations conducted as needed
- Security at OCTA Board of Directors meetings, public hearings, and special events as requested
- Coordinate with other transit security, local, state, and federal law enforcement agencies
- Participate in multi-agency drills on a local and regional level
- Coordination on security-related grant funding

  Other assistance available through this contract includes three (3) canines for bomb detection services and other law enforcement services, such as the Mounted Enforcement Unit

- Sheriff staff deployment to include:

  - One Lieutenant position serving as the Chief of Transit Police Services
  - Four Sergeant positions
  - One Investigator position
  - Fourteen Deputy Sheriff II – Fixed-Route Enforcement positions; includes three canines with Bomb Technicians
  - Five Deputy Sheriff II – Right-of-Way Enforcement positions
  - One Office Specialist position

**ATTACHMENT B**

**County of Orange, Orange County Sheriff's Department**
**Cooperative Agreement No. C-5-3342 Fact Sheet**

1. May 11, 2015, the Board of Directors (Board) approved a five-year agreement, Cooperative Agreement No. C-5-3342. The original agreement was in an amount not to exceed $6,718,994.

   - To provide security and law enforcement services for the Orange County Transportation Authority (OCTA) from July 1, 2015 to June 30, 2020. Each year of this agreement, the Orange County Sheriff's Department (OCSD) provides OCTA with a budget for the following fiscal year (FY), and the maximum obligation is adjusted.
   - The following services will be provided:
     - uniformed patrol and plainclothes enforcement at OCTA-owned properties, on railroad rights-of-way, and on-board OCTA's buses
     - response to calls for service as needed
     - traffic enforcement as it relates to the operation of fixed-route vehicles
     - special enforcement team for investigation and prevention of graffiti
     - taxicab applicant review
     - specialized and internal investigations conducted as needed
     - security at OCTA Board meetings, public hearings, and special events as requested
     - coordinate with other transit security, local, state, and federal law enforcement agencies
     - participate in multi-agency drills on a local and regional level
     - coordination on security-related grant funding
   - Other assistance available through this contract includes three (3) canines for bomb detection services and other law enforcement services, such as the Mounted Enforcement Unit.
   - Sheriff staff deployment to include:
     - One Lieutenant position serving as the Chief of Transit Police Services
     - Four Sergeant positions
     - One Investigator position

- Fourteen Deputy Sheriff II- Fixed Route Enforcement positions; includes three canines with Bomb Technicians
- Five Deputy Sheriff II- Right-of-Way Enforcement positions
- One Office Technician position

2. March 1, 2016, Amendment No. 1 to Cooperative Agreement No. C-5-3342, $0.00, approved by the Contracts Administration and Materials Management Department (CAMM).

   - To amend terminology in Article 3. Regular Services by County

3. May 12, 2016, Amendment No. 2 to Cooperative Agreement No. C-5-3342, $7,109,932, approved by the Board.

   - To increase the maximum obligation for the second year of the five-year agreement by $7,109,932. This amount includes:

     - $7,109,932 for continued services with no staffing change, a 5.82 percent increase over fiscal year 2014-15.
       - Breakdown of increase: Wage and Benefit 4.33 percent, Special Services 1.36 percent, Other Direct Cost .13 percent
     - A provision for up to $421,251 for Special Services.

       - $115,500 for Vision Intermodal Prevention and Response/Counter Terrorism Team
       - $80,000 for Mounted Enforcement Units
       - $150,000 for Canine Units
       - $12,751 for Angels Express
       - $63,000 for Special Enforcement

4. January 10, 2017, Amendment No. 3 to Cooperative Agreement No. C-5-3342, $165,477, approved by CAMM.

   - To reflect adjustments in salaries and benefits subsequent to the Board's approval of fiscal year 2016-17 budget under Amendment No. 2.

     - Adjustments are as follows:

       - $142,010 for updated salary and benefit changes.
       - $23,467 for additional changes.
         - To convert one (1) Deputy II position to one (1) Explosive Detection Bomb Technician position
         - To convert one (1) Office Technician position to one (1) Office Specialist position

- To add one (1) additional Mobile Data Computer for a total of 15 units and one (1) additional Patrol Video System for a total of 9 units

5. May 22, 2017, Amendment No. 4 to Cooperative Agreement No. C-5-3342, $7,538,093, pending approval by the Board.

   - To amend the maximum the maximum obligation for the third year of the five-year agreement. This amount includes:

     - $7,538,093 for continued services with no staffing change, a 3.61 percent increase over FY 2016-17.
       - Breakdown of increase: Wage, Benefit, and Other Direct Cost 4.99 percent, Special Services -1.36 percent
     - A provision for up to $415,501 for Special Services.

       - $70,000 for Vision Intermodal Prevention and Response/Counter Terrorism Team
       - $100,000 for Mounted Enforcement Units
       - $151,500 for Canine Units
       - $26,001 for Angels Express
       - $68,000 for Special Enforcement

Total committed to County of Orange, Orange County Sheriff's Department Cooperative Agreement No. C-5-3342: $21,532,496.

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Agreement for Coach Operator, Operations Instructor, and Field Supervisor Uniforms

## *Overview*

The Orange County Transportation Authority provides a uniform program for coach operators, operations instructors, and field supervisors pursuant to the Collective Bargaining Agreement, as well as the Personnel and Salary Resolution. A request for proposals was issued to procure services for uniform products and services.

## *Recommendations*

A. Approve the selection of Becnel Uniforms as the firm to provide coach operator, operations instructor, and field supervisor uniforms on an as-needed basis.

B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-6-1442 between the Orange County Transportation Authority and Becnel Uniforms, in the amount of $821,852, for an initial three-year term with two, one-year option terms to provide coach operator, operations instructor, and field supervisor uniforms on an as-needed basis.

## *Discussion*

Uniforms for coach operators and support staff provide a professional appearance and promote confidence in the Orange County Transportation Authority's (OCTA) ability to provide reputable service to the public. The uniform program is established in compliance with the Coach Operator Collective Bargaining Agreement, as well as the Personnel and Salary Resolution for employees who fall under the classification of coach operator, operations instructor, and field supervisor. OCTA provides an annual allotment for new coach operators of $280, plus a one-time purchase of a jacket up to $170. The annual allotment for other coach operators is $245, and up to a $500 annual

allotment to support staff. Additional funds are provided for special circumstances such as weight loss, maternity, and the Bus Roadeo competition. The allotment is intended as a supplement to annual uniform costs employees may incur. These annual allotments have not increased over the last ten years.

***Procurement Approach***

The procurement was handled in accordance with OCTA Board of Directors (Board)-approved procedures for professional and technical services. Award is recommended to the firm offering the most comprehensive overall proposal considering such factors as qualifications, prior experience with similar projects, staffing and project organization, work plan, as well as cost and price.

On January 5, 2017, Request for Proposals (RFP) 6-1442 was issued electronically through CAMM NET. The RFP was advertised in a newspaper of general circulation on December 15 and 19, 2016. A pre-proposal conference was held on January 11, 2017, with six firms in attendance. An addendum was issued to provide a copy of the pre-proposal registration sheet, respond to questions received, and make clarifications relative to the RFP.

On February 6, 2017, three proposals were received. An evaluation committee comprised of OCTA staff from Contracts Administration and Materials Management, Operations Support Training, Operations Support Central Communications, Operations Santa Ana Base, and General Services departments met to review all submitted proposals. The proposals were evaluated based on the following evaluation criteria and weights:

- Qualifications of the Firm 25 percent
- Staffing and Project Organization 20 percent
- Scope of Work 30 percent
- Cost and Price 25 percent

Several factors were considered in developing the weight criterion. The scope of work section was weighted the highest at 30 percent. The proposing firms must be able to provide good uniform quality, easy and reasonable access for employees to have clothing altered, convenient distribution and shipping arrangements, with reasonable accommodations and methods to provide the services. Cost and price was weighted at 25 percent to ensure firms propose reasonable and competitive pricing. Qualifications of the firm was also weighted at 25 percent as the firm must provide evidence of similar service to other agencies, and staffing was weighted at 20 percent because the account manager and support staff must have relevant highlighted background in

customer service and the garment industry, as well as the ability to support the needs of OCTA.

On February 14, 2017, the evaluation committee reviewed all proposals and short-listed the two most qualified firms to be interviewed. Both firms are listed below in alphabetical order:

Firm and Location

Becnel Uniforms (Becnel)
Los Angeles, California

Blue Goose Uniforms, a Division of JCM & Associates, Inc. (Blue Goose)
Commerce, California

On February 24, 2017, the evaluation committee interviewed the two firms. The interview focused on the firms' clothing/apparel, service standards, account managers, and proposed support staff. The firms had an opportunity to introduce their teams and respond to the evaluation committee's questions. Questions were asked relative to each firm's approach to addressing the challenges of this project, as well as specific questions related to each firm's proposal. After the interviews, the evaluation committee met to complete the evaluation. No adjustments were made to the preliminary scores, and rankings remained unchanged.

Based on the evaluation of the written proposals, as well as information obtained from the interviews, the evaluation committee recommends Becnel for consideration of the award. The following is a brief summary of the proposal evaluation results.

Qualifications of the Firm

Both firms are qualified and demonstrated experience in the uniform business. The technical solutions provided by Becnel and Blue Goose were compliant with the requirements of the RFP. Proposals submitted by these firms presented comprehensive solutions for uniform distribution to OCTA employees.

Becnel highlighted their work at Long Beach Transit where they have been providing uniforms for over 35 years and Los Angeles County Metropolitan Transportation Authority for over 45 years. The firm also provides service to Gold Coast Transit, Los Angeles Unified School District, and other transportation agencies. The firm received very good reference checks and presented well at the interview where they focused on their background, displayed clothing

samples, described distribution procedures, account management, and relevant experience working with other transit agencies.

Blue Goose has been in business for over 30 years providing uniforms and accessories to numerous businesses, as well as county and city agencies. They have provided uniform service for transportation agencies for over three years, and currently provide uniform service as subcontractors for First Transit, Inc. (First Transit) and MV Transportation, Inc. The firm interviewed well and received very good reference checks.

Staffing and Project Organization

Becnel proposed sufficient resources to fulfill the requirements of this project. The firm offered a well-balanced project team consisting of both management and support staff. The team has relevant experience and is also assigned to Long Beach Transit and Los Angeles Unified School District accounts where they received positive feedback through reference checks. The project manager has been with Becnel in the uniform business for over 48 years. The proposed staff has been responsible for customer service, fitting of garments, distribution and shipping solutions for other agencies.

Blue Goose proposed knowledgeable staff with relevant backgrounds. The project manager has a good background in the uniform industry and the proposed team has worked with other transit organizations. First Transit was satisfied with the work Blue Goose's proposed team provided under their uniform contract.

Scope of Work

Both firms provided the products specified in the scope of work, but Becnel was able to display identical required fabrics at the interview. Blue Goose included several exceptions to the quality and/or design related to apparel in the scope of work. The evaluation committee reviewed the apparel exceptions and found them acceptable.

The evaluation committee found both firms to be materially compliant with the RFP requirements and determined both had an understanding of OCTA's needs. Becnel proposed weekly visits to OCTA, alternating locations and time to enable all operators to have an opportunity to order uniforms on-site. Blue Goose proposed monthly visits to each OCTA location and potentially opening a facility in a centralized location within Orange County to provide uniform services if offered a contract and a system for online ordering.

Cost and Price

Pricing scores were based on a formula which assigns the highest score to the firm with the lowest priced garment items, and scores the other proposers' rates per item based on their relation to the lowest rates per garment. Becnel proposed lower prices per type of garment and, therefore, scored higher than Blue Goose.

Procurement Summary

Based on the evaluation of the written proposals, qualifications, and information obtained from the interviews, the evaluation committee recommends the selection of Becnel as the top-ranked firm to provide coach operator, operations instructor and field supervisor uniforms. Becnel delivered a comprehensive proposal and an interview that was responsive to all requirements of the RFP. Becnel can deliver the required uniform apparel and accessories, and has adequate distribution solutions and lowest prices to match OCTA's goals and specifications.

Fiscal Impact

The project was approved in the OCTA Proposed Fiscal Year 2017-18 Budget, Bus Operations Department, Account 2121-7287-D1123-332, and is funded through Local Transportation Funds.

***Summary***

Based on the information provided, staff recommends the Board authorize the Chief Executive Officer to negotiate and execute Agreement No. C-6-1442, in the amount of $821,852, between OCTA and Becnel for an initial three-year term with two, one-year option terms to supply coach operator, operations instructor, and field supervisor uniforms.

***Attachments***

A. Review of Proposals – RFP 6-1442 Coach Operator, Operations Instructor, and Field Supervisor Uniforms
B. Proposal Evaluation Criteria Matrix - RFP 6-1442 Coach Operator, Operations Instructor, and Field Supervisor Uniforms
C. Contract History for the Past Two Years - RFP 6-1442 Coach Operator, Operations Instructor, and Field Supervisor Uniforms

**Prepared by:**

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**Approved by:**

Beth McCormick
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714-560-5694

**ATTACHMENT A**

**Review of Proposals**

**RFP 6-1442 Coach Operator, Operations Instructor, and Field Supervisor Uniforms**

Presented to Transit Committee - May 11, 2017

**3 proposals were received, 2 firms were interviewed, 1 firm is being recommended.**

| Overall Ranking | Proposal Score | Firm & Location | Sub-Contractors | Evaluation Committee Comments | Average Price Per Garment Three-Year Initial Term |
|---|---|---|---|---|---|
| 1 | 86 | **Becnel Uniforms**<br>Los Angeles, California | None | Clearly understands the scope of work as demonstrated in the proposal and interview.<br>Very capable and knowledgeable staff with long-term experience at Becnel and other uniform businesses.<br>Proposed weekly visits to OCTA alternating locations to allow operators to order on-site.<br>Proposed the lowest three-year initial term prices for multiple garments.<br>Expanded specifications beyond the minimum requirements of the scope of work.<br>Very good reference checks from Long Beach Transit, Los Angeles Unifed School District.<br>Offered a dedicated website at no additional cost.<br>Similar contracts include Los Angeles Metropolitan Transportation Authority, Long Beach Transit, Los Angeles Unified School Distribt, Culver City Bus, and Gold Coast Transit.<br>Excellent interview that demonstrated the capability to manage OCTA's account.<br>Very good display of clothing items. | Women's Garments, $39.13<br>Men's Garments, $40.31<br>Outerwear, $66.58<br>Unisex Garments, $34.83 |
| 2 | 63 | **Blue Goose Uniforms**<br>**a Division of JCM & Associates, Inc.**<br>Commerce, California | None | Firm understood the scope of work.<br>Firm offered to expand service by opening a local distribution facility to serve OCTA, but offered little details when or where to occur.<br>Solid organization with a good proposed project team.<br>Should have provided more information on shipping costs and distribution procedures.<br>Plans monthly visits to OCTA's bases.<br>Pricing was higher.<br>Good reference check<br>Overall good interview, but should have provided more information about their services.<br>Firm currently provides uniforms as subcontractors to First Transit's and MV Transportation's contracts with OCTA. | Women's Garments, $56.77<br>Men's Garments, $57.06<br>Outwear Garments, $100.56<br>Unisex Garments, $44.44 |

**Evaluation Panel:**

Internal:

- Contracts Administration and Materials Management (1)
- Operations Support Training (1)
- Operations Support Central Communications (1)
- Operations Santa Ana Base (1)
- General Services Reprographics (1)

| Proposal Criteria | Weight Factors |
|---|---|
| Qualifications of the Firm | 25% |
| Staffing and Project Organization | 20% |
| Scope of Work | 30% |
| Cost and Price | 25% |

**ATTACHMENT B**

## PROPOSAL EVALUATION CRITERIA MATRIX (SHORT-LISTED FIRMS)

## RFP 6-1442 COACH OPERATOR, OPERATIONS INSTRUCTOR, AND FIELD SUPERVISOR UNIFORMS

| Firm: Becnel Uniforms | | | | | | Weights | Overall Score |
|---|---|---|---|---|---|---|---|
| Evaluation Number | 1 | 2 | 3 | 4 | 5 | | |
| Qualifications of Firm | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 5 | 20.00 |
| Staffing/Project Organization | 4.00 | 4.50 | 4.00 | 4.50 | 4.00 | 4 | 16.80 |
| Scope of Work | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6 | 24.00 |
| Cost and Price | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5 | 25.00 |
| Overall Score | 85.00 | 87.00 | 85.00 | 87.00 | 85.00 | | 85.80 |
| **Firm: Blue Goose Uniforms** | | | | | | Weights | Overall Score |
| Evaluation Number | 1 | 2 | 3 | 4 | 5 | | |
| Qualifications of Firm | 3.50 | 3.00 | 3.00 | 3.00 | 3.00 | 5 | 15.50 |
| Staffing/Project Organization | 3.50 | 3.00 | 3.00 | 3.00 | 3.00 | 4 | 12.40 |
| Scope of Work | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 6 | 18.00 |
| Cost and Price | 3.49 | 3.49 | 3.49 | 3.49 | 3.49 | 5 | 17.45 |
| Overall Score | 66.95 | 62.45 | 62.45 | 62.45 | 62.45 | | 63.35 |

The overall score for the non-short listed firm was 53.40.

**ATTACHMENT C**

**CONTRACT HISTORY FOR THE PAST TWO YEARS**

RFP 6-1442, Coach Operators, Operations Instructor, and Field Supervisor Uniforms

| Prime and Subconsultants | Contract No. | Description | Contract Start Date | Contract End Date | Subconsultant Amount | Total Contract Amount |
|---|---|---|---|---|---|---|
| **Becnel Uniforms** | | | | | | |
| Contract Type: | None | | | | | |
| *Subcontractor:* | | | | | | |
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| | | | | | **Total:** | **$ -** |
| **Blue Goose Uniforms, a Division of JCM & Associates, Inc.** | | | | | | |
| Contract Type: | None | | | | | |
| *Subcontractor:* | | | | | | |
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| | | | | | **Total:** | **$0.00** |

OCTA

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Amendment to Cooperative Agreement with Regional Center of Orange County

## *Overview*

The Orange County Transportation Authority has had a long-standing revenue agreement with the Regional Center of Orange County to share in the cost of providing paratransit service to Regional Center of Orange County consumers. The initial term of the current agreement expires June 30, 2017, and an amendment is required to exercise the second option term and extend the term of the agreement.

## *Recommendation*

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Cooperative Agreement No. C-3-1625 between the Orange County Transportation Authority and the Regional Center of Orange County to exercise the second option term to share in the cost of paratransit services provided to Regional Center of Orange County consumers through June 30, 2018.

## *Discussion*

The Regional Center of Orange County (RCOC) is responsible, under the Lanterman Act, to assist people with developmental disabilities. The Lanterman Act establishes an entitlement to services and support for persons with developmental disabilities and their families to maximize opportunities for quality living and integration into the community. Under contract to the State of California, the RCOC is responsible for arranging and purchasing transportation for its consumers so they can access the services included in the individual program plan. The RCOC purchases a variety of transportation for consumers, including Orange County Transportation Authority (OCTA) fixed-route bus passes, ACCESS service, and privately contracted paratransit services.

Under the Americans with Disabilities Act, OCTA can charge a higher fare to social service agencies or other organizations for trips guaranteed to the organization. RCOC and OCTA have been engaged in a cost-sharing arrangement since 2003 for ACCESS transportation provided to RCOC consumers traveling to and from a variety of RCOC rehabilitation or work programs. The first option term of the current revenue agreement expires June 30, 2017, and an amendment is necessary to exercise the second option term and extend the agreement through June 30, 2019 (Attachment A).

OCTA will provide an estimated 493,000 trips in fiscal year (FY) 2017-18 to RCOC consumers, which accounts for approximately 37 percent of all ACCESS trips. Under the terms of the cooperative agreement, RCOC consumers receive subscription service which provides an established travel schedule and eliminates the need to reserve rides within the one to three day advance reservation window. In addition, RCOC consumers do not pay a cash fare or coupon when boarding. OCTA records all ACCESS trips provided to RCOC consumers and submits a monthly invoice with comprehensive trip data to RCOC, which assists RCOC reconciliation and reporting requirements established by the state.

The cooperative agreement establishes a negotiated one-way trip rate for service provided to RCOC consumers. Each year, the rate may be adjusted based on the Consumer Price Index (CPI). Utilizing the FY 2016-17 rate of $5.75 and applying a 1.9 percent CPI increase, the estimated one-way trip rate for FY 2017-18 will be $5.86, with fare revenue collection estimated at $2.9 million annually.

The first option term for this agreement expires on June 30, 2017, and an amendment is required to continue the partnership program. Staff proposes to extend the agreement one additional year. While a two-year option term remains in the agreement, staff is evaluating the subsidy program as it exists today to determine if the current structure best meets the needs of OCTA given the expected growth in this program into the future. Attachment A summarizes the contract history.

Fiscal Impact

The estimated reimbursement associated with Cooperative Agreement No. C-3-1625 is included in the revenue projections for the Proposed OCTA FY 2017-18 Budget, Transit, Community Transportation Services, Account 0030-5246-00000-SD1.

***Summary***

Based on the information provided, staff recommends the OCTA Board of Directors authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Cooperative Agreement No. C-3-1625 between OCTA and RCOC to maintain a cost-sharing arrangement for the provision of paratransit service to RCOC consumers through June 30, 2018.

***Attachment***

A. Regional Center of Orange County Cooperative Agreement No. C-3-1625 Fact Sheet

**Prepared by:**

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714-560-5921

**Approved by:**

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

**ATTACHMENT A**

## Regional Center of Orange County
## Cooperative Agreement No. C-3-1625 Fact Sheet

1. May 13, 2013, Cooperative Agreement No. C-3-1625, approved by Board of Directors (Board).

   - Revenue agreement for the provision of ACCESS transportation for Regional Center of Orange County (RCOC) consumers traveling to and from day programs.
   - Initial term of the agreement is effective July 1, 2013 through June 30, 2015, with two two-year option terms.
   - The one-way fare for the initial term is $5.63 per one-way trip.
   - No maximum obligation for the reimbursement to the Orange County Transportation Authority (OCTA) since all trips will be reimbursed if properly approved in advance. Estimated revenue to OCTA for the two-year initial term is $4,504,000.

2. April 27, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1625, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.
   - The one-way fare for the first year of the option term is $5.70 per one-way trip.
   - The estimated fare for the second year of the option term is $5.87 per one-way trip.
   - No maximum obligation for the reimbursement to OCTA since all trips will be reimbursed if properly approved in advance. Estimated revenue to OCTA for the first two-year option term is $5,495,750.

3. June 23, 2016, Amendment No. 2 to Cooperative Agreement No. C-3-1625, approved by Contracts Administration and Materials Management.

   - Administrative amendment to change the one-way fare for the second year of the first option term to $5.75 per one-way trip.
   - No maximum obligation for the reimbursement to OCTA since all trips will be reimbursed if properly approved in advance.

4. May 22, 2017, Amendment No. 3 to Cooperative Agreement No. C-3-1625, pending approval by Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018.
   - The one-way fare is $5.86 per one-way trip.
   - No maximum obligation for the reimbursement to OCTA since all trips will be reimbursed if properly approved in advance. Estimated revenue to OCTA for the second option term is $2,888,980.

Total estimated reimbursement to OCTA from RCOC, Cooperative Agreement No. C-3-1625: $12,888,730.

OCTA

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Amendments to Cooperative Agreements with Special Agencies Providing Paratransit Services

## *Overview*

The Orange County Transportation Authority has engaged in cost-sharing arrangements with several special agencies to assist in managing the demand and cost of ACCESS service. In May 2013, the Board of Directors approved cooperative agreements with six agencies to provide transportation to five adult day healthcare programs and one Regional Center day program. Contract amendments are required to increase the maximum obligation and extend these agreements through June 30, 2018.

## *Recommendations*

A. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1619 between the Orange County Transportation Authority and Acacia Adult Day Services to exercise the second option term, in an amount of $535,500, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $3,125,125.

B. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-6-1056 between the Orange County Transportation Authority and Alzheimer's Orange County to exercise the first option term, in an amount of $170,170, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $539,001.

C. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1620 between the Orange County Transportation Authority and Alzheimer's Family Center to exercise the second option term, in an amount of $813,925, to share in

the cost of providing transportation services through June 30, 2018, bringing the total contract value to $2,663,039.

D. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 4 to Cooperative Agreement No. C-3-1622 between the Orange County Transportation Authority and Community SeniorServ to exercise the second option term, in an amount of $605,793, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $4,242,596.

E. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1623 between the Orange County Transportation Authority and Orange County Adult Achievement Center to exercise the second option term, in an amount of $1,919,301, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $7,433,315.

F. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 5 to Cooperative Agreement No. C-3-1624 between the Orange County Transportation Authority and Sultan Adult Day Health Care to exercise the second option term, in an amount of $1,339,875, to share in the cost of providing transportation services through June 30, 2018, bringing the total contract value to $5,930,483.

### *Discussion*

Since the implementation of paratransit growth management strategies in 2005, the Orange County Transportation Authority (OCTA) has been proactive in establishing community partnerships and encouraging the availability of alternative transportation programs as a viable option for ACCESS customers to help reduce the growth in the demand and cost of ACCESS service. A large number of ACCESS trips are provided to and from adult day healthcare facilities and Regional Center day programs. Many individuals attending these programs require specialized transportation service beyond the requirements of ACCESS due to significant physical and/or cognitive disabilities. OCTA has had long-standing cost sharing agreements with six special agencies to transition ACCESS riders to alternative transportation providers at a lower cost per trip.

Under these agreements, OCTA provides an operating subsidy for ACCESS-eligible customers traveling between their homes and the special agency programs utilizing an alternative transportation provider. Since 2006, OCTA has worked in coordination with these agencies and their transportation service providers to successfully transition more than 750 ACCESS customers

to transportation services selected by the special agencies receiving these subsidies. This allows individuals attending specialized programs to receive transportation which more appropriately meets their unique needs. Approximately 256,562 peak period trips are projected to be provided under these cooperative agreements in fiscal year (FY) 2016-17.

Implementation of these community transportation partnership programs has also been a benefit to OCTA and the special agencies. For special agencies, managing the daily attendance for program participants is key to their operation. In addition, if their program participants require door-through-door assistance as part of their trip, the special agency is better suited to provide that type of accommodation which is beyond the requirements for OCTA's ACCESS service. For OCTA, subsidizing these services has resulted in a cost savings to OCTA when compared to the cost of providing these trips on ACCESS (Attachment G). In addition to a lower average per trip cost compared to ACCESS, these trips are provided within the peak period. If the trips were provided by ACCESS, OCTA would likely have to expand the ACCESS vehicle fleet to ensure all trip demand could be met.

The success of these partnership programs as a demand and cost management strategy for ACCESS service has been documented in study efforts, such as the 2015 OCTA Updated Public-Transit Human Services Transportation Coordination Plan, and the 2011 OCTA Transit System Study.

The first option terms for these six agreements expire on June 30, 2017, and amendments are required to continue the partnership programs. Staff proposes to extend these agreements one additional year. While two-year option terms remain in the agreements, staff is evaluating the subsidy programs as they exist today to determine if the current structure best meets the needs of OCTA given the expected growth in these programs into the future. Attachments A through F summarize each of the contract histories.

Fiscal Impact

Funds for these programs are included in the OCTA Proposed FY 2017-18 Budget, Transit Division, Community Transportation Services, Account 2131-7312-1208, and are funded through the Local Transportation Fund.

***Summary***

Staff recommends approval of amendments to six cooperative agreements with special agencies to provide operating subsidies for trips transitioned from OCTA ACCESS service to alternative transportation providers.

***Attachments***

A. Acacia Adult Day Services Cooperative Agreement No. C-3-1619 Fact Sheet
B. Alzheimer's Orange County Cooperative Agreement No. C-6-1056 Fact Sheet
C. Alzheimer's Family Center Cooperative Agreement No. C-3-1620 Fact Sheet
D. Community SeniorServ Cooperative Agreement No. C-3-1622 Fact Sheet
E. Orange County Adult Achievement Center Cooperative Agreement No. C-3-1623 Fact Sheet
F. Sultan Adult Day Health Care Cooperative Agreement No. C-3-1624 Fact Sheet
G. Community Transportation Partnership Program Summary

**Prepared by:**

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**Approved by:**

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Virginia Abadessa
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714-560-5623

**ATTACHMENT A**

Acacia Adult Day Services
Cooperative Agreement No. C-3-1619 Fact Sheet

1. May 24, 2013, Cooperative Agreement No. C-3-1619, $1,206,568, approved by the Board of Directors (Board).

   - Agreement to share in the cost of providing alternative transportation services for ACCESS customers.
   - Initial term effective July 1, 2013 through June 30, 2015, with two, two-year option terms.

2. March 24, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1619, $51,560, approved by Contracts Administration and Materials Management Department (CAMM).

   - Amendment to increase the maximum obligation to share in the cost of ACCESS service through June 30, 2015.

3. April 27, 2015, Amendment No. 2 to Cooperative Agreement No. C-3-1619, $1,331,497, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.

4. July 1, 2015, Amendment No. 3 to Cooperative Agreement No. C-3-1619, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the first year of the first option term to $17.34 per one-way trip.

5. June 23, 2016, Amendment No. 4 to Cooperative Agreement No. C-3-1619, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the second year of the first option term to $17.50 per one-way trip.

6. May 22, 2017, Amendment No. 5 to Cooperative Agreement No. C-3-1619, $535,500, pending approval by the Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018, and to change the one-way fare to $17.83 per one-way trip.

Total committed to Acacia Adult Day Services Cooperative Agreement No. C-3-1619: $3,125,125.

**ATTACHMENT B**

Alzheimer's Orange County
Cooperative Agreement No. C-6-1056 Fact Sheet

1. May 24, 2013, Cooperative Agreement No. C-3-1621, $369,123, approved by the Board of Directors (Board).

   - Agreement to share in the cost of providing alternative transportation services for ACCESS customers.
   - Initial term effective July 1, 2013 through June 30, 2015, with two, two-year option terms.

2. April 27, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1621, $536,484, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.

3. June 1, 2016, Assignment Agreement No. C-6-1056, approved by Contracts Administration and Materials Management Department.

   - Agreement to assign all of its rights, title, interest, obligations and liability under Agreement No. C-3-1621 to Alzheimer's Orange County.

4. May 22, 2017, Amendment No. 1 to Cooperative Agreement No. C-6-1056, $170,170, pending approval by the Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018, and to change the one-way fare to $18.68 per one-way trip.

Total committed to Alzheimer's Orange County Cooperative Agreement No. C-6-1056: $539,001.

**ATTACHMENT C**

Alzheimer's Family Services Center
Cooperative Agreement No. C-3-1620 Fact Sheet

1. May 24, 2013, Cooperative Agreement No. C-3-1620, $702,824, approved by the Board of Directors (Board).

   - Agreement to share in the cost of providing alternative transportation services for ACCESS customers.
   - Initial term effective July 1, 2013 through June 30, 2015, with two, two-year option terms.

2. February 23, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1620, $135,146, approved by the Board.

   - Amendment to increase the maximum obligation to share in the cost of ACCESS service through June 30, 2015.

3. April 27, 2015, Amendment No. 2 to Cooperative Agreement No. C-3-1620, $1,011,144, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.

4. August 13, 2015, Amendment No. 3 to Cooperative Agreement No. C-3-1620, $0, approved by Contracts Administration and Materials Management Department (CAMM).

   - Administrative amendment to change the one-way fare for the first year of the first option term to $15.20 per one-way trip.

5. June 23, 2016, Amendment No. 4 to Cooperative Agreement No. C-3-1620, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the second year of the first option term to $15.34 per one-way trip.

6. May 22, 2017, Amendment No. 5 to Cooperative Agreement No. C-3-1620, $813,925, pending approval by the Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018, and to change the one-way fare to $15.63 per one-way trip for the Huntington Beach facility and to $21.20 per one-way trip for the Irvine and Mission Viejo facilities.

Total committed to Alzheimer's Family Services Center Cooperative Agreement No. C-3-1620: $2,663,039.

**ATTACHMENT D**

Community SeniorServ
Cooperative Agreement No. C-3-1622 Fact Sheet

1. May 24, 2013, Cooperative Agreement No. C-3-1622, $1,779,584, approved by the Board of Directors (Board).

   - Agreement to share in the cost of providing alternative transportation services for ACCESS customers.
   - Initial term effective July 1, 2013 through June 30, 2015, with two, two-year option terms.

2. April 27, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1622, $1,857,219, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.

3. July 1, 2015, Amendment No. 2 to Cooperative Agreement No. C-3-1622, $0, approved by Contracts Administration and Materials Management Department (CAMM).

   - Administrative amendment to change the one-way fare for the first year of the first option term to $17.36 per one-way trip.

4. June 23, 2016, Amendment No. 3 to Cooperative Agreement No. C-3-1622, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the second year of the first option term to $17.52 per one-way trip.

5. May 22, 2017, Amendment No. 4 to Cooperative Agreement No. C-3-1622, $605,793, pending approval by the Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018, and to change the one-way fare to $17.38 per one-way trip.

Total committed to Community SeniorServ Cooperative Agreement No. C-3-1622: $4,242,596.

**ATTACHMENT E**

Orange County Adult Achievement Center
Cooperative Agreement No. C-3-1623 Fact Sheet

1. May 24, 2013, Cooperative Agreement No. C-3-1623, $2,275,304, approved by the Board of Directors (Board).

   - Agreement to share in the cost of providing alternative transportation services for ACCESS customers.
   - Initial term effective July 1, 2013 through June 30, 2015, with two, two-year option terms.

2. February 20, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1623, $0, approved by Contracts Administration and Materials Management Department (CAMM).

   - Amendment to include the payment basis for specialized ACCESS service.

3. April 27, 2015, Amendment No. 2 to Cooperative Agreement No. C-3-1623, $3,238,710, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.

4. September 18, 2015, Amendment No. 3 to Cooperative Agreement No. C-3-1623, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the first year of the first option term to $14.83 per one-way trip.

5. June 23, 2016, Amendment No. 4 to Cooperative Agreement No. C-3-1623, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare sponsored by OCTA for the second year of the first option term to $14.96 per one-way trip.
   - Administrative amendment to change the one-way fare sponsored by Orange County Adult Achievement Center for the second year of the first option term to $5.75 per one-way trip.

6. May 22, 2017, Amendment No. 5 to Cooperative Agreement No. C-3-1623, $1,919,301, pending approval by the Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018, and to change the one-way fare to $15.24 per one-way trip.

Total committed to Orange County Adult Achievement Center Cooperative Agreement No. C-3-1623: $7,433,315.

**ATTACHMENT F**

Sultan Adult Day Health Care
Cooperative Agreement No. C-3-1624 Fact Sheet

1. May 24, 2013, Cooperative Agreement No. C-3-1624, $1,892,688, approved by the Board of Directors (Board).

   - Agreement to share in the cost of providing alternative transportation services for ACCESS customers.
   - Initial term effective July 1, 2013 through June 30, 2015, with two, two-year option terms.

2. March 24, 2015, Amendment No. 1 to Cooperative Agreement No. C-3-1624, $62,815, approved by Contract Administration and Material Management Department (CAMM).

   - Amendment to share in the cost of ACCESS service through June 30, 2015.

3. April 27, 2015, Amendment No. 2 to Cooperative Agreement No. C-3-1624, $2,635,105, approved by the Board.

   - Amendment to exercise the first option term and extend the agreement through June 30, 2017.

4. August 20, 2015, Amendment No. 3 to Cooperative Agreement No. C-3-1624, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the first year of the first option term to $19.26 per one-way trip.

5. June 23, 2016, Amendment No. 4 to Cooperative Agreement No. C-3-1624, $0, approved by CAMM.

   - Administrative amendment to change the one-way fare for the second year of the first option term to $19.46 per one-way trip.

6. May 22, 2017, Amendment No. 5 to Cooperative Agreement No. C-3-1624, $1,339,875, pending approval by the Board.

   - Amendment to exercise the second option term and extend the agreement through June 30, 2018, and to change the one-way fare to $19.83 per one-way trip.

Total committed to Sultan Adult Day Health Care Cooperative Agreement No. C-3-1624: $5,930,483.

**ATTACHMENT G**

## Community Transportation Partnership Program Summary

| Fiscal Year | Total Trips | Total OCTA Contribution | Avg. OCTA Subsidy per Trip | Avg. ACCESS Cost per Trip | Est. Cost if on ACCESS | Est. ACCESS Cost Savings |
|---|---|---|---|---|---|---|
| 2012-13 | 205,768 | $3,290,972 | $15.99 | $36.33 | $7,475,551 | $4,184,579 |
| 2013-14 | 221,024 | $3,690,954 | $16.70 | $34.68 | $7,665,112 | $3,974,158 |
| 2014-15 | 237,928 | $4,003,598 | $16.83 | $33.37 | $7,939,657 | $3,936,059 |
| 2015-16 | 231,821 | $3,934,337 | $16.97 | $31.80 | $7,371,908 | $3,437,571 |
| 2016-17 | 256,562 | $4,399,252 | $17.15 | $31.35 | $8,043,219 | $3,643,967 |
| **Total** | **1,153,103** | **$19,319,114** | **$16.75** | **$33.69** | **$38,495,447** | **$19,176,333** |

**Note**: Fiscal Year 2016-17 Total Trips and Total OCTA Contribution are estimated for the projected year-end using available data from July 2016 through December 2016.

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** OC Streetcar Full Funding Grant Agreement

## *Overview*

Design of the OC Streetcar project is advancing rapidly, and staff is ready to submit the final documentation demonstrating the Orange County Transportation Authority's readiness to receive a Full Funding Grant Agreement through the federal Section 5309 Capital Investment Grant Program. Staff is seeking Board of Directors' approval to request and enter into a Full Funding Grant Agreement with the Federal Transit Administration for the OC Streetcar project.

## *Recommendations*

A. Approve the revised OC Streetcar project funding plan consistent with the outcome of the Federal Transit Administration Risk Assessment Workshop conducted on the 60 percent design.

B. Authorize the use of an additional $1.43 million in Congestion Mitigation Air Quality Improvement Program funding, increasing the total project funding from $297.91 million to $299.34 million.

C. Approve the Interim Comprehensive Business Plan and Financial Commitment Policy Statement to address the Orange County Transportation Authority's commitments to its bus and rail operations as required to support the request for a Full Funding Grant Agreement.

D. Authorize the Chief Executive Officer to request and enter into a Full Funding Grant Agreement to secure a federal contribution of $148.96 million through the Section 5309 Capital Investment Grant Program.

E. Authorize staff to make all necessary amendments to the Federal Transportation Improvement Program and execute any required agreements or amendments to facilitate the recommendation above.

### *Background*

Since being approved into the New Starts Engineering phase on January 11, 2017, Orange County Transportation Authority (OCTA) staff have been undertaking the extensive work to be eligible to receive the Full Funding Grant Agreement (FFGA). Design work, which commenced in February 2016, is currently 90 percent complete. Work to finalize the procurement for the invitation for bid (IFB) for construction is underway and is scheduled to be issued this fall. Additional coordination with the Federal Transit Administration (FTA) has focused on demonstrating OCTA's technical capacity to undertake the OC Streetcar project (Project). Finally, FTA and its program management oversight consultants have conducted a mandatory risk assessment to finalize the Project's scope, cost, and schedule. With these tasks completed, OCTA is now prepared to request an FFGA, the final phase of the New Starts Program.

### *Discussion*

The FTA's FFGA is a contract between the federal government and OCTA. The purpose of the FFGA is to define roles and responsibilities, and establish funding commitments as follows:

- Commit federal financial assistance to OCTA for the Project;
- Define the scope of the Project;
- Identify the mutual terms and conditions related to implementing the Project, the future management and operation of the Project, and the manner in which the Project's real property and equipment will be used;
- Establish the maximum federal New Starts financial contribution for the Project, in which all future federal funds for the Project will be awarded;
- Establish OCTA's required commitments to the Project, including the financial and operating commitments.

To receive an FFGA, a project must:

- Complete the planning, project development, and environmental review processes;
- Meet project readiness requirements (technical capacity, firm and final cost estimate, and all funding committed);
- Receive a "medium" or higher overall rating for the New Starts Program project justification and financial criteria;
- Satisfy all other federal requirements, including executing third party agreements, securing right-of-way (ROW), obtaining California Public Utility Commission (CPUC) approval of the Safety and Security Certification Plan, and completing a Title VI equity analysis of the streetcar and supporting bus service.

The above noted requirements are being met. An environmental analysis for minor design modifications has been completed, and staff is coordinating with FTA to obtain approval on the Section 130(c) determination, completing the federal environmental review process. The required Project readiness documents are being submitted, with the final documents scheduled to be submitted by late May 2017. Agreements have been executed with the cities of Santa Ana and Garden Grove, and the utility agreements are currently being finalized. On April 27, 2017, CPUC approved the Project's Safety and Security Certification Plan.

The Project received a medium-high rating in the federal fiscal year (FFY) 2017 FTA Annual New Starts report, based upon the Project justification and financial criteria. Staff anticipates receiving a similar rating for the FFY 2018 Annual New Starts report, exceeding the medium rating that is required for the New Starts Program.

With the completion of these efforts, staff seeks Board approval to request an FFGA from FTA. Key components of the application are discussed below.

Project Scope

The Project is a 4.1-mile modern streetcar, extending between the Santa Ana Regional Transportation Center, through downtown Santa Ana to Harbor Boulevard and Westminster Avenue. The Project includes acquisition of eight modern streetcars, spare parts and tools, four traction-power substations, ten street stops, and a maintenance and storage facility.

Revenue Service Date

The Project is scheduled for revenue service operations in December 2020. This revenue service date is contingent upon the Project meeting several significant critical path milestones in the near future, including release of the construction IFB and the request for proposals for the operations and maintenance contract (October 2017), and award of the vehicle manufacturing and delivery contract (November 2017).

Based on FTA's Risk Assessment Workshop conducted in March 2017, the timeline is achievable. However, FTA requires a 25 percent schedule contingency that represents a "worst case" revenue service date. Assuming realization of schedule contingency risk, the Project revenue service date would be August 2021. While staff is committed to the December 2020 revenue service date, FTA will use the August 2021 date in the FFGA to satisfy risk potential.

Capital Cost Estimate

At the completion of 30 percent design in May 2016, the capital cost estimate for the Project was $297.91 million, in year of expenditure (YOE) dollars. Following

completion of 60 percent design in December 2016, the Project cost was updated to reflect a better understanding of key requirements, including utilities, ROW, and professional services. In addition, the estimating of construction costs was undertaken at a more detailed level, using estimates of quantities and unit prices based on the more advanced level of design.

Key items that changed from the cost estimate presented to the OCTA Board of Directors (Board) in July 2016, include the following:

- Vehicle costs were increased to reflect costs associated with a new procurement instead of securing vehicles through a piggyback arrangement;

- Design costs were increased to account for additional work not contemplated in the scope of the project, including designing additional safety improvements requested by CPUC. A staff report seeking Board approval of the modifications to the design consultant contract is being processed concurrently.

Most of the increased vehicle and design costs were offset by cost reductions in other elements based upon further refinement of project design, as well as a reduction in the overall Project contingency (27 percent to 20.5 percent).

The cost estimate was also adjusted to reflect the results of a risk assessment conducted by FTA and its consultant team in March 2017. The risk assessment, which is required prior to the FFGA, is a tool used by FTA to validate a grantee's project budget, schedule, and contingency assumptions. Risks and opportunities related to key elements associated with the Project implementation were identified and values assigned based upon the probability of occurrence, the anticipated schedule, and cost impact. While the results of the FTA risk assessment were favorable, FTA requested the Project base cost be increased by $850,000 to address three potential risk areas: settlement at the approaches to the bridge over the Santa Ana River, increased corrosion protection of utilities within the rail corridor, and additional design costs.

Based upon these updates, the project cost estimate increased by less than one half of one percent (0.5 percent) from the July 2016 estimate to $299.34 million (YOE dollars). A 20.5 percent contingency is included in the cost estimate, the contingency level recommended by FTA at the stage of project development.

Funding Plan

Consistent with Board-adopted capital programming policies and the Measure M2 (M2) ordinance, which requires that every effort be made to maximize state and federal funding for M2 projects, staff has developed a revised Project

funding plan reflecting the updated capital cost estimate and incorporation of an additional federal funding source. Staff is recommending the use of additional Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds to support the funding plan increase. This is an eligible use for CMAQ, and Board policy directs these funds to M2 fixed-guideway and/or M2 high-occupancy or high-occupancy toll operational improvements as a priority. Funding is available from prior year CMAQ apportionment which was de-obligated from the west county high-occupancy vehicle connector at close-out.

The updated Capital Funding Plan is provided in the table below.

| Funding Sources (millions) | Prior Plan | Updated Plan | Difference | % of Project Funding |
|---|---|---|---|---|
| Federal New Starts | $148.96 | $148.96 | $0.00 | |
| Federal CMAQ | $53.03 | $54.46 | $1.43 | |
| Federal FTA 5307 | $13.26 | $13.26 | $0.00 | |
| **Sub-Total Federal** | $215.25 | $216.68 | $1.43 | 72% |
| State Cap-and-Trade | $25.52 | $25.52 | $0.00 | 9% |
| **Sub-Total State and Federal** | $240.76 | $242.19 | $1.43 | 81% |
| M2 - Project S | $57.15 | $57.15 | $0.00 | 19% |
| **TOTAL** | $297.91 | $299.34 | $1.43 | 100% |

The Section 5309 funding amount remains unchanged. FTA sets the maximum amount of Section 5309 funding when the project is approved into the New Starts Engineering phase; this amount is the $148.96 million included in the funding plan approved by the Board on August 16, 2016.

The updated capital funding plan is also provided in Attachment A, which provides summary information funding on commuter rail projects and fixed-guideway capital projects.

Financial Plan and Commitments

The adopted fiscal year (FY) 2014-15 Comprehensive Business Plan (CBP) has been the basis for the Project's financial plan through each phase of the FTA New Starts process. As described in the attached Interim CBP and Financial Commitment Policy Statement, the financial plan to be submitted with the FFGA request reflects refinements to the FY 2014-15 CBP financial model based on updated sales tax forecasts, impacts of Senate Bill-1, actual revenues received over the last two years, updated ridership estimates, and refined costs and funding sources for the Project.

Given the ongoing activities to address ridership challenges for the Bus Program, including activation of the OC Bus 360° Program, the Board has not adopted a revised CBP in 2017. To address the financial commitment expectations and requirements associated with the FTA's FFGA, it is

recommended that the Board adopt a financial commitment policy statement. The commitments are detailed in the Interim CBP and Financial Commitment Policy Statement (Attachment B) and include the following:

- Reiterating the Board-approved non-Section 5309 capital funds to support construction of the Project;
- Approving funding for the future operation and maintenance of the Project and continuing the financial responsibilities to operate, maintain, and reinvest in the transit system;
- Maintaining the service plans for the Project and the supporting bus service that were used to calculate the benefit measures that address FTA's New Starts project justification criteria for five years after the revenue start date.

The Bus Program commitments involve continued actions to maintain a financially sustainable Bus Program, including continued implementation of the OC Bus 360° Program and the annual review of transit services and revenue projections conducted as part of the budget process. Any significant changes to the Bus Program will reflect the results of an extensive public outreach program and may include, but not be limited to, the following:

- Reallocating resources to reflect changing demographics and ridership demands;
- Implementing alternative service delivery approaches to provide more cost effective services;
- Adjusting fare policy for fixed-route and paratransit services;
- Implementing non-service related cost reduction strategies; and
- Identifying and implementing supplemental revenue opportunities for the Bus Program.

An additional commitment addresses the total program of transit services operated, with OCTA continuing the current practice of fully funding a state of good repair program for the transit program.

Next Steps

Upon Board adoption of the action, staff will submit an FFGA application to the FTA in late May 2017, as well as the remaining Project readiness documents. Following review by FTA Region IX staff, the final FFGA application would be transmitted to FTA Headquarters for approval. A 30-day Congressional review would then occur. Execution of the FFGA is expected in the November/ December 2017 timeframe.

***Summary***

The application for an FFGA is the final step in the FTA Capital Investment Grant Program. Staff is seeking Board approval of the revised funding plan for the Project, as well as to request and execute the FFGA.

***Attachments***

A. Capital Funding Program Report
B. Interim Comprehensive Business Plan and Financial Commitment Policy Statement

**Prepared by:**

Mary Shavalier
Program Manager
(714) 560-5856

**Approved by:**

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

# Capital Funding Program Report

## Pending Board of Directors (Board) Approval - May 22, 2017 — Rail Project

| | | | State Funds | | Federal Funds | | Local Funds | | |
|---|---|---|---|---|---|---|---|---|---|
| Project Title | M Code | Total Funding | STIP/Other | State Bonds | RSTP/CMAQ | Other Fed. | M1 | M2 | Local - Other |
| Fullerton Transportation Center Parking Expansion Project | M1/R | $33,667 | $11,250 | $11,035 | | | $9,718 | | $1,664 |
| Laguna Niguel-Mission Viejo Station Parking Improvements and Expansion | M1/R | $15,134 | | | $6,500 | | $8,634 | | |
| Orange Transportation Center Parking Structure | M1/R | $33,175 | $13,762 | | $4,073 | $3,298 | $1,850 | $420 | $9,772 |
| Sand Canyon Avenue Grade Separation Project | M1/R | $61,962 | | $28,104 | $10,536 | | $3,116 | $5,352 | $14,854 |
| M2 Project S Fixed-Guideway Anaheim Rapid Connection | M1/S | $10,286 | | | | $1,516 | $6,000 | $1,335 | $1,435 |
| OC Streetcar (Proposed New Starts) [1] | M1/S | $299,342 | $25,518 | | $54,465 | $162,213 | | $57,146 | |
| OC Streetcar Preliminary Studies and Environmental | M1/S | $7,014 | | | | $341 | $4,977 | $554 | $1,142 |
| Anaheim Regional Intermodal Transportation Center (ARTIC) Construction | M1/T | $184,164 | $29,219 | | $33,250 | $40,754 | $43,900 | $35,291 | $1,750 |
| Fullerton Transportation Station Expansion Planning, Environmental PSR | M1/T | $771 | | | $671 | | $100 | | |
| 17th Street Grade Separation Environmental | R | $3,500 | | | | | | $3,500 | |
| Anaheim Canyon Station Improvements | R | $20,051 | | | $18,050 | $2,001 | | | |
| Control Point at 4th Street | R | $4,000 | | | | $4,000 | | | |
| Future Video Surveillance Systems | R | $217 | | | | $174 | | | $43 |
| Laguna Niguel to San Juan Capistrano Passing Siding | R | $30,830 | $6,000 | $2,483 | $22,347 | | | | |
| Metrolink Rehabilitation/Renovation - fiscal years 2011-12 to 2021-22 | R | $125,447 | | | | $125,447 | | | |
| Metrolink Station and Track Improvements, and Rehabilitation | R | $2,230 | | | | $1,784 | | | $446 |
| Placentia Commuter Rail Station | R | $34,825 | $2,500 | $400 | $50 | | | $8,000 | $23,875 |
| Positive Train Control (Metrolink) | R | $39,916 | | $34,190 | | $5,726 | | | |
| Rail Station Platform Safety Improvements (Fullerton, Irvine, and Tustin) | R | $553 | | $553 | | | | | |
| San Juan Creek Bridge Replacement | R | $34,200 | | $3,612 | | $29,375 | | $1,213 | |
| Slope Stabilization Laguna Niguel-Lake Forest | R | $4,139 | | | | $4,000 | | $139 | |
| State College Grade Separation (LOSSAN) | R | $79,284 | | $46,000 | | | | $33,284 | |
| Ticket Vending Machines | R | $6,857 | | | | $6,857 | | | |
| Video Surveillance Systems at Commuter Rail Stations | R | $4,493 | | $140 | | $3,594 | | | $759 |
| M2 Project S Transit Extensions to Metrolink (Rubber Tire) | S | $733 | | | | | | $733 | |
| **Rail Project Totals** | | **$1,036,790** | **$88,249** | **$126,517** | **$149,942** | **$391,080** | **$78,295** | **$146,967** | **$55,740** |

| | |
|---|---|
| **State Funding Total** | **$214,766** |
| **Federal Funding Total** | **$541,022** |
| **Local Funding Total** | **$281,002** |
| **Total Funding (000's)** | **$1,036,790** |

## Rail Project Completed

| | | | State Funds | | Federal Funds | | Local Funds | | |
|---|---|---|---|---|---|---|---|---|---|
| Project Title | M Code | Total Funding | STIP/Other | State Bonds | RSTP/CMAQ | Other Fed. | M1 | M2 | Local - Other |
| Metrolink Grade Crossing Safety Improvements (OCX) | M1/R | $85,009 | | $18,595 | | | $6,305 | $36,299 | $23,810 |
| Metrolink Rolling Stock | M1/R | $158,009 | | $36,300 | $42,230 | $35,390 | $44,089 | | |
| Metrolink Service Track Expansion | M1/R | $119,957 | | $51,399 | | | $68,558 | | |
| Santa Ana Grade Separation Planning and Environmental PSR | M1/T | $1,333 | | | $1,180 | | $153 | | |

# Capital Funding Program Report

## Rail Project Completed

| | | | State Funds | | Federal Funds | | Local Funds | | |
|---|---|---|---|---|---|---|---|---|---|
| Project Title | M Code | Total Funding | STIP/Other | State Bonds | RSTP/CMAQ | Other Fed. | M1 | M2 | Local - Other |
| Santa Ana Transportation Station Planning and Environmental PSR | M1/T | $1,003 | | | $888 | | $115 | | |
| Control Point Stadium Crossover | R | $6,490 | | $3,245 | | $3,245 | | | |
| LOSSAN Corridor Grade Separations PSR in Anaheim, Orange, and Santa Ana | R | $2,699 | | | | | | $2,699 | |
| Metrolink Grade Crossing Safety Improvements ROW | R | $3,025 | | | | | | $3,025 | |
| North Beach Crossings Safety Enhancements | R | $348 | | $166 | | | | $182 | |
| Rail Crossing Signal Lights and Pedestrian Gates | R | $252 | | $252 | | | | | |
| Safety Repairs for San Clemente Pier Station | R | $122 | | $122 | | | | | |
| San Clemente Beach Trail Crossings Safety Enhancements | R | $5,103 | | $2,170 | | | | $2,311 | $622 |
| Transit Rail Security (Monitors, Fencing, Video Surveillance) | R | $163 | | $163 | | | | | |
| Go Local | S | $7,730 | | | | | $7,730 | | |
| ARTIC Environmental, ROW, Program Management Support, Site Plan [2] | M1 | $41,369 | | | | | $41,369 | | |
| Fiber Optics Installation (Metrolink) | M1 | $24,600 | | $12,300 | | $10,903 | $1,397 | | |
| Laguna Niguel-Mission Viejo Station Parking Expansion (South Lot) | M1 | $4,135 | | $695 | | | $3,440 | | |
| Tustin Rail Station Parking Expansion | M1 | $15,389 | $1,100 | $7,181 | | | $7,108 | | |
| **Rail Project Totals** | | **$476,736** | **$1,100** | **$132,588** | **$44,298** | **$49,538** | **$180,264** | **$44,516** | **$24,432** |

| | |
|---|---|
| **State Funding Total** | **$133,688** |
| **Federal Funding Total** | **$93,836** |
| **Local Funding Total** | **$249,212** |
| **Total Funding (000's)** | **$476,736** |

*Board Notes:*

1. Requesting Board to authorize the use of an additional $1.43 million in CMAQ funding, increasing the total project funding from $297.91 million to $299.34 million.

*Project Notes:*

2. Updated funding from $41.75 million to $41.37 million to reflect project funding.

*Acronyms:*

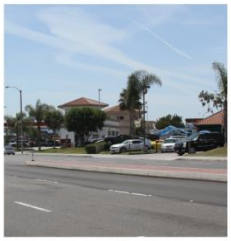
M Code - M1 = Measure M1, otherwise Project Codes in Measure M2 Program
STIP - State Transportation Improvement Program
RSTP/CMAQ - Regional Surface Transportation Program/Congestion Mitigation and Air Quality Improvement Program
M1/M2 - Measure M1/Measure M2
PSR - Project Study Report
LOSSAN - Los Angeles-San Diego-San Luis Obispo Rail Corridor
OCX - Rail-Highway Grade Crossing/Safety Enhancement Project
ROW - Right-of-way

**ATTACHMENT B**

# Interim Comprehensive Business Plan and Financial Commitment Policy Statement








OCTA

*Submitted by*

Orange County Transportation Authority

*April 28, 2017*

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# 1.0 Overview

When the Orange County Transportation Authority (OCTA) submits the Request for the OC Streetcar New Starts Full Funding Grant Agreement (FFGA), the request includes a financial commitment from the Authority to provide all non-Section 5309 grant funds to construct the Streetcar Project and to provide locally controlled funding to operate and maintain the Streetcar and the transit system, including the bus-rail station interface, for five years after the start of streetcar service. The revised Financial Plan that will be submitted as part of the Request for the FFGA documents the Bus Program and Streetcar service plans, capital investments, and associated cost, revenue, and ridership assumptions that are the basis for OCTA's financial commitments to FTA. When the FFGA is executed, these commitments represent a contractual agreement between FTA and OCTA.

As described in the following sections, the adopted fiscal year (FY) 2014-15 Comprehensive Business Plan (CBP) has been the basis for the OC Streetcar Financial Plan through each phase of the FTA New Starts process. Adjustments have been made to the CBP financial model over the last year to reflect the revised sales tax methodology, impacts of Senate Bill-1, and updated cost and revenue assumptions for the OC Streetcar, including the operations and maintenance costs.

Since the FY 2014-15 CBP was adopted, among OCTA's six operating programs, the bus program has experienced a few significant changes in assumptions. These changes include a revised sales tax forecasting methodology and additional revenue based on the passage of SB-1. Additionally, OCTA has initiated operational changes to address the ridership declines and associated reductions in fare revenue and is evaluating further actions that will not be completed before the end of 2017. As a result, staff will not be able to finalize the financial plan for the Bus Program in order to complete and request Board adoption of an updated CBP. Recognizing an updated CBP will be not be adopted by the Board prior to the Request for the New Starts FFGA, it is recommended that the Board adopt a Financial Commitment Policy Statement to address FTA local financial commitment expectations and requirements.

# 2.0 Background

The Revised Financial Plan supporting the request to execute the FFGA will be the third iteration the FTA has reviewed to evaluate OCTA's ability to construct the OC Streetcar and operate and maintain the entire transit system over a 20-year period since the OC Streetcar entered the FTA New Starts Project Development phase in the summer of 2015.

- **September 2015 Submittal**: The initial Financial Plan submitted reflected the Fiscal Year (FY) 2014-15 CBP that was adopted by the Board in January 2015. With the exception of updating cost and revenue assumptions in Measure M2, Project S for the OC Streetcar, the Financial Plan reflected the cost and revenue forecasts included in the adopted CBP.
- **September 2016 Submittal:** This iteration of the Financial Plan supported OCTA's request to enter the Engineering Phase of the New Starts Process. The primary changes in the Financial Plan reflected the impact of the new sales tax forecasting methodology that was approved by the Board in March 2016. Specifically, the new sales tax forecast provided to OCTA in August 2016 resulted in Measure M2 and State Local Transportation Fund (LTF) sales tax revenue levels over the next five years projected to be approximately $114 million and $91 million less than the September 2015 Financial Plan. Additionally, through FY 2036, Measure M2 levels are projected to be $920 million lower and LTF levels $1,207 million lower than the methodology included in the September 2015 Financial Plan.

To address potential FTA concerns regarding OCTA financial stability, the September 2016 Financial Plan documented:

- The reduced levels of sales tax revenue would not impact the implementation or long term operation of the Streetcar Project. Specifically, the Board had taken action to commit Measure M2 revenues for construction and long term operations for the Streetcar.
- The Bus Program would be impacted the most by the reduced sales tax revenue projections and the Financial Plan reflected staff's initial assumptions for a revised service plan including restructuring the system and using alternative service delivery approaches in order for the Program to remain financially sustainable.
- The Financial Plan continues to document OCTA's "funding firewall" policy among the Authority's Programs. Going back to the initial Measure M Ordinance in the early 1990's, OCTA has maintained a financial practice of not transferring funds dedicated to a specific Program to another Program which may be in need of additional revenue. Specifically related to the Streetcar Project, this policy continues to provide a strong statement to FTA that the agency will not be impacted by funding challenges of the Bus Program.

# 3.0 Bus Program Actions

Since the September 2016 submittal, the State of California passed SB-1 which makes additional operating and capital funds available for the bus program. This additional revenue erases the negative impact of the revised sales tax forecasting methodology implemented by OCTA in 2016, and provides financial sustainability for the bus program over the 20-year horizon of the CBP. The bus program does however continue to face the challenge of decreasing ridership and fare revenue. As reported to the Board in January 2016, the reduced ridership trend appears to largely be the result of external factors that are also impacting other transit agencies in Southern California and across the country. External factors impacting bus ridership vary by county and area, but may include employment changes from the great recession, high housing costs relative to household incomes, and the growth of competing travel modes. For example, between 2009 and 2015, Orange County's population increased by 4.7 percent, but driver licenses and car registrations were up by 9.9 percent and 16.9 percent, respectively, for the same period. Furthermore, the cost of living in Orange County continues to be a challenge given housing affordability. In 2015, an hourly wage of $25.50/hour ($53,040 annually) was needed to afford an average one-bedroom apartment in Orange County, which is well beyond the average hourly pay for most bus customers.

OCTA has already taken action to implement a comprehensive effort to reposition the bus system in response to changing market conditions. The overall strategy to improve transit service by examining it from many angles is an initiative named OC Bus 360°. The goals are to reverse ridership declines, and increase ridership by reducing passenger travel times, improving travel speeds, and designing services to benefit existing customers and attract new customers. In October 2016, the first phase of OC Bus 360 was implemented with the introduction of new bus routes that offered customers up to a 30 percent travel time improvement; redeployment of approximately 160,000 revenue vehicle hours (10% of total service hours) to high-demand transit corridors, which was one of the largest changes to bus service in OCTA's history.

Another component of OC Bus 360° is the initiation the OC Transit Vision. Scheduled to be completed by the end of 2017, the OC Transit Vision Report will establish a long-term transit plan for Orange County and will document operating, capital, and programmatic priorities; funding and implementation strategies; and land use and other policies to support the growth of OCTA's transit services.

# 4.0 Financial Commitment Policy Statement

The Financial Plan submitted with the request to execute the FFGA for the OC Streetcar reflects refinements to the FY 2014-15 CBP financial model based on updated sales tax forecasts, impacts of SB-1, actual revenues received the last two years, updated ridership estimates, and refined costs and funding sources for the OC Streetcar. Given the on-going activities to address ridership challenges for the Bus Program, the Board has not adopted a revised CBP in 2017. However, the Board is committed to the financial requirements of the OC Streetcar FFGA including:

- Approving all non-Section 5309 capital funds to support construction;
- Approving funding the future operation and maintenance of the OC Streetcar and continuing the financial responsibilities to operate, maintain and reinvest in the transit system; and
- Maintaining the service plans for OC Streetcar, bus-rail station interface for five years after the start of revenue service.

With regards to the overall Bus Program, the Board is committed to continue to take actions to maintain a financially sustainable Bus Program. The actions will reflect continued implementation of the OC Bus 360° Program, including the OC Transit Vision Plan, and the annual review of transit services with respect to near-term and long range funding projections as part of the Budget process. Any significant changes to the Bus Program will reflect the results of an extensive public outreach program and may include but not be limited to:

- Reallocating resources to reflect changing demographics and ridership demands;
- Where appropriate implementing alternative service delivery approaches to provide more cost effective services;
- Adjusting fare policy for fixed route and paratransit services;
- Implementing non-service related cost reduction strategies; and
- Identifying and implementing supplemental revenue opportunities for the Bus Program.

Finally, OCTA will continue the current practice of fully funding a state of good repair program for all transit services.

OCTA

*May 11, 2017*

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** OC Bus 360° Update

## *Overview*

The Orange County Transportation Authority is implementing a comprehensive effort to reposition the bus system in response to changing market conditions. The goals are to reverse ridership declines by reducing passenger travel times, improving travel speeds, and designing services to benefit existing customers and attract new customers. A status report on major OC Bus 360° elements is presented for review.

## *Recommendation*

Receive and file as an information item.

## *Background*

To address continuing bus ridership declines, in 2015, the Board of Directors (Board) endorsed a comprehensive action plan, known as OC Bus 360°. This effort included a comprehensive review of current and former rider perceptions, a peer review panel that reviewed the Orange County Transportation Authority's (OCTA) performance and plans, new branding and marketing tactics tied to rider needs, upgraded bus routes and services to better match demand and capacity, technology changes to improve the passenger experience, and pricing and other revenue changes to stimulate ridership and provide new funding.

Extensive work was invested by OCTA divisions to implement the plan. This work included: (1) implementation of new faster bus routes; (2) extensive redeployment of services in June and October 2016 to improve efficiencies and build ridership; (3) grants to local agencies for transit services tailored to community needs; (4) a promotional fare; (5) rollout of new technologies, including mobile ticketing and real-time bus arrival information; (6) extensive marketing, public outreach, and promotional campaigns; and (7) continued implementation of cost reduction strategies, such as increased contract fixed-route operations. Attachment A includes updates on several of the efforts described above.

### *Discussion*

OC Bus 360° efforts are showing positive signs, especially considering the impacts of external factors impacting nationwide and regional ridership (further discussed below). While total average weekday ridership declined by 2.9 percent comparing March 2017 to March 2016, ridership on routes that were improved in June and October 2016 increased by 4.2 percent and 10.4 percent, respectively, for the same period. As a result, continued investment in productive routes appears to be helping stem the ridership declines.

| Route Type | March 2016 Average Weekday Boardings | March 2017 Average Weekday Boardings | Daily Change | Percent |
|---|---|---|---|---|
| Reduced Service in June | 2,481 | 1,166 | (1,315) | -53.0% |
| Improved Service in June | 21,979 | 22,892 | 913 | 4.2% |
| Reduced Service in October | 10,281 | 8,009 | (2,273) | -22.1% |
| Improved Service in October | 10,286 | 11,360 | 1,074 | 10.4% |
| Fare Increase Only (Express) | 586 | 431 | (155) | -26.4% |
| No Change | 91,017 | 88,795 | (2,222) | -2.4% |
| Total | 136,630 | 132,652 | (3,978) | -2.9% |

Source: OCTA farebox data

National and Regional Ridership

Major external factors impacting regional ridership were recently presented by the University of California, Los Angeles (UCLA). These factors include post-recession employment changes, declining immigration, rise in housing prices leading to households moving to the "exurbs", falling gas prices, investments conducive to more auto travel, and others. UCLA also cited fare increases and transit service cuts as "internal" factors. UCLA's report is expected to be released in late 2017 with more definitive findings, and OCTA has requested a future presentation by UCLA.

Keeping pace with external factors impacting ridership presents new challenges to other transit systems as well. Nationwide, transit ridership (all bus and rail modes) is down 2.3 percent, comparing calendar year 2016 to 2015. For the same period, bus-only transit ridership serving populations of two million persons or more experienced a 3.85 percent ridership decline. Regionally, ridership is also down on bus systems operated by Long Beach Transit, Los Angeles County Metropolitan Transportation Authority, North County Transit District (San Diego), Norwalk Transit, Omnitrans (San Bernardino), Riverside Transit, and others (Attachment B).

New Strategies

For OCTA, ridership and fare revenue declines underscore the need for implementation of new strategies that were not contemplated in the first phase of OC Bus 360°. Improving productivity (boardings/revenue vehicle hour {B/RVH}) is now a key goal as part of OC Bus 360°. Between 2013 and 2016, B/RVH declined 19 percent.

As a result, in January 2017, the Board was provided with a proposed action plan to implement the next phase of OC Bus 360°. These actions included potential minor frequency changes that would shift resources to high-demand corridors (redeployment); discontinuing low-productivity StationLink service where appropriate; implementing more weekend service in high-demand areas to grow ridership; working with technology companies to explore replacement of service in lower-demand areas of Orange County; and evaluating better ways to leverage OCTA assets and services to improve efficiencies, lower cost, and potentially increase revenues, where appropriate.

Planned bus service changes in October 2017 and February 2018 are expected to implement major elements of this action plan. Changes that would require a public hearing and outreach process would be implemented as part of the February 2018 service change given the lead-time for greater public involvement and potential plan changes that often result from public feedback. Separate staff reports will detail specific recommendations for the October 2017 and February 2018 service changes that would implement this plan. A preliminary plan for the October 2017 service change will be submitted for Board review in May 2017.

Concurrent with the service change process, OCTA is seeking to gain greater experience working with technology companies to test on-demand software systems and transit service. These technology options allow users to obtain point-to-point rides through smart phone apps integrated with payment systems and service providers. While transportation network companies (TNCs) may be part of future efforts, the Federal Transit Administration (FTA) has raised concerns with transit operators and TNCs in certain circumstances. FTA's concerns relate to meeting specific requirements included in the Americans with Disabilities Act (ADA) and other federal laws (Attachment C).

OCTA is therefore pursuing on-demand transit demonstration projects that would include the following goals:

- Bring new users to key transportation hubs through software and services that meet ADA requirements; and
- Make better use of existing resources (vehicles, drivers, etc.) to improve system efficiencies; and

- Encourage two-or-more passenger rides (that might otherwise occur as single-occupant personal vehicle trips); and
- Test smart phone app technology that can be used by multiple service vendors and provides unencumbered data access.

A demonstration project can gather lessons learned for a future point-to-point element of the transit system. Transaction-level data collection will be a critical part of the project to evaluate performance, verify costs, and ensure that the system is scalable and secure. Separate staff reports will provide specific recommendations on pursuing this demonstration project.

Finally, OCTA is underway with a comprehensive review of paratransit costs and OCTA's physical assets for cost reduction strategies. This overall effort will present options for further cost-cutting efforts that go beyond major initiatives that have already been implemented (e.g., contracting more services, pension reform, fleet reduction, headquarters lease, lower contract costs, and others). A first step in this effort was provided to the Board on April 24, 2017, as part of a paratransit workshop that underscored the increasing proportion of OCTA's operating budget that is dedicated to paratransit services. An update and status report on these efforts will be provided to the Board by October 2017 that will emphasize new strategies for consideration as part of the fiscal year 2017-18 budget development process.

***Summary***

Elements of the OC Bus 360° plan are proving successful, and new strategies are being pursued to improve productivity. These new strategies include fixed-route changes, testing new technologies, and reviewing ways to further reduce costs.

***Attachments***

A. OC Bus 360° Update
B. National, State, and Regional Transit Operator Ridership Trends
C. Letter from Anthony R. Foxx, The Secretary of Transportation, Department of Transportation, Dated December 5, 2016

**Prepared by:**

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**Approved by:**

Kia Mortazavi
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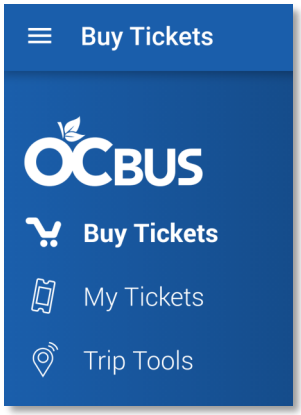
# OC Bus 360° Update (May 2017)

## Mobile Ticketing

In October 2017, OCTA rolled out mobile ticketing via the OC Bus app for purchasing regular fares, 30-day passes, and college passes for travel on fixed-route buses. Before mobile ticketing, riders had to travel to retail outlets or OCTA's store to purchase 30-day or college passes. Mobile ticketing eliminates the hassle of paper tickets and makes it simple to buy a ticket anytime, anywhere using the "buy ticket" feature on the OC Bus app.

Riders do not need to carry cash or exact change, only a smart phone. At boarding, riders simply show the phone to the coach operator with the pass displayed. The coach operator manually records the fare on a keypad linked to OCTA's fare system. Future improvements to the mobile ticketing system include the installation of electronic readers on the bus to reduce the manual recording of fares. The readers are expected to be deployed and operational in 2018.




Since inception, users have:

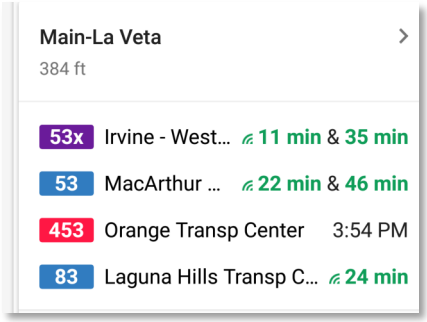
- Downloaded the mobile ticketing app over 30,000 times
- Purchased over 130,000 fares

Each week, approximately 300 new app users are purchasing fares with the mobile ticketing app.

The OC Bus app and ticketing equipment were partially funded by the State of California Transportation Agency, the Mobile Source Air Pollution Reduction Review Committee (MSRC) and Measure M, Orange County's half-cent sales tax for transportation improvements. The OC Bus app is available to download from the Apple App Store or Google Play.

## Real-time Bus Location Apps

To take the guesswork out of waiting for the next bus, OCTA has provided bus location information to third-party mobile apps. Riders can find real-time bus locations and predicted bus stop arrival times by downloading free, popular apps (e.g., Transit, Moovit, Google Maps). These apps receive updated vehicle position information every couple of minutes from OCTA.




Google maps feed showing real-time bus information at the Main-La Veta stop in Orange

Before the apps, riders had to rely on printed timetables and scheduled arrivals. Now, with the apps, riders can see in real-time when the next bus will arrive at a specific bus stop. As a result, customers can better plan trips and reduce wait times at bus stops. The real-time information reduces uncertainty among current riders, and provides route and travel information for new riders that may decide to try the bus system.

The real-time bus arrival smartphone apps have over 1 million uses per month.

## Marketing Initiatives

OCTA continues to implement comprehensive marketing efforts to retain and attract ridership. OCTA launched the 2017 Ridership Campaign in March with the goals to create awareness, improve

perception, change behavior, and ultimately increase ridership among new riders while prompting current riders to take trips more frequently, and to different places. Via bold billboards and bus wraps, direct mail, online/social ads, and ethnically targeted outreach, OCTA is encouraging residents to take a simple action that can make their traveling OC convenient and affordable: Ride OC Bus.

Within the first six weeks of the campaign, almost 2,000 customers responded to the campaign's call-to-action and almost 80 percent of those indicated they have not ridden the OC Bus in the past six months. In addition, more than 12,000 unique visitors visited OCbus.com to get more information. This represents a 528 percent increase in web unique visitors compared to prior the campaign launch.

Other initiatives include:

- Continue implementing Ride OC Bus campaign targeting commuters and students, businesses and schools located on high-frequency and newly improved bus routes through June, 2017.
- Promote seasonal pass (Youth Summer Pass) and destinations served by our high-frequency and newly improved bus routes in digital, informational, and promotional materials.
- Greatly enhance our digital bus information accessible on the desktop and mobile web, including enhanced trip planner features, streamlined bus schedules, next ride/real-time bus information, and interactive system map.
- Outreach directly to colleges/universities and employers in Orange County to promote all service and special pass programs that are available to students and commuters.
- Outreach directly to diverse (Asian and Hispanic) communities to educate customers about improved OC Bus service.
- Continue to promote the mobile ticketing system and encourage customers to directly purchase all fare media via smartphone, with incentives to encourage multi-day pass purchases vs. one-way or day-pass purchases.
- Expand OC Bus branding to on-street bus-stop signage to reinforce brand identity.

**ATTACHMENT B**

# NATIONAL, STATE, AND REGIONAL TRANSIT OPERATOR RIDERSHIP TRENDS

| **All Modes: United States and Canada** | **CY 2016 versus 2015** |
|---|---|
| Heavy Rail | ↓ -1.56 percent |
| Light Rail | ↑ 3.43 percent |
| Commuter Rail | ↑ 1.55 percent |
| Trolleybus | ↑ 1.83 percent |
| Bus: Population Total | ↓ -4.10 percent |
| Bus: Population 2,000,000+ | ↓ -3.85 percent |
| Bus: Population 500,000 to 1,999,999 | ↓ -4.82 percent |
| Bus: Population 100,000 to 499,999 | ↓ -5.69 percent |
| Bus: Population Below 100,000 | ↓ -1.02 percent |
| Demand Response | ↑ 0.70 percent |
| Other | ↓ -0.22 percent |
| **United States Total** | ↓ **-2.30 percent** |
| **Canada Total** | ↓ **0.57 percent** |

| **Bus: California Large Agencies** | **CY 2016 versus 2015** |
|---|---|
| Long Beach Transit | ↓ -4.88 percent |
| Los Angeles County Metropolitan Transportation Authority (LA Metro) | ↓ -8.93 percent |
| Alameda-Contra Costa Transit District | ↓ -3.18 percent |
| Orange County Transportation Authority | ↓ -9.40 percent |
| San Diego Metropolitan Transit System (SD MTS) | ↓ -5.65 percent |
| San Francisco Muni | ↑ 8.30 percent |
| Santa Clara Valley Transportation Authority | ↓ -8.50 percent |
| Santa Monica Big Blue Bus | ↓ -11.07 percent |

| **Bus: Other Local Connecting Agencies** | **CY 2016 versus 2015** |
|---|---|
| Anaheim Resort Transit | ↑ 0.74 percent |
| City of Irvine (iShuttle) | ↓ -0.20 percent |
| Norwalk Transit | NA |
| North County Transit District (NCTD) | ↓ -8.73 percent |
| Riverside Transit | ↓ -6.96 percent |
| Omnitrans (San Bernardino) | ↓ -4.42 percent |
| Foothill Transit (San Gabriel Valley) | ↓ -4.13 percent |

| **Commuter Rail: Southern California** | **CY 2016 versus 2015** |
|---|---|
| Metrolink | ↓ -4.32 percent |
| North County Transit District Coaster | ↓ -6.04 percent |

| **Light/Heavy Rail: Southern California** | **CY 2016 versus 2015** |
|---|---|
| LA Metro Heavy Rail | ↓ -1.35 percent |
| LA Metro Light Rail | ↑ 8.68 percent |
| NCTD Light Rail | ↓ -5.08 percent |
| SD MTS Light Rail | ↓ -6.56 percent |

*Source: American Public Transportation Association Ridership Report: Fourth Quarter 2016 (http://www.apta.com/resources/statistics/Pages/ridershipreport.aspx)*
NA – Not applicable

**ATTACHMENT C**

THE SECRETARY OF TRANSPORTATION
WASHINGTON, DC 20590

December 5, 2016

Dear Colleague:

The U.S. Department of Transportation encourages innovation and welcomes the interest of Transportation Network Companies (TNCs) and other private entities in meeting the travel needs of riders through partnerships with transit agencies. I applaud the transit industry for embracing the use of innovations in technology and new mobility concepts to create a more traveler-centric mobility environment that empowers travelers to make smart mobility decisions that address their individual needs, while contributing to desirable system outcomes. With that in mind, I am writing to remind you of your obligation to ensure equity and access as you partner with TNCs and continue to develop relationships with other private entities that offer the potential to provide improved service at a lower cost.

At the Department, we believe it is important to balance technological innovation with the basic civil rights principles of equity and accessibility inherent in the provision of transit service. There are basic Federal requirements that apply to transit service, including partnerships with TNCs and service operated under contract or other arrangement or relationship with private entities. Some of these are conditions of eligibility for Federal assistance (Title VI of the Civil Rights Act of 1964), while others apply independently regardless of whether Federal funding is involved (the Americans with Disabilities Act (ADA) of 1990).

For example, TNC services typically rely almost exclusively on the use of a smartphone linked to a credit or debit card to arrange for service, which presents a significant barrier to lower income and limited English proficiency individuals who do not own a smartphone and/or who do not have a credit card or bank account. Given that communities of color are disproportionally low-income, each public transit agency has an obligation under Title VI to ensure that alternative methods of both payment and reservations are available. Most TNCs currently lack accessible vehicles for persons with disabilities, including those who use wheelchairs. When your agency enters into a covered partnership with a TNC, however, you must ensure that your service is accessible to and usable by persons along the full spectrum of disabilities, including both physical and intellectual disabilities.

Unlike many other requirements, the transportation requirements under the ADA apply regardless of whether Federal funding is involved. The specific provisions of the Department's ADA regulations vary according to type of service provided, such as whether it is fixed route or demand-responsive. Currently the majority of partnerships with TNCs involve demand-responsive service. As such, you should be aware of two important points.

First, under DOT ADA Regulations (49 C.F.R. section 37.77), public entities operating a demand-responsive service must either acquire accessible vehicles or otherwise ensure that such services provide equivalent service to persons with disabilities, including those who use wheelchairs and/or have intellectual disabilities.

The need for your transit agency to provide wheelchair-accessible vehicles could be met in a number of ways, such as requiring the TNC to provide a sufficient quantity of vehicles as a condition of entering into an agreement with the transit agency; entering into a separate agreement with another entity that is capable of providing accessible vehicles; or relying on accessible vehicles that are already part of the paratransit fleet.

Second, service is considered equivalent when persons with disabilities, including wheelchair users, are provided with the same level of service according to the following criteria (see 49 C.F.R. section 37.77(c)):

1) Response time;
2) Fares;
3) Geographic area of service;
4) Hours and days of service;
5) Restrictions or priorities based on trip purpose;
6) Availability of information and reservations capability; and
7) Any constraints on capacity or service availability.

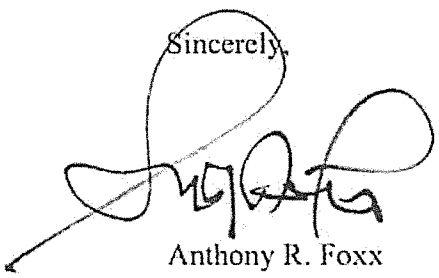
Some transit agencies have explored integrating TNCs into their paratransit service. The Department believes that TNCs have the potential to improve the provision of paratransit service, with the possibility of lowering costs while improving service to paratransit-eligible riders. Yet, it is important to emphasize that any such service improvements must benefit all paratransit riders. It would not be appropriate, for example, to offer real-time service to ambulatory paratransit riders, while leaving wheelchair users with next-day service.

Finally, it is important to ensure that TNC personnel are highly trained in professional and respectful interactions with persons with disabilities. All personnel should be familiar with requirements concerning the accommodation of service animals, for example, and personnel operating accessible vehicles must know how to operate boarding and securement equipment. Where TNCs are used to provide paratransit service, personnel should be familiar with the paratransit service criteria and the requirement to provide origin-to-destination service.

As long as all passengers are receiving service according to the service criteria or in the same manner, there is nothing to prevent transit agencies from engaging the services of TNCs—including for provision of paratransit services.

Once again, I commend the transit industry for embracing technology and innovation as a means to expand and improve the provision of transit services. As we embark on a new era in personal mobility, together we will ensure that our transportation system continues to provide effective mobility for all.

Sincerely,



Anthony R. Foxx

OCTA

***May 11, 2017***

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** October 2017 Service Change Proposal

## *Overview*

The Orange County Transportation Authority implements schedule and route revisions to selected bus routes three times a year. Staff is proposing service reductions for the October 2017 Bus Service Change Program in order to improve productivity and reduce peak vehicle requirements.

## *Recommendation*

Receive and file as an information item.

## *Background*

Staff is currently developing service change recommendations for October 2017. Several route and bus trip eliminations are proposed. The changes do not require a public hearing and are consistent with recent efforts to increase productivity of the bus service.

## *Discussion*

Productivity for Orange County Transportation Authority (OCTA) bus service has been declining over the last several years as ridership continues to decline and service levels remain constant. Boardings per revenue hour of service have declined from 31.4 in 2013 to 25.4 in 2016, a 19 percent drop. Staff is recommending adjustments to lower productivity routes in order to improve productivity. Attachment A provides ridership and revenue hour impacts by route. With these changes, five peak vehicles and 12,269 annual revenue hours will be reduced. Staff estimates a reduction of 118,817 annual boardings because of these changes. However, overall productivity will improve slightly because reductions average 9.7 boardings per hour. The revenue hour savings may be used on routes in future service changes to grow ridership based on recommendations from the Transit Master Plan. The suggested service reductions are described in further detail below.

Stationlink Route Elimination

OCTA operates "StationLink" rail-feeder to most Metrolink stations in Orange County. These routes are timed to train schedules and provide service to employment centers near the stations. Routes 411 (Anaheim Canyon), 430 (Anaheim Regional Transportation Intermodal Center {ARTIC}), and 490 (Laguna Niguel) are recommended for elimination because they carry less than ten boardings per hour and have a subsidy higher than $9 per boarding. In an effort to improve service productivity, Routes 411 and 490 were restructured recently but have not seen their productivity sufficiently improve. Route 430 riders will have the option of taking the recently-improved Route 50, and the Anaheim Resort transit service between ARTIC and the Anaheim Resort. Route 463, which is not recommended for elimination in October 2017, also has low productivity similar to the routes described above; however, staff does not recommend eliminating the route because it was restructured in October 2016 and needs additional time to see if the changes will increase ridership.

Low-Ridership Span Trip Eliminations

As ridership has decreased over the last several years, staff continues to look at opportunities to eliminate low ridership trips outside of the "Span of Service" standards. The standard recommends service be provided from 5:30 a.m. to 8:30 p.m. on weekdays and 7:00 a.m. to 7:00 p.m. on weekends. Staff has identified low-ridership trips for elimination (less than eight boardings) operating outside the standard hours. Late evening trips to colleges were preserved, as well as routes which will eventually connect to the OC Streetcar.

Route 37 Routing Changes

Staff is recommending routing changes to the north end of Route 37 in the City of La Habra and the south end in the City of Santa Ana. Currently there is a loop along Euclid Street, Whittier Boulevard, Harbor Boulevard, and Lambert Road, which operates in both directions. The Transit Division has provided feedback that the counter-clockwise routing is slow because of the many left turns. Staff proposes to operate the route clockwise only which will save some revenue service hours and may have a minor impact to ridership. On the south end, staff is recommending to restore a section of the route (eliminated in 2016) along MacArthur Boulevard to Hyland Avenue, based on coach operator feedback regarding passenger requests and the need for a better layover location.

Newport Transportation Center Late Evening and Early Morning Service

The City of Newport Beach (City) recently requested OCTA honor a curfew contained in the deed restrictions for the Newport Transportation Center between 11:00 p.m. and 5:00 a.m. Starting in October 2016, buses on routes 1, 55, 57,

and 79 began laying over along Newport Center Drive during the curfew.

The City has requested the trips coming into this area during the curfew be eliminated. Staff is working with the City to assess ridership impacts and may implement this change in October 2017.

### *Next Steps*

Staff will return in July with the final October 2017 Service Change Program. The full program will include the reductions outlined in this report in addition to schedule changes to improve on-time performance.

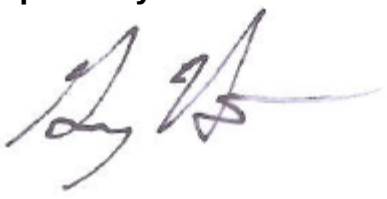
### *Summary*

Staff is seeking Board of Directors input on proposed service reductions for the October 2017 Service Change Program which will improve system productivity.

### *Attachment*

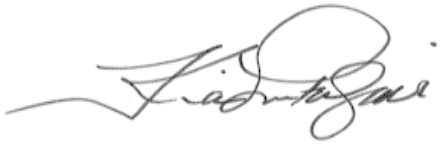
A. Draft October Service Change Proposals

**Prepared by:**



Gary Hewitt
Project Manager, Transit Planning
(714) 560-5715

**Approved by:**



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

## Draft October Service Change Proposals

| Route | Recommendations | | | Annual Revenue Hour Change | | | | Annual Boarding Change | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weekday | Saturday | Sunday | Weekday | Saturday | Sunday | Total | Weekday | Saturday | Sunday | Total |
| 1-Long Beach - San Clemente | Eliminate last three northbound trips | - | - | (841.5) | - | - | **(841.5)** | (5,559) | - | - | **(5,559)** |
| 35-Fullerton - Huntington Beach | Eliminate last northbound and southbound trips | - | Eliminate last northbound trip | (663.0) | - | (69.6) | **(732.6)** | (7,140) | - | (905) | **(8,045)** |
| 37-La Habra - Fountain Valley | Eliminate last two northbound and southbound trips. Routing changes(see Saturday/ Sunday description) | Operate clockwise only in La Habra and extend south end routing to MacArthur Boulevard at Hyland Avenue | Operate clockwise only in La Habra and extend south end routing to MacArthur Boulevard at Hyland Avenue | (2,147.1) | 77.0 | 59.2 | **(2,011.0)** | (21,573) | (572) | (928) | **(23,073)** |
| 46-Long Beach - Orange | Eliminate last eastbound and first westbound trip | - | - | (433.5) | - | - | **(433.5)** | (6,120) | - | - | **(6,120)** |
| 50-Long Beach - Orange | Eliminate last eastbound trip | - | Eliminate last eastbound trip | (280.5) | - | (69.6) | **(350.1)** | (3,060) | - | - | **(3,060)** |
| 60-Long Beach - Tustin | Eliminate last eastbound and westbound trips | - | Eliminate first and last eastbound / last westbound trip | - | - | (162.4) | **(162.4)** | - | - | (1,763) | **(1,763)** |
| 71-Yorba Linda - Newport Beach | Eliminate first northbound trip and last northbound trip | Eliminate first northbound trip, last northbound trip, and last southbound trip | - | (331.5) | (109.2) | - | **(440.7)** | (5,712) | (2,361) | - | **(8,073)** |
| 79-Tustin - Newport Beach | Eliminate first two southbound trips and last southbound trip | Eliminate last northbound trip | - | (969.0) | (52.0) | - | **(1,021.0)** | (12,087) | (614) | - | **(12,701)** |
| 82-Mission Viejo - Rancho Santa Margarita | Eliminate first eastbound and westbound trip | - | - | (178.5) | - | - | **(178.5)** | (3,723) | - | - | **(3,723)** |
| 85-Mission Viejo - Dana Point | Eliminate first northbound trip | - | - | (178.5) | - | - | **(178.5)** | (1,836) | - | - | **(1,836)** |
| 129-La Habra - Anaheim | Eliminate last two eastbound and westbound trips | Eliminate last four eastbound, first two westbound, and last three westbound trips | Eliminate first and last three eastbound trips / first two and last four westbound trips | (765.0) | (327.6) | (336.4) | **(1,429.0)** | (11,934) | (4,909) | (4,721) | **(21,564)** |
| 143-La Habra - Brea | - | Eliminate first and last two westbound trips / last eastbound trip | Eliminate first and last two eastbound trips / last westbound trips | - | (182.0) | (203.0) | **(385.0)** | - | (2,122) | (2,564) | **(4,685)** |
| 411-Anaheim Canyon Metrolink Station | Eliminate Route | - | - | (867.0) | - | - | **(867.0)** | (5,355) | - | - | **(5,355)** |
| 430-Anaheim Amtrak Station - Anaheim | Eliminate Route | - | - | (1,734.0) | - | - | **(1,734.0)** | (4,590) | - | - | **(4,590)** |
| 490-Laguna Niguel Train Station | Eliminate Route | - | - | (1,504.5) | - | - | **(1,504.5)** | (8,670) | - | - | **(8,670)** |
| | | | Annual Totals | (10,893.6) | (593.8) | (781.8) | (12,269.3) | (97,359) | (10,577) | (10,881) | (118,817) |
| | | | Daily Average | (42.7) | (11.4) | (13.5) | | (381.8) | (203.4) | (187.6) | |

ATTACHMENT A

OCTA

*May 11, 2017*

***To:*** Transit Committee

***From:*** Darrell Johnson, Chief Executive Officer

***Subject:*** Transit Master Plan – Investment Framework

### *Overview*

The Transit Master Plan will develop an integrated bus, rail, and paratransit plan for Orange County. This plan will identify future potential transit corridor studies and recommended changes to existing transit service. The Transit Investment Framework will assist the Orange County Transportation Authority in decision-making when allocating resources for bus service and future transit capital projects.

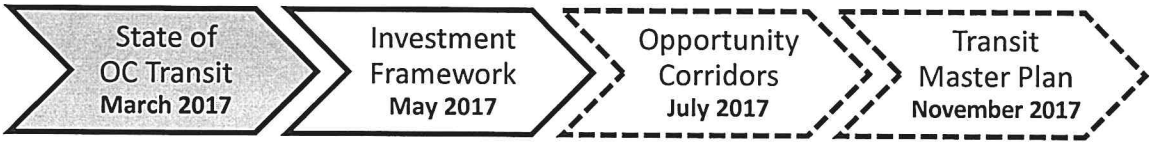
### *Recommendation*

Direct staff to return to the Board of Directors in July 2017, with draft Transit Opportunity Corridors and short-term bus service recommendations.

### *Background*

The Orange County Transportation Authority (OCTA) initiated the Transit Master Plan in summer 2016. This process takes a high-level look at long-term transit needs throughout Orange County and will identify a series of corridors suitable for additional transit improvement consideration. In addition, the plan will help guide future recommendations for fixed-route bus service. Projects identified in the plan will inform the OCTA Long-Range Transportation Plan, and position OCTA for upcoming transit funding opportunities.

This report presents the draft Investment Framework which will be used to guide transit operations and capital investments. The framework builds on the vision, goals, and objectives presented to the Board of Directors (Board) in March 2017. Staff will be returning to the Board in July with recommendations based on the framework.



***Discussion***

Staff is seeking Board input on the draft Investment Framework (Attachment A). This document will be used through the remaining steps of the Transit Master Plan process to develop and evaluate recommendations. The framework is divided into "Service Allocation" and "Capital Investment" sections as described on page 3 of this report.

Transit Design Principles

The Investment Framework categorizes existing OCTA routes into five categories based on their different functions and markets. These categories will be used to define the types of service levels and capital investments best suited for each route. In addition to the route categories, the report also outlines design principles for high-quality transit service and how cities can support transit through land-use policy and urban design.

- Major Routes: Operate at approximately 15 minute frequencies or better during peak times. Major routes operate seven days a week throughout the day. Together, the major routes form a grid on arterial streets throughout the highest transit propensity portions of the OC Bus service area, primarily in northern parts of the county. Bravo! limited-stop services are included in this category. These routes carry more than 75 percent of the system's riders.

- Local Routes: Operate on arterials within the grid created by the major routes, but at lower frequencies. Local routes also operate in parts of Orange County with lower transit demand. Most local routes operate seven days per week; however, some operate on weekdays only. Local routes carry about 20 percent of the system ridership and are less productive than major routes.

- Community Routes: Provide service to connect pockets of transit demand with major destinations and offer local circulation. Routes tend to be less direct than local routes since the service design is focused on neighborhoods and destinations off the arterial grid. Half of community routes operate seven days per week, while half operate on weekdays only due to lower weekend demand. Community routes carry less than three percent of OC Bus ridership. City-operated shuttles funded by Measure M Project V in the cities of La Habra and Mission Viejo fall into this category.

- Rail-Feeder Routes: OCTA Stationlink routes are rail feeder services designed to connect Metrolink stations to nearby employment centers.

These routes have relatively short alignments, with schedules tied to Metrolink arrivals and departures. Some iShuttle and Anaheim Resort Transit routes are in this category. Currently, one or more Stationlink routes serve all Metrolink stations in Orange County, except Buena Park, Fullerton, San Clemente, and San Juan Capistrano. Some major, local, and community routes provide connections to Metrolink stations, but have ridership demand which supports operating the service throughout the day.

- Express Routes: Express bus service operates on weekdays only at peak times and connects riders over long distances to destinations within and outside of Orange County, often using the freeway system to access destinations. Express routes carry less than one percent of OC Bus ridership and have a higher fare based on their trip length.

Service Allocation

The Investment Framework will propose fixed-route bus service allocation guidelines for each type of route category. This includes recommended peak, off-peak, and weekend frequencies, as well as span of service (start and end of service day). The Investment Framework also describes the underlying demographics and key connections necessary for each category. It is expected that over time, some routes may move between categories as these factors change. A description of the service allocation guidelines can be found in Attachment A, starting at page 3-13.

The proposed framework will also include "no transit" and "other" categories. Other areas of the county may be best suited for alternatives to traditional OCTA fixed-route bus service, such as locally-administered Program V shuttles or general/public demand-response transit services. Publicly-funded transit service may not be appropriate due to very low demand in the "no transit" areas.

Capital Investment

The second part of the Investment Framework provides guidelines for capital investments which would support existing bus operations and prioritize investments in new high-capacity modes (e.g., bus or rail). These standards build on the service allocation guidelines to identify both existing corridors and potential future corridors where capital investments, in addition to potential investments in service, may be justified. The table below from the framework proposes capital investment types by route category.

| Route Category | Investment Level | Bus Investment Types |
|---|---|---|
| Major | High | - Higher-capacity vehicles<br>- Vehicle branding (Bravo! routes only)<br>- All types of transit-priority treatments including transit lanes<br>- Operational improvements to and enhanced amenities at stops<br>- Off-vehicle fare collection and all-door boarding |
| Local | Medium | - Signal timing improvements<br>- Enhanced passenger amenities at busier stops |
| Community | Low | - Standard bus stop |
| Express | Medium | - Comfortable vehicles designed for longer trips<br>- High-occupancy vehicle facilities on freeways and direct access ramps<br>- Enhanced passenger amenities at park-and-ride lots |
| Stationlink | Low | - Standard bus stop |
| Other | Low | - Vehicle branding (shuttles only)<br>- Technology integration |

In addition to investment in existing bus routes, the Investment Framework also recommends the following thresholds for when and where to further study high-capacity transit modes such as BRT and streetcar:

- Corridors with population densities greater than 15 persons per acre (9,600 residents per square mile) and/or employment densities greater than 15 employees or students per acre (9,600 jobs/students per square mile)

- Corridors in which existing service has peak load greater than 600 people in peak direction and peak headways of 12 minutes or less

During the next step of the study, the consultant will be proposing ten Transit Opportunity Corridors in Orange County, which may be suitable for these types of investments. The proposed corridor screening and evaluation criteria are shown in Appendix A in Attachment A.

***Next Steps***

Staff will return in July with a draft Transit Opportunity Corridors and recommendations for short-term bus route changes. Staff will also solicit feedback on the draft Transit Investment Framework from cities and other stakeholders.

***Summary***

This report provides a summary of the draft Transit Investment Framework. Staff is seeking Board input on the Service Allocation and Capital Investment guidelines.

***Attachment***

A. OC Transit Vision – Draft Transit Investment Framework

**Prepared by:**

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# OC TRANSIT VISION

## Draft Transit Investment Framework

**April 2017**

OC TransitVISION

NELSON NYGAARD

## Table of Contents

## Table of Figures

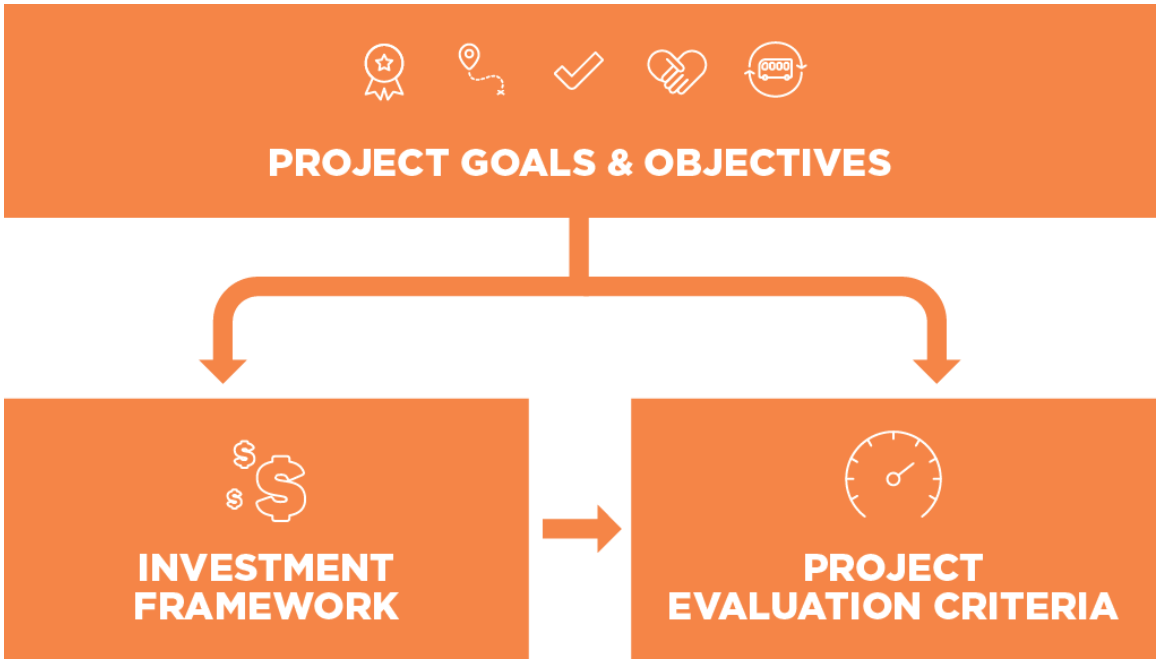
# 1 INTRODUCTION

This document proposes a Transit Investment Framework for use by OCTA and partner agencies. The primary purposes of the Transit Investment Framework are to provide guidance:

- **For OCTA** to use in its decision-making processes to allocate fixed-route bus operations and bus and rail capital resources; and
- **For Orange County cities and other agencies** to use in developing transit-supportive land use, street design, and other transportation policies.

The draft Transit Investment Framework is based on the OC Transit Vision goals and objectives and provides a basis for the OC Transit Vision project evaluation criteria (to be developed in the following phase of the project).

Figure 1-1 Relationship of OC Transit Vision Elements




This document includes the following sections:

- A brief summary of **best practices and principles** in the design of transit service and transit-supportive transportation networks and land uses (which serves as a basis for the following guidelines);
- Proposed **guidelines for use in making decisions about future investments and allocating operating resources** for fixed-route bus service; and

- Proposed **guidelines for use in evaluating future capital investments** in bus and rail service as well as access to service.

The document also includes two appendices:

- Proposed OC Transit Vision project evaluation criteria; and
- Case studies of transit capital project prioritization processes used by OCTA peer agencies.

The OCTA Transit Investment Framework's proposed principles and guidelines incorporate industry standards, state and federal discretionary grant program evaluation criteria, and research into existing policies adopted by OCTA and peer agencies, including the Los Angeles County Metropolitan Transportation Authority (Los Angeles Metro), the King County (Washington) Department of Transportation Metro Transit Division (King County Metro), and the South Coast British Columbia Transportation Authority (TransLink).

## OC Transit Vision Goals and Objectives

Figure 1-2 and Figure 1-3 present the OC Transit Vision goals and objectives, on which the draft Transit Investment Framework is based.

Figure 1-2 OC Transit Vision Goals and Objectives (Page 1 of 2)

# VISION, GOALS, AND OBJECTIVES

## VISION

Provide compelling and competitive transit service that expands transportation choices for current riders, attracts new riders, and equitably supports immediate and long-term mobility in Orange County

## GOALS

### Enhance

Make it more desirable to take transit

#### Reliability and competitiveness

- Provide convenient service that appeals to a broad cross-section of Orange County residents
- Make transit travel times in key corridors competitive with the auto
- Improve the reliability of transit trips
- Provide longer hours of service and more weekend service (span, frequency, and routes)
- Develop a network of high-capacity or premium services such as bus rapid transit, light rail, and streetcar to provide attractive transit service and support local land use

#### Frequency

- Develop a Frequent Service Network that provides frequent (15-minutes or better), all-day service from early morning to late night in major corridors and to major destinations

#### Quality

- Improve service quality in the highest-demand transit markets
- Develop services tailored to the needs of specific markets

#### Affordability

- Provide affordable transit choices for Orange County residents

#### Facility Design and Passenger Comfort

- Provide a comfortable and safe environment for transit passengers
- Improve access to, and the quality of, transit stops and stations

### Connect

Connect Orange County's people and places with effective transit

#### Local and Regional Connections

- Expand service to currently unserved areas of Orange County that have sufficient transit demand and to emerging areas to support new development
- Improve connections to major attractions and destinations
- Improve access to jobs and services to improve economic opportunities for Orange County residents
- Improve transit connections with surrounding counties to develop a stronger regional system

#### Integration

- Integrate transit services with other complementary modes
- Develop new partnerships and improved service models to better serve markets where fixed-route service is impractical

#### Multimodal Access and First/Last Mile Connections

- Create great places where modes connect to facilitate seamless integration of Orange County's pedestrian, bicycle, and transit networks
- Strengthen multimodal connections and make it safe and easy to access transit
- Enhance partnerships with shared mobility providers
- Participate in efforts to make streets more complete and transit-friendly

Figure 1-3 OC Transit Vision Goals and Objectives (Page 2 of 2)

# GOALS AND OBJECTIVES

## Simplify

Make transit easier to use and more convenient

### Legibility

- Provide service that is easy for people to understand and use
- Make it easier for customers to plan door-to-door trips with a seamless menu of travel options among transit services, operators, and other transportation modes
- Take advantage of new technologies to simplify interactions with customers, including fare payment

### Education and Information

- Educate Orange County residents, workers, and visitors about available transit services
- Continue to provide transit and mobility information that is readily available, attractive, and easy to understand
- Make real-time schedule information extensively available

## Collaborate

Make Orange County a more attractive place to live, work, and visit by providing transit service that supports community priorities

### Economy and Development

- Support economic development, including the development patterns envisioned in local, county, and regional plans
- Support the vitality of the county's downtowns, local centers, neighborhoods, and job centers

### Environment

- Provide transit services that relieve congestion, improve air quality, and reduce greenhouse gas emissions
- Use transit as a way to enhance healthy, complete communities and compact, livable neighborhoods

### Equity

- Use transit to create a transportation system responsive to the needs of people for whom transit is a necessity (e.g., youth, older adults, people with disabilities, low income populations, people without autos)
- Improve the accessibility of transit for older adults and people with disabilities to support their ability to live independent lives
- Develop a sustainable model for paratransit service to provide mobility and independence

## Sustain

Create a system that is resilient over the long term

### Ridership and Perception

- Get more people riding transit
- Retain existing customers and make it easier for them to take additional trips using transit
- Improve public perception of transit in Orange County

### Productivity

- Focus service in areas where it can be most effective
- Develop cost-effective and productive transit services and programs

### Funding

- Develop reliable and predictable revenue streams that grow with Orange County's economy
- Invest public resources in a financially responsible manner
- Identify and pursue opportunities for new funding sources, including leveraging private funds

### Performance Monitoring

- Continue to monitor performance measures and adjust service and implementation plans as necessary

### Partnerships

- Develop services that achieve a high level of public support
- Strengthen existing partnerships, continue to build partnerships, and work closely with communities and businesses
- Develop new partnerships and service models to better serve markets where traditional fixed-route transit is impractical

### Flexibility

- Plan for investments in a way that allows OCTA to respond and adapt to changes in the environment for transit

# 2 TRANSIT AND TRANSIT-SUPPORTIVE DESIGN PRINCIPLES

This chapter provides an introduction to best practices and principles in the design of transit service and transit-supportive transportation networks and land uses. As part of a later phase of the OC Transit Vision, the project team will develop a more detailed guide to transit-supportive policies often adopted by cities, including parking and transportation demand management (TDM) policies as well as land use and other transportation policies.

## TRANSIT DESIGN PRINCIPLES

In order for cities to attract and support high-quality transit service, decision-makers must first understand what makes service "high quality." With this baseline understanding, it becomes easier to understand how transit interacts with, fits into, and should be supported by its surrounding context.

High-quality transit service is:

- **fast** – or at least competitive with driving;
- **frequent** – offering both shorter waits and more choice in departure times;
- **reliable** – offering services that arrive when expected;
- **connected** – to other transit lines and travel modes;
- **comfortable** – at stops, stations,and on-board vehicles;
- **convenient** – in terms of frequency, access, and other factors such as fare payment;
- **legible** – easy to understand, even for new customers;
- **safe** – providing a sense of personal security at stops, stations, and on-board vehicles;
- **accessible** – for all people, including those with mobility challenges;
- **dignified** – sending a message to riders that they are valued customers; and
- **available** – when you need it, and going where you need it.

In order to support the characteristics of high-quality service, transit designers try to follow a handful of simple rules (Figure 2-1):

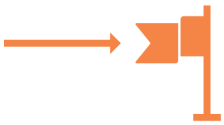
Figure 2-1 Rules for High-Quality Transit Service

### Be direct.

Ideally, transit routes should avoid time-consuming turns and deviations and go in straight lines, making them both faster and easier to understand and remember.

### Serve a variety of destinations.

The most efficient and cost-effective routes are useful to a variety of people, at different times of day.



### Terminate at strong anchors.

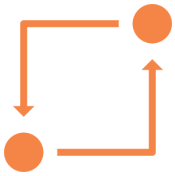
When there are major demand generators at both ends of the route, buses or trains are rarely empty.

### Avoid duplication.

Rather than having routes operate on parallel streets less than a half-mile apart, have them overlap so that more frequent service can be provided in the combined segment.

### Avoid routes that are too long.

The longer the route, the more exposed it is to delay; reliability may suffer.



### Balance demand in each direction.

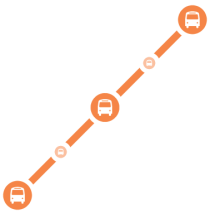
Routes are also more cost-effective when they carry roughly the same number of passengers each way, rather than, for example, carrying a full load of commuters in one direction, then running empty in the other.


### Operate in rights-of-way that minimize delay.

This could include transit-only lanes, streets with transit signal priority, or simply streets on which there are not too many conflicts with other modes.

### Minimize transfer penalties.

Transfers are sometimes necessary, even desirable from a network design perspective; however, they should be made as seamless as possible, both spatially and in terms of delay.

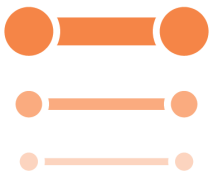


### In locating stops, balance speed and access.

Stops should be far apart to minimize delay, but close enough to provide reasonable access for those with mobility challenges. They should also be as close as reasonably possible to destinations, connecting routes and access points such as crosswalks, bike lanes, and park-and-ride lots. Customers will walk further to better transit.

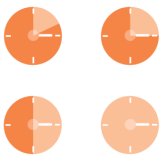
### Provide a high-quality waiting environment.

Stops should be comfortable, safe, dignified, and provide important information.



### Match service levels to demand.

While comfortable stops and stations are important, providing "walk-up" frequencies of 15 minutes or less enables people to avoid consulting a schedule and supports spontaneous trips. Very frequent should be provided where demand supports the investment.



### Make schedules easy to remember.

Ideally, routes should operate on "clockface" headways, such as every 10, 15, or 30 minutes.

The reality of transit service design is that these rules often conflict. Because resources are limited, transit operators must make difficult decisions about how, where, and when to provide service. It is not always possible to achieve all of the objectives above. It is easier, however, when the surrounding context is supportive.

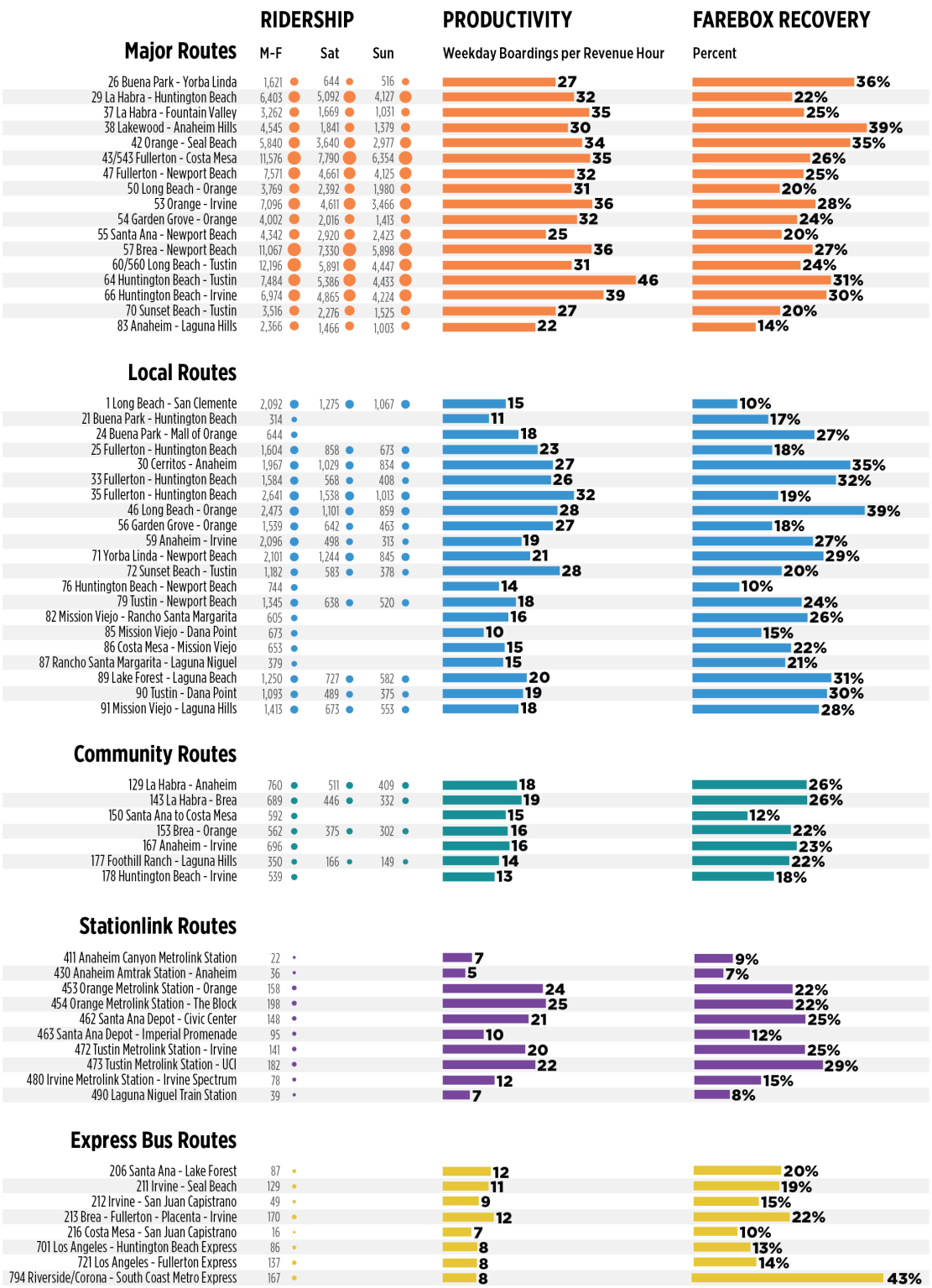
A final best practice in transit design is to define categories or types of transit service to reflect the functions of different routes and varied needs of transit riders. OCTA currently defines the several categories of fixed-route bus service, and one additional category ("Major") has been identified for purposes of analysis as part of this study[1]:

- ***Major:*** These routes operate every 15 minutes or better during peak times, with the exception of Routes 42 and 83. Major routes operate seven days a week throughout the day. Together, the Major routes form a grid on arterial streets throughout the highest transit propensity portions of the OC Bus service area, primarily in northern parts of the county. Bravo! limited-stop services are included in this category. These routes carry more than 75 percent of the system's riders.
- ***Local:*** Local routes operate on arterials within the grid created by the Major routes, but at lower frequencies. Local routes also operate in parts of Orange County with lower transit demand. Most Local routes operate seven days per week, however some operate on weekdays only. Local routes carry about 20 percent of the system ridership and are less productive than Major routes, averaging about 20 boardings per revenue hour.
- ***Community:*** Community routes provide service to connect pockets of transit demand with major destinations and offer local circulation. Routes tend to be less direct than Local routes due to service design focused on serving neighborhoods and destinations off the arterial grid. Half of Community routes operate seven days per week while half operate on weekdays only. Community routes carry less than three percent of OC Bus ridership, averaging 15 boardings per revenue hour. They have the second-highest farebox recovery of any route category (23 percent). City-operated shuttles funded by Measure M Project V in La Habra, Westminster, and Mission Viejo fall into this category.
- ***Stationlink:*** Stationlink routes are rail feeder services designed to connect Metrolink stations to nearby employment destinations. One or more Stationlink routes serves all Metrolink stations in Orange County except Buena Park, Fullerton, San Juan Capistrano, and San Clemente. These routes have relatively short alignments, with schedules tied to Metrolink arrivals and departures. They operate during weekday peak hours only, in the peak direction, from the station to destinations in the morning and the reverse in the evening. These routes carry less than one percent of OC Bus ridership and have similar productivity to Community routes, averaging 16 boardings per revenue hour. Some routes operated by the City of Irvine and Anaheim Transportation Network fall into this category as well.
- ***Express:*** Express bus service operates on weekdays only at peak times and connects riders over long distances to destinations within and outside of Orange County, often using freeways to access destinations. Express routes carry less than one percent of OC Bus ridership and average nine boardings per revenue hour, the least of any route category. Express routes have 20 percent farebox recovery.

[1] OCTA also defines "Bus Rapid Transit/Limited" routes separately; here, they are included with "Major" routes.

Figure 2-2 shows Fiscal Year 2016 performance in major categories of routes in each OCTA service category.

Figure 2-2 OCTA Bus Routes by Category



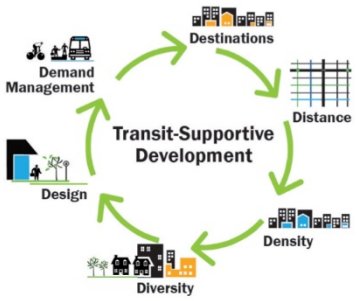
# TRANSIT-SUPPORTIVE DESIGN PRINCIPLES

As part of the OC Transit Vision, OCTA will develop a detailed guide to transit-supportive policies that cities may adopt. This section summarizes key elements of transit-supportive design, which will inform the future policy development: the "6 Ds," complete streets, multimodal access to transit, and transit-oriented development. Each of these is described in greater detail in the State of OC Transit Report.

## The "6 Ds"

Population and employment density, land use diversity, urban design, regional destinations, and distance to quality transit are key factors influencing transit demand. Demand management (pricing, incentives, and other information-based programs) is also an important factor. Referred to as the "6Ds," these factors influence both transit demand and transit success in Orange County. Figure 2-3 provides additional information about each.

Figure 2-3 "6 Ds" of Transit Demand

| 6D Factor | Principle | |
|---|---|---|
| **Destinations** | Align major destinations along reasonably direct corridors served by frequent transit |  |
| **Distance** | Provide an interconnected system of pedestrian routes so that people can conveniently access transit | |
| **Density** | Concentrate higher densities close to frequent transit stops and stations and multimodal nodes | |
| **Diversity** | Provide a rich mix of pedestrian-friendly uses to support street-level activity throughout the day and night | |
| **Design** | Design high-quality pedestrian friendly spaces that connect people seamlessly to transit | |
| **Demand Management** | Provide attractive alternatives to driving by managing parking, providing incentives not to drive, and/or providing programs to help educate people about driving alternatives | |

## Complete Streets

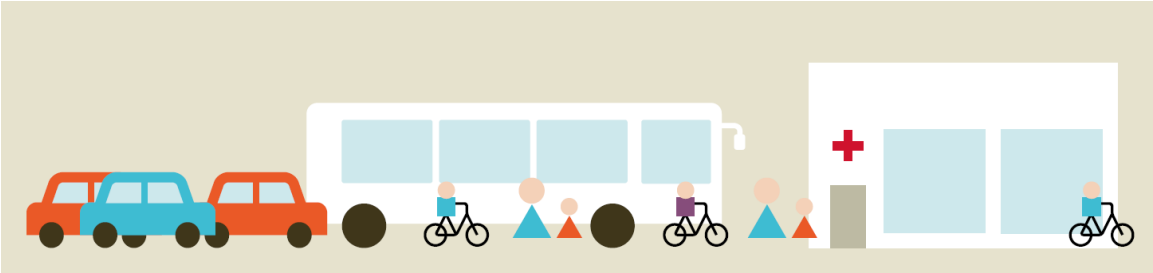
Orange County has taken important steps to begin implementing complete streets throughout the county, including publication of Orange County Council of Government's (OCCOG) Complete Streets Initiative Design Handbook and Funding Toolkit. Complete streets are designed and operated to safely accommodate people of all ages and abilities whether they are walking, bicycling, or riding public transit; driving or riding in motor vehicles, including taxis and other shared mobility services; or operating freight or delivery vehicles.

Complete streets support transit access and operations, as every transit trip starts with a trip by some other mode. Most transit passengers are pedestrians first, others access transit by bike, and others park a car or are dropped off at a transit stop. Complete streets provide safe walking and bicycling facilities and support the safe and efficient operation of transit, including high quality bus stops and passenger facilities, transit priority treatments, and other design elements that prioritize moving people.

Although the addition or improvement of sidewalks and bikeways are often the biggest physical changes necessary to build a complete street, true complete streets projects also enhance transit service. Major transit benefits of complete streets can include the following:

- Improve transit speed and on-time performance by reducing the amount of time buses are stuck in traffic
- Improve access and safety for riders by enhancing first-/last-mile connections to transit services
- Provide space along the street for comfortable transit stops or stations with amenities
- Encourage mixed-use, transit-oriented development that can increase the demand for transit
- Promote economic development by making it easy to cross the street, walk to shops, and bicycle to work
- Improve safety for all people by reducing motor vehicle speeds, intersection crossing distances, and potential conflicts and collisions

**Figure 2-4 OCCOG Complete Streets Initiative Design Handbook**



The California Complete Streets Act (AB 1358) of 2008 requires the circulation element of jurisdictions' General Plans to "plan for a balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context."

Image Source: OCCOG Complete Streets Initiative Design Handbook

## Multimodal Access to Transit

Every transit trip starts and ends with a trip by another mode. Providing safe, convenient, and comfortable access to transit stops and stations is fundamental to serving existing transit customers and attracting new riders. Seamless and integrated pedestrian, bicycle, drop-off, and parking infrastructure supports all forms of multimodal transportation, including walking, biking, car sharing, carpooling, and park-and-ride facilities.

Current conditions in parts of Orange County make access to transit a challenge for many people. Wide roadways with no pedestrian crossings, limited sidewalks, and a lack of bicycle infrastructure can make it difficult for people to reach transit. By working with OCTA to improve connections and access to transit for people of all ages and abilities traveling by all modes of transportation, cities can help increase transit ridership and make transit a more attractive choice for more people.

Figure 2-5 Arterial Street in Orange County


Image Source: Nelson\Nygaard

## Transit-Oriented Development

Transit demand relates strongly to development patterns and, in particular, development density. In areas with denser development and more people and employees, transit can be provided in close proximity to many people. Combined with a good pedestrian environment, transit can become very convenient and well used. Recent state transportation funding programs and changes to state law encourage this type of development.

Transit-oriented development (TOD) is land development located near transit stations or stops that includes a mixture of housing, office, retail, and sometimes other amenities integrated into a walkable neighborhood. TOD leverages the access transit provides to regional destinations and focuses development in close proximity to those places.

The most effective TOD is located less than a half-mile (roughly 10 minute) walk from a transit stop or station. The characteristics of TOD are represented in the graphic in Figure 2-6; putting these principles into practice can help to create transit-supportive communities that integrate transportation and development. TOD features vibrant streetscapes, pedestrian-oriented buildings, and land use characteristics that make it convenient and safe to walk, bike, and use public transit.

Figure 2-6 Eight Principles for Transit-Oriented Development


Image Source: Institute for Transportation & Development Policy (ITDP)

# 3 SERVICE ALLOCATION GUIDELINES

The draft OCTA Transit Investment Framework consists of two categories: service allocation guidelines and capital investment guidelines. This section describes proposed service allocation guidelines.

Different service types and delivery models are needed to enhance mobility in Orange County. The guidelines described below should be used to help make decisions about where service types should be implemented or operated.

The service allocation guidelines for fixed-route bus operations are based on numerical targets and other factors associated with seven corridor characteristics, defined as extending one-half mile to either side of the route alignment (and including all units of analysis, such as census tracts, that are at least partly within that radius). The characteristics fall into three categories:

- **Land Use Factors**
  - Residential Density
  - Employment/College and University Student Density (combined)
  - Other Trip Generators (hospitals and medical centers, retail centers, and other major destinations)
  - Traffic Volumes
- **Equity Factors**
  - Density of Low-Income Residents
- **Access Factors**
  - Transit Connectivity (stations, transit centers and park-and-rides, and other routes)
  - Intersection Density

These seven characteristics were selected based on a peer review and assessment of their role in demand for transit service in Orange County. Notably, four of the six factors previously found by OCTA to be primary indicators of individual propensity toward transit use—per capita income, traffic volumes, intersection density, and employment density—are included. (The other factors from that analysis are alternative measures of income and employment: low-income households and total employment.)

# CORRIDOR CHARACTERISTICS

Maps from the State of OC Transit Report that illustrate existing countywide patterns for each of the proposed corridor characteristics are shown in Figure 3-1 through Figure 3-11 on the following pages.

Figure 3-1 Population Density

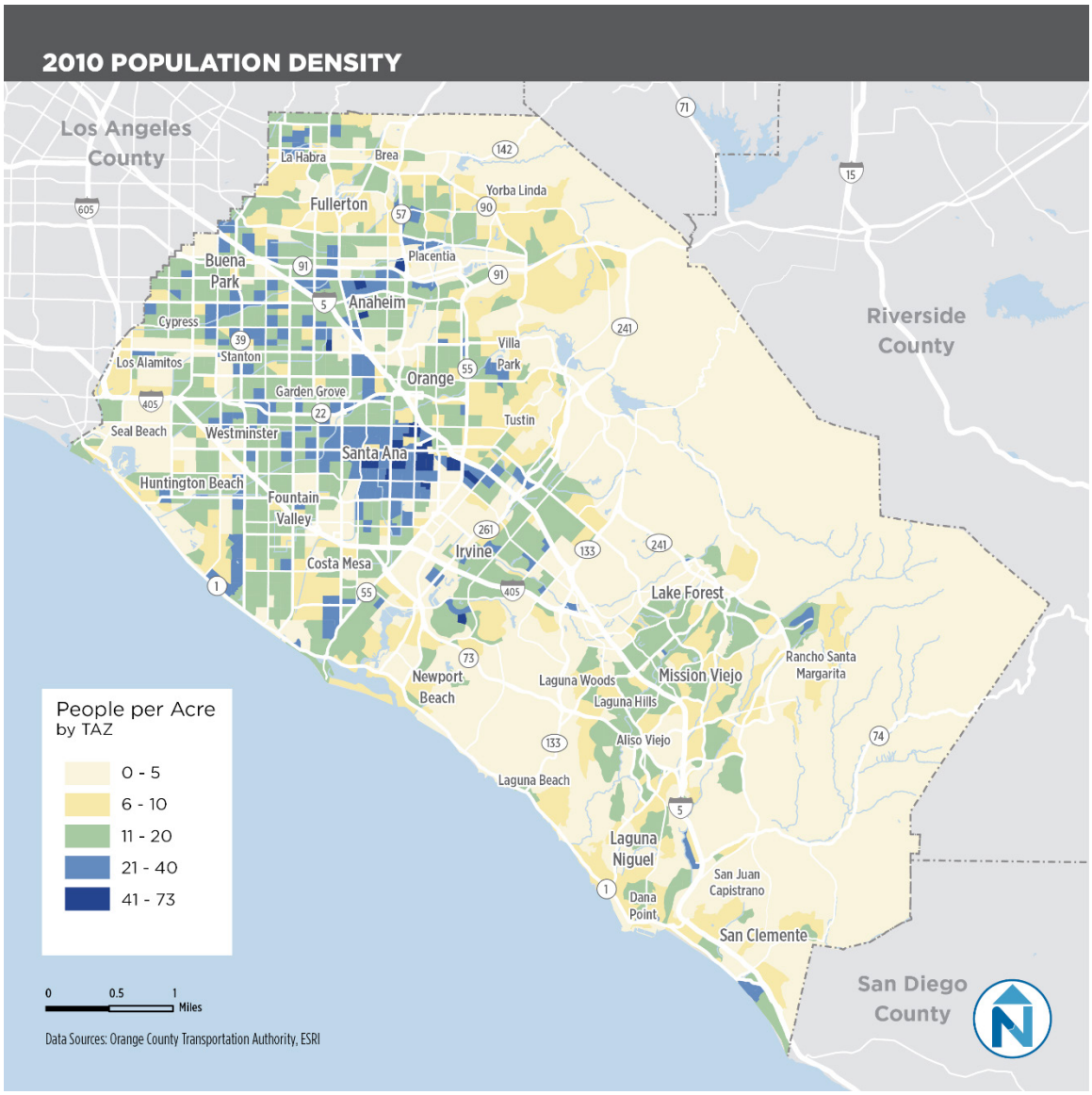


Figure 3-2 Employment Density

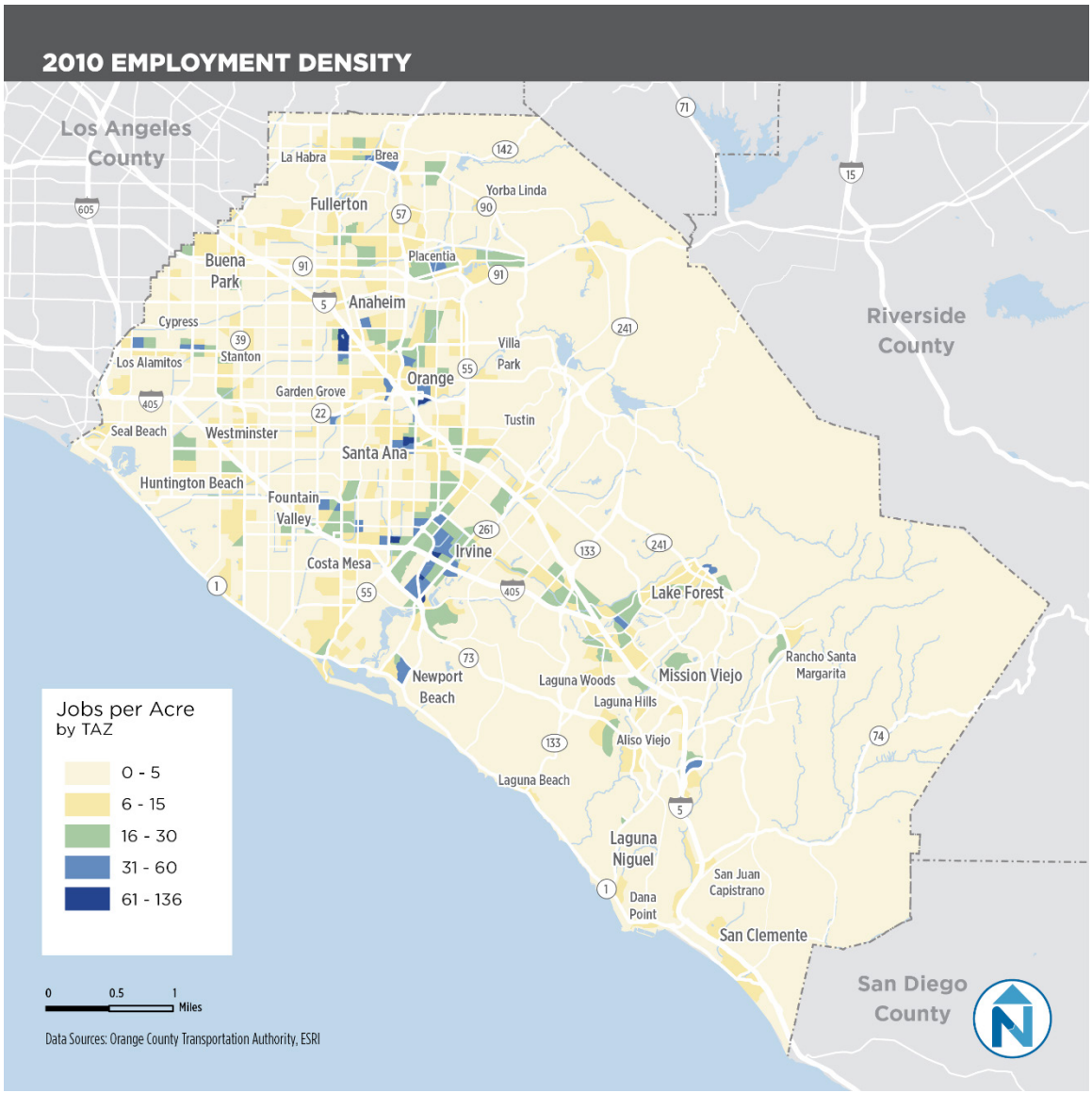


Figure 3-3 College and University Enrollment

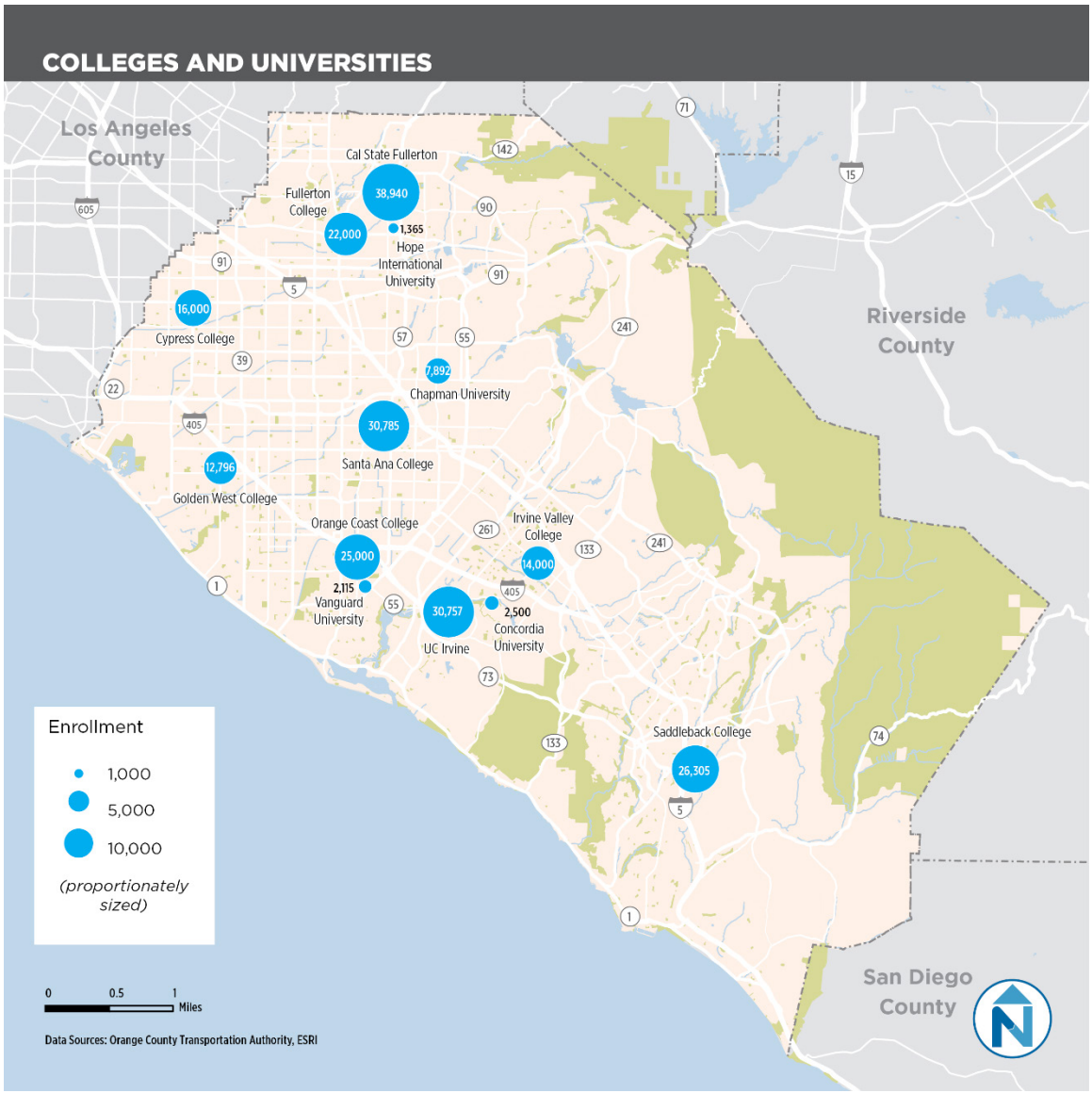


Figure 3-4 Hospitals and Medical Centers

Figure 3-5 Retail Centers

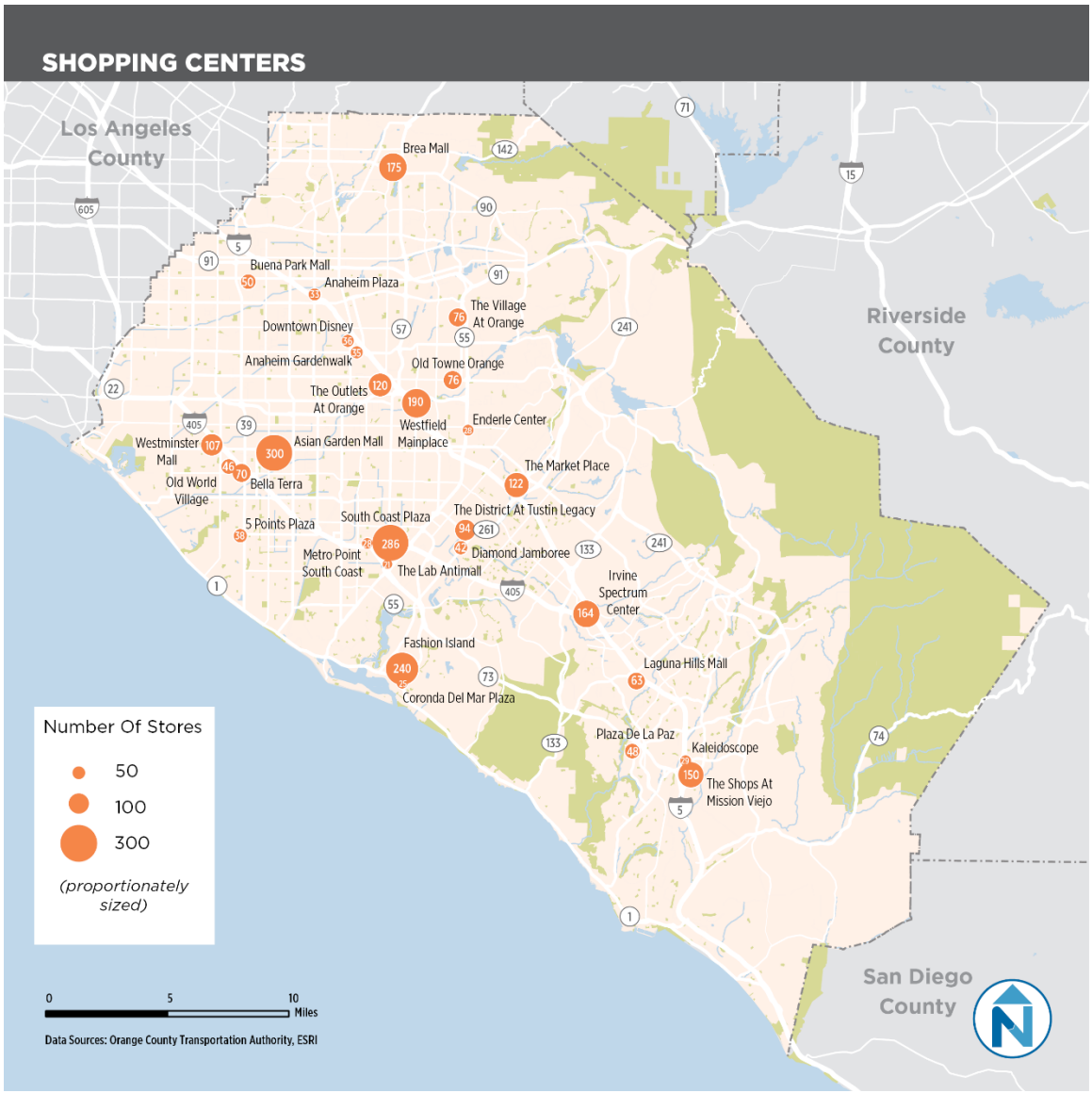


Figure 3-6 Other Major Attractors

Figure 3-7 Traffic Volumes

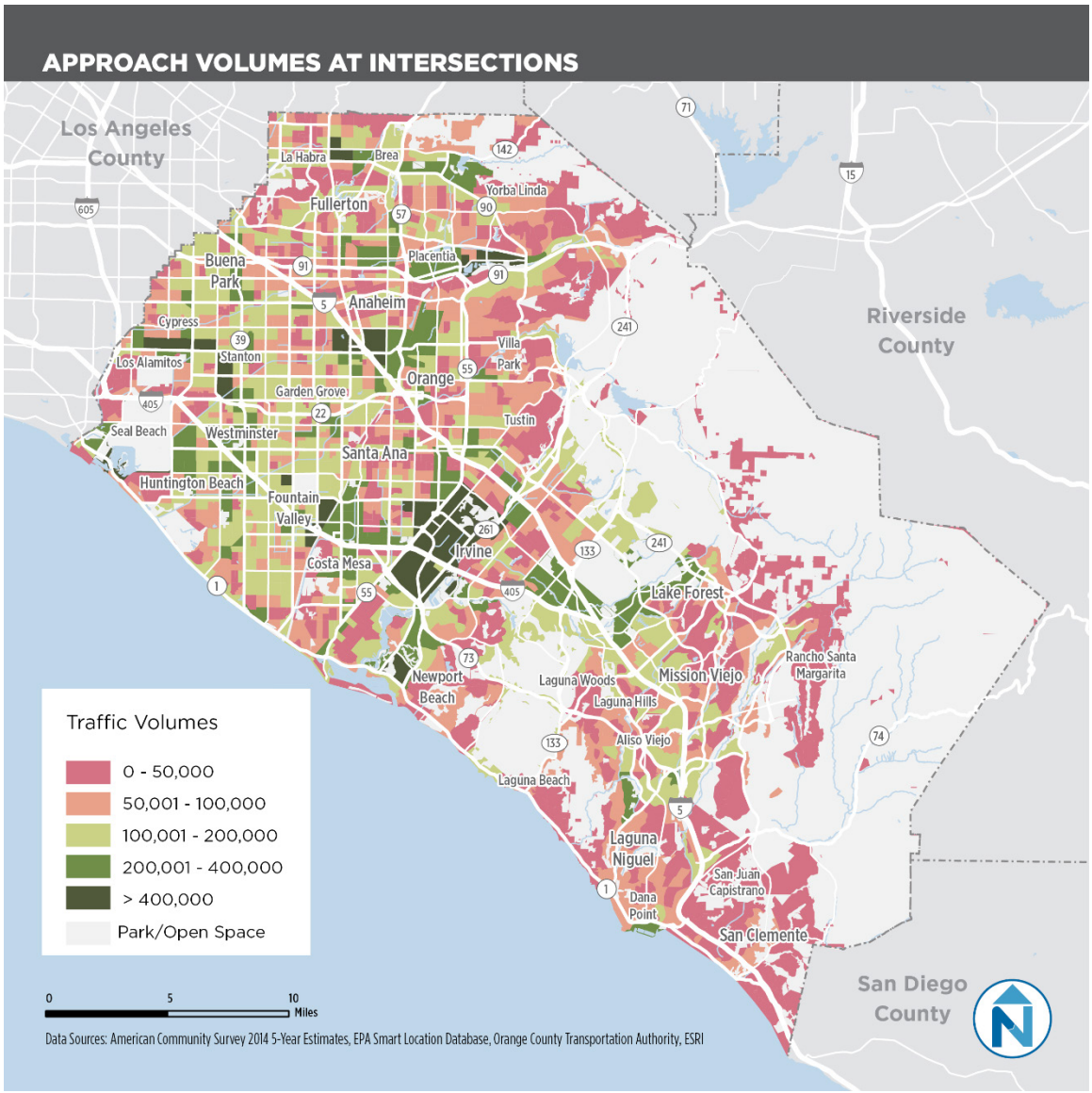


Figure 3-8 Income Less Than 150% of the Poverty Level

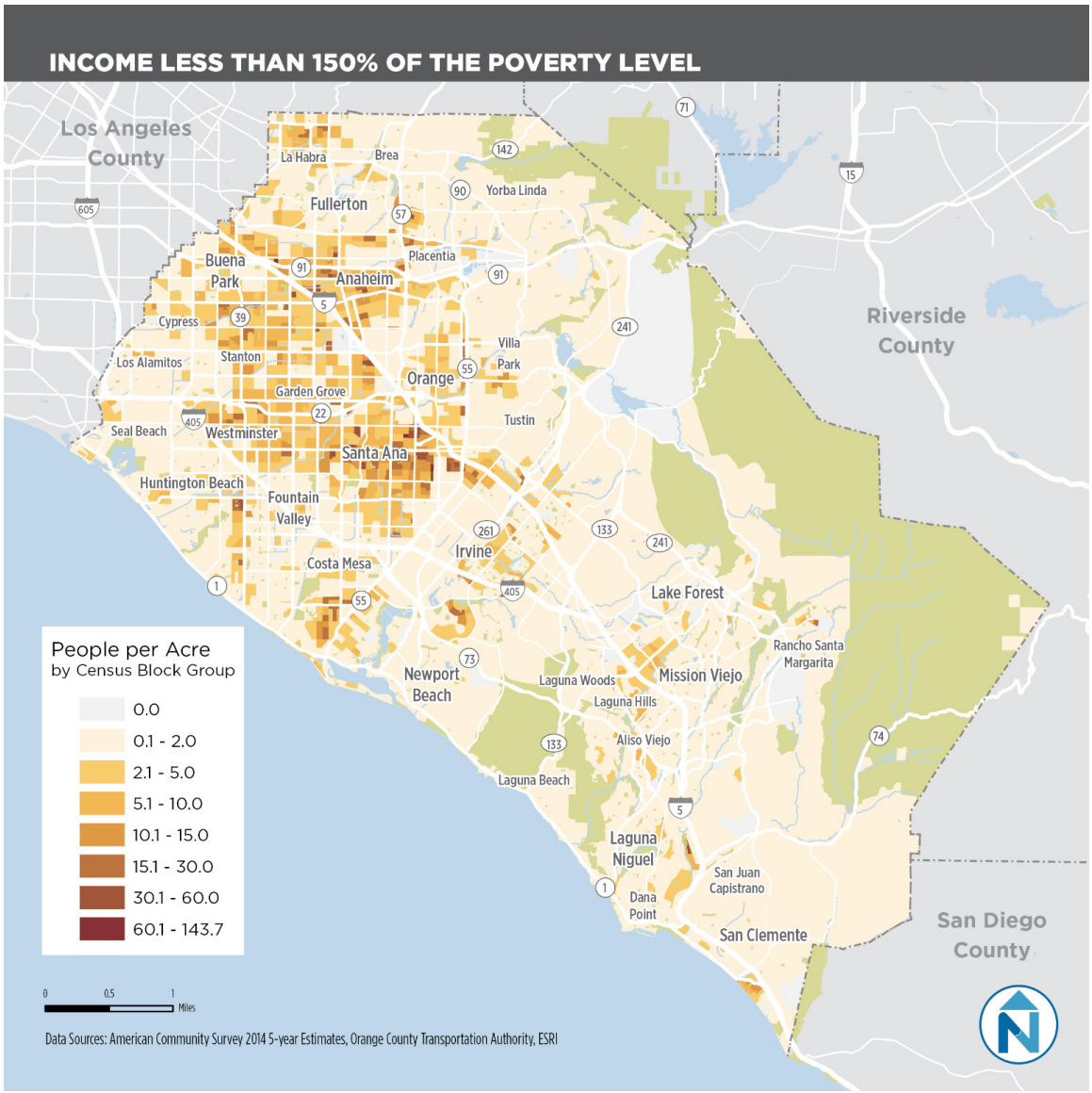


Figure 3-9 Stations, Transit Centers, and Park-and-Rides

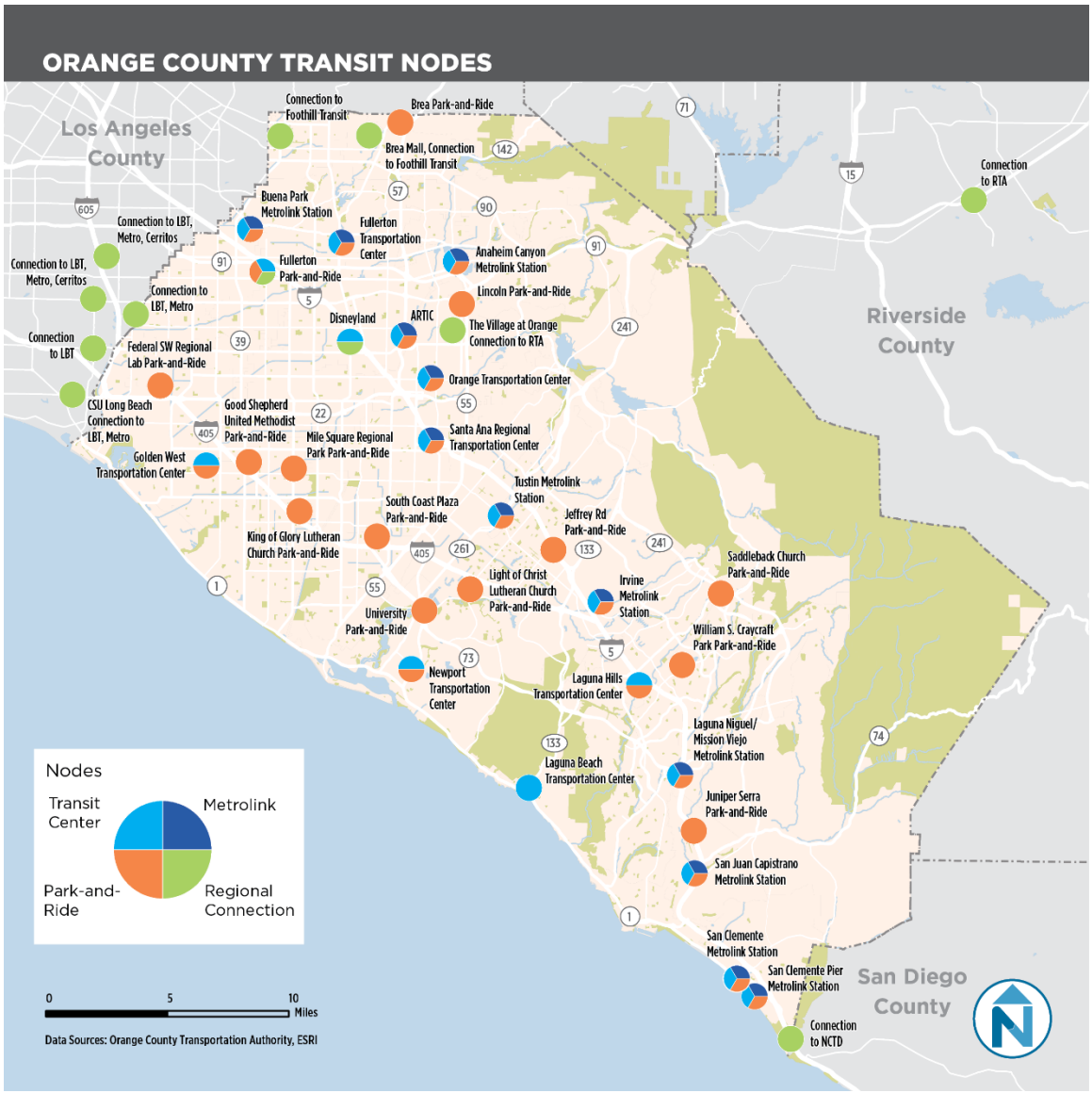


Figure 3-10 Transit Routes

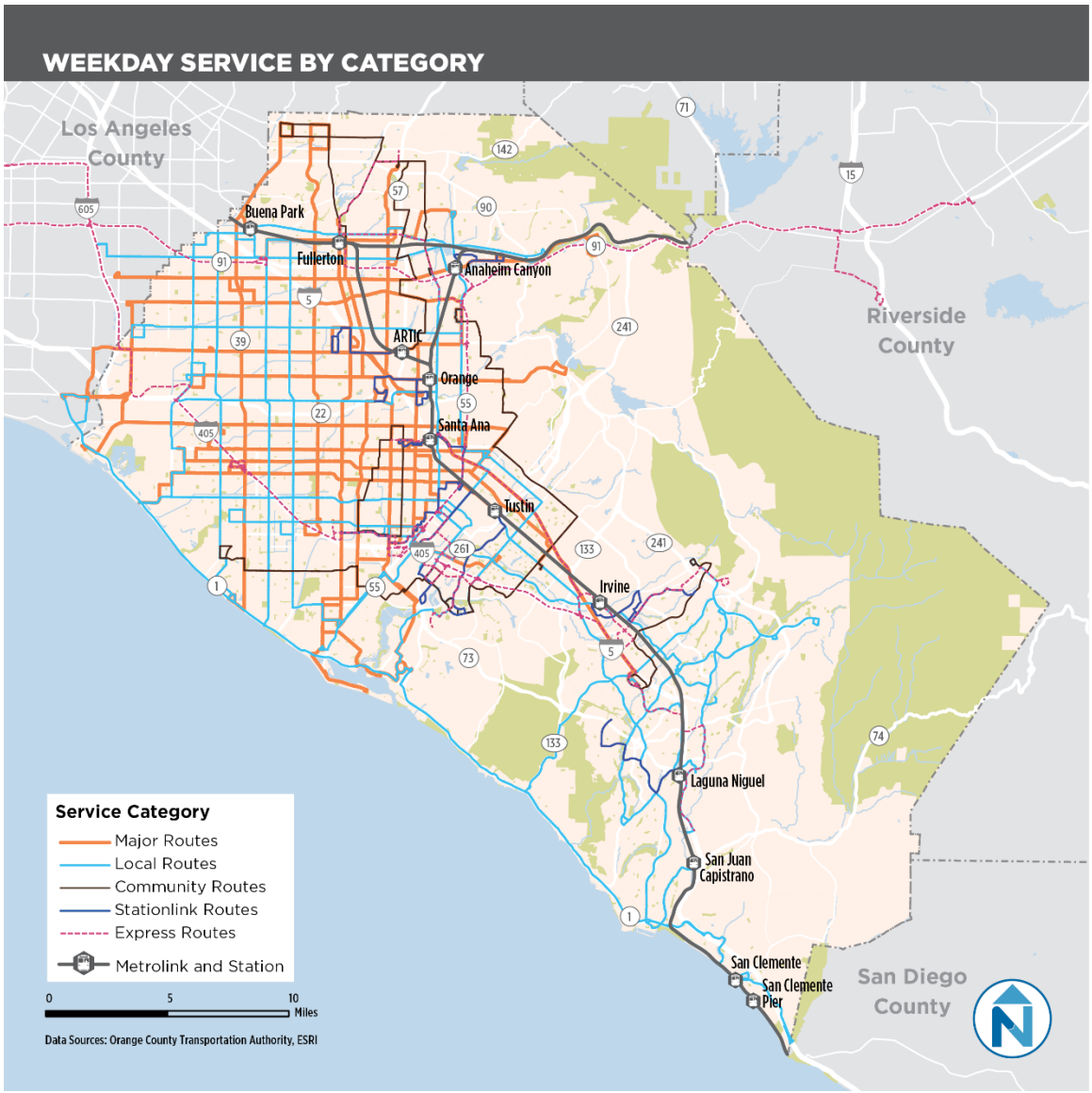
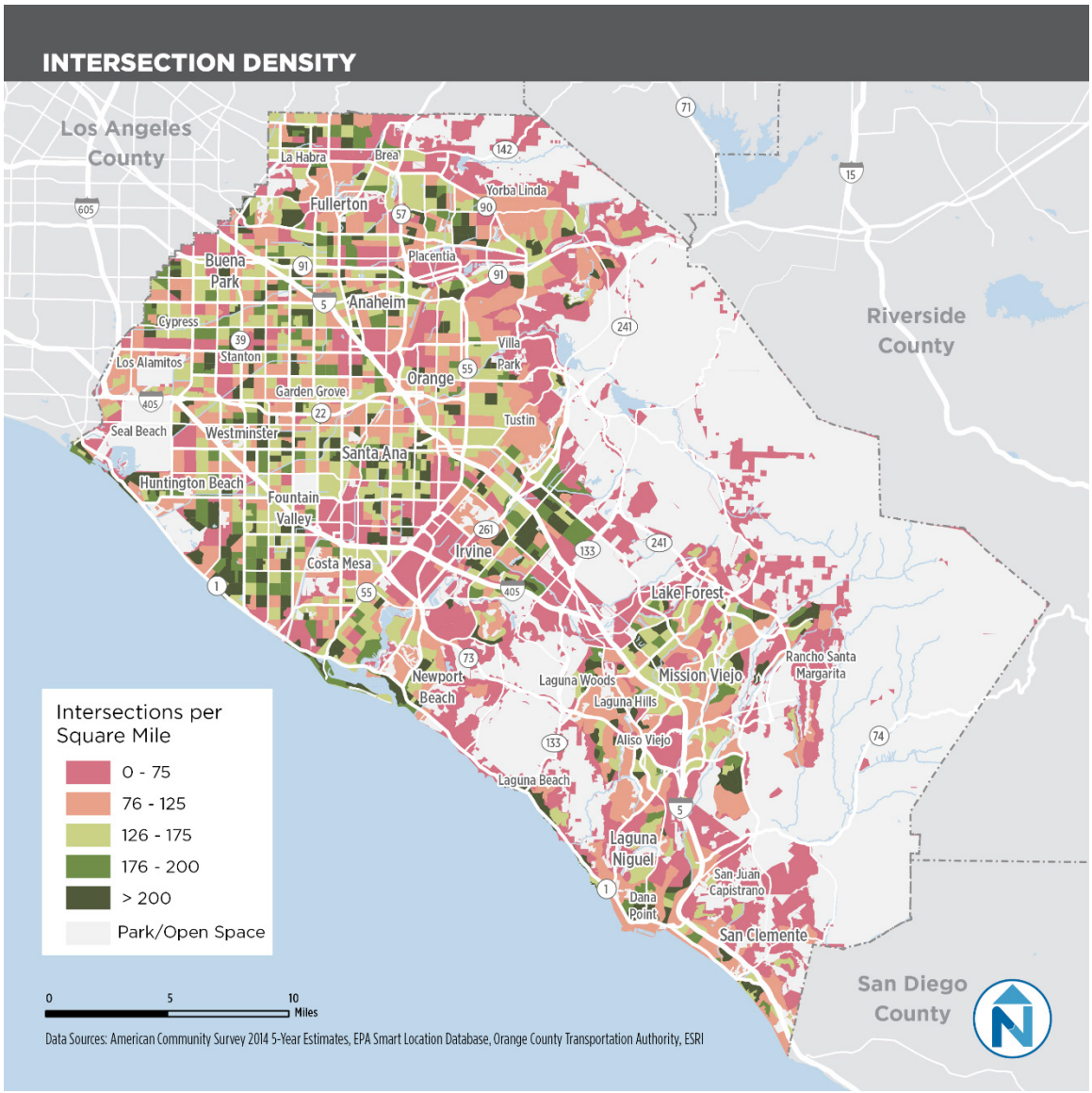


Figure 3-11 Intersection Density



# SERVICE ALLOCATION GUIDELINES

Figure 3-12 through Figure 3-14 below propose fixed-route bus service allocation guidelines—in terms of service category, peak and base (midday weekday) frequencies, and span—based on the corridor characteristics.

Among existing OCTA service types, this guideline focuses on the Major Corridors, Local (Non-Major), and Community categories. Stationlink and Express routes provide specialized niche services during peak periods only, and separate guidelines for these services follow Figure 3-12.

The proposed framework also includes "other" and "no transit" categories in which alternatives to traditional OCTA fixed-route bus service, such as locally-administered Program V shuttles or general-public demand-response services, may be appropriate or where publicly funded transit service may not be appropriate due to very low demand. (Demand-response services will be further developed and defined through a subsequent task within the OC Transit Vision.)

These proposed allocation guidelines are not absolute requirements. Few corridors will have characteristics consistent with just one category, and OCTA must make service allocation decisions on the basis of other factors, including productivity, equity, and funding.

**Figure 3-12 Proposed Service Allocation Guidelines**

| Category | Service Characteristics | Corridor Characteristics |
|---|---|---|
| Major | ▪ *Frequency*: 15 mins or greater peak, 30 mins or greater base<br>▪ *Span*: 5:00am-12:00am M-F, 6am-12am weekend | ▪ *Residential Density:* 10 or more persons per acre<br>▪ *Employment/Enrollment Density:* 8 or more jobs/college or university students per acre<br>▪ *Other Trip Generators:* Serves 5 or more hospitals or medical centers with 50 or more beds, retail centers with 50 or more stores, or other major destinations<br>▪ *Traffic Volumes:* Average combined ADT at all major intersections of more than 100,000 per corridor mile<br>▪ *Density of Low-Income Residents (Household Income Below 150% of Poverty Level):* 2 or more per acre<br>▪ *Transit Connectivity:* Connects to 2 or more Metrolink stations, transit centers, or park-and-rides, and to 5 or more Major routes<br>▪ *Intersection Density:* 100 or more per square mile |

| Category | Service Characteristics | Corridor Characteristics |
|---|---|---|
| Local | ▪ *Frequency*: 30 mins or greater peak and base<br>▪ *Span*: 5:30am-8:30pm M-F, 7am-7pm weekend | ▪ *Residential Density:* 5-10 persons per acre<br>▪ *Employment/Enrollment Density:* 4-8 jobs/college or university students per acre<br>▪ *Other Trip Generators:* Serves 2-5 hospitals or medical centers with 50 or more beds, retail centers with 50 or more stores, or other major destinations<br>▪ *Traffic Volumes:* Average combined ADT at all major intersections of less than 100,000 per corridor mile<br>▪ *Density of Low-Income Residents (Household Income Below 150% of Poverty Level):* 1-2 per acre<br>▪ *Transit Connectivity:* Connects to 1 or fewer Metrolink stations, transit centers, or park-and-rides, and 1-4 Major routes<br>▪ *Intersection Density:* Any |
| Community | ▪ *Frequency*: 60 mins or greater peak and base<br>▪ *Span*: 5:30am-8:30pm M-F, 7am-7pm weekend | ▪ *Residential Density:* Fewer than 10 persons per acre<br>▪ *Employment/Enrollment Density*: Fewer than 8 jobs/college or university students per acre<br>▪ *Other Trip Generators:* Serves 1 or more hospitals or medical centers with 50 or more beds, retail centers with 50 or more stores, or other major destinations<br>▪ *Traffic Volumes:* Average combined ADT at all major intersections of less than 100,000 per corridor mile<br>▪ *Density of Low-Income Residents (Household Income Below 150% of Poverty Level):* Any<br>▪ *Transit Connectivity:* Connects to 1 or fewer Metrolink stations, transit centers, or park-and-rides, and 1-4 Major routes<br>▪ *Intersection Density*: Any |
| Other | ▪ *Frequency and Span*: n/a (explore alternatives to OCTA fixed-route bus service) | ▪ *Residential Density:* Fewer than 5 persons per acre<br>▪ *Employment/Enrollment Density:* Fewer than 4 jobs/college or university students per acre<br>▪ *Other Trip Generators:* Any<br>▪ *Traffic Volumes:* Any<br>▪ *Density of Low-Income Residents (Household Income Below 150% of Poverty Level):* Any<br>▪ *Transit Connectivity*: Any<br>▪ *Intersection Density:* Fewer than 100 per square mile |

| Category | Service Characteristics | Corridor Characteristics |
|---|---|---|
| No Transit | ▪ *Frequency and Span*: n/a (publicly funded service should not be provided) | ▪ *Residential Density:* Fewer than 3 persons per acre<br>▪ *Employment/Enrollment Density:* Fewer than 2 jobs/college or university students per acre<br>▪ *Other Trip Generators:* Does not connect to hospitals or medical centers with 50 or more beds, retail centers with 50 or more stores, or other major destinations<br>▪ *Traffic Volumes:* Any<br>▪ *Density of Low-Income Residents (Household Income Below 150% of Poverty Level):* Fewer than 2 per acre<br>▪ *Transit Connectivity:* Does not connect to Metrolink stations, transit centers, or park-and-rides, or to Major routes<br>▪ *Intersection Density:* Fewer than 100 per square mile |

Following are guidelines for Stationlink and Express services.

- ***Stationlink:*** Stationlink routes provide connections solely between Metrolink stations and nearby destinations such as job centers. They should operate only during peak periods, in the peak direction (from the station in the morning, and to the station in the afternoon).
- ***Express:*** Express routes serve long trips during peak periods, primarily commute trips to job centers. As they mainly serve "white-collar" commuters who own automobiles, access to these routes is primarily by auto; thus, Express routes rely on proximity to park-and-ride lots as a primary criterion for service.

Figure 3-13 Proposed Service Allocation Guidelines: Demographics and Connections

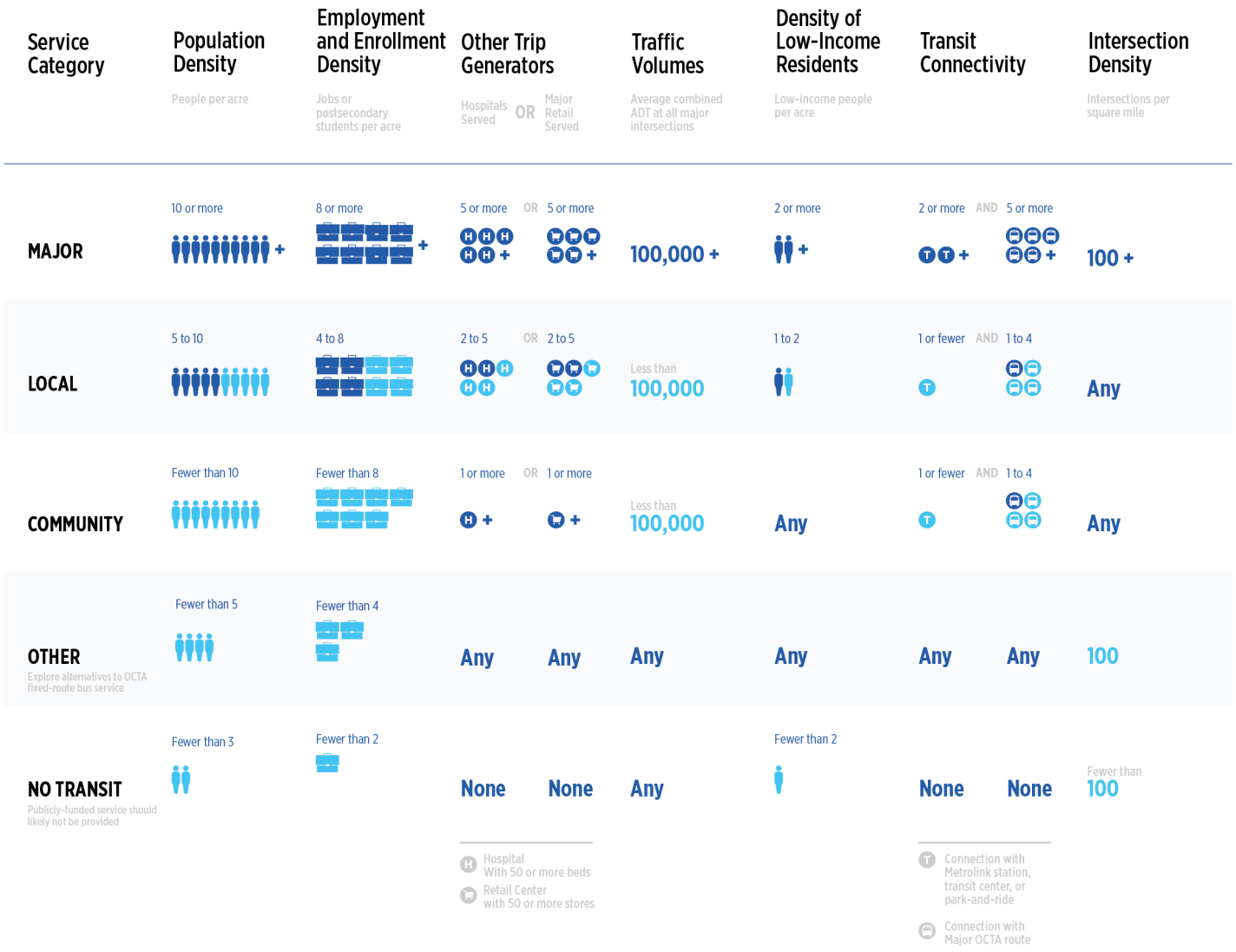


Figure 3-14 Proposed Service Allocation Guidelines: Level of Service

# 4 CAPITAL INVESTMENT GUIDELINES

This section describes proposed capital investment guidelines in two categories: investments in infrastructure supportive of existing bus operations, and investments in new fixed-guideway lines and stations (e.g., streetcars or bus rapid transit). These standards build on the service allocation guidelines to identify both existing corridors and potential future corridors where capital investments—in addition to potential investments in service—may be justified.

In addition to these investment guidelines, the OC Transit Vision will identify evaluation criteria for investments in transit opportunity corridors. While separate from this Transit Investment Framework, the evaluation criteria are a critical next step in the planning process and proposed measures for OC Transit Vision corridor evaluation are available in Appendix A.

## BUS INVESTMENT GUIDELINES

Capital investments in existing bus service fall into three categories: 1) vehicles; 2) transit-priority improvements to the right-of-way; and 3) major improvements to stops and stations, including operational improvements as well as enhanced passenger amenities. Some of these can be implemented by OCTA; others, such as transit-priority and operational improvements, are the responsibility of Orange County cities or Caltrans and would require partnerships with those jurisdictions/agencies.

### Vehicles

**New vehicles** may improve upon the current fleet in terms of capacity, emissions, reliability, maneuverability, comfort, and brand identity, among other factors.

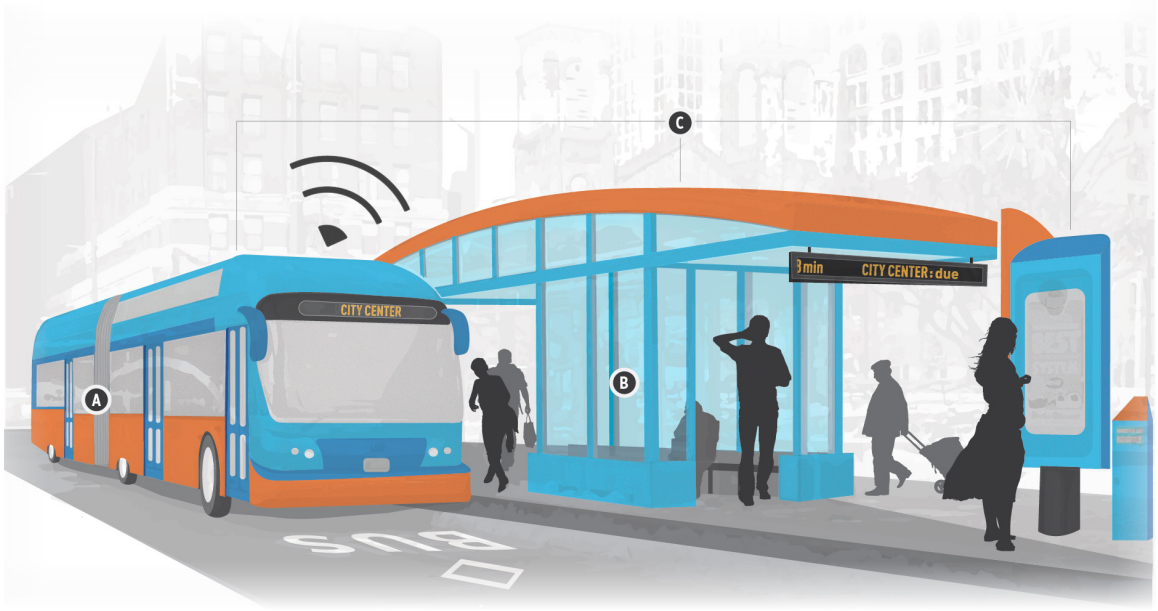
The proposed guidelines for OCTA include (items A through C correspond to labels in Figure 4-1 on the next page):

A. Vehicle capacity, and the related issue of overcrowding

B. Comfort, both aboard vehicles and while waiting at stops

C. Branding of vehicles, to enhance awareness of specialized and premium services such as bus rapid transit

Figure 4-1 OCTA Vehicle and Waiting Enhancements

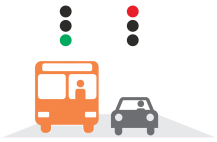



## Transit-Priority Improvements

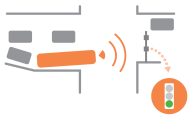
**Transit-priority improvements to the right-of-way** include:

- Business Access and Transit (BAT) lanes, which prohibit general-purpose traffic through travel but permit right turns and access to businesses and curbside parking; may be 24-hour lanes or peak-only lanes that revert to general-purpose use out of peak periods
- "Queue jumps" or short bus lanes at intersections (often right-turn lanes) allow buses to proceed in advance of general-purpose traffic using a transit-only advance signal phase
- Transit-priority signals
- Changes to signal timing to benefit transit operations

Business Access and Transit (BAT) Lanes



Queue Jumps



Transit-Priority Signals

Signal Timing

## Stop and Station Improvements

**Major improvements to stops and stations** include:

- Operational improvements:
  - "Bulb-out" or curb extension stops allowing buses to stop in the travel lane, eliminating the need to merge back into traffic
  - Relocation of stops to improve operations, for example from the near to the far side of an intersection
  - Removal of parking spaces at or near stops to allow buses to access the curb or create more space to maneuver into and out of stops
  - Off-vehicle fare collection and all-door boarding


Bulb-Out Stop | Stop Relocation | Curb Management | Streamlined Fare and Boarding

- Enhanced passenger amenities such as:
  - Shelters at additional stops, and additional and/or larger shelters at the busiest stops
  - Seating at additional stops, and more seating at the busiest stops
  - Trash cans at additional stops
  - Real-time arrival information displays at stops
  - Maps, schedules, and other information at additional stops


Shelters | Seating | Waste Bins | Real-Time Information | Maps and Schedules

The proposed guidelines for capital investment in existing bus operations are linked to the service types described in the Service Allocation Guidelines. For each service type, a "high," "medium," or "low" levels of investment—defined in terms of service type—is recommended as shown in Figure 4-2.

**Figure 4-2 Proposed Bus Capital Investment Guidelines**

| Service Type | Investment Level | Investment Types |
|---|---|---|
| Major | High | ▪ Higher-capacity vehicles<br>▪ Vehicle branding (Bravo! routes only)<br>▪ All types of transit-priority treatments, including transit lanes<br>▪ Operational improvements to and enhanced amenities at stops<br>▪ Off-vehicle fare collection and all-door boarding |
| Local | Medium | ▪ Signal timing improvements<br>▪ Enhanced passenger amenities at busier stops |
| Community | Low | ▪ Standard bus stop |
| Express | Medium | ▪ Comfortable vehicles designed for longer trips<br>▪ High-occupancy vehicle facilities on freeways and direct access ramps<br>▪ Enhanced passenger amenities at park-and-ride lots |
| Stationlink | Low | ▪ Standard bus stop |
| Other | Low | ▪ Vehicle branding (shuttles only)<br>▪ Technology integration |

## HIGH-CAPACITY TRANSIT INVESTMENT GUIDELINES

Potential investments in high-capacity modes of transit—including different types of rail as well as bus rapid transit—will be evaluated in the next phase of the OC Transit Vision. This section of the Transit Investment Framework will be updated at the conclusion of that process, based on findings from the evaluation.

In developing guidelines for investments in high-capacity transit, it is important to first understand the following:

- Rail and (to a lesser extent) bus rapid transit infrastructure requires a sizeable capital investment. High ridership is required to justify these investments, and corridors must have transit-supportive characteristics.
- Research into population and employment density thresholds for investment in high-capacity transit modes has resulted in a range of findings. However, thresholds scale with levels of investment (i.e., capital cost). This means that fully grade-separated rail modes (particularly subways) require higher thresholds than at-grade light rail or streetcars, which in turn require higher thresholds than bus rapid transit.
- High-capacity transit, also, as its name suggests, uses larger vehicles, and investment in high-capacity transit may be called for if ridership in a corridor is so high that it cannot comfortably be accommodated using standard buses, even at relatively frequent headways.
- One of the primary advantages of high-capacity transit is that a single operator can provide service to more passengers, reducing operating costs. While a 40-foot bus can only carry around 50 passengers[2], a 60-foot bus can carry 80 or more, and a 66-foot streetcar may hold more than 120 people. Light rail trains consisting of multiple railcars can carry hundreds of passengers at a time. Since labor costs are the single largest factor in transit operating costs, this can greatly reduce overall operating costs[3].
- Capital costs for U.S. bus rapid transit projects have varied widely, but transit-priority investments in bus routes like those described above are essential elements of BRT projects. Any Major corridor should be considered a candidate for some form of bus rapid transit.
- Urban rail projects like the OC Streetcar typically serve both major job centers (e.g., Downtown Santa Ana) as well as relatively dense residential areas, such as neighborhoods in the corridor to the west of downtown.
- Commuter rail lines such as Metrolink may serve a variety of contexts, but typically have major employment centers such as Downtown Los Angeles as a terminus.

Along with the above, analysis of the corridor characteristics identified in the service investment guidelines suggests that, at least for the time being, it would be difficult to make a business case for the highest levels of investment in high-capacity transit (i.e., subways) in Orange County. However, the county has characteristics comparable with peer regions that operate some form of urban rail, including light rail and streetcars, as well as bus rapid transit with exclusive lanes. In Southern California, the Los Angeles Metro Rail system includes light rail and BRT lines in

[2] This can vary depending on seating configuration and definitions of "standing room." OCTA defines a "full" 40-foot bus as carrying between 46 and 49 passengers.

[3] Higher-capacity vehicles may be more expensive to operate in other ways, such as required maintenance of rail tracks, which may offset some of the savings from improving the operator-to-passenger ratio.

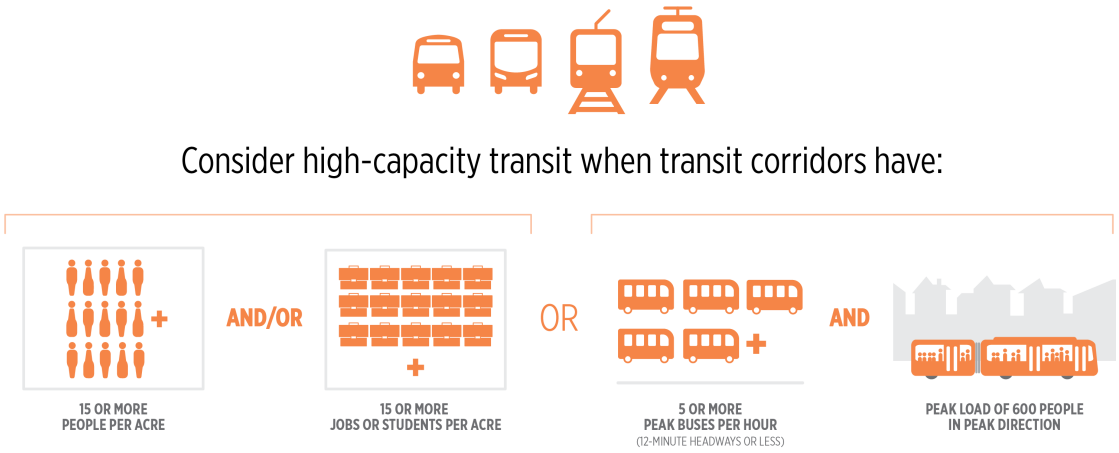
moderate-density areas such as the San Gabriel Valley (the Metro Gold Line) and San Fernando Valley (the Metro Orange Line BRT), while the San Diego Trolley system primarily serves moderately dense suburban areas. Each of these has proven popular, and light rail systems now exist in nearly every large metropolitan area in the U.S. Southwest, including Phoenix, Salt Lake City, and Denver.

In Orange County today, the busiest OC bus routes feature both high loads and, in some cases, on-time performance that could be improved by investments in high-capacity transit, including transit-priority elements. Under current OCTA standards, average peak period loads should not be greater than 130 percent of seated capacity—or 83 passengers on a 60-foot bus—and 85 percent of departures from scheduled timepoints should be no more than five minutes later than scheduled. While improving frequencies can add capacity, this can be expensive. Alternately, larger vehicles can be used to accommodate more passengers at roughly the same cost, and improving the speed of service can allow the same number of vehicles to operate more frequently. Investments in high-capacity transit, then, may pay off over the long term as service is provided more cost-effectively.

The OC Transit Vision will help to answer the question of where light rail, streetcar, BRT, or other high-capacity transit lines might make sense in Orange County. Although additional analysis will soon be underway as part of the project's corridor evaluation task, initial assessment suggests the following thresholds to be appropriate for consideration of high-capacity transit capital investments (Figure 4-3):

- Corridors with population densities greater than 15 persons per acre (9,600 residents per square mile) and/or employment densities greater than 15 employees or students per acre (9,600 jobs/students per square mile)
- Corridors in which existing service has peak load greater than 600 people in peak direction and peak headways of 12 minutes or less

Figure 4-3 Thresholds for Consideration of High-Capacity Transit

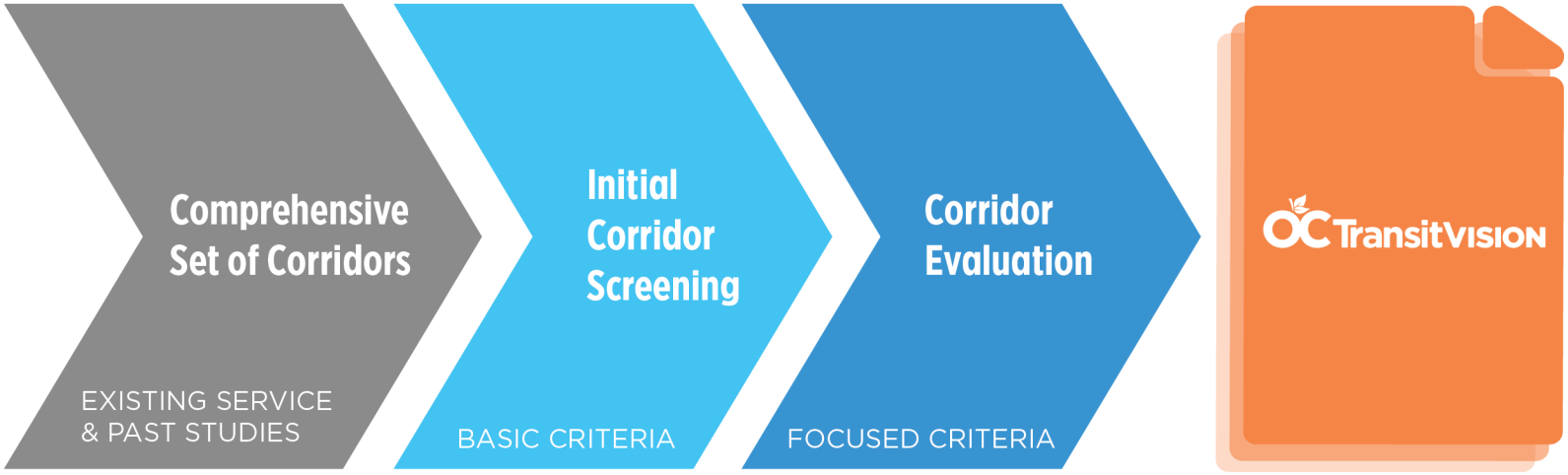



A number of Major corridors in the north-central core of Orange County appear to be at or near these thresholds. Many of the Major corridors feature other major trip generators identified in the service investment guidelines, including large retail centers, hospitals, and other destinations. The corridor screening and evaluation process described in Appendix A will provide the additional information required to determine which existing transit routes or new corridors may be appropriate for capital investments.

# Appendix A CORRIDOR EVALUATION PROCESS/CRITERIA

As part of the OC Transit Vision, the project team will evaluate a range of potential transit corridors to direct future transit investments, including investments in high-capacity transit, or transit service changes to align with the plan's goals. Figure A-1 illustrates the proposed evaluation process.

Figure A-1 Corridor Evaluation Process




The initial corridor screening will analyze a comprehensive set of existing and potential transit corridors within Orange County. These corridors will be identified from sources including existing Major routes, past or planned studies by OCTA and its partner jurisdictions, and an initial assessment of the service allocation characteristics identified in Chapter 3. The initial corridor screening will evaluate this set of corridors using 19 basic transit service, demographic, and urban form criteria (see Figure A-2).

Based on the initial screening results, a subset of corridors will undergo more detailed analysis in a second corridor evaluation phase. This phase will use additional focused criteria including many related to the expected outcomes of corridor implementation (e.g., new ridership, travel speed, productivity). Results of this analysis will inform final plan recommendations and guide implementation priorities.

Figure A-2 Corridor Screening and Evaluation Criteria

| Category | Measures | Screening Methodology | Evaluation Methodology |
|---|---|---|---|
|  Speed & Reliability | % of Route w/ Transit-Only ROW | -- | Calculation based on conceptual design |
| | % of Route w/ Grade Separation | -- | Calculation based on conceptual design |
| | Peak and Base Frequency | -- | From conceptual service plan |
| | Average Speed | -- | Input from modeling (travel time) |
|  Ridership/Mode Shift/VMT Reduction | Weekday Average Boardings | Boardings per corridor mile and boardings per hour | From model |
| | New Transit Trips | -- | Projected ridership – existing ridership in corridor (from model) |
| | Transit Mode Share | -- | From model |
| | Per-Capita VMT/CO2 Emissions | -- | From model |
|  Density/Connections to Activity Centers | Population Density Within ½ Mile of Alignment | GIS analysis (Census data) | GIS analysis (Census data) |
| | Employment/Postsecondary Enrollment Density Within ½ Mile of Alignment | GIS analysis (Census data) | GIS analysis (Census data) |
| | Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment | GIS analysis (available sources) | GIS analysis (available sources) |
| | Additional Major Destinations (e.g., Stadiums & Theme parks) Within ½ Mile of Alignment | GIS analysis (based on assessment of "destinations") | GIS analysis (based on assessment of "destinations") |
| | Traffic Volumes at Arterial Intersections per Corridor Mile (Within ½ Mile of Alignment) | GIS analysis (available sources) | GIS analysis (available sources) |

| Category | Measures | Screening Methodology | Evaluation Methodology |
|---|---|---|---|
| | % of Employment within 30-min Travel Time on Transit | -- | From model |
|  Multimodal Connectivity | # of Connections to Metrolink Stations, Transit Centers, and Major Routes | GIS analysis (available sources) | GIS analysis (available sources) |
| | # of Connections to Park-and-Rides | GIS analysis (available sources) | GIS analysis (available sources) |
| | Intersection Density per Square Mile | GIS analysis (available sources) | GIS analysis (available sources) |
| | Pedestrian Network Serving Transit | WalkScore within ½ mile of corridor | WalkScore within ½ mile of corridor |
| | # of Connections to Existing or Planned High-Quality Bicycle Facilities (Off-Street or Protected On-Street) | -- | Based on review of existing routes/plans |
|  Capacity | Person Throughput | -- | Analysis based on vehicle capacity, conceptual service plan, and roadway capacity |
|  Safety | Potential for Reduction in Collision Rates and Severity | -- | Qualitative assessment based on project/corridor design and # of new transit trips (as proxy for VMT reduction) |
|  Passenger Comfort/Amenities | Passenger Comfort | -- | Qualitative assessment based on vehicle capacity, movement (e.g. lateral sway) |
| | System Legibility | -- | Qualitative assessment based on conceptual design (e.g. visibility, alignment) |
| | Density of Households with Annual Incomes < $40,000 | GIS analysis (Census data) | GIS analysis (Census data) |

| Category | Measures | Screening Methodology | Evaluation Methodology |
|---|---|---|---|
| Equity | Density of Seniors and People with Disabilities | GIS analysis (Census data) | GIS analysis (Census data) |
| | CalEnviroScreen Scores | Analysis based on EnviroScreen ratings for disadvantaged communities | Analysis based on EnviroScreen ratings for disadvantaged communities |
| Economic Development | Support for Retail Activity | Density of retail land uses within ½ mile of corridor | Qualitative assessment based on project design (e.g., turn restrictions, additional sidewalk space, parking impacts) |
| | Support for Transit-Oriented Development | Qualitative assessment based on research | Qualitative assessment based on research |
| Transit-Supportive Policy | Inclusion of Corridor in Regional and Local Transit-Oriented Plans | Qualitative assessment based on research | Qualitative assessment |
| | Adoption of Supportive Zoning | Qualitative assessment based on research | Qualitative assessment |
| Cost-Effectiveness/ Productivity | Capital Cost per Boarding | -- | Analysis based on high-level capital cost estimates (based on peer review, service plan and high-level travel time estimates) + ridership from model |
| | Operating Cost per Boarding | -- | From model |
| | Boardings per Revenue Hour | -- | Ridership from model / revenue hours derived from operating cost estimates |
| | Boardings per Revenue Mile | -- | Ridership from model / revenue miles derived from operating cost estimates |

# Transit Master Plan
# Investment Framework





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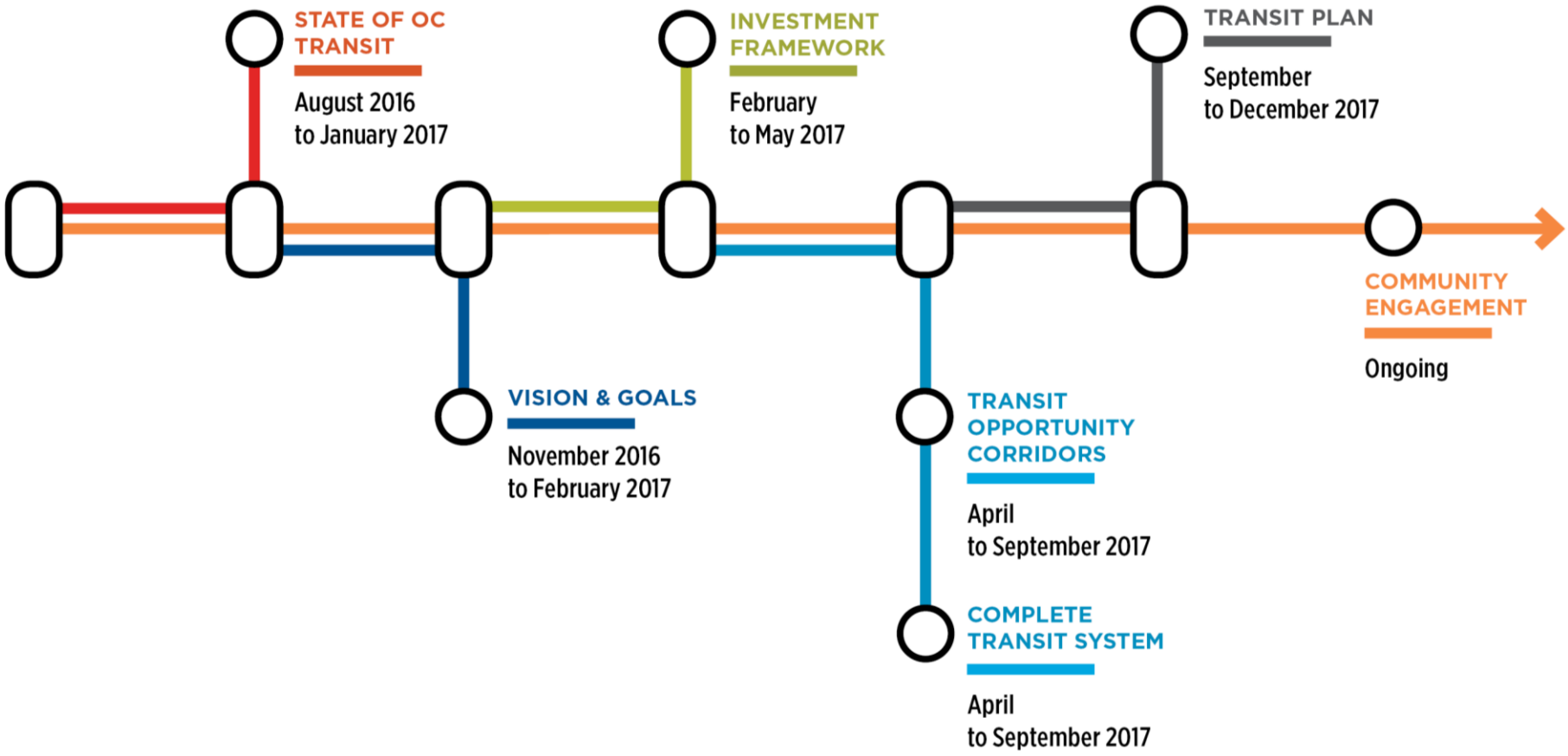
# Project Schedule

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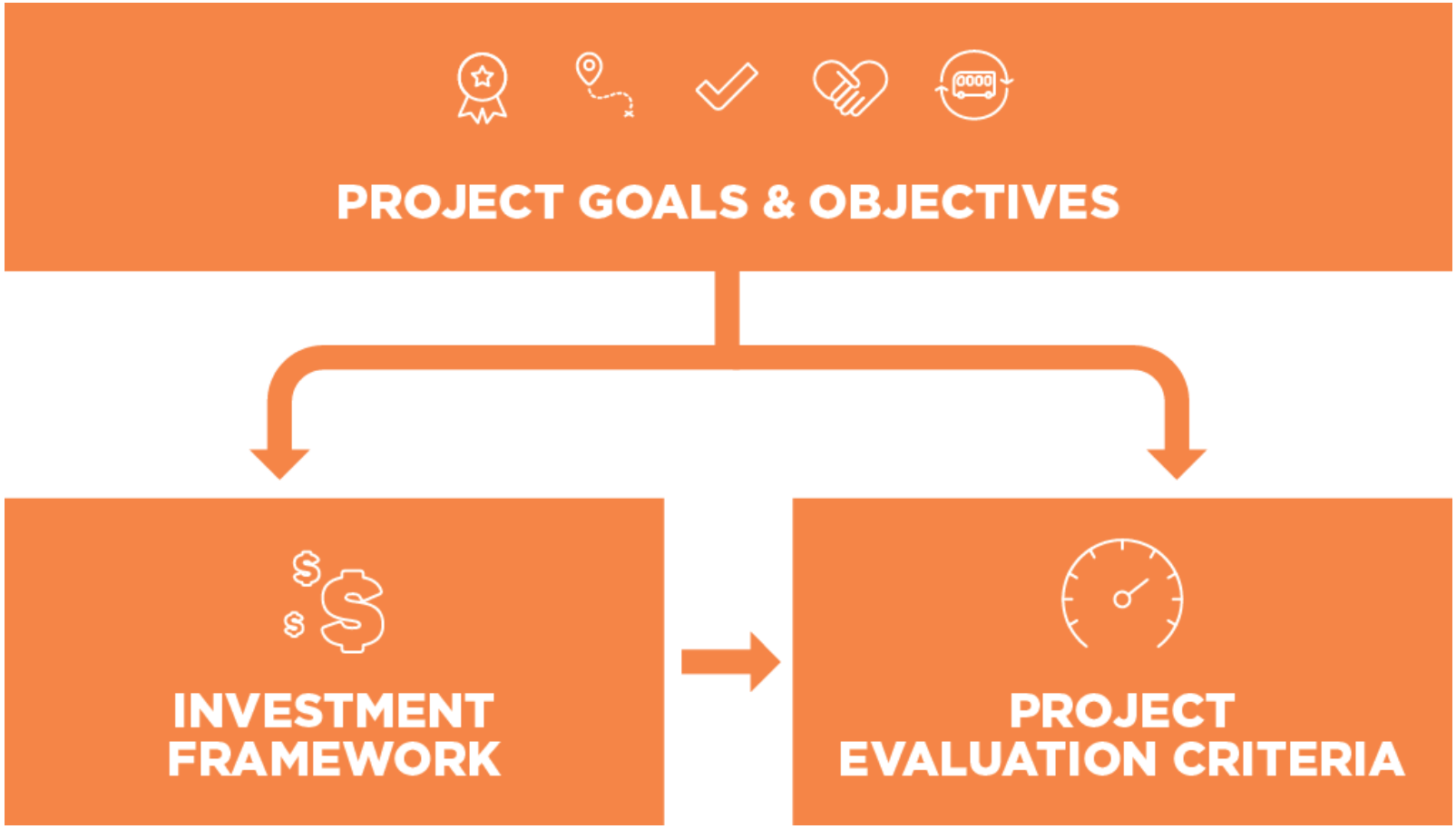
# Built on Goals and Objectives

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# Transit Investment Framework


**Service Allocation Guidelines:** where service types should be implemented and how cities can support transit service

**Capital Investment Guidelines:** builds on service allocation policies to identify both existing corridors and potential future corridors for investment

- Existing Bus Route Investments
- High-Capacity Transit Investments

**Corridor Evaluation Criteria:** support evaluation of corridors for future investment

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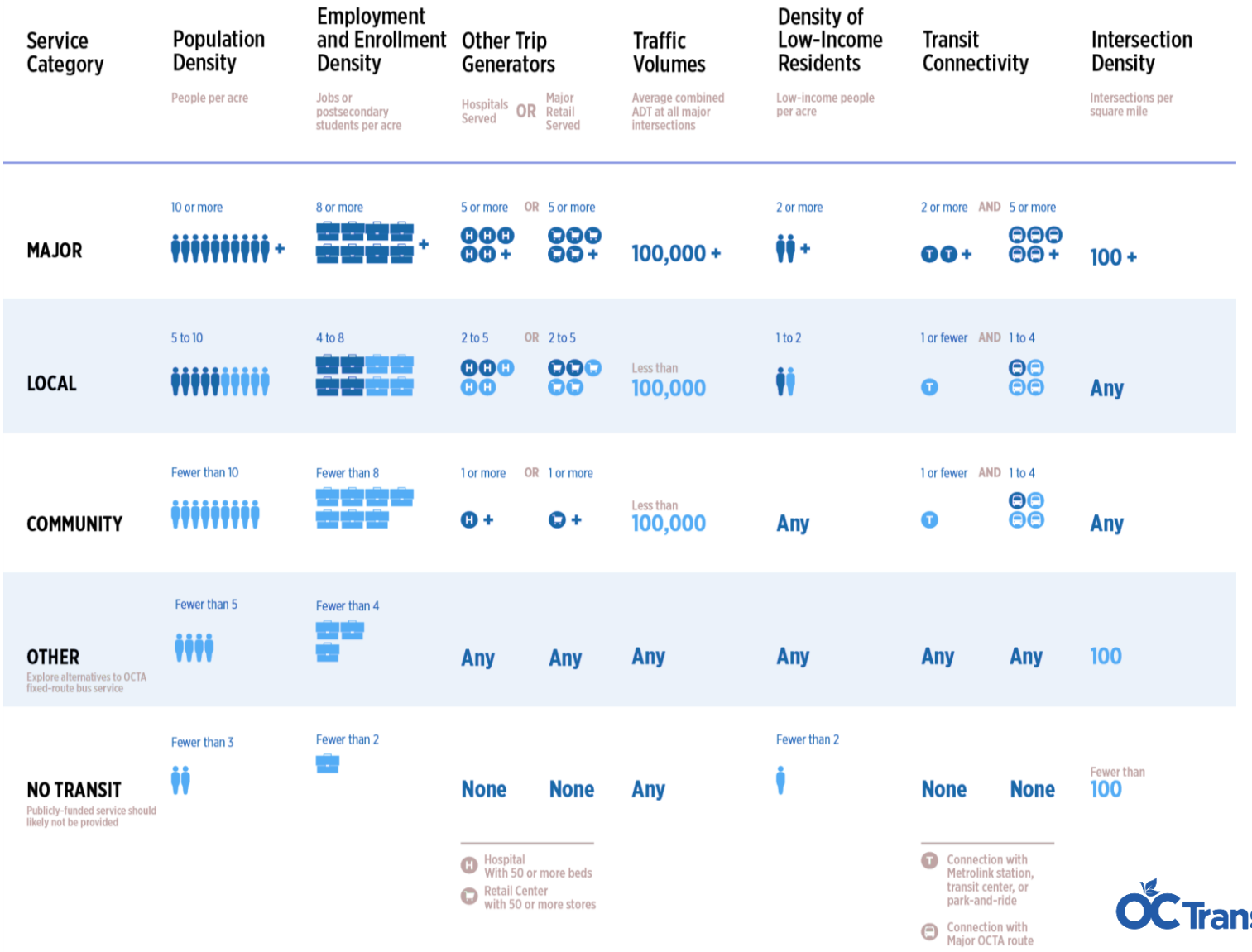
# Service: Route Categories

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# Service Level Guidelines

| Service Category | Peak Frequency<br>Buses per hour | Base Frequency<br>Buses per hour | Weekday Span | Weekend Span |
|---|---|---|---|---|
| MAJOR |  |  | 5 AM to 12 AM | 6 AM TO 12 AM |
| LOCAL |  |  | 5:30 AM to 8:30 PM | 7 AM to 7 PM |
| COMMUNITY |  |  | 5:30 AM to 8:30 PM | 7 AM to 7 PM |
| OTHER<br>Explore alternatives to OCTA fixed-route bus service | N/A | N/A | N/A | N/A |
| NO TRANSIT<br>Publicly-funded service should likely not be provided | N/A | N/A | N/A | N/A |

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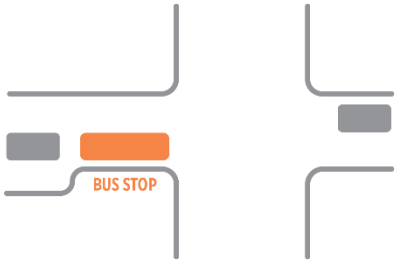
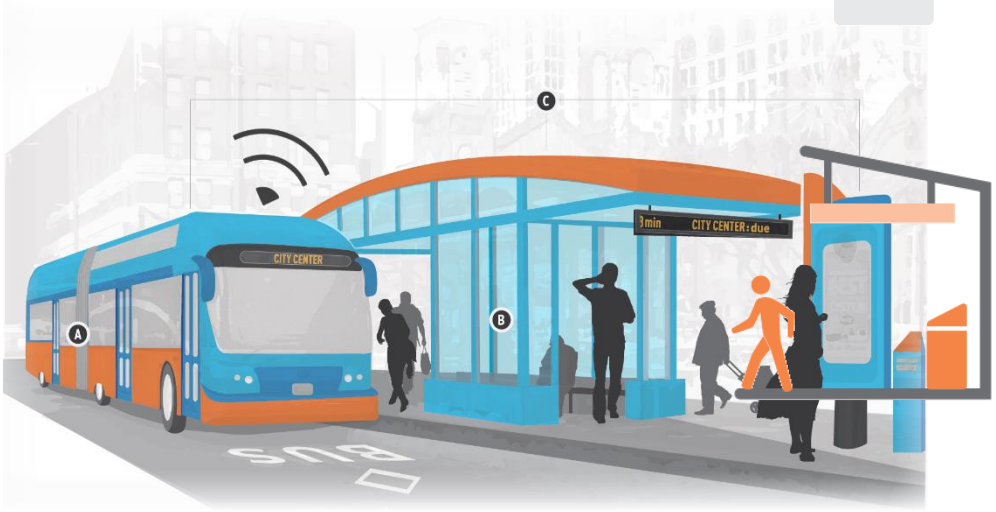
# Capital: Existing Bus Investment Types

- Larger vehicles
- Transit-priority improvements
- Improvements to stops/stations
  - Operational
  - Enhanced passenger amenities





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# Capital: Existing Bus Guidelines

| Service Type | Investment Level | Investment Types |
|---|---|---|
| Major | High | ▪ Higher-capacity vehicles<br>▪ Vehicle branding (Bravo! routes only)<br>▪ All types of transit-priority treatments including transit lanes<br>▪ Operational improvements and enhanced amenities at bus stops<br>▪ Off-vehicle fare collection and all-door boarding |
| Local | Medium | ▪ Signal timing improvements<br>▪ Enhanced passenger amenities at busier stops |
| Community | Low | ▪ Standard bus stop |
| Express | Medium | ▪ Comfortable vehicles designed for longer trips<br>▪ High-occupancy vehicle facilities on freeways and direct access ramps<br>▪ Enhanced passenger amenities at park-and-ride lots |
| Stationlink | Low | ▪ Standard bus stop |
| Other | Low | ▪ Vehicle branding (shuttles only)<br>▪ Technology integration |

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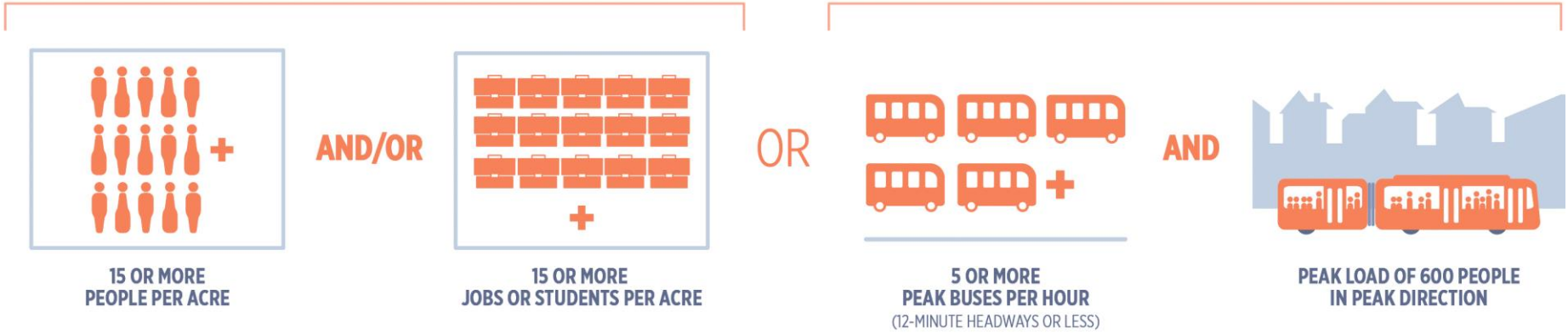
# Capital: High-Capacity Transit

Consider high-capacity transit when transit corridors have:

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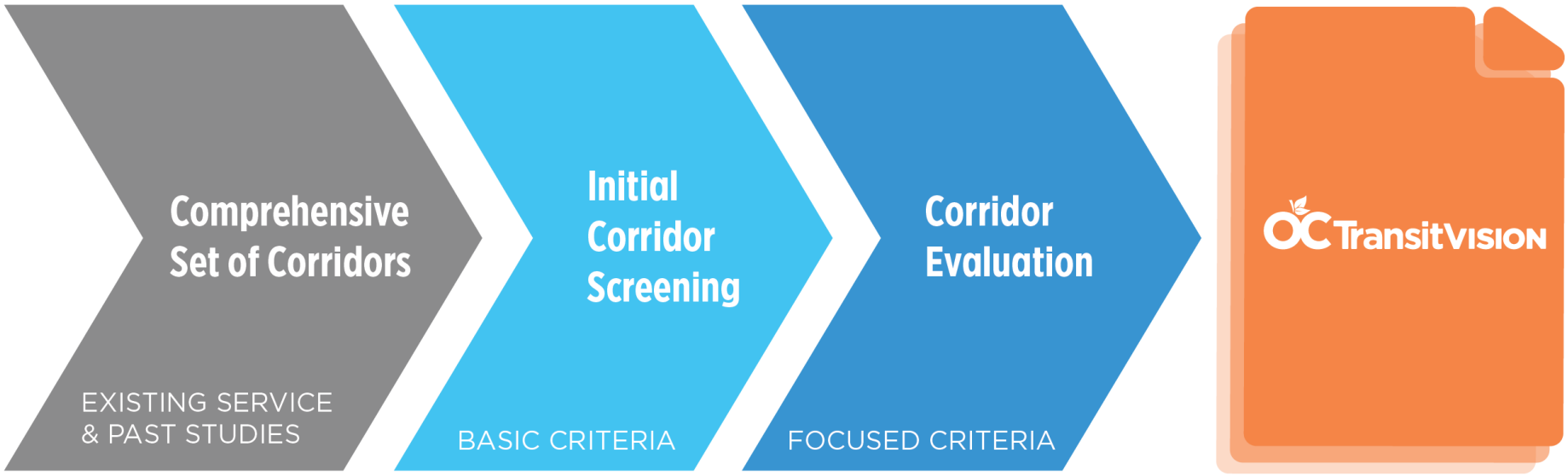
# Opportunity Corridor Evaluation

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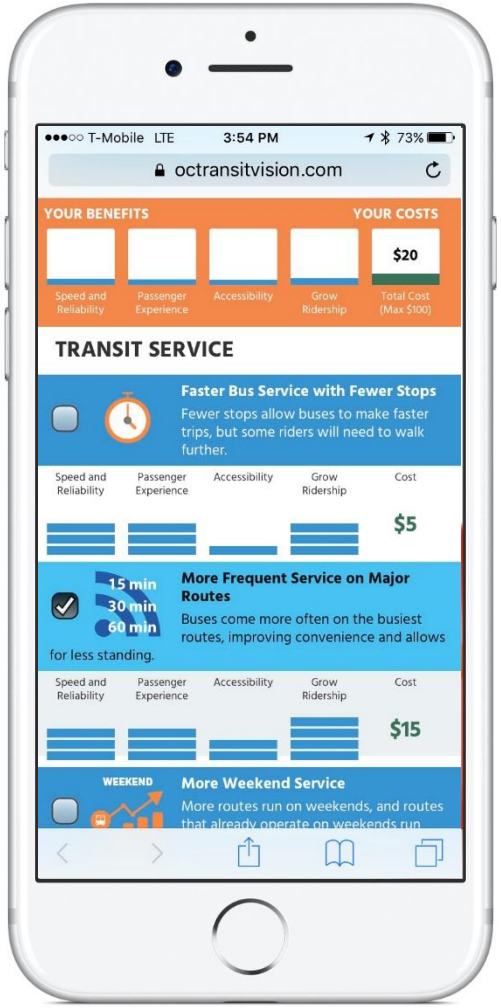
# “Build Your Own Transit” Survey

https://octransitvision.com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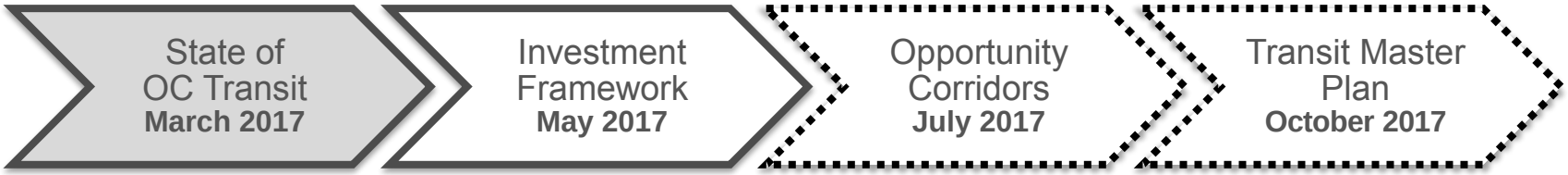
# Next Steps

- Engage public with “Build Your Own Transit” survey
- Solicit feedback on the draft Transit Investment Framework from cities and other stakeholders
- Return to Transit Committee and Board of Directors in July with:
  - Draft Transit Opportunity Corridors
  - Short-term bus service recommendations

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