Citizens Advisory Committee

550 S. Main Street, Orange CA, Room 07
July18, 2017 | 12:00 p.m. – 2:00 p.m.

AGENDA

1. **Welcome**

2. **Chair/Vice-Chair Election** *(10 min.)*

3. **Presentation and Discussion Items**
   A. Overview of SB 1 - The Road Repair and Accountability Act of 2017 *(15 min.)*
      Kurt Brotcke, Director, Planning

   B. OC Transit Vision: Opportunity Corridors *(30 min.)*
      Gary Hewitt, Section Manager, Transit and Non-Motorized Planning
      Jennifer Wieland, Nelson Nygaard

   C. Long Range Transportation Plan Update *(25 min.)*
      Greg Nord, Principal Transportation Analyst, Long-Range Planning and Corridor Studies

   D. Measure M Identity (10 minutes)
      Ryan Armstrong, Digital Communications Section Manager

   E. FY 17-18 Bus Service Improvement Plan *(15 min.)*
      Gary Hewitt, Section Manager, Transit and Non-Motorized Planning

4. **OCTA Staff Updates *(5 minutes each)***
   A. Technology & Innovation Ad Hoc Committee – Dan Kalmick, CAC Vice-Chair

   B. Staff Liaison – Alice Rogan, Director, Marketing and Public Outreach

5. **Public Comments***

6. **Chair / Vice-Chair Remarks**

7. **Committee Member Comments**

8. **Adjournment**
   The next meeting will be held on October 17, 2017

Agenda Descriptions/Public Comments on Agenda Items
The Agenda descriptions are intended to give notice to members of the public of a general summary of items of business to be transacted or discussed. Members from the public wishing to address the Committee will be recognized by the Chair at the time the Agenda item is to be considered. A speaker's comments shall be limited to three (3) minutes.

Any person with a disability who requires a modification or accommodation in order to participate in this meeting should contact the OCTA at (714) 560-5611, no less than two (2) business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

Citizens Advisory Committee
Meeting Notes
April 18, 2017

1:00 p.m. to 3:00 p.m.
550 S. Main Street, Orange, Calif.
Conference Room 07

Members Present

Paul Adams, *Fountain Valley Planning Commissioner*
Hamid Bahadori, *AAA of Southern California*
Vince Buck, *Cal State Fullerton*
Tim Byers, *Laguna Niguel Police Auxiliary Citizens' Team*
Brian Cox, *Orange County Bicycle Coalition*
Kara Darnell, *Cal State Fullerton*
Barry Duffin, *Orange County Wheelmen*
Sue Gordon, *Huntington Beach Resident*
Janine Heft, *Laguna Hills Resident*
Merlin "Bud" Henry, *North Tustin Advisory Committee*
Dan Kalmick, *Huntington Beach Resident*
Steve Kozak, *City of Tustin Planning Commissioner*
Derek McGregor, *Trabuco Canyon Advisory Comm.*
Laurel Reimer, *Urban Planner*
Roy Shahbazian, *Bus Rider, Transit Advocate of OC*
Schelly Sustarsic, *Seal Beach Parks & Rec. Comsn.*

Greg Winterbottom, *OCTA Board Member*

Members Absent

Dan Avery, *Mission Viejo Resident*
Michael Brandman, *Building Industry Association*
Michael Carroll, *Irvine Community Services Commission*
Min Chai, *Irvine Resident*
Theodore Luckham, *Anaheim Resident*
Donna Marsh Peery, *Tustin Community Services Comsn.*
Michael McNally, *UC Irvine*
Frank Murphy, *Orange Rotary*
Dan Oregel, *Santa Ana Resident*
Lyle Overby, *Building Industry Association*
Mark Paredes, *Garden Grove Planning Commission*
Mike Posey, *Huntington Beach Resident*
John Taylor, *Rotary Club of San Juan Capistrano*
Jeff Thompson, *Tustin Planning Commission and BIA*
Cynthia Ward, *Anaheim Resident*

1. **Welcome**
   Chairman Roy Shahbazian welcomed everyone to the Orange County Transportation Authority (OCTA) Citizens Advisory Committee (CAC) meeting at 12:05 p.m.

2. **Presentation and Discussion Items**
   A. Caltrans Draft Managed Lanes Network Study
   Lan Zhou, Deputy District Director of Caltrans Planning and Local Assistance, introduced Romeo Estrella. Romeo presented the Caltrans Draft Managed Lanes Network Study.

Paul Adams asked about initial data on the SR-91 Express Lanes with the opening of the east portion of the express lanes. Romeo Estrella said Caltrans does not usually look at the data right away, because it takes a bit of time for commuters to settle into a routine and the data to settle. Lan Zhou also pointed out that the new portion of the Express Lanes is in Riverside County and is not within Caltrans District 12.

Janine Heft asked what the justification is for 3+ versus 2+ in the carpool lanes. She feels going from 2+ to 3+ would push people into the regular lanes and cause more congestion. Romeo Estrella said there is a bit of a balance, when operating the lanes with 2+ carpoolers it slows down the overall use of the express lanes. He said when you change it to 3+ carpoolers, there are less carpoolers, but more commuters paying to use the lanes and that balances the overall freeway.

Vince Buck asked if Caltrans will be changing all carpool lanes to 3+, buses or toll users. Romeo Estrella said all carpool lanes will be looked at and it will be a case by case basis as to whether they are 2+ or 3+.

Alice Rogan said they find most commuters use the SR-91 Express Lanes once or twice a week when they really needed to get some place quickly. She also mentioned that Caltrans is looking at overall throughput. Romeo said Caltrans is looking at how to proactively change things to make the freeways run smoother, so the State of California does not come in with regulations that say all carpool lanes need to be 3+, 4+, etc.

Vince Buck asked if there is data currently showing how many commuters in carpool lanes are 3+. Lin Zhou said five percent to 10 percent of the cars in the carpool lanes are 3+ riders, but they are not necessarily commuters.

Roy Shahbazian mentioned that there seems to be a concern with the change from 2+ to 3+ in the carpool lanes and there needs to be more information given to the public for the reasoning behind the decision.

Paul Adams asked about how electric vehicles and autonomous vehicles figure into this data as their popularity emerges. Lin Zhou said this will depend on each individual corridor study.

Dan Kalmick said the public needs to know how the High Occupancy Vehicle (HOV) lanes will be degraded if nothing is done. Dan suggested Caltrans build a better case at the beginning of this presentation.

Laurel Reimer said the even bigger picture is the Federal Highway Administration demanding throughput be improved and setting standards for local agencies to meet. She said this is important information for the public to hear.

Janine Heft said she is unsure changing to 3+ will be a big enough impact. Lin Zhou said thay are still studying the pay policies for 2+ versus 3+.

Schelly Sustarsic asked if the changes being looked at to HOV lanes are just in Orange County. Alice Rogan said the state is looking at the changes in the near future and Caltrans District 12 is proactively taking a look at where the changes need to be made. Schelly also commented it looks like revenue is driving this presentation.

B. OC Transit Vision: Investment Framework

Gary Hewitt introduced Jennifer Wieland from Nelson Nygaard who is the project manager for the Transit Master Plan. Jennifer presented the vision, goals, objectives, investment framework and the "build your own system" survey. She then asked for feedback from the committee members.

Tim Byers said it does not appear there are viable transit options anywhere in the county. Jennifer Wieland said the Transit Master Plan is charged with figuring out how to balance a mix of options that will work for the county.

Janine Heft commended the work done on this project. She said it is very thorough.

Laurel Reimer said she likes seeing how the dollar amounts connect to the priorities on the "build your own system" survey. She said it was very well done.

Brian Cox asked how many responses will be considered successful and how the information be used. Jennifer Wieland said OCTA is aiming for 1,000 people to use the online tool. She said the feedback will help OCTA shape recommendations and prioritize funding.

Paul Adams suggested a link to the online survey be sent to Cal State Fullerton, Cal State Long Beach and their alumni groups.

Steve Kozak suggested the survey be put on local and state elected officials' websites and OCTA ask them to send the information to their email lists.

C. Central Harbor Boulevard Transit Corridor Study

Eric Carlson presented the Central Harbor Boulevard Transit Corridor Study. Emily Mason will send the CAC links to the materials and survey mentioned in the presentation.

Barry Duffin said there could potentially be another resort area in the future near Harbor Boulevard and Westminster Avenue.

Paul Adams asked about the cost difference between the bus rapid transit and the rapid streetcar options on Harbor Boulevard. Gary Hewitt said there would be more construction costs and more elaborate stops with the rapid streetcar project. Paul asked if there is a better overall cost benefit of one over the other. Gary said he is not sure, but the potential is there.

Schelly Sustarsic asked how much parking would be eliminated along Harbor Boulevard. Eric Carlson said there is not much on-street parking in the corridor to begin with, but the impact would really depend on which alternative was selected. While enhanced bus alternatives would have no effect on on-street parking, the bus rapid transit (BRT) and streetcar alternatives may affect parking in certain locations.

Brian Cox said he is concerned about bicycle and pedestrian safety along the corridor. Eric Carlson said OCTA is looking carefully at bicycle and pedestrian connections, including bike lanes. Brian said he feels Harbor Boulevard is notoriously dangerous for bicycles and pedestrians.

Janine Heft asked if there would be an opportunity for Disney and other businesses in the resort area to share in the funding of whatever project is implemented. Eric Carlson said he is unsure at this point.

D. Long Range Transportation Plan: Key Issues
Greg Nord presented Key Issues for the Long Range Transportation Plan (LRTP).

Tim Byers asked if ridership would support future plans for an elevated or electric transit system. He said the costs would probably be prohibitive, but it is something to consider.

Brian Cox asked what OCTA can do to guide/suggest land use planning. Derek McGregor said land use is a key component and needs to be looked at within transportation.

Laurel Reimer said contracts for projects should weigh land use. Dan Kalmick said he thought Measure M does call for it in the Growth Management Plan. Greg Nord said with the statewide Traffic Management Plan, it calls for land use to be weighed into the overall score appropriately. Paul Adams said the City of Fountain Valley included it in their infrastructure master plans. He said bike accessibility and transportation needs are considered when new businesses come to the city.

Alice Rogan asked if the committee agrees there needs to be more coordination between agencies and cities regarding land use. The committee members all agreed. Steve Kozak suggested doing this through the City Planning Directors.

3. OCTA Staff Updates

A. Bicycle/Pedestrian Subcommittee
Brian Cox said at the last subcommittee meeting Caltrans discussed the California State Bicycle and Pedestrian Plan, OCTA's Active Transportation Plan was presented and Bike Month 2017 was discussed.

B. Technology & Innovation Ad Hoc Committee
Dan Kalmick gave a brief overview of the first ad hoc committee meeting. The committee set-up a mission statement and received presentations on OCTA's interactive transit map, possible uses and partnerships with on-demand services, and the future of mobility.

Roy Shahbazian said one of the items that came up in the meeting is data sharing and how OCTA can get the information from contractors like Uber and Lyft.

C. June Service Change
Hong Vo reported the minor adjustments that are planned for the June Service Change. She announced her departure from OCTA and also introduced Johnny Dunning, the new Manager of Service Planning and Customer Advocacy.

D. Government Affairs
Lance Larson gave a brief legislative update. Alice Rogan announced the reorganization of staff at OCTA, with Lance Larson now the Executive Director of External Affairs.

Dan Kalmick asked what is missing from the Governor's Gas Tax Plan. Lance Larson said future investment in new infrastructure and capacity.

Kara Darnell asked if the money is controlled by OCTA. Lance Larson said local streets and roads funds are distributed by the state to the cities and the County of Orange.

Paul Adams asked how the DMV fee works. Lance Larson said the money goes into one pot. He said the interesting thing included in this plan is a $100 fee on hybrids and electric vehicles.

E. Marketing
Stella Lin handed out flyers for the Angels' Express, OC Bus and Bike Month.

F. Staff Liaison
Lance Larson announced the promotion of Alice Rogan to Director of Marketing and Public Outreach.

Alice Rogan announced the close of the CAC recruitment period and mentioned the new members will be chosen by the end of June.

4. **Chair/Vice-Chair Remarks**
   There were no remarks.

5. **Committee Member Comments**
   There were no remarks.

6. **Public Comments**
   No one from the public spoke.

7. **Adjournment/Next Meeting**
   The meeting adjourned at 2:11 p.m. The next meeting will be at the OCTA offices on July 18, 2017 at 12:00 p.m.

Citizens Advisory Committee
Fiscal Year 2016-2017 Attendance Record

● = Present ◉ = Absent **R =** Resigned

Member	8/2/16*	10/18/16	1/17/17	4/18/17
Adams, Paul	●	●	●	●
Avery, Dan	◉	◉	◉	◉
Bahadori, Hamid	◉	◉	◉	●
Brandman, Michael	◉	●	◉	◉
Buck, Vince	◉	◉	●	●
Byers, Tim	●	◉	●	●
Carroll, Michael	◉	◉	◉	◉
Chai, Min	●	◉	●	◉
Cox, Brian	◉	●	●	●
Darnell, Kara	◉	●	●	●
Delgleize, Barbara	●	●	**R**	**R**
Duffin, Barry	◉	◉	●	●
Gordon, Susan	●	●	●	●
Heft, Janine	●	●	◉	●
Henry, Merlin “Bud”	●	◉	●	●
Kalmick, Dan	●	●	●	●
Kozak, Steve	●	●	●	●
Luckham, Theodore	●	●	◉	◉
McGregor, Derek	●	●	●	●
McNally, Michael	●	●	●	◉
Murphy, Frank	●	◉	●	◉
Oregel, Dan	◉	◉	◉	◉
Overby, Lyle	◉	◉	◉	◉
Paredes, Mark	●	●	●	◉
Peery, Donna	◉	◉	●	◉
Posey, Mike	--	--	--	◉
Reimer, Laurel	●	●	◉	●
Shahbazian, Roy	●	●	●	●
Schelly Sustarsic	●	◉	●	●
Taylor, John	●	◉	●	◉
Thompson, Jeff	●	●	●	◉
Ward, Cynthia	◉	●	◉	◉

*original date July 19, 2016

OCTA

COMMITTEE TRANSMITTAL

July 10, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Overview of SB 1 (Chapter 5, Statutes of 2017) - The Road Repair and Accountability Act of 2017

Regional Planning and Highways Committee Meeting of July 6, 2017

Present: Directors Delgleize, Do, Donchak, M. Murphy, Nelson, and Steel
Absent: Director Spitzer

Committee Vote

Following a discussion, no action was taken on this receive and file information item.

Staff Recommendation

Receive and file as an information item.

OCTA

July 6, 2017

To: Regional Planning and Highways Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Overview of SB 1 (Chapter 5, Statutes of 2017) – The Road Repair and Accountability Act of 2017

Overview

SB 1 (Chapter 5, Statutes of 2017), the Road Repair and Accountability Act of 2017, will provide an estimated $52.5 billion for transportation purposes over the next ten years, with investments targeted towards fix-it-first purposes on local streets and roads, highways, transit operations and maintenance, capital investments, and active transportation. The general requirements of several competitive programs are presented for review.

Recommendation

Receive and file as an information item.

Background

SB 1 provides significant supplemental funding to many existing programs and creates several new funding programs (Attachment A). At its core, SB 1 is about maintaining existing state and local transportation infrastructure. In addition, SB 1 provides significant supplemental public transit funding to stem the declining trend in traditional transit funding. SB 1 will nearly double local street and roads funding for each city and the county, with an emphasis on projects that improve pavement condition, enhance safety, implement complete street elements, and upgrade traffic control devices. The estimated additional annual amount of up to $118 million will significantly reduce Orange County's pavement rehabilitation backlog.

With respect to transit, SB 1 provides an additional $18 million in new transit funding per year for Orange County. This doubles the amount of transit funding provided to Orange County when compared to existing State Transit Assistance funding. Lastly, SB 1 stabilized the State Transportation Improvement Program, and, in the short term, allows OCTA to avoid delays to two Interstate 5 projects and reduce exposure to $50 million in cost escalation.

The California Transportation Commission (CTC), the California State Transportation Agency (CalSTA) and the California Department of Transportation (Caltrans) are working on guideline development for many of the SB 1 programs. Milestones and funding amounts for each program are included in Attachment B. The programs are summarized in the table below:

Program	Guideline Development/Lead	Distribution Method
2017 Active Transportation Program (ATP)	CTC	Competitive
2019 ATP	CTC	Competitive
Local Partnership Program (LPP)	CTC	Competitive/Non-Competitive
Local Planning Grants	Caltrans	Competitive
Local Streets and Roads (LSR)	CTC	Non-Competitive
Solutions for Congested Corridors (SCC)	CTC	Competitive
State Highway Operation and Protection Program (SHOPP)	CTC	Non-Competitive
State Transit Assistance Capital (STA Capital)	CalSTA/Caltrans	Non-Competitive
State Transit Assistance Flexible (STA Flexible)	State Controllers	Non-Competitive
State Transportation Improvement Program	CTC	Non-Competitive
Trade Corridor Enhancement Program (TCEP)	CTC	Competitive
Transit and Intercity Rail Capital Program (TIRCP)	CalSTA	Competitive
Freeway Service Patrol (FSP)	Various	Non-Competitive
Advance Mitigation (Environmental)	Caltrans	To Be Determined

Discussion

The Measure M2 (M2) Ordinance requires that every effort be made to maximize matching state and federal transportation dollars. Also, the Capital Programming Policies, last adopted by the Board of Directors (Board) in May 2017, enforces the M2 Ordinance directive that the first priority of all funding sources is to fulfill commitments to M2020 and/or Next 10 projects, specifically M2 projects, and to maintain existing Orange County Transportation Authority's (OCTA) assets in a state of good repair. SB 1 programs can support this goal, and this is even more important given the great recession of 2008 and the recent downturn in forecasted M2 revenues, and programs in SB 1 can support this goal.

SB1 includes four competitive programs administered by CTC for which OCTA or local Orange County agencies may compete:

- ATP
- LPP (50 percent competitive)
- SCC
- TCEP

Each of these programs has specific requirements that will require OCTA to be proactive and strategic in how it applies for funding. Attachment C provides information on each of the competitive programs. Attachment D provides information on the non-competitive CTC programs under SB 1.

The CTC will develop guidelines for these programs. The standard process for guideline development for each of these programs is the same, and includes:

- Workshops
- Draft Guidelines
- Proposed Final Guidelines
- Hearing at the CTC meeting
- Final Guidelines
- Issuance of the Call for Projects
- Submittal of Applications
- Review and Score Applications
- Award/Program Funds to the Highest Scoring Projects

Some of these programs may include a distribution of funds based on some variation of geographic distribution, but in order to be competitive, OCTA must prepare plans or documents that describe the projects with careful consideration of statewide goals, such as greenhouse gas emission reductions, vehicle miles traveled reduction, benefits or impacts to disadvantaged communities, fix-it-first, expansion of the economy and protection of the environment, performance criteria, transparency, and accountability.

The CTC approved guidelines for the ATP on June 28, 2017 and intends to program funds to existing cycle 3 projects that can advance, or projects that were not awarded but applied for funding under cycle 3. The Board assigned points to Cycle 3 ATP projects for the Southern California Association of Governments regional project selection on January 9, 2017. A list of projects that would be considered for funding under the CTC's proposed guidelines is provided in Attachment C.

In October 2017, the CTC is scheduled to approve guidelines for the LPP. In December 2017, the CTC will approve guidelines for the SCC, and in January 2018, they will approve guidelines for the TCEP.

Staff is currently working on a list of projects to be considered for funding under the SB 1 competitive programs. An initial list that depicts OCTA's potential state funding need for this initial funding cycle is provided in Attachment E. Staff will add or remove, and correctly categorize projects for funding based on information provided through the guideline development process. Staff will return to the Board for approval of project submittals for SB 1 funding opportunities over the next several months.

In addition to the competitive programs, staff is also monitoring the guideline development process for the LSR formula program in order to bring information back to local agencies. There are estimates that indicate this program will provide up to $118 million annually to Orange County cities and the County. Due to the various taxes and fees being phased in, yearly allocations will be lower in the first few years. Attachment F provides a chart that shows the average amount of funding each city may receive yearly over the next 10 years based on estimates previously released by CalSTA and includes estimates from the California League of Cities on the amounts that cities may expect to receive in fiscal year (FY) 2017-18.

Additionally, the local agencies will be required to submit a project list of SB 1 funded projects that was included in each local agency's adopted budget. Cities with an average pavement condition index of below 80, are limited in how they may use the funds. Local agencies must also maintain their general fund expenditures or their maintenance of effort consistent with what they reported in the State Controller's Office reports for FY 2009-10, 2010-11 and 2011-12.

Finally, the STA Flexible and STA Capital programs which provide funds to transit operators through the same formula as State Transit Assistance will provide almost $18 million to OCTA on an annual basis. OCTA will be required to submit an annual list of projects to Caltrans in order to receive these funds. This additional funding for transit has allowed OCTA to continue transit operations without the significant service cuts which were originally planned for the FY 2017-18 budget due to declining transit funding.

Next Steps

OCTA will participate in upcoming workshops and work with the CTC to draft guidelines. After guidelines are adopted, OCTA will incorporate projects into specific plans as required and work with the various local agencies to submit projects for applicable programs.

Summary

Information regarding the CTC Implementation Plan for SB 1 competitive funding programs is provided for Board review and consideration.

Attachments

A. SB 1 (Chapter 5, Statutes of 2017) Overview
B. SB 1 (Chapter 5, Statutes of 2017) Application Development and Guidelines Schedule (Preliminary)
C. SB 1 (Chapter 5, Statutes of 2017) – Competitive Programs
D. SB 1 (Chapter 5, Statutes of 2017) – Non-Competitive Programs
E. 2017 State Funding Needs Assessment – Orange County Transportation Authority Near Term Projects
F. SB 1 (Beall, D-San Jose) City and County Revenue Estimates (Yearly Average Based on 10-Year Revenue Estimate)

Prepared by:

Adriann Cardoso
Capital Programming Manager
(714) 560-5915

Approved by:

Kia Mortazavi
Executive Director, Planning
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ATTACHMENT A

SB 1 (Chapter 5, Statutes of 2017) Overview

SB 1 (Chapter 5, Statutes of 2017), the Road Repair and Accountability Act of 2017, which was signed by the Governor on April 28, 2017, will provide an estimated $52.5 billion for transportation purposes over the next ten years, with investments targeted towards fix-it-first purposes on local streets and roads and highways, transit operations and maintenance, capital investments, and active transportation. There is no sunset on the revenue sources included in the bill, with many of the taxes and fees to be indexed for inflation to keep pace with rising costs.

The sources of revenues provided by SB 1 are as follows:

Beginning November 1, 2017
- 12 cent gas tax increase
- 20 cent diesel tax increase
- Four percent increase in the sales tax on diesel

Beginning January 1, 2018
- New transportation improvement fee ranging from $25-$175

Beginning July 1, 2019
- Resetting of the price-based excise tax to 17.3 cents

No later than June 30, 2020
- The complete repayment of $706 million in transportation loans made to the general fund

Beginning July 1, 2020:
- $100 road improvement fee for zero-emission vehicles starting for 2020 model cars and later

The revenues generated from the above funding tools will be used to provide supplemental funding to many existing programs and create several new funding programs, some of which the Orange County Transportation Authority (OCTA) will be a direct recipient. Overall the revenues are allocated 65 percent to maintain existing transportation infrastructure, 15 percent for public transit, 13 percent for congestion relief, 4 percent in incentives for local transportation funding initiatives, and 4 percent for sustainability measures. The statewide breakdown is as follows:

SB 1 (Chapter 5, Statutes of 2017) Overview

Funding Program and Purpose	Projected Ten-year Funding
Local Street and Roads – Fix-it-First	$15 billion
State Highway Maintenance and Rehabilitation – Fix-it-First	$15 billion
State Highway Bridges and Culverts	$4 billion
Public Transit Capital and Operations	$7.5 billion
Trade Corridor improvements	$3 billion
Congested Corridor Program	$2.5 billion
State Transportation Improvement Program (STIP) (regional)	$825 million
STIP (state)	$275 million
State-Local Partnership Program	$2 billion
Active Transportation Program	$1 billion
Local Planning Grants	$250 million
Freeway Service Patrol	$250 million
Parks Funding for Agriculture, Off-Highway Vehicles and Boating	$800 million
Public University Research	$70 million
Workforce Development Program	$50 million
TOTAL	**$52.5 billion**

It is expected that SB 1 will provide increased formula funding as follows, over a ten-year period:

- A doubling of local street and roads funding for each city and the county, that is to be focused on projects such as rehabilitation and maintenance, grade separations, safety projects, complete street components, and traffic control devices. Cities that achieve a pavement condition index over 80 will have additional flexibility to use their funds for expanded purposes. Based on estimates provided by the California Department of Transportation (Caltrans) , over the next ten years, this translates into about $535 million for Orange County roads, or about $53.5 million per year, and about $706.9 million for Orange County city roads, or about $70 million per year. Because the various taxes and fees are to be phased in, the allocations will be lower in the first few years. The estimates from the California League of Cities, for example, forecasts that Orange County cities would receive approximately $56 million in fiscal year 2018-19.

- Based on estimates provided by Caltrans, about $741 million for the State Highway Operation and Protection Program (SHOPP) will be provided for Orange County, with the same eligibility parameters, guidelines, and reporting requirements as are provided for the local street and roads funding. This estimate is based on average past allocations to Orange County.

SB 1 (Chapter 5, Statutes of 2017) Overview

- Based on funding estimates provided by the Department of Finance, over $18 million in new transit funding per year for Orange County, with about $13 million eligible for transit capital or operations purposes, and over $5 million annually for capital purposes will be provided. This doubles the amount of transit funding provided to Orange County when compared to existing State Transit Assistance funding.

- The stabilizing of the STIP, which could allow OCTA to reprogram projects previously delayed or prevented from being programmed. Overall, it is expected that over the next ten years, SB 1 will add about $53 million over previous estimates to the STIP, based on estimates provided by Caltrans.

In addition, OCTA plans to compete for the new programs including trade corridors, state-local partnership, and congested corridors. As guidelines are developed for each program, more detail will be available as to which local projects will be most competitive for each program.

Finally, SB 1 included several project accountability and efficiency reforms:

- The creation of a Senate-confirmed position of Inspector General within Caltrans, appointed by the Governor, to audit and investigate state and local projects to ensure expenditures are done in conformance with existing law.

- Increased California Transportation Commission oversight over Caltrans projects within the SHOPP, with additional performance measures.

- A constitutional measure contained in a companion bill protecting new fees from future diversion contained in SCA 5 (Frazier, D-Oakley).

- Caltrans must implement efficiency measures estimated to generate cost savings of $100 million.

- The development of an advanced mitigation program for projects receiving state funding.

SB 1 (Chapter 5, Statutes of 2017) Application Development and Guidelines Schedule (Preliminary)

		$ annual (millions)	Fiscal Year (FY) 2016-17		FY 2017-18											
#	**Program**		**May**	**June**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**
1	2017 Active Transportation Program Augmentation	$ 100		▲		■		●								
2	State Highway Operation and Protection Program	$ 1,900		△												
3	Local Streets and Roads	$ 1,500				▲	■									
4	2018 State Transportation Improvement Program	$ 100				▲				■			●			
5	Transit Intercity Rail Capital Program	$ 245					▲									
6	State Transit Assistance Flexible	$ 250					▲									
7	State Transit Assistance Capital	$ 105					▲									
8	Local Planning Grants (Caltrans)	$ 25					▲	■		●						
9	Local Partnership Program	$ 200						▲					■			●
10	Solutions for Congested Corridor Program	$ 250								▲		■			●	
11	Trade Corridor Enhancement Account	$ 300									▲		■		●	
12	2019 ATP (Cycle 4)*	$ 100											▲			■
13	Freeway Service Patrol	$ 25	TBD													
14	Advanced Mitigation	$ 30														

* Schedule is based on past cycles' schedules

△ = Interim guideline adoption
▲ = Guideline adoption
■ = Application/submittal
● = Adoption

ATTACHMENT B

ATTACHMENT C

SB 1 (Chapter 5, Statutes of 2017) – Competitive Programs

- Active Transportation Program (ATP)
- Local Partnership Program (50 percent competitive)
- Solutions for Congested Corridors
- Trade Corridor Enhancement Program
- Transit Intercity Rail Capital Program (TIRCP)

ATP

The ATP funding program under SB 1 (Chapter 5, Statutes of 2017) provides an additional $100 million over and above what the program is currently receiving through state and federal resources, which combined will provide $230 million statewide on an annual basis. The Orange County Transportation Authority (OCTA) is expecting to receive an additional $3.5 million per year through the Southern California Association of Governments (SCAG) regional metropolitan planning organization (MPO) call for projects (call).

ATP was created by Senate Bill 99 (Chapter 359, Statutes of 2013) and Assembly Bill 101 (Chapter 354, Statutes of 2013) to encourage increased use of active modes of transportation, such as biking and walking. Fifty percent of funds are awarded on a statewide basis. Forty percent of funds will be awarded to large MPOs with populations greater than 200,000. Ten percent of funds will be awarded to small and rural regions with populations less than 200,000.

The purpose of the ATP is to encourage increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking,
- Increase safety and mobility for non-motorized users,
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction (GHG) goals,
- Enhance public health,
- Ensure that disadvantaged communities fully share in the benefits of the program, and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

The existing ATP requires that a minimum of 25 percent of the funds be spent to benefit disadvantaged communities (DAC). This requirement was not included for the SB 1 Program funds but the California Transportation Commission (CTC) ATP funds a much higher level of projects that provide benefit to DAC than the legislation originally required. While the ATP Guidelines do allow some flexibility in what is defined as a DAC, Orange County has limited areas that qualify to meet this requirement. In the first three cycles of the ATP, 256 projects were awarded funds through the

statewide call, and only 17 projects did not include benefits for DAC, so 93 percent of the projects which were awarded funds through the statewide call provided a benefit to DAC. Most of those projects were in the first cycle. In cycle 2 there were only three projects awarded funds that did not include benefits to DAC, and in cycle 3 only projects that included benefits for DAC were awarded funds. The City of Anaheim and the City of Santa Ana are the only local agencies in Orange County that have been awarded funds through the statewide ATP call.

Fortunately, Orange County is provided a funding target through the SCAG regional MPOs call that allows Orange County agencies to complete internally and still receive funds through the ATP. It is expected that the SB 1 funding program will follow the existing ATP Guidelines.

The CTC is proposing to use the first two years of SB 1 ATP funds (50 percent of the funding or $100 million will be distributed through statewide call) to advance projects into fiscal year 2017-18 and 2018-19 that were funded in cycle 3 in later years, and also to fund projects that submitted applications in cycle 3, but were not awarded funds. Orange County will receive approximately $7 million through the regional MPOs SB 1 augmented call. The cycle 4 call is expected to be released in 2018.

#	Implementing Agency	Project Title	Total ATP Request	Total Project Cost	Statewide Score	Total Score with OCTA points
Funded ATP Projects						
1	Santa Ana	City of Santa Ana - First Street Pedestrian Improvements	$ 4,572	$ 4,572	88	88
2	Santa Ana	City of Santa Ana - West Willits Street Protected Bicycle Lanes	$ 2,970	$ 2,970	80	88
3	Santa Ana	City of Santa Ana – Safe Routes to School – Davis Elementary American Disabilities Act Compliance	$ 5,754	$ 5,754	80	87
4	Santa Ana	City of Santa Ana - Pedestrian and Bicyclist Education Campaign	$ 500	$ 500	77	77
5	Fountain Valley	Fountain Valley Pedestrian Pathway Improvement within School Zones	$ 226	$ 296	68	70
TOTAL			**$ 14,022**	**$ 14,092**		

#	Implementing Agency	Project Title	Total ATP Request	Total Project Cost	Statewide Score	Total Score with OCTA points
Unfunded ATP Projects						
6	Santa Ana	City of Santa Ana - Ross Street Protected Bicycle Lanes	$ 3,576	$ 3,576	81	81
7	Orange County	Hazard Avenue Bikeway Project[1]	$ 3,566	$ 3,566	77	82
8	Buena Park	Buena Park School District Safe Routes to School Improvements	$ 1,644	$ 1,654	79	81
9	Orange County	OC Loop Coyote Creek Bikeway (Segments O, P, Q)	$ 11,121	$ 26,257	68	78
10	Tustin	Armstrong Avenue Bicycle and Pedestrian Bridge	$ 3,000	$ 3,000	66	76
11	La Habra	La Habra Union Pacific Rail Line Bikeway (Walnut to Cypress)	$ 863	$ 975	61	71
12	Anaheim	Anaheim Canyon Metrolink Station Access Project	$ 3,005	$ 16,025	56	66
13	Irvine	Jeffrey Open Space Trail at Interstate 5 Bicycle and Pedestrian Bridge Project	$ 9,050	$ 10,609	55	65
14	Seal Beach	Lampson Avenue Bike Lane Gap Closure Project 2016	$ 1,012	$ 1,265	50	51
15	Orange County	Surfside Inn Pedestrian Overcrossing Phase II	$ 5,395	$ 5,395	43	48
16	Anaheim	Santa Ana Canyon Road Multi-Use Trail Project	$ 2,005	$ 3,148	43	46
17	Anaheim	Nohl Ranch Open Space Trail	$ 1,143	$ 1,343	37	43
18	Laguna Hills	La Paz Road Southerly Sidewalk Widening	$ 1,010	$ 1,010	38.5	41.5
19	Lake Forest	Lake Forest Foothill Ranch Elementary School Zone and Crosswalk	$ 174	$ 174	36	36
TOTAL			**$ 46,564**	**$ 77,997**		

1. Project may not be eligible to receive ATP funds due to the approved ATP Guidelines disallowing the supplanting of funds. The project was awarded $3 million through the 2016 Bicycle Corridor Improvement Program call.

Local Partnership Program (LPP) (50 percent competitive)

SB 1 includes the LPP which provides $200 million annually, in order to reward existing self-help counties and agencies that have passed developer fee programs on their own, and encourage aspiring agencies to achieve the voter thresholds required to impose local sales tax and developer fees for transportation. The legislation lacks specific direction regarding either a formula or competitive program, but states that the CTC must have guidelines in place by January 1, 2018.

Lacking specific direction from the legislature, the CTC proposed that the funding program be distributed 75 percent through a competitive program and 25 percent through a formula program. Since the initial proposal, the Self-Help Counties Coalition negotiated with the CTC to allow 50 percent of the funds be distributed through a formula program, and 50 percent of the funds to be distributed through a competitive program.

Following this negotiation, the legislature's intent was clarified in a letter from the State Legislature's transportation committee chairs (Senator Jim Beall {D-San Jose} and Assembly Member Jim Frazier {D-Oakley}) to the CTC, offering clarification on their intent with regard to the State Local Partnership Program (SLPP), that it would be implemented in the same manner as the state's Proposition 1B SLPP, which provided 95 percent of the funding through a formula distribution and five percent through a competitive distribution. The letter requested that the CTC revisit the formula/competitive distribution in two years to consider increasing the formula share of funds.

Funds appeared to be provided for road maintenance and rehabilitation purposes and included the potential to use the funds for sound walls under certain circumstances. Recent budget trailer bill language has clarified that the funds will be provided to regional and local agencies who have received voter approval for taxes or fees dedicated solely for transportation purposes, and that other transportation improvement projects beyond maintenance and repair may also be funded.

Project recipients will be required to report on progress and outcomes of LPP-funded projects.

Solutions for Congested Corridors (SCC)

SB 1 includes the SCC funding program which provides $250 million annually to provide more transportation choices by making multi-modal improvements within highly congested travel corridors including transportation, environmental and community access considerations. The CTC is required to allocate no more than 50 percent of the funds to projects nominated by the California Department of Transportation (Caltrans). Projects selected for funding must make specific corridor improvements, be part of a comprehensive corridor plan, preserve the character of the local community and create opportunities for neighborhood enhancement projects.

OCTA will need to develop a corridor plan for any project submitted for consideration of funding. A preference is to be given to projects that are in a plan which was developed collaboratively between Caltrans and the local and regional agencies. The plans may include and the funding will support improvements to:

- State highways (limited to managed {high-occupancy toll or high-occupancy vehicle} auxiliary and truck climbing lanes)
- Local streets and roads
- Public transit facilities, including rail
- Bicycle and pedestrian facilities
- Restoration and preservation work that protect critical habitat or open space

Also there are limitations on highway projects related to increases in vehicle miles traveled, GHG emission reduction, and reduction of air pollution.

The CTC must score each project based on criteria that considers:

- Safety
- Congestion
- Accessibility
- Economic development and job creation and retention
- Ambient air standards and GHG emission reduction
- Efficient land use
- Matching funds
- Project deliverability

Project recipients will be required to report on progress and outcomes of SCC-funded projects.

<u>Trade Corridor Enhancement Program (TCEP)</u>

The TCEP funding program under SB 1 provides an additional $300 million annually, which will be combined in the first three years of programming with the Federal National Freight Program funds of approximately $550 million.

Budget trailer bill language is currently pending to provide guidance for this program. Under the proposed trailer bill, the funds are to be spent on:

- State highway and local road capital and operations improvements
- Freight rail systems
- Enhancements to the ports (with limitations)
- Truck corridor improvements including dedicated truck facilities, zero emission trucks, truck information technology systems elements
- Border access improvements

- Surface transportation to and from land ports, sea ports and airports to facilitate goods movement
- Pilot projects in the sustainable freight plan

Funds will be divided 60 percent to geographic corridors through targets and 40 percent to the state. Projects nominated jointly by the state and the region will be prioritized. Corridor targets may be adjusted in considering geographic balance based on funds that are provided by the state to certain regions.

The CTC has to consider the following in selecting projects for the 60 percent funds:

- State's most urgent need
- Balances demands among land, sea and airports
- Considers mobility and safety while reducing emissions of diesel particulates, GHG and other pollutants (particularly impacting DAC)
- Contributions to the state's economy
- Recognizes the key role of the state in project identification
- Supports a corridor-based approach
- Includes DAC measures with some caveats regarding definition and tools

Project nominations have to include qualitative or quantitative assessment of the benefits. CTC must consider velocity, throughput, reliability, and congestion reduction when allocating funds.

Transit and Intercity Rail Capital Program (TIRCP)

The TIRCP under SB1 provides an additional $245 million annually to the TIRCP call for projects. The funds augment the existing Greenhouse Gas Reduction funds awarded through the program.

The program provides funding for transformative capital improvements that modernized intercity, commuter, and urban rail systems, bus transit systems with a goal to reduce greenhouse gas emissions, vehicle miles traveled, and congestion. Historically, OCTA has used these funds for mobile ticketing upgrades and the OC Streetcar project.

CalSTA is in the process of developing guidelines. Staff will return to the Board as information becomes available.

Local Planning Grants

The Local Planning Grants under SB1 provides $45 million annually to the Caltran's Sustainability Planning Grants (SPG) of which, $25 million are to be used towards Transportation Planning Grants

The Transportation Planning Grants provides funding for transportation planning studies with consideration of sustainability, preservation, mobility, safety, innovation, economy, health and equality.

Caltrans is in the process of developing guidelines for the program. Staff will return to the Board as information becomes available.

ATTACHMENT D

SB 1 (Chapter 5, Statutes of 2017) – Non-Competitive Programs

Formula Programs

The Orange County Transportation Authority (OCTA) will monitor formula programs to ensure that the Orange County's funding needs and potential uses are not precluded. The formula funding programs are:

- Local Partnership Program (LPP) (50 percent formula)
- Local Streets and Roads Program
- State Transportation Improvement Program (STIP)
- State Transit Assistance (STA)

LPP

It is anticipated that the LPP will be relatively flexible and the formula may be based on the formula used to distribute funds under the Proposition 1B State-Local Partnership Program. The LPP program is expected to provide $200 million per year statewide.

This program was included in SB 1 (Chapter 5, Statutes of 2017) to reward existing self-help counties and agencies that have passed developer fee programs on their own, and encourage aspiring agencies to achieve the voter thresholds required to impose local sales tax and developer fees for transportation. OCTA staff is monitoring this program and actively involved in the development of guidelines for both the formula and competitive programs.

Local Streets and Roads Program

The SB 1 Local Streets and Roads Program is expected to provide $1.5 billion annually. OCTA is working directly with the local agencies through the Technical Advisory Committee to ensure that they are aware of the requirements for the Local Streets and Roads Program. This will be the first time that the cities and the County are required to submit a project list, Pavement Condition Index (PCI), maintenance of effort, and project reports for state funds through the California Transportation Commission (CTC). Funding may be limited to supporting only road maintenance/rehabilitation, safety, railroad grade separation, complete street and traffic control device projects, if the local agency's average PCI is below 80, based on what was reported in the 2016 Statewide Local Streets and Roads Needs Assessment.

STIP

Funding provided through SB 1 is expected to stabilize the STIP. A STIP overview will be presented to the Board of Directors in August to kick off the 2018 STIP cycle. No new requirements were added to the STIP based on SB 1.

State Highway Operation and Protection Program (SHOPP)

SB 1 is expected to provide $1.9 billion annually for the SHOPP. OCTA will monitor guideline development and submittals for the SHOPP to ensure that the California Department of Transportation (Caltrans) is considering Measure M2 projects in the development of potential projects for funding.

Projects included in the SB 1 SHOPP shall be limited to improvements relative to the maintenance, safety, operation, and rehabilitation of state highways and bridges that do not add a new traffic lane to the system. SHOPP funds are usually disbursed around the state based on statewide needs. Caltrans will be required to submit a list of projects to the CTC for programming by January 31 of each year. Prior to submitting its proposed program, according to SB 1, Caltrans is required to make a draft of its proposed program available to transportation planning agencies for review and comment, and to include the comments from the regional agency in its submittal to the commission. Caltrans will also be required to develop and report on project specific performance metrics in order to improve accountability for funds spent.

State Transit Assistance

SB1 is expected to provide $355 million annually for State Transit Assistance (STA). STA shall be used towards capital projects, operations, and maintenance and rehabilitation of existing assets. The funding will be distributed through the existing STA formula to transit operators. The OCTA and the City of Laguna Beach are eligible recipients of STA funds. OCTA currently has an existing cooperative agreement with the City to accept STA funds on behalf of the City in exchange for local funds. OCTA and the City of Laguna Beach will review the existing cooperative agreement and determine if changes need to be made.

CalSTA is in the process of developing guidelines. Staff will return to the Board as information becomes available.

2017 State Funding Needs Assessment - Orange County Transportation Authority Near Term Projects

Sponsor Agency	Project Title	Total Project Cost ($1,000's)	Committed Funding ($1,000's)	Funding Need ($1,000's)	Completion Year in Federal Transportation Improvement Program	Project Benefits
State Highway						
Orange County Transportation Authority (OCTA)	Interstate 5 (I-5) High-Occupancy Vehicle (HOV) Lane Expansion from State Route 55 (SR-55) to State Route 57 (SR-57)[1]	$ 37,058	$ 8,109	$ 28,949	6/30/2020	Congestion reduction, improve air quality, and job creation
OCTA	I-5 Widening (State Route 73 [SR-73] to El Toro Road) Segments 1, 2, and 3[1]	$ 481,589	$ 213,273	$ 268,316	6/30/2023	Congestion reduction, safety improvements, and job creation
OCTA	SR-55 Widening from Interstate 405 (I-405) to I-5	$ 375,932	$ 65,123	$ 310,809	12/30/2030	Congestion reduction, improve air quality, and job creation
OCTA	I-5 / El Toro Interchange Improvements	$ 113,000	$ 4,400	$ 108,600	12/30/2030	Congestion reduction, safety improvements, and job creation
OCTA	I-5 Widening from I-405 to SR-55	$ 720,870	$ 8,050	$ 712,820	12/30/2030	Congestion reduction, improve air quality, and job creation
OCTA	SR-55 Widening from I-5 to State Route 91 (SR-91)	$ 227,350	$ 5,000	$ 222,350	12/30/2030	Congestion reduction, improve air quality, and job creation
OCTA	SR-57 Widening from Orangewood Avenue to Katella Avenue	$ 47,690	$ 2,500	$ 45,190	12/30/2030	Congestion reduction, improve air quality, and job creation
OCTA	SR-91 Widening from SR-57 to SR-55	$ 456,190	$ 9,050	$ 447,140	12/30/2030	Congestion reduction, improve air quality, and job creation
OCTA	I-405 Widening from I-5 to SR-55	$ 323,600	$ 8,050	$ 315,550	12/30/2030	Congestion reduction, improve air quality, and job creation
OCTA	Interstate 605 / Katella Avenue Interchange Improvements	$ 29,600	$ 1,200	$ 28,400	12/30/2035	Congestion reduction, safety improvements, and job creation
Transit						
OCTA	Bravo Route 529 - Operating and Capital Cost for Limited Bus Stop Service on Beach Boulevard	$ 9,888	$ -	$ 9,888	12/31/2018	Increase transit ridership, reduce congestion and improve air quality
Goods Movement						
Caltrans	SR-57 Truck Climb Lane Addition from Lambert Road to County Line	$ 167,550	$ -	$ 167,550	12/30/2030	Congestion reduction, safety improvements, and job creation
City of Brea	SR-57 / Lambert Road Interchange Improvements	$ 72,500	$ 25,700	$ 46,800	12/30/2023	Congestion reduction, safety improvements, and job creation
Local Highways/Rail - Grade Separations						
OCTA	17th Street Grade Separation	$ 158,000	$ 3,500	$ 154,500	12/31/2030	Enhance traffic operations, improve safety and air quality. and create jobs
OCTA	State College Boulevard Grade Separation (Los Angeles-San Diego-San Luis Obispo)	$ 178,000	$ 46,000	$ 132,000	12/31/2025	Enhance traffic operations, improve safety and air quality, and create jobs
Active Transportation						
Various	OC Loop - 66 miles of Seamless Bicycle and Pedestrian Connections	$ 176,400	$ 96,000	$ 80,400	12/1/2028	Provide mobility and access, improve air quality, and create jobs

1 - I-5 HOV lane expansion from SR-55 to SR-57 has $28.949 million programmed in State Transportation Improvement Program (STIP) funds in a later year than the project schedule would dictate. I-5 widening from SR-73 to Oso Parkway has $78.030 million in STIP funds in a later year than the project schedule would dictate. SB 1 will allow the advancement of these projects.

2 - Funding need includes $148.955 million in federal New Starts funding. New Starts funding is not committed until the full funding grant agreement is executed.

ATTACHMENT E

ATTACHMENT F

SB 1 (Beall, D-San Jose) City and County Revenue Estimates
(Yearly Average Based on 10-Year Revenue Estimate)

City	New SB 1 (Beall, D- San Jose) Revenues (Yearly)
Aliso Viejo	$1,156,000
Anaheim	$8,195,000
Brea	$1,000,000
Buena Park	$1,907,000
Costa Mesa	$2,623,000
Cypress	$1,138,000
Dana Point	$765,000
Fountain Valley	$1,298,000
Fullerton	$3,260,000
Garden Grove	$4,057,000
Huntington Beach	$4,467,000
Irvine	$5,913,000
La Habra	$1,420,000
La Palma	$367,000
Laguna Beach	$540,000
Laguna Hills	$702,000
Laguna Niguel	$1,514,000
Laguna Woods	$372,000
Lake Forest	$1,920,000
Los Alamitos	$269,000
Mission Viejo	$2,213,000
Newport Beach	$1,949,000
Orange	$3,236,000
Placentia	$1,196,000
Rancho Santa Margarita	$1,110,000
San Clemente	$1,516,000
San Juan Capistrano	$826,000
Santa Ana	$7,847,000
Seal Beach	$574,000
Stanton	$910,000
Tustin	$1,893,000
Villa Park	$136,000
Westminster	$2,153,000
Yorba Linda	$1,548,000
Total Per Year Average:	$69,990,000.00

County	New SB 1 (Beall, D-San Jose) Revenues
Orange County	$48,000,000

Local Streets and Roads - Projected FY2017-18 Revenues

Based on State Dept of Finance statewide revenue projections as of April 2017

Estimated 6 April 2017

	Highway Users Tax Acct (HUTA)[1] Streets & Highways Code					new		new	
	Sec2105[3]	Sec2106[3]	Sec2107[3]	Sec2107.5[4]	Sec2103[5]	Loan Repayment[6]	TOTAL HUTA	Road Maintnc Rehab Acct[7]	TOTAL
NAPA COUNTY									
AMERICAN CANYON	118,419	76,321	152,980	5,000	81,573	23,312	457,605	117,491	575,096
CALISTOGA	30,107	22,984	38,894	2,000	20,740	5,927	120,652	29,872	150,524
NAPA	468,328	287,656	605,012	7,500	322,609	92,194	1,783,298	464,660	2,247,958
SAINT HELENA	34,897	25,877	45,082	2,000	24,039	6,870	138,763	34,623	173,387
YOUNTVILLE	17,361	15,286	22,428	1,000	11,959	3,418	71,452	17,225	88,677
NEVADA COUNTY									
GRASS VALLEY	75,298	50,277	97,274	3,000	51,869	14,823	292,541	74,708	367,249
NEVADA CITY	18,948	16,244	24,478	1,000	13,052	3,730	77,452	18,800	96,252
TRUCKEE	94,042	61,599	1,731,412	4,000	64,781	18,513	1,974,347	93,306	2,067,653
ORANGE COUNTY									
ALISO VIEJO	293,571	182,108	379,251	6,000	202,227	57,792	1,120,949	291,272	1,412,220
ANAHEIM	2,081,575	1,262,008	2,689,094	10,000	1,433,900	409,776	7,886,353	2,065,272	9,951,625
BREA	254,053	158,240	328,200	6,000	175,005	50,013	971,512	252,064	1,223,576
BUENA PARK	484,433	297,383	625,818	7,500	333,703	95,365	1,844,203	480,639	2,324,842
COSTA MESA	666,101	407,105	860,506	10,000	458,846	131,128	2,533,685	660,884	3,194,569
CYPRESS	289,119	179,419	373,499	6,000	199,160	56,916	1,104,113	286,854	1,390,967
DANA POINT	194,216	122,101	250,899	6,000	133,786	38,233	745,236	192,695	937,931
FOUNTAIN VALLEY	329,636	203,890	425,842	7,500	227,071	64,892	1,258,830	327,054	1,585,884
FULLERTON	827,995	504,884	1,069,650	10,000	570,367	162,998	3,145,895	821,510	3,967,405
GARDEN GROVE	1,030,529	627,208	1,331,294	10,000	709,883	202,869	3,911,783	1,022,458	4,934,241
HUNTINGTON BEACH	1,134,621	690,076	1,465,766	10,000	781,587	223,360	4,305,409	1,125,734	5,431,143
IRVINE	1,501,804	911,843	1,940,113	10,000	1,034,522	295,643	5,693,925	1,490,041	7,183,966
LAGUNA BEACH	137,268	87,706	177,330	6,000	94,557	27,022	529,883	136,193	666,076
LAGUNA HILLS	178,326	112,503	230,371	6,000	122,840	35,105	685,145	176,929	862,074
LAGUNA NIGUEL	384,434	236,986	496,633	7,500	264,818	75,679	1,466,050	381,423	1,847,473
LAGUNA WOODS	94,583	61,925	122,187	4,000	65,154	18,619	366,468	93,842	460,310
LA HABRA	360,731	222,671	466,013	7,500	248,491	71,013	1,376,419	357,906	1,734,325
LAKE FOREST	487,706	299,359	630,045	7,500	335,958	96,009	1,856,577	483,886	2,340,463
LA PALMA	93,327	61,167	120,565	4,000	64,289	18,372	361,720	92,596	454,317
LOS ALAMITOS	68,224	46,005	88,136	3,000	46,996	13,431	265,792	67,690	333,482
MISSION VIEJO	562,050	344,261	726,088	10,000	387,170	110,644	2,140,213	557,648	2,697,861
NEWPORT BEACH	495,122	303,839	639,626	7,500	341,066	97,469	1,884,623	491,244	2,375,867
ORANGE	821,968	501,244	1,061,864	10,000	566,215	161,812	3,123,102	815,530	3,938,633
PLACENTIA	303,766	188,265	392,421	7,500	209,250	59,799	1,161,000	301,386	1,462,387
RANCHO SANTA MARGARITA	281,987	175,112	364,286	6,000	194,248	55,512	1,077,144	279,778	1,356,923
SAN CLEMENTE	385,032	237,348	497,406	7,500	265,231	75,797	1,468,314	382,017	1,850,331
SAN JUAN CAPISTRANO	209,735	131,473	270,947	6,000	144,477	41,288	803,920	208,092	1,012,013
SANTA ANA	1,993,194	1,208,628	2,574,919	10,000	1,373,018	392,378	7,552,137	1,977,583	9,529,720
SEAL BEACH	145,760	92,834	188,300	6,000	100,407	28,694	561,995	144,618	706,613
STANTON	231,043	144,343	298,474	6,000	159,154	45,483	884,496	229,233	1,113,729
TUSTIN	480,772	295,171	621,088	7,500	331,181	94,644	1,830,356	477,006	2,307,362
VILLA PARK	34,571	25,680	44,661	2,000	23,815	6,806	137,532	34,300	171,833
WESTMINSTER	546,776	335,036	706,355	7,500	376,648	107,638	2,079,952	542,493	2,622,445
YORBA LINDA	393,123	242,234	507,858	7,500	270,804	77,390	1,498,909	390,044	1,888,953

July 13, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Transit Master Plan – Opportunity Corridors

Overview

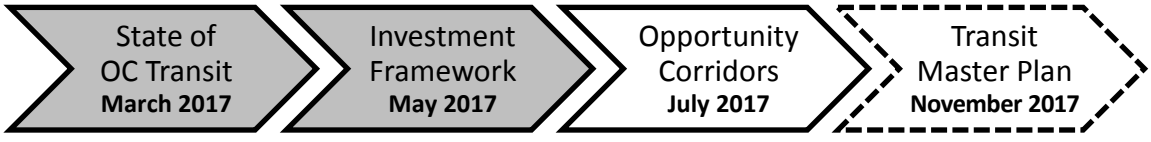
The Transit Master Plan will develop an integrated bus, rail, and paratransit plan for Orange County. This plan will identify future potential transit corridor studies and recommend changes to existing transit service. Staff is presenting the draft Transit Opportunity Corridors for Board of Directors' consideration.

Recommendation

Direct staff to finalize the Transit Opportunity Corridors based on Board of Directors and upcoming stakeholder input, and return to the Board of Directors in November 2017 with a draft Transit Master Plan.

Background

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



Discussion

This report presents the draft Transit Opportunity Corridors, which will be further analyzed in the coming months. The corridors were developed based on information gathered from the "State of OC Transit" report and screened using

the "Transit Investment Framework," which were previously presented to the Board of Directors (Board). Staff is also providing an update on the results of the recent public survey.

Build Your Own System Survey Results

As part of the Plan process, OCTA has conducted extensive outreach to stakeholders throughout the County. The most recent effort was a "Build Your Own System" survey where the public was asked to prioritize various options to improve transit services. Over 3,000 surveys were received, representing both existing riders and non-riders. A total of 1,694 respondents completed the Build Your Own System survey, and 1,370 respondents completed the follow-up survey (Attachment A). The top ranked priorities were:

- High-capacity transit/rapid transit service,
- More frequent service,
- Real-time information,
- Service where demand is highest,
- Early-morning and late-night service,
- More weekend service,
- Long-distance service,
- Shelters, seating, lighting, and
- Transit signal priority.

Both riders and non-riders identified high-capacity transit such as Bus Rapid Transit (BRT) and streetcar as the top priority. More frequent, early morning, late-night, and weekend service were also top priorities for existing riders. The results of the survey will be used to develop both short-term bus service recommendations and prioritize capital investments in the draft Transit Master Plan.

Corridor Development

The project development team initially identified over 30 potential Transit Opportunity Corridors. The list was intended to be exhaustive during this initial screening phase. Corridors were added based on previous transit studies, "State of OC Transit" report analysis, connections to other regional transit projects, and existing high-ridership bus routes.

Both arterial and freeway corridors were considered. Service on arterial corridors would consider both bus and/or streetcar. Examples of these modes include the planned OC Streetcar and Bravo! limited-stop bus service. Stops would be spaced a quarter mile to one mile apart, and the service would be provided within existing right-of-way. Service on freeway corridors would be BRT service using

the existing high-occupancy vehicle lanes. Stops for this type of service would generally be spaced five miles apart. Both services would use larger vehicles, have improved stop amenities, and operate frequent service during commute hours.

Corridor Evaluations

The initial screening used a set of 14 criteria recommended in the "Transit Investment Framework". Initial screening criteria are described in table 1 on page 2-2 (Attachment B). The initial corridors were divided into arterial segments and freeway BRT stops for analysis. The analysis zone for arterial corridors was within a quarter mile of the proposed alignment, while the freeway BRT corridors were within a quarter mile of the proposed stop locations. Scoring results by segment and freeway stops are shown in Appendix B of Attachment B.

Draft Corridor Recommendations

The project development team reviewed the results of the initial screening to develop ten draft corridors for consideration. Each corridor includes segments or stop locations that rate highly in the initial screening, although some also include segments that rank somewhat lower. By combining these segments and stop locations into "complete" corridors, with major anchor destinations or transit hubs at each end, it is possible to better represent potential alignments.

The following eight arterial corridors (four north-south and four east-west), and two freeway BRT corridors are recommended for further development and evaluation. A map showing these corridors is shown as Attachment C.

- Arterial Corridors
  - Beach Boulevard: Fullerton Park and Ride to Downtown Huntington Beach.
  - Harbor Boulevard: Fullerton Transportation Center to Hoag Hospital in Newport Beach.
  - State College Boulevard/Bristol Street: Brea Mall to the University of California, Irvine.
  - Main Street: Anaheim Regional Transit Intermodal Center to South Coast Plaza in Costa Mesa.
  - La Palma Avenue/Lincoln Avenue: Anaheim Canyon Station to Hawaiian Gardens.
  - Chapman Avenue: Beach Boulevard to Hewes Street in Orange.
  - 17th Street/Westminster Avenue: Tustin Street to California State University, Long Beach.
  - McFadden Avenue/Bolsa Avenue: Larwin Square in Tustin to Goldenwest Transportation Center in Huntington Beach.

- Freeway BRT Corridors
  - Interstate 5: Fullerton Park-and-Ride to Mission Viejo/Laguna Niguel Station.
  - State Route 55: Santa Ana Regional Transportation Center to Hoag Hospital, Newport Beach.

Next Steps

Staff will return in November 2017 with a draft Transit Master Plan document including ranked Transit Opportunity Corridors. Staff will be soliciting feedback on the draft corridors from stakeholders during the summer.

Summary

This report provides a summary of the draft Transit Opportunity Corridors. Staff is seeking Board input on the draft corridors prior to seeking stakeholder and public feedback.

Attachments

A. Memorandum from Steve Boland and Jennifer Wieland, Nelson Nygaard, to Gary Hewitt and Chad Kim, Build Your Own System (octransitvision.com) Survey Results
B. OC Transit Vision, Transit Opportunity Corridors, Initial Screening and Preliminary Recommendations
C. Map of Draft Transit Opportunity Corridors

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ATTACHMENT A

NELSON NYGAARD

OC TransitVision

MEMORANDUM

To: Gary Hewitt and Chad Kim

From: Steve Boland and Jennifer Wieland

Date: June 23, 2017

Subject: Build Your Own System (octransitvision.com) Survey Results

This memorandum presents a summary of responses to the Build Your Own System survey (octransitvision.com) and accompanying follow-up survey. The survey was open online from March 31 to June 23, 2017. A total of 1,694 respondents completed the Build Your Own System survey, and 1,370 respondents completed the follow-up survey.

Survey responses were solicited through a wide variety of media, including online and in-person tools, using project business cards, bus cards, and paper and iPad surveys. Online advertisement included email blasts, website postings, digital newsletters and blogs, and social media posts and ads (i.e., Facebook, Twitter, and Instagram). OCTA partnered with the following groups to help announce the survey: Orange County jurisdictions; transportation, business, and diverse community leaders; universities; 91 Express Lanes staff; John Wayne Airport; Metrolink; and the LOSSAN Rail Corridor Agency. OCTA also reached out to bus riders and vanpool and rideshare participants. In-person surveying took place at community events, fairs, and festivals; bus and train stops; and as part of other OCTA project outreach and marketing activities.

BUILD YOUR OWN SYSTEM SURVEY

The Build Your Own System survey is an online, interactive exercise that asks people to prioritize among various options for improving transit service, access, and amenities and for making capital investments. Respondents are given a hypothetical budget of $100, and each improvement has a cost of $5 to $25 relative to actual costs for implementation. In addition to spending their $100 budget, respondents can also attempt to maximize benefits in real time—including speed and reliability, the passenger experience, accessibility, and ridership impacts—based on the improvements selected. A screen capture of the introduction to the Build Your Own System survey is shown in Figure 1, and a screenshot of select response choices for Information and Amenities improvements is shown in Figure 2.

Upon completing the Build Your Own System survey, participants were directed to a follow-up survey that asked questions about their decision-making process when building their own system, their impressions of the interactive exercise, as well as their individual travel behavior and demographic characteristics.

Figure 1 **Build Your Own System Survey – Introduction**

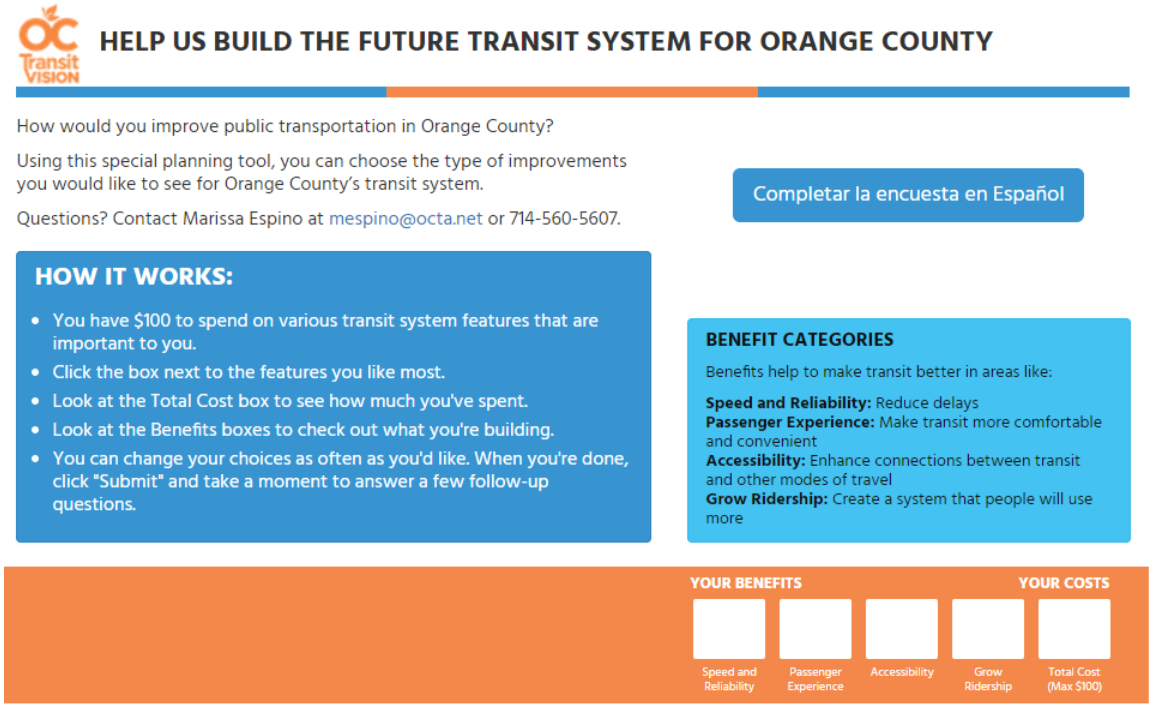
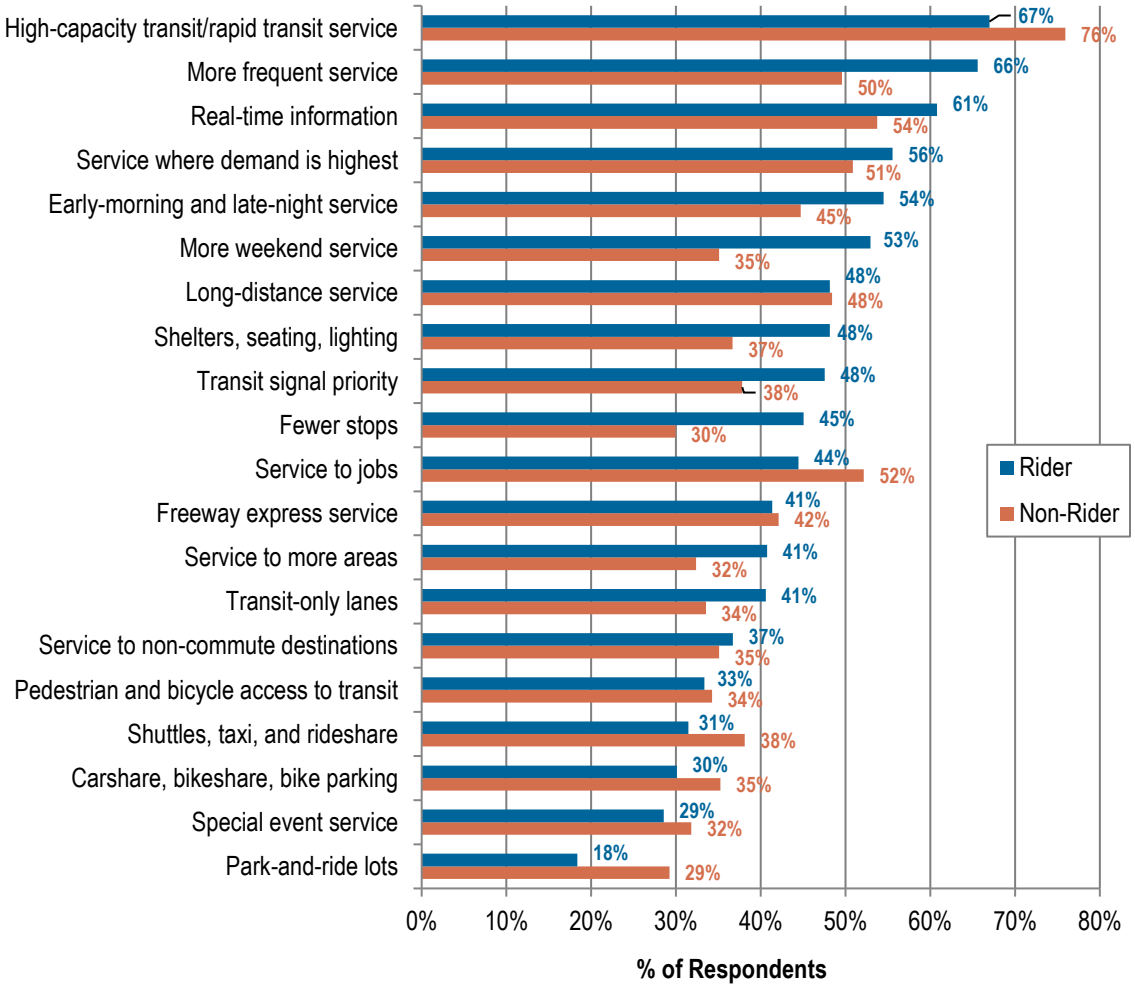


Figure 2 **Build Your Own System Survey – Select Improvements**

BUILD YOUR OWN SYSTEM SURVEY RESULTS

Figure 3 shows percentages of respondents selecting each improvement, with responses separated based on whether the individual self-identified as someone who does or does not ride transit. The improvement most frequently selected by both existing riders (67%) and non-riders (76%) was "High-Capacity Transit/Rapid Transit Services." This was the most popular despite being the most expensive improvement available at $25, or one-quarter of the total budget for each respondent. The second and third most popular improvements for riders were service and amenities enhancements: "More Frequent Service" (66%) and "Real-Time Information at Bus Stops" (61%). The second and third most popular improvements for non-riders were "Real-Time Information at Bus Stops" (54%) and "Service to Jobs" (52%). The lowest priority improvement for both riders and non-riders was "Park-and-Ride Lots" (18% and 29%, respectively).

Figure 3 Preferred Transit Improvements



To begin exploring how far a budget of $100 would stretch in implementing the top priorities, costs were totaled for the highest-priority options until the budget was expended. The top nine priorities identified by current OCTA riders could be implemented within the survey budget: high-capacity transit/rapid transit service, more frequent service, real-time information, service where demand is highest, early morning and late night service, more weekend service, long-distance service, shelters, seating, and lighting, and transit signal priority.

The top nine priorities identified by non-riders could also be implemented within the survey budget: high-capacity transit/rapid transit service, real-time information, service to jobs, service where demand is highest, more frequent service, long-distance service, early morning and late night service, freeway express service, and transit signal priority.

FOLLOW-UP SURVEY RESULTS

Results from the follow-up survey are described below, focusing on decision-making and impressions of the exercise, individual travel behavior, and demographic characteristics.

Build Your Own System Survey Decision-Making and Impressions

A desire to "make transit more available" ranked as the top consideration in the decision-making process for one-third (33%) of respondents (Figure 4). "Making it easier for more people to use the bus" was the primary decision factor for a quarter (23%) of respondents. Less important factors in people's decision-making processes were "expanding transit access to jobs" and "improving air quality." "Making it easier to access transit on foot or by bike" and "making it more comfortable to wait for and ride the bus" were identified as least important in decision-making.

The majority of respondents (60%) felt that the budget provided in the exercise was adequate (Figure 5). Another 22% indicated they needed more money, while 18% felt they had too much budget for the improvements they wanted to make.

Figure 4 Importance of Decision-Making Criteria (1 is most important; 6 is least important)

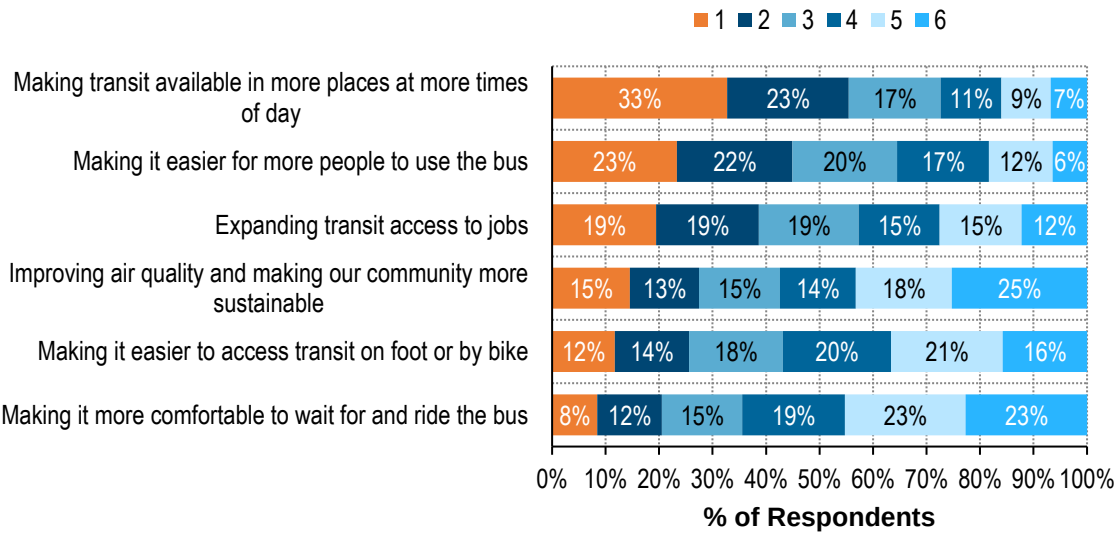
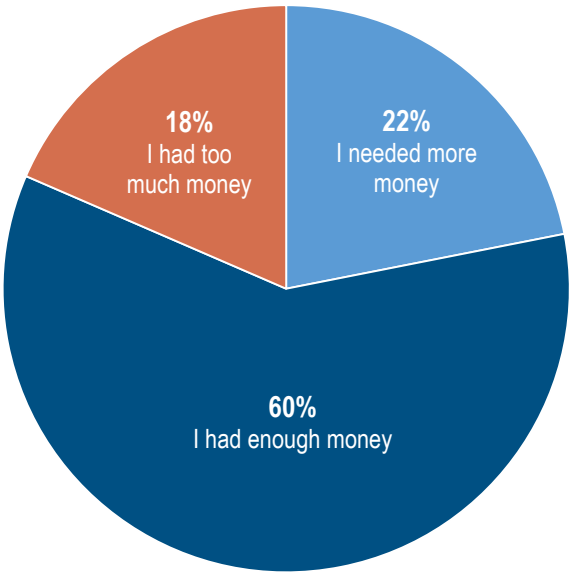


Figure 5 Feelings about Budget Size ($100)



Travel Behavior and Opinions

Participants were asked about their current travel choices, including their primary mode of transportation and the frequency at which they ride an OCTA bus. The majority of survey respondents (62%) reported that driving alone was their primary mode of transportation (Figure 6). Transit was the next most common mode (19%), followed by carpool (11%), and walking and bicycling (4% and 3%, respectively).

Participants were also asked how often they ride any type of OCTA transit service. Approximately half of the respondents (52%) have never used OCTA transit services. One quarter of respondents ride less than once per month, and 13% ride four to seven days per week (Figure 7).

Figure 6 Primary Transportation Mode

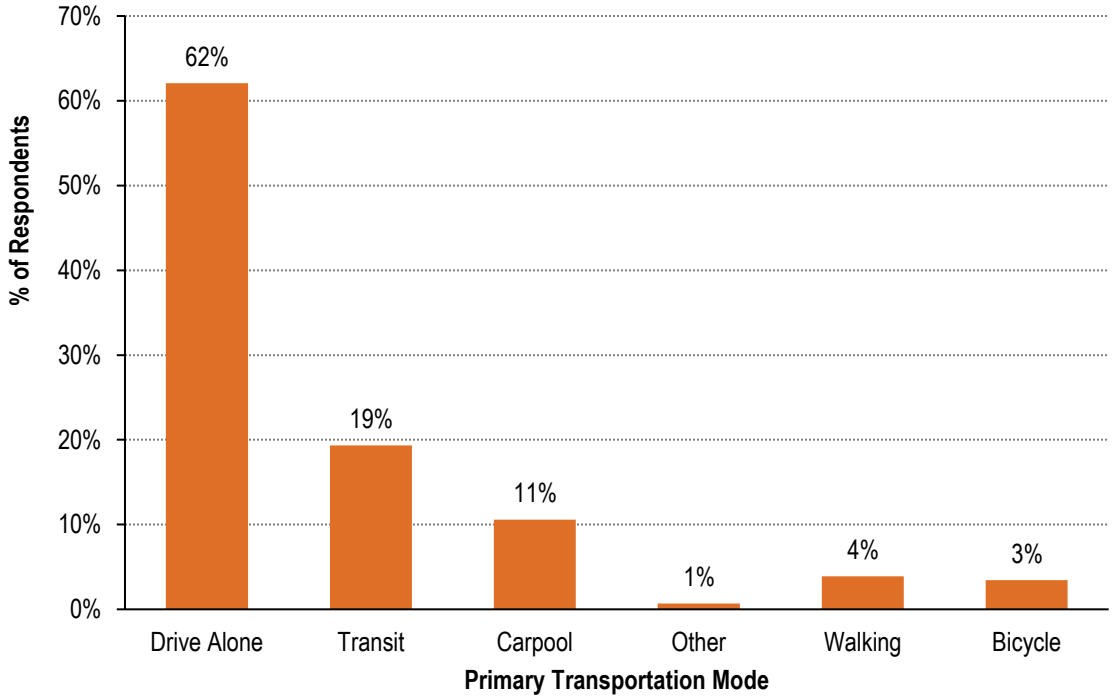
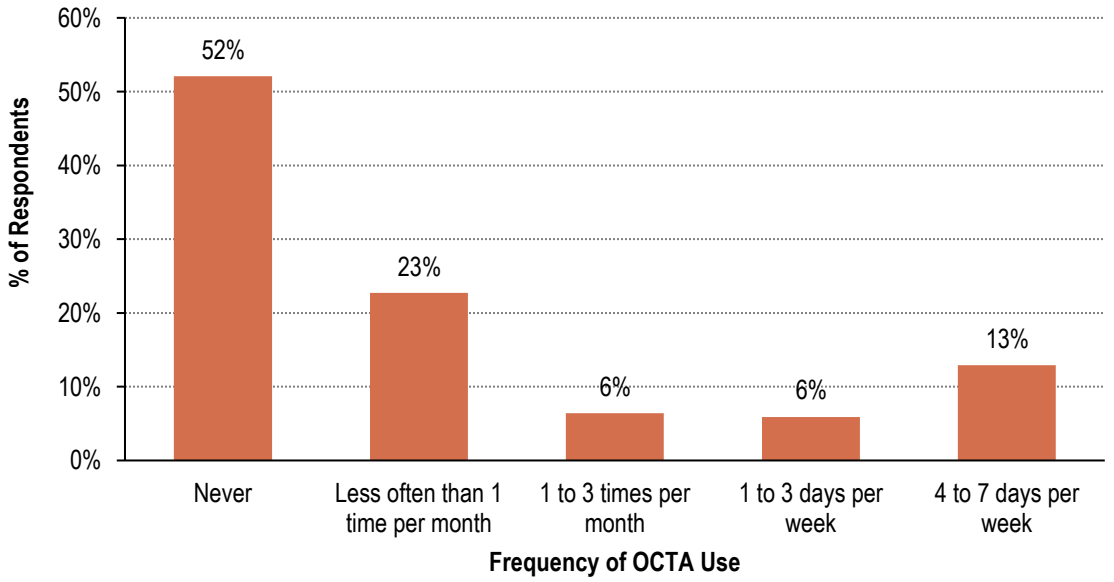


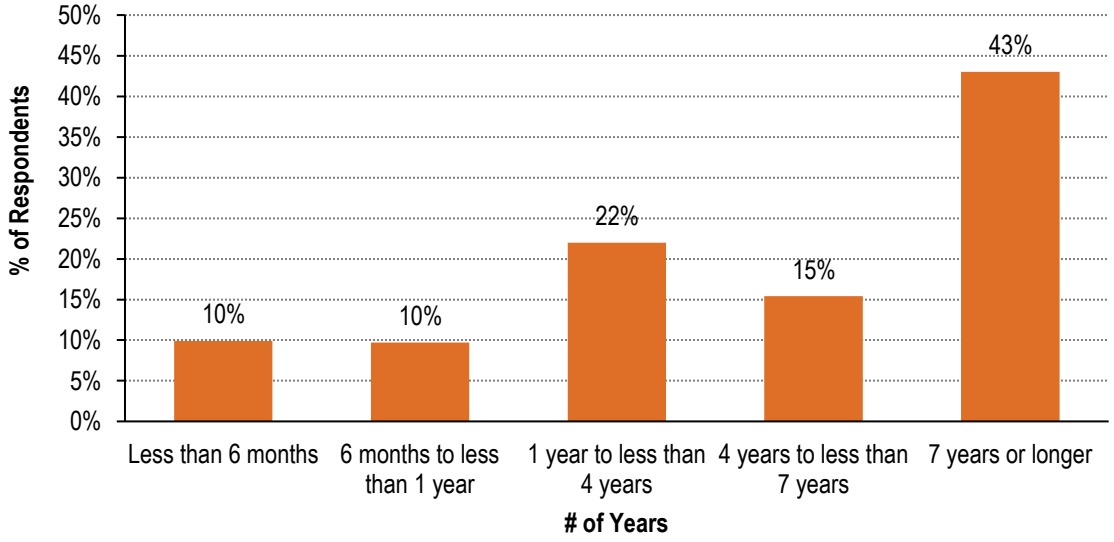
Figure 7 Frequency of OCTA Use



OCTA Riders

Respondents who currently use, or have previously used, an OCTA bus service were asked how long they have used the system. Most (43%) are experienced customers and reported using OCTA for over seven years (Figure 8). Nearly a quarter of respondents (22%) reported using OCTA for one to four years, and 15% have used OCTA from four to seven years. These responses suggest that OCTA riders tend to be long-time customers.

Figure 8 Length of Time Riding OCTA (OCTA Riders)



The respondents who currently use OCTA services were also asked why they ride the bus. The most common reason (37%) that frequent OCTA riders report using the bus is because they save money (Figure 9). Of survey respondents that cited reasons other saving money, avoiding traffic congestion and protecting the environment were the next most common reasons for riding OCTA services.

Lastly, riders were asked what type of trips they make using OCTA services. Work trips are the most common trip purposes (56%), followed by recreation/social visit/entertainment and personal business/errands (Figure 10). Using transit for one's everyday commute can be an indicator of transit dependency, which supports the trend of longer-term use.

Figure 9 Reasons for Using OCTA (OCTA Riders)

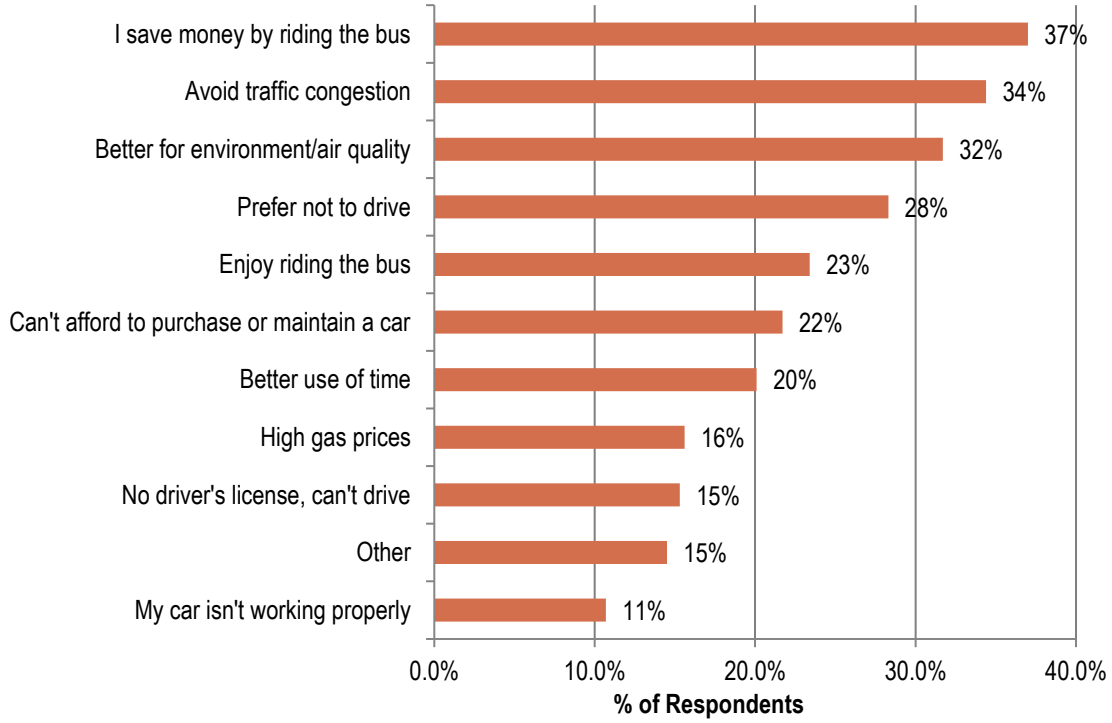
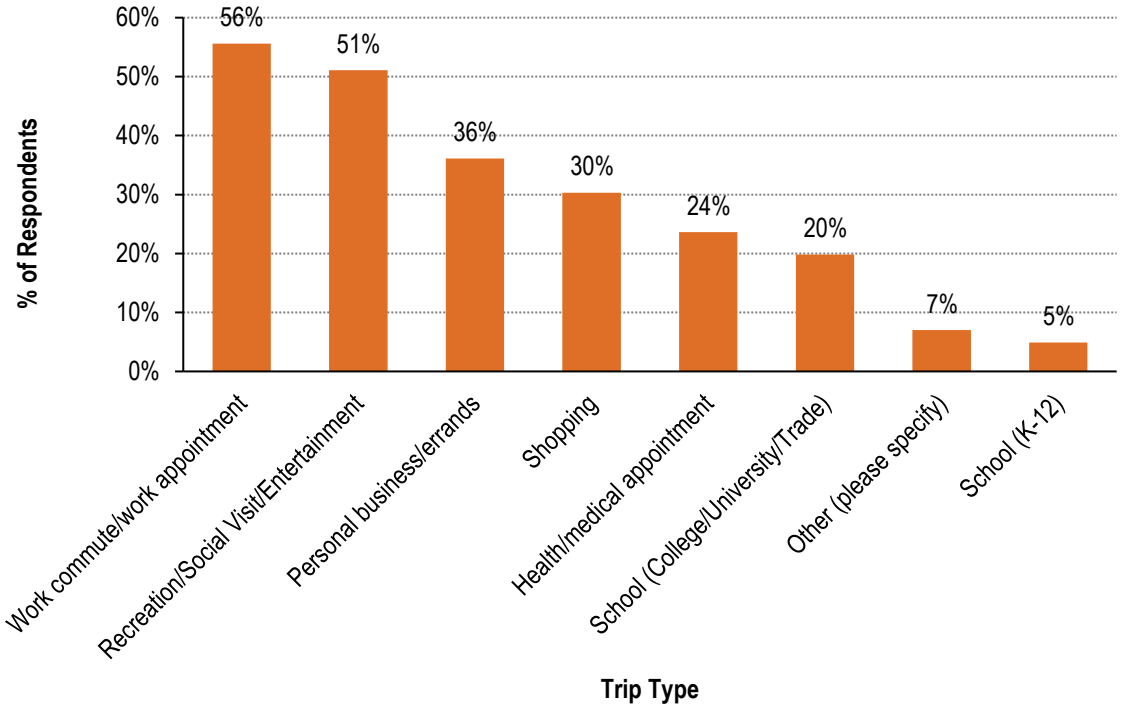


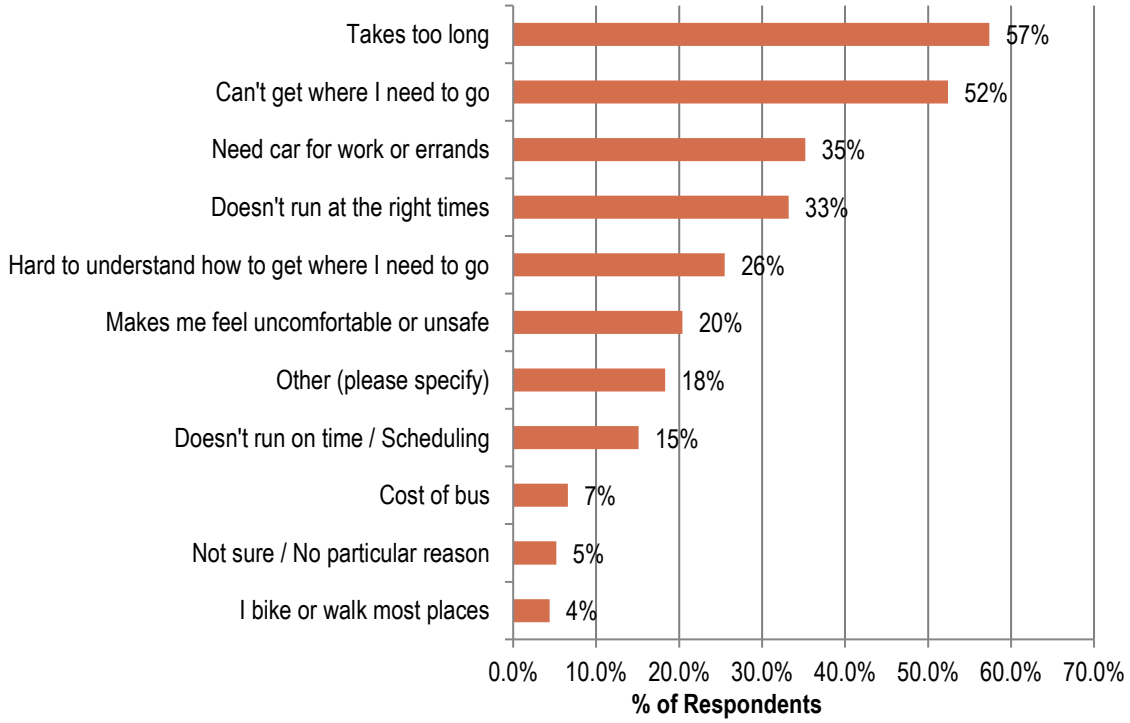
Figure 10 Purpose of Trips Made Using OCTA (OCTA Riders)



Reasons for Not Riding OCTA

All respondents were asked why they do not ride OCTA transit services more often. Figure 11 shows that the most frequently cited reason is because the bus takes too long (57%). This sentiment likely contributed to the priority placed on "High-Capacity/Rapid Transit" in the Build Your Own System survey, an improvement selected by more than half of the respondents. The second most popular reason cited for not using OCTA services is that the bus does not take respondents where they need to go. Many respondents identified the need for a car to get to a job or run errands and inconvenient schedules as other reasons for not riding OCTA.

Figure 11 Reasons for Not Riding OCTA



Respondent Demographics

At the conclusion of the follow-up survey, respondents were asked demographic questions that will be used to inform future analysis about the priorities for different demographic groups. Respondent demographics were also compared to Orange County resident demographics[1] to note any discrepancies between the two:

Age: People between the ages of 25 and 34, 35 and 44, and 45 and 54 each represented 20% of survey respondents. As shown in

- Figure 12, the lowest percentage of participants was under 18 years of age (1%). In Orange County, 14% of residents fall into each of the aforementioned age groups, and 26% are under age 19.

[1] 2011-2015 American Community Survey Five-Year Estimates

- **Household Size:** The most common household size among respondents was two people (30%). Respondents from households of three and four people were evenly distributed, with 19% to 20% in each household size category. Very few respondents indicated that they live in a household of seven or more (Figure 13). This distribution in household size is reflective of Orange County demographics: 31% of households are two-person, and 17% are three-person. On average, there are approximately three people per household in Orange County.
- **Annual Income:** About one-third (34%) of respondents reported an annual household income of at least $100,000, while 13% of respondents have annual household incomes below $30,000 (Figure 14). The median income in Orange County today is $76,509, with 38% of households earning less than $100,000 (38%) and 23% earning below $35,000.
- **Racial/Ethnic Background:** Respondents were asked to describe their racial/ethnic background or backgrounds (Figure 15), and the majority of respondents identify as Caucasian/White (58%) or Hispanic/Latino (17%). Respondents that identified as Asian constituted 10% of respondents. In Orange County, fewer residents are Caucasian/White (42%) than the survey respondents, and more are Hispanic/Latino (34%) or Asian (19%).

Figure 12 Respondent Age

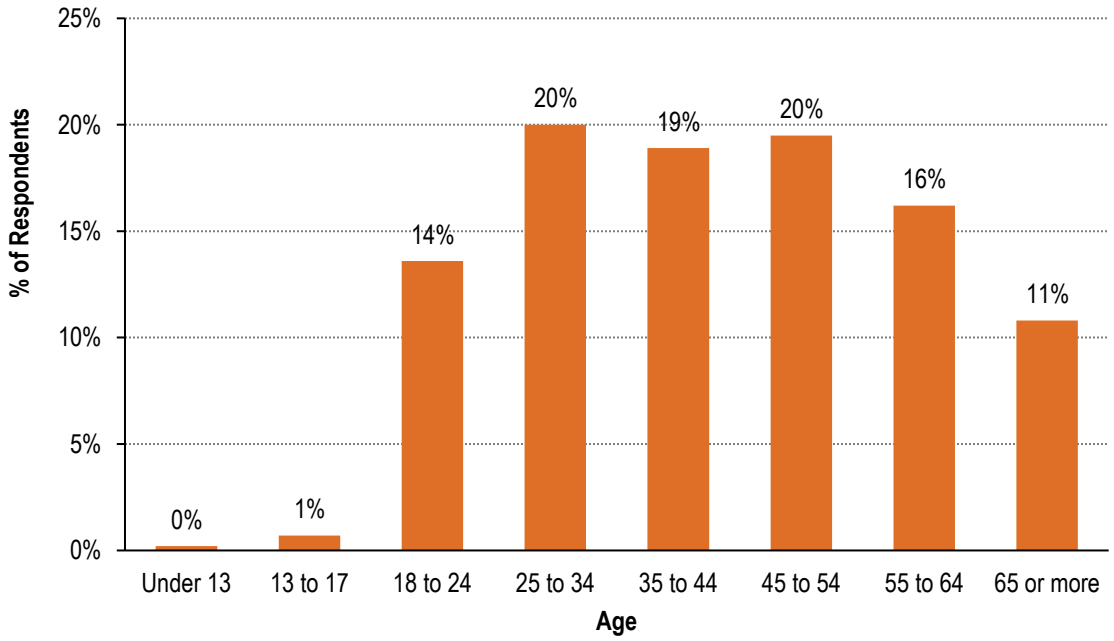


Figure 13 Respondent Household Size

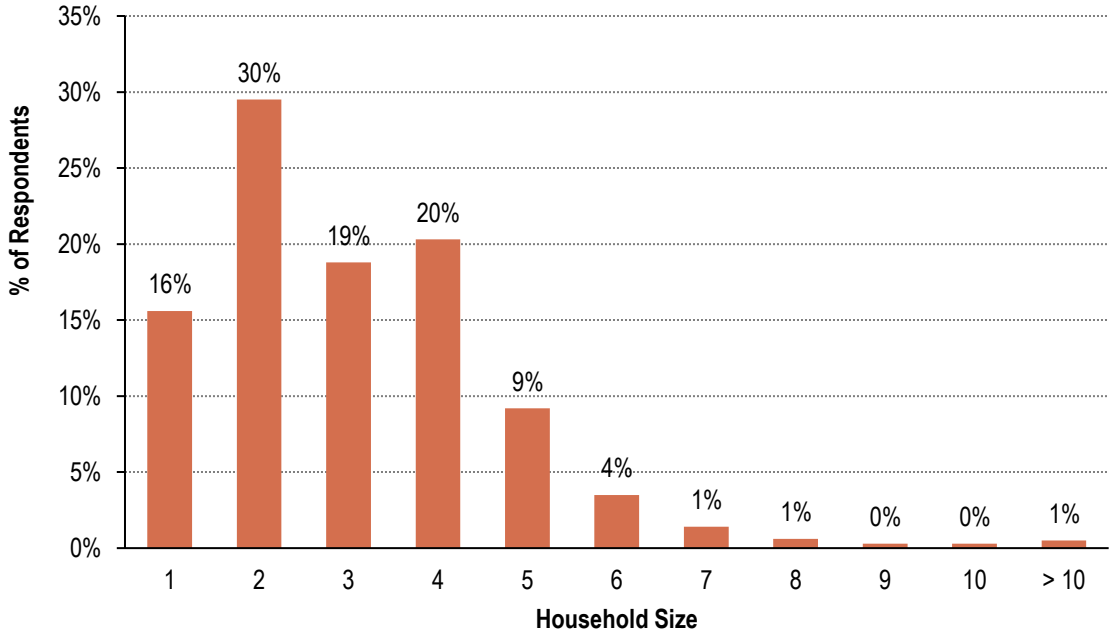


Figure 14 Respondent Annual Household Income

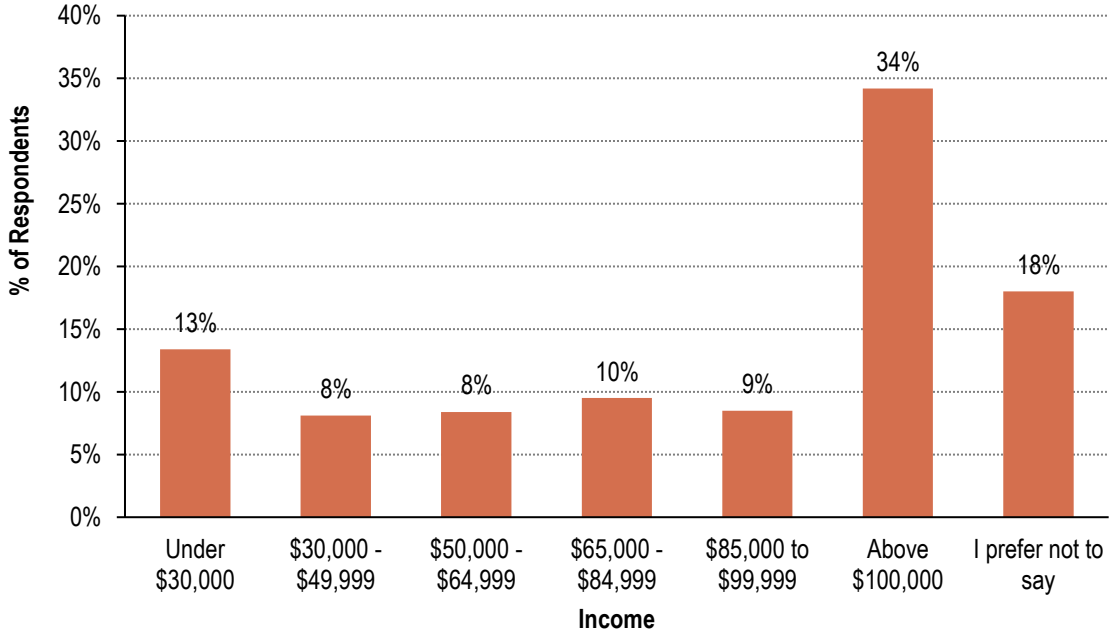
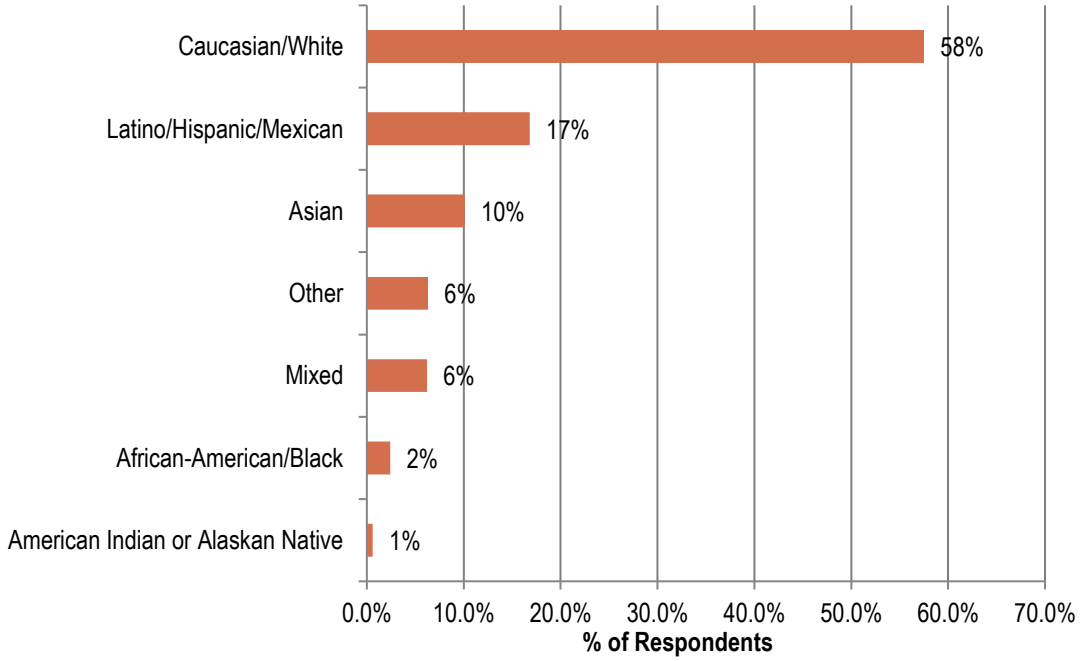


Figure 15 Respondent Race/Ethnicity



ATTACHMENT B

OC TRANSIT VISION

Transit Opportunity Corridors

Initial Screening and Preliminary Recommendations

June 2017

NELSON
NYGAARD

Table of Contents

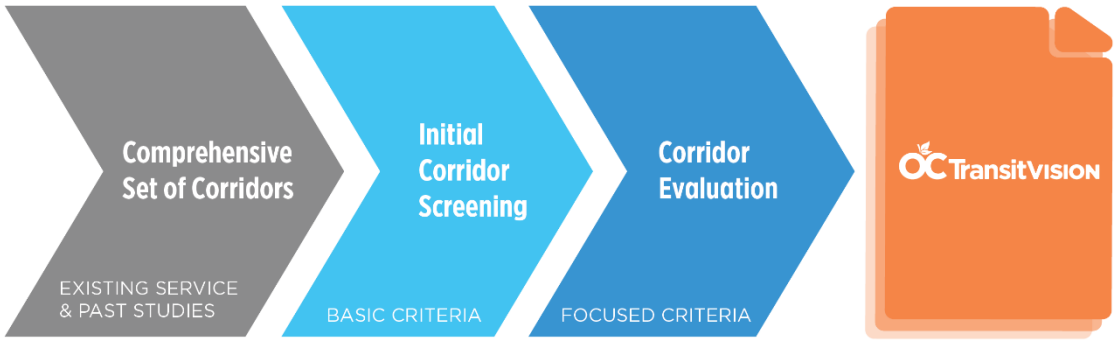
Table of Figures

1 INTRODUCTION

This report describes the initial screening of potential Transit Opportunity Corridors (TOCs) and the evaluation of possible Freeway Bus Rapid Transit (Freeway BRT) routes and stop locations for the OC Transit Vision. The TOCs are those corridors in Orange County that may merit investment in high-quality transit service, including high-capacity or rapid transit service using modes such as streetcar, bus rapid transit, or rapid bus (see the State of OC Transit report for more information on transit modes).

Figure 1 illustrates the screening and evaluation process, which includes the identification of candidate corridors, screening of those corridors (the focus of this report), and detailed evaluation and prioritization of the TOCs. As described in the final section of this report, the TOCs recommended for advancement from screening to evaluation will undergo more detailed analysis to establish a prioritized list of corridor-specific capital and service recommendations for inclusion in the final OC Transit Vision report.

Figure 1 Corridor Evaluation Process



2 SCREENING AND EVALUATION CRITERIA

The corridor screening and evaluation criteria established as part of the OCTA Transit Investment Framework are shown in Table 1. The criteria were designed to help achieve the project's vision and goals. A smaller number of criteria were identified for the initial screening than for the more detailed evaluation, which is standard for a process in which a large number of candidate corridors must be analyzed. For the OC Transit Vision, the complete list of potential corridors has been screened using a subset of criteria to identify the most promising candidates for investment; these 10 corridors then undergo more comprehensive analysis—including ridership modeling—to determine specific recommendations for each.

The screening and evaluation criteria measure both potential project performance as well as corridor characteristics such as population and employment density, transit propensity of the population based on demographic analysis, and other transit-supportive factors. The screening phase focused on corridor characteristics, while the evaluation phase will focus on potential project performance based on preliminary definition of mode, design of the right-of-way, and stop locations.

Table 1 Corridor Screening and Evaluation Criteria

Category	Measures	Initial 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	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)
	% of Employment within 30-min Travel Time on Transit	--	From model

Category	Measures	Initial Screening Methodology	Evaluation Methodology
 Multimodal Connectivity	# of Connections to Existing or Future Metrolink Stations, Transit Centers, and Major Routes, and 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)

Category	Measures	Initial Screening Methodology	Evaluation Methodology
Equity	Density of Households with Annual Incomes < $40,000	GIS analysis (Census data)	GIS analysis (Census data)
	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 jobs 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
	Adoption of Supportive Zoning		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

3 SEGMENTS AND STOP LOCATIONS

To ensure that the initial screening was conducted on a comprehensive set of corridors, the Project Development Team identified more than 30 potential TOCs. To allow for more refined analysis, these 30-plus corridors were divided into 96 corridor segments and 32 potential locations for Freeway BRT stops. These stops were identified to account for the fact that Freeway BRT would operate over long stretches without stopping, rendering corridor-based analysis irrelevant.

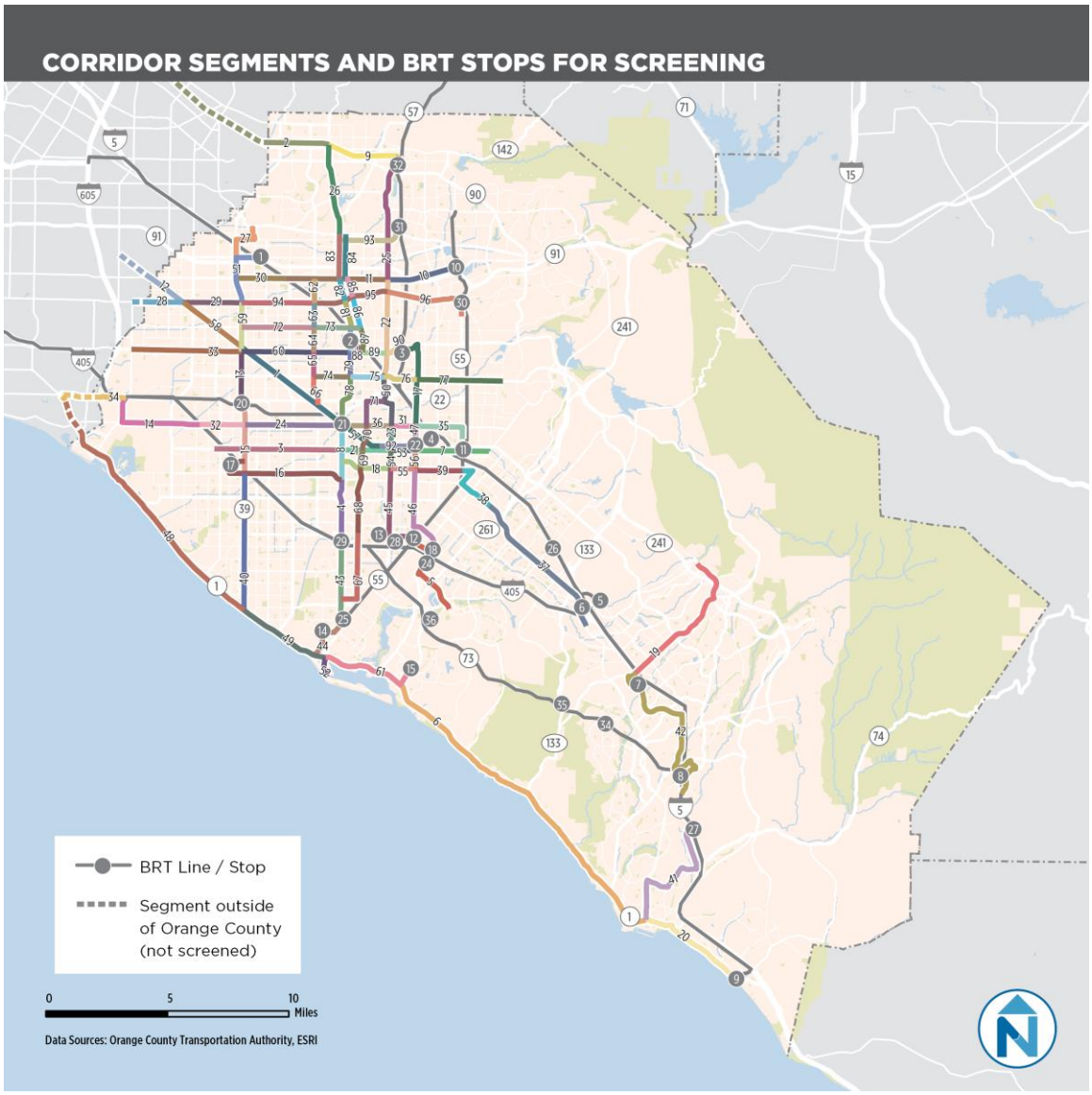
The corridors, segments, and Freeway BRT stop locations were identified based on the following:

- Corridors identified in previous studies, from 1990s proposed CenterLine light rail alignments to the current Central Harbor Boulevard Transit Corridor Study;
- Demographic, land use, and existing transit service analysis conducted as part of the OC Transit Vision and summarized in the State of OC Transit report;
- The Transit Investment Framework, which includes guidance for identifying potential high-capacity transit corridors;
- Discussions with OCTA staff from various departments; and
- Additional OCTA analysis of high-ridership segments of existing bus routes.

The potential corridors, segments, and Freeway BRT stops are located throughout Orange County, although the majority are in the more urbanized north and central parts of the county. Some corridors also extend a short distance into Los Angeles County to provide connections to existing and planned regional transit hubs.

The comprehensive set of corridor segments and stop locations for screening is shown in Figure 2.

Figure 2 Map of Segments and Stop Locations



4 SCREENING RESULTS

The area of analysis for each segment alignment or stop was a half-mile radius. Within this buffer each criterion was measured and assigned a score of 1 to 5. (As there were 14 categories, the maximum possible score was 70, and the minimum was 14.) In most cases, scores were based on natural breaks. For numbers of major transit connections, the score corresponded with numbers of connections (e.g., those segments or stops with more than five connections received a score of 5). For transit-supportive policy, a qualitative assessment of multiple factors led to the assignment of "high," "medium," and "low" values, which were then combined to produce scores.

It is important to emphasize that a screening exercise such as this is one tool for planners and policy makers to use in a decision-making processes; therefore, the results of such a screen should not be viewed as solely determinative. Slight differences in scores and resulting differences in rankings should be viewed as advisory, as slight changes to definitions, such as endpoints of segments, may result in changes to both scores and rankings.

Tables APX-1and APX-2 in Appendix B provides scores by criterion for all segments and stop locations. A full circle corresponds to a score of 5—the highest rating for a criterion—and an empty circle corresponds to a score of 1.

Figures 3 and 4 on the following pages map the overall findings for segments, with higher scoring segments shown in green and lower scoring segments shown in orange and red. Note that segments in Los Angeles County were not included in the analysis as the sole purpose of these segments would be to provide connections to transit hubs in Los Angeles County; this was factored into the analysis of transit connectivity for adjoining segments.

Figure 3 Map of Findings (Segments)

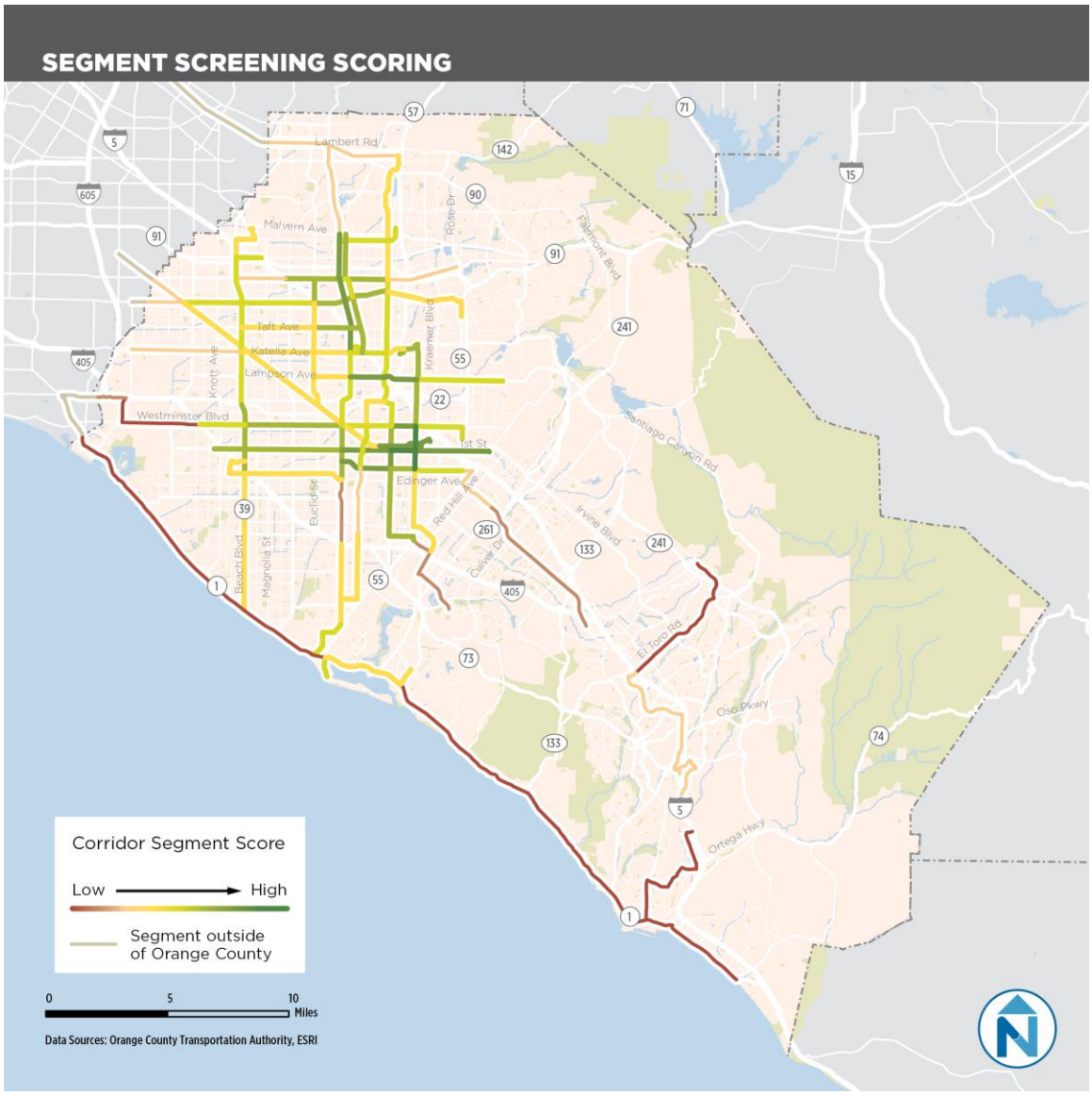
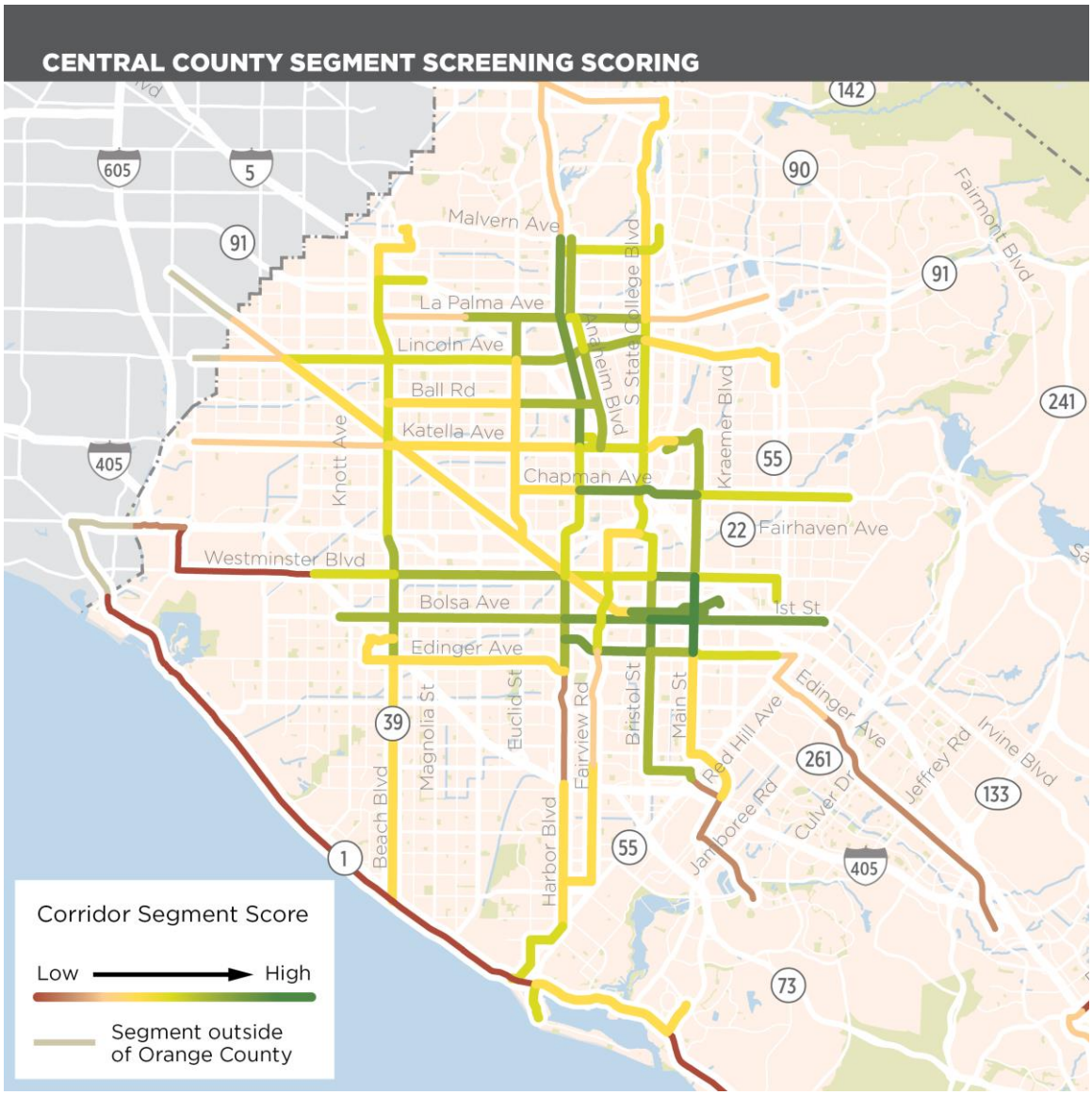


Figure 4 Map of Findings (Central County Segments)



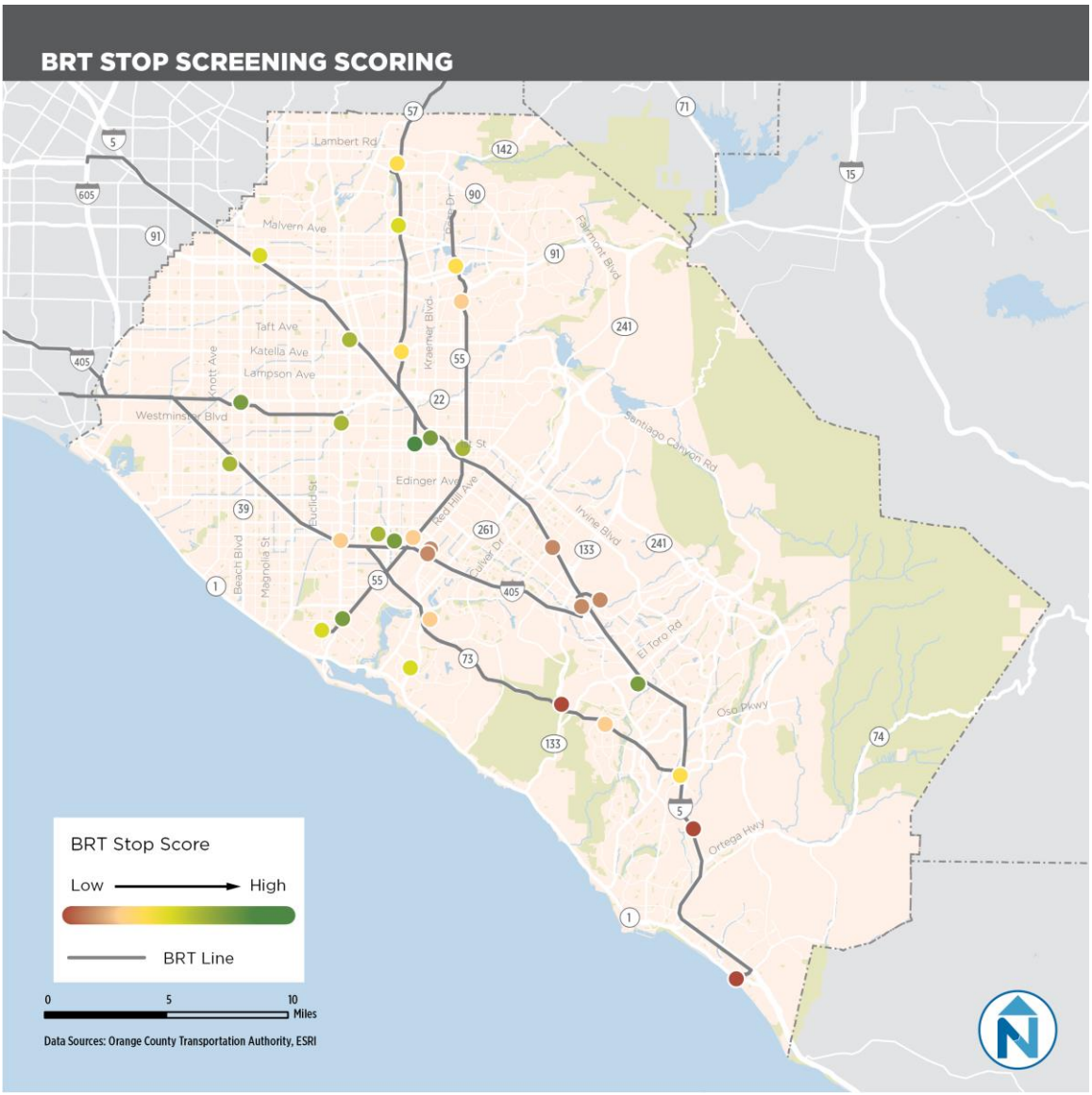
The segments that scored highest overall were located in the northern part of the county, primarily in Santa Ana and Anaheim. This area has some of the highest population densities in the county as well as relatively low incomes and other factors indicative of transit use. Existing transit services in this area include the highest-ridership OC Bus routes, consistent with the land uses and demographics. The top quartile of segments is shown in Table 2.

Table 2 Top Quartile of Segments by Corridor

Corridor	From	To	Primary Existing Route	ID
1st St/Bolsa Ave	Newport Ave	Main St	64/64X	7
	Main St	Bristol St		53
	Bristol St	Harbor Blvd		21
	Harbor Blvd	Westminster Mall		3
17th St/Westminster Ave	Main St	Bristol St	60/560	31
Anaheim Blvd	Chapman Ave	La Palma Ave	47	84
	Lincoln Ave	Ball Rd		86
	Ball Rd	Katella Ave		87
Ball Rd	Anaheim Blvd	Euclid St	46	73
Beach Blvd	SR-22	Edinger Ave	29	15
Chapman Ave	Main St	The City Dr	47/54	76
	The City Dr	Harbor Blvd		75
Harbor Blvd	Chapman Ave	La Palma Ave	43/543	83
	La Palma Ave	Lincoln Ave		82
	Lincoln Ave	Ball Rd		81
	Ball Rd	Katella Ave		80
	Westminster Ave	Edinger Ave		8
La Palma Ave	State College Blvd	I-5	38	11
Main St	17th St	1st St	53/53X	47
	1st St	McFadden Ave		56
McFadden Ave	Main St	Bristol St	66	55
	Bristol St	Harbor Blvd		18
State College Blvd/ Bristol St	17th St	1st St	57	23
	1st St	McFadden Ave		54
	McFadden Ave	Sunflower Ave & Main St		45
OC Streetcar (E of Pacific Electric right-of-way)			n/a	92

Figure 5 maps the results of the screening of Freeway BRT stop locations, with the stops shown in green ranked the highest and those in orange and red ranked the lowest.

Figure 5 Map of Findings (Freeway BRT Stop Locations)



While several of the potential stop locations are along or near the highest-ranking segments in the northern part of the county, stop locations in Downtown Costa Mesa and near Laguna Hills Mall also ranked highly. The top quartile of Freeway BRT stop locations included the following:

- Santa Ana Civic Center (I-5 corridor)
- Santa Ana Station (I-5)
- Triangle Square in Costa Mesa (SR-55 corridor)
- The Laguna Hills Transit Center (I-5)
- South Coast Metro in Costa Mesa (SR-55)
- First Street and SR-55 in Tustin (SR-55)
- South Coast Plaza Park-n-Ride in Costa Mesa (SR-55)
- Beach and SR-22 in Garden Grove (SR-22)

5 PRELIMINARY RECOMMENDATIONS

Based on the analysis and discussions with OCTA staff, ten TOCs are recommended for detailed evaluation and prioritization. Each of these corridors includes segments or stop locations that rated highly in the initial screening, although some also include segments that ranked somewhat lower. By combining these segments and stop locations into "complete" corridors with major anchor destinations or transit hubs at each end, it is possible to better represent potential alignments and design more effective and efficient transit services and capital improvements.

Eight arterial corridors (four north-south and four east-west) and two Freeway BRT corridors—several of which follow or closely follow existing OC Bus routes—are recommended for further development and evaluation. This mix of corridor types provides flexibility for analysis and potential implementation. For example, the Freeway BRT corridors would require a partnership with Caltrans and could leverage existing and planned investments in managed lanes, supporting rapid transit travel throughout the county. Arterial corridors, meanwhile, could be developed by OCTA through FTA processes.

The ten recommended corridors for further study are the following:

On-street corridors:

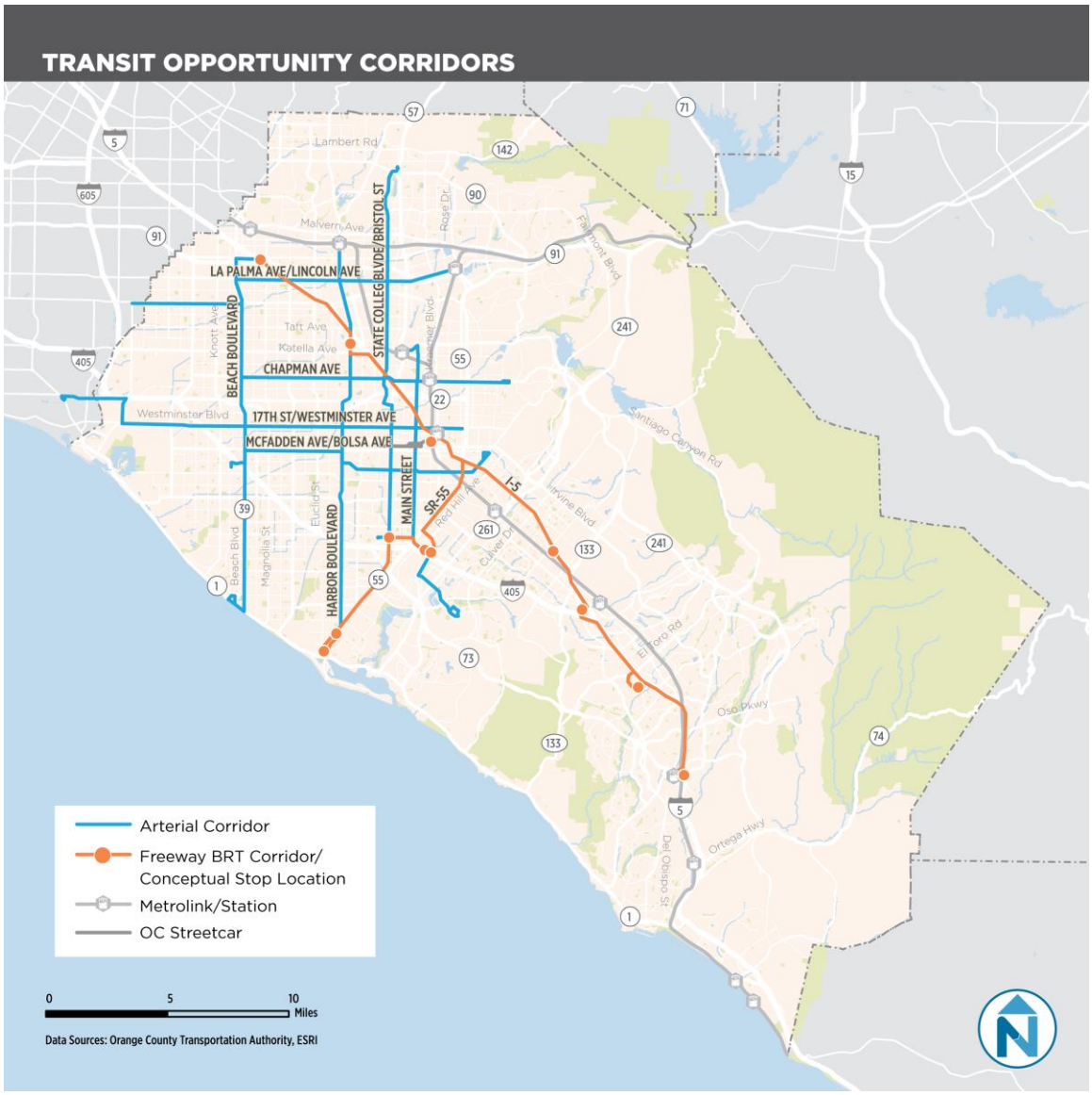
- Beach Boulevard from Fullerton Park-and-Ride to Downtown Huntington Beach
- Harbor Boulevard from Fullerton Transportation Center to Hoag Hospital Newport Beach
- State College Boulevard/Bristol Street from Brea Mall to the University of California, Irvine
- Main Street from Anaheim Regional Transit Intermodal Center (ARTIC) to South Coast Plaza Park-and-Ride
- La Palma Avenue/Lincoln Avenue from Anaheim Canyon Station to Hawaiian Gardens
- Chapman Avenue from Beach Boulevard to Hewes Street
- 17th Street/Westminster Avenue from Tustin Street to Cal State Long Beach
- McFadden Avenue/Bolsa Avenue from Larwin Square to Goldenwest Transportation Center

Freeway BRT corridors:

- I-5 from Fullerton Park-and-Ride to Mission Viejo/Laguna Niguel Station
- SR-55 from Santa Ana Regional Transportation Center to Hoag Hospital Newport Beach

The ten recommended Transit Opportunity Corridors are shown in Figure 6. Maps of each individual corridor are provided in Appendix A.

Figure 6 Recommended Transit Opportunity Corridors



APPENDIX A: CONCEPTUAL MAPS OF RECOMMENDED TRANSIT OPPORTUNITY CORRIDORS

Alignments and stop locations are conceptual and may be revised during the more detailed phase of corridor evaluation based on feedback from the OCTA Board of Directors, the Citizens Advisory Committee, and the public.

Figure A-1 Beach Boulevard Corridor

Figure A-2 Harbor Boulevard Corridor

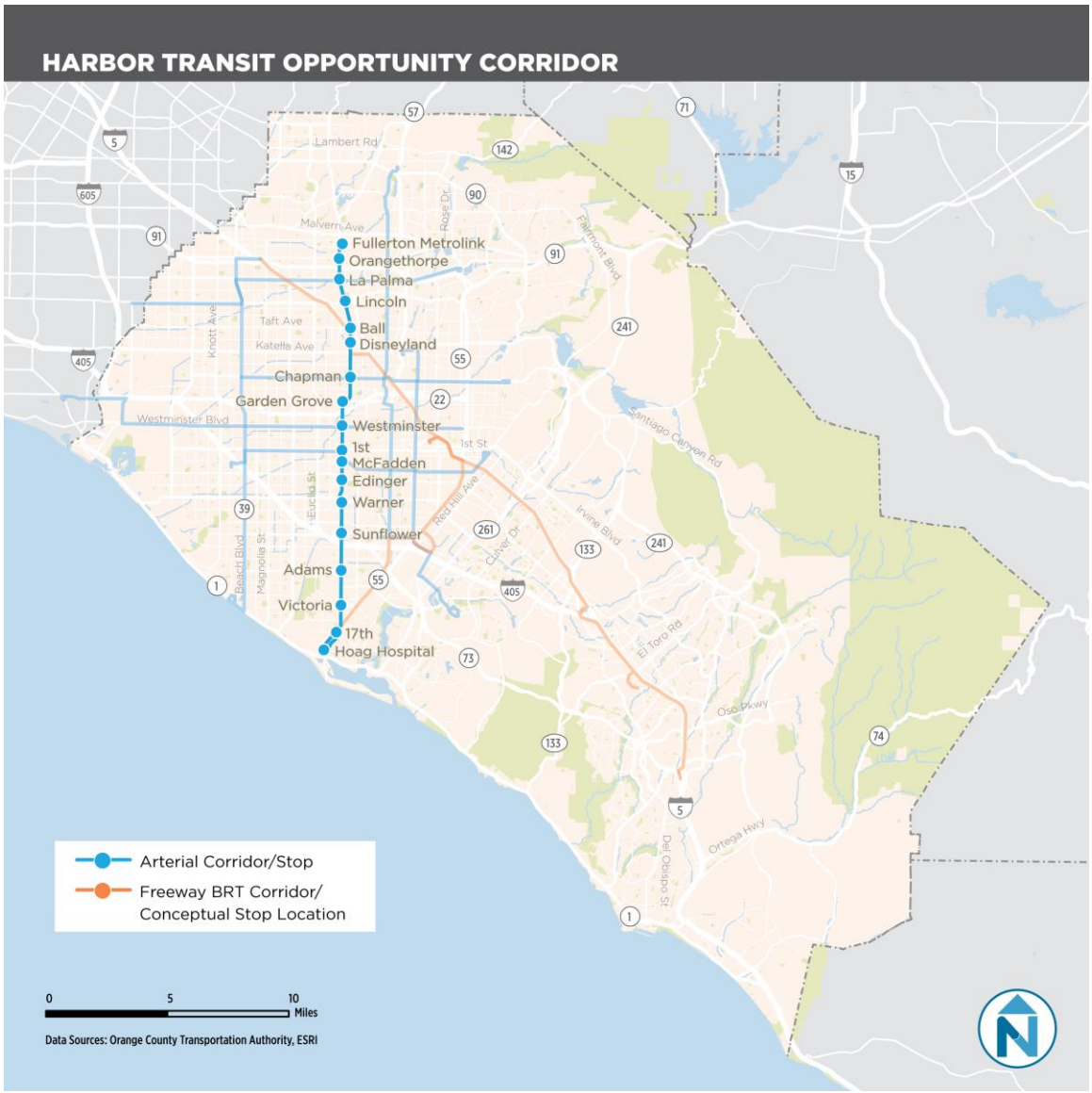


Figure A-3 State College Boulevard/Bristol Street Corridor

Figure A-4 Main Street Corridor

Figure A-5 La Palma Avenue/Lincoln Avenue Corridor

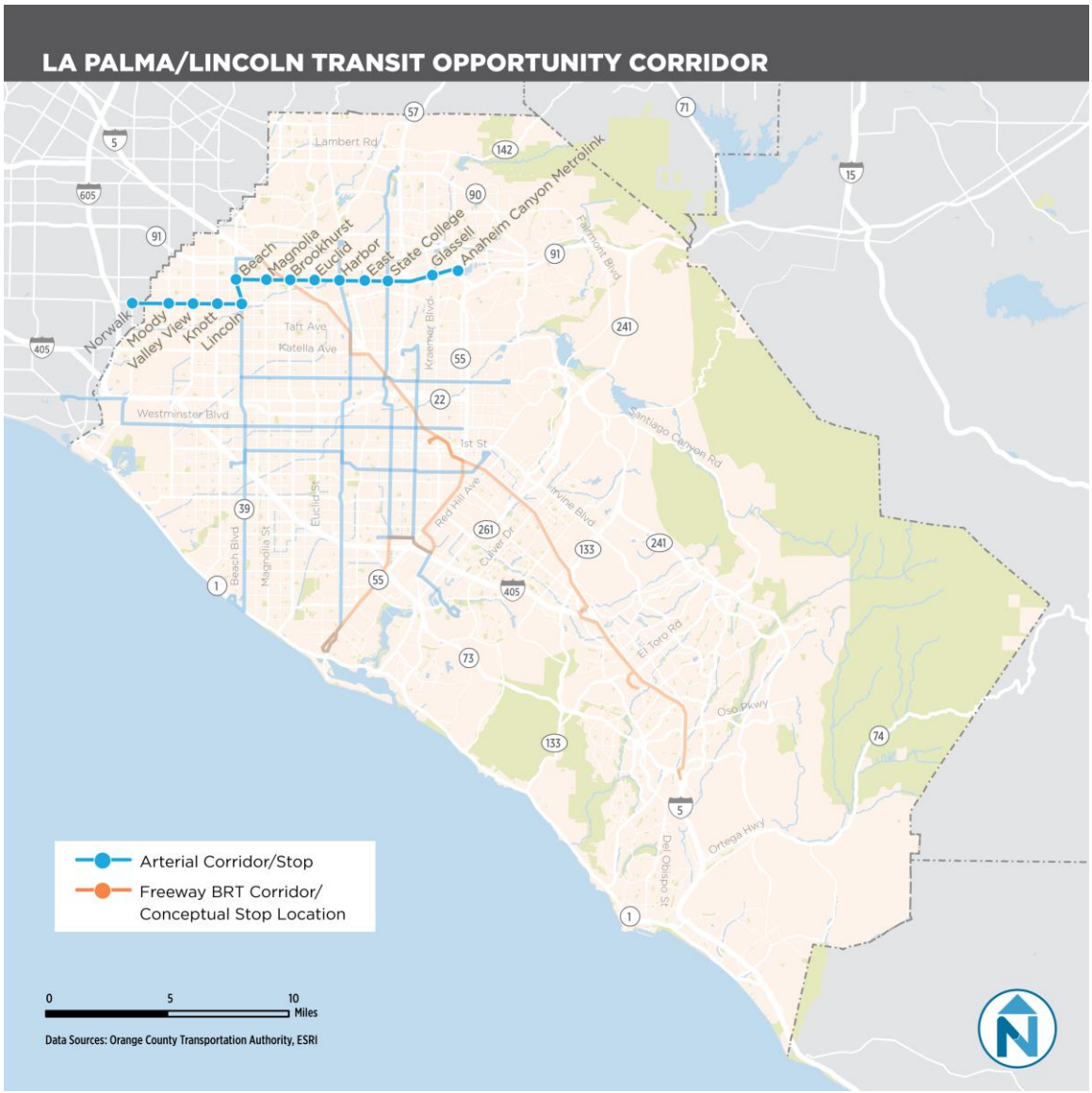


Figure A-6 Chapman Avenue Corridor

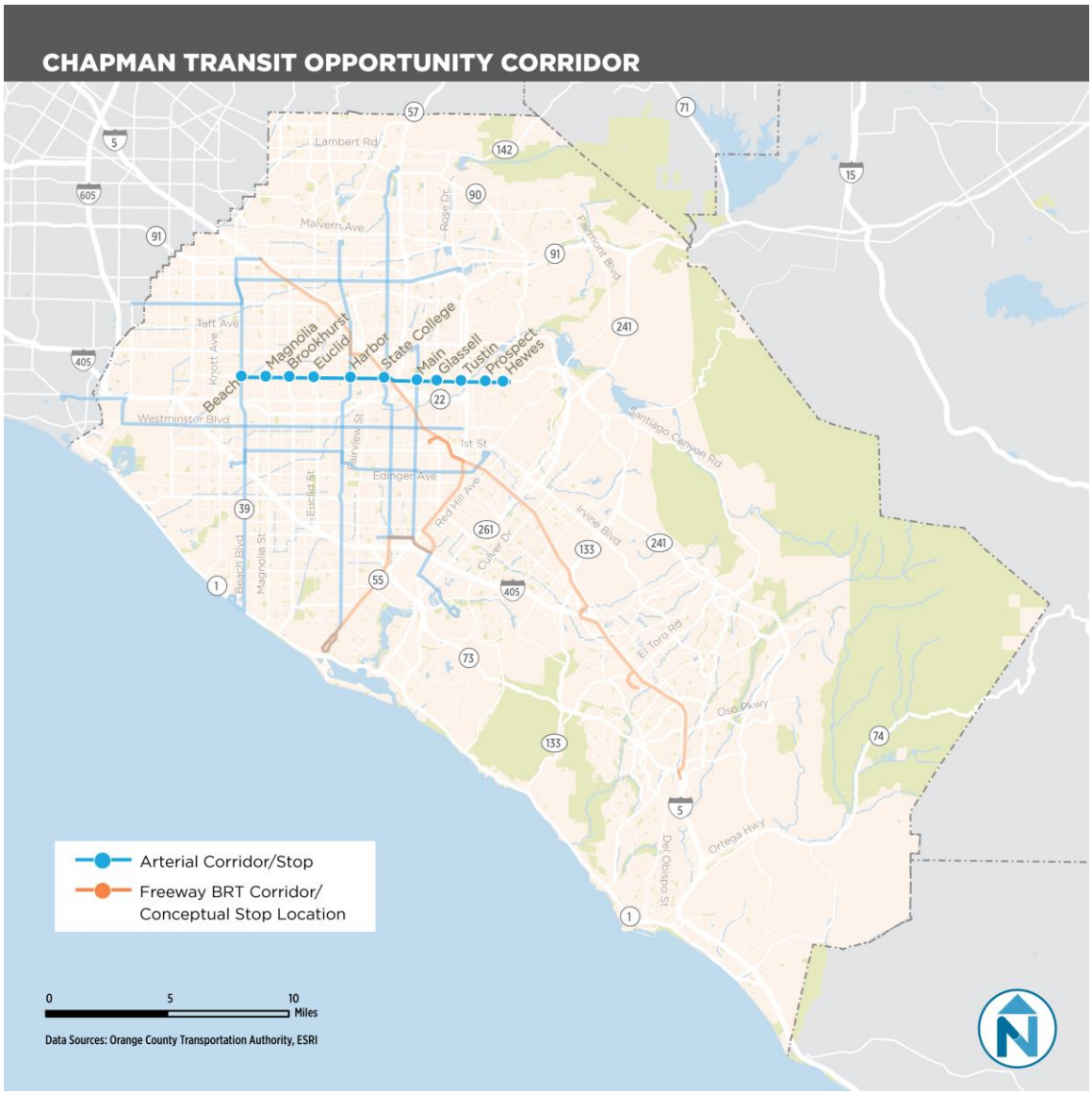


Figure A-7 17th Street/Westminster Avenue Corridor

Figure A-8 McFadden Avenue/Bolsa Avenue Corridor

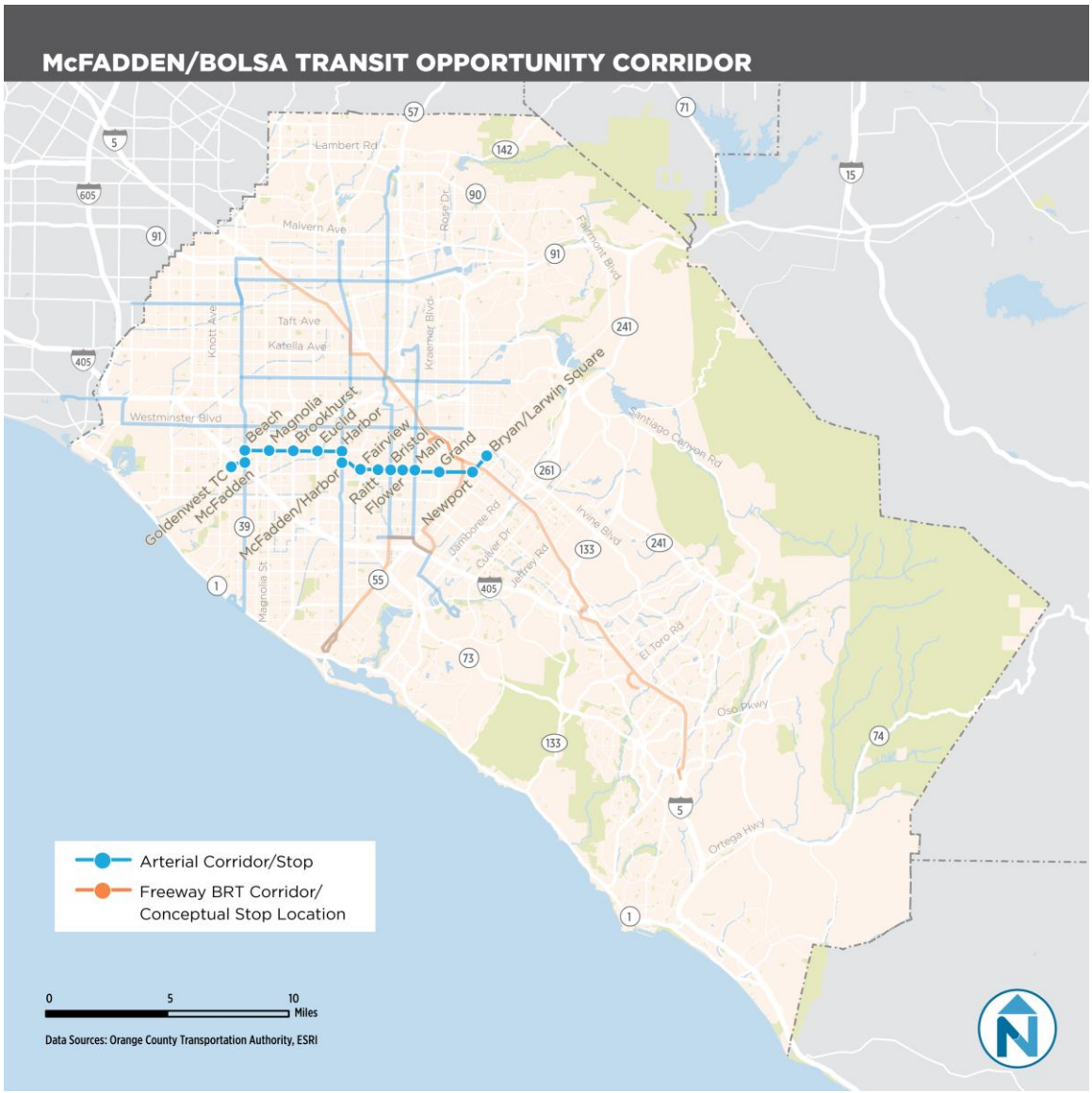
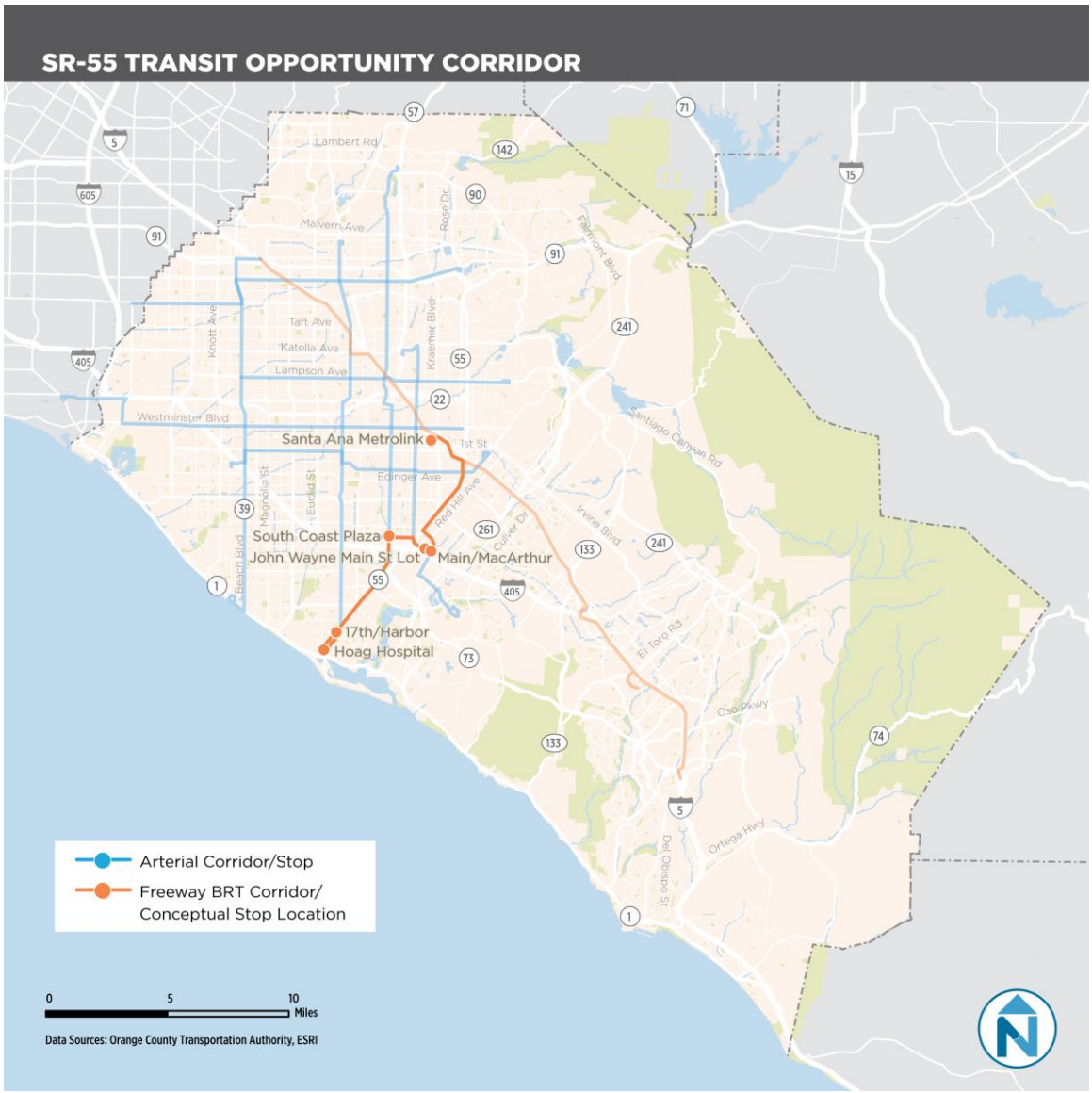


Figure A-9 I-5 Freeway BRT Corridor

Figure A-10 SR-55 Freeway BRT Corridor



APPENDIX B: SCREENING RESULTS BY CRITERIA, SEGMENT, AND STOP LOCATION

Table B-1 Matrix of Results by Segment

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
47	**Main St** from 17th St to 1st St	●	●	●	○	○	◔	●	◔	●	●	●	◔	◑	●	56
53	**1st St** from Bristol St to Main St	●	●	●	○	○	◔	◔	◔	●	●	●	●	◑	●	56
56	**Main St** from 1st St to McFadden Ave	●	●	◔	○	○	◔	◔	◔	●	◔	●	●	◑	◔	53
83	**Harbor Blvd** from Chapman Ave to La Palma Ave	◑	◑	◔	◔	○	◑	●	◑	◔	◑	◑	●	●	●	48
92	**OC Streetcar** E of PE ROW	◑	◔	◔	○	○	◑	●	◔	◑	◔	◔	●	◔	●	47
31	**17th St** from Bristol St to Main St	●	◔	●	○	○	◔	●	◔	●	◔	◑	◔	◔	◔	46
7	**1st St** from Main St to Newport Ave	◑	◑	◔	◔	○	◑	●	◑	●	◑	◑	◔	◑	◔	45
18	**McFadden Ave** from Harbor Blvd to Bristol St	◔	●	○	○	○	◑	●	◔	◔	◑	◔	◔	◑	◑	44

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
21	**1st St** from Harbor Blvd to Bristol St															44
75	**Chapman Ave** from Harbor Blvd to The City Dr															44
81	**Harbor Blvd** from Lincoln Ave to Ball Rd															44
54	**Bristol St** from 1st St to McFadden Ave															43
76	**Chapman Ave** from The City Dr to Main St															43
80	**Harbor Blvd** from Ball Rd to Katella Ave															43
82	**Harbor Blvd** from La Palma Ave to Lincoln Ave															43
23	**McFadden Ave** from Bristol St to Main St															42
55	**Ball Rd** from Euclid St to Anaheim Blvd															42
73	**Lemon St** from Chapman Ave to La Palma Ave															42

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
84	**Harbor Blvd** from La Palma Ave to Lincoln Ave															42
3	**1st St/Bolsa Ave** from Harbor Blvd to Westminster Mall															42
8	**Harbor Blvd** from Westminister Ave to Edinger Ave															41
11	**La Palma Ave** from Santa Ana Fwy to State College Blvd															41
15	**Beach Blvd** from Garden Grove Fwy to Edinger Ave															41
45	**Bristol St** from McFadden Ave to Sunflower Ave **Sunflower Ave** from Bristol St to Main St **Main St** from Sunflower Ave to Costa Mesa Fwy															41
86	**Anaheim Blvd** from Lincoln Ave to Ball Rd															41

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
87	**Anaheim Blvd** from Ball Rd to Katella Ave															41
17	**Katella Ave** from ARTIC to Main St **Main St** from Katella Ave to 17th St															40
24	**Westminister Ave** from Beach Blvd to Harbor Blvd															40
62	**Euclid St** from La Palma to Lincoln Ave															40
95	**Lincoln Ave** from Euclid St to State College Blvd															40
44	**The City Dr** from Santa Ana Fwy to Memory Ln **Memory Ln** from The City Dr to Bristol St **Bristol St** from Memory Ln to 17th St															39
50	**Newport Blvd** from PCH to 22nd St															39

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
52	**Beach Blvd** from Lincoln Ave to Garden Grove Fwy															39
59	**Harbor Blvd** from Westminister Ave to Edinger Ave															39
69	**Fairview St** from 1st St to McFadden Ave															39
22	**State College Blvd** from La Palma Ave to Santa Ana Fwy															38
32	**Westminister Ave** From San Diego Fwy to Beach Blvd															38
35	**Westminister Ave/17th St** from Harbor Blvd to Bristol St															38
36	**McFadden Ave** from Main St to Costa Mesa Fwy															38
39	**Fairview St** from 1st St to McFadden Ave															38
78	**Harbor Blvd** from Chapman Ave to Westminister Ave															38

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
79	**Harbor Blvd** from Katella Ave to Chapman Ave															38
85	**La Palma Ave** from Lemon St to Anaheim Blvd **Anaheim Blvd** from La Palma Ave to Lincoln Ave															38
88	**Katella Ave** from Harbor Blvd to Haste St															38
89	**Katella Ave** from Haster St to State College Blvd															38
91	**Disney Way** from Harbor Blvd to Clementine St **Clementine St** from Disney Way to Katella Ave															38
93	**Pomona Ave** from Santa Fe Ave to Commonwealth Ave **Commonwealth Ave** from Pomona Ave to Nutwood Ave															38

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
29	**Lincoln Ave** from Walker St to Beach Blvd															37
51	**Beach Blvd** from Lincoln Ave to Orangethorpe Ave **Orangethorpe Ave** from Beach Blvd to Campus Dr															37
13	**Beach Blvd** from Katella Ave to Garden Grove Fwy															36
70	**Fairview St** from Westminister Ave/17th St to 1st St															36
77	**Chapman Ave** from Main St to Hewes St															36
94	**Lincoln Ave** from Beach Blvd to Euclid St															36
43	**Harbor Blvd** from San Diego Fwy to Newport Blvd															35
60	**Katella Ave** from Beach Blvd to Harbor Blvd															35
63	**Euclid St** from Lincoln Ave to Ball Rd															35

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
72	**Ball Rd** from Beach Blvd to Euclid St															35
74	**Chapman Ave** from Euclid St to Harbor Blvd															35
1	**PE ROW** from Monroe Ave and Beach Blvd to Newhope St and Garden Grove Fwy															34
40	**Beach Blvd** from Edinger Ave to PCH															34
46	**Main St** from McFadden Ave to MacArthur Blvd **MacArthur Blvd** from Main St to Main St															34
65	**Euclid St** from Ball Rd to Chapman Ave															34
66	**Euclid St** from Chapman Ave to Sherman Ave															34

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
71	**Fairview St** from Westminister/17th St to Garden Grove Ave **Garden Grove Ave** from Fairview St to The City Dr															34
90	**Katella Ave** from State College Blvd to Douglas Rd															34
96	**Lincoln Ave** from State College Blvd to Tustin St **Tustin St** from Nohl Ranch Rd to Village Way															34
25	**State College Blvd** from Avocado St to La Palma Ave															33
67	**Wilson St** from Harbor Blvd to Fairview Rd **Fairview Rd** from Wilson St to Sunflower Ave															33

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
16	**McFadden Ave** from Beach Blvd to Gothard St **Gothard St** from McFadden to Edinger Ave **Edinger Ave** from Gothard to Harbor Blvd															32
27	**Dale St, Commonwealth Ave & Beach Blvd** from Buena Park Station to Orangethorpe Ave															32
57	**PE ROW** from Garden Grove Fwy and Newhope St to Santa Ana Blvd and Raitt St (incl. OC Streetcar W segment)															32
58	**PE ROW** from Walker St and Lincoln Ave to Beach Blvd and Monroe Ave															32
61	**PCH** from Newport Blvd to Avocado Ave to NPTC															32

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
64	**Euclid St** from Ball Rd to Chapman Ave															32
30	**La Palma Ave** from Beach Blvd to Santa Ana Fwy															31
10	**La Palma Ave** from State College Blvd to Anaheim Canyon Station															30
26	**Harbor Blvd** from Electric Ave to Chapman Ave															30
33	**Katella Ave** from Los Alamitos Blvd to Beach Blvd															30
42	**El Toro Rd, Paseo De Valencia, Cabot Rd, Crown Valley Pkwy, Medical Center Rd & Marguerite Pkwy** from I-5 to I-5															30
2	**Whittier-Brea Rail ROW** from Los Angeles County to Harbor Blvd and Superior Ave															30

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
9	**Whittier-Brea Rail ROW** from Harbor Blvd and Superior Ave to State College Blvd and Avocado St															29
68	**Fairview St** from McFadden Ave to Sunflower Ave															28
28	**Lincoln Ave** from Los Angeles County to Walker St															27
38	**McFadden Ave** from Costa Mesa Fwy to Newport Ave **Newport Ave** from McFadden Ave to Edinger Ave **Edinger Ave** from Newport Ave to Tustin Ranch Rd															27
12	**PE ROW** from Los Angeles County to Lincoln Ave and Walker St															27
4	**Harbor Blvd** from Edinger Ave to San Diego Fwy															26

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
34	**SR-22** from Los Angeles County to Seal Beach Blvd															25
37	**Edinger Ave/Irvine Center Dr** from Tustin Ranch Rd to Hubble															25
5	**Main St** from Costa Mesa Fwy to MacArthur Blvd **MacArthur Blvd** from Main St to Campus Dr **Campus Dr** from MacArthur Blvd to Bridge Rd															23
41	**Junipero Serra Rd, Camino Capistrano, Del Obispo St, Camino Del Avion & Street of the Golden Lantern** from I-5 to PCH															22
6	**PCH** from Channel Dr to Beach Blvd															20
19	**Portola Pkwy and El Toro Rd** from Market Pl to I-5															20

ID	Segment Extent	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Density of Retail Jobs	Transit-Supportive Policy	Total
48	**PCH** from Los Angeles County to Beach Blvd															20
14	**Seal Beach Blvd** from San Diego Fwy to Westminister Ave **Westminister Ave** from Seal Beach Blvd to San Diego Fwy															19
49	**PCH** from Beach Blvd to Newport Blvd															18
20	**PCH** from Street of the Golden Lantern to Doheny Park Rd and Coast Hwy **El Camino Real** to Calle Deshecha															17

Table B-2 Matrix of Results by Stop Location

ID	Stop Name	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Retail Jobs	Land Use	Total
22	Santa Ana Civic Center															54
4	Santa Ana Stn															46
25	Triangle Square															45
7	Laguna Hills TC															43
28	South Coast Metro															43
20	SR-22/Beach															43
11	SR-55/McFadden															42
13	South Coast Plaza PNR															42
2	Disneyland															41
17	Goldenwest TC															40
21	Harbor/Westminster															40
31	Cal State Fullerton															39
1	Fullerton PNR															39
14	Costa Mesa															37
15	Newport TC															36
3	ARTIC															35

ID	Stop Name	Weekday Boardings per Mile	Population Density Within ½ Mile of Alignment	Employment/ Postsecondary Enrollment Density Within ½ Mile of Alignment	Density of Hospital Beds/Retail Stores Within ½ Mile of Alignment	Additional Major Destinations, e.g., Stadiums & Theme Parks Within ½ Mile of Alignment	Traffic Volumes at Arterial Intersections Within ½ Mile of Alignment	Existing/Future Connections to Regional Rail, Metrolink Stations, Transit Centers, Major Routes and Park-and-Rides	Intersection Density	Walkscore	Density of Households with Annual Incomes < $40,000	Density of Seniors and People with Disabilities	CalEnviro Screen	Retail Jobs	Land Use	Total
32	Brea Mall															35
8	Laguna Niguel/Mission Viejo Stn															32
10	Anaheim Canyon Stn															32
30	Lincoln PNR															31
34	Aliso Viejo Town Center															31
12	SR-55/Main															30
29	Harbor Blvd															28
36	UCI/Research Park															27
6	Irvine Spectrum															26
26	Jeffrey PNR															26
5	Irvine Stn															25
18	Main Plaza															24
24	Irvine Business Complex															23
9	San Clemente Stn															22
27	Junipero Serra PNR															21
35	Laguna Canyon															15

ATTACHMENT C

MAP OF DRAFT TRANSIT OPPORTUNITY CORRIDORS