



# SPECIAL MEETING AGENDA

## Technical Advisory Committee

Time 10:30 a.m.

Date March 16, 2020

Location Riverside County Transportation Commission  
March Field Conference Room  
4080 Lemon Street  
Riverside, CA 92501

## COMMITTEE MEMBERS

Chad Blais, City of Norco  
Brad Brophy, City of Canyon Lake  
K. George Colangeli, PVVTA  
John A. Corella, Cathedral City  
Jesse Eckenroth, City of Rancho Mirage  
Tom Garcia, City of Palm Desert  
Christopher Gray, WRCOG  
Remon Habib, City of Lake Elsinore  
Jeff Hart, City of Beaumont  
William Hemsley, City of Eastvale  
Tom Koper, City of Corona  
Steve Loriso, City of Jurupa Valley  
Martin Magana, CVAG  
Bryan McKinney, City of La Quinta  
Bob Moehling, City of Murrieta  
Farshid Mohammadi, City of Riverside  
Joel Montalvo, City of Palm Springs

Dan Ojeda, City of Blythe  
Daniel Porras, City of Desert Hot Springs  
Patricia Romo, County of Riverside  
Ken Seumalo, City of Indian Wells  
Jonathan Smith, City of Menifee  
Brittney Sowell, SunLine Transit Agency  
Patrick Thomas, City of Temecula  
Michael Thornton, City of Calimesa  
Art Vela, City of Banning  
Alberto Vergel De Dios, Caltrans District 8  
Kristin Warsinski, Riverside Transit Agency  
Timothy T. Wassil, City of Indio  
Michael Wolfe, City of Moreno Valley  
Dan York, City of Wildomar  
Vacant, City of Coachella  
Vacant, City of Hemet  
Vacant, City of Perris  
Vacant, City of San Jacinto

## **SPECIAL MEETING**

### **RIVERSIDE COUNTY TRANSPORTATION COMMISSION TECHNICAL ADVISORY SPECIAL COMMITTEE MEETING AGENDA\***

**\*Actions may be taken on any item listed on the agenda.**

**TIME:** 10:30 A.M.

**DATE:** March 16, 2020

**LOCATION:** Riverside County Transportation Commission  
March Field Conference Room  
4080 Lemon Street  
Riverside, CA 92501

**CALL IN NUMBER:** Primary dial in: (877) 336-1828  
Alternate dial-in: (404) 443-6396  
Passcode: 5296248

*In compliance with the Americans with Disabilities Act, Government Code Section 54954.2, and the Federal Transit Administration Title VI, please contact the Clerk of the Board at (951) 787-7141 if special assistance is needed to participate in a public meeting, including accessibility and translation services. Assistance is provided free of charge. Notification of at least 48 hours prior to the meeting time will assist staff in assuring reasonable arrangements can be made to provide assistance at the meeting.*

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. APPROVAL OF December 9, 2019 MINUTES (ACTION ITEM)**
- 4. PUBLIC COMMENTS** – This is for comments on items not listed on agenda. Comments relating to an item on the agenda will be taken when the item is before the Committee.
- 5. TAC BRIEFING AND FEEDBACK SOLICITATION**

#### ***Overview***

This item is to receive and file the Technical Advisory Committee (TAC) briefing and to solicit feedback about TAC members' experiences and recommendations for improving TAC attendance and engagement.

**6. DRAFT TRAFFIC RELIEF PLAN PUBLIC ENGAGEMENT METRICS**

***Overview***

This item is for the Technical Advisory Committee to receive and file an update about the Commission's draft Traffic Relief Plan (Plan) public engagement metrics in Riverside County.

**7. PARK AND RIDE STRATEGY AND TOOLKIT**

***Overview***

This item is to receive and file the Park and Ride Strategy and Toolkit.

**8. SB 743 IMPLEMENTATION UPDATE**

***Overview***

This item is to receive and file an update on Senate Bill 743 implementation.

**9. 2021 ACTIVE TRANSPORTATION PROGRAM CYCLE 5 UPDATE**

***Overview***

This item is to receive and file an update on the 2021 Active Transportation Program (ATP) Cycle 5.

**10. FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM PERFORMANCE MEASURES**

***Overview***

This item is to receive and file information on the Federal Transportation Improvement Program (FTIP) Performance Measures.

**11. SB 821 BICYCLE AND PEDESTRIAN FACILITIES PROGRAM REFRESH**

***Overview***

This item is for the Committee to form a subcommittee to evaluate the SB 821 Program policy, application form, and scoring rubric in preparation for the FY 2021/22 Call for Projects.

**12. INLAND EMPIRE COMPREHENSIVE MULTIMODAL CORRIDOR PLAN – SUB-CORRIDOR PROJECT LIST**

***Overview***

This item is to discuss and seek comments to the sub-corridor project lists developed for the Inland Empire Comprehensive Multimodal Corridor Plan.

**13. CALIFORNIA TRANSPORTATION COMMISSION RECAP**

***Overview***

This item is to receive and file the January 2020 California Transportation Commission (CTC) meeting highlights.

**14. COMMISSION RECAP**

***Overview***

This item is to receive and file December 2019, January 2020 Workshop, and March 2020 Commission meeting highlights.

**15. CALTRANS DISTRICT 8 LOCAL ASSISTANCE UPDATE**

***Overview***

This item is to receive and file an update from Caltrans District 8 Local Assistance.

**16. COMMITTEE MEMBER / STAFF REPORT**

***Overview***

This item provides the opportunity for the Committee Members and staff to report on attended and upcoming meetings/conferences and issues related to Committee activities.

**17. ADJOURNMENT**

The next meeting of the TAC is scheduled to be held May 18, 2020, 10:00 a.m., at the Riverside County Transportation Commission, 4080 Lemon Street, Conference Room A, Riverside, CA 92501.



*MINUTES*

**TECHNICAL ADVISORY COMMITTEE MEETING  
MINUTES**

**Monday, December 9, 2019**

**1. CALL TO ORDER**

The meeting of the Riverside County Transportation Commission (RCTC) Technical Advisory Committee (TAC) was called to order by Chair Farshid Mohammadi at 10:00 a.m. at the Riverside County Transportation Commission, 4080 Lemon Street, Riverside, CA 92501.

**2. Members Present:**

Brad Brophy, Cities of Perris and San Jacinto  
Jesse Eckenroth, City of Rancho Mirage  
Tom Garcia, City of Palm Desert  
Carlos Geronimo, City of Menifee  
Remon Habib, City of Lake Elsinore  
Jeff Hart, City of Beaumont  
William Hemsley, City of Eastvale  
Eric Lewis, City of Moreno Valley  
Steve Loriso, City of Jurupa Valley  
Paul Mangaudis, City of Cathedral City  
Bob Moehling, City of Murrieta  
Farshid Mohammadi, City of Riverside  
Joel Montalvo, City of Palm Springs  
Daniel Porras, City of Desert Hot Springs  
Patricia Romo, County of Riverside  
Ken Seumalo, City of Indian Wells  
Brittany Sowell, SunLine Transit Agency  
Patrick Thomas, City of Temecula  
Art Vela, City of Banning  
Albert Vergel De Dios, Caltrans District 08  
Kristin Warsinski, Riverside Transit Agency  
Eric Weck, City of Indio  
Dan York, City of Wildomar

**Others Present:**

Leslie Avila, Caltrans District 8  
Rob Blough, City of Menifee  
Jenny Chan, RCTC  
Eric DeHate, RCTC  
Shirley Gooding, RCTC  
Jillian Guizado, RCTC  
Aaron Hake, RCTC  
Gilbert Hernandez, City of Riverside  
David Knudsen, RCTC  
Patrick Louie, Caltrans Headquarters  
Andrew Martin, County of Riverside

Martha Masters, RCTC  
Shirley Medina, RCTC  
Lisa Mobley, RCTC  
Lorelle Moe-Luna, RCTC  
Monica Morales, RCTC  
Roy Null, County of Riverside  
Sheldon Peterson, RCTC  
Evita Premdas, Caltrans  
Eric Ruehr, VRPA  
Mojahed Salama, County of Riverside  
Georgiena Vivian, VRPA  
Sean Yeung, Caltrans

**3. APPROVAL OF SEPTEMBER 16, 2019 MINUTES**

The September 16, 2019 minutes were approved as submitted.

**4. PUBLIC COMMENTS**

There were no public comments.

**5. DRAFT TRAFFIC RELIEF PLAN**

Aaron Hake, RCTC, reported that RCTC has been in the process of developing a Traffic Relief Plan over the past several months, also known as an Expenditure Plan, for a potential ballot measure in 2020 that could add a half-cent sales tax county-wide to go towards transportation improvement, which would be a new sales tax program. RCTC has been conducting public opinion research, public outreach, as well as technical outreach to stakeholders around the county to start the process of developing the expenditure plan. This has been done with the oversight of a couple of committees of the RCTC Board. Earlier this year RCTC had an Ad Hoc Committee called the Future Funding Initiatives that went through the process of creating priorities for the county and making the decision whether or not to keep proceeding towards the ballot measure. The ultimate decision to put the measure on the ballot will be made by the RCTC Board in June 2020. Polling was done that shows it is feasible for RCTC to pass a measure with a two-thirds vote.

Mr. Hake provided a PowerPoint presentation that included:

- Schedule for development of the Traffic Relief Plan
- Revenue Estimate and Economic Study
- Geography – Western County, Coachella Valley, Palo Verde Valley
- Expenditure Categories
- Committee Direction: Local Streets/Roads
- Commission Direction Sought on December 11, 2019

Question: Does the list of investments include any allocation to the cities that could potentially be used for maintenance purposes?

Response: It does. On the list is a maintaining local streets line item for which RCTC did reserve an amount of funding.

Question: What percentage?

Response: At this point, it's not a percentage. The dollar amount is not known yet.

Question: You say it takes 66 percent to pass this special tax. What percentage does it take to be repealed?

Response: Fifty plus one.

Question: Regarding geographic funding, is there any discussion about inter-regional loaning or transfer?

Response: It has been discussed internally but could be discussed further.

Question: Regarding the list of investments, will there be some narrowing down of the list?

Response: Perhaps. On December 11, the Commission will decide how they want to deal with it.

Question: The list would assume that each of the projects is entirely funded by Measure revenue?

Response: The \$10 billion total assumes contributions from state, federal, and TUMF.

Shirley Medina, RCTC, added that in the last measure RCTC assumed a certain amount of federal participation but those assumptions didn't come to fruition.

Question: Would any projects that weren't completed with the first Measure automatically default to the next Measure or would they be a stand-alone effort?

Response: There is some overlap such as Mid County Parkway, State Route 79, or I-15.

## **6. NEXT GENERATION RAIL CORRIDORS ANALYSIS REPORT**

Sheldon Peterson, RCTC, provided a PowerPoint presentation that included:

- The Purpose of the Study
- Next Generation Rail Study Task 1 Process
- Potential Corridors for Evaluation
- Potential Technologies for Regional Transit
- Diesel Multiple Unit (DMU) Vehicle Size Comparison
- Results of Initial Screening
- Major Advantages and Disadvantages
- Recommendations
- Next Steps

Question: Did the BRT route fall off the list?

Response: RTA is taking the lead on some of that planning.

Question: On the SCAG and Regional RHNA numbers, was that a factor that was considered when you looked at some of these lines as far as what would be developed first?

Response: RHNA showed up after we were along in the study. Staff will have to coordinate with some of the communities and SCAG.

Question: Is this being taken into account in the Measure discussion?

Response: Yes. It's on the list of projects put in the initial Measure.

Question: Regarding potential ridership being low from Perris to San Jacinto, how does that factor in? Is there a cost for potential riders?

Response: We're trying to keep them equally prioritized. Our challenge as far as capital delivery is going to Hemet/San Jacinto would be easier to deliver with less environmental challenges. We'll get the Commission's input as far as whether deliverability or productivity will be the biggest factor.

## **7. PARK AND RIDE STRATEGY AND TOOLKIT**

This item was deferred to the March 16 TAC meeting.

## **8. LONG RANGE TRANSPORTATION STUDY (LRTS) UPDATE**

Shirley Medina provided background information on the Long Range Transportation Study and reported that recommendations from the 2016 Strategic Assessment were to do a Next Generation Rail Study, Next Generation Toll Feasibility Study, and the development of a Countywide Long Range Transportation Study.

The LRTS will be a living document and updated periodically. Future updates to the LRTS may be initiated by several activities including new legislative requirements; policies; planning studies; funding changes; and population, housing, employment growth forecasts.

This item will be on the consent calendar for the December Commission meeting.

Question: Is part of the plan that the I-15 lanes are intended to be toll?

Response: That continues to be monitored. Per the Commission's direction, RCTC is looking at the managed lanes study that Caltrans is doing and waiting for that to come out before anything moves forward on toll lanes. Toll lanes would be something in the future.

Question: There's not any estimate or revenue idea?

Response: Other than what's in the Next Generation Toll Study, that's all that's mentioned. They're all put on hold right now until Caltrans finishes its study.

Question: That's not part of the long term revenue plan?

Response: I don't believe so. It will depend on the outcome of the Traffic Relief Plan.

**9. SALT CREEK TRAIL FUNDING REQUEST**

Ms. Medina reported that Riverside County received CMAQ funds on the Salt Creek Trail to construct a 4-mile segment in the city of Menifee and a 1-mile segment in the city of Hemet. Bids for the project came in higher than the engineer's estimate and the County asked RCTC to assist with the shortfall. Staff took the request to the Committee and it is expected to be approved at the December Commission meeting.

Patty Romo added that this is a multimodal project and it would benefit the community.

**M/S/C (Lewis/Geronimo) to increase CMAQ funds for this project.**

**10. HAMNER BRIDGE LOAN REQUEST**

Ms. Medina said Riverside County was asked to lead this project that received SB 132 funding for approximately \$6 to \$7 Million, largely to match the federal bridge funds on the project. The construction timeframe is about 20 months leaving the County with a shortfall of about \$34 Million. RCTC is working with Caltrans to get more time to develop a plan for RCTC to loan the County. Staff expects to take this request to the Commission within the next month or two.

Ms. Romo added that federal funding is so large, the County is not able to float \$34 Million while waiting to get reimbursed.

In response to a question of whether RCTC is looking at other bridge projects that may be in the same situation as the County, Ms. Medina reported that RCTC is also concerned about other bridge projects and staff has been in talks with the cities. Hamner Bridge is a SB 132 project with specific state legislation that is sponsored by Assembly Member Cervantes and Senator Roth. RCTC will continue working with Caltrans to see what can be done to address the other bridge project situations.

In response to a question of how much the SB 132 is for that project, Patty Romo said \$6.3 million.

**11. STATUS OF SAFER AFFORDABLE FUEL EFFICIENT (SAFE) VEHICLES RULE**

Jillian Guizado, RCTC, reported that Part One of the SAFE Vehicles Rule was implemented on November 26, 2019, which revoked California's waiver to set its own greenhouse gas emissions reductions standards and zero-emission vehicle implementation targets to be able to implement stricter vehicle fuel efficiency standards. Getting the RFP and the FTIP approved may take up to two years. Part Two may come out in December. The EPA is also looking at the air quality improvement plans. Staff is not sure where the EPA will take that.

Ms. Guizado said it is important that the cities communicate with RCTC regarding projects, particularly those in the FTIP, as early and frequently as possible. She pointed out the projects potentially impacted by SAFE Vehicles Rule attached to her staff report. FHWA is taking everything on a project-by-project basis.

Question: If we have a project that stays on schedule, the scope and FTIP is good, we're getting close to construction, they do another cost estimate, and they think it will cost more now, assuming we find the money, but we need an FTIP amendment to reflect that higher cost, is that doable?

Answer: As long as the project scope doesn't change, you should be okay. If you need an amendment to add more money, RCTC is of the assumption it can continue.

Question: You have this list of projects that could be affected. What does that mean?

Response: We looked at the next three years that haven't completed design. We concentrated on those projects that are still doing NEPA or design. We understand if a project is far along, it's possible it could still get its NEPA document signed. There are many caveats and unknowns, staff cannot tell you the projects are good to go. It's hoped there will be resolution in 2020.

## **12. SENATE BILL 1 (2017) PROGRAMS UPDATE**

Ms. Guizado provided a brief overview of SB 1 and stated it is a \$5.2 billion annual transportation funding bill for California. It was largely intended to be a fix-it-first program and about fifty percent of the program is dedicated to improving operations and maintenance of existing facilities. Caltrans got an infusion into its SHOPP program and it needs to improve over 500 bridges and culverts. The cities and the county are receiving an additional local streets and roads allocation from SB 1. She pointed out the table attached to her agenda item.

There were already existing programs that received additional funds. The TIRCP receives funding from SB 1. The ATP program had already been in existence and had gone through a couple of cycles before SB 1 passed. Both programs are coming out for their upcoming cycle of funding.

ATP Cycle 5 will release draft guidelines at the CTC meeting January 29. A matrix is in the TAC agenda packet.

SB 1 created three new programs:

- Solutions for Congested Corridors Program (SCCP)
- Local Partnership Program (LPP)
- Trade Corridors Enhancement Program (TCEP)

Cities are eligible to apply for the LPP and TCEP.

If the cities choose to pursue grant funding out of any of the programs for projects that will be on the state highway system, you must collaborate with Caltrans as soon as possible. RCTC will be a co-applicant for the SCCP, which the cities are not eligible for, with the Orange County Transportation Authority for the 241/91 connector project. RCTC is also discussing the 71/91 Interchange project.

Question: Is RCTC looking at applying for the local partnership or the other programs?

Response: For 71/91, RCTC will most likely pursue local partnership competitive, assuming there is a competitive pot, and the TCEP.

Question: Do you know where they are on the scoring criteria? What is the point system?

Response: They will not give us a point system. We've asked.

Question: Is this a black box scoring?

Response: It is. They put in the guidelines criteria they want your application to follow.

Question: What types of projects would be good to submit?

Response: It's tough in Riverside County to feel we have competitive projects to submit. There will be a workshop on Thursday for LPP and the TCEP. Let Planning and Programming staff know what you have in mind and we'll look at what we've been hearing at the workshop and maybe we can help form your decision.

Question: Is this for construction funding?

Response: All of them are for construction funding except the TCEP.

Question: For TCEP must they already be in CFMP?

Response: They're currently updating the California Freight Mobility Plan. It's unclear if there will be a project list.

Lorelle Moe-Luna, RCTC, suggested the cities notify RCTC of their projects for the TCEP program.

### **13. DRAFT OBLIGATION DELIVERY PLAN UPDATE – FFY 2019/20**

Jenny Chan, RCTC, stated the projects attached to her staff report are those funded with CMAQ or STBG funds that are programmed for this year that need to go to Local Assistance for obligation. She requested the jurisdictions let her or Martha know of any changes.

### **14. CALTRANS UPDATE**

Alberto Vergel De Dios, Caltrans District 8, introduced Patrick Louie, Caltrans Headquarters, and Sean Yeung, Local Assistance, Leslie Avila, and Evita Premdas.

He reported that funded Local Road Safety Plan projects were posted December 3. Fifteen projects were awarded for District 8 for about \$5.1 Million.

Leslie Avila provided a document reporting Local Assistance Updates, including:

- Plans, Specification, and Estimate DSA Review
- Project Delivery Requirements
- Indirect Cost Allocation Plan/Indirect Cost Rate Proposal Submission
- Local Agency Invoicing
- DBE and GFE Review Procedures
- Interim ATP Count Methodology Guidance
- Local Assistance Highway Bridge Program Project Delivery Policy



Ms. Avila also provided a list of available training:

- Highway Program Funding – January 29-30, 2020 at CSUS-CCE
- Local Road Safety Plan: In-Person Training – February 12, 2020 at Camarillo Public Library
- Resident Engineers Academy – April 28-May 1, 2020 at Marysville  
June 2-5, 2020 at SAC State University Alumni Center
- No-Cost Training for Local and Tribal Agencies – Online  
<http://californiatap.org/index.cfm?pid=1093&aid=286>
- Berkeley's Tech Transfer Program through UC Berkeley's Technology Transfer Program at  
<http://www.techtransfer.berkeley.edu/schedule>

**15. NOVEMBER COMMISSION MEETING HIGHLIGHTS**

Shirley Medina reported the October and November Commission highlights are outlined in her staff report included in the December TAC agenda.

**16. 2020 TAC MEETING SCHEDULE**

The 2020 TAC Meeting Schedule is included in the December TAC agenda.

**17. OTHER ANNOUNCEMENTS**

Jillian Guizado announced Shirley Medina's retirement open house is starting at this time.

**18. OTHER BUSINESS**

Chair Farshid Mohammadi announced there will not be a January 2020 TAC meeting.

**19. ADJOURNMENT**

There being no further business for consideration by the Technical advisory Committee, the meeting adjourned at approximately 11:44 a.m. The next meeting will be March 16, 2020, 10:30, at the Coachella Valley Association of Governments' Board Room, 73710 Fred Waring Drive, Palm Desert 92260.

Respectfully submitted,



Jillian Guizado  
Planning and Programming Manager

# *AGENDA ITEM 5*

<b><i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i></b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Jillian Guizado, Planning and Programming Manager
<b>SUBJECT:</b>	Technical Advisory Committee Briefing and Feedback Solicitation

**STAFF RECOMMENDATION:**

This item is to receive and file the Technical Advisory Committee (TAC) briefing and to solicit feedback about TAC members' experiences and recommendations for improving TAC attendance and engagement.

**BACKGROUND INFORMATION:**

**Creation and Purpose**

California Public Utilities code section 130105 dictates that County Transportation Commissions, like RCTC, shall "appoint a technical advisory committee of representatives from all of the transit operators, all of the cities and the county, and the Department of Transportation, and such other advisory committees it deems necessary." To that end, RCTC's Administrative Code creates this body, the TAC, and assigns rules for its membership, function, meetings, compensation, officers, voting, and quorum. Specifically, the TAC's function is to, "provide technical assistance to the Commission by reviewing and evaluating the various transportation proposals and alternatives within Riverside County."

It is important that TAC members are sharing information from TAC meetings with their staff, agency leadership, and elected officials (as appropriate).

**Membership, Voting, and Quorum**

RCTC's Administrative Code specifies which agencies shall have members on the TAC, which today amounts to 35, and assigns a weight of one-for-one to all voting members with the exception of the County of Riverside whose single vote counts for three. With a TAC membership of 35, quorum is reached at 18.

**Meetings**

TAC meetings are held bimonthly with the calendar of meetings adopted at the end of each calendar year. Presently, meeting locations alternate between downtown Riverside and Palm Desert. The meeting duration is no more than two hours.

## **DISCUSSION:**

The TAC and its members serve as valuable resources to staff through the course of the work done on behalf of the Commission. In an attempt to bring more value to TAC members, staff is exploring opportunities for improving TAC members' experience as noted below:

### **Agenda, Items, and Presentations**

- Beginning with this March 2020 agenda, staff will include a written staff report for every item. This increases transparency and enables TAC members to come prepared to engage in important discussions.
- When presenting items TAC members have heard before, staff will continuously provide background on the item. This will benefit new TAC members, TAC members who missed prior meetings where the item was covered, and TAC members who are only exposed to the topic through their work on the TAC.
- Staff will make an effort to utilize PowerPoint more frequently.

### **Meetings**

- Staff will explore the possibility of establishing two meeting locations for each TAC meeting with the intent of increasing attendance.

### **Engagement**

- The TAC Chair will welcome new TAC members.
- Staff would like to engage Caltrans on the prospect of doing mini-workshops with the TAC on focused topics. Staff needs TAC feedback on what topics will be of value to members.
- At each bimonthly TAC meeting, a member will be encouraged to make a brief presentation to highlight a project or issue the rest of the TAC may find interesting. To facilitate this, staff invites TAC members to group themselves into sub-regions, introduce themselves, share contact information with one another, and elect one person in each sub-region to present in 2020.

Staff requests TAC members to provide feedback on their experience being on the Commission's TAC and to provide recommendations for additional ways staff can work to improve TAC attendance and engagement.

Attachment: RCTC Administrative Code Article III Section G Subsection 2. Technical Advisory Committee

from time to time be assigned to the Committee by the Commission for its review, comments and recommendation.

(c) Meeting. The Commission shall call the first meeting and may call subsequent meetings of the Committee, setting the time and place of said meeting(s) and designating the agenda from any meetings so called. The Chair of the Committee, elected pursuant to this Section G.(1)(f) below, may also call meetings of the Committee, setting the time, place, and agenda for such meetings. The Committee may also hold subcommittee meetings of any subcommittees it establishes.

(d) Assistance. The staff of the Commission shall be available to aid the Committee in its work.

(e) Compensation. Members of the Committee shall serve without compensation.

(f) Officers. The Committee shall elect a Chair and Vice Chair from the members thereof, each of whom shall serve for one (1) year, and thereafter until his or her successor is elected. Secretarial services shall be provided by the Commission staff.

2. Technical Advisory Committee.

(a) Membership. There is hereby created the Technical Advisory Committee. The Committee shall consist of members selected as follows:

(1) One (1) member representing the County of Riverside.

(2) One (1) member representing each City in the County which designates such a representative.

(3) One (1) member representing the Riverside Transit Agency.

(4) One (1) member representing the Western Riverside Council of Governments.

(5) One (1) member representing the Coachella Valley Association of Governments.

(6) The District Director of Caltrans District 8 or designee.

(7) One (1) member representing the SunLine Transit Agency.

(8) One (1) member representing the Palo Verde Valley Transit Agency.

Committee members shall serve at the will and pleasure of their appointing authority and the Commission. An alternate may be named by each appointee to represent him or her in his or her absence.

(b) Function. Subject to the supervision of the Commission, the Committee shall provide technical assistance to the Commission by reviewing and evaluating the various transportation proposals and alternatives within Riverside County. The Committee shall review, comment upon, and make recommendations on such matters as are referred to it by the Commission, including all matters relating to the programming of federal funds apportioned to the Riverside County and allocated by the Commission.

(c) Meetings. In the dispatch of its responsibilities, the Committee may conduct meetings, may appoint subcommittees to include regular members and/or alternate members, and engage in such related activities as it deems necessary. Subcommittees shall



not be composed of a regular and alternate member who represents the same jurisdiction.

(d) Compensation. Members of the Committee shall serve without compensation.

(e) Officers. The Committee shall elect a Chair and Vice Chair from the members thereof, each of whom shall serve for two (2) years and thereafter until his or her successor is elected. Committee support shall be provided by the Commission staff.

(f) Voting. Each member of the Committee shall have one (1) vote, except the county of Riverside member shall have three (3) votes and the Transportation Planning Director of the Southern California Association of Governments shall be a non-voting member.

(g) Quorum. A quorum shall be a majority of the voting members. All actions of the Committee shall require a majority of the votes cast.

### 3. Other Advisory Committees.

(a) Standing Committees. The Commission may appoint such other standing committees as it deems necessary. The Commission shall determine the membership of such committees from among the regular members of the Commission, and shall specify the functions, duties, responsibilities, and terms of service. The Commission shall give due consideration to recommendations, advice or proposals received from Advisory Committees but shall not be bound thereby.

(b) Ad Hoc Committees and Representative Appointments. The Chair may create and appoint ad hoc committees as necessary to provide direction and advice to the Chair, Commissioners or

# *AGENDA ITEM 6*



<b>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Cheryl Donahue, Public Affairs Manager
<b>THROUGH:</b>	Anne Mayer, Executive Director
<b>SUBJECT:</b>	Draft Traffic Relief Plan Public Engagement Metrics

**STAFF RECOMMENDATION:**

This item is for the Technical Advisory Committee to receive and file an update about the Commission's draft Traffic Relief Plan (Plan) public engagement metrics in Riverside County.

**BACKGROUND INFORMATION:**

The Commission approved its draft Traffic Relief Plan on January 8, 2020 and began soliciting input from residents the following day about the Plan's proposed projects and services. This report covers January 9 to February 6, 2020.

The Commission will accept feedback from residents, business operators, and other Riverside County stakeholders through June 10. Staff will provide similar metrics reports during the coming months to keep committee members apprised of its public engagement efforts.

Staff is using a variety of outreach tools to direct community members to the project website, **TrafficReliefPlan.org**, to read the draft Plan, view maps and fact sheets, and provide feedback through an online survey. Current tools include email messaging, social media advertising, news coverage, streaming audio, and presentations. Metrics for these tools are reflected in this report and are summarized in a one-page graphic display. Future tools will include billboards, tele-townhall meetings, community events, and postcard mailer; data for these will be shown in future committee reports.

**Draft Traffic Relief Plan Metrics: January 9 – February 6, 2020**

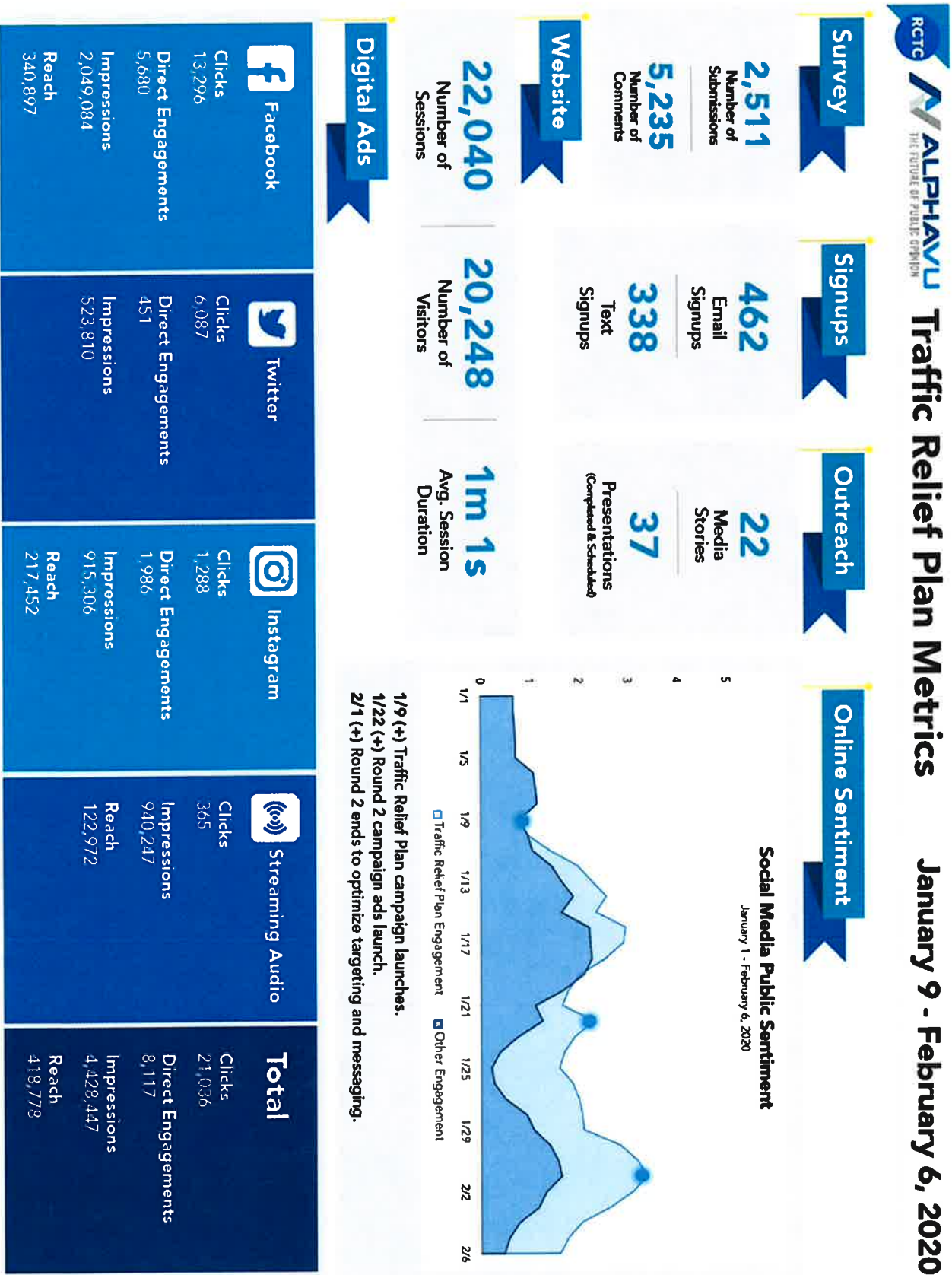
The following is a numerical summary of the metrics for the draft Plan. Appendix A provides a graphic display of these metrics.

- 1) **Survey:** The Commission has received 2,511 responses and 5,235 comments through its online survey housed on the TrafficReliefPlan.org website. All responses and comments will be compiled and reported to the Commission at the conclusion of the public engagement period in June.
- 2) **Website:** The site has been visited 22,040 times by 20,248 unique visitors. Those who visited spent an average of 61 seconds on the site.

- 3) **News Media:** The Draft Traffic Relief Plan generated 22 instances of news coverage, including stories in *The Press-Enterprise*, *Desert Sun*, *Patch*, *Inland News Today*, *iHeartRadio* various editorials/letters to the editor.
- 4) **Presentations:** Commission staff made or is scheduled to make a total of 39 presentations to elected officials, community organizations, and industry groups across Riverside County.
- 5) **The Point Subscriptions:** The Commission publishes a monthly e-newsletter, *The Point*. As part of the Traffic Relief Plan outreach effort, residents were encouraged to register to receive the newsletter; 462 people subscribed by email and 338 subscribed by text message.
- 6) **Social Media:** The Commission placed a series of targeted social media ads, including some with videos.
  - a. On **Facebook**, there were 5,680 direct engagements, 2,049,084 impressions, and a reach of 340,897. A total of 13,296 clicked on the ad to link to the website.
  - b. On **Twitter**, there were 451 direct engagements, 523,810 impressions, and 6,087 clicks.
  - c. On **Instagram**, there were 1,986 direct engagements, 915,306 impressions, a reach of 217,452, and 1,288 clicks.
- 7) **Streaming Audio:** The Commission placed advertisements on Pandora streaming radio, which generated 940,247 impressions, a reach of 122,972, and 365 clicks.

**Appendix A: Graphic Display, Program Metrics**

APPENDIX A



# *AGENDA ITEM 7*

<b><i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i></b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Michelle McCamish, Management Analyst, Commuter & Motorist Assistance Brian Cunanan, Commuter & Motorist Assistance Manager
<b>SUBJECT:</b>	Park & Ride Strategy and Toolkit

**STAFF RECOMMENDATION:**

This item is to receive and file the Park and Ride Strategy and Toolkit.

**BACKGROUND INFORMATION:**

In 2017, San Diego Association of Governments (SANDAG) was awarded a \$288,000 grant from Caltrans to partner with the Riverside County Transportation Commission (Commission) to proactively address Park & Ride demand by better managing existing lots and identifying potential Park & Ride solutions to accommodate future demand. The San Diego and Western Riverside Interregional Park & Ride Strategy report was completed in the summer of 2019.

The resulting Park & Ride Strategy and Toolkit identifies strategies and tools to help improve the planning, operation, and management of site-specific lots and the regional network as a whole. Additionally, the report identifies actions for the Commission, SANDAG, and their Park & Ride partners to consider incorporating and implementing within the parameters of agency policy. These actions represent a framework for Park & Ride stakeholders to evaluate how to adapt their existing assets, roles, and responsibilities to meet the needs of a changing mobility landscape.

Attachment: Park & Ride Strategy and Toolkit



# **PARK & RIDE**

## STRATEGY AND TOOLKIT

Park & Ride Regional Strategy for San Diego and  
Western Riverside Counties

JULY 2019

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*



# TABLE OF CONTENTS

<b>INTRODUCTION &amp; APPROACH</b>	<b>7</b>
▪ Introduction.....	8
▪ Background .....	8
▪ Regional Strategy Approach.....	9
▪ Regional Strategy Organization.....	10
<b>REGIONAL PARK &amp; RIDE DATA CENTER</b>	<b>13</b>
<b>SUMMARY OF GOALS AND OBJECTIVES</b>	<b>17</b>
▪ Multimodal Access and Amenities.....	18
▪ Safety, Security, and Operations .....	19
▪ Sustainable Funding .....	19
▪ System Awareness .....	20
<b>GUIDANCE FOR SITE ANALYSIS</b>	<b>23</b>
▪ Guidance for Site Analysis Overview.....	25
▪ Guidance for Existing Site Analysis .....	26
▪ Guidance for New Site Analysis.....	32
<b>COMMUNITY PARTNERSHIPS</b>	<b>37</b>
<b>PARK &amp; RIDE TOOLKIT</b>	<b>43</b>
<b>MOVING PARK &amp; RIDES FORWARD</b>	<b>71</b>
▪ Performance.....	73
▪ Planning.....	74
▪ Property .....	75
▪ Pricing and Technology.....	76
<b>LOOK AHEAD</b>	<b>79</b>
▪ Data Collection and Analysis .....	80
▪ Mobility Hubs.....	80
▪ System Awareness .....	80

# APPENDIX

APPENDIX A: EXISTING POLICIES & FACILITIES	83
APPENDIX B: STAKEHOLDER WORKSHOP SUMMARY	93
APPENDIX C: LITERATURE REVIEW MEMO	101
APPENDIX D: CASE STUDIES MEMO	109
APPENDIX E: PARK & RIDE/ COMMUTE SURVEY	135
APPENDIX F: PRIVATE SECTOR SURVEY	173
APPENDIX G: FUNDING SOURCES	195
APPENDIX H: EXISTING SITE RECOMMENDATION EXAMPLES	205
APPENDIX I: DATA CENTER	243
APPENDIX J: HELPFUL LINKS	253
APPENDIX K: BASELINE INSTRUCTIONS	257

*This page has been intentionally left blank.*



# INTRODUCTION & APPROACH







# INTRODUCTION & APPROACH

## INTRODUCTION

Park & Ride facilities are a critical piece of a well-balanced transportation network that supports San Diego and Western Riverside counties' Sustainable Communities Strategy (SCS) goals of improving person throughput and increasing time-competitive travel alternatives to single occupant vehicle travel. Various regional stakeholders, including the San Diego Association of Governments (SANDAG) and Riverside County Transportation Commission (RCTC) have supplemented their existing Park & Ride networks by constructing new Park & Ride lots and/or leasing parking spaces to accommodate Park & Ride demand. Both regions also have made major investments in transit and HOV/Express lanes projects, and Park & Ride is important to the success of those regional transportation investments.

Although both regions continue to see an increase in utilization and demand, there are still challenges in prioritizing and seeking funding or staff time to support investment in Park & Ride operations, management, and development. This underinvestment can undermine the regions' ability to efficiently and strategically manage Park & Ride assets. If Park & Rides continue to be a low priority for investment in the overall transportation network, the regions may begin to see an impact on trip behaviors, which may include:

- Shifts in commute behavior and potentially increasing single-occupant trips
- Uncaptured latent demand for transit, carpool, and vanpool
- Spillover parking into nearby communities or retail facilities (i.e. "hide and ride" and informal lots)
- Wasted spending to operate and maintain underutilized lots
- Potential loss of valuable Park & Ride land assets due to lack of data to justify continued investment
- Ineffective corridor congestion management without balanced incentives for regional commute decision-making

With the ultimate goal of shifting commuter behavior to reduce greenhouse gas emissions throughout the region, Park & Rides provide an option that can encourage a person to consider alternative modes of transportation by providing a familiar and convenient first-mile/last-mile solution. This Park & Ride Regional Strategy details the tools available to stakeholders to enhance their Park & Ride systems, provides action steps for the regions to more fully embrace the benefits of Park & Rides, and highlights innovative Park & Ride solutions that have been implemented elsewhere – all contributing to more informed decision-making.

## BACKGROUND

The San Diego region is a large metropolitan area with dispersed regional work sites throughout the county which causes continuous increases in congestion during commute periods. Riverside County has a significant number of residents who commute to jobs out of the county, including Los Angeles, Orange County, and San Diego. Access to Park & Ride facilities is a critical feature of transportation investments that support fulfilling SCS targets in both regions.

There are over 130 Park & Ride facilities (nearly 24,000 parking spaces) in the San Diego and Western Riverside counties, managed by California Department of Transportation (Caltrans), San Diego Metropolitan Transportation System (MTS), North County Transit District (NCTD), and Riverside County Transportation Commission (RCTC). Several of these facilities have support from SANDAG and/or local jurisdictions for management and policy development; however, data collection and enforcement procedures, performance metrics, siting methodologies, and user rules and regulations are developed and deployed variously by each stakeholder.

Through a grant awarded by Caltrans, SANDAG partnered with RCTC and community stakeholders, including NCTD, MTS, Caltrans Districts 8 and 11, and local municipalities to develop the Regional Park & Ride Strategy (Regional Strategy) to proactively address investment considerations for Park & Ride operation and management demands.

# INTRODUCTION & APPROACH

## WHAT IS A PARK & RIDE?

Park & Ride facilities are conveniently located facilities that serve as a parking lot and/or meet up point for commuters to leave their personal vehicles and transfer to alternative transportation modes such as transit, carpool, or vanpool for the remainder of their trip. Park & Ride facilities may also include drop-off locations and additional amenities that support other transportation alternatives (e.g. bike lockers, electric vehicle charging, and transfer services)

Park & Ride facility operations may vary from location to location—some may serve only transit, carpool, or vanpool users, while others may have shared uses with nearby community needs or multiple transportation uses (e.g. truck, university, residential, commercial, or shared transit and carpool/vanpool parking).

## REGIONAL STRATEGY APPROACH

To complete the Regional Strategy, stakeholders were engaged through project development meetings, workshops, and deliverable reviews. The project team included staff members from SANDAG, RCTC, MTS, NCTD, and Caltrans.

The project team engaged local, regional, public, and private stakeholders to develop a multi-pronged and holistic approach to the regional strategy that resulted in actionable recommendations identified in this report. To inform the Regional Strategy, the following was conducted: Literature Review, Commute Behavior Survey, Private Sector Market Research, and Goals and Objectives Workshop.

As part of the literature review, peer agencies were interviewed to identify best practices and lessons learned for addressing Park & Ride challenges. The Commute Behavior Survey identified commute behaviors of employees in both regions, their interest, and willingness to use alternative modes for their commute—factors that would make them more likely to use alternative commutes in the future and amenities and improvements that they desire for Park & Ride lots to help inform the agencies' Transportation Demand Management (TDM) and Park & Ride programs. The Private Sector Market Research included an online survey and phone interviews with developers and property managers to identify private sector stakeholders' interests, motivations, and willingness to partner (including their perceived conditions for success). Staff members from local jurisdictions participated in the Goals and Objectives Workshop to identify regional priorities and opportunities to strengthen agency partnerships and priority needs relating to Park & Ride.

To support future decision-making, the Park & Ride Data Center, Guidance for Site Analysis, Park & Ride Toolkit and Moving Park & Rides Forward were developed. The Park & Ride Data Center is a web-based, geo-coded database to facilitate regional data collection, sharing, and analysis. The Guidance for Site Analysis provides key considerations when planning for future Park & Ride investments, and it is supported by the Park & Ride Toolkit that synthesizes promising strategies. The project team drew on the foundational knowledge from these deliverables to develop recommendations that will improve existing regional asset management and equip the agencies and their partners to adapt to a shifting transportation landscape.

Using the performed research and identified best practices, the Regional Strategy aims to provide the necessary information, tools, and recommended action steps for SANDAG, RCTC, and their stakeholders to leverage existing and future Park & Ride facilities investments to:

- achieve regional and state GHG goals
- meet the needs of the changing commuter environment
- provide options to support effective management and operations
- attract more commuters to use alternative transportation options
- support community needs (affordable gathering places for farmers markets, event shuttles, etc.)

# INTRODUCTION & APPROACH

## REGIONAL STRATEGY ORGANIZATION

The Regional Strategy is divided into the following sections to help provide context, information, and recommended tools and action steps for SANDAG, RCTC, and their stakeholders.

- *Regional Park & Ride Data Center*
- *Summary of Goals and Objectives*
- *Guidance for Site Analysis*
  - » *Guidance for Existing Site Analysis*
  - » *Guidance for New Site Analysis*
- *Community Partnerships*
- *Park & Ride Toolkit*
- *Moving Park & Rides Forward*
- *Look Ahead*

The detailed findings, best practices, and lessons learned gathered through literature review, case study research, stakeholder workshop, and market research were used to inform and develop the above sections of the Regional Strategy. The summaries of these items can be found in the Appendix of this report. Examples of the application for the How-To Guide for evaluating an existing individual Park & Ride lot is also available in the Appendix. A list of the appendix is provided below.

- |   |  |
|---|--|
| ▪ <i>Appendix A: Existing Conditions and Policies</i> | ▪ <i>Appendix G: Funding Sources</i>                       |
| ▪ <i>Appendix B: Stakeholder Workshop Summary</i>     | ▪ <i>Appendix H: Existing Site Recommendation Examples</i> |
| ▪ <i>Appendix C: Literature Review Memo</i>           | ▪ <i>Appendix I: Data Center</i>                           |
| ▪ <i>Appendix D: Case Studies Memo</i>                | ▪ <i>Appendix J: Helpful Links</i>                         |
| ▪ <i>Appendix E: Park &amp; Ride Commute Survey</i>   | ▪ <i>Appendix K: Baseline Instructions</i>                 |
| ▪ <i>Appendix F: Private Sector Survey</i>            |  |

## HOW TO USE THIS DOCUMENT

The *Park & Ride Strategy and Toolkit* is an interactive document and is intended to provide the reader with a number of tools, resources, and guidance to implement promising strategies at Park & Ride locations. Areas in the document that are associated with a hyperlink are indicted in the following styles:

*Sample hyperlink text to jump to a section within this document.*

*Sample hyperlink text to jump to a resource not within this document.*

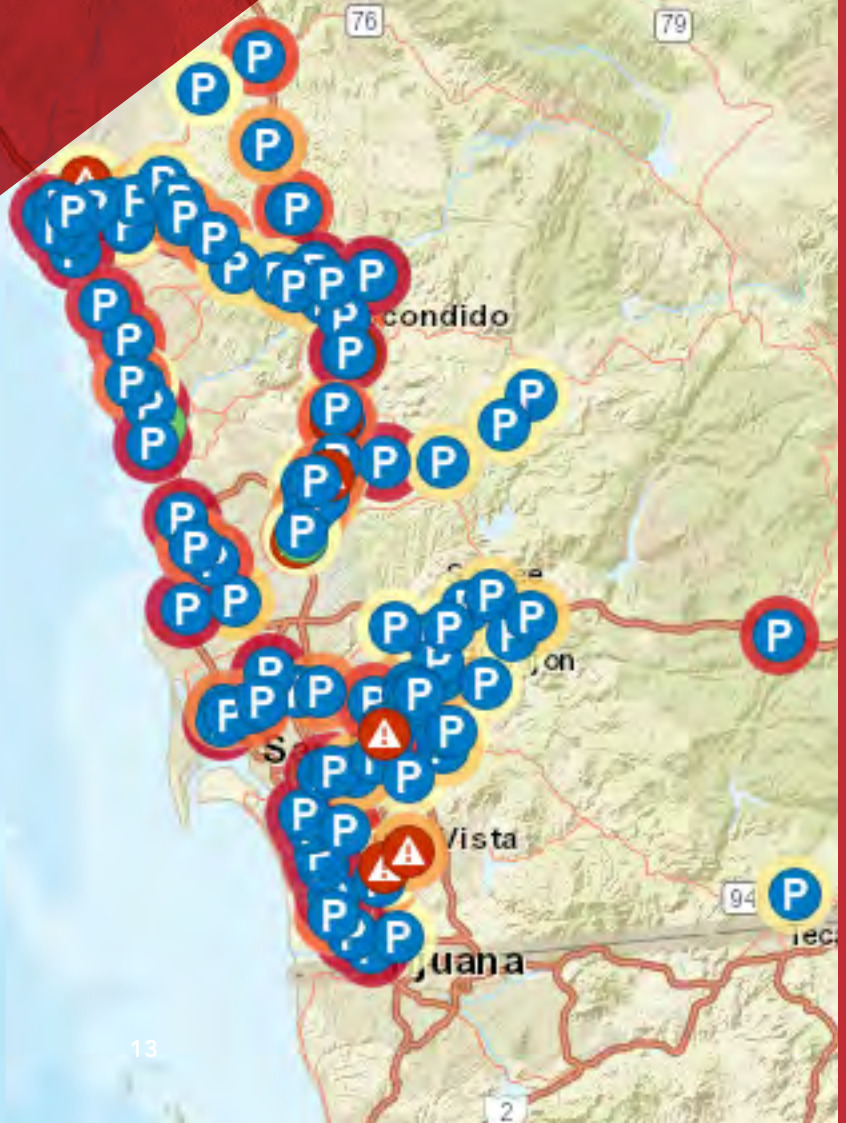
This document is also organized chronologically, allowing the reader to work through the report's approach and process on the way to identify context-sensitive Park & Ride strategies and tools.

*This page has been intentionally left blank.*



*This page has been intentionally left blank.*

# REGIONAL PARK & RIDE DATA CENTER





# REGIONAL PARK & RIDE DATA CENTER

## THE COMPLEXITY OF PARK & RIDE DECISION MAKING

To maximize effectiveness of regional Park & Ride investments, a cohesive database was identified as an early action strategy for the San Diego and Western Riverside regions. Effective data collection and sharing allows local agencies to leverage investments and direct scarce resources to where they are likely to make the greatest impact. Historic comparisons of utilization and incident reporting can justify investments in new strategies, including capacity expansion and educational outreach efforts that identify the value of Park & Ride for both public and private stakeholders. Most importantly, data will allow for the improved use of Park & Ride facilities and enhanced system management by identifying prevailing issues so that corrective action can be taken promptly and allow for proactive management of the available resources.

There are over 130 Park & Ride facilities (nearly 24,000 parking spaces) in San Diego and Western Riverside counties, managed by Caltrans, MTS, NCTD, SANDAG, and RCTC. Their disparate geographic and operational contexts inform how they each contribute to the region's transportation network. From transit lots to carpool/vanpool lots, urban facilities to suburban ones, and leased spaces to owned ones, Park & Ride managers must employ a comprehensive perspective to manage demand effectively. As the transportation system becomes increasingly multi-modal and reliant on digital services, Park & Ride data is primed to support an evolution toward a seamlessly integrated and optimized mobility network.

### SAN DIEGO AND WESTERN RIVERSIDE PARK & RIDE CHARACTERISTICS

REGIONAL STATISTICS	
Total # P&R Spaces	23,821
Leased or Shared Use Lots	38%
Average Occupancy	
Transit Lots	63%
Park & Pool Lots	41%
Combined Lots	41%
Utilization of Network	
Overutilized Lots (>85%)	17% of network
30-85% Utilization	47% of network
Underutilized Lots (<30%)	36% of network

OPERATOR (% OF NETWORK)	TRANSIT LOTS	PARK & POOL LOTS	COMBINED LOTS
Caltrans (43%)	0	30	31
MTS (22%)	31	1	0
NCTD (13%)	18	0	0
RCTC (22%)	0	15	17
<b>TOTAL:</b>	<b>49</b>	<b>46</b>	<b>48</b>



## ➤ USING GIS TO ENHANCE SYSTEM PERFORMANCE MONITORING

The Regional Park & Ride Data Center ([Data Center](#)) was developed as part of this project to enable regional system performance monitoring and support proactive planning.

This tool will increase transparency and inform policy makers, grant applications, planners, and the public about the characteristics of the Park & Ride system. It can be accessed from any internet connected device and is designed to facilitate data sharing among all Park & Ride stakeholders, including the public and private sector. Over the course of this project, staff utilized the tool to manually input occupancy counts from the field. In the future, as connected infrastructure is deployed, the Data Center could receive real-time occupancy data and reduce labor costs associated with manual data collection.

The Data Center supports the following features and functions:

- Real time data updates
- Integration with local and regional datasets such as existing transit and land use
- Historic occupancy trends
- Reporting
- Comprehensive Park & Ride inventory information
- Web and mobile app accessibility

See [Appendix I](#) for a more in-depth guide to the Data Center.

## CASE STUDY: ANNUAL SYSTEM PERFORMANCE REPORT

For nearly 20 consecutive years Metro Transit (Minnesota) - in conjunction with eight other regional transit and state authorities – has produced an annual Park & Ride system performance report that summarizes trends, complements their long-term planning documents, and informs policy makers.

Key reporting metrics from this report are:

- Occupancy trends (owned and leased lots)
- % change in utilization each year
- Capacity changes (spaces gained and lost)
- System utilization by corridor
- Planned capacity expansions
- User travel behavior derived from LPR data
- Cost per leased space
- Parking costs at destination

The 2012 annual report noted that “vehicle data and user home origin data are invaluable to the management of the overall network.”

*This page has been intentionally left blank.*

An aerial photograph of a transit station area, including a bus stop with a red and white bus, a paved road, and a parking lot with several cars. The entire image is overlaid with a semi-transparent green filter. The title text is centered in the upper half of the image.

# SUMMARY OF GOALS AND OBJECTIVES



# SUMMARY OF GOALS AND OBJECTIVES

During the development of the Regional Strategy, a stakeholder workshop was held to help define the goals and objectives of the Regional Strategy. The project goals and objectives outlined in this section provided guidance and direction for the developed tools in the *Park & Ride Toolkit* and the identified action steps in the *Moving Park & Rides Forward*.

The following goals and objectives reflect the feedback received from the stakeholder workshop (see *Appendix B*) and the input from the project team. Goals and objectives represent a preferred situation for a Park & Ride facility. Given sites are subject to unique characteristics and restrictions; it is unlikely that every goal and objective can be achieved at every site.

## MULTIMODAL ACCESS AND AMENITIES

During the workshop, stakeholders clearly communicated that Park & Rides should be as accessible as possible to the greater transportation network and offer amenities to enhance the Park & Ride experience (see *Appendix B*). Many of the current Park & Rides are sited in locations that are convenient for implementation, but not always where they would be the most useful. Effectively planning for current and future Park & Rides into pedestrian, bicycle, transit, and highway networks will expand the service areas and open the system to new users. Additional amenities like electric vehicle charging, package lockers, WiFi, bike parking, bikeshare, carshare, and other amenities identified in the [Regional Mobility Hub Features Catalog](#), many of which align with regional priorities and would further leverage investments made in the Park & Ride system.

### GOAL STATEMENT:

INCREASE ACCESS AND USABILITY OF PARK & RIDES THROUGH OPTIMIZED SITING AND BY PROMOTING MULTIMODAL ACCESS FEATURES AND AMENITIES.

### OBJECTIVES:

- Maximize investment in existing Park & Ride locations
- Partner with jurisdictions to create Park & Ride siting and design guidelines
- Develop guidance to balance Park & Ride amenities and supportive modes
- Manage demand at overutilized Park & Ride locations
- Utilize technology to promote the efficient use of Park & Rides
- Leverage emerging transportation modes and services provided by private and public sectors
- Provide cost effective amenities at Park & Ride locations
- Site Park & Rides in locations with access to pedestrian, bicycle, transit, and highway networks
- Address underutilized locations with new strategies

# SUMMARY OF GOALS AND OBJECTIVES

## SAFETY, SECURITY, AND OPERATIONS

One major barrier to greater utilization of the Park & Ride system is the perceived lack of safety and security measures at lots. The Regional Strategy considers both active measures like cameras and security checks as well as passive measures like locating lots in high traffic areas and removing landscaping screening. These strategies would promote safety and security and enhance operations during the typical commuter periods that Park & Rides primarily serve as well as during non-peak periods.

### GOAL STATEMENT:

ENHANCE SAFETY, SECURITY, AND OPERATIONS OF PARK & RIDES DURING AND OUTSIDE COMMUTER PERIODS.

### OBJECTIVES:

- Implement Crime Prevention through Environmental Design (CPTED) principles at current and future Park & Ride facilities (natural surveillance, natural access control, territorial reinforcement, and maintenance)
- Encourage on-site activities (retail/donation centers) at Park & Rides or siting of facilities within commercial environments
- Prioritize shared-use or leased parking agreements that include security, enforcement, and maintenance
- Leverage technology to improve operation for users and maintenance
- Develop a regional incident reporting database to support operations and policy decision-making

## SUSTAINABLE FUNDING

Current funding sources for Park & Ride expansion, operations, and maintenance are limited and often inadequate to provide more than the basic levels of service. Because of constrained funding, enforcement and maintenance are often reactionary and complaint-based. Restrictive policies, distributed management responsibilities, and competition for transportation funds all contribute to a limited funding environment. New sources of funding combined with existing financial support could be used to enhance existing assets and provide opportunities to expand the Park & Ride system.

### GOAL STATEMENT:

GENERATE SUSTAINABLE FUNDING STREAMS FOR NEW LOCATIONS AND EXISTING PARK & RIDE OPERATIONS AND MAINTENANCE THROUGH EXISTING AND NEW SOURCES.

### OBJECTIVES:

- Consolidate the ownership and management of Park & Rides to maximize funding opportunities with policy control and decision making
- Right-size facilities to appropriate demands through utilization monitoring and piloting of new strategies
- Secure dedicated funding sources for capital and long term operations, maintenance, and replacement life cycle needs
- Work with private sector to identify public-private partnership (P3) opportunities that maximize value and use of Park & Ride right-of-way



# SUMMARY OF GOALS AND OBJECTIVES

## SYSTEM AWARENESS

Hurdles to increase Park & Ride system utilization include lack of public knowledge or awareness. Inconsistent branding, marketing of the system, and lack of a comprehensive “one stop shop” for Park & Ride information reduces the potential of a facility. Effective marketing methods, consistent branding, and targeted marketing would help educate the public about the location of Park & Rides, how to use them, and the benefits they offer to users and communities.

### ➤ GOAL STATEMENT:

CONSISTENTLY PROMOTE THE BENEFITS, AVAILABILITY, AND LOCATIONS OF PARK & RIDE TO THE PUBLIC.

### ➤ OBJECTIVES:

- Update the public facing Park & Ride map with complete information on all types of Park & Ride lots and information about lots and availability
- Create a consistent brand for Park & Rides to enhance awareness of available locations and supportive services (e.g., carpool and vanpool, and transit)
- Develop methodology to quantify the environmental impacts and user benefits of Park & Ride locations
- Create a marketing campaign to enhance awareness of the system targeting three different audiences: public/community, local agencies, and private sector property managers
- Provide real-time information to users where conditions are applicable
- Develop a regional database that includes statistical info to allow agencies to more effectively calculate Park & Ride investments and partnership benefits

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*

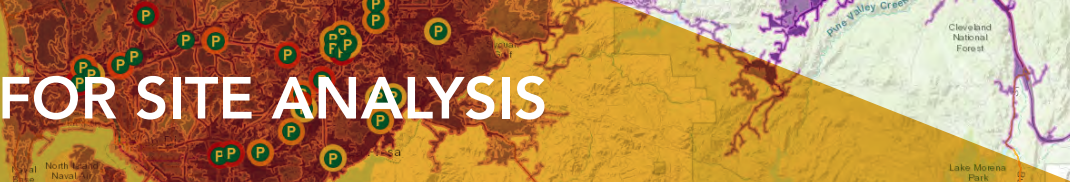
# GUIDANCE FOR SITE ANALYSIS



*This page has been intentionally left blank.*



# GUIDANCE FOR SITE ANALYSIS



## GUIDANCE FOR SITE ANALYSIS OVERVIEW

The Guidance for Site Analysis compiles supportive considerations for addressing challenges at existing Park & Ride sites and planning new Park & Ride sites. Using information from the case study research, literature review, stakeholder workshop, and project team meetings, the following two guides were developed:

- **Guidance for Existing Site Analysis** provides direction for analyzing identified challenges and developing promising strategies to consider implementing at an existing Park & Ride location. It outlines recommended steps to assess the conditions of an existing Park & Ride site, identify its challenges, and utilize the Park & Ride Toolkit to develop recommendations to address those challenges.
- **Guidance for New Site Analysis** provides baseline steps for selecting a new Park & Ride location and estimating the potential demand and size of the new site. It outlines recommended steps to begin the initial process for creating a new Park & Ride site.

The above guidance provides a basic overview for addressing challenges at an existing site or developing a new site. However, there may be hurdles for existing and new sites that need to be addressed on a more regional level, such as data collection and monitoring, policies that affect the development and long-range planning of Park & Rides. Refer to the identified action steps in the **Moving Park & Rides Forward** section for guidance on how to address these regional challenges.

# GUIDANCE FOR EXISTING SITE ANALYSIS

## GUIDANCE FOR EXISTING SITE ANALYSIS

There are three stages for the existing site analysis – Assessment Stage, Identification Stage, and Development Stage. These stages and their supporting resources are listed below.



Suggestions and recommendations on how to complete each stage are provided in this guidance. Examples of the Guidance for Existing Site Analysis for six existing Park & Ride sites are provided in the *Existing Site Recommendation Examples* (see [Appendix H](#)).

### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

It is important to compile an existing conditions summary to inform a full and accurate assessment of a site's challenges. When possible, key information should be gathered about the site's history, current conditions, and user profiles. Consider gathering information for existing site conditions outlined on the following page.

When developing the site's existing conditions summary, it is recommended to use both empirical and anecdotal information. Existing empirical data about a site's conditions can be found in the *Park & Ride Data Center* (see [Appendix I](#)). Anecdotal information can be obtained from a site visit, field surveys of the lot's users, and/or coordination with supporting agencies such as the local transit agency or Metropolitan Planning Organization (MPO). The assessment stage should also include a virtual and/or in-person site visit to assess how local, sub-regional, and regional factors are potentially influencing the existing site's performance.

Field surveys are excellent opportunities to obtain information about a Park & Ride from its users. Field surveys can help provide insight on the location's challenges, which may reveal unique or previously unidentified barriers. Consider using a survey to determine:

- User origin and/or destination
- Perception of lot safety, quality of transit service, and efficiency of wayfinding
- Reason for using Park & Ride (e.g., proximity to express lanes, parking at employment is expensive, access to transit)

# GUIDANCE FOR EXISTING SITE ANALYSIS

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	
<b>User Types:</b> <i>What type of users utilize the site?</i>	
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	
<b>Bike Parking:</b> <i>Is bike parking available? What kind?</i>	
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	
<b>Regional Transportation Plan, Sustainable Communities Strategy, General Plan</b> <i>Local/regional goals that can be met by expanding/improving Park &amp; Rides?</i>	





# GUIDANCE FOR EXISTING SITE ANALYSIS

## IDENTIFICATION STAGE: KEY CHALLENGES

Refer to the existing conditions summary developed in the Assessments Stage to identify relevant key challenges and their potential causes from the list below.

- **Overutilization (Utilization > 85%):** *nearing or at maximum capacity during peak periods*
  - » Not enough parking to support the demand of a facility
  - » Competition between users to park in the available spaces and between eligible and illegal parkers
  - » Users can get frustrated with parking situation and not return
- **Utilization 30% - 85%:** *potential to increase utilization and use of lot*
  - » Diminished economic return in Park & Ride investment as there is excess land not being utilized
  - » Parking supply may need to be reduced to reflect geographic, demographic, and management factors affecting lot
- **Underutilization (Utilization < 30%):** *low utilization for the amount of parking provided*
  - » Land dedicated to parking could be put to a higher and better use
  - » People may not be aware of facility
  - » Facility may be perceived as unsafe or inconvenient
- **Modal Competition (Utilization > 85%):** *multiple modes competing for limited space at site*
  - » Facility accommodates several different modes of transportation including carpool/vanpool, transit, biking, and rideshare
  - » Modes compete with one another in terms of cost, speed, accessibility, frequency, safety, comfort, and time
  - » Users comparing modes available and choosing the ones that best fit their requirements and needs
- **Operations and Management:** *challenging operations and management requirements*
  - » Operations are the responsibility of multiple agencies, making defining roles and responsibilities cumbersome and creating confusion for users
  - » Maintenance issues such as waste disposal, landscaping meeting public safety guidelines, on-going maintenance and repair costs, and aging
- **System Management:** *difficult maintenance and operation of parking system*
  - » Lack of efforts to maintain data and parking counts
  - » Varying procedures and policies between owners and operators
- **Funding:** *difficulties securing funding for improvements and/or operations*
  - » Limited funding and resources
  - » High costs to maintain or high operation costs
- **Partnerships and Policy:** *Building successful partnerships and creating necessary policy to improve Park & Ride usage presents a challenge*
  - » Difficult to form private-public partnerships as private stakeholders do not see the benefit of Park & Rides
  - » Lack of consistent policy and requirement for Park & Ride lots between local municipalities
  - » Owner may wish to terminate the contract
  - » Problems that may arise when Park & Ride users of a location expand into non-designated spaces

It may not be necessary to develop recommendations for a site due to the existing conditions and key challenges. Before proceeding to the next step of this guidance (the Development Stage), it is recommended to go through the relinquishment assessment on the following page.

# GUIDANCE FOR EXISTING SITE ANALYSIS

## RELINQUISHMENT ASSESSMENT

The Relinquishment Assessment takes the site through an evaluation that determines if the site should proceed to the next stage of reviewing tools and developing site recommendations (the Development Stage).

	CHALLENGE	ACTION
STEP ONE	Utilization > 85%	Begin strategy identification matrix in the <i>Development Stage</i> .
	Utilization 30% - 85%	Begin strategy identification matrix in the <i>Development Stage</i> .
	Utilization < 30%	Continue step two to assess continued need for facility.

	CHALLENGE	ACTION
STEP TWO	Lack of Awareness	Begin strategy identification matrix in the <i>Development Stage</i> .
	Safety Concern	Begin strategy identification matrix in the <i>Development Stage</i> .
	Inconvenient	Continue step three to assess continued need for facility.

	ADDITIONAL CHALLENGE	ACTION
STEP THREE	Does facility meet needs of future population growth?	Begin strategy identification matrix in the <i>Development Stage</i> .
	Is facility serving high-capacity transit?	Begin strategy identification matrix in the <i>Development Stage</i> .
	Can the facility size be reduced?	Begin strategy identification matrix in the <i>Development Stage</i> .
	If no to previous questions.	Consider discontinuing operation at facility and investing in a new site. Proceed to the <i>Guidance for New Site Analysis</i> .

# GUIDANCE FOR EXISTING SITE ANALYSIS

## DEVELOPMENT STAGE: RECOMMENDATIONS

Using the strategy identification matrix below, review the strategies in *Park & Ride Toolkit* that correspond to the site's key challenges. Each strategy in the *Park & Ride Toolkit* identifies several tools that could be leveraged when developing recommendations for the site.

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules / Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•

### RECOMMENDATIONS FOR THE SITE

Implementing new strategies may cause additional challenges to arise. Consider creating a suite of tools to anticipate and address these new challenges.

Review the action steps outlined in the *Moving Park & Ride Forward* to identify and address challenges that may require regional solutions.

*This page has been intentionally left blank.*

# GUIDANCE FOR NEW SITE ANALYSIS

## GUIDANCE FOR NEW SITE ANALYSIS

Planning for a new Park & Ride site involves a multi-step process for selecting a viable location (siting) and right-sizing the site to meet estimated demand (forecasting). In order to properly site and size a new site, *case study research* suggests Park & Ride planners utilize the local Travel Demand Model (if available) along with data from existing Park & Rides since the best sources for siting and sizing are predictive analytics and historical precedent. While siting and forecasting demand is traditionally driven by a Travel Demand Model, often times there is a need for an alternative analysis solution since the modeling process can be lengthy, intensive, and requires operation by modeling professionals. The process for siting and forecasting demand can be done by performing a common-sense approach based on analyzing existing conditions such as informal Park & Ride activity, land use contexts, and distance between major residential areas and employment centers.

Baselining is another alternative to using a Travel Demand Model. This approach does not require such intensive processes and can be completed by transportation professionals with access to Geographic Information Systems (GIS) and census data to produce a simplified estimation of demand. Baselining is the process of using existing key performance indicator (KPI) data and historical data to estimate the performance of similar future sites. An example of the baselining process as a tool for siting and sizing can be found in the *Baselining Exercise*. **Baselining, however, is not a good fit for all estimation situations due to the retrospective process it utilizes and has difficulty accounting for future development. Additionally, baselining is only as good as the data it is built upon. High-quality, comprehensive data is necessary to produce strong estimates.**

To help agencies and stakeholders with developing a new Park & Ride facility, the *Guidance for New Site Analysis* provide information for the following:



When developing a new Park & Ride site, consider employing strategies from the *Park & Ride Toolkit* to proactively leverage opportunities and mitigate challenges that may occur at the proposed location.

### REGIONAL SITING

This stage in the process is designed to help the user identify areas with a strong propensity for successful Park & Rides. The user should use the following KPI to generate a “heat map” of locations that have characteristics of ideal Park & Ride locations. With GIS software, the key performance indicators and the associated Search Parameters can be used to scan the region for preferred sites. Each desired KPI will act as a layer on the map. Areas with more overlapping layers are the stronger candidates for Park & Rides. If some or all of the KPIs are unavailable in GIS format, they may still be used when combined with local knowledge, existing mapping tools, and professional planning judgment to identify areas of interest that exhibit qualities of successful Park & Ride locations.

KEY PERFORMANCE INDICATOR	SEARCH PARAMETER (FILTER)
Distance from Employment Center	5-minute driveshed
Distance from Highway	10-minute driveshed
Proximity to High-Capacity Transit/Direct Access Ramp (DAR)	15-minute driveshed
Population	Density by Census Block Group (CBG) above regional average
Vehicle Ownership	Density of 2+ vehicles owned by CBG above regional average
Park & Pool Utilization	Zip codes with Park & Pool usage above regional average

Additional factors for consideration include commuter behavior and existing transit characteristics, which are outlined in greater detail on the next page.



## COMMUTER BEHAVIOR

- Where are commuters traveling within and between jurisdictions?
  - » Understanding existing origin and destination patterns, along with the existing transportation services available to commuters (i.e. Transit) can help indicate whether Park & Rides are an appropriate com-muting solution.
- Are the commuter corridors congested?
  - » More congestion typically leads to higher Park & Ride usage; lots sited upstream of congestion tend to outperform lots sited downstream.

## EXISTING TRANSIT

- Is there existing transit near or at the potential site?
  - » Consider if the new site would be targeting Park & Ride users to utilize transit for the rest of their com-mute or to be a meet-up for carpools/vanpools. Incorporation of existing transit service into a new Park & Ride impacts the site's catchment area and design of the lot.
- What are the transit headways?
  - » 10 minutes or less is best for Park & Ride.
- Does existing transit have low ridership?
  - » A Park & Ride can help boost ridership by concentrating rider demand to a centralized location.

## COMPARATIVE ANALYSIS SELECT AN AREA OF INTEREST

This stage in the process uses the heat map created within Regional Siting to allow the user to identify an area of interest. This area of interest is where several KPI layers are overlapping spatially.

### APPLICABLE TYPOLOGY

Using the area of interest, the user should create an applicable typology, which the user will use to identify analogous existing Park & Rides. **Consider the following factors when creating a typology:**

- Community Context (Density, Land Uses, Distance from Employment)
- Proximity to Transit and Carpool/Vanpool supportive infrastructure (Direct Access Ramps, Express Lanes)
- Transit Service Frequency and Type (Local, Express, Park & Pool, etc.)
- Proximity to other Park & Rides (Are they sharing demand?)

### COMPARE BASE STATISTICS

This stage in the process is focused on compiling and comparing utilization and population data to estimate demand. By comparing the utilization rate and population captured in the chosen analogous sites, planners can estimate future utilization for the area of interest. The steps for using the baselining approach to compare base statistics are outlined in the [Baselining Exercise](#).

## LOCAL SITING

This stage in the process is to search and select a viable new Park & Ride site within the area of interest. When evaluating potential local sites, successful Park & Rides typically exhibit the indicators listed below. While these indicators are typical of successful lots, it is not necessary to meet all them to be successful.

- Accessible Location
  - » Consider the safety, lighting, and walkability of the site and surrounding community. Also, consider the presence of active transportation facilities.
- Easy-to-Access from Regional Roadway Network
  - » Consider the visibility of the site from nearby major roads.
  - » Park & Rides at the nexus of many collector roads will benefit from being a natural location for trip consolidation.
- Non-Residential Parcels
  - » Park & Rides are most compatible as a stand-alone use or incorporated into non-residential uses (e.g., retail, commercial, institutional)
- Owned by the public sector or easily acquirable via partnerships.

Additionally, consider the following to encourage local siting feasibility:

- General Activity Density in Surrounding Area
  - » What is the job/housing density of surrounding area?
  - » Consider any anticipated developments that will put large demand on roadways and create the need for a Park & Ride. These developments offer the opportunity for public-private partnerships. Consult community plans and smart growth areas.
  - » Are there other attractions (retail, entertainment) nearby?
- Presence of Informal Lots
  - » Are there known informal lots where the space is currently or planned to be developed? Informal lots can indicate demand at specific sites.

# GUIDANCE FOR SITE ANALYSIS

## BASELINING EXERCISE

### WHAT YOU NEED

- GIS (Software + Data)
- Occupancy data for existing Park & Ride lots

### ANALYZING CHOSEN TYPOLOGY

#### 1) Define Market Area for Chosen Typology

- The following are example market areas that can be used depending on community context. The market area is based on community context (urban, suburban, rural) with each one having the following recommended driveshed:
  - » Urban (1-3 mile driveshed)
  - » Suburban (3-5 mile driveshed)
  - » Rural 5+ mile driveshed)
- The Market Area can be calculated using GIS – please see [Appendix K](#) for additional guidance.

#### 2) Research Analogous Utilization

- Select several (at least 5) existing Park & Rides from each market area and collect utilization data.

#### 3) Measure Population in Market Area

- Using the market area definition, collect total population\* for each selected Park & Ride using American Community Survey 5-Year Estimates
- The Population statistics can be calculated using GIS – please see [Appendix K](#) for additional guidance.

#### 4) Calculate Equation and Result

- Divide the number of cars\*\* currently parking at the lot by the population in the Market Area to determine an estimated “vehicles per person.”
- Average the “vehicles per person” ratio over all the example lots in chosen typology to determine a Baseline Ratio.
- Apply representative conversion rate to proposed Park & Ride to estimate potential demand.

For instances in which Market Areas overlap, the population must be adjusted and assumed to be distributed equally between each lot. More detailed guidance is available in [Appendix K](#).

## BASELINING IN ACTION

In the following fictional scenario, baselining is utilized to forecast demand for a lot that will have new LRT service. This is intended to highlight how the baselining approach can be applied. Each individual application of the baselining approach will need to consider the unique characteristics of the site in question.

### SCENARIO:

A new LRT alignment is planned to implement service between the US-Mexico border at San Ysidro and Kearny Mesa. The LRT will run through eastern Chula Vista and provide a more direct connection for the South Bay community to one of the region’s most significant employment centers. Currently, South Bay residents must take the Blue Line trolley into downtown and transfer to a bus that serves Kearny Mesa. A new stop is proposed at H Street adjacent to the I-805.

### BASELINING APPROACH APPLICATION:

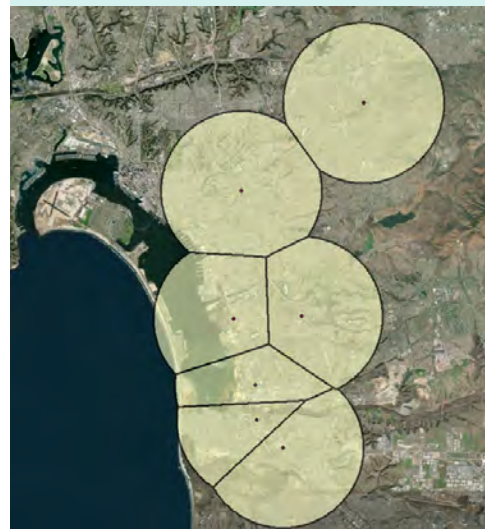
A typology was developed with the following criteria:

- Light Rail with frequent peak hour service
- Near to single family housing with little walk-up density
- Adjacent major arterial
- Serves major employment area

Lots identified that match this typology are listed below:

- Palomar (MTS, 245sp – Avg 216)
- Palm Ave (MTS, 481 spaces – avg 187)
- Iris Ave (MTS, 173sp – 153 Avg)
- Bayfront/E St (MTS, 246sp – Avg 223)

Using these locations, mutually exclusive market areas were identified and developed using the recommended drivesheds (shown in the map below).



# GUIDANCE FOR SITE ANALYSIS

By comparing the population within these market areas with the occupied spaces at existing Park & Ride sites, a baseline ratio of 0.272% was calculated.

PARK & RIDE LOT	CURRENT POPULATION	OCCUPIED SPACES	RATIO
E Street	78,831	223	0.283%
Iris	84,839	153	0.180%
Palm	54,535	187	0.343%
Palomar	68,263	216	0.316%
Total	286,468	779	0.272%

Mutually exclusive market areas and populations were measured with the inclusion of the proposed I-805 and H Street Park & Ride location. Using adjusted market areas to avoid assigning specific populations to multiple Park & Ride sites, projected demand was calculated for each station:

PARK & RIDE LOT	EXISTING POPULATION	PROPOSED POPULATION	CHANGE	PROJECTED DEMAND	DEMAND CHANGE
E Street	78,831	54,796	(24,035)	158	(65)
Iris	84,839	84,795	(44)	153	(0)
Palm	54,535	54,533	(2)	187	(0)
Palomar	68,263	49,865	(18,398)	166	(50)
H (New)	-	105,304	105,304	286	286
Total	286,468	349,292	62,824	950	171

The new Park & Ride at H Street and I-805 is projected to have demand for 286 spaces based on the calculated baseline ratio. 115 of these spaces come from existing Park & Rides within the selected typology locations and 171 spaces are new Park & Ride demand.

## CONCLUSION:

The baselining approach is a simple approach to estimating demand at potential Park & Ride sites. It requires knowledge of local transportation needs and access to existing data. With these assets, Park & Ride managers can use this approach to quickly and effectively assess the potential success of a Park & Ride.



*This page has been intentionally left blank.*



# COMMUNITY PARTNERSHIPS







# COMMUNITY PARTNERSHIPS

Park & Ride lots can be an asset for many community partners such as local municipalities, private entities, and the general public. Thus, it is important to develop targeted messaging and marketing materials that are supported by sufficient data to strategically demonstrate the benefits of Park & Ride partnerships to each stakeholder. This section provides initial guidance on educational materials that could help community partners see the value of Park & Rides and encourage them to be involved with developing, operating, and maintaining Park & Ride lots.

## EDUCATING POTENTIAL PARTNERS

Community partners can play a pivotal role in the development, operations, and maintenance of Park & Rides. If partners are not actively engaged, the Park & Ride system may not fully maximize potential investments and miss out on opportunities. According to the private sector survey conducted (see [Appendix F](#)), 80% of private sector stakeholder participants are open to learning more about the benefits of Park & Rides. According to the commuter behavior survey (see [Appendix E](#)), commuters—especially interregional commuters—are interested in using Park & Rides as part of their commute.

Although both private stakeholder participants and commuters are interested in Park & Rides, most are not fully aware of the benefits of Park & Ride, which contributes to hesitation for partnerships and the lack of support from these community partners. To bring awareness of Park & Ride to community partners, it is recommended to develop an effective marketing plan that shows the value and benefits of Park & Rides.

Creating an effective marketing plan will help provide a framework for when, how, and to whom Park & Rides should be promoted. The primary purpose of this marketing plan is to outline potential strategies that educate community partners about Park & Ride benefits, and ultimately, increase engagement for future partnerships. When developing the marketing plan, it is important to think about each community partner's needs, how they benefit from Park & Rides, how they can be involved, and why they need to be involved.

- Developing a marketing plan to build and improve partnerships is identified as a key action in [Moving Park & Rides Forward](#).

## SUPPORTIVE DATA & ANALYSIS

Community partners, especially private entities, desire quantified benefits that support statistical information like cost savings, parking demand reduction, or increase in sales. Investing in strategies that also support data collection and analysis will contribute to the success of Park & Ride marketing efforts and potential partnerships.

- Marketing to community partners is essential to the future of Park & Rides. Community partners can be more effectively engaged and partner on the development, operations, and maintenance of Park & Rides for the benefit of all community members when using this guidance, the tools identified in the [Park & Ride Toolkit](#), and the action steps identified in [Moving Park & Rides Forward](#).

## POTENTIAL PARTNERSHIP BENEFITS & OPPORTUNITIES

### ▼ BENEFITS FOR LOCAL MUNICIPALITIES

- Park & Rides can support the implementation of Climate Action Plans by supporting services that facilitate the reduction of greenhouse gas emissions (GHG), vehicle miles traveled, and congestion by providing convenient first-mile / last-mile opportunities that incentivize alternative transportation mode choices.
- Park & Rides may support mobility hub enhancements including transit services, electric vehicle charging, bike amenities, or pick-up / drop-off zones for passengers or goods.
- Reduced parking requirements for new developments could be more effective with shared parking policies that support Park & Ride needs.
- Shared mobility policies at employment destinations encourages carpool, vanpool and carshare trips to those communities and reduce overall parking demands.
- Park & Ride lots could provide multi-purpose community spaces for social gatherings (e.g., farmers markets or movie nights) or shuttle services to major events

### POTENTIAL OPPORTUNITIES

- Refer to the [Mobility Management Strategy](#), which includes a [VMT Reduction Calculator Tool](#) for services provided at Park & Ride.
- Distribute digital and printed marketing materials that identify Park & Ride benefits for developers, property managers, employers, and community members. Strategically market these materials with existing TDM marketing efforts. Participate in opportunities to educate private sector and communities about Park & Ride and TDM benefits.
- Consider updating policies to alleviate barriers for public-private partnerships. Consider potential incentivizing partnerships with developers and property managers through parking policy reductions, conditional zoning opportunities, reduced liability, flexible covenants, conditions and restrictions (CCRs), Mobility Hubs development, marketing/advertising, transit incentives and discounts, or shared-parking guidelines.
- Consider implementing a Transportation Demand Management (TDM) Program that includes Park & Ride policy for new development and mandatory monitoring and reporting requirements.
- Consider an agreement with agency partners to leverage existing enforcement and data collection efforts for the Park & Ride system. Develop a process to update regional inventory, utilization, and amenity updates on an annual basis. Quantify benefits to support marketing materials.
- Encourage volunteer opportunities to enhance Park & Ride facilities (e.g., neighborhood security patrol, public art installation, and maintenance).
- Consider using Park & Ride lots to support community events and raise awareness.



# COMMUNITY PARTNERSHIPS

## ➤ BENEFITS FOR PRIVATE ENTITIES

### (DEVELOPERS, PROPERTY MANAGERS, LAND OWNERS, EMPLOYERS)

- Park & Ride partnerships help the region achieve sustainability goals by reducing greenhouse gas (GHG), local air pollutant emissions, and other related public health and environmental impacts, while also reducing parking demand and traffic congestion. Incorporating Transportation Demand Management (TDM) strategies can also contribute to Leadership in Environmental and Energy Design (LEED) certification. Property managers should consider shared mobility parking policies that encourage carpool, vanpool, and carshare trips and/or shared parking with Park & Ride dedicated spaces. Additionally, employers and property managers should work with regional planning agencies, transit agencies, and/or local municipalities to promote Park & Rides and other TDM strategies to their employees and customers.
- Current parking allocations could be repurposed for future development and provide the flexibility to accommodate future changes to travel behavior and goods movement; shared Park & Rides could support mitigation.
- Park & Ride users are customers who are more likely to support nearby businesses.
- Successful Park & Ride lots could transition into future Smart Growth opportunities that also encourage multimodal travel choices.
- Park & Ride efforts can also be supported through the payment of impact fee assessments with new development.

## POTENTIAL OPPORTUNITIES

- Distribute digital and printed marketing materials that identify Park & Ride and TDM benefits for tenants and/or employees. This could be included as part of employees' on-boarding process.
- Consider partnership pilot programs where perceived lack of excess parking is a concern. Pilot programs should include before/after parking demand analysis, combined with strategic TDM strategies, and marketing efforts that support multimodal transportation choices. Share "success stories" as examples for other developers and land owners.
- Create a financial incentives package that is developed in collaboration with local municipalities and transit agencies. This may include opportunities for shared operations & maintenance costs, decrease in number of required parking spaces for new development, or opportunities for traffic mitigation by incorporating Park & Ride spaces.
- Identify statistical datasets that would be useful for business decisions and partner with local municipalities to collect and analyze datasets, including but not limited to:
  - » Identifying foot-traffic statistics that could support advertising,
  - » Average money spent by Park & Ride users/customers of shared retail spaces,
  - » Decrease in parking utilization and demands, creating future development opportunities,
  - » Annual savings for maintenance with shared partnership, and
  - » Additional travel incentives for private entities' consumer base (e.g., transit services, EV Charging, and/or shared mobility).

## ▼ BENEFITS FOR GENERAL PUBLIC

- Park & Rides provide convenient first-mile / last-mile travel options for community members who would like to leave their car and take transit, carpool, or vanpool for the rest of their trip. These benefits provide options that help the environment, save money, and alleviate commuting stress.
- Park & Rides reduce traffic congestion throughout the region by encouraging multimodal travel choices. Community members should support new projects that increase Park & Ride opportunities in their region.
- Park & Ride lots could provide multi-purpose community spaces for social gatherings (e.g. farmers markets or movie nights). Community members should work with local municipalities to encourage activating Park & Ride spaces in the community.
- Park & Rides encourage investments in Mobility Hub amenities that enhance the movement of people and goods including Electric Vehicle charging, bike lockers, transit services, mobile retail services, and package delivery stations.

## POTENTIAL OPPORTUNITIES

- Utilize services at existing Park & Ride locations and share the benefits with community members and local municipalities. Benefits may include time savings, cost savings, convenience and/or lifestyle changes attributed to Park & Ride. Consider sharing benefits on social media to support TDM campaigns.
- Support future investments that support overall transportation efforts, including smart parking considerations to support full-featured transportation app for trip planning.
- Enhance Park & Ride community value by volunteering to provide neighborhood security patrol, public art installation and maintenance, and/or data collection.
- Consider using Park & Ride lots to support community events and raise awareness.

*This page has been intentionally left blank.*













# PARK & RIDE TOOLKIT



# PARK & RIDE TOOLKIT

The *Park & Ride Toolkit* (Toolkit) is a resource for operators and owners to refer to when addressing prevailing regional challenges identified by stakeholders through the stakeholder workshop (see [Appendix B](#)). Using best practices and lessons learned through the literature review, case study research, commuter survey, and private sector survey (see [Appendix C, D, E, and F](#)), the *Toolkit* provides strategies and respective tools for implementation to better plan, operate, and manage Park & Ride facilities. The strategies and their respective tools are outlined on the following page.

Each strategy identifies tools that can be implemented at a Park & Ride facility. The following information is provided for each tool:

Name of Tool		Recommended Phasing:		
		 NEAR-TERM	 MID-TERM	 LONG-TERM
 <b>DEFINITION</b>				
	<i>What is the tool?</i>			
 <b>BENEFIT</b>				
	<i>What are the benefits for implementing the tool?</i>			
 <b>COST</b>				
	<i>What are the low/medium/high options for implementing the tool?</i>			
 <b>PREFERRED CONDITIONS</b>				
	<i>What top considerations warrant an investment in the new tool or strategy?</i>			
 <b>TYPICAL CHALLENGES</b>				
	<i>What barriers should the owner or operator plan for when choosing to implement the new tool or strategy?</i>			
 <b>RISKS</b>				
	<i>What potential negative consequences may co-occur if an owner or operator chooses to implement the tool?</i>			
 <b>EXAMPLES</b>				
	<i>What are some examples of the tool?</i>			
<b>Tool in Action</b>				
➤ 2-5 sentence summary of an applicable case study for the tool. Additional relevant case studies can be found in the Case Studies Memo ( <a href="#">Appendix D</a> ).				

For each tool, there is a recommended phasing for implementation as shown above with the green, orange, and blue circles. Near-Term describes improvements having minimal cost and policy barriers. Mid-Term describes improvements having average costs and policy barriers. Long-Term describes improvements having significant costs and policy barriers.

From the research, the following strategies and respective tools are described in the *Toolkit*:

MAXIMIZING CAPACITY AT FACILITIES
Dedicate Space for Alternative Access Modes
Proactive Siting
Increase Number of Parking Spaces
Annual Reporting and Performance Monitoring
Pilot Programs to Test Potential Maximizing Capacity Solutions

MANAGING PARKING DEMAND
Implement Paid Parking System
User Type Management
Smart Parking Systems

SECURE FACILITIES AND ENFORCE RULES
Focused Enforcement to Deter Abuse
Reduce Security Concerns

INCENTIVIZE TARGET USERS
Enhance Access Modes
Supporting Mobility Hub Amenities
Marketing Park & Ride Benefits

CREATE PARTNERSHIPS WITH LOCAL JURISDICTIONS AND PRIVATE-SECTOR
Campus Employer Partnerships
Activate, Lease, or Reuse Excess Capacity
Advertising at Park & Ride Facilities
Relinquishment

ALIGN PARK & RIDE PLANNING WITH LOCAL AND REGIONAL GOALS
Encourage Transit-Oriented Development (TOD)
Park & Ride Policy Integration
Transitory Park & Ride Facilities
Inter-Agency Coordination

*This page has been intentionally left blank.*

# MAXIMIZING CAPACITY AT FACILITIES

- Encourage more efficient use of existing facilities by increasing the number of users at a facility
- Improve quality and consistency of service provided to users (space availability)
- Improve facility design

## Implementation Tools

### Dedicate Space for Alternative Access Modes



NEAR-TERM



MID-TERM



LONG-TERM

#### DEFINITION

- Provide and prioritize dedicated space for travel alternatives to single occupancy vehicles

#### BENEFIT

- Increase utilization without increasing automobile parking
- Encourage existing/new users to travel using alternative modes

#### COST

**LOW** - Re-striping and signage; secure bike parking installation

#### PREFERRED CONDITIONS

- Utilization > 85%
- Within walking/biking distance (0.25 mile - 0.5 mile) of residential community, employment area, or transit stop
- High visibility locations with potential mobility hub conversion

#### TYPICAL CHALLENGES

- Requires regular enforcement of existing assets to warrant new investment
- Reconfiguration of existing facility
- Confirm existing policies allow for alternative modes of access

#### RISKS

- New alternative access space may require reconfiguration of existing lot, resulting in a loss of parking capacity for existing users
- Underutilization by alternatives modes of access

#### EXAMPLES

- Providing dedicated vanpool/carpool spaces for transit users
- Providing dedicated curb space for Transportation Network Companies (TNCs)
- Provide specific spaces for compact modes of transportation (e.g. motorcycle, bicycle)

### TOOL IN ACTION



Source: Scoop Technologies

- BART is working with the Metropolitan Transportation Commission (MTC) and Scoop Technologies to incentivize BART users to carpool to BART stations. Since parking at these stations fill early in the morning, carpool vehicles will have a guaranteed parking spot at the station until 10am.

## Proactive Siting

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Effectively site a new Park & Ride for better access from the adjacent catchment area using factors such as available right-of-way, perceived area atmosphere, site size, visibility from adjacent travel routes, site access, existing transit service, road congestion, and lot design (Refer to *Guidance for New Site Analysis* for additional information)

### BENEFIT

- Identify future sites with the greatest cost-benefit
- Meet expectations for demand while integrating facility with the surrounding community

### COST

- LOW** - Developing lots on existing agency right-of-way
- MEDIUM** - Developing lots by entering agreements with local governments and private property owners
- HIGH** - Construction of structured lot at a major transit station

### TYPICAL CHALLENGES

- Establishing a set criteria for evaluating and scoring candidate sites
- Securing funding to build and operate new lot
- Property owners may require additional incentives or requirements to allow Park & Ride operations (e.g., demonstrate increase in sales, shared maintenance of parking lot costs)

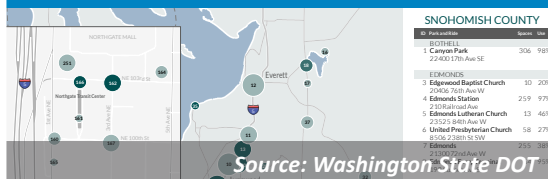
### RISKS

- Incomplete data in siting process, resulting in under-informed decisions
- Variables and utility of Park & Ride may change over the time of site selection

### EXAMPLES

- Common-sense approach and review of existing conditions (e.g. informal Park & Ride activity, density of residential and employment areas, and distance between residential areas and employment centers)
- Create a site suitability evaluation that assesses each potential Park & Ride lot

#### TOOL IN ACTION



Washington State DOT prepared a Park & Ride System plan that incorporated proactive forecasting and siting into planning. Travel forecast models were used to forecast future demand for Park & Ride assets using measured variables.

## Increase Number of Parking Spaces

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Create additional parking spaces by restriping, expanding or relocating existing lot

### BENEFIT

Additional parking spaces can accommodate existing and latent demand

### COST

- LOW** - Reconfigure and restripe
- MEDIUM** - Lease agreements at adjacent lots
- HIGH** - New construction for lot/parking structure

### PREFERRED CONDITIONS

- Utilization > 85%
- Locations of high latent demand
- Available adjacent land to expand lot size

### TYPICAL CHALLENGES

- Temporary loss of capacity during construction
- Agreements with adjacent land owners for shared parking are not permanent
- Reconciling different peak demand times for adjacent activities and land uses

### RISKS

- May not be as cost effective as subsidizing other first-mile/last-mile transportation service options
- Additional spaces may not reach optimal utilization to justify investment
- May need to investment in other amenities and access points combined with paid parking system

### EXAMPLES

- Change from parallel to angled parking; Develop new or expand lots; Offer on-street parking; Structured parking; Lease parking

#### TOOL IN ACTION



Michigan DOT partnered with Meijer supercenter stores to provide carpool Park & Ride spaces in exchange for added signs for Meijer stores on adjacent highways.



## DEFINITION

- Monitor, analyze, and report data relating to Park & Ride performance metrics in an accessible regional geo-coded database

## BENEFIT

- Identify inefficiencies and improvement areas
- Provide decision-grade data and information
- Potential to utilize data for modeling
- Develop Park & Ride dashboard to monitor success, challenges, and opportunities

## COST

**LOW** - Data maintenance and staff reporting; Software platforms to house performance data and key performance metrics

**HIGH** - Real-time data collection with smart parking technology

## PREFERRED CONDITIONS

- Existing database on Park & Ride system that can be updated easily from year-to-year

- Agencies perform counts on a regular, consistent basis
- Agreed performance metrics to collect data among owners and operators
- Stakeholders readily open & able to share data

## TYPICAL CHALLENGES

- Commitment across agencies for consistent data collection and reporting
- Determine variables to collect, report & share
- Update policies as necessary for cross-agency data sharing

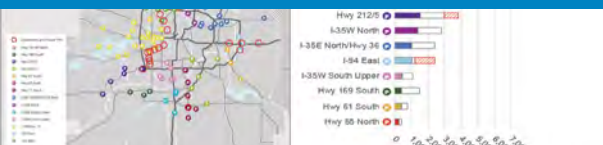
## RISKS

- Inconsistent data collection and not prioritizing need for annual reporting
- Low priority for agencies compared to other maintenance and operations efforts

## EXAMPLES

- Park & Ride dashboard to monitor region wide performance; Status reports containing performance metrics (e.g., utilization and incident reports)

### TOOL IN ACTION



Source: Metro Transit Annual Park & Ride Report (2018)

- Metro Transit performs an Annual Regional Park & Ride System Report that summarizes utilization trends in the Twin Cities. This effort has propelled the current Park & Ride initiatives in the Minnesota Metro Region.

## Pilot Programs to Test Potential Maximizing Capacity Solutions

## DEFINITION

- Evaluate potential strategies to maximize parking utilization at Park & Rides with short-term testing prior to major investment decisions

## BENEFIT

- Able to test effectiveness of different strategies in the short-term without long-term commitment
- Implement successful strategies using lessons learned from pilots

## COST

**LOW** - Short-term implementation costs

**MEDIUM** - Data collection of performance metrics

## PREFERRED CONDITIONS

- Utilization >85%
- Current challenges outweigh the policy concerns that prevent agency support for pilot programs

## TYPICAL CHALLENGES

- Receiving agency support and contractual approvals for pilot project
- Lack of funding and staff resources to support pilot project
- Determining the type of pilot project that is most appropriate

## RISKS

- Unsuccessful pilot program can be seen as a waste of resources and deter continuing new pilot efforts

## EXAMPLES

- Pilot Incentive Programs; [Mobility Hub Features Catalog](#); Permit/Smart/Paid parking

### TOOL IN ACTION



- Metro has partnered with Via to offer on-demand rides to select transit stations in three service zones. Via will match passengers with other riders going their way to the same transit station.

*This page has been intentionally left blank.*



# MANAGING PARKING DEMAND



➤ Manage parking spaces as a resource to leverage and achieve agency and regional goals.

## Implementation Tools

### Implement Paid Parking System

NEAR-TERM MID-TERM LONG-TERM

#### DEFINITION

- Charge parking fees to control utilization and support Park & Ride operations and management

#### BENEFIT

- Parking availability during peak periods
- Additional revenue to offset maintenance and operations costs or reinvest in amenities, security, and services

#### COST

**LOW** - Paper Permit System with Signage & Pavement Marking

**MEDIUM** - Smart Parking Technology; Revenue control

#### PREFERRED CONDITIONS

- Consistent utilization > 85% during peak periods
- Existing management and enforcement programs with localized presence
- Smart Parking integration with Regional ITS Infrastructure
- Surveyed users willing to pay to ensure space availability

#### TYPICAL CHALLENGES

- Effective real-time enforcement is necessary for the success of this program
- Impacts on low-income or minority customers at existing facilities
- Difficult to implement for leased or shared use lots
- Impacts on neighboring land uses & lots through "hide & ride" behavior
- Caltrans policy prevents the implementation of a paid parking system at Park & Ride lots

#### RISKS

- Potential loss of Park & Ride users
- Cost and time of using Park & Ride may exceed cost of driving alone for choice users
- Smart paid parking system goes out of order

#### EXAMPLES

- Demand Based Pricing; Event Parking Fee; Duration escalating rates; Subscription/Parking Pass Service; Incorporate Parking Fee into Monthly Pass

### TOOL IN ACTION



550 paid on-site parking spaces  
195 paid reserved on-site parking spaces  
4 ev charging stations  
16 bike rack spaces  
32 bike lockers  
Bike & ride discount  
ADA accessible  
Source: LA Metro

➤ At select Park & Ride locations with high demand, LA Metro has implemented a reserved monthly parking and/or a paid daily parking system. With monthly parking, users have the option of purchasing a METRO Monthly Permit, CARPOOL Monthly Permit, and the FLEX Permit. This system has been so successful that LA Metro has adopted these systems at most existing Park & Rides.

## User Type Management

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Incentivize and manage desired parking behaviors through user limitations/restrictions, policies, and enforcement

### BENEFIT

- Controls parking capacity for desired parking behaviors
- Discourages non-Park & Ride users

### COST

**LOW** - Re-striping; Signage; Paper Permit System; Decal Sticker; Enforcement

**MEDIUM** - Smart Parking Technology; Enforcement

### PREFERRED CONDITIONS

- Utilization > 85%
- High amounts of policy violation and/or undesired parking behavior

- Policy preventing paid parking to be in place
- Shared parking agreements with restrictions on desired user type and behavior from lot owner
- Existing management and enforcement programs with localized presence

### TYPICAL CHALLENGES

- Adapting policies prioritizing desired parking behaviors
- Requires frequent enforcement
- Resources for programs
- Equipment failure and response time to fix it

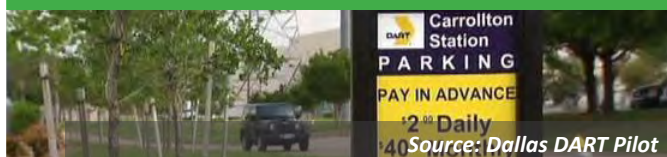
### RISKS

- Limiting demand for general parking spaces could result in the creation of latent demand

### EXAMPLES

- Dedicated transit parking; Dedicated carpool/vanpool parking; Permit parking; Remote enforcement; Subscription parking service

#### TOOL IN ACTION



- Dallas DART Pilot program provides free reserved stalls for residents who display a valid resident parking permit on their vehicle.

## Smart Parking Systems

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Parking system providing users real-time space location and availability

### BENEFIT

- Collect real-time space occupancies
- Allows users to interact more efficiently with the parking system
- Passive enforcement and integrates with other toolkit strategies
- Improves system management and staff efficiencies
- Improves customer perception of facility through "actively managed" information
- Improve demand allocation for limited parking

### COST

**MEDIUM** - Real-Time Sensing & Signage; Access Control; Mobile App Integration; Management and Operations of Smart Parking System

### PREFERRED CONDITIONS

- Utilization > 85%

- Paired with other tools like regional trip planning apps/databases and [Park & Ride Data Center](#)
- Regional database for smart parking data analytics

### TYPICAL CHALLENGES

- Calibration to ensure accurate and useful information
- Maintenance of mechanical and digital technologies
- May be difficult to implement at leased/shared lots
- Determining the responsible agency for maintenance of smart parking system and collecting and sharing parking data collected
- Customer information and understanding of smart parking system

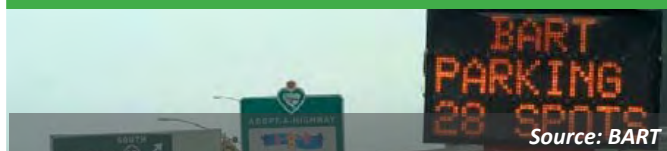
### RISKS

- Cost of system maintenance
- Limited deployments to only highly utilized lots may limit effectiveness of regional smart parking system

### EXAMPLES

- Utilization Sensors; Real Time Availability; Parking Guidance Systems

#### TOOL IN ACTION



- Smart parking systems were installed at Park & Ride facilities at heavy rail stations. These smart parking systems included VMS on a nearby freeway that shows Park & Ride availability and allows users to reserve Park & Ride spots by phone or Internet.

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*

# SECURE FACILITIES AND ENFORCE RULES

- Provide users with a safe and comfortable environment through active and passive enforcement

## Implementation Tools

### Focused Enforcement to Deter Abuse

 NEAR-TERM  MID-TERM  LONG-TERM

#### DEFINITION

- Discourage unwanted parking behaviors by controlling access and utilization of Park & Ride lot through focused enforcement

#### BENEFIT

- Ability to implement Park & Ride restrictions & policies
- Increase capacity for desired users of facilities

#### COST

➔ **MEDIUM** - Parking enforcement officers/staff to patrol; Smart parking technology

#### PREFERRED CONDITIONS

- Utilization > 85% by desired users
- High rates of non-permitted or unwanted parking
- Policy supports enforcement with existing program to enforce

#### TYPICAL CHALLENGES

- Enforcement may lead to short-term drop in utilization
- Real time enforcement can be costly
- Some policies difficult to enforce (carpool one way, transit back)
- May lose ridership because of enforcement

#### RISKS

- Violators may adapt to exploit enforcement procedures
- Enforcement inconveniences may affect existing users
- May increase usage of "informal" lots

#### EXAMPLES

- Citations; Active Enforcement ; Access control, Subscription parking service; Cameras for remote enforcement; partnerships for enforcement with highway patrol or local jurisdictions

### TOOL IN ACTION



- Denver RTD has implemented cameras at half of their facilities. CCTV cameras assist with real-time enforcement as it allows RTD to take a proactive approach to security and customer complaint investigations.



## Reduce Security Concerns

NEAR-TERM MID-TERM LONG-TERM

### Q DEFINITION

- Implement security features to improve safety for all users

### 👍 BENEFIT

- Decreased real and perceived security concern at facilities
- Possible increased usage of facility due to lowered security issues

### \$ COST

➡ **MEDIUM** - Design lots to include Community Planning and Economic Development features; Parking enforcement officers/staff; Security Monitoring Systems; Frequent & consistent maintenance

### 💡 PREFERRED CONDITIONS

- Utilization < 15%
- Near other lots or other parking enforced areas to leverage existing security patrol investments

### 🧩 TYPICAL CHALLENGES

- Prioritizing facilities
- Funding for ongoing security
- Developing a process to track incidents, identify trends, and efficiently respond to address concerns

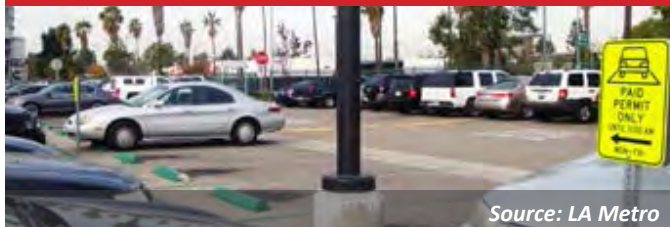
### ⚠️ RISKS

- Criminal activity may adjust to new security protocol
- Response to problems/concerns not quick enough for users

### 📋 EXAMPLES

- Security Patrol; Safety Infrastructure (e.g. Emergency-phone availability, Increase lot visibility through siting or removing obstructive landscaping); Cameras and Real Time Enforcement; Donation Centers

## TOOL IN ACTION



- ➡ LA Metro has created monthly reserved spots at select Park & Ride locations. Enforcement is managed through the usage of TAP card and license plate recognition software. These automated systems are an effective tool to ensure only system users are parking at lots.

*This page has been intentionally left blank.*



*This page has been intentionally left blank.*

# INCENTIVIZE TARGET USERS

- Provide users with incentives and information to make Park & Rides a more attractive choice for their mobility needs

## Implementation Tools

### Enhance Access Modes



NEAR-TERM



MID-TERM



LONG-TERM

#### DEFINITION

- Provide fast, frequent, and reliable transit service and micromobility services and modes to connect Park & Rides to surrounding land uses

#### BENEFIT

- Increase the number of users the lot can serve while reducing the parking demand
- Enhance transit for existing commuting patterns

#### COST

**➡MEDIUM** - New and/or enhanced transit service; Subsidized transit passes; Subsidized rideshare to transit

#### PREFERRED CONDITIONS

- Utilization < 50%
- Located along high-frequency transit commuter route
- Within walking/biking distance from residential and/or employment areas

#### TYPICAL CHALLENGES

- Funding to implement, operate & maintain
- Awareness of enhanced/new service

#### RISKS

- New transit service and amenities are initially underutilized
- New amenities are vandalized
- Potential users continue to drive alone

#### EXAMPLES

- Enhanced Transit Waiting Areas; Passenger Loading Zones; Real-Time Travel Information; Dedicated transit lanes/signal priority; Subsidized transit passes; Subsidized rideshare; Microtransit; Neighborhood Electric Vehicles; Micromobility vehicles (e.g., e-bikes, bikes, scooters)

### TOOL IN ACTION



Source: New Mexico Department of Transportation

- When Park & Ride facilities are underutilized, New Mexico Department of Transportation incentivizes lot utilization by offering free bus services at a specific location for one week to stimulate ridership.

## Supporting Mobility Hub Amenities

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Dedicating space and infrastructure for Mobility Hub service amenities at Park & Ride lot to eliminate additional trips and/or incentivize new users at that location

### BENEFIT

- More users accessing the Park & Ride from the surrounding community
- Access to convenient first/last mile services to complete errands and reduce vehicle trips

### COST

**LOW** - Micromobility options; Mobile retail; EV Charging Infrastructure

**MEDIUM** - Construct enhanced bicycle and pedestrian facilities

### PREFERRED CONDITIONS

- Utilization < 85%
- Supportive policy for amenities at Park & Ride
- Close proximity to residential/commercial areas

### TYPICAL CHALLENGES

- Tailoring features to the existing and targeted users
- Identifying most impactful features
- Partnering with private sector to implement
- Funding

### RISKS

- Competition between modes for space
- Remaining limited capacity may cause undesired behaviors
- Getting private partnerships and vendors to locate at Park & Rides

### EXAMPLES

- Signage and Wayfinding; Package Delivery; Mobile Retail; Universal Transportation Account; EV Charging; Infrastructure for cars and micromobility vehicles; Improved Active Transportation Facilities; Bikeshare/scootershare/carshare

### TOOL IN ACTION



Source: SANDAG

- SANDAG developed a [Mobility Hub Features Catalog](#) along with a [Regional Mobility Hub Strategy](#) and [Mid-Coast Mobility Hub Strategy](#) for the new stations on the Mid-Coast Trolley Blue Line Extension.

## Marketing Park & Ride Benefits

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Communicate Park & Ride benefits to users, private sector, and general public (Refer to [Community Partnerships](#) for additional information)

### BENEFIT

- Increase utilization of lots
- Increase awareness/participation of potential users and community partners

### COST

**LOW** - Digital Marketing; Stakeholder Outreach

**MEDIUM** - Printed Marketing

### PREFERRED CONDITIONS

- Utilization < 50%
- Lot located along high-demand commuter routes

### TYPICAL CHALLENGES

- Funding
- Identifying benefits for each audience type
- Assessing behavior shifts resulting from effort

### RISKS

- Ineffective or incongruent with existing experience
- Unable to reach targeted audience

### EXAMPLES

- Facility Branding; Print/Digital media; Social Media; TDM App; Online Mapping; PR Campaign; Website; Print Collateral; Park & Ride Ambassadors

### TOOL IN ACTION



Source: SANDAG

- RTA (Chicago) has launched a multi-year marketing campaign to promote usage of park-and-ride and transit in the area. Campaign extends to TV, radio, social media, digital billboards.

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*

# CREATE PARTNERSHIPS WITH LOCAL JURISDICTIONS AND PRIVATE-SECTOR

- Partner with local government to meet shared goals and objectives
- Partner with private-sector to cost-share in a joint-effort to provide parking for users

## Implementation Tools

### Campus Employer Partnerships



NEAR-TERM



MID-TERM



LONG-TERM

#### DEFINITION

- Partner with large employment and university campuses to encourage use of Park & Rides

#### BENEFIT

- Decrease demand for campus parking on-site and surrounding neighborhoods
- Increase use alternative modes of transportation through Park & Rides
- Promote alternative transportation options
- Increase Park & Ride user base to campus populations

#### COST

**LOW** - Partnership agreement with campus and employer

**MEDIUM** - Providing shuttles service from campus or employment site

#### PREFERRED CONDITIONS

- Campuses with high off campus commuter population
- Campus with heavily restricted and limited parking facilities

- Existing transit service or shuttle to campus directly from Park & Ride lot

#### TYPICAL CHALLENGES

- Long-term stability of partnership
- Promoting Park & Ride to campus population
- Understanding user base through targeted origin data analysis and outreach
- Student desire to carpool/vanpool

#### RISKS

- Demand for Park & Ride exceeds existing capacity

#### EXAMPLES

- Joint development of Park & Ride; Shared maintenance & operation costs at Park & Ride primarily used by campus population; Reserved Parking & Subscription Services

### TOOL IN ACTION

**uh.edu/COAST**

Source: University of Houston

- COAST Program at the University of Houston incentivizes students and employees to use transit and Park & Ride. The goal of the program was to help alleviate on-campus parking demand. Park & Ride students paid a 35% of full price and received 50% discount on bus/light rail tickets.



## Activate, Lease, or Reuse Excess Capacity

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Excess Park & Ride space is activated, leased to other entities or reused to meet other community needs

### BENEFIT

- More efficient use of land/parking spaces
- Creation of community spaces
- Possible revenue stream from leasing excess capacity

### COST

**LOW** - Lease agreements; Outreach and coordination with stakeholders

### PREFERRED CONDITIONS

- Consistent utilization < 50% at similar times on weekdays and weekends
- Surrounded by lots with limited parking available

### TYPICAL CHALLENGES

- May require changes in Park & Ride policies for asset owner or transfer to public or private owner
- May require additional dedicated staff

### RISKS

- Roles and responsibilities of different activated uses
- Increased operations and maintenance costs
- Lack of communication, signage, and marketing can cause confusion for users

### EXAMPLES

- Lease to nearby employers or shopping centers, farmers markets and community groups; Use space for special events

#### TOOL IN ACTION



Source: Farm2ublog

- The City and County of Honolulu has partnered with the People's Open Market to provide Park & Ride space on weekends for use by the market.

## Advertising at Park & Ride Facilities

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Use Park & Ride assets to promote local community or adjacent businesses

### BENEFIT

- Public benefit through community advertising
- Potential revenue source to offset operations and maintenance costs
- Integration with local functions and/or community groups

### COST

**LOW** - Outreach and coordination with stakeholders

**MEDIUM** - Implement dynamic displays at high activity locations

### PREFERRED CONDITIONS

- Near freeway and major arterials to increase Daily Effective Circulation (DEC)
- Policy allows for advertisement to offset Operations and Maintenance costs

### TYPICAL CHALLENGES

- Low number of viewers at each facility
- Over signage causing confusion among users
- Policy and zoning obstructions/restrictions
- Potential conflict with existing branding guidelines of Park & Ride program
- Right-of-Way challenges at shared lots
- Policy for revenue generation

### RISKS

- Keeping up with changing marketing trends
- Lack of interest in advertising
- Protecting advertising assets

### EXAMPLES

- Bus shelter advertisements; Signage; Billboards; Marketing on Park & Ride website; Park & Ride sponsorship packages

#### TOOL IN ACTION



Source: City of Portsmouth

- The City of Portsmouth, UK, has created a comprehensive guide for private companies to purchase advertising space at their facilities and on their vehicles.

## DEFINITION

- The transfer of an asset within the public sector

## BENEFIT

- Re-establishing agency goals & processes regarding Park & Ride system with partners
- More flexible management of assets

## COST

**LOW** - Staff time for coordination between agencies and handling process to hand over state assets to local authorities

## PREFERRED CONDITIONS

- Utilization < 30%
- Major policy changes needed for implementing another tool such as *Implement Paid Parking System*

## TYPICAL CHALLENGES

- Local or state funding of Park & Ride relinquishment
- Potential policy changes needed beyond relinquishment
- Differing goals of state and local authorities

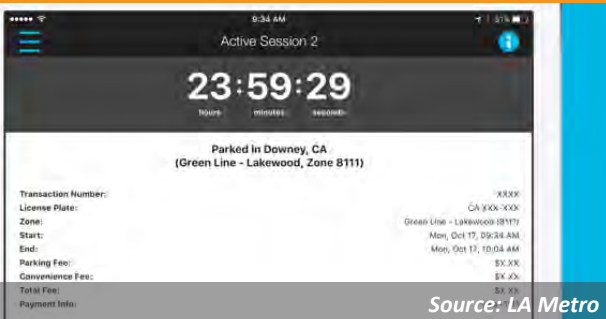
## RISKS

- Agency coordination becomes difficult, burdensome, or non-productive
- Lost opportunities from relinquishing right-of-way (e.g. land value)

## EXAMPLES

- Caltrans Relinquishment Process is outlined on their [website](#)

## TOOL IN ACTION



Source: LA Metro

- LA Metro was able to establish paid parking at Caltrans-owned Park & Ride locations through the relinquishment of operations and management responsibilities.

*This page has been intentionally left blank.*

# ALIGN PARK & RIDE PLANNING WITH LOCAL AND REGIONAL GOALS

- Effective approaches for Park & Ride planning & implementation (e.g., siting, increasing utilization, managing asset) to meet local and regional goals

## Implementation Tools

### Encourage Transit-Oriented Development (TOD)



NEAR-TERM



MID-TERM



LONG-TERM

#### Q DEFINITION

- Incorporate housing at existing or near Park & Rides locations or provide Park & Ride spaces at TOD locations

#### 👍 BENEFIT

- Decrease greenhouse gas emissions (GHG)
- Maximizes use of Park & Ride footprint
- Decreased costs for agency due to private partnership at TODs

#### \$ COST

- LOW** - Management of private-public partnerships
- MEDIUM** - Public incentives to encourage construction of TOD/housing at Park & Rides

#### 💡 PREFERRED CONDITIONS

- Parking is decoupled/unbundled from housing costs
- Large, underutilized lots that can be joint-developed
- Regional need for housing adjacent to transit
- Existing presence of a shared-use management program to support administration and enforcement

#### 🧩 TYPICAL CHALLENGES

- Aquiring data and information on location of planned TOD
- Incentivizing developers to incorporate Park & Ride spaces
- Policy preventing TOD development at Park & Rides
- Effectively forecasting demand for each shared user type to ensure parking amount is adequate

#### ⚠️ RISKS

- Potential costs, management responsibilities, and additional liability associated with Park & Rides could be discouraging for developers
- Loss of real estate to expand when utilization of Park & Ride spaces increases

#### 📄 EXAMPLES

- Revised parking standards in Transit Priority Areas (TPAs) to encourage shared-use with Park & Ride; Smart Growth policies; Joint Use and Development of Property Policies and Procedures

### TOOL IN ACTION



Source: City of Calgary

- Calgary removed all but 500 of the 1,750 Park & Ride spaces at its suburban Anderson light rail station, and gradually converted the space into a mixed-use development.



## Park & Ride Policy Integration

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Incorporate Park & Ride initiatives into local, regional, & state policy framework to encourage Park & Ride considerations in future planning efforts

### BENEFIT

- Highlight role of Park & Ride in local/regional planning efforts
- Continuity of investment across multiple jurisdictions
- Possible increased commitment for Park & Ride development/improvement from policymakers

### COST

**LOW** - Staff time to support integration of Park & Ride policies into local/regional plans

### PREFERRED CONDITIONS

Planning authorities desire to integrate Park & Ride policies into planning efforts

### TYPICAL CHALLENGES

- Institutional commitment to incorporate Park & Ride initiatives
- Development of greenhouse gas (GHG) reduction estimates for Park & Ride services

### RISKS

- Framework policy plans not carried out
- Park & Ride policies conflict with other priorities

### EXAMPLES

- Climate Action Plan; Local Transportation Demand Management (TDM) Planning Integration of Park & Rides; Area Wide Parking Policy (Policy/Ordinance)

#### TOOL IN ACTION



- Sound Transit implemented a successful permitting program within their Park & Ride lots as a result of their Regional Parking Management Working Group. The working group was established by the local MPO and allows for the regional coordination of Park & Rides.

## Transitory Park & Ride Facilities

NEAR-TERM MID-TERM LONG-TERM

### DEFINITION

- Create temporary Park & Ride lots at future Transit-Oriented Development (TOD) locations along major corridor improvement projects

### BENEFIT

- Land is already owned by public sector, so no new land is needed to create the temporary Park & Ride
- Land does not sit vacant while TOD is being planned and designed
- Building ridership prior to operations of new transit service

### COST

**LOW** - Striping and signage  
**MEDIUM** - Conversion of lots from construction or development purposes to Park & Ride

### PREFERRED CONDITIONS

- Parking availability for at least one year

- Within existing demand for Park & Ride
- Lot near interim end-of-line station that has high potential Park & Ride use
- Lot easily convertible into Park & Ride and has high potential future use as TOD

### TYPICAL CHALLENGES

- Determining which light rail construction staging lots are feasible for use
- Metrics to determine lots that are TOD candidates
- Agreements for Park & Ride operations at construction site

### RISKS

- Eventual conversion of lot from Park & Ride to TOD will reduce transit usage and can anger users
- Lack of use of Park & Ride

### EXAMPLES

- Establishing Park & Rides at interim end-of-line stations as transit networks are being built out

#### TOOL IN ACTION



- The City of Edmonton strategically incorporates Park & Ride lots into project planning and construction. The agency plans to be cost effective by being mindful of land and construction costs for facilities and will focus on improving equity with the addition of Park & Ride facilities in an area.



**DEFINITION**

- Coordinate and collaborate with local stakeholders to align policies, processes, and goals

**BENEFIT**

- Compatible and harmonized strategies can eliminate regional inefficiencies
- Increase communication between stakeholders
- Maximize regional investment

**COST**

LOW - Stakeholder staff time

**PREFERRED CONDITIONS**

- Similar goals and policies
- Policymaker to champion

**TYPICAL CHALLENGES**

- Turnover of policymakers and institutional leadership
- Keeping Park & Rides relevant with political and transportation trends

**RISKS**

- Wasted resources if unable to agree upon next steps or unable to show results
- Interdependencies of internal and external stakeholders making relationship and discussions more complicated

**EXAMPLES**

- Technical Working Group; Regional Working Group

**TOOL IN ACTION**

Source: Q106.5

- Maine DOT owns and operates Park & Ride lots in the state, but coordinates heavily with local jurisdictions to ensure alignment of priorities.

*This page has been intentionally left blank.*



# MOVING PARK & RIDES FORWARD:

ACTION STEPS TO IMPROVE THE PARK & RIDE  
SYSTEM



# MOVING PARK & RIDES FORWARD: ACTION STEPS TO IMPROVE THE PARK & RIDE SYSTEM

*Moving Park & Rides Forward: Action Steps to Improve the Park & Ride System* (Moving Park & Rides Forward) is a roadmap for planning and managing Park & Ride facilities for San Diego and Riverside counties. Park & Ride facilities provide numerous benefits for the San Diego and Riverside regions such as increasing access to transit, consolidating rider demand for transit services, providing convenient meeting points to promote carpools and vanpools, and reducing single-occupancy trips while also reducing associated vehicle miles traveled and greenhouse gas emissions. Park & Ride facilities are an asset that require continued planning, development, monitoring, assessment, and management to leverage these facilities and meet regional and state goals.

In response to changing land uses, a rapidly evolving mobility landscape, and new technology, SANDAG and RCTC are re-evaluating the role Park & Ride facilities will play in the transportation system moving forward. Using literature review, peer agency document review, case study research, stakeholder engagement, feedback from commuter surveys, and site-specific recommendations, an outline of regional action steps has been developed for SANDAG's and RCTC's consideration for future implementation. Each individual stakeholder has different policies that limit the types of actions that they can take when addressing Park & Ride challenges. The actions below should be implemented within the parameters of agency policy. By incorporating some or all of the following regional action steps, both agencies and their partners can leverage existing and future Park & Ride assets to enhance a transportation system to accommodate future growth in the regions, enable more travel options, and establish safer, greener options for the regions.

The following action steps have been organized into four categories:

## PERFORMANCE

## PLANNING

## PROPERTY

## PRICING AND TECHNOLOGY

Several specific actions have been identified as early action candidates. These actions could be initiated with minimal funding or policy changes while having notable impact.

These actions are marked with:



# MOVING PARK & RIDES FORWARD:

## ACTION STEPS TO IMPROVE THE PARK & RIDE SYSTEM

### PERFORMANCE

Measuring the performance and effectiveness of Park & Ride strategies is necessary to determine where continued investment is warranted and what efforts need to change to better meet the needs of stakeholders. Evaluating performance will also allow Park & Ride operators to analyze the impacts of new technologies and services over time. The following performance related actions focus on creating continued dialogue amongst stakeholders and maintaining robust data about the Park & Ride system.

#### Meet with relevant stakeholders regularly to discuss the success of existing strategies and develop strategies for implementing future recommendations.

- Share agency research on travel behavior data collection.
- Identify, monitor, and share information regarding informal Park & Ride formation and use.

#### Create a coordinated marketing strategy that can be leveraged to increase public/private partnerships.

- Work with transit agencies and local jurisdictions to develop a list of incentives and benefits for private sector partners. Incentives may include minimum parking requirement if certain amount of parking spaces are designated for Park & Ride use, marketing/advertising (agencies' websites, bus signage, Park & Ride maps), and transit incentives/discounts for employees.
- Create printed and digital material of Park & Ride benefits for the private sector such as potential for transit service at site, increased number of people per space, etc. Additional benefits are described in *Community Partnerships* section.

#### Coordinate an enforcement strategy that meets the safety and compliance needs of the system.

- Identify available resources for enforcement among agencies and jurisdictional partners.
- Identify cost effective and practical monitoring options for leased lot locations.
- Create a plan for enforcement that focuses resources on high-need areas with compliance and/or security concerns.
- Implement technologies that allow for remote monitoring of sites (CCTV).

#### Establish an integrated digital database and performance asset management platform. Utilize the platform to consistently and frequently assess the state of the Park & Ride system.

- Collect and document data points for the *Park & Ride Data Center* such as number of parking spaces by type, parking counts, restrictions, signage, available amenities, reported incidents, and other relevant information. Utilize a centralized platform accessible for all agencies to upload, review, confirm, and utilize data.
- Create annual summary reports from the *Park & Ride Data Center* to compare data for capacity, utilization, incidents, and other considerations that support Park & Ride planning efforts (e.g., corridor, sub-regional analysis, administrative expenditures, marketing partnerships and incentive programs). This report should also document related efforts including marketing and incentive programs including the results of these strategies.
- Assign ownership and management of the database to a single agency with support from partner agencies to collect, review, and provide data.
- Document occupancies during peak periods quarterly. Increase observation frequency as sensing technology is incorporated into facilities.



# MOVING PARK & RIDES FORWARD:

## ACTION STEPS TO IMPROVE THE PARK & RIDE SYSTEM

### PLANNING

Transportation investments require sufficient planning in order to leverage existing developments to their fullest potential and to maximize the impact of future investments. Strategic and deliberate planning for Park & Rides will help to serve more users efficiently while helping to advance agency goals. The following actions focus on developing detailed planning studies that address specific aspects of the Park & Ride system, integrating Park & Ride components into other transportation related planning processes, and using best practices to inform decision-making.

#### Develop a Park & Ride Facility Master Plan to identify and evaluate existing and potential Park & Ride locations in the system.

- Utilize historic and existing data to evaluate the performance of specific Park & Ride facilities. Evaluate station access, ridership catchment, facility use, and need for existing or new facilities.
- Use Facility Master Plan to identify lots for repurpose, relinquishment, or closure.
- Estimate the long-term cost of operating and maintaining existing Park & Ride facilities. Consider the trade-offs between investing in new technologies and maintaining traditional management and operations.
- Include recommendations into long-range plans for the region, transit authority, and local jurisdictions

#### Update regional travel demand model to incorporate Park & Ride facilities, help assess the travel mode choice for travelers in the station's area, and identify potential areas that will benefit from a Park & Ride service.

- Establish key factors to estimate the demand for Park & Ride services such as baseline performance metrics of existing lots, proximity of alternative transportation modes to Park & Ride location, peak commuting congestion levels, and parking costs relative to transit service destinations. Additional information about estimating demand is provided in the *Guidance for New Site Analysis*.
- Utilize model to determine how much parking supply is needed at a given Park & Ride facility and identify facilities where spaces can be activated for other uses such as transit-oriented development (TOD).
- Reference occupancy surveys to calibrate forecasts and projections.

#### Integrate and prioritize Park & Ride facilities into long-range plans. Establish a regular time for the regions to reflect on existing Park & Ride policies or establish new ones, prioritize identified new facilities within available funding sources, and include Park & Rides in the future visions for the regional transportation system.

- Establish criteria for when and where Park & Ride spaces at transit stations and new development is appropriate. See *Guidance for New Sites* section for more information.
- Work with transit agencies, local jurisdictions, and the development community to coordinate regional Park & Ride/Park & Pool needs.
- Incorporate Park & Ride strategies into local and regional Transportation Demand Management (TDM) ordinances.
- Provide guidance for Park & Ride integration into local jurisdictional commercial and residential development processes.
- Identify opportunities to change station-area priorities of Park & Ride facilities including potential for TOD.
- Create standard Memorandum of Understanding (MOU) templates for public/public and public/private partnerships.
- Assign a stakeholder with the responsibility to consolidate and showcase funding opportunities that relate to Park & Rides as they arise.
- The placement of new or expanded Park & Ride facilities must keep pace with the expansion of High-Occupancy Vehicle (HOV) lanes and Express Lanes. These new lanes can only be filled to intended capacity if commuters have options on locations to join carpools/vanpools, and access transit.

# MOVING PARK & RIDES FORWARD:

## ACTION STEPS TO IMPROVE THE PARK & RIDE SYSTEM

### PROPERTY

Park & Rides are physical assets that support agency and regional transportation and service goals. Through these real estate assets, agencies are exploring new mechanisms to achieve the highest possible return on investment to sustain and grow transportation services and operations. The following actions aim to make existing Park & Ride assets as productive as possible, through dynamic usage, formalization of facilities, and strategic investment.

#### Activate the highest and best use of lot space that is underutilized based on existing occupancy counts.

- Update policies and regulations to allow for achievement of the highest and best use of space (vacant lot converting to transit-oriented development).
- Initiate relationships with development partners and property managers that preserve access while incenting additional demand for non-Single-Occupancy-Vehicle (SOV) travel modes.
- Leverage revenue streams (leases, user fees, etc.) to reinvest back into the system.
- Owners of lots share professional real-estate services (brokering and marketing) to facilitate development.
- Promote alternative uses of lot excess capacity including special events and mobile retail.
- Relinquish specific lots to other agencies to better align with site specific goals, where necessary, and relinquish to the private sector if investment is no longer aligned to Park & Ride goals.

#### Establish formal Park & Ride facilities from known informal lots or develop nearby alternatives to increase Park & Ride system capacity, awareness, and use.

- Identify land owners of informal lots and coordinate with owners to designate formal Park & Ride spaces.
- Create an internal inventory of parking behaviors and the location of informal lots.
- Create a standard liability agreement that alleviates concerns of existing owners while meeting the region's needs.

#### Invest in high-potential locations.

- Assess latent demand potential for existing lots in the system.
- Invest in (focused) mobility hub strategies that incentivize new users of the system.
- Lease and/or purchase property in areas that are un/under-served.
- Create a dedicated source of funding for system investment (capital and operations & maintenance).
- Acquire property near new transitway corridors for future Park & Ride facilities and potential for future joint development (P3) opportunities. Example P3 models can be found in [Appendix G: Funding Sources](#).

# MOVING PARK & RIDES FORWARD:

## ACTION STEPS TO IMPROVE THE PARK & RIDE SYSTEM

### PRICING AND TECHNOLOGY

Mass adoption of rapidly evolving consumer technologies is changing the way users interact with the transportation system. Future innovation will continue to create opportunities for the Park & Ride system to better meet the needs of users while increasing user expectations of the same system. The following actions focus on integrating technologies to enhance Park & Ride operations for the user while empowering agencies to strategically allocate parking resources congruent with their goals

#### Implement strategic technologies that advance multiple system and agency goals.

- Leverage sensing technologies for data collection and enforcement.
- Utilize access control for demand management and compliance.
- Explore technologies that could supplement and/or replace traditional Park & Ride operations (signage, permits, payment, if applicable).
- Partner with third-party technology developers to integrate Park & Ride information (trip planning services, parking availability, etc.) Additional information about partnering with the private-sector are described in *Community Partnerships*.

#### Develop a system that allows pricing parking spaces as a limited resource.

- Initiate a paid parking feasibility study at lots with sustained high occupancies.
- Utilize the travel demand model for Park & Rides to test the effects of parking pricing and improvements to other access modes on facility parking demand.
- Determine appropriate technologies for users to interact with the parking system.
- Develop marketing campaign that communicates the benefits of a paid parking system and the alternative to parking in paid lots.

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*







LOOK AHEAD

Park & Ride facilities provide a comfortable and convenient first-mile connection to transit, carpooling, and vanpool services. However emerging technologies, changing commuter preferences, and increasing e-commerce will change the way Park & Rides serve the communities in which they reside. In order to effectively leverage these facilities, the current notion of Park & Ride may continually need to be monitored and evolve to meet these new technologies and commuter preferences, which continue to impact the transportation network in the future. This Regional Strategy identifies the framework for improving the Park & Ride system through more informed decision-making. The following trends highlight factors to consider as the regions look ahead.

## DATA COLLECTION AND ANALYSIS

Consistent and robust data collection is foundational to informed decision-making. Continuous data collection and analysis at the regional level will support future Active Transportation and Demand Management (ATDM) efforts and encourage optimization of the roadway network to move people more efficiently by identifying Park & Ride space availability and sub-regional demands. Historic utilization analysis will support the identification of commute behavior trends and provide supporting evidence that could be leveraged for future management decisions and potential partnership opportunities. Collecting and analyzing incident reports also supports the effectiveness of supportive management and security programs. By collecting this information in one database, regional operators can identify and implement more effective crime prevention measures to minimize unwanted activities and provide active surveillance through both site personal and/or on-site activities that will discourage unwanted activity.

## MOBILITY HUBS

Planning for mobility hub features at Park & Ride locations allows local agencies to demonstrate how transportation services, amenities and supporting technologies can work together to make it easier for communities to access transit and other shared mobility choices. Park & Rides may serve as transitory access locations that capture new riders and connect to the region's major residential, employment, and regional attractions while the rest of the transportation network evolves. Additionally, there may be opportunity to leverage funding needs through incentive programs that support new mobility hub features (e.g. electric vehicle charging infrastructure, smart growth, active transportation, etc.). Many communities are now looking at parking lots as the next development potential, and some existing Park & Ride lots may be considered for future transit-oriented development. Additionally, the assumptions for passenger and cargo vehicles are starting to align with several prototypes emerging that can accommodate both — with most Park & Ride facilities adjacent to freeway on/off-ramps, there may be opportunity in the future to share exchanges of both goods and passengers at Park & Ride locations.

## SYSTEM AWARENESS

The unknown benefits of Park & Ride to varying audiences including commuters, property managers, local jurisdictions and major employers is a major challenge for future partnerships and expansion of Park & Ride. Capturing data and publishing collateral that identifies the benefits of Park & Ride information in strategic marketing materials and outreach to specified audiences across targeted platforms is essential for maximizing current and future investments in the transportation network. Smart applications are also changing the way we plan trips for goods and people, and analysis that supports understanding utilization and behavior of existing users and assets will support optimizing the effectiveness of future trip-planning applications. Understanding the value of Park & Ride investments at a regional and more localized level will create opportunities to leverage other smart city investments, including in smart parking, tolling or communications infrastructure.

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*

# APPENDIX A: EXISTING POLICIES & FACILITIES



# EXISTING POLICIES & FACILITIES

Existing Park & Ride facilities and policies help provide context for the current Park & Ride environment. It builds the foundation for proposed improvements and regional recommendations. The following presents an overview of agency policies and initiatives that support Park & Ride facilities, into the existing environment of facilities, planning initiatives, and management policies for each agency. It also defines agency differences as it relates to resources, policies, and planning efforts for Park & Ride facilities.

There are over 140 facilities in San Diego and Riverside counties combined that are operated and managed by Caltrans, San Diego Association of Governments (SANDAG), Riverside County Transportation Commission (RCTC), San Diego Metropolitan Transit System (MTS), and North County Transit District (NCTD). These agencies provide various services and operate their facilities differently from one another. Additionally, monitoring, surveillance, and equipment of individual lots varies between agencies and the lots operated by them. Table 1 summarizes these facilities and their overseeing agencies.

Table 1. Park & Ride Lots by Operating Agency

OPERATING AGENCY	TRANSIT	PARK AND POOL	COMBINED	AGENCY TOTALS
Caltrans	0	30	31	61
MTS	26	0	0	26
MTS / SANDAG	5	1	0	6
NCTD	18	0	0	18
RCTC	0	15	17	32
<b>TOTAL</b>	<b>49</b>	<b>46</b>	<b>48</b>	<b>143</b>

## CALTRANS

Caltrans operates over 60 Park & Ride lots that often border freeway interchanges along commuter corridors. These facilities were developed in conjunction with the freeway build-out to accommodate commuter needs. With changes in commuting patterns, the demand for parking at specific locations has changed. Some lots now experience high demand, whereas others do not. Half of Caltrans' lots have been designated for carpool / vanpool spaces, whereas the other half are designated as combination of carpool / vanpool services and transit services. Additional information about Caltrans Park & Ride lots can be found [here](#).

## PLANNING

### CALIFORNIA TRANSPORTATION PLAN 2040

In June 2016, Caltrans developed The California Transportation Plan 2040 (CTP). This document is a statewide long-range policy plan that presents a vision for California's future transportation system. It defines goals, policies, and strategies to achieve the organization's transportation vision and recommends performance measures for assessing projects after implementation. Park & Rides are discussed in the Active Transportation and Demand Management section of this document. The CTP endorses Park & Rides to support alternative modes of transportation other than single occupancy vehicles (SOV). The CTP also supports Active Parking Management (APM) to maximize utilization of existing park and ride assets through overflow transit parking, parking reservations, wayfinding, and priced parking. APM strategies are considered a short-term goal.

### INTEGRATED CORRIDOR MANAGEMENT

Caltrans will continue to incorporate park & rides through its Integrated Corridor Management (ICM) approach to corridor implementation. ICM leverages information technologies to increase the efficiency of existing corridors. Combined with Park & Rides, this can increase multimodal ridership and decrease travel times for commuters.

# EXISTING POLICIES & FACILITIES

## DISTRICT 11 SYSTEM MANAGEMENT PLAN

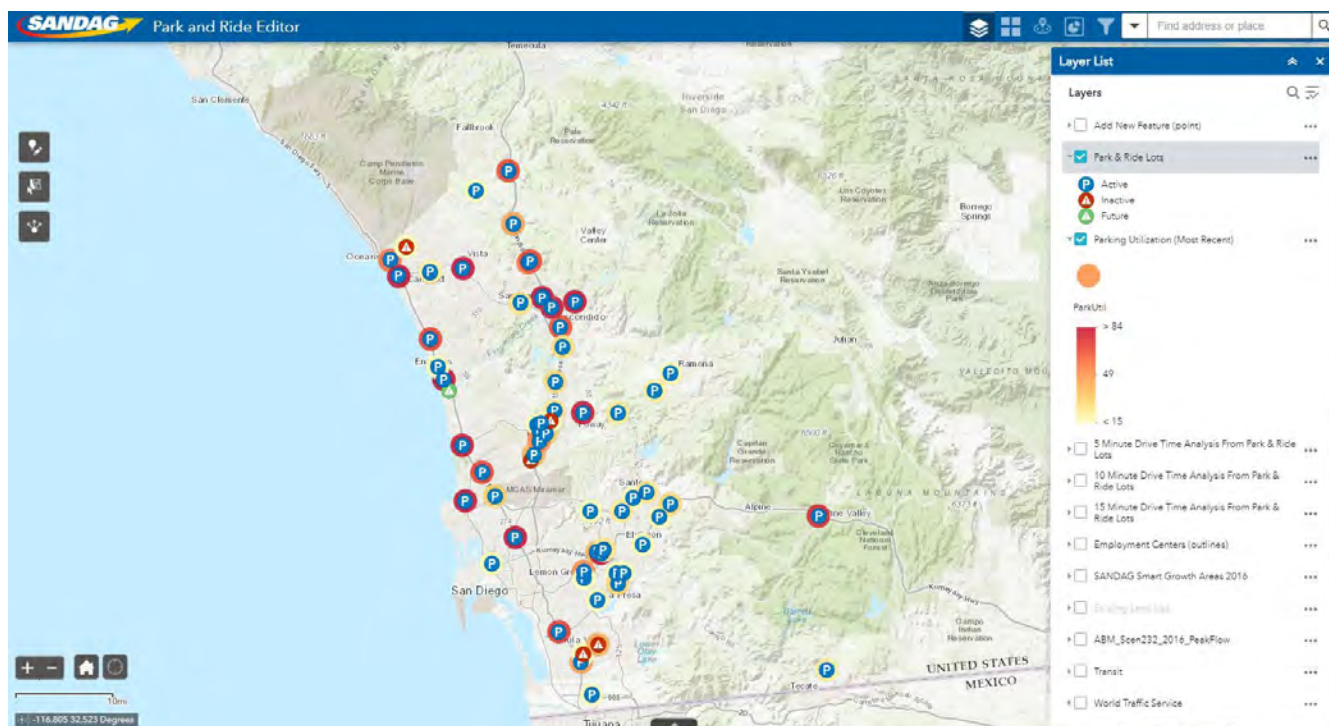
The District 11 System Management Plan (DSMP) identifies two strategies related to Park & Ride lots. The first is to improve asset management of Park & Ride facilities by utilizing GIS mapping technology to track lot attributes and asset condition. The second strategy is to identify pilot locations for an Adopt-a-Park & Ride program and to solicit participation from local businesses.

## MANAGEMENT

Park & Rides are managed at the district-level. San Diego is managed by District 11 and Western Riverside is managed by District 8. Both districts have a webpage that identifies the location of the lots in their jurisdiction. Both areas also have interactive maps that give limited details about lot attributes including number of spaces, owner, and hours of operation. These maps are not inclusive of all Park & Rides in their respective areas as most facilities operated by transit agencies are absent. Caltrans conducts counts of their lots on a quarterly basis.

Caltrans has the following rules for usage of their lots:

- Park & Ride lots are for the ride share commuter (vanpool/carpool) parking and are not intended for residential, commercial, or long-term parking. Daily commuter parking at Caltrans operated Park & Ride lots is free of charge; no permits are required.
- Some Park & Ride lots are limited to Monday through Friday, 5:30 am to 6:00 pm. There are signs posted at each of these lots.
- 24-hour parking is not recommended. Vehicles parked outside of designated spaces or left in excess of 72-hours may be ticketed and towed at the owner's expense (California Vehicle Code Section 22651(k)).
- No loitering, camping, vending, or parking of vehicles 30-feet or longer is permitted at any Park & Ride lot (California Vehicle Code Section 22518).



The above map shows the existing active and inactive lots from the *Park & Ride Data Center* for Caltrans operated lots. Colors behind the Park & Ride lots indicate last recorded utilization with red showing almost full capacity.



# EXISTING POLICIES & FACILITIES

## SANDAG

SANDAG emphasizes the importance of mode shift through various transportation demand management (TDM) strategies. The SANDAG rideshare program iCommute matches commuters with similar travel needs. Their transit services, MTS and NCTD, provide both regional and local coverage, while their Park & Ride lots support commuters who engage in both rideshare and transit services. SANDAG has over five lots and over 1,340 Park & Ride spaces, some of which are managed in partnership with MTS and private sector stakeholders. Additional information about the Park & Ride program in the San Diego region can be found [here](#).

## PLANNING

SANDAG has demonstrated a commitment to promoting mode shift through its agency outreach and planning efforts. They have considered innovative approaches to mobility challenges in the area, while publishing literature to support it. Their planning initiatives incorporate transit, transportation technology, and park & ride. This Regional Park & Ride Strategy builds from these previous efforts and supports future projects. The following section summarizes some of the key planning documents that SANDAG has recently released.

### SAN DIEGO FORWARD

San Diego Forward: The Regional Plan (Regional Plan) serves as a blueprint for how San Diego will grow, and how SANDAG will invest in transportation infrastructure for the decades to come. This document's vision focuses on sustainable communities, innovative mobility, and a vibrant economy.

### INTEGRATING TDM INTO THE PLANNING AND DEVELOPMENT PROCESS

This study was developed to provide municipal governments with the tools to implement and monitor TDM policies as part of their local plans and projects. This document explains how TDM can be effectively incorporated into urban design, site development, and parking strategies. The TDM study presents case studies and recommendations, which can be tailored and applied to local jurisdictions. The study was accepted by the Transportation Committee in May 2012, for inclusion as a resource in the SANDAG Smart Growth Toolbox.

### REGIONAL PARKING MANAGEMENT TOOLBOX

SANDAG has created a Regional Parking Management Toolbox to provide cities with tools for evaluating, implementing, and managing parking management strategies that support their individual economic development, sustainability, and mobility goals. This interactive initiative provides a broad set of tools and step-by-step instructions for shaping successful parking management programs.

### EMERGING TECHNOLOGIES WHITEPAPER

In January 2018, the Emerging Technologies White Paper was updated to reflect research and current trends in transportation. The White Paper presents technological and social trends that can radically impact the region's transportation system in the future. The document outlines policy considerations that enable the region to harness the benefits and reduce the negative aspects of these trends.

### MOBILITY HUBS

SANDAG is currently planning to implement mobility hubs at locations across the region. Mobility hubs are places of connectivity where different modes of travel—walking, biking, transit, and shared mobility—converge. They typically coincide with places where there is a concentration of employment, housing, shopping, and/or recreation attractions.

Mobility hubs provide an integrated suite of mobility services, amenities, and technologies, including:

- Bikeshare / carshare
- Neighborhood electric vehicles
- Bike parking
- Dynamic parking management strategies
- Real-time traveler information / wayfinding
- Real-time ridesharing
- Microtransit services
- And urban design enhancements that specifically supports active and public transportation

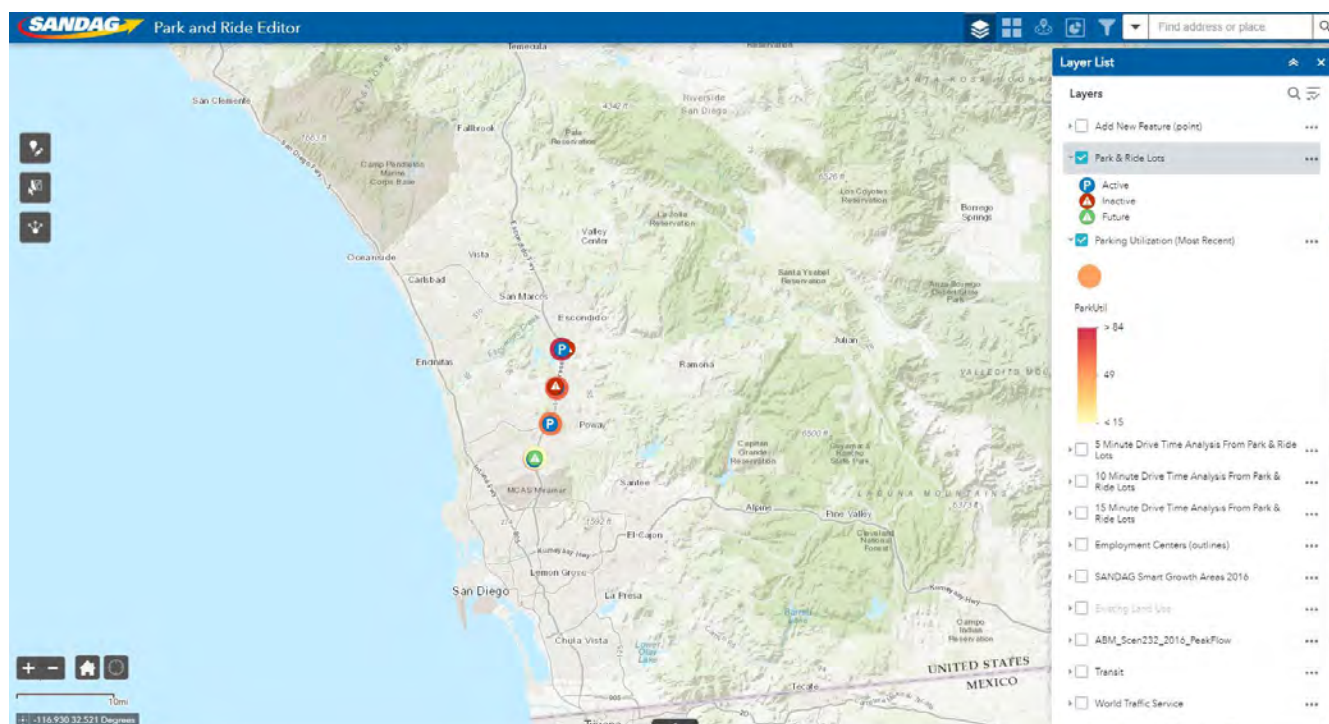


# EXISTING POLICIES & FACILITIES

These features help travelers connect to regional transit services and make short trips within the neighborhood and beyond. Future technology advancements, including connected and automated transportation services will present new opportunities for mobility hubs. Additional information about mobility hubs can be found [here](#).

## MANAGEMENT

Transportation Demand Management (TDM) refers to programs and strategies that manage and reduce traffic congestion by encouraging the use of transportation alternatives. SANDAG coordinates many programs such as iCommute for carpooling and vanpooling programs and the Guaranteed Ride Home program. The Bike to Work Day and Rideshare Week are some of SANDAG's outreach initiatives to support mode shifts away from the single-occupancy vehicles. Most of SANDAG's lots are managed in partnership with MTS. SANDAG conducts counts on their lots, but this does not occur on a regular basis. For monitoring, SANDAG uses a compliant-based system to address issues.



The above map shows the existing active and inactive lots from the [Park & Ride Data Center](#) for SANDAG operated lots. Colors behind the Park & Ride lots indicate last recorded utilization with red showing almost full capacity.

## RCTC

RCTC is responsible for planning highway and transit projects as well as identifying projects for state and federal funding. RCTC executes lease agreements and operates over 20 Park & Ride lots. Of these lots, about half are designated for park and pool (588 spaces), and the other half are combined (359 spaces) park and pool with transit operations. Most lots are distributed along I-15 and I-215 corridors serving commuters travelling out of the county to San Diego, Orange, and Los Angeles. Additional information regarding Park & Ride lots in Riverside can be found [here](#).

## PLANNING

### REGIONAL TRANSPORTATION PLAN / SUSTAINABLE COMMUNITIES STRATEGY

RCTC is the agency charged with recommending projects proposed for funding under the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS identifies strategies to meet mobility needs of all modes, legislative, financial and air quality requirements in the six-county area of Southern California and is overseen by the Southern California Association of Governments (SCAG). This plan is updated every four years, most recently in June 2016.

# EXISTING POLICIES & FACILITIES

RCTC's role in the development of the RTP/SCS is to identify long range transportation improvement projects beyond those already programmed in the six-year federal funding plan. RCTC coordinates the input provided to SCAG with local agencies and transit operators in order to ensure consistency with city and county transportation plans and projects.

## LONG-RANGE TRANSPORTATION PLAN

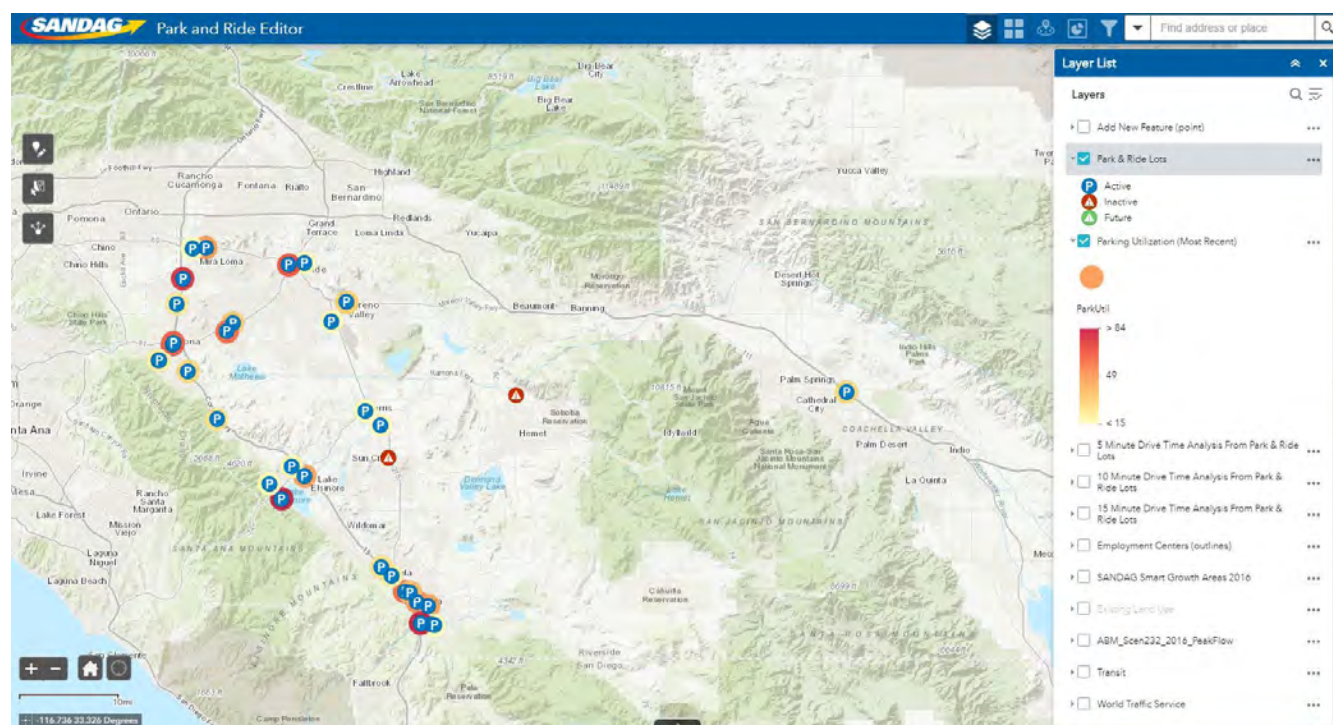
RCTC is starting to develop the first countywide Long-Range Transportation Plan (LRTP). The LRTP kicked off in mid-2017 and will be completed in 2019. It will provide a vision for what an integrated transportation system will look like in Riverside County in the next 20 years. The plan is taking a comprehensive review of projects on the state highway, regional arterials, rail and bus, freight network, and active transportation. It also will identify potential "bundles" of projects that can be developed in a systematic approach, demonstrate environmental benefits, and put RCTC and its member agencies in a more competitive position for funding opportunities.

## MANAGEMENT

RCTC engages in a variety of activities to manage and operate their Park & Ride facilities. They are actively balancing high-demand for park & ride spaces with limited resources to construct new facilities. As such, RCTC regularly negotiates with private property owners to lease spaces for Park & Ride operations. These spaces are typically contracted on a pay-per-space basis and have restrictions on certain times of day and, occasionally, days of the year. Despite offering generous cash payments, leased parking can still be difficult to find.

Locations and lot attributes are communicated to the public using the Inland Empire 511 system (IE511.com). This helps users better plan their trip while also having access to other commuter resources on the 511 website including real-time traffic and road closure information.

To measure the performance of Park & Ride lots, RCTC conducts regular occupancy counts. These are recorded for historical tracking and to help inform decisions to add or remove spaces from certain regions. RCTC conducts customer service surveys to receive feedback from users of their facilities.



The above map shows the existing active and inactive lots from the *PPark & Ride Data Center* for RCTC operated lots. Colors behind the Park & Ride lots indicate last recorded utilization with red showing almost full capacity.



# EXISTING POLICIES & FACILITIES

## NCTD

NCTD offers dedicated Park & Ride spaces at over 15 transit service locations, consisting of over 3,500 dedicated spaces along the COASTER and SPRINTER rail lines. These lots were developed in conjunction with transit to support ridership. NCTD currently offers electric vehicle charging stations at the Oceanside Transit Center. Additional information about NCTD stations can be found [here](#).

## PLANNING

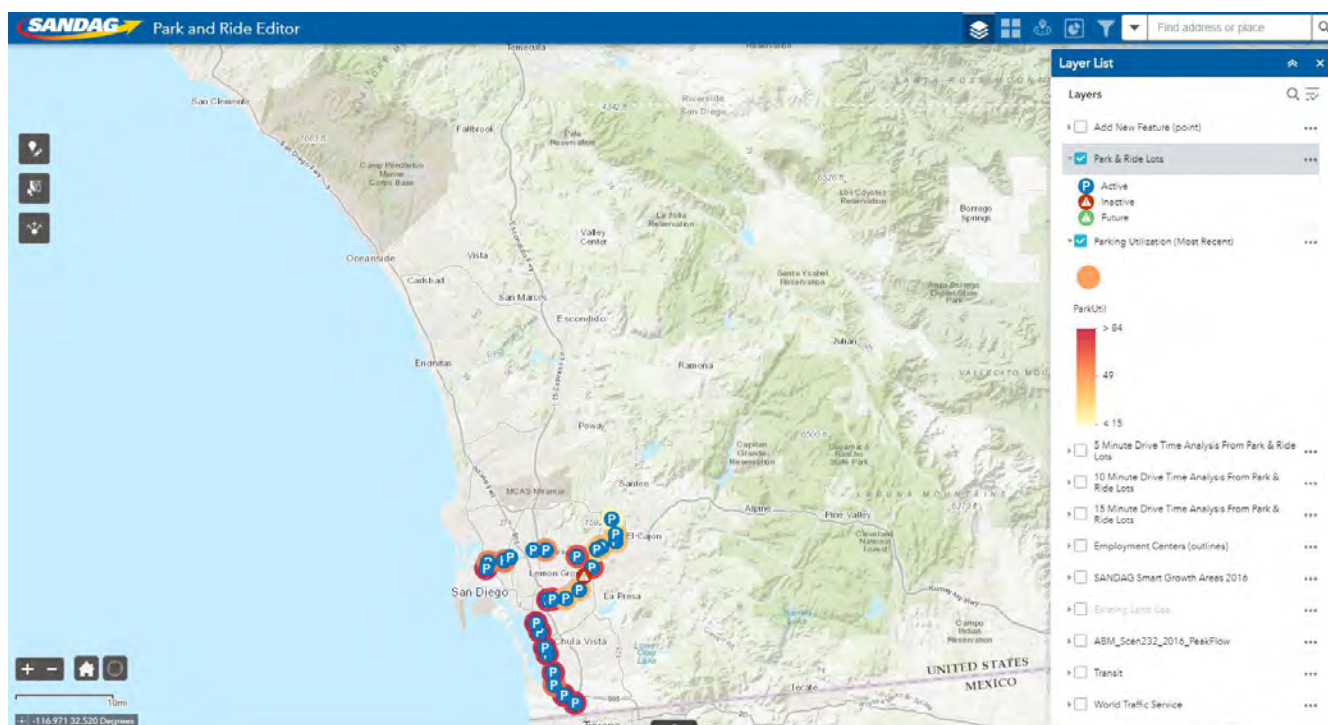
While NCTD is not currently planning for further expansion of its transit network, the agency is working toward planning initiatives to improve services. In coordination with SANDAG, NCTD is considering mobility hubs to provide further transportation services. This effort hopes to increase access through additional modes of transportation and increase ridership.

## COASTER SMART PARKING PILOT

NCTD conducted an analysis of the cost effectiveness of smart parking features at COASTER Park & Ride lots and passengers' willingness to pay for them. The report builds on Smart Parking Pilot Project on COASTER Commuter Rail, which analyzes information obtained during test research at the Rockridge San Francisco Bay Area Rapid Transit (BART) District station. The report identified two key challenges for NCTD COASTER lots. For one, non-users of the system will park in the lots without permission. These non-users fall into two categories: non-transit riders and Amtrak / MetroLink riders. The second challenge is to maximize unused parking spaces by providing greater certainty with lot availability. This can be achieved through carpooling, delivering accurate traveler information, and by discouraging long-term parkers to generate more daily trips out of spaces.

## MANAGEMENT

Current policy allows 96-hour parking at most SPRINTER stations and two-week parking at most COASTER Stations.



The above map shows the existing active and inactive lots from the *Park & Ride Data Center* for NCTD operated lots. Colors behind the Park & Ride lots indicate last recorded utilization with red showing almost full capacity.

# EXISTING POLICIES & FACILITIES

## MTS

MTS offers transit-only Park & Ride facilities at over 25 locations consisting of over 11,000 Park & Ride spaces along the Orange, Blue, and Green Trolley lines. These lots were developed in conjunction with transit to support ridership from neighboring residential areas. Additional information about MTS stations can be found [here](#).

## PLANNING

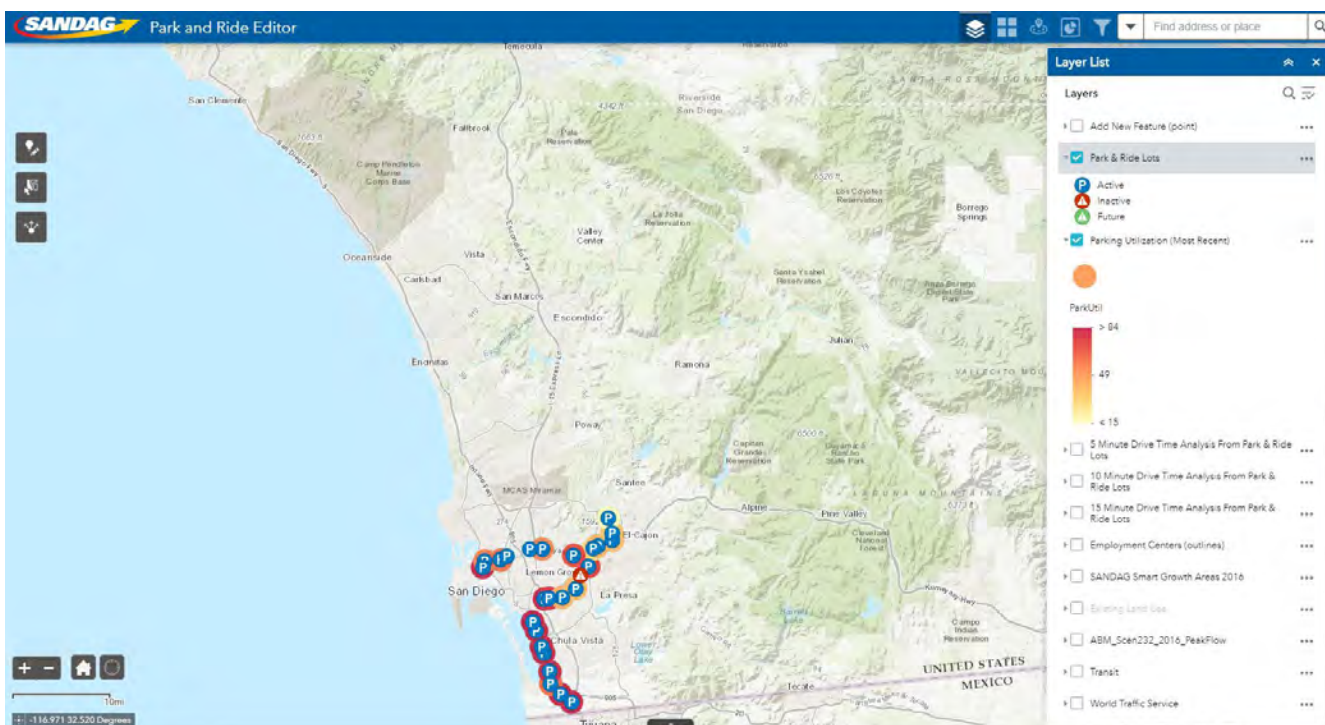
MTS is currently planning for an expansion of 800 spaces of parking at four locations to support the Blue Line Extension project. In coordination with SANDAG, MTS is considering mobility hubs to expand the suite of amenities offered to passengers, increase access through additional modes of transportation, and increase ridership.

## JOINT DEVELOPMENT PROPERTY INVENTORY

MTS has had an active Joint Development Program for the past three decades. MTS is actively planning new developments for MTS properties. MTS revised MTS Board Policy 18 in 2018 to incorporate sustainability, active transportation, parking, and housing at MTS properties while improving transit ridership.

## MANAGEMENT

MTS communicates the location and space capacity of its lots on the MTS website. Current policy limits parking at any Trolley station to 24 hours. Parked vehicles that exceed 24 hours are ticketed and towed. There is no overnight parking for RVs or campers. The MTS conducts monthly counts on their lots.



The above map shows the existing active and inactive lots from the *Park & Ride Data Center* for MTS operated lots. Colors behind the Park & Ride lots indicate the last recorded utilization with red showing almost full capacity.

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*

# APPENDIX B: STAKEHOLDER WORKSHOP SUMMARY



## San Diego and Western Riverside Counties Regional Park and Ride Strategy

### Introduction

The San Diego Association of Governments (SANDAG) and Riverside County Transportation Commission (RCTC) are developing recommendations for managing and developing Park & Ride facilities in the region.

Stakeholders identified specific issues with existing management strategies, including a patchwork policy framework, constrained funding, unclear roles and responsibilities, limited enforcement, and a lack of a marketing identity for the system. Through research and engagement with stakeholders, the project will identify recommended management strategies for addressing these issues and others, including forecasting, siting, technology, enforcement, and pricing. Innovative strategies from academic literature and case studies will be inventoried for consideration as recommendations. Using a toolkit format, strategies will be organized by various Park & Ride typologies, using utilization, service type, and ownership status to group similar facilities. Goals and objectives were developed to help direct the research priorities and recommendations of the Regional Park & Ride Strategy. Potential strategies to improve the Park & Ride system requires a dynamic approach that acknowledges the unique variables that impact each facility. The project goals and objectives provide guidance to the Project Development Team (PDT) in weighing those trade-offs.

Goal statements describe what the project is trying to achieve in aspirational terms. The objectives describe the specific ways each goal will be achieved. This memorandum defines each project goal and objective and documents the process of how the goals and objectives were developed.

### Stakeholder Outreach

To help inform the development of the goals and objectives, a project workshop was held on November 6, 2017. The workshop solicited input from Caltrans, SANDAG, Riverside County Transportation Commission (RCTC), San Diego Metropolitan Transportation System (MS), North County Transit District (NCTD), Riverside Transit Agency (RTA), and many of the local jurisdictions in San Diego and western Riverside Counties. Major issues that were brought up included:

Funding: Each agency has a different role pertaining to implementing, operating, and managing Park & Rides. Resources are limited, so the study will help identify creative funding opportunities to support regional needs. The following points are for the project team to consider:

- Pay to Park – Caltrans is not allowed to “make a profit” on public right-of-way, so charging for parking in Caltrans-owned lots could be challenging, unless policy is changed. The MTS has considered charging for parking in lots that are at capacity. The RCTC owns all of the Metrolink station in Riverside County; maintenance of these facilities is a major expense, and like MTS, there is opportunity and a benefit of charging for parking in lots that are at capacity in the future; it may also be used as an incentive for commuters to arrive in higher density alternatives for free parking.
- Activating the Space – Farmers’ Markets or food truck events could be a way to introduce communities to Park & Ride locations. Opportunities to develop public-private partnerships that could contribute funds toward operations and maintenance should also be considered.

- Other Opportunities – Can we leverage Park & Ride needs with other existing/planned projects? (e.g., CMAQ, Smart Growth Incentives, SB1) What are some developer incentives that should be considered?

Operations: Regional Park & Ride operations are the responsibility of multiple agencies, which makes defining roles and responsibilities cumbersome and creates confusion for potential users seeking information on the facilities. Since locations are spread throughout the region, management of the assets can be a challenge. The following points are for the project team to consider:

- Ownership – Private owners who are aware of informal Park & Rides (e.g. Walmart) are becoming less accommodating of Park & Ride operations when highly utilized. Private owners of leased lots don't mind high utilization if it doesn't exceed the allocated spaces. Commercial property owners, are less likely to accommodate any kind of Park & Ride arrangement for a variety of reasons, including but not limited to perceived liability, hassle, wanting to maintain their capacity regardless of actual usage, etc.) Agency-owned lots seem to be preferred over leased lots, from an operations standpoint, because they are not at the mercy of the property owners, which can sometimes lead to an uncertain future for the lot. There was a consensus that property managers do not effectively promote the location of Park & Ride spaces at sites with shared uses (ie. shopping malls). However, they enforce robustly adjacent spaces not available to Park & Ride users. Lack of signage and significant enforcement at nearby parking spaces can be very discouraging to Park & Ride users.
- Maintenance and Security – Dumping is an issue at some Park & Ride lots because citizens have realized that Caltrans maintenance crews will clean up for "free" as part of their maintenance duties. Users have complained about a significant number of RVs and that some lots draw unwanted activity. Many Park & Ride lots don't have security or cameras, but most have lighting. As part of the existing conditions research, the project team should contact local authorities and request activity reports from lots with multiple complaints.
- Access Control - All lots in both regions are free. Permit requirements have been introduced in some locations that are at capacity. Street parking is being used as informal Park & Rides. A solution for parking access control could be identified. This solution should be integrated with the transit payment systems to verify users.
- Marketing – A map with all Park & Ride locations (transit lots, carpool/vanpool lots, hybrid lots) does not exist in San Diego. Some Caltrans parcels don't have addresses and Google doesn't recognize them or list them accurately, which adds another layer of frustration. It can be difficult to know where facilities are located and what their operating hours are; not all are well identified, especially shared-use lots in a retail centers. Although electric vehicle infrastructure is available to the public, signage, websites, and marketing collateral is not explicitly clear. A centralized database of Park & Rides would be highly valuable. In concept, each agency could be responsible for their own data. This regional database could then feed into whatever 511 systems have Park & Ride information.
- Enforcement – There are limited resources for enforcement and parking capacity cannot be determined remotely; smart parking could be an opportunity to more effectively manage assets

remotely. Policies relating to enforcement need to be revised and clarified according to regional goals and objectives.

- Planning – Most Caltrans Park & Rides were established in the 1980s and '90s; the outlook on mobility has drastically changed since then. There is a need to update the definition and uses of Park & Ride to better meet current and future demand. What tools can we provide to local jurisdictions to engage developers about Park & Ride for specific sites? Perhaps through the development services Intergovernmental Review process? Provide something similar to Regional Complete Streets Checklist or the Regional Parking Management Toolbox? Can we incentivize business owners to build, operate, and maintain spaces?

Forecasting: The regional models are better suited for forecasting larger-scale impacts to the region, so it has been challenging to accurately forecast demand for specific Park & Ride parcels. More specifically, reliable vanpool/carpool data is hard to come by since they form randomly. These are some discussion points for the project team to consider:

- Air Pollution and Control District – Park & Ride facilities can be thought of as a component of climate action plans and as an option for reducing VMT by encouraging commuters to choose an alternative transportation mode. It would be interesting to capture Park & Ride ancillary uses, such as meeting spots for community bike rides, and then quantify the emission reductions resulting from those activities. Additional data, such as how far people travel to lots, would also be useful.
- Performance metrics – How can we capture Park & Ride performance? It would be nice to see the return on investment for Park & Ride facilities so we can analyze whether the costs associated with operating and maintaining them are helping the region achieve their climate action plan and transit ridership goals. When MTS invests in a Park & Ride at a transit station, what are they giving up (e.g., additional bus island, Kiss & Ride, dedicated curb space, etc.)? For leased lots, what are the usage rates for the spaces? How can we measure that?
- Demand – When pursuing leased spaces, what is the appropriate parking ratio? How can modeling account for future technology like autonomous vehicles? When is parking for freight required? Perhaps geotargeting and location based services can capture when people arrive and when they return to make strategic decisions.
- Looking ahead – Need to consider the future of vehicles, given advancements in automation. Will there still be a need for regions to construct new Park & Rides?

Siting: It is difficult for agencies to increase Park & Ride capacity for locations with high demand because vacant land is hard to come by and property managers are hesitant to share/lease available parking spaces. These are some discussion points for the project team to consider:

- Commuter Preference/Security – People are more comfortable leaving their cars in commercial areas where there are witnesses throughout the day. Locating lots near coffee shops, eateries, retail, mixed-use, and TOD is attractive to commuters.
- Connections – As an example, Del Lago isn't well connected to the active transportation network; it is hard to get there by other modes, such as walking and biking. Some lots have

accessibility issues and can be hard to get in and out of because of traffic signals, school drop-off queues, etc.

Other: These are additional discussion points for the project team to consider:

- Electric Vehicle Investment – San Diego Forward: The Regional Plan and EIR call for EV charging for passenger vehicles. How can we guide investment in infrastructure and public awareness? This is potentially a strategy for increasing EV ownership. Are there EV amenities that could attract more drivers to use Park & Ride? Perhaps maybe “EV” charging lounge or a mobile app with EV locations, which could support carpool formation? EV charging is planned for new Mid-Coast trolley stations.
- Coronado Ferry – There is limited parking for ferry commuters, since parking is geared toward residential and business uses.
- Enhanced Trip Planners – Metrolink has done a good job of augmenting their trip planner so it notifies commuters how much money they save in fuel by using alternative modes. Is this something that’s possible for Park & Ride? Can using a trip planner to support first-last-mile choices be a gateway for commuters to use transit? Some users may find this valuable while others may not.
- Biking Amenities – It would be ideal for people to park their vehicle, then use bikeshare. Or, ride their bike to facilities, park it securely, and then connect to transit. Facilities also need to consider accommodating charging and storing electric bikes. SANDAG is planning for e-bikes in the Regional Mobility Hub Strategy, specifically at Mid-Coast trolley stations.
- Re-Opening of State Route 76 Park & Ride – The lot is located near a weigh station and the Temecula border. Enhancements were made through a partnership with the local tribe in hopes to increase casino attendance. 11 spaces are dedicated to freight parking since semis use this lot while traveling Route 76. This interests RCTC because there is a need for semi parking in Moreno Valley.
- Park & Ride for Airport Travel: There are currently no policies for Park & Ride use that would allow for long-term travel (parking over 72 hours to take transit to the airport).

## Goals and Objectives

The following goals and objectives reflect the feedback received from the stakeholder workshop and the input from the PDT. Goals and objectives represent a preferred situation for a Park & Ride facility. Given sites are subject to unique characteristics and restrictions, it is unlikely that every goal and objective can be achieved at every site.

### Multimodal Access and Amenities

Stakeholders clearly communicated that Park & Rides should be as accessible as possible to the greater transportation network and offer amenities to enhance the Park & Ride experience. Many of the current Park & Rides were sited in locations that were convenient for implementation, but not always where they would be most useful. Tying current and future Park & Rides into pedestrian, bicycle, transit, and highway networks will expand the service areas and open the system to new users. Additional amenities like electric vehicle charging, package lockers, Wi-Fi, bike parking, bikeshare, carshare, and other amenities identified in the [Regional Mobility Hub Catalog](#), many of which align with regional priorities, would further leverage investments made in the Park & Ride system.

*Goal Statement:* Increase access and usability of Park & Rides through optimized siting and by promoting multimodal access features and amenities.

#### *Objectives:*

- Site Park & Rides in locations with access to pedestrian, bicycle, transit, and highway networks
- Partner with jurisdictions to create Park & Ride siting and design guidelines for enhanced implementations
- Provide cost effective amenities at Park & Ride locations
- Develop guidance to balance preference for difference Park & Ride amenities and supportive modes (pick-up / drop-off area vs. bikeshare station vs. more parking spaces etc.)
- Leverage emerging transportation modes and services provided by private and public sector
- Maximize investment in existing Park & Ride locations
- Manage demand at over-utilized Park & Ride locations
- Utilize technology to promote the efficient use of Park & Rides
- Address underutilized locations with new strategies

### Safety, Security, and Operations

One major barrier to greater utilization of the Park & Ride system is the perceived lack of safety and security measures at lots. The Park & Ride Strategy should consider both active measures like cameras and security checks as well as passive measures like locating lots in high traffic areas and removing landscaping screening. These strategies would promote safety and security and enhance operations during the typical commuter periods that Park & Rides primarily serve as well as during non-peak periods.

*Goal Statement:* Enhance safety, security, and operations of Park & Rides during and outside commuter periods.



#### *Objectives:*

- Implement Crime Prevention through Environmental Design (CPTED) principles at current and future Park & Ride facilities (natural surveillance, natural access control, territorial reinforcement, and maintenance)
- Encourage on-site activities (retail/donation centers) at Park & Rides or siting of facilities within commercial environments
- Prioritize shared-use or leased parking agreements that include security, enforcement, and maintenance
- Leverage technology to improve operation for users and maintenance

#### *Sustainable Funding*

Current funding sources for Park & Ride expansion, operations, and maintenance is limited and often inadequate to provide more than basic levels of service. Because of constrained funding, enforcement and maintenance are often reactionary and complaint-based. Restrictive policies, distributed management responsibilities, and competition for transportation funds all contribute to a limited funding environment. New sources of funding combined with existing financial support could be used to enhance existing assets and provide opportunities to expand the Park & Ride system.

*Goal Statement:* Generate sustainable funding streams for new locations and existing Park & Ride operations and maintenance through existing and new sources.

#### *Objectives:*

- Consolidate the ownership and management of Park & Rides
- Right-size facilities to demand
- Secure dedicated funding sources for the short-term and long-term
- Work with private sector to identify public-private partnership opportunities

#### *System Awareness*

One of the largest hurdles to increase Park & Ride system utilization is a lack of public knowledge. There is inconsistent branding and marketing of the system and no comprehensive “one stop shop” for Park & Ride information. Effective tools, consistent branding, and targeted marketing would help educate the public about the location of Park & Rides, how to use them, and the benefits they offer to users and communities.

*Goal Statement:* Consistently promote the benefits, availability, and locations of Park & Ride to the public.

#### *Objectives:*

- Update the public facing Park & Ride map with complete information on all types of Park & Ride lots and information about lots and availability
- Create a consistent brand for Park & Rides to enhance awareness of available locations and supportive services (carpool and vanpool)
- Develop methodology to quantify the environmental impact and user benefits of Park & Ride locations
- Create a marketing campaign to enhance awareness of the system
- Provide real-time information to users where conditions are applicable

*This page has been intentionally left blank.*

# APPENDIX C: LITERATURE REVIEW MEMO

*This page has been intentionally left blank.*



# Literature Review

PARK & RIDE REGIONAL STRATEGY

MAY 2019 FINAL

Prepared By:

Kimley»Horn



## LITERATURE REVIEW

The literature review documents key findings and information of previously published reports and studies from readily available industry sources. The research in the literature review explore practices for Park & Ride planning, management, and operations.

- Transportation Cooperative Research Program (TRCP) Report 153 - Guidelines for Providing Access to Public Transportation Stations
- TCRP Report 95 - Park & Ride/Pool: Traveler Response to Transportation System Changes
- TCRP Report 192 - Decision-Making Toolbox to Plan and Manage Park & Ride Facilities for Public Transportation
- Assessing Park & Ride Efficiency and User Reactions to Parking Management Strategies

### TRCP REPORT 153: GUIDELINES FOR PROVIDING ACCESS TO PUBLIC TRANSPORTATION STATIONS

#### SUMMARY

Park & Ride TRCP Report 153 consolidates data on existing facilities and provides guidelines for design, placement and operation of efficient Park & Rides. These guidelines are relevant in developing new Park & Rides and in evaluating the successes and shortfalls of existing facilities. The report outlines the objectives, key characteristics, design guidelines, and technical specifications of successful Park & Ride facilities. These recommendations are summarized in **Table 1**.

*Table 1: Design guidelines for Park & Ride facilities*

Design Element	Guidelines
Distance from activity center served (minimum)	5-8 miles
Maximum size	
Lot (typical)	900 – 1,200 spaces
Garage (typical)	1,200 – 1,500 spaces
Parking spaces per acre	125 – 135
Square feet per space	400 – 425
Location of bus loading area	On-street or within lot
Separate bus access	
Less than 350 spaces	Optional
More than 350 spaces	Yes
Maximum passenger accumulation/shelter	80 – 150 people
Bus loading berths (typical)	1 to 4
Maximum desirable pedestrian walking distance	1,200 feet
Kiss-and-ride spaces (percent of total spaces)	2 – 6%
Peaking characteristics	
Peak hour directional movement as a percent of daily traffic	30 – 40%
Peak 15 minutes as a percent of peak hours	30%

Source: H.S. Levinson, adapted from various sources

All guidelines and recommendations are based on the data gathered from existing Park & Ride systems nationwide. Key focus cities include Atlanta, Boston, Chicago, Cleveland, San Francisco, Washington DC, Portland, and Toronto.

---

## KEY TAKEAWAYS

Additional relevant takeaways include:

- At rapid transit stations that mainly rely on auto access, there are typically 2.0 transit-boardings per parking space.
- Park & Ride facilities do well in low density areas; 15-40 miles from a central business district.
- The walking distance to most remote parking spaces should not exceed 600 feet.
- Numbered parking spaces are helpful for future considerations of pricing parking.
- For attractive costs, the Park & Ride fee + bus fare should be less than the downtown parking fee average.
- For efficient entrance and exit, busses should have separate roadway access to station entrances if more than 500 parking spaces exist.

## PARK & RIDEPARK & RIDETRCP REPORT 95: PARK & RIDE/POOL

---

### SUMMARY

TRCP Report 95 provides a large amount of case-studies and the responses to different Park & Ride systems. The report also includes studies of international Park & Ride systems, primarily those found in Europe. The report also analyzes the success of park-and-pool operations, which are typically no more than 50% occupied. The best practices are consolidated below in **Table 2**.

Some additional takeaways include:

- Park & Ride top demand indicators:
  - Saving money
  - Avoiding driving stress
- 87% of Park & Ride users take 5 or more round trips per week.
- Best catchment area:
  - 5 miles outwards from station, primarily upstream.
  - At least 10 miles from activity center.

Table 2: Characteristics of the "Most Successful" Park & Ride Lot at Each of 24 Transit Agencies

Urban Area	System	Facility	Distance (miles) from			Transit Service		Park-and-Ride Lot Amenities <sup>c</sup>	Lot Capacity – Spaces	Week-day Occupancy	Other Corridor P&R Parking <sup>d</sup>
			CBD	Urban Edge	Highway	Mode <sup>a</sup>	Frequency <sup>b</sup>				
Austin, TX	Capital Metro	Northwest	25	7	0.5	Freeway bus	10	S, L, K	135	135+	250
Columbus, GA	METRA	River Center	0 <sup>e</sup>	15-25	5-7	Arterial bus	45	C, L, G	685	475±	0
Corpus Christi, TX	Corpus Christi RTA	Calallen	14	1	0.2	Freeway bus	One trip	C	100	12	0
Dallas, TX	DART	Mockingbird	3	25	0.3	LRT, art. bus	5	S, L, K, B	750	750	3,000
Dayton, OH	Greater Dayton RTA	South Hub	12	2	0.1	Arterial bus, freeway bus	10-20	S, L, G, R, K, B	150	75	0
Hampton, VA	Hampton Roads Transit	Silverleaf	15	0	0.5	Freeway HOV lane bus	15	S, L, R, K, B	225	150	0
Houston, TX	METRO	Northwest	19	n/a	0.3	Freeway HOV lane bus	4-5	S, L, G, K, B	2,631	2,034	2,625
Miami, FL	Miami-Dade, Tri-Rail	Golden Glades	12	4	0.1	CRR, fwy. HOV lane & art. bus	5	S, L, G, K	n/a	750	No
Milwaukee, WI	MCTS	College Ave.	8	0	0	Freeway bus	15	S, L, K, B	651	352	204
Tacoma, WA	Pierce Transit Sound Transit	Tacoma Dome	<1 <sup>f</sup>	15	0.3	CRR, fwy. HOV bus, other bus	<3	S, C, L, G, R, K, B	2,400	1,600	5,000
Nashville, TN	MTA	Bellevue	14	0	0	Art. & fwy. bus	20	S, L, B	65	25	30
Oakland, CA	BARTD	Hercules	25	8	0.1	Fwy. HOV lane bus, fwy. bus	15	S, L, B	276	476±	100
Orlando, FL	Expressway Authority	Beeline at Narcoossee	10	2	0	(None – lot is park-and-pool)	Not applicable	L	15	22	0
Philadelphia, PA	SEPTA	Cornwells Heights	14	6	0.2	CRR	15	S, L, G, R	1,600	725	922
Pittsburgh, PA	Port Auth. of Allegheny Co	South Hills Village	11	15	3	LRT	6	S, L, G, K, B	1,000	1,000	2,200

Urban Area	System	Facility	Distance (miles) from			Transit Service		Park-and-Ride Lot Amenities <sup>c</sup>	Lot Capacity – Spaces	Week-day Occupancy	Other Corridor P&R Parking <sup>d</sup>
			CBD	Urban Edge	Highway	Mode <sup>a</sup>	Frequency <sup>b</sup>				
San Diego, CA	M. T. D. B.	Old Town Transit Ctr.	5	30+	<1	CRR, LRT, art. lane & fwy. bus	10	S, L, G, R, B	550	550	200
Salt Lake City, UT	Utah Transit Authority	Sandy Civic Center	15	10-50	1	LRT, freeway bus	LRT 5-10 bus 15	S, L, K, B	1,186	693	2,840
Seattle, WA	King County Metro Transit	Federal Way	22	12	0	Fwy. HOV bus, art. & fwy. bus	5	S, L, G, B	894	929	2,570
Vancouver, WA	C-TRAN	Fisher's Landing	9	2-3	0	Freeway bus	15	S, L, R, K, B	600	540	0
Ottawa, Ontario	OC Transpo	Eagleson	14	14	1	Busway bus on arterial bus lane	5	S, L, G, B	807	880	3,245
Calgary, Alberta	Calgary Transit	Brentwood	4	6	0	LRT	5	S, L, K, B	1,254	1,254	530
Montreal, Quebec	Agence Met. de Transport	Brossard-Panama	10	0	0.3	Fwy. HOV, art. lane & art. bus	8	S, L, K, B	1,181	1,181	2,000
Winnipeg, Manitoba	Winnipeg Transit	Kildonan Pl. Shop. Ctr.	5	7	1	Bus on art. bus lane, art. bus	7	S, L, G, K, B	50	50	n/a
Wellington, New Zealand	W. Regional Council	Waterloo Int. Lower Hutt	10	0	2	CRR, arterial & freeway bus	10	S, L, R, K, B	600	600	500

Notes: <sup>a</sup> CRR = commuter rail, LRT = Light Rail Transit. <sup>b</sup> Peak period "frequency of transit" serving park-and-ride lot in minutes.

<sup>c</sup> S = shelter, C = covered parking, L = lighting, G = security guard, R = Restrooms, K = kiss-and-ride spaces, B = bicycle racks.

<sup>d</sup> Total number of cars parked at other park-and-ride lots in the same corridor ("0" = no other lots in the corridor).

<sup>e</sup> This peripheral parking facility (see Chapter 18, "Parking Management and Supply" — "Response by Type of Strategy" — "Peripheral Parking Around Central Business Districts") is the only one of the 24 "lots" reported to have a parking fee (\$1.00).

<sup>f</sup> Although peripheral parking in part, this facility also serves the 30-mile Tacoma to Seattle commuter rail and bus corridor.

Source: Adapted and condensed from "This Week's Survey Results" tabulation, Urban Transportation Monitor (2003b).

---

## KEY TAKEAWAYS

TRCP Report 95 is a study of Park & Ride/Pool facilities that focuses more upon the decision-making process for users. This information is relevant in determining how best to attract users to new Park & Ride facilities.

## TRCP REPORT 192: DECISION-MAKING TOOLBOX TO PLAN AND MANAGE PARK & RIDE FACILITIES

---

### SUMMARY

TRCP Report 192 presents the most recent toolbox among the literature that was published in 2017. Key focus areas include:

- Financial planning and demand estimation
- Parking pricing
- The community and transit-oriented development

Some key takeaways include:

- Walking distance from vehicle to station should not exceed 600 feet.
- BART adjusts rates every 6 months by \$0.50 if a facility is over 95% utilized, up to a \$3.00 maximum.
- UTA prohibits multiday parking when a facility reaches 80% utilization.
- DART completes crime prevention through environmental design (CPTED) assessment of each Park & Ride every 3 years.

---

## KEY TAKEAWAYS

TRCP Report 192 is a set of guidelines for the planning, design, implementation, and operation of Park & Ride facilities. The included study of effects on the community and TOD, the guidelines for implementing pricing, and the updating capital cost recommendations and data are relevant to the planning of future Park & Rides.

## ASSESSING PARK & RIDE EFFICIENCY AND USER REACTIONS TO PARKING MANAGEMENT STRATEGIES

---

### SUMMARY

This report collected survey data that confirmed that most vehicles parked at Park & Ride stations were driven by a single occupant for transit purposes. Additionally, the survey revealed reactions to potential parking management systems. Some key reactions include:

- Users are generally not willing to pay at already free Park & Rides, but they are more willing if the fee would reserve a parking space in advance.
- 25% of users would consider carpooling to avoid a fee.
- Users did not indicate that improving bike/pedestrian facilities would change their primary access mode to the facility.

---

## KEY TAKEAWAYS

The data gathered on person-efficiency and user reactions is very relevant in efforts to improve the usage and efficiency of existing Park & Ride facilities.

*This page has been intentionally left blank.*



# APPENDIX D: CASE STUDIES MEMO

*This page has been intentionally left blank.*



# Case Studies Memo

PARK & RIDE REGIONAL STRATEGY FOR SAN DIEGO AND WESTERN  
RIVERSIDE COUNTIES

JULY 2019

Prepared By:

Kimley»»Horn

## TABLE OF CONTENTS

Table of Contents.....	2
Overview.....	3
Methodology .....	3
Sound Transit.....	4
LA County Metro .....	5
Utah Transit Authority (UTA) .....	6
Metro Transit (Minnesota).....	7
Virginia Department of Transportation (VDOT).....	8
Edmonton.....	8
King County.....	9
Denver Regional Transportation District (RTD).....	10
San Joaquin RTD .....	11
Washington State DOT – maximizing efficiency .....	11
Washington State DOT – Ridership Forecasting .....	12
Michigan State DOT with Meijer Supercenter Stores .....	13
Dallas Dart Pilot Program Case Study .....	13
BART Smart Parking System Case Study .....	14
Capital Metro (Austin) Case Study.....	15
RTA (Chicago) Case Study .....	15
COAST Program at University of Houston.....	16
LinkNYC Case Study.....	17
Additional Case Studies .....	17
Sources.....	20

## OVERVIEW

The San Diego and Western Riverside regions initiated case study research to gather insight from peer agencies on best practices for planning and managing Park & Ride facilities. The findings from these case studies were used to outline the tools and strategies in the Park & Ride Toolkit.

## METHODOLOGY

The project development team performed an industry review of published material by peer agencies. Select agencies were interviewed over the phone to gather additional key details. Seventeen case studies are identified and documented in this memo:

<i>Sound Transit*</i>	Central Puget Sound Regional Transit Authority
<i>LA Metro*</i>	Los Angeles County Metropolitan Transportation Authority
<i>UTA*</i>	Utah Transit Authority
<i>Metro Transit</i>	Minnesota Metro Transit
<i>VDOT</i>	Virginia Department of Transportation
<i>Edmonton</i>	City of Edmonton
<i>King County*</i>	King County Metro
<i>Denver RTD</i>	Denver Regional Transportation District
<i>San Joaquin RTD*</i>	San Joaquin Regional Transit District
<i>Washington DOT</i>	Washington State Department of Transportation
<i>Michigan DOT</i>	Michigan State Department of Transportation
<i>DART</i>	Dallas Area Regional Transit
<i>BART</i>	Bay Area Rapid Transit
<i>Capital Metro (Austin)</i>	Capital Metropolitan Transportation Authority
<i>RTA (Chicago)</i>	Chicago Regional Transportation Authority
<i>COAST (University of Houston)</i>	Coogs On Alternative & Sustainable Transportation
<i>LinkNYC</i>	City of New York and CityBridge
*Phone interview conducted	



## SOUND TRANSIT

*This case study looks at Sound Transit to determine how their permit system, real-time parking pilot, and dedicated spaces for alternate modes impact the agency's Park & Ride lots.*

### AGENCY CHALLENGES

Sound Transit experiences a high demand for their park and ride facilities at certain lots. Some of these lots are consistently parked at 97% capacity or more. However, these same Park & Ride lots are typically empty during off-peak hours.

### SUMMARY

Sound Transit owns Park & Ride lots in East County, Snohomish County, Pierce County, South King County, Seattle & North King County. In 2015, the agency launched into a pilot program for permitting, which provides permits to single-occupancy vehicles (SOV) (at \$33 per quarter) and carpool vehicles (at \$5 per quarter). Carpool spaces are open to permit holders between 4:30-8:30 AM. After this time, these spaces become available for general riders. These permits are implemented at lots where Sound County has full control and not at shared-use lots with other agencies. Initially, Sound Transit was open to technology for their permit system but decided on a hang-tag system, based on responses. The permit program is administered through a private firm called Republic Parking.

A real-time parking pilot program was also released to test out parking technologies. This system implemented video camera feeds with the University of Washington to test the reliability of the technology.

### KEY TAKEAWAY #1

Generally, the permitted carpool spaces to permit holder ratio is about 50-70%. Lots continue to be full, and Sound Transit thinks this could be linked to latent demand of newly-available general spaces. The system uses general operating funds toward the permit system. They are hoping to exceed their break-even amount through SOV sales, but this has not happened yet.

### KEY TAKEAWAY #2

Sound Transit offers free parking permits to vehicles that regularly carpool (two or more individuals) to a station to access the bus or train during the morning rush hour.

### KEY TAKEAWAY #3

The real-time parking pilot found that the technology was unreliable. While people liked the concept of the system, they were generally unsatisfied with the program due to distrust with the technology. Sound Transit found that the pilot program was expensive to implement. The pilot program has not been abandoned and Sound Transit is considering real-time parking at new facilities but will have to consider different alternatives that could be more reliable and less costly.

### KEY TAKEAWAY #4

The MPO for this area, Puget Sound Regional Council, established the Regional Parking Management Working Group, which allows for regional coordination of park & ride facilities. By establishing a

coordinated park & ride system, customers have expressed an interest in having a single payment system.

## INTERVIEW WITH AGENCY

Sound Transit provided information on partnerships with other agencies. The agency shared that maintenance and operation costs are divided at shared lots. One agency will take responsibility for maintaining and operating the facility, whereas the other agency will take on the costs. In the future, they may consider how to use lots during off-peak hours for event parking.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Align Park & Ride Planning with Local and Regional Goals*

## LA COUNTY METRO

*This case study looks at LA County Metro and describes how their parking management pilot and enforcement technologies impacts the agency's Park & Ride lots.*

## AGENCY CHALLENGES

Los Angeles faces congestion issues like most major cities. LA Metro's Park & Ride facilities have experienced a high demand. On the other hand, if drivers find themselves circling lots looking for a parking space, they eventually will decide to drive to work. Some lots have also been challenged by non-transit riders who use the lots for their convenient location, but not for their intended purpose.

## SUMMARY

LA Metro owns Park & Ride lots connected to their facilities and transit system. LA Metro's lots can be found throughout the region and along the Blue, Expo, Gold, Green, Orange, Purple Red, and Silver Lines. Many of these lots have both free and paid reserved spots. The free spaces are on a first-come, first-served basis. Monthly reserved spots are at select locations. The project uses an integrated payment system through the TAP card and license plate recognition software for enforcement. Their goals are to manage congestion, capture revenue, and ensure that only system users are parking at lots. The LA Metro Park & Ride system integrates various technologies at some of their stations.

## KEY TAKEAWAY #1

LA Metro found that \$40 per month for reserved parking until 11AM was not successful. Some people used this service as a parking convenience, but did not ride the metro. They found that in other locations Park & Ride lots could be used as general parking during non-commuting hours. They established an MOU in the City of Monrovia to use the Park & Ride lot for evening parking for attractions such as movie theaters and restaurants. They set the price at \$3 per night. They have also been able to implement enforcement at some stations, where there are repeat offenses. It costs the agency about \$1 million per year for enforcement.

## KEY TAKEAWAY #2

LA Metro determined that stations within 2 miles from one another should have the same fare structure. Otherwise, commuters will drive to the other station to avoid the higher fees or to get free parking.

## KEY TAKEAWAY #3

Collaborating with the Getaround application, more than 25 LA Metro stations reserve parking spots for privately-owned vehicles participating in the car-sharing Getaround app to be used to complete first- and last mile trips.

## INTERVIEW WITH AGENCY

LA Metro explained in their interview that they are cautious with setting prices, despite the high demand for parking along transit lines. They need Board approval to increase prices, and there can often be moral and institutional limits to how high a public agency can set pricing. They have spent a considerable amount in campaigning and providing educational programs to the public on how to use park & ride.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Managing Parking Demand, Secure Facilities and Enforce Rules, Align Park & Ride Planning with Local and Regional Goals*

## UTAH TRANSIT AUTHORITY (UTA)

*This case study looks at the Utah Transit Authority and describes how agreements with outside entities and residents' resistance to paid parking has impacted the agency's Park & Ride lots.*

## AGENCY CHALLENGES

UTA has experienced high demand at specific locations and non-riders will utilize their lots to meet personal parking needs. They have parking garages, where they should recapture their construction costs, but currently cannot get most people to pay for parking where free parking surrounds their lots. This causes spillover and problems with nearby businesses and attractions.

## SUMMARY

UTA has Park & Ride lots throughout their Salt Lake region. Lots can best be categorized as free extended parking lots, free day parking only, non-rail park & ride lots, and Latter Day Saints (LDS) Church parking lots, which are executed through an agreement.

## KEY TAKEAWAY #1

UTA has tried to implement paid parking at Park & Ride lots to recoup construction costs of parking garages, but have found that even with a \$1 charge, people will try to avoid paid parking. This could be linked to the selected locations, which were at low demand to begin with. People often resort to parking on the street or somewhere else nearby with available free parking.

## KEY TAKEAWAY #2

UTA has found that agreements work best with churches, where their parking needs are typically restricted to weekends, especially Sundays. This means these lots can serve other uses during their off-peak times such as transit riders during typical commute days (Monday-Friday). The agency currently holds one agreement with the LDS Church, which allows them to use 99 lots.

## INTERVIEW WITH AGENCY

UTA provided details about their agreements. Along with establishing a partnership with churches, they also provide a service to Utah Valley University. Students park at the Orem Commuter Station take UTA shuttles to the campus. This station provides free parking and regional rail and bus service. This tends to be a high-demand parking facility. UTA also leases 70 spaces at the Salt Lake Central Station, which provides service to Amtrak and Greyhound customers, along with UTA. UDOT is also an owner of many lots in the area.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Managing Parking Demand, Align Park & Ride Planning with Local and Regional Goals*

## METRO TRANSIT (MINNESOTA)

*This case study looks at Metro Transit and describes how the rider demand and smart parking system impact the transit agency's Park & Ride lots.*

### AGENCY CHALLENGES

In 2016, a survey illustrated that 15 of the Park & Ride facilities were at 90% or above capacity. This illustrated a new opportunity for parking management in the Park & Ride network. Additionally, freeway congestion has shown an upward trend from 2008-2016, where park & ride utilization has remained relatively the same.

### SUMMARY

Currently, the Minnesota Metro regional Park & Ride network holds 34,172 spaces at 109 park-and-ride facilities and 43 park-and-pool facilities. The Minnesota Metro Transit only owns and operates a portion of these lots, while other agencies and private companies manage the remaining lots. Minnesota Metro developed the Park & Ride Plan, which was adopted in 2010. This Plan has propelled the current park & ride initiatives in the Minnesota Metro region. The agency also found that the Park & Ride utilization is impacted by express bus usage, freeway congestion, motor fuel costs, employment, and the housing market.

### KEY TAKEAWAY #1

Annual Park & Ride reports are generated to assess current trends in the regional Park & Ride system and provide performance updates corresponding to the Metropolitan Council long-term planning documents for the area.

### KEY TAKEAWAY #2

Minnesota Metro Transit focuses on siting Park & Ride lots that have good visibility from primary roadways or cross-roadways. The lots are also located on the right side of the roadway so arriving commuter can turn right in. The agency has a policy to build lots concurrent with new projects. In addition, the agency aims to preserve areas even if demand is low.

### KEY TAKEAWAY #3

Along with building an efficient Park & Ride transportation service, Metro Transit also provides advertisers with various platforms to reach audiences. Not only are exterior and interior advertisements used, but Metro Transit provides unique marketing opportunities through rail advertising, fully branded interior/exterior systems, and station advertisements.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Managing Parking Demand, Incentivize Target Users, Align Park & Ride Planning with Local and Regional Goals*

## VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)

*This case study looks at VDOT and describes how partnerships with nearby businesses can provide opportunities for riders and park & ride lots.*

### SUMMARY

In the state of Virginia there are approximately 300 park & ride lots that are state-owned and privately owned. Lots will provide space for vehicles, and some have designated spaces for bicycles. VDOT provides free ride-matching services to promote carpooling. In Virginia, informal carpooling is an issue.

### KEY TAKEAWAY #1

Park & Ride spaces should be clearly marked and, where applicable, retailers or other corporations may place their logos on Park & Ride lot signs to inform that they are providing the spaces to users.

### KEY TAKEAWAY #2

Park & Ride users can add an additional \$1,000 / user / year to adjacent retailers. This can develop strong partnerships with nearby retailers as they have a vested interest in Park & Ride success.

*Applicable Strategies in the Park & Ride Toolkit: Incentivize Target Users*

## EDMONTON

*This case study looks at Edmonton and describes how the agency plans to expand park & ride services as the light rail network grows.*

### AGENCY CHALLENGES

Currently, Edmonton offers Park & Ride facilities at either little to no cost. Facilities are already reaching capacity. Therefore, they would like to open opportunities to increase costs at new and existing facilities.

### SUMMARY

Edmonton currently has a total 6,365 parking spaces in its Park & Ride network throughout the City. 2,435 of these stalls are paid stalls. Four of their lots offer these reserved spots at \$50 per month, whereas one lot provides the service at \$40 a month. Four of the remaining lots are free. Edmonton



provides a few key objectives for their Park & Ride program. The agency plans to be cost effective by being mindful of land and construction costs for facilities. Edmonton plans to expand services as the park & ride network grows. This includes integrating technologies and services such as carsharing and ridesharing to support riders.

### KEY TAKEAWAY #1

Park & Ride facilities should be a service for residential communities that do not have direct access to transit services. They should be strategically placed to meet the needs of these commuters.

### KEY TAKEAWAY #2

Park & Ride can either improve or reduce equity in an area. Edmonton suggests that to improve equity at Park & Ride facilities free or subsidized parking should be provided to disadvantaged groups such as their unemployed, low income, and disabled riders.

*Applicable Strategies in the Park & Ride Toolkit: Align Park and Ride Planning with Local and Regional Goals*

## KING COUNTY

*This case study looks at King County Metro and how lease agreements, space for alternate modes, and enforcement impacts the use of park & ride facilities.*

### AGENCY CHALLENGES

King County Transit regularly enforces their lots, but still finds it challenging to regulate all parking lots. They have various mechanisms in place to see if invalid users are parked. Enforcement is also costly and it takes multiple steps to get a vehicle removed for illegally parking in a lot.

### SUMMARY

There are around 150 park & ride lots that are available in the King County Metro area. These lots are owned by both public agencies and private entities. Park & Ride lots with private firms are established through the Park by Transit Program, which establishes agreements between Diamond Parking and property owners to sell permits to park & ride users. King County Metro lots reserve spaces for carshare services and for carpools to enhance their services. They typically implement these strategies at lots that are 90%, or above, capacity. They have enforcement staff, who will patrol lots once a day. King County Transit provides parking discounts for low-income riders.

### KEY TAKEAWAY #1

Through the Diamond Partnership, property owners with vacant spaces are eligible to create monthly Park & Ride permit agreements with costumers.

### KEY TAKEAWAY #2

King County Metro has found that providing additional services at high-volume lots is effective. They currently have food services at the Northgate Transit Center.

## KEY TAKEAWAY #3

In the past, King County has found it challenging to gauge drop off / pick up demands. Their goal is to do a better job of studying these needs to designate these areas at appropriate lots.

## INTERVIEW WITH AGENCY

King County Transit is experimenting with new strategies at their Park & Ride lots. At the Northgate Transit Center, they have newly implemented carsharing as a pilot program. They are working with developers to determine what is the right amount of parking to meet both building and Park & Ride needs. The King County Right Size Parking Calculator can help developers determine these numbers.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Secure Facilities and Enforce Rules, Incentivize Target Users*

## DENVER REGIONAL TRANSPORTATION DISTRICT (RTD)

*This case study looks at Denver Regional Transportation District's innovative approach to parking technology and how it impacts the agency's Park & Ride lots.*

## AGENCY CHALLENGES

Denver RTD faces security, enforcement, and capacity issues like most park & ride lots. They take a proactive approach to mitigating these issues through the use of technology and expanded resources.

## SUMMARY

Denver RTD has implemented various technologies to support their over 70 park & ride facilities. This includes cellular phone technology to provide real-time bus schedules. They provide automated pay stations that accept various forms of payment. Geographic Information Systems (GIS) is used to locate the residence status of parked vehicles based on their license plates. This integrates with cameras and computer technology to interpret license plates numbers. One-half of RTD lots have cameras and the rest have real-time enforcement. Denver RTD also provides performance monitoring and reporting to keep an updated database on their facilities.

## KEY TAKEAWAY #1

Cameras can serve as a real-time enforcement strategy. This allows RTD to take a proactive approach to enforcement and investigate customer service complaints, ADA issues, liability claims, and security concerns. Cameras can also reduce manpower requirements.

## KEY TAKEAWAY #2

Additional services can be applied to popular park & ride lots, especially when capacity is reached. These services may include carshare, carpooling, and food services.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Secure Facilities and Enforce Rules*

## SAN JOAQUIN RTD

*This case study looks at San Joaquin RTD to examine how agency partnerships, leasing agreements, and monthly data capture impacts the agency's Park & Ride facilities.*

### AGENCY CHALLENGES

San Joaquin RTD relies on leasing agreements to establish parking facilities in the area. They have a limited budget for contracts, so they need to think carefully about when to use leasing agreements. Retailers will also sometimes complain that riders are occupying their ideal retail parking spaces. Enforcement and security are typically not issues, with the exception of the Lodi parking lot.

### SUMMARY

San Joaquin RTD has a Park & Ride network of 11 facilities that are established through agency owned property, agency partnerships, and privately-owned land. They develop MOUs with retail owners, churches, and the agencies to lease parking spaces. Parking typically costs about \$3.75-\$5 per space.

### KEY TAKEAWAY #1

Conducting monthly counts at the Park & Ride facilities provides the agency with an understanding of the average demand. This can also help justify funding for Park & Ride facilities.

### KEY TAKEAWAY #2

The agency uses special striping and logos to delineate their spaces in shared lots. People typically obey this signage and striping, making enforcement not an issue.

### INTERVIEW WITH AGENCY

San Joaquin RTD shared that churches can make the best partners due to their limited demand for parking on the weekdays. San Joaquin RTD is looking to expand their Park & Ride network and pair this with expanded transit and commuter service.

*Applicable Strategies in the Park & Ride Toolkit: Align Park & Ride Planning with Local and Regional Goals*

## WASHINGTON STATE DOT – MAXIMIZING EFFICIENCY

*Washington State DOT prepared a Park-and-Ride Study focused on maximizing efficiency at overcrowded locations.*

### AGENCY CHALLENGES

The purpose of this project is to provide the Washington State Department of Transportation (WSDOT), King County Metro Transit, and Sound Transit with more detailed information on the use of 17 of the busiest park and ride facilities in the Central Puget Sound Region. These Park & Ride lots, like a large fraction of lots across the region, are currently operating at or near capacity. The agencies would like to obtain detailed information on their use to inform potential parking management strategies in the future. In

particular, the agencies' long-term objective is to eventually implement strategies to increase the number of people served by the limited parking spaces.

## SUMMARY

Two empirical data collection efforts were performed. The first was an on-site audit of the existing use of 10 of the 17 facilities. During this audit, field data collectors visited each location to measure vehicle (and person) entries and exits to these facilities. The second data collection effort was a user intercept survey administered both in-person at all 17 lots and electronically to the set of registered vanpool users at these facilities and those who could not complete the survey on site. The survey collected more detailed information from individual Park & Ride users, including: trip purpose, origin-destination information, mode of entry and exit, and reasons for using Park & Rides.

## KEY TAKEAWAY #1

Having Park & Ride data affords the WSDOT, King County Metro Transit, and Sound Transit with information on parking lot operation. The database can be referenced to establish effective management strategies.

## KEY TAKEAWAY #1

First, it appears that single-occupant vehicles tend to dominate parking spaces at these facilities. While this result is not unexpected, the empirical data provide a clear justification to implement strategies designed to improve the efficiency per person of parking spaces at these lots.

## KEY TAKEAWAY #2

Second, people parking at the Park & Ride facilities tend to use the lots for transit purposes—very little non-transit use was noted. Of the transit uses, fixed-route transit (such as bus or train service) was dominant, although at several lots heavy carpool or vanpool use was noted.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities*

## WASHINGTON STATE DOT – RIDERSHIP FORECASTING

*Washington State DOT prepared a Park & Ride System plan that incorporated proactive forecasting and siting into planning. Travel forecast models were used to forecast future demand for Park & Ride assets using measured variables.*

## AGENCY CHALLENGES

Washington State DOT faced challenges incorporating Park & Ride systems into the Ridership Forecasting Report.

## SUMMARY

The 2015 ST model version relies on a matrix estimation process for the development of base-year trip tables that is based on using a seed matrix with a high number of non-zero cells. The process includes seeding of counts on appropriate segments to capture potential demand at each Park & Ride facility.

These considerations, together with the fact that existing Park & Ride facilities are adequately represented throughout the region provide a good database from which to calculate access shares.

## KEY TAKEAWAY #1

Park & Ride lots are an integral piece of a successful transit system and the impact they have on ridership should be utilized in development of all ridership forecasting.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities*

## MICHIGAN STATE DOT WITH MEIJER SUPERCENTER STORES

*Michigan DOT collaborated with Meijer supercenter stores to create additional outlets for carpoolers. For example, one Meijer stores allocated 50 spaces for Park & Ride use, which MDOT marked as potential Park & Ride spaces. In return, MDOT added signs for Meijer stores on adjacent highways directing drivers to the lots.*

## AGENCY CHALLENGES

Michigan State DOT was looking to expand its Carpool Parking Lot Program, which began in 1974 with just 11 carpool lots. Acquiring or developing lots, however, was an expensive process.

## SUMMARY

Through a partnership with Meijer Stores and general expansion, the system now has 235 carpool parking lots with more than 9000 spaces. The collaboration requires Meijer Supercenter Stores to offer carpool parking in their existing parking lots, and in return Michigan DOT places signs advertising the stores at nearby freeway off-ramps.

## KEY TAKEAWAY #1

Partnerships with existing private entities can be an effective method of increasing parking spaces within a park-and-ride system without building any additional capacity.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities*

## DALLAS DART PILOT PROGRAM CASE STUDY

*Dallas DART Pilot program at one station providing free reserved stalls for residents who display a valid resident parking permit on their vehicle.*

## AGENCY CHALLENGES

Plano's Parker Road Station consistently reached over 85% capacity during peak periods, and local residents were frustrated that they couldn't find parking in the facility which was most local to them. In response, DART created a reserved parking system for area residents.

## SUMMARY

### Standards for Reserved Parking for Service Area Residents



DART offers free reserved parking for service area residents in the following instances only:

- The maximum lot utilization must be at least 85% of available spaces on an average weekday;
- The percent of non-service area vehicles in the lot must exceed 45% of the vehicles parked in the lot;
- DART must have onsite concierge staff at the parking lot on weekdays.

As of April 3, 2014, the only DART park & ride lot which meets the requirements for reserved parking is [Parker Road Station](#) in the City of Plano.

## KEY TAKEAWAY #1

Managing parking demand is an effective way to increase the user-satisfaction of nearby residents.

## KEY TAKEAWAY #2

Reserved parking can create additional incentive for carpool usage as a means of arrival to the Park & Ride.

## KEY TAKEAWAY #3

Along with Park & Ride lot utilization, DART performs Crime Prevention Through Environmental Design (CPTED) reports every three years. The analysis provides security assessments and risk ratings to guide amenity, safety, and security updates to the lots.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Managing Parking Demand*

## BART SMART PARKING SYSTEM CASE STUDY

*BART- Smart parking systems were installed at Park & Ride facilities at heavy rail stations. These smart parking systems included VMS on a nearby freeway that showed Park & Ride availability and allowed users to reserve Park & Ride spots by phone or Internet.*

## AGENCY CHALLENGES

In the San Francisco Bay Area, parking has recently been at or near capacity at many of the 31 Bay Area Rapid Transit (BART) District stations with parking facilities. Smart parking management technologies may provide a cost-effective tool to address near-term parking constraints at BART transit stations.

## SUMMARY

This report presents early findings from an application of advanced parking technologies to maximize existing parking capacity at the Rockridge BART station, which was launched in December 2004 in the East San Francisco Bay Area. The smart parking system includes traffic sensors that count the number of vehicles entering and exiting the parking lots at the station. A reservation system allows travelers to reserve spaces by Internet, personal digital assistant (PDA), phone, and cell phone. The real-time information obtained from the sensors and the reservation system is displayed on variable message signs (VMS) (on Highway 24 leading to the station) to alert drivers of parking space availability.

## KEY TAKEAWAY #1

Reserved parking is a very attractive attribute to commuters who often park at stations which reach maximum capacity.

## KEY TAKEAWAY #2

The largest complaint about Park & Rides on the BART system was that it filled up too early in the morning.

*Applicable Strategies in the Park & Ride Toolkit: Maximizing Capacity at Facilities, Managing Parking Demand*

## CAPITAL METRO (AUSTIN) CASE STUDY

*Capital Metro (Austin, TX) has a system of mobility hubs at their Park & Ride rail stations.*

### AGENCY CHALLENGES

In Austin, roadways are at capacity, so transit improvements are a priority. The agency is focused on creating a system that benefits the diverse population in Central Texas, including those who do not currently take transit.

### SUMMARY

The Mobility Hub program for Austin includes thirteen different locations that are each designated as one of three different hub types. Gateway hubs are centrally located within the regional transportation network and have the highest density of mobility options on site. Anchor hubs are important transfer points and terminus locations where riders can make seamless connections to a variety of travel modes. Neighborhood hubs are critical access points for the regional transportation network where most trips within the network begin and end.

## KEY TAKEAWAY #1

Categorizing mobility hubs as “Neighborhood,” “Anchor,” or “Gateway” allows for a more standardized system of investments.

## KEY TAKEAWAY #2

Mobility Hubs must be developed as a system, not individually. A coordinated system of amenities creates a more tangible incentive for targeted users.

*Applicable Strategies in the Park & Ride Toolkit: Incentivize Target Users*

## RTA (CHICAGO) CASE STUDY

*RTA (Chicago) has launched a multi-year marketing campaign to promote usage of Park & Ride and transit in the area. Campaign extends to TV, radio, social media, and digital billboards.*

## AGENCY CHALLENGES

The Regional Transportation Authority in Chicago faces low transit ridership and general lack of awareness of transit services.

## SUMMARY

The transit agencies' "Ride On." campaign highlights the benefits and convenience of riding public transit in Cook, DuPage, Kane, Lake, McHenry and Will counties juxtaposed against the challenges drivers face in the nation's third-most congested region. The ads, developed by Chicago-based Downtown Partners Communications, Inc., will be on cable television, radio, social media, digital billboards throughout the region, and online. They highlight the shared real-life pain points of driving, such as traffic and parking costs, as opposed to the money saving and low-stress experience of more than two million people who ride the nation's third largest transit system each weekday.

## KEY TAKEAWAY #1

Engaging target users with ads highlighting the pain points of driving alone is an effective strategy to promote Park & Ride usage, which is a lower stress and lower cost option.

*Applicable Strategies in the Park & Ride Toolkit: Incentivize Target Users*

## COAST PROGRAM AT UNIVERSITY OF HOUSTON

*COAST Program at the University of Houston incentivizes students and employees to use transit and Park & Ride. The goal was to reduce the demand for parking on campus. Park & Ride students paid 35% of full price and received 50% discount on bus/light rail tickets.*

## AGENCY CHALLENGES

The University of Houston consistently oversells student parking by a factor of 1.7+, and the campus is anticipated to grow. Additionally, Houston is not friendly for alternative transportation, with walkability, bike-ability, and transit scores all falling below 50 out of 100.

## SUMMARY

Coogs On Alternative & Sustainable Transportation (COAST) is an integrated program to incentivize student usage of alternative modes of transportation. Launched in the summer of 2016, this program had the goal of reducing demand for parking on campus by 2,000 spaces. By providing discounts for students who carpooled or used transit, COAST worked to make transit the more logical option.

## KEY TAKEAWAY #1

Cost is a large factor in commute choices. When driving alone becomes less convenient and costlier than using transit, the choice is simple for students.

## KEY TAKEAWAY #2

Student schedules vary and can be extreme. This can make carpooling or the schedules of transit very inconvenient. Oftentimes, driving alone is the only option.

## LINKNYC CASE STUDY

*LinkNYC is not currently transit based but could easily be. The program leverages downtown pylons for targeted advertising.*

### AGENCY CHALLENGES

With a large population of transit users, New York struggles to keep users informed of transit options, changes, or delays.

### SUMMARY

New York City has partnered with LinkNYC to provide more than 2,200 informational kiosks for the use of city residents. When not in use for information, the kiosks display attractive advertisements in densely populated areas.

### KEY TAKEAWAY #1

Advertising space can be an incentive for private companies to assist with amenities at Park & Ride facilities.

*Applicable Strategies in the Park & Ride Toolkit: Create Partnerships with Local Jurisdictions and Private-Sector*

## ADDITIONAL CASE STUDIES TO CONSIDER

### BAY AREA

*BART is working with the Metropolitan Transportation Commission (MTC) and Scoop Technologies to incentivize BART users to carpool to the Dublin/Pleasanton station. Since parking at these stations fill early in the morning, carpool vehicles will have a guaranteed parking spot at the station until 10 am.*

### KEY TAKEAWAY

Collaborating with other companies and agencies can promote and optimize use of Park & Ride facilities.

*Applicable Strategies in the Park & Ride Toolkit: Create Partnerships with Local Jurisdictions and Private-Sector, Managing Parking Demand*

### CITY OF RENTON

The City Center Parking Garage reserves over 100 free parking spots in the morning for customers using the Park & Ride services.

### KEY TAKEAWAY

Partnerships with private parking garages allow for additional overflow for Park & Rides lots.

*Applicable Strategies in the Park & Ride Toolkit: Create Partnerships with Local Jurisdictions and Private-Sector*

## CALGARY

The regional interest in Transit Oriented Development (TOD) has removed all but 500 of the 1,750 original Park & Ride spots at its Anderson Light Rail Station. This provides space for retail, office, and commercial uses at this suburban site.

---

### KEY TAKEAWAY

The intent of this TOD is to make use of off-peak capacity of the station and attract individuals to the site through various mixed-use amenities.

*Applicable Strategies in the Park & Ride Toolkit: Align Park & Ride Planning with Local and Regional Goals*

## SANTA CLARA VALLEY TRANSPORTATION AUTHORITY

Ohlone-Chynoweth Commons is a 194-unit medium- and high-density affordable housing and mixed-use development project. It was built along the Guadalupe light-rail line in San Jose, California on an underused 1,100 spot Park & Ride lot. The project was established under the coordination of the Santa Clara Valley Transportation Authority and the Eden Housing Inc.

---

### KEY TAKEAWAY

Understanding the utilization of Park & Ride lots and recognizing community needs allows for public and private partnerships to form and build useful development projects.

*Applicable Strategies in the Park & Ride Toolkit: Align Park & Ride Planning with Local and Regional Goals*

## LAKETRAN CLEVELAND

The “Adventure of Commuting” is a marketing video for the Laketran Park & Ride service. This information video identifies the benefits and ways to access the Laketran service.

---

### KEY TAKEAWAY

Using various mediums of marketing, a broader audience can be reached which increases awareness of the Park & Ride service and grows ridership. Certain platforms such as video advertising suggest that the service is up to date and efficient.

*Applicable Strategies in the Park & Ride Toolkit: Incentivize Target Users*



## PORTSMOUTH UNITED KINGDOM

With the proximity of Portsmouth to London, the amount of commuters using various transportation systems presents a large market for advertising. Some of these marketing platforms include outdoor graphics, on departure screens for transit, and terminal displays on Park & Ride spots.

---

### KEY TAKEAWAY

Optimizing Park & Ride services can provide advertising opportunities that can not only stimulate the local economy but also use these marketing relationships to fund Park & Ride operation and maintenance.

*Applicable Strategies in the Park & Ride Toolkit: Create Partnerships with Local Jurisdictions and Private-Sector*

## CITY AND COUNTY OF HONOLULU

The City and County of Honolulu has partnered with the People's Open Market to provide Park & Ride space on weekends for use by the market.

---

### KEY TAKEAWAY

On the weekends, Park & Ride space can be used for activities which benefit the community. This, in turn, can create community awareness of Park & Ride locations.

*Applicable Strategies in the Park & Ride Toolkit: Create Partnerships with Local Jurisdictions and Private-Sector*

## METROPOLITAN COUNCIL MINNESOTA

In 2010, the Metro Council in Minneapolis approved the 2030 Park-and-Ride Plan: a comprehensive master plan for Park & Ride development throughout the system.

---

### KEY TAKEAWAY

Park & Ride Master Plans create the opportunity to evaluate existing facilities, identify areas of need, and plan future changes and additions to an agency's Park & Ride network which will address needs and expand upon successes.

*Applicable Strategies in the Park & Ride Toolkit: Create Partnerships with Local Jurisdictions and Private-Sector*

## SOURCES

### SOUND TRANSIT

Fehr & Peers. *Sound Transit Parking Pricing Study*.

Sound Transit. *Parking: Everything you need to know about parking permits, regulations, and park-and-ride lots that Sound Transit serves*. <https://www.soundtransit.org/ride-with-us/parking>

### LA COUNTY METRO

Walker Consultants. *Supportive Transit Parking Program Master Plan*. 2017

### UTAH TRANSIT AUTHORITY

Utah Transit Authority. *Park-and-Ride Master Plan*. 2014

### METRO TRANSIT (MINNESOTA)

Pickett, Emma, and Metro Transit Engineering and Facilities. *2018 ANNUAL REGIONAL PARK-AND-RIDE SYSTEM REPORT*. 2019, *2018 ANNUAL REGIONAL PARK-AND-RIDE SYSTEM REPORT*.

“Advertise with Metro Transit.” *Intersection Minneapolis*. <https://www.metrotransit.org/advertise-with-metro-transit>

“2030 Park-and-Ride Plan” *Metropolitan Council*. <https://metro council.org/Transportation/Publications-And-Resources/Transit/2030-Park-and-Ride-Plan-and-Appendices.aspx>

### VIRGINIA DOT

Virginia Department of Transportation. *Statewide Park & Ride Best Practices Guide*. 2013, *Statewide Park & Ride Best Practices Guide*.

### EDMONTON

City of Edmonton. *Park & Ride Guidelines*. 2018, *Park & Ride Guidelines*.

### KING COUNTY

King County Metro. *Metro Access to Transit*. 2015, *Metro Access to Transit*.

---

## DENVER RTD

Walker Parking Consultants. *Parking Pricing Technical Assessment*. 2016, *Parking Pricing Technical Assessment*.

---

## WASHINGTON DOT

Washington State Department of Transportation. *Cost Effectiveness of Park-and-Ride Lots in the Puget Sound Area*. 1986, *Cost Effectiveness of Park-and-Ride Lots in the Puget Sound Area*.

---

## MICHIGAN DOT

“MDOT Roads and Travel Carpool Lots.” *MDOT - Carpool Lots*, [www.michigan.gov/mdot/0,4616,7-151-9615\\_11234---,00.html](http://www.michigan.gov/mdot/0,4616,7-151-9615_11234---,00.html).

---

## DALLAS DART

“Free Reserved Parking for DART Service Area Residents at Parker Road Station.” *DART.org - Free Reserved Parking for DART Service Area Residents at Parker Road Station*, [www.dart.org/riding/paidparking.asp](http://www.dart.org/riding/paidparking.asp).

Chief Spiller, James D. and Dallas Area Rapid Transit. “Update on 2018 Security Goal – Plans and Strategies.” 2018. *City of Dallas Public Safety and Criminal Justice Committee*. [http://dallascityhall.com/government/Council%20Meeting%20Documents/pscj\\_4\\_update-on-2018-security-goal-plans-and-strategies\\_combined\\_010818.pdf](http://dallascityhall.com/government/Council%20Meeting%20Documents/pscj_4_update-on-2018-security-goal-plans-and-strategies_combined_010818.pdf)

---

## BART

Shaheen, Susan, et al. *Smart Parking Management Pilot Project*. 2005, *Smart Parking Management Pilot Project*.

---

## CAPITAL METRO (AUSTIN)

Capitol Metro. *Mobility Hub Flipbook*. 2018, *Mobility Hub Flipbook*.

---

## RTA CHICAGO

“Ride On.’ Marketing Campaign.” *Regional Transportation Authority*, 2015, [www.rtachicago.org/plans-programs/ride-marketing-campaign](http://www.rtachicago.org/plans-programs/ride-marketing-campaign).

---

## COAST AT UNIVERSITY OF HOUSTON

University of Houston. *Paying People to NOT Park*. 2017, *Paying People to NOT Park*.

---

## LINKNYC

Intersection. “LinkNYC.” *LinkNYC*, [www.link.nyc](http://www.link.nyc)

---

## HONOLULU

Market Schedule. *Honolulu Parks and Recreation*. <https://www.honolulu.gov/parks/program/people-s-open-market-program.html>

---

## CITY OF RENTON

City Center Parking Garage. *City of Renton*.

[https://rentonwa.gov/city\\_hall/community\\_services/facilities/city\\_center\\_parking\\_garage](https://rentonwa.gov/city_hall/community_services/facilities/city_center_parking_garage)

---

## CALGARY

“Anderson Station Park and Ride Plan” 2016.

[https://www.calgary.ca/\\_layouts/cocis/DirectDownload.aspx?target=http%3a%2f%2fwww.calgary.ca%2frealestate%2fDocuments%2fAnderson%2520Station%2520TOD%2fAnderson\\_Station\\_Park\\_and\\_Ride\\_Plan\\_Att1.PDF&noredirect=1&sf=1](https://www.calgary.ca/_layouts/cocis/DirectDownload.aspx?target=http%3a%2f%2fwww.calgary.ca%2frealestate%2fDocuments%2fAnderson%2520Station%2520TOD%2fAnderson_Station_Park_and_Ride_Plan_Att1.PDF&noredirect=1&sf=1)

---

## SANTA CLARA VTA

“ULI Development Case Studies: Ohlone-Chynoweth Commons.”

<https://casestudies.uli.org/wp-content/uploads/2015/12/C033002.pdf>

---

## PORTSMOUTH UK

“Your Chance to Advertise” *Portsmouth City Council*.

<https://www.portsmouth.gov.uk/ext/documents-external/54.227-advertising-rate-card.pdf>



*This page has been intentionally left blank.*

# APPENDIX E: PARK & RIDE/ COMMUTE SURVEY

*This page has been intentionally left blank.*

A photograph of a transit station. In the foreground, several people are standing near a ticket machine or information kiosk. One person is wearing a pink shirt, another a green shirt. In the background, there are signs that say "Start Your Ride Here" and "Rail Tickets & More Cards". The title "PARK & RIDE COMMUTE SURVEY" is overlaid in large white letters.

# PARK & RIDE COMMUTE SURVEY

The following pages contain the Introduction, Key Findings, and Park & Ride sections of the 2018 Park & Ride/ Commute Survey prepared for SANDAG.

The link to the full survey can be found here:

[https://www.sandag.org/uploads/publicationid/publicationid\\_4549\\_24879.PDF](https://www.sandag.org/uploads/publicationid/publicationid_4549_24879.PDF)



## INTRODUCTION

The San Diego Association of Governments (SANDAG) and the Riverside County Transportation Commission (RCTC) are the transportation planning agencies for San Diego County and Riverside County, respectively. The agencies' primary function is to plan and invest in the transportation system so that it best meets the mobility needs of their region—now and in the future. By better integrating the regions' freeway, transit, and road networks, linking land-use and transportation planning, and strategically investing in infrastructure improvements where they are most needed, SANDAG and RCTC help to promote a sustainable, high quality of life.

**MOTIVATION FOR STUDY** To successfully fulfill their planning roles, both SANDAG and RCTC must have up-to-date information regarding the travel behaviors of residents and others who place demands on the transportation infrastructure and transit systems in their respective regions. Although the need for travel-related information applies to residents in general, it is especially true for *employees* who commute for their jobs, as this subgroup accounts for a large percentage of the trips and vehicle miles traveled (VMT) in both regions. By profiling employees' commute characteristics (frequency, mode, distance, destination, and timing) and estimating the prevalence of teleworking and use of alternative modes, the study described in this report will help SANDAG and RCTC better plan and manage the regions' transportation and transit systems.

In addition to the general goal of profiling employee commute behavior, this study was also designed to help inform the agencies' Transportation Demand Management (TDM) and Park & Ride programs.<sup>1</sup> Understanding employees' interest and willingness to use alternative modes, the conditions/factors that would make them more likely to use alternative modes in the future, and the amenities and improvements that they desire for Park & Ride lots is key to estimating the latent market/potential growth for alternative modes in general, and rideshare in particular. It will also help SANDAG and RCTC better manage existing Park & Ride lots and locate new lots where they will be most effective.

Finally, although the study gathered the aforementioned information for commuters in general, both SANDAG and RCTC were particularly interested in the subgroup of commuters that live and work in different counties. Known as *interregional commuters*, these employees typically endure longer commutes with respect to both distance and time, often travel congested corridors, and are thus thought to be prime candidates for alternative modes including transit and rideshare. For the purposes of this study, the interregional commuters of interest included San Diego residents who travel outside of the county for their employment, as well as Western Riverside County residents who commute to San Diego or other counties for their jobs.

**OVERVIEW OF METHODOLOGY** For a full discussion of the research methods and techniques used in this study, turn to *Methodology* on page 97. In brief, the survey was administered in two phases to a random sample of 4,337 employees who reside in San Diego County or Western Riverside County. During Phase 1, all qualified employees were eligible to participate in the survey regardless of their commute destination. Phase 2 involved screening to identify and oversample for interregional commuters. The survey followed a mixed-method design that employed multiple recruiting methods (telephone and email) and multiple data collection meth-

---

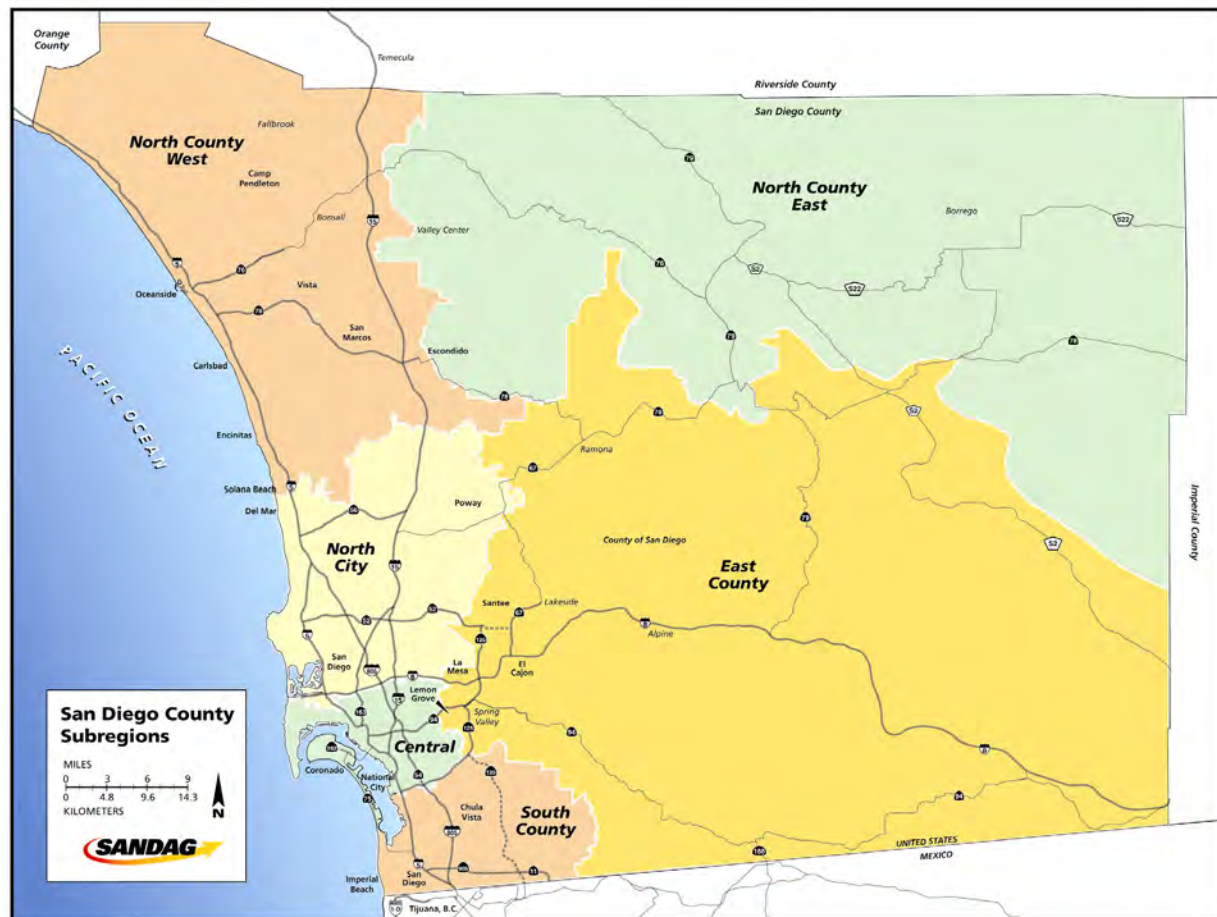
1. Park & Ride lots serve carpools, vanpools, and transit.



ods (telephone and online). Administered in English and Spanish between February 23 and May 3, 2018, the average interview lasted 18 minutes.

To accommodate SANDAG's and RCTC's interest in obtaining reliable parameter estimates for the regions as a whole, as well as within the various subregions identified in Figures 1 and 2, the study employed a strategic oversample by subregion to balance the statistical margins of error associated with estimates at the subregion level. Oversampling was also used to increase the number of interregional commuters in the sample, as the incidence rate for this type of commuter is generally quite low. To adjust for the oversampling, the raw data were weighted according to *American Community Survey* (ACS) estimates of the number of employed persons in each subregion (by age) prior to analyses and presentation. Interregional commuters were also weighted down to match their natural proportions by subregion based on the findings of the Phase 1 data collection effort. The results presented in this report are the weighted results, which are representative for the San Diego and Riverside regions combined, by county, as well as within each subregion.

**FIGURE 1 SAN DIEGO SUBREGIONS MAP**



[illegible]

**ABOUT TRUE NORTH** True North is a full-service survey research firm that is dedicated to providing public agencies with a clear understanding of the values, opinions, priorities and behaviors of their residents and customers. Through designing and implementing scientific sur-

veys, as well as expert interpretation of the findings, True North helps its clients to move with confidence when making strategic decisions in a variety of areas—such as planning, policy evaluation, performance management, organizational development, establishing fiscal priorities, and developing effective public information campaigns. During their careers, Dr. McLarney (President) and Mr. Sarles (Principal Researcher) have designed and conducted over 1,000 survey research studies for public agencies, including more than 500 studies for councils of government, transportation planning agencies, municipalities, and special districts.

## KEY FINDINGS

As noted in the *Introduction*, this study was designed to provide up-to-date and reliable information to SANDAG and RCTC regarding the commute behaviors of employees, their interest and willingness to use alternative modes for their commute, the conditions/factors that would make them more likely to use alternative modes in the future, and the amenities and improvements that they desire for Park & Ride lots to help inform the agencies' Transportation Demand Management (TDM) and Park & Ride programs. Whereas subsequent sections of this report are devoted to conveying the detailed results of the survey, in this section we attempt to “see the forest through the trees” by noting how the collective results of the survey answer some of the key questions that motivated the research.

**What are the commute characteristics of employees in the study region?** Across the study region (San Diego County and Western Riverside County), nearly nine-in-ten employees (88%) commute to a work destination outside of their home, with the average one-way commute to work being 19.77 miles and taking 33.57 minutes to complete. Among these commuters and as shown in Table 1, by far the most common *primary* mode<sup>2</sup> for their commute was driving alone in a car, truck, SUV or van (84%). Ridesharing via carpool (5%), vanpool (<1%), and on-demand rideshare services such as Uber, Lyft, or Waze Carpool (<1%) accounted for approximately 6% of commutes, while a similar percentage was represented by transit services including a local bus (2%), express bus (<1%), train (2%), and the San Diego Trolley (1%). Active transportation modes (biking, walking, jogging, running) were mentioned by just over 2% of employees as their primary method of commuting to work. All other modes were mentioned by less than 2% of respondents, collectively.

TABLE 1 PRIMARY COMMUTE MODE BY OVERALL, REGION & INTERREGIONAL COMMUTE STATUS<sup>3</sup>

	Overall	Region		Interregional Commute Status			
		San Diego County	Western Riverside County	Not Interregional Commuter	Out of San Diego County	Out of Riverside County Southbound	Out of Riverside County Other
Drive alone in a car, truck, SUV, or van	83.9	84.4	82.9	84.9	82.3	77.4	78.7
Motorcycle	0.9	1.0	0.5	0.9	0.2	1.4	0.3
Carpool (ride together 2 to 4 people)	5.1	4.6	6.1	4.6	0.6	11.0	7.9
Vanpool (ride together with 5 to 15 people)	0.7	0.5	1.1	0.3	3.5	5.9	1.4
On-demand rideshare service like Uber, Lyft, or Waze Carpool	0.6	0.7	0.4	0.7	0.2	0.9	-
Pooled rideshare service (Uber Pool, Lyft Line)	0.2	0.4	-	0.3	0.2	-	-
Zipcar	-	-	-	-	-	-	-
Taxi	0.0	0.0	-	0.0	0.6	-	-
Employer-provided shuttle/bus	0.2	0.2	0.2	0.3	0.2	-	-
Local bus	2.4	2.2	2.8	2.7	-	-	1.4
Express bus/premium bus/ Rapid/CommuterLink	0.6	0.6	0.5	0.5	-	1.6	0.9
Train: Metrolink/Metro Rail/ COASTER/Amtrak/	1.8	1.2	3.3	0.9	5.0	-	9.1
San Diego Trolley	1.2	1.8	0.0	1.4	-	0.5	-
SPRINTER	-	-	-	-	-	-	-
Other public transit	0.0	-	0.0	-	-	0.5	-
Bike	1.4	1.6	1.0	1.7	-	0.1	-
Walk/jog/run	0.8	0.6	1.2	0.9	-	-	0.2
Other	0.2	0.3	0.1	0.1	5.9	0.7	0.1
Prefer not to answer	0.1	0.1	-	0.1	1.4	-	-

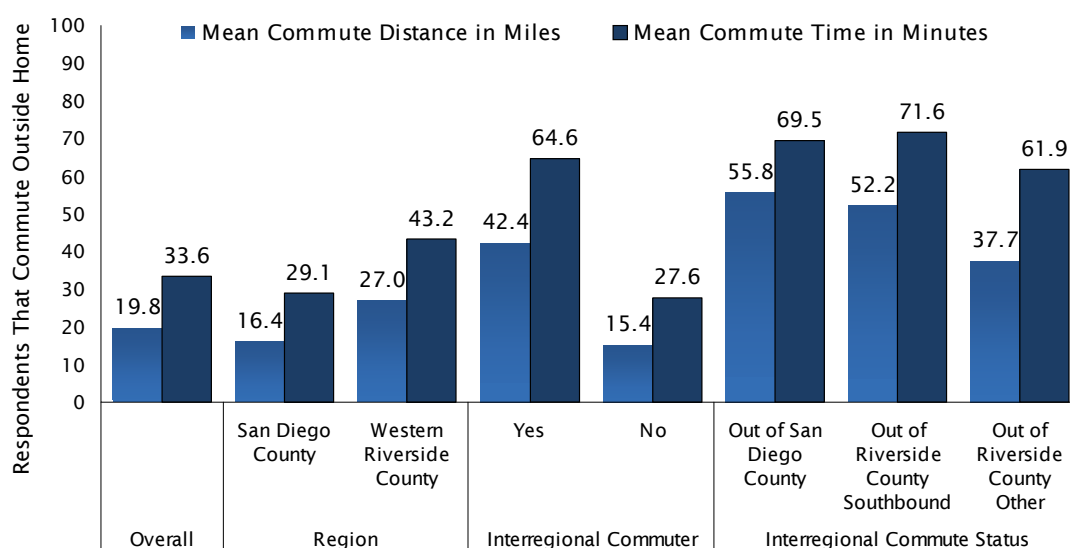
2. These percentages reflect the mode respondents indicated they use most often when commuting to work. For respondents who used multiple modes, they were asked to report on the mode they use for the longest portion of their commute.
3. Other responses primarily consisted of flying via airplane or helicopter. Additional responses included being an Uber or Lyft driver or citing multiple commute modes instead of the one used most often.

With respect to work *destination*, nearly all employees who reside in San Diego County (97%) reported that they also work in San Diego County. Less than 1% of employees commute to a work destination in Los Angeles County, Orange County, Riverside County, or other location, respectively.

The patterns are much different among employees who reside in Western Riverside County. Being an area that is rich in affordable housing (comparatively speaking) but lacking the job markets found in neighboring counties, Riverside County exports a sizeable percentage of its workforce on a daily basis to work outside of the County. Overall, just six-in-ten employees (61%) who reside in Western Riverside County commute to a work destination within the County. The remainder commute to Orange County (12%), San Bernardino County (11%), San Diego County (8%), Los Angeles County (7%), or other destinations (2%) for their work.<sup>4</sup>

**Do employees' commute characteristics vary substantially by destination?** Commute distance, duration, and primary mode choice all varied by commute destination (intra-regional or inter-regional), as well as by *type*<sup>5</sup> of inter-regional commuter. With respect to distance and duration, inter-regional travelers reported an average one-way commute distance nearly three times as long as their intra-regional counterparts (42.4 miles vs. 15.4 miles), and more than twice as long in terms of average duration (64.6 minutes vs. 27.6 minutes). Among inter-regional commuters, those traveling into/out of San Diego County reported the longest average trip lengths and durations (see Figure 3).

FIGURE 3 MEAN COMMUTE DISTANCE & TIME



4. It is also worth noting that the percentages reported in this section for interregional commuters include teleworkers, which means that—among those who commute outside of the home—the prevalence of interregional commuting is somewhat higher.
5. For this study, three types of interregional commuters were of interest: those who reside in San Diego County and commute out of the County for their employment, those who reside in Western Riverside County and commute southbound out of the County for their employment, and those who live in Western Riverside County and commute out of the County in a direction 'other' than southbound.

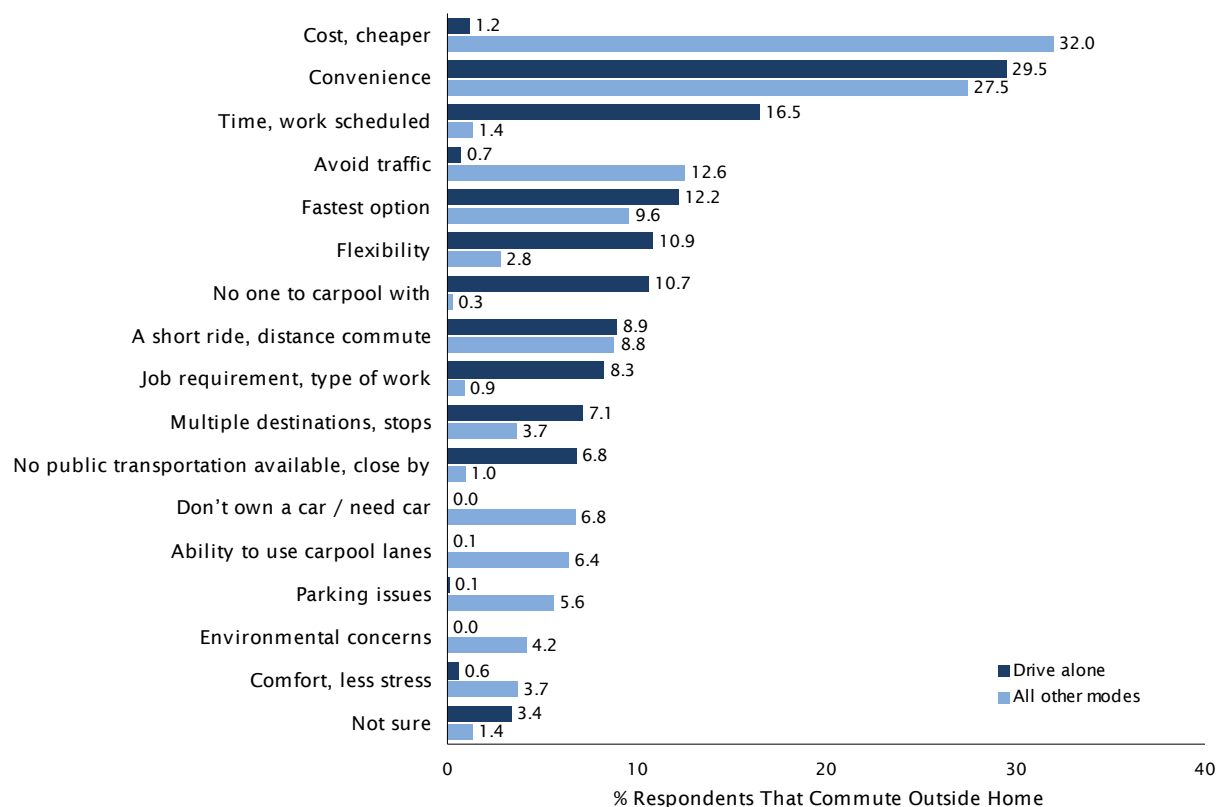


In addition to enduring longer commutes in terms of both time and distance, interregional commuters were also more likely than intraregional commuters to report using alternative modes as their primary method of traveling to/from work. As previously shown in Table 1, interregional commuters who reside in Western Riverside County and commute south into/through San Diego County were the most likely to report carpooling (11%), vanpooling (6%), and using an express bus (2%) for their commute. Their counterparts who commute out of Western Riverside County west or north were the most likely to report using a train (9%) for their commute, and also exhibited comparatively high rates of carpooling (8%). San Diego-based interregional commuters, on the other hand, reported moderately high rates for vanpooling (4%), using a train (5%), and 'other' modes not represented (6%) for their commute.

For more details on the commute characteristics of those who live and work in the study region, see *Commute Status* on page 21.

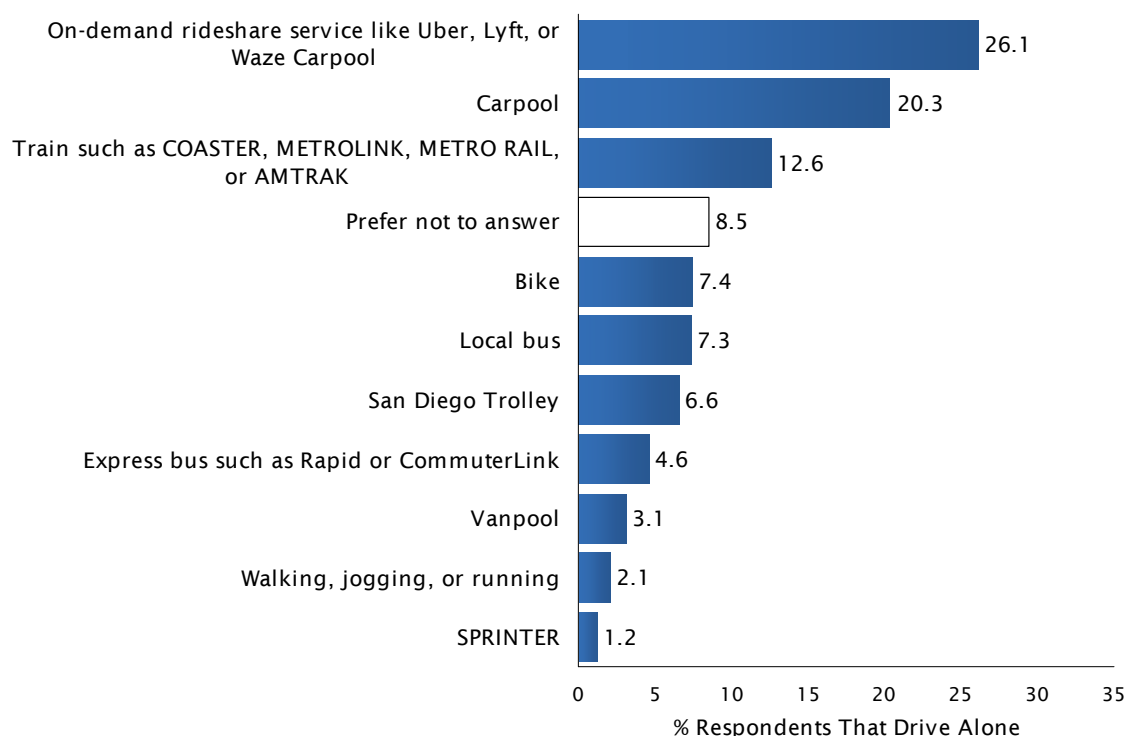
**Why do commuters select a particular primary mode for their commute?** Among those who drive alone to work in the study region, convenience was the most common reason mentioned for why they select their primary commute mode (30%), followed by timing/scheduling for their work (17%), it is the fastest option (12%), and it provides flexibility (11%). The reasons offered by those who use alternative modes were generally quite different, with 32% mentioning cost/being cheaper as the primary reason they use an alternative mode for their commute. Other top reasons mentioned for using an alternative mode for their commute included convenience (28%), avoiding traffic (13%), and that it is the fastest option (10%).

**FIGURE 4 MOST IMPORTANT FACTORS IN CHOOSING PRIMARY COMMUTE MODE BY DRIVE ALONE VS. ALL OTHERS**



**Which alternative modes would work best for drive-alone commuters?** When employees who currently drive alone to work were asked to choose an alternative mode that would work *best* for their commute, one-quarter (26%) preferred an on-demand rideshare service like Uber, Lyft or Waze Carpool, one-in-five (20%) preferred a traditional carpool, and 3% selected vanpool. Nearly one-third of respondents selected a form of public transit including a train (13%), local bus (7%), San Diego Trolley (7%), express bus such as Rapid or CommuterLink (5%), and SPRINTER (1%). Active transportation modes including a bike (7%) and walking, jogging or running (2%) were preferred by nearly one-in-ten solo drivers as their preferred alternative commute method.

**FIGURE 5 PREFERRED ALTERNATIVE COMMUTE MODE AMONG THOSE WHO DRIVE ALONE<sup>6</sup>**



Here again, however, we see important differences between intraregional and interregional commuters (see Table 2 on the next page). At a general level, interregional commuters were much more likely than intraregional commuters to prefer using a train, carpooling, and vanpooling for their commute. This general pattern, however, does not hold across all types of interregional commuters. Western Riverside County residents who commute into San Diego County for their work showed a distinct preference for carpooling and vanpooling, whereas residents of Western Riverside County who commute to other areas (typically Orange, San Bernardino, and Los Angeles counties) were most likely to prefer using a train. San Diego County residents who commute out of the County for their jobs, meanwhile, preferred using a train or on-demand rideshare services.

6. Pooled vs. non-pooled on-demand rideshare services were not differentiated at Question 10.

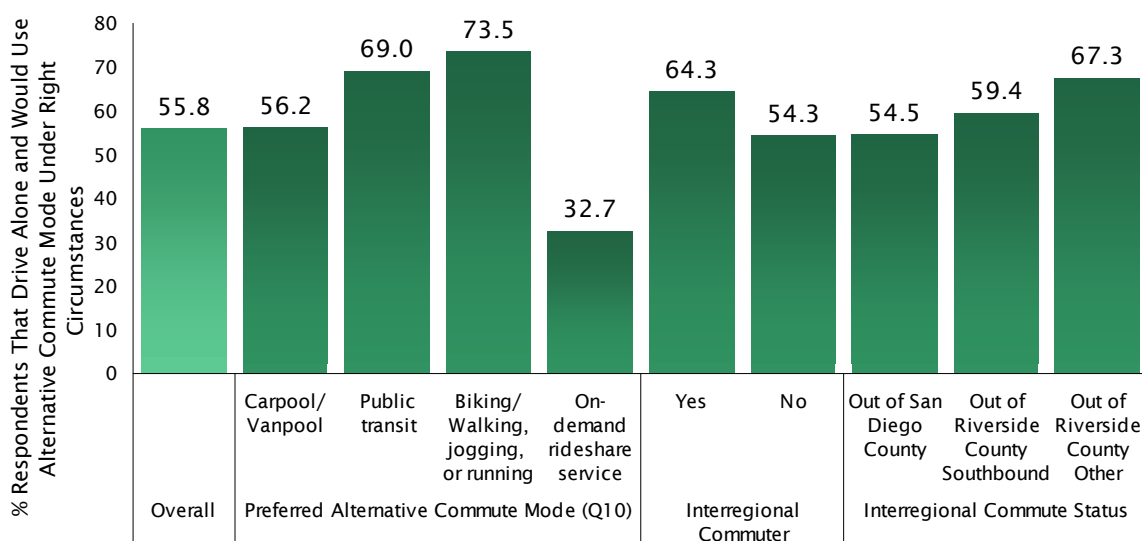
**TABLE 2 PREFERRED ALTERNATIVE COMMUTE MODE AMONG THOSE WHO DRIVE ALONE BY REGION, INTERREGIONAL COMMUTER & INTERREGIONAL COMMUTE STATUS**

	Region		Interregional Commuter		Interregional Commute Status		
	San Diego County	Western Riverside County	Yes	No	Out of San Diego County	Out of Riverside County Southbound	Out of Riverside County Other
On-demand rideshare service like Uber, Lyft, or Waze Carpool	28.8	20.3	14.7	28.2	24.3	10.4	14.0
Carpool	18.8	23.7	23.1	19.8	11.2	32.0	23.2
Train such as COASTER, METROLINK, METRO RAIL, or AMTRAK	8.2	22.2	37.1	8.2	33.9	19.1	42.2
Prefer not to answer	7.4	10.9	11.7	7.9	13.9	11.7	11.3
Bike	8.7	4.7	0.9	8.6	0.7	0.4	1.0
Local bus	7.3	7.4	0.6	8.6	1.7	0.2	0.4
San Diego Trolley	9.4	0.4	0.8	7.6	2.6	1.7	0.2
Express bus such as Rapid or CommuterLink	4.8	4.1	3.5	4.8	5.5	4.7	2.8
Vanpool	2.7	4.0	6.0	2.6	1.3	17.1	4.2
Walking, jogging, or running	2.2	1.9	0.9	2.3	5.0	0.3	0.3
SPRINTER	1.6	0.4	0.7	1.3	-	2.4	0.4

### What percentage of drive-alone commuters are willing to consider an alternative mode?

Employees who currently drive alone to work were asked to choose which statement best matches their overall attitude about using their preferred alternative mode at least once per week to commute to work: *I would only do it if I had no other options*, or *I would do it under the right circumstances*. Because the second statement allows the respondent to define what they consider the *right circumstances*, this question is a useful litmus test for identifying employees who are not in the potential market for their preferred alternative mode because they are unwilling to use it at least once per week for their work commute even under the right circumstances.

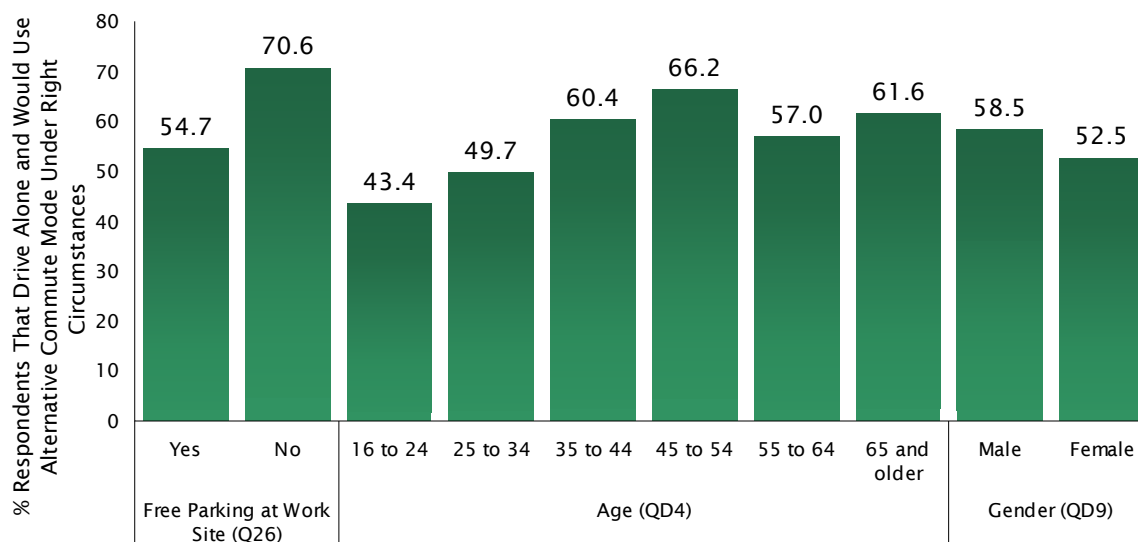
**FIGURE 6 WOULD USE ALTERNATIVE MODE AT LEAST ONCE PER WEEK UNDER RIGHT CIRCUMSTANCES BY OVERALL, PREFERRED ALTERNATIVE COMMUTE MODE, INTERREGIONAL COMMUTER & INTERREGIONAL COMMUTE STATUS AMONG THOSE THAT DRIVE ALONE**



Overall, 56% of employees who reside in the study region and currently drive alone to work indicated that they would commute to work at least once per week using their preferred alternative mode under the right circumstances, whereas 44% were unwilling to do so unless they had no other options. In general, a willingness to use an alternative mode for their work commute at least once per week was highest for those who preferred active transportation and public transit, interregional commuters, those who reside in Western Riverside County and commute out of the

County for their work in a direction other than southbound, those who work at a location that does not have free parking available, employees over the age of 34, and males (see Figures 6 & 7).

**FIGURE 7 WOULD USE ALTERNATIVE MODE AT LEAST ONCE PER WEEK UNDER RIGHT CIRCUMSTANCES BY FREE PARKING AT WORK SITE, AGE & GENDER**



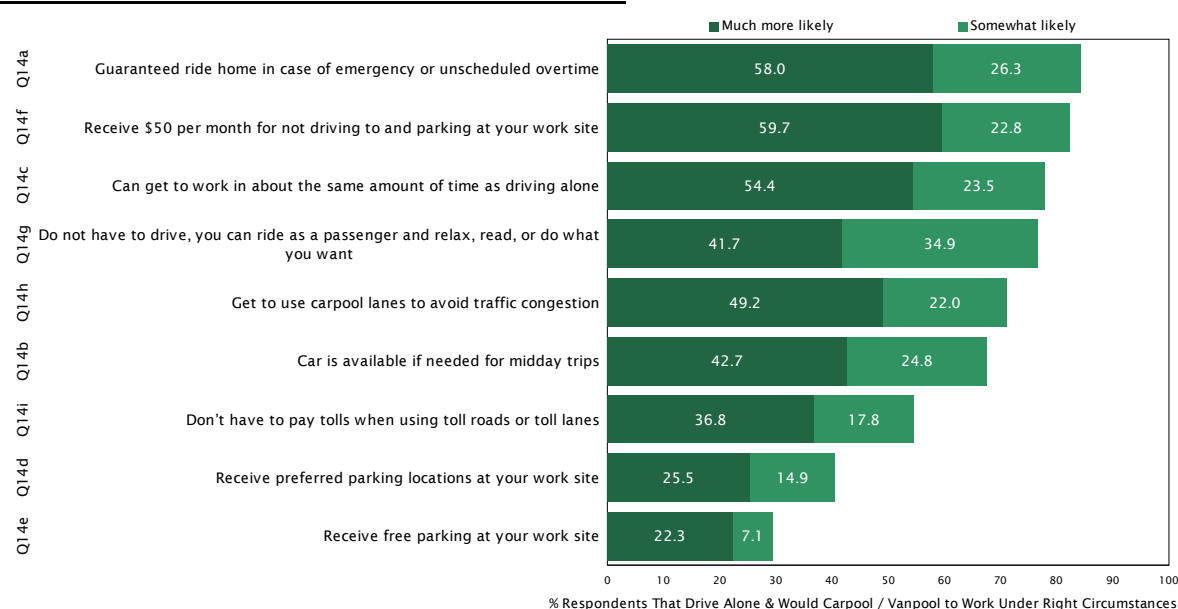
**What factors would make drive alone commuters more likely to use alternative modes?** In terms of what would incentivize drive-alone commuters to make the switch to an alternative mode for their work commute at least one day per week, the answers varied depending on their preferred mode.

Among those who indicated **carpooling** or **vanpooling** was their preferred alternative mode, the most impactful factors were: finding people to travel with that have the same schedule/having people they know to carpool with, a guaranteed ride home in case of emergencies or unscheduled overtime, a \$50 per month incentive for not driving to and parking at your work site, and being able to get to work in about the same amount of time as driving alone were viewed as the conditions most likely to increase their use of carpooling/vanpooling for their work commute (see Figure 8).

When compared to commuters in general, those who were identified as having the highest potential for conversion to carpooling or vanpooling for their work commute at least once per week (Top Targets) were at least 5% *more* likely to reside in Western Riverside County, have three or more vehicles in their household, have five or more individuals in their household, be female, and work for a government agency (see Table 3).<sup>7</sup>

7. Only those variables for which there was a difference of 5% or more in the subgroup results when comparing all commuters with Top Targets are presented in Tables 3-7. Industry and occupation are not shown due to small sample sizes within each industry or occupation group.

**FIGURE 8 FACTORS INFLUENCING USE OF CARPOOL/VANPOOL TO WORK AT LEAST ONCE PER WEEK AMONG THOSE THAT DRIVE ALONE**

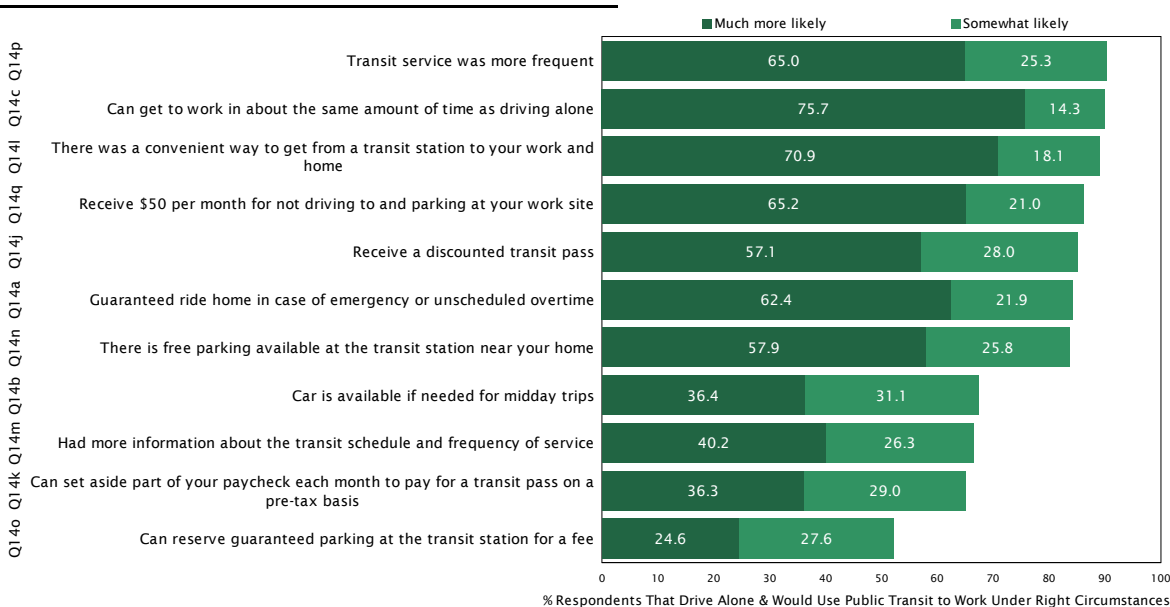


**TABLE 3 DEMOGRAPHIC COMPARISON OF COMMUTERS AND CARPOOL / VANPOOL ALTERNATIVE MODE TARGETS**

	All Commuters	Carpool/ Vanpool Top Targets
<b>Region</b>		
San Diego County	67.9	59.9
Western Riverside County	32.1	40.1
<b>Working Vehicles in Hsld (QD1)</b>		
One	16.7	11.2
Two	38.9	39.7
Three or more	41.0	47.4
<b>Number of People in Hsld (QD2)</b>		
One	11.7	6.9
Two	30.0	24.4
Three	19.1	22.3
Four	19.4	20.4
Five or more	16.8	23.2
<b>Number of People 16+ in Hsld (QD3)</b>		
One	14.2	9.1
Two	47.0	45.6
Three	18.3	23.3
Four	10.5	7.4
Five or more	6.5	11.8
<b>Gender (QD9)</b>		
Male	50.6	42.4
Female	46.9	56.1
<b>Business Type (QD8)</b>		
Private sector	53.5	42.7
Gov agency	22.1	32.8
Not-for-profit org	14.0	13.1

Drive-alone commuters who preferred **public transit** as their alternative mode rated having stations/stops closer to their work and/or home, more frequent transit service, being able to get to work in about the same amount of time as driving alone, and having a convenient way to get from a transit station to their work and home as being the changes most likely to increase their use of public transit for their work commute (see Figure 9).

**FIGURE 9 FACTORS INFLUENCING USE OF PUBLIC TRANSIT TO WORK AT LEAST ONCE PER WEEK AMONG THOSE THAT DRIVE ALONE**



**TABLE 4 DEMOGRAPHIC COMPARISON OF COMMUTERS AND PUBLIC TRANSIT ALTERNATIVE MODE TARGETS**

	All Commuters	Public Transit Top Targets
<b>Region</b>		
San Diego County	67.9	59.4
Western Riverside County	32.1	40.6
<b>Interregional Commuter</b>		
Yes	16.3	27.4
No	83.7	72.6
<b>Interregional Commute Status</b>		
Out of San Diego County	2.1	2.9
Out of Riverside County Southbound	2.9	4.0
Out of Riverside County Other	11.3	20.6
<b>Commute Duration in Minutes (Q7)</b>		
Less than 10	6.4	1.5
10 to 19	23.8	15.9
20 to 29	21.1	18.5
30 to 44	20.2	22.7
45 to 60	17.7	24.7
More than 60	10.2	16.4
<b>Working Vehicles in Hsld (QD1)</b>		
One	16.7	16.9
Two	38.9	45.8
Three or more	41.0	36.3
<b>Age (QD4)</b>		
16 to 24	14.7	7.4
25 to 34	25.4	26.1
35 to 44	21.0	22.6
45 to 54	19.7	25.6
55 to 64	13.2	12.7
65 and older	3.1	3.2
<b>Business Type (QD8)</b>		
Private sector	53.5	55.3
Gov agency	22.1	20.1
Not-for-profit org	14.0	19.4

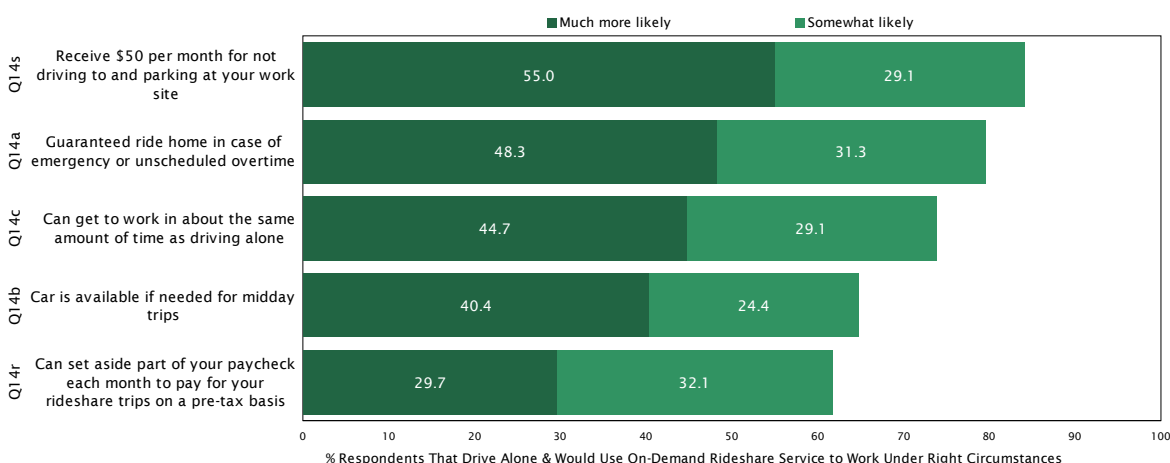
When compared to commuters in general, those who were identified as having the highest potential for conversion to public transit for their work commute at least once per week (Top Targets) were at least 5% *more* likely to reside in Western Riverside County, be an interregional commuter, commute out of Riverside County for the work in a direction other than southbound, have commute durations in excess of 44 minutes, have two working vehicles in the home, be between 45 and 54 years of age, and work for a not-for-profit organization (see Table 4).

Solo drivers who indicated that their preferred alternative mode for their work commute was an **on-demand rideshare** service like Uber, Lyft, or Waze Carpool were cost sensitive, citing cheaper prices/discounts for service and a \$50 per month incentive for not driving to and parking at their work site as being the changes most likely to increase their use of an on-demand



rideshare service for their work commute, followed by a guaranteed ride home in case of emergencies or unscheduled overtime, and being able to get to work in about the same amount of time as driving alone (see Figure 10).

**FIGURE 10 FACTORS INFLUENCING USE OF ON-DEMAND RIDESHARE SERVICE TO WORK AT LEAST ONCE PER WEEK AMONG THOSE THAT DRIVE ALONE**



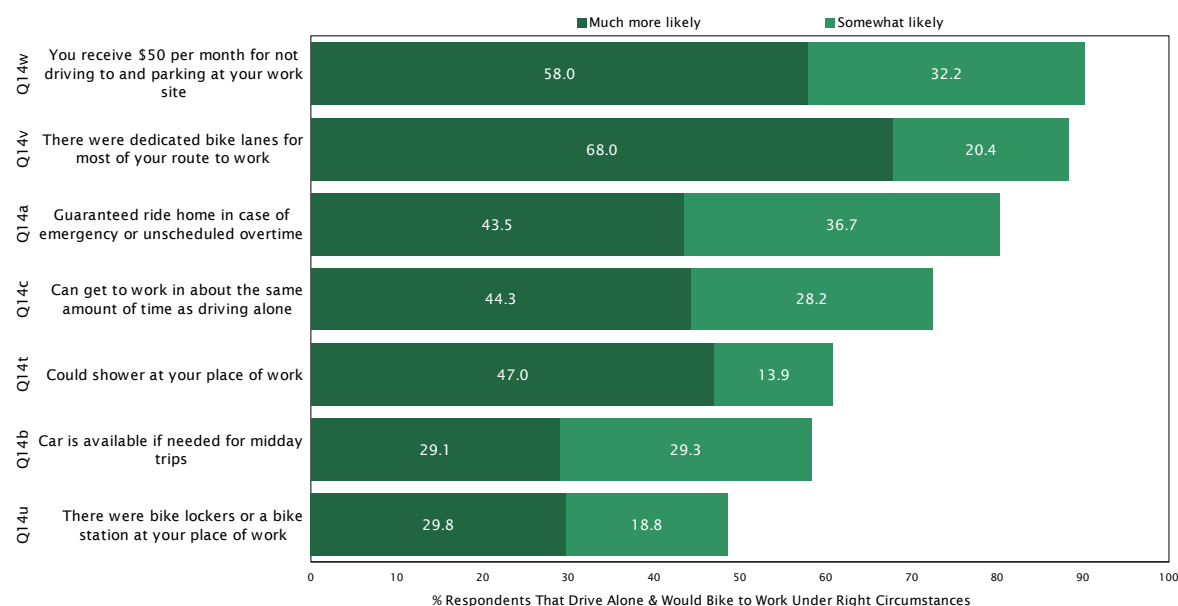
**TABLE 5 DEMOGRAPHIC COMPARISON OF COMMUTERS AND RIDESHARE ALTERNATIVE MODE TARGETS**

	All Commuters	Rideshare Top Targets
<b>Region</b>		
San Diego County	67.9	78.8
Western Riverside County	32.1	21.2
<b>Interregional Commuter</b>		
Yes	16.3	10.1
No	83.7	89.9
<b>Commute Duration in Minutes (Q7)</b>		
Less than 10	6.4	4.1
10 to 19	23.8	22.4
20 to 29	21.1	28.6
30 to 44	20.2	24.3
45 to 60	17.7	10.3
More than 60	10.2	9.4
<b>Working Vehicles in Hsld (QD1)</b>		
One	16.7	18.0
Two	38.9	45.2
Three or more	41.0	36.3
<b>Number of People 16+ in Hsld (QD3)</b>		
One	14.2	12.8
Two	47.0	58.2
Three	18.3	18.6
Four	10.5	4.2
Five or more	6.5	2.5
<b>Age (QD4)</b>		
16 to 24	14.7	0.8
25 to 34	25.4	28.1
35 to 44	21.0	34.5
45 to 54	19.7	15.2
55 to 64	13.2	13.9
65 and older	3.1	3.3

When compared to commuters in general, those who were identified as having the highest potential for conversion to an on-demand rideshare service for their work commute at least once per week (Top Targets) were at least 5% *more* likely to reside in San Diego County, not be an interregional commuter, have a commute duration of 20 to 29 minutes, have two working vehicles and two individuals of driving age in the household, and be between 35 and 44 years of age (see Table 5).

With respect to *active transportation*, those who considered **biking** to work as their preferred alternative mode were most apt to cite a \$50 per month incentive for not driving to and parking at their work site, better/safer roads and dedicated bike lines for most of their route to work, and a guaranteed ride home in case of emergencies or unscheduled overtime to be the conditions most likely to get them to use that alternative mode for their work commute (see Figure 11). Those who preferred to **walk, jog, or run** to work as their alternative commute mode found a \$50 per month incentive for not driving to and parking at their work site to be the condition most likely to get them to use that alternative mode for their work commute, followed by a guaranteed ride home in case of emergencies or unscheduled overtime, and being able to get to work in about the same amount of time as driving alone (see Figure 12).

**FIGURE 11 FACTORS INFLUENCING BIKING TO WORK AT LEAST ONCE PER WEEK AMONG THOSE THAT DRIVE ALONE**



**FIGURE 12 FACTORS INFLUENCING WALKING, JOGGING, OR RUNNING TO WORK AT LEAST ONCE PER WEEK AMONG THOSE THAT DRIVE ALONE**

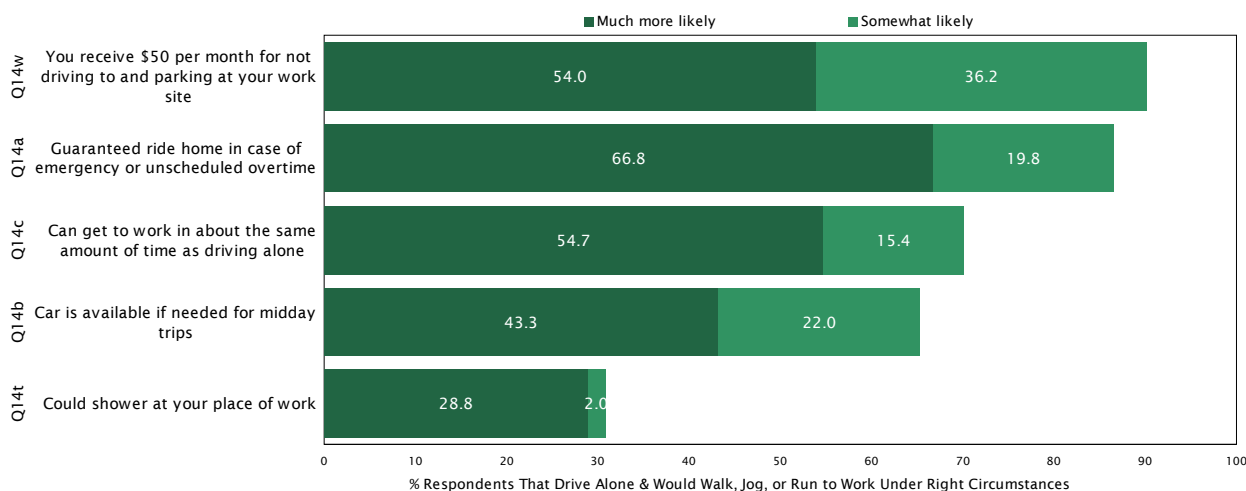


TABLE 6 DEMOGRAPHIC COMPARISON OF COMMUTERS AND ACTIVE TRANSPORTATION ALTERNATIVE MODE TARGETS

	All Commuters	Active Top Targets
<b>Region</b>		
San Diego County	67.9	80.9
Western Riverside County	32.1	19.1
<b>Interregional Commuter</b>		
Yes	16.3	2.0
No	83.7	98.0
<b>Commute Distance in Miles (Q6)</b>		
Less than 5	16.9	64.4
5 or more	82.5	35.6
<b>Commute Duration in Minutes (Q7)</b>		
Less than 10	6.4	38.5
10 to 19	23.8	42.3
20 to 29	21.1	9.3
30 to 44	20.2	7.3
45 to 60	17.7	2.5
More than 60	10.2	0.1
<b>Working Vehicles in Hsld (QD1)</b>		
One	16.7	14.1
Two	38.9	32.6
Three or more	41.0	53.3
<b>Number of People in Hsld (QD2)</b>		
One	11.7	13.8
Two	30.0	26.5
Three	19.1	14.8
Four	19.4	17.2
Five or more	16.8	23.4
<b>Age (QD4)</b>		
16 to 24	14.7	25.8
25 to 34	25.4	19.4
35 to 44	21.0	23.6
45 to 54	19.7	20.8
55 to 64	13.2	8.3
65 and older	3.1	0.9
<b>Gender (QD9)</b>		
Male	50.6	63.7
Female	46.9	35.2
<b>Employees at Primary Workplace (QD7)</b>		
1 to 4	7.5	6.4
5 to 9	7.5	8.6
10 to 19	11.3	23.7
20 to 49	14.8	21.5
50 to 99	12.2	10.5
100 or more	40.5	27.4
<b>Business Type (QD8)</b>		
Private sector	53.5	61.6
Gov agency	22.1	19.8
Not-for-profit org	14.0	11.4

When compared to commuters in general, those who were identified as having the highest potential for conversion to active transportation<sup>8</sup> for their work commute at least once per week (Top Targets) were at least 5% *more* likely to reside in San Diego County, not be an interregional commuter, have commute distances of less than 5 miles and durations of less than 20 minutes, have at least three working vehicles in their household, have at least five members of their household, be under the age of 25, male, work at mid-sized companies (20 to 99 employees), and work in the private sector.

For more on the size and demographic make-up of the potential markets for alternative modes among commuters who currently drive solo, see *Market Target Summary* on page 60 and *Demographic Comparison of Commuters and Market Targets* on page 63.

**How frequently are commuters using Park & Ride lots?** Although 16% of commuters in the study area primarily use an alternative mode for their work commute, it appears that comparatively few are making regular use of Park & Ride lots for their commute.

Among all commuters, approximately 3% indicated they used a local Park & Ride lot weekly during the preceding 12 month period, 2% one to three times per month, 3% once every two to three months, and 9% estimated they used a local Park & Ride lot one to three times during the preceding year. The remainder (83%) offered that they did not use a local Park & Ride lot during the period of interest (see Figure 13). Even among those subgroups that expressed the highest frequency of using Park & Ride lots (those who use carpool and public transit, and interregional commuters), fewer than one-in-five reported that they use a local Park & Ride lot on a weekly basis (see Figure 14).

8. Due to the comparatively small percentage of commuters who preferred a form of active transportation for their work commute, all forms of active transportation were combined when identifying market targets.

FIGURE 13 USE OF LOCAL PARK &amp; RIDE LOT IN PAST YEAR AMONG THOSE WHO COMMUTE OUTSIDE HOME

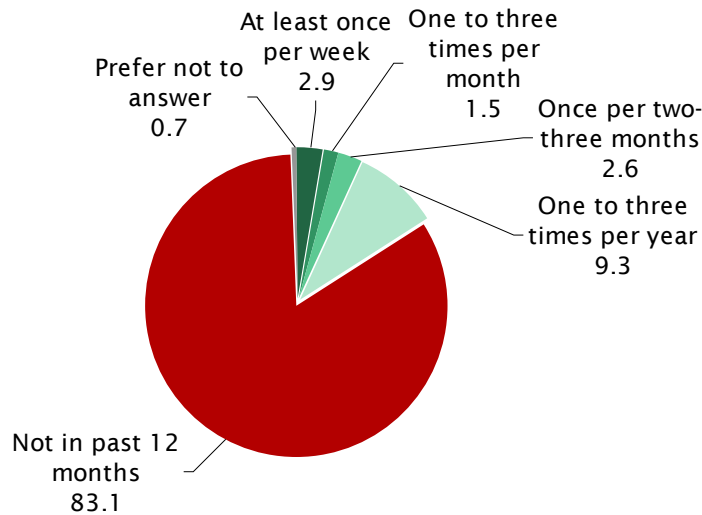
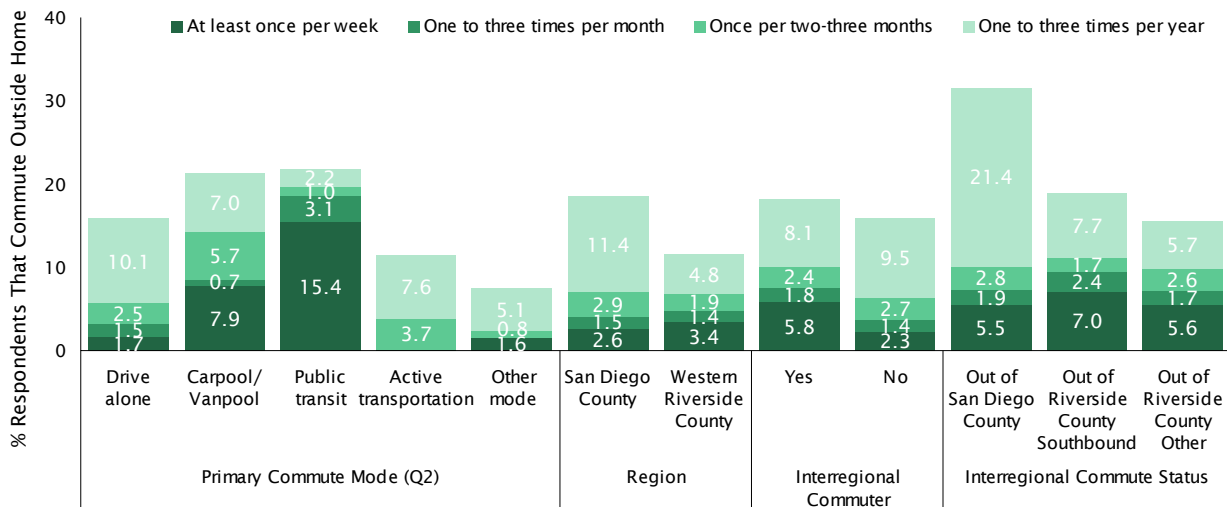
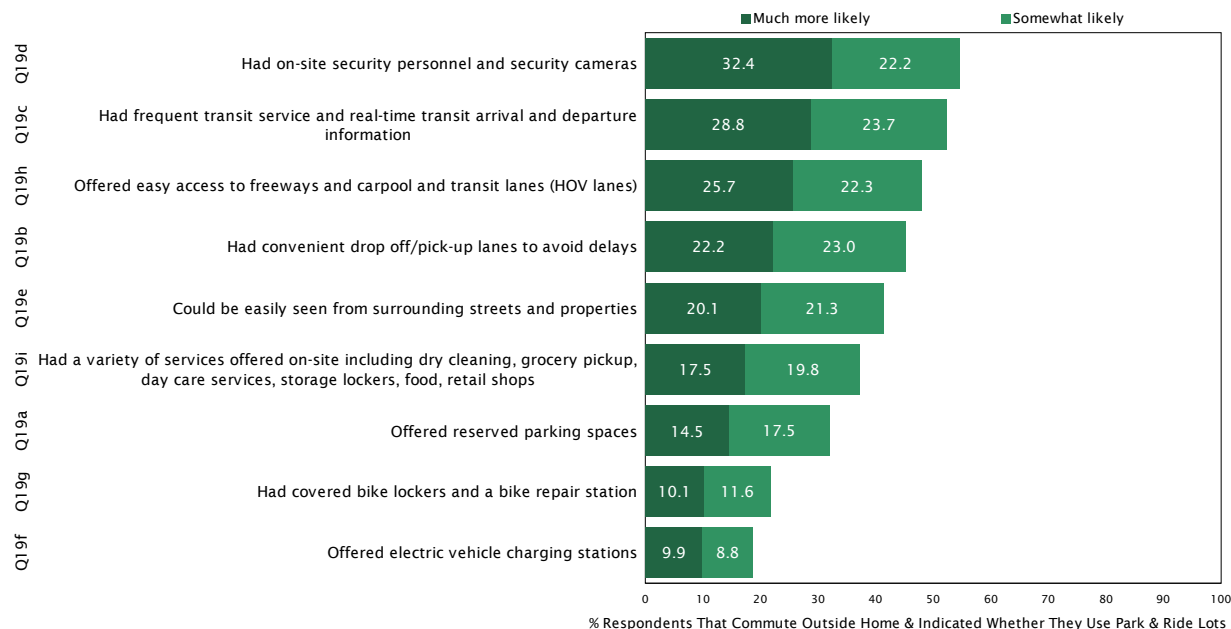


FIGURE 14 USE OF LOCAL PARK &amp; RIDE LOT IN PAST YEAR AMONG THOSE WHO COMMUTE OUTSIDE HOME BY PRIMARY COMMUTE MODE, REGION, INTERREGIONAL COMMUTER &amp; INTERREGIONAL COMMUTE STATUS



**What conditions would increase commuters' use of Park & Ride lots?** Although the most common reasons cited for not using a Park & Ride lot were no need (30%) and no particular reason (26%), the study found that offering amenities and improvements at Park & Ride lots was attractive to some commuters. Having on-site security personnel and security cameras, frequent transit service and real-time transit arrival and departure information, and easy access to free-ways and carpool/transit lanes were the features that respondents indicated were most likely to positively influence their use of Park & Ride lots for their work commute (see Figure 15). At least one-third of respondents also indicated that having convenient drop-off/pick-up lanes to avoid delays, that the lot can be easily seen from surrounding streets and properties, and offering a variety of on-site services including dry cleaning, grocery pick-up, day care services, storage lockers, and food and retail shops would make them at least somewhat more likely to use a Park & Ride lot in the future for their commute.

FIGURE 15 INFLUENCE OF FACTORS IN LIKELIHOOD OF USING LOCAL PARK &amp; RIDE LOT FOR WORK COMMUTE



At the other end of the spectrum, fewer respondents found the presence of electric vehicle charging stations, covered bike lockers and a repair station, and the ability to reserve parking as amenities that would make them more likely to use a Park & Ride lot for their work commute.

**Are there any distinguishing characteristics of those most likely to use Park & Ride lots for their commute?** Based on how drive-alone commuters responded to potential amenities and improvements that could be incorporated into Park & Ride lots, as well as their own suggested improvements, the most promising candidates for using Park & Ride lots were most often found among interregional commuters, those who reside in Western Riverside County and commute to a destination outside of the County in a direction other than southbound, commuters who have one-way commutes exceeding 60 minutes, those living in larger households (4+ people) with three or more vehicles, younger employees (under the age of 35), and individuals who work for a private or not-for-profit organization (see Table 7).

For more on the size and demographic make-up of the potential market for Park & Ride lots, see *Market Target Summary* on page 74 and *Demographic Comparison of Commuters and Market Targets* on page 75.

TABLE 7 DEMOGRAPHIC COMPARISON OF COMMUTERS AND PARK &amp; RIDE TOP TARGETS

	All Commuters	Top Targets
Interregional Commuter		
Yes	16.3	21.9
No	83.7	78.1
Interregional Commute Status		
Out of San Diego County	2.1	2.5
Out of Riverside County Southbound	2.9	2.0
Out of Riverside County Other	11.3	17.4
Commute Duration in Minutes (Q7)		
Less than 10	6.4	5.9
10 to 19	23.8	26.6
20 to 29	21.1	17.1
30 to 44	20.2	19.1
45 to 60	17.7	15.5
More than 60	10.2	15.9
Working Vehicles in Hsld (QD1)		
None	1.5	1.2
One	16.7	16.2
Two	38.9	30.5
Three or more	41.0	51.5
Number of People in Hsld (QD2)		
One	11.7	6.3
Two	30.0	21.9
Three	19.1	19.3
Four	19.4	29.3
Five or more	16.8	20.5
Number of People 16+ in Hsld (QD3)		
One	14.2	11.0
Two	47.0	33.4
Three	18.3	21.3
Four	10.5	19.7
Five or more	6.5	12.0
Age (QD4)		
16 to 24	14.7	21.1
25 to 34	25.4	29.9
35 to 44	21.0	20.3
45 to 54	19.7	18.0
55 to 64	13.2	7.8
65 and older	3.1	1.4
Business Type (QD8)		
Private sector	53.5	58.7
Gov agency	22.1	18.3
Not-for-profit org	14.0	21.6

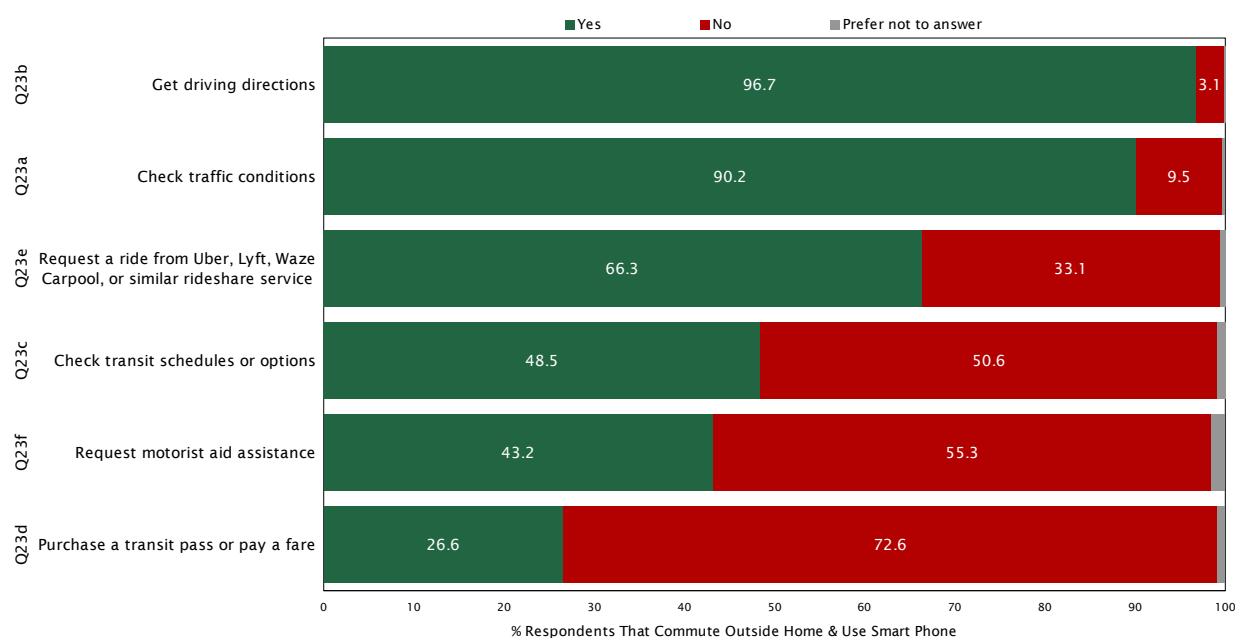
**How are commuters using their smart phones for travel-related purposes?** The advent of the smart phone and mobility apps has had a substantial impact on travel choices and travel behaviors in recent years. Although Uber and Lyft are perhaps the most prominent examples of how a smart phone app can transform how people travel, there are dozens of widely-used mobility apps, vehicle connectivity apps, smart parking apps, and courier network services apps that have fundamentally changed the way people plan for trips, get real-time transportation information, and connect with on-demand vehicle services. Moreover, as impactful as these apps have been to date, the potential for change is arguably even greater over the next decade with contin-



ued advances in technology, real-time data sharing, multimodal aggregators, and public-private partnerships.<sup>9</sup>

The smart phone is nearly ubiquitous among commuters in the study region, with 98% reporting that they currently utilize a smart phone.<sup>10</sup> At least nine-in-ten commuters indicated that they use their smart phone to get driving directions (97%) and check traffic conditions (90%), and nearly two-thirds (66%) reported that they occasionally use their phone to request a ride from Uber, Lyft, Waze Carpool, or a similar rideshare service (see Figure 16). Although less common, many commuters also reported using their smart phone to check transit schedules or options (49%), request motorist aid assistance (43%), and purchase a transit pass or pay a fare (27%).

**FIGURE 16 SPECIFIC USES FOR SMART PHONE**



Given that many commuters are already using their smart phone to enhance their travel experience, it is not surprising that the vast majority also expressed interest in a user-friendly smart phone app that would allow them to plan a trip, book the trip, and pay for the trip on *any* transportation mode or service. Overall, 41% of commuters stated that they would be very interested in this full-featured transportation app, 44% were somewhat interested, whereas just 14% expressed no interest in the app. Interest in the user-friendly smart phone app was widespread, with at least two-thirds of respondents in every identified commuter subgroup expressing interest in the app. For more details, see *Transportation Information & Smart Phone Apps* on page 78.

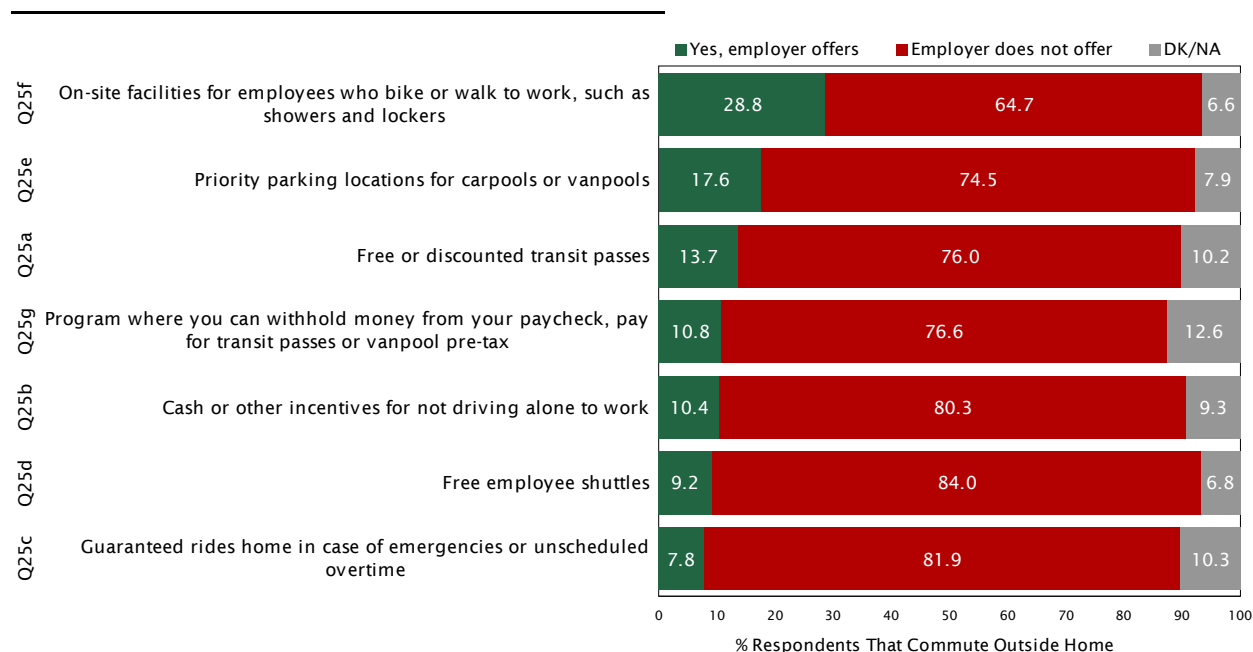
9. For a detailed review of this topic, see *Smartphone Applications to Influence Travel Choices: Practices and Policies*, U.S. Department of Transportation Publication # FHWA-HOP-16-023: April 2016.

10. Even among the subgroup with the lowest rate of smart phone usage (seniors), approximately 9-in-10 commuters indicated they currently use a smart phone.

**To what extent are employers offering commute benefits?** Employer-offered commute benefit programs encourage the use of alternative modes by offering monetary and other types of incentives. For the employer, such programs can help boost employee morale, job satisfaction, and retention by reducing the burden of the work commute for employees. Employer-offered commute benefits can also be influential in decreasing motor vehicle travel and traffic congestion, reducing emissions of greenhouse gases and other pollutants, and ultimately help protect the climate and public health.

Given the above, it was of interest to develop an up-to-date understanding of the extent to which employers are offering commute benefits, as well as the type of benefits being offered. Unfortunately, the dominant response for every commute benefit tested in the survey was that it is *not* offered by their employer (see Figure 17).

**FIGURE 17 EMPLOYER BENEFITS OFFERED**



Among the most commonly offered benefits were on-site facilities for employees who bike or walk to work, such as showers and lockers (29%), priority parking locations for carpools and vanpools (18%), and free or discounted transit passes (14%). Approximately one-in-ten commuters reported that their employer offers the opportunity for employees to purchase transit passes or pay for vanpool services pre-tax (11%), cash or other incentives for not driving alone to work (10%), free employee shuttles (9%), and a guaranteed ride home in case of emergencies or unscheduled overtime (8%).

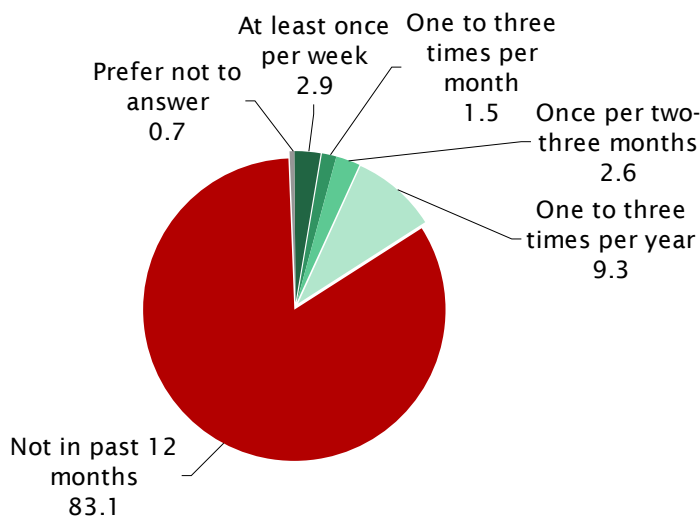
## PARK & RIDE

Having profiled commuters' willingness to use alternative modes for their work commute, the survey transitioned to the topic of Park & Ride lots. Specifically, commuters were asked to describe their recent experiences using a local Park & Ride lot, their reasons for not using a Park & Ride lot (if applicable), and the amenities or improvements that could be made to Park & Ride lots that would increase their likelihood of use.

**USE OF LOCAL PARK & RIDE LOT** The first question in this series simply asked respondents to describe the frequency with which they have used a local Park & Ride lot in the 12 months preceding the interview. As shown in Figure 80, more than eight-in-ten respondents (83%) indicated they had not used a Park & Ride lot during the period of interest. Approximately 3% indicated they used a local Park & Ride lot weekly, 2% one to three times per month, 3% once every two to three months, and 9% estimated they used a local Park & Ride lot one to three times during the past 12 months.

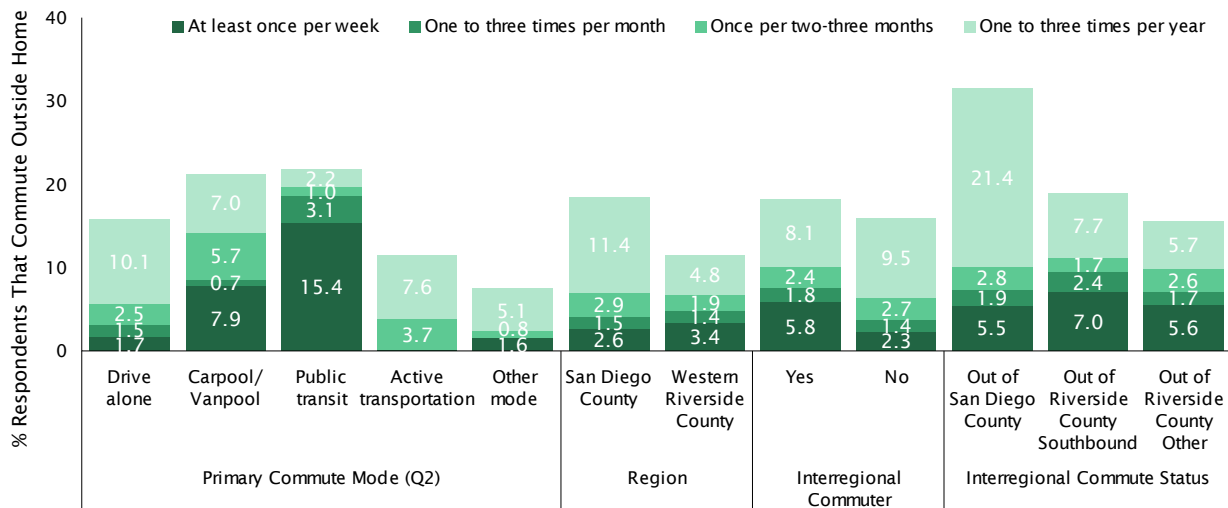
**Question 16** *Have you used a local Park & Ride lot in the past 12 months? If yes, ask: How often have you used a local Park & Ride lot during this period?*

**FIGURE 80 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR AMONG THOSE WHO COMMUTE OUTSIDE HOME**

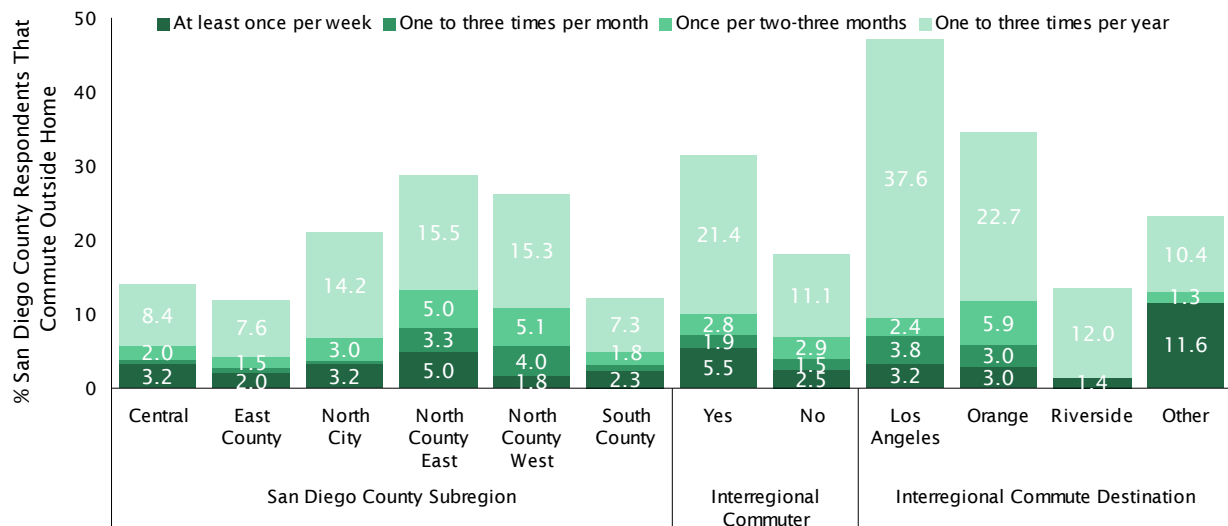


The following figures show how frequency of using a local Park & Ride lot varied among sub-groups of commuters in the study region overall (Figure 81), among San Diego County residents who commute to work (Figures 82 & 83), and among commuters who reside in Western Riverside County (Figures 84 & 85). Among all commuters in the study, it is worth noting that those who primarily commute to work by carpool/vanpool or public transit, as well as interregional commuters, were the most likely to report using a Park & Ride lot on a weekly basis.

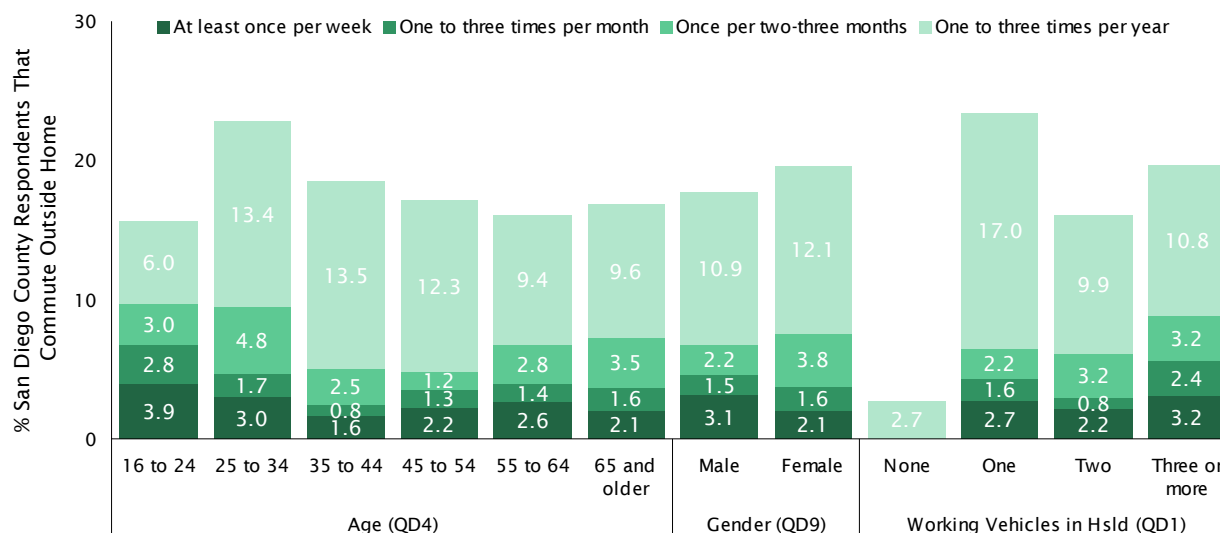
**FIGURE 81 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR AMONG THOSE WHO COMMUTE OUTSIDE HOME BY PRIMARY COMMUTE MODE, REGION, INTERREGIONAL COMMUTER & INTERREGIONAL COMMUTE STATUS**



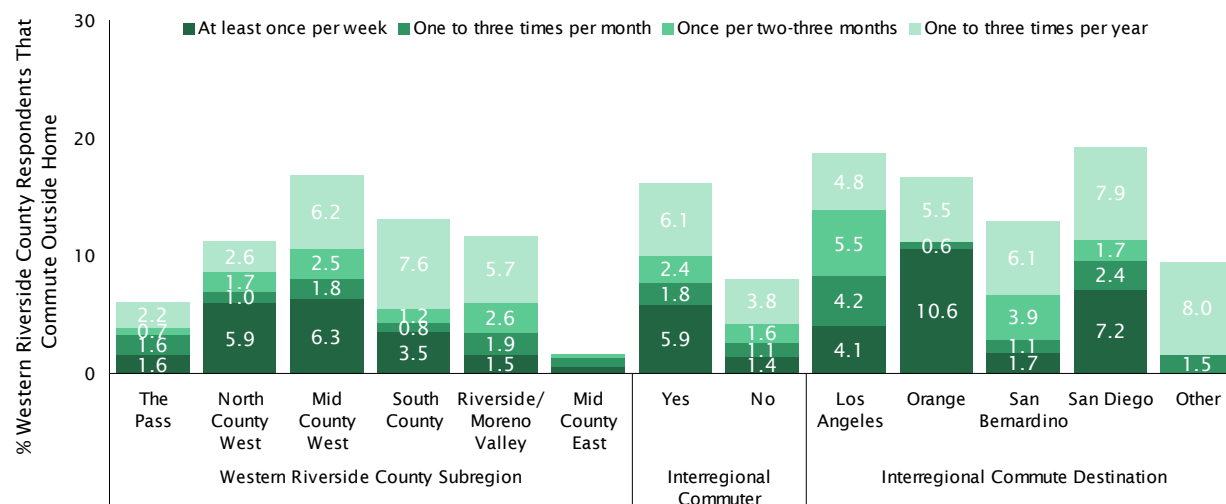
**FIGURE 82 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR BY SUBREGION, INTERREGIONAL COMMUTER & INTERREGIONAL COMMUTE DESTINATION AMONG SAN DIEGO COUNTY RESIDENTS WHO COMMUTE OUTSIDE HOME**



**FIGURE 83 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR BY AGE, GENDER & WORKING VEHICLES IN HOUSEHOLD AMONG SAN DIEGO COUNTY RESIDENTS WHO COMMUTE OUTSIDE HOME**

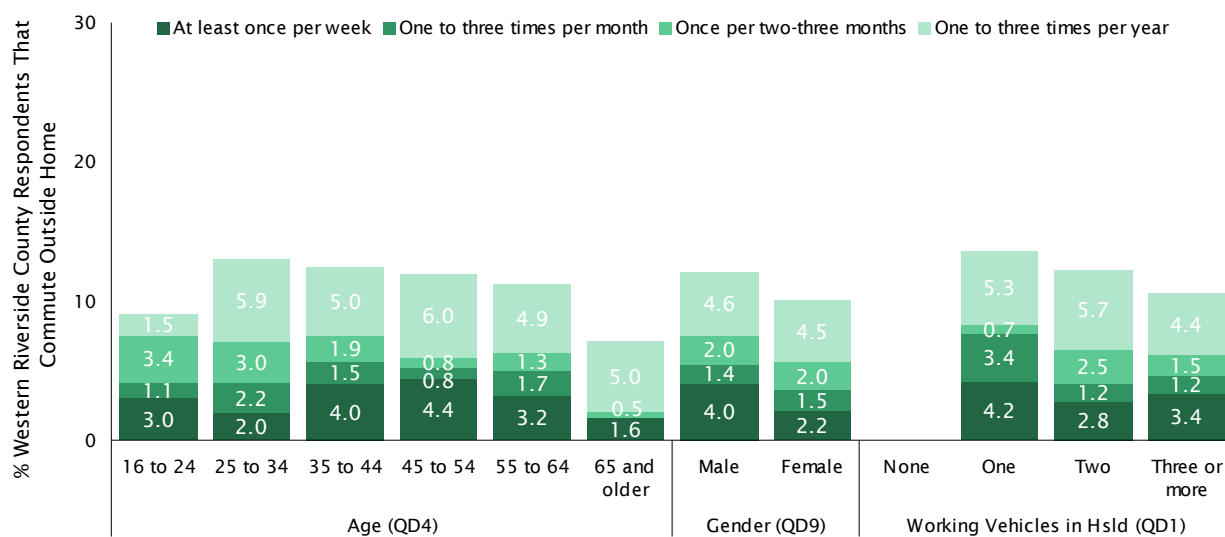


**FIGURE 84 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR BY SUBREGION, INTERREGIONAL COMMUTER & INTERREGIONAL COMMUTE DESTINATION AMONG WESTERN RIVERSIDE COUNTY RESIDENTS WHO COMMUTE OUTSIDE HOME<sup>26</sup>**



26. Given the small number of Mid County East commuters who have used a Local Park & Ride Lot in the past year, this subgroup is not shown on Figure 89 displaying responses to the follow-up question about using Park & Ride Lots for reasons other than commuting to work.

**FIGURE 85 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR BY AGE, GENDER & WORKING VEHICLES IN HOUSEHOLD AMONG WESTERN RIVERSIDE COUNTY RESIDENTS WHO COMMUTE OUTSIDE HOME**

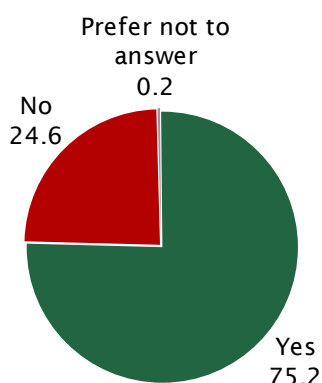


### USE OF PARK & RIDE LOT FOR PURPOSE OTHER THAN COMMUTING TO WORK

Respondents who indicated they had used a local Park & Ride lot in the 12 months preceding the interview were subsequently asked if they had ever used a local Park & Ride lot for something other than commuting to work—such as going to a sporting event, a concert, or jury duty. Among this subgroup of commuters, three-quarters (75%) offered that they had used a Park & Ride lot for purposes other than commuting to work (Figure 86).

**Question 17** *Have you ever used a local Park & Ride lot for something other than commuting to work - such as when going to a sporting event, a concert, or jury duty?*

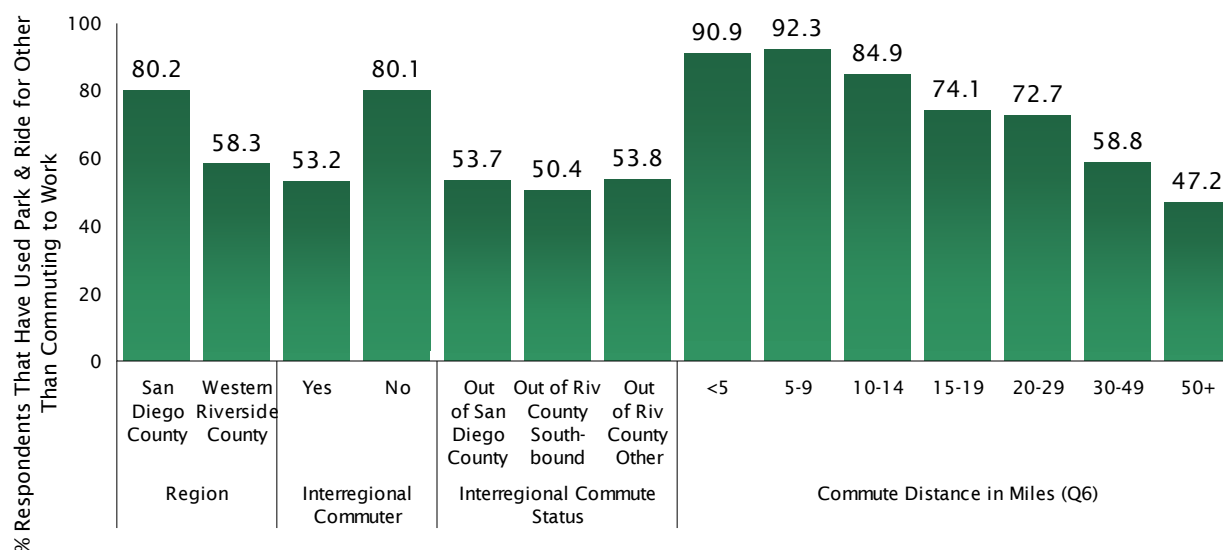
**FIGURE 86 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR FOR REASON OTHER THAN COMMUTING TO WORK**



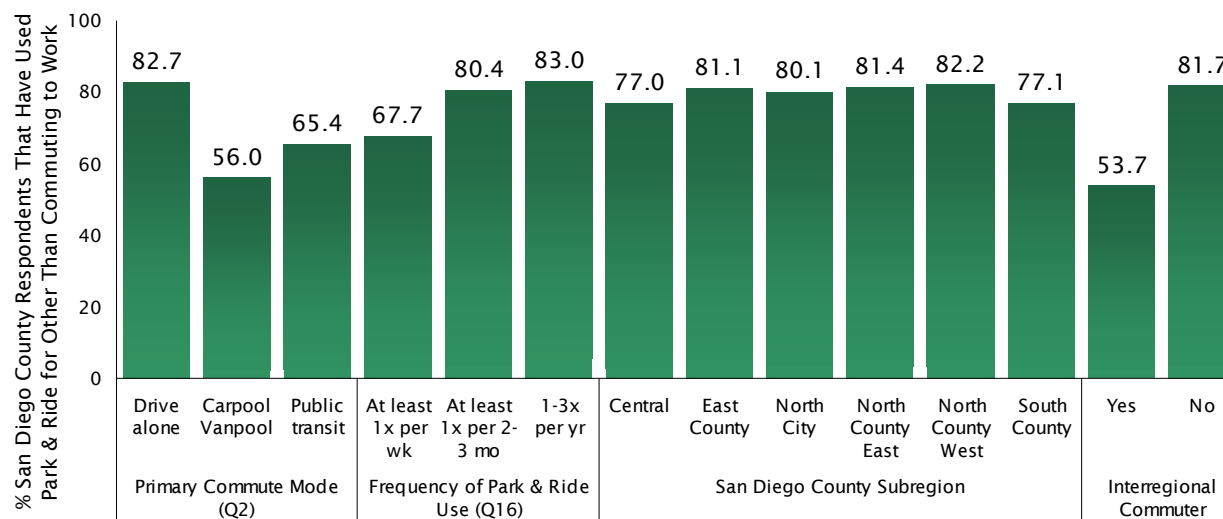
Figures 87-89 illustrate how the answers to Question 17 varied across subgroups of commuters who had used a Park & Ride lot in the 12 months preceding the interview. When comparing the patterns of responses to Question 16 and Question 17, an interesting pattern emerges. Although high frequency users of Park & Ride lots are most common among those who use carpool/vanpool and public transit for their commute, and interregional commuters, when isolating those who have used a Park & Ride lot in the past 12 months these groups are generally *less* likely than their counterparts to have ever used a Park & Ride lot for *non-work* purposes. This pattern suggests that those who are using a Park & Ride lot frequently for work purposes are also more likely to be one-dimensional in their use of the lots (work trips only).



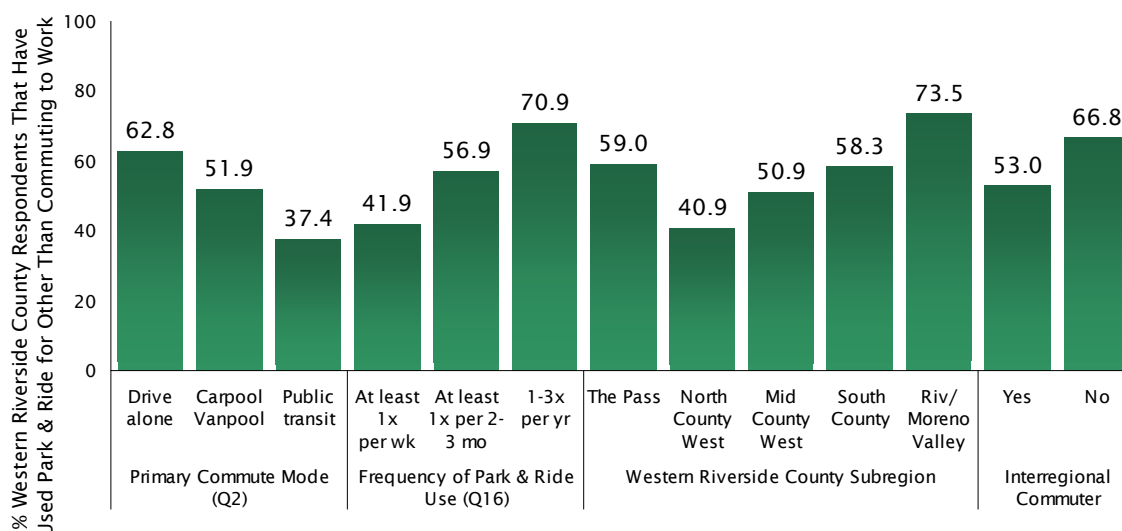
**FIGURE 87 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR FOR REASON OTHER THAN COMMUTING TO WORK BY REGION, INTERREGIONAL COMMUTER, INTERREGIONAL COMMUTE STATUS & COMMUTE DISTANCE IN MILES**



**FIGURE 88 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR FOR REASON OTHER THAN COMMUTING TO BY PRIMARY COMMUTE MODE, FREQUENCY OF PARK & RIDE USE, SUBREGION & INTERREGIONAL COMMUTER AMONG SAN DIEGO COUNTY RESIDENTS THAT HAVE USED PARK & RIDE**



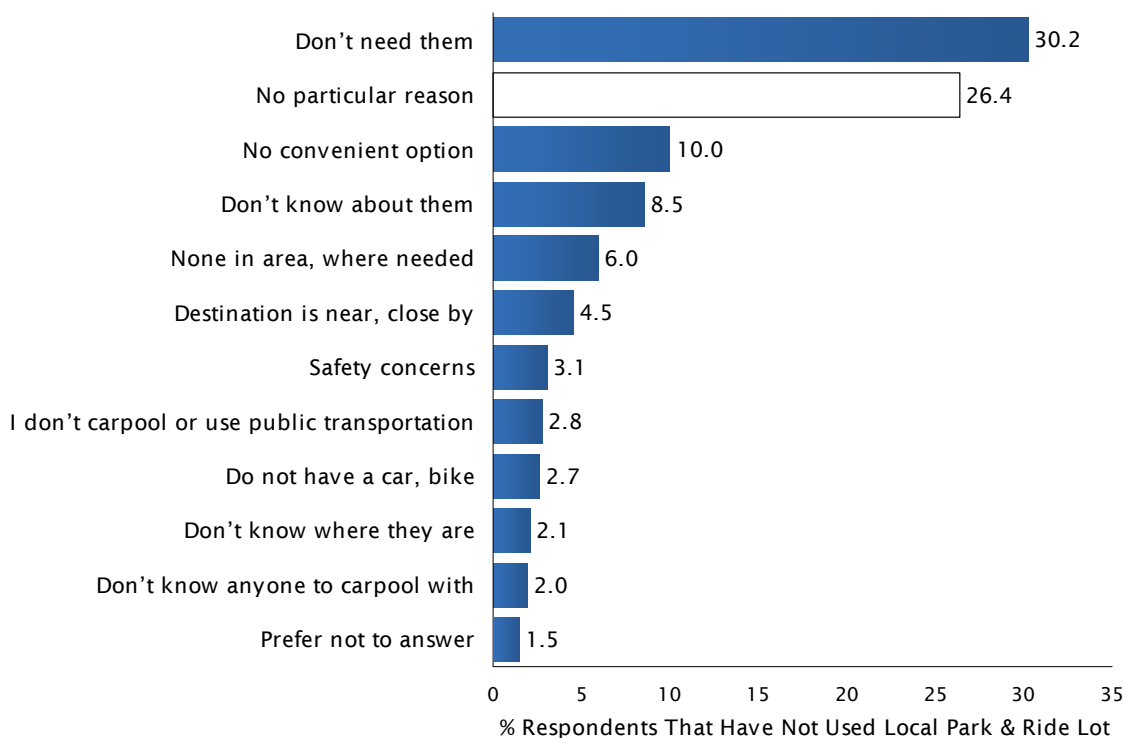
**FIGURE 89 USE OF LOCAL PARK & RIDE LOT IN PAST YEAR FOR REASON OTHER THAN COMMUTING TO WORK BY PRIMARY COMMUTE MODE, FREQUENCY OF PARK & RIDE USE, SUBREGION & INTERREGIONAL COMMUTER AMONG WESTERN RIVERSIDE COUNTY RESIDENTS THAT HAVE USED PARK & RIDE**



**REASONS FOR NOT USING A PARK & RIDE LOT** Commuters who indicated they hadn't used a Park & Ride lot were subsequently asked in an open-ended manner to describe their reasons. The verbatim answers were categorized and are presented below in Figure 90.

**Question 18** *Is there a particular reason why you haven't used a local Park & Ride lot in the past 12 months?*

**FIGURE 90 MAIN REASON FOR NOT USING LOCAL PARK & RIDE LOT IN PAST YEAR<sup>27</sup>**



Overall, the most common reasons reported for not using a local Park & Ride lot in the 12 months preceding the interview were no need (30%), no particular reason (26%), not having a convenient option locally (10%), not knowing about them (9%), and a perception that there are none in the area/where needed (6%). Aside from 3% mentioning safety concerns, no respondents mentioned an operational aspect or lack of amenities as their reason for not using a Park & Ride lot.

The following tables list the top five reasons offered for not using a local Park & Ride lot according to region of residence, interregional commute status, and primary commute mode.

**TABLE 25 TOP 5 REASONS FOR NOT USING LOCAL PARK & RIDE LOT IN PAST YEAR BY REGION & INTERREGIONAL COMMUTE STATUS**

Region		Interregional Commute Status			
San Diego County	Western Riverside County	Not Interregional Commuter	Out of San Diego County	Out of Riverside County Southbound	Out of Riverside County Other
Don't need them	Don't need them	Don't need them	Don't need them	Don't need them	Don't need them
No particular reason	No particular reason	No particular reason	No particular reason	No particular reason	No particular reason
No convenient option	Don't know about them	No convenient option	Don't know about them	Safety concerns	No convenient option
Don't know about them	No convenient option	Don't know about them	No convenient option	None in area, where needed	Don't know about them
None in area, where needed	None in area, where needed	None in area, where needed	I don't carpool or use public transportation	No convenient option	None in area, where needed

**TABLE 26 TOP 5 REASONS FOR NOT USING LOCAL PARK & RIDE LOT IN PAST YEAR BY PRIMARY COMMUTE MODE**

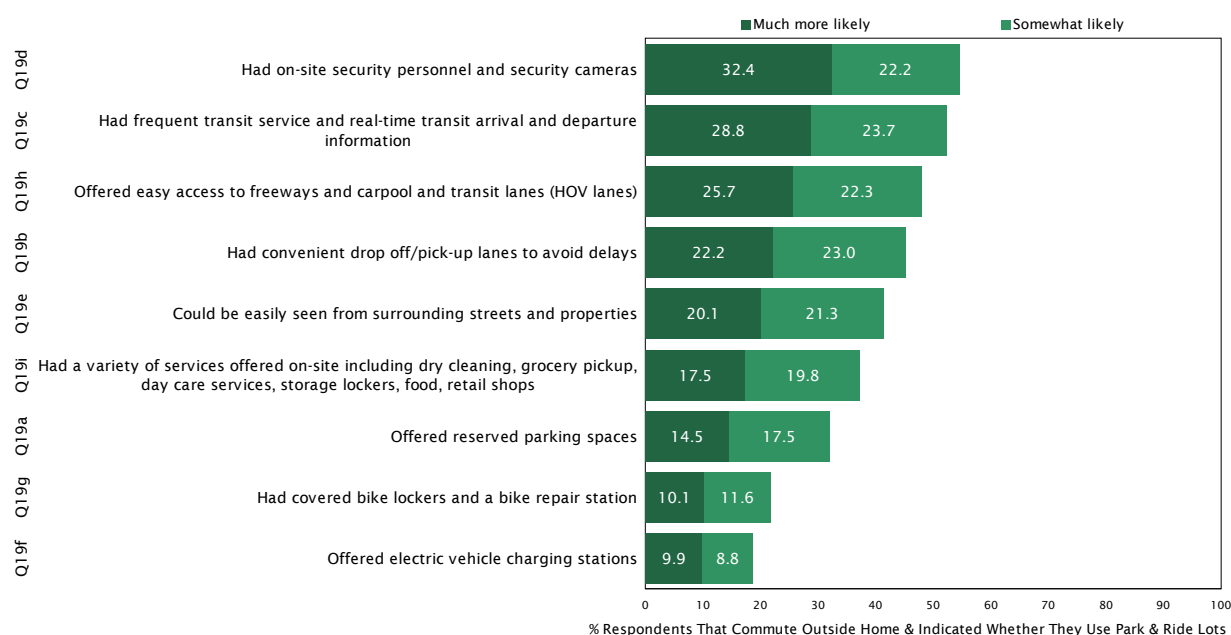
Primary Commute Mode (Q2)				
Drive alone	Carpool / Vanpool	Public transit	Active transportation	Other mode
Don't need them	Don't need them	No particular reason	Don't need them	Don't need them
No particular reason	No particular reason	Do not have a car, bike	Do not have a car, bike	No particular reason
No convenient option	No convenient option	Don't need them	No particular reason	No convenient option
Don't know about them	Don't know about them	Don't know about them	No convenient option	Prefer not to answer
None in area, where needed	Carpool partners live close by	Have own parking spot, park in other places	Don't know about them	Do not have a car, bike

27. Only responses cited by at least 1.5% of respondents who had not used a local Park & Ride lot in the past 12 months are displayed in Figure 90.

**CONDITIONS THAT WOULD INCREASE USE OF PARK & RIDE LOT** Similar to the method used previously to identify conditions that would increase a respondent's likelihood of using alternative modes for their commute, Question 19 presented a list of specific conditions and asked respondents to indicate, for each condition, whether it would make them more likely to use a Park & Ride lot for their work commute, or if it would have no impact. The list of conditions, and respondents' answers, are shown in Figure 91.

**Question 19** *If a local Park & Ride lot: \_\_\_\_\_, would you be more likely to use it for your work commute, or would it have no impact? If says 'yes, more likely', ask: Would that be much more likely, or somewhat more likely?*

**FIGURE 91 INFLUENCE OF FACTORS IN LIKELIHOOD OF USING LOCAL PARK & RIDE LOT FOR WORK COMMUTE**



Having on-site security personnel and security cameras (55%), frequent transit service and real-time transit arrival and departure information (53%), and easy access to freeways and carpool/transit lanes (48%) were the features that respondents indicated were most likely to positively influence their use of Park & Ride lots for their work commute. At least one-third of respondents also indicated that having convenient drop-off/pick-up lanes to avoid delays (45%), that the lot can be easily seen from surrounding streets and properties (41%), and offering a variety of on-site services including dry cleaning, grocery pick-up, day care services, storage lockers, and food and retail shops (37%) would make them at least somewhat more likely to use a Park & Ride lot in the future for their commute.

At the other end of the spectrum, fewer respondents found the presence of electric vehicle charging stations (19%), covered bike lockers and repair station (22%), and the ability to reserve parking (32%) as amenities that would make them more likely to use a Park & Ride lot for their work commute.

Table 27 shows how the percentage who listed a condition as making them much more likely to use a Park & Ride lot for their commute differed by region of residence. Although the percentages varied somewhat, the general ranking of conditions was similar.

**TABLE 27 INFLUENCE OF FACTORS IN LIKELIHOOD OF USING LOCAL PARK & RIDE LOT FOR WORK COMMUTE BY REGION SHOWING % MUCH MORE LIKELY**

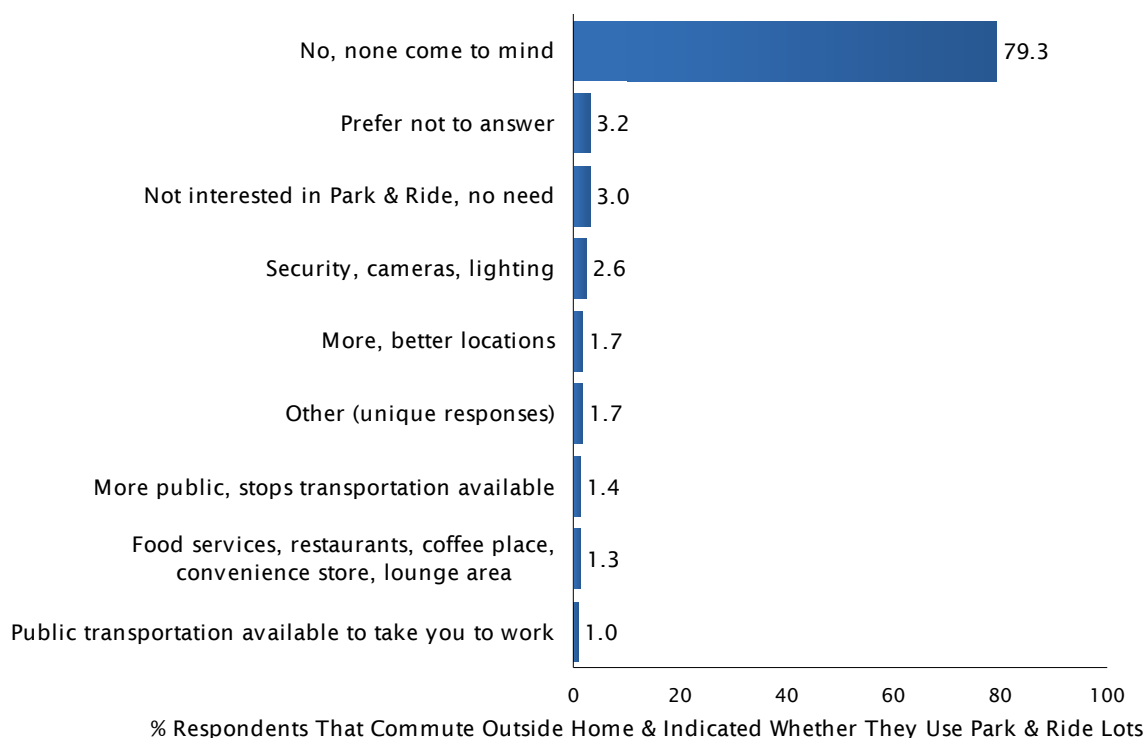
	Region	
	San Diego County	Western Riverside County
Q19d Had on-site security personnel and security cameras	31.3	34.7
Q19c Had frequent transit service and real-time transit arrival and departure information	28.4	29.6
Q19h Offered easy access to freeways and carpool and transit lanes (HOV lanes)	24.8	27.4
Q19b Had convenient drop off/pick-up lanes to avoid delays	21.6	23.5
Q19e Could be easily seen from surrounding streets and properties	19.7	21.0
Q19i Had a variety of services offered on-site including dry cleaning, grocery pickup, day care services, storage lockers, food, retail shops	17.8	16.8
Q19a Offered reserved parking spaces	13.4	16.8
Q19g Had covered bike lockers and a bike repair station	9.9	10.6
Q19f Offered electric vehicle charging stations	9.7	10.4

Recognizing that the list of conditions tested in Question 19 was not exhaustive, the survey followed-up by asking respondents to describe any amenity or improvement not already mentioned that would make them more likely to use a Park & Ride lot for their work commute. Question 20 was administered in an open-ended manner, which allowed respondents to mention any amenity or improvement that came to mind, without prompting or constraint. True North later reviewed the verbatim responses and grouped them into the categories shown in Figure 92 on the next page.

Nearly eight-in-ten respondents (79%) indicated that no additional amenities or improvements come to mind that would make them more likely to use a Park & Ride lot for their work commute, and 6% declined to answer the question or stated flatly that they are not interested in using a Park & Ride lot. Among the specific amenities and/or improvements that were mentioned in response to Question 20, improved security/security cameras/security lighting was most common (3%), followed by more/better lot locations (2%).

**Question 20** *Is there an amenity or improvement that I didn't mention that would make you more likely to use a local Park & Ride lot for your work commute? If yes, ask: Please describe it to me.*

**FIGURE 92 AMENITY OR IMPROVEMENT TO INCREASE LIKELIHOOD OF USING LOCAL PARK & RIDE LOT FOR WORK COMMUTE<sup>28</sup>**



**MARKET TARGET SUMMARY** Recognizing that not every commuter is in the potential market for Park & Ride lots, we developed a tiered-market profile for Park & Ride lots using an approach similar to that described previously for alternative modes (see *Market Target Summary* on page 60). A respondent's position in the market for Park & Ride lots was based on how they responded to the amenities and improvements tested in Question 19 and their suggestions in response to Question 20. The four tiers are described below.

**Top Targets** The most promising potential users of Park & Ride lots for their work commute indicated that at least half of the amenities/improvements tested in Question 19 would cause them to be much more likely to use a Park & Ride lot for their work commute, *and* they offered a meaningful suggestion in Question 20 when asked to describe additional improvements that would positively influence their use of Park & Ride lots.

**Mid-Level Targets** Individuals qualified as Mid-Level Targets if they found at least half of the amenities/improvements tested in Question 19 would cause them to be much more likely to use a Park & Ride lot for their work commute, *but* they did not offer a meaningful suggestion in

<sup>28</sup> Only responses cited by at least 1% of commuters who indicated whether or not they use Park & Ride lots for their work commute are shown in Figure 92.



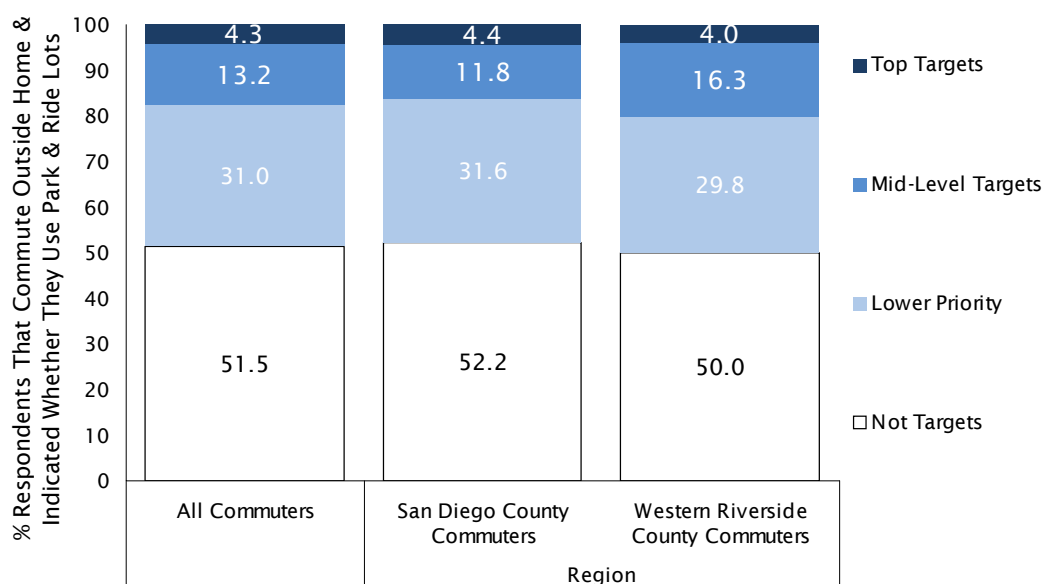
response to Question 20 when asked to describe additional improvements that would positively influence their use of Park & Ride lots.

**Lower Priority** Individuals in this group indicated that one to four of the amenities tested in Question 19 would cause them to be much more likely to use a Park & Ride lot for their work commute *or* don't meet this condition, but have used a Park & Ride lot for their work commute at least one time in the past year.

**Not Targets** Individuals in this group did not find any of the amenities or improvements tested in Question 19 to be compelling reasons (much more likely) to use a Park & Ride lot for their work commute.

Figure 93 presents the market tiers for Park & Ride lots among all commuters in the study, as well as by region. Among all commuters, 4% qualified as Top Targets for Park & Ride lots, 13% as Mid-Level Targets, and 31% as Lower Priority Targets. Just over half (52%) were classified as not being a target for Park & Ride lots for their work commute. The distribution of market tiers was generally similar when comparing San Diego County residents to those in Western Riverside County.

FIGURE 93 PARK & RIDE FOR WORK COMMUTE TARGET TIERS



**DEMOGRAPHIC COMPARISON OF COMMUTERS AND MARKET TARGETS** For the interested reader, Tables 28 and 29 present individual, household, and workplace information for all commuters, as well as each market tier for Park & Ride lots. Within the tables, differences of at least five percent between an individual target group and all commuters are highlighted in grey. When compared to commuters in general, Top Targets were somewhat more likely to be interregional commuters, reside in Western Riverside County and commute to a destination outside of the County (but not San Diego County), have one-way commutes exceeding 60 minutes, live in larger households (4+ people) with three or more vehicles, be under the age of 35, and work for a private or not-for-profit organization.

TABLE 28 DEMOGRAPHIC BREAKDOWN OF ALL COMMUTERS AND PARK &amp; RIDE TARGET TIERS

	All Commuters	Top Targets	Mid-Level Targets	Lower Priority	Not Targets
<b>Region</b>					
San Diego County	67.9	70.4	60.6	69.2	68.9
Western Riverside County	32.1	29.6	39.4	30.8	31.1
<b>Interregional Commuter</b>					
Yes	16.3	21.9	20.9	15.1	15.3
No	83.7	78.1	79.1	84.9	84.7
<b>Interregional Commute Status</b>					
Out of San Diego County	2.1	2.5	2.5	1.9	2.1
Out of Riverside County Southbound	2.9	2.0	3.0	3.3	2.6
Out of Riverside County Other	11.3	17.4	15.5	9.9	10.6
<b>Commute Distance in Miles (Q6)</b>					
Less than 5	16.9	18.4	15.6	14.0	18.9
5 to 9	11.4	10.3	4.8	10.7	13.6
10 to 14	17.9	17.7	15.5	19.0	18.0
15 to 19	13.0	10.5	15.9	13.0	12.6
20 to 29	17.6	16.9	21.4	18.0	16.6
30 to 49	15.3	16.5	18.9	17.0	13.0
50 or more	7.2	8.9	7.9	7.7	6.7
<b>Commute Duration in Minutes (Q7)</b>					
Less than 10	6.4	5.9	3.9	5.3	7.8
10 to 19	23.8	26.6	25.5	20.7	25.0
20 to 29	21.1	17.1	18.7	23.1	21.0
30 to 44	20.2	19.1	18.8	19.7	20.9
45 to 60	17.7	15.5	20.5	20.2	15.5
More than 60	10.2	15.9	12.4	10.1	9.2
<b>Working Vehicles in Hsld (QD1)</b>					
None	1.5	1.2	1.1	0.9	1.9
One	16.7	16.2	16.3	19.0	15.7
Two	38.9	30.5	42.3	41.0	37.6
Three or more	41.0	51.5	38.9	37.7	42.4
<b>Number of People in Hsld (QD2)</b>					
One	11.7	6.3	8.2	12.6	12.4
Two	30.0	21.9	27.7	30.9	31.0
Three	19.1	19.3	18.3	19.4	19.0
Four	19.4	29.3	17.7	17.9	20.0
Five or more	16.8	20.5	23.8	16.6	14.9
<b>Number of People 16+ in Hsld (QD3)</b>					
One	14.2	11.0	13.2	14.9	14.2
Two	47.0	33.4	40.3	47.7	49.7
Three	18.3	21.3	19.1	17.9	17.9
Four	10.5	19.7	9.8	11.0	9.8
Five or more	6.5	12.0	11.7	5.7	5.1
<b>Age (QD4)</b>					
16 to 24	14.7	21.1	16.9	15.3	13.3
25 to 34	25.4	29.9	30.0	30.3	21.0
35 to 44	21.0	20.3	20.8	22.6	20.2
45 to 54	19.7	18.0	17.7	16.4	22.2
55 to 64	13.2	7.8	10.1	11.0	15.6
65 and older	3.1	1.4	1.8	2.4	3.9
<b>Gender (QD9)</b>					
Male	50.6	51.0	44.8	51.0	51.6
Female	46.9	46.6	50.3	46.6	46.3

TABLE 29 DEMOGRAPHIC BREAKDOWN OF ALL COMMUTERS AND PARK &amp; RIDE TARGET TIERS CONTINUED

	All Commuters	Top Targets	Mid-Level Targets	Lower Priority	Not Targets
<b>Employees at Primary Workplace (QD7)</b>					
1 to 4	7.5	10.1	3.0	6.8	8.8
5 to 9	7.5	9.2	7.5	8.5	6.9
10 to 19	11.3	9.4	14.4	11.0	10.8
20 to 49	14.8	17.1	16.7	12.8	15.5
50 to 99	12.2	14.1	10.5	13.5	11.5
100 or more	40.5	35.8	40.3	42.9	39.7
<b>Business Type (QD8)</b>					
Private sector	53.5	58.7	46.0	52.7	55.6
Gov agency	22.1	18.3	24.4	23.7	20.9
Not-for-profit org	14.0	21.6	14.7	12.6	13.9
<b>Occupation (QD5)</b>					
Operator / Fabricator / Laborer	4.9	2.9	4.5	5.5	4.9
Craft and repair	3.8	0.7	2.1	4.0	4.3
Food preparation, serving	2.1	2.1	1.8	1.3	2.6
Protective services	3.4	2.0	3.3	3.4	3.5
Physician	1.1	0.7	1.3	1.4	1.0
Nurse	3.1	4.1	4.8	2.5	3.0
Medical assistant	2.5	4.2	4.7	1.9	2.2
Sales	5.5	3.1	6.8	5.5	5.4
Customer service / Telemarketer	2.9	8.2	2.4	2.2	3.1
Professional specialty (not IT)	24.2	33.0	26.0	25.4	22.5
Professional specialty (IT)	1.5	0.4	1.0	2.1	1.3
Administrative / Office worker	7.5	7.6	6.2	8.0	7.5
Supervisor / Manager	1.3	0.6	1.3	1.3	1.3
Executive	14.0	10.5	13.3	12.4	15.6
Teacher	7.3	6.0	6.9	7.7	7.4
Other	4.4	10.1	3.5	5.1	3.8
<b>Industry (QD6)</b>					
Agriculture	0.4	-	-	0.4	0.6
Construction	2.5	0.8	1.9	1.8	3.2
IT-Manufacturing services	7.9	3.9	4.1	9.2	8.4
Retail	5.8	8.6	6.4	5.7	5.6
Transportation	3.8	7.2	4.2	2.7	4.1
Energy / Natural Resources	1.7	1.5	1.9	1.8	1.6
Business services	14.1	20.1	15.9	14.6	12.8
Hospitality, visitor, entertainment services	9.5	14.9	7.8	7.7	10.3
Financial services	5.0	3.2	3.9	4.7	5.7
Education	13.5	12.4	14.9	13.7	13.2
Medical, social services	13.3	16.6	17.1	11.6	13.3
Government / Public Administration	9.5	5.5	8.0	10.7	9.6
Biosciences / Pharmaceuticals	1.7	-	1.4	2.6	1.4
Religious / Non-profit	1.5	1.1	1.4	2.0	1.3
Other	0.5	0.2	0.7	0.6	0.5

*This page has been intentionally left blank.*

*This page has been intentionally left blank.*

# APPENDIX F: PRIVATE SECTOR SURVEY



*This page has been intentionally left blank.*



# Private Sector Survey Memo

PARK & RIDE REGIONAL STRATEGY

MARCH 2019 | FINAL

Prepared By:

**Kimley»Horn**

## Contents

Introduction .....	3
Overview of Survey Methodology .....	3
Summary of Key Findings .....	3
Survey Results .....	5
Q1. Would you consider Park & Ride operations at future sites? .....	5
Q2. Below are a list of characteristics that might be supportive of Park & Ride operations. Do any of these apply to new developments you are considering? .....	6
Q3. What would make you interested in partnering with a public agency to allow Park & Ride operations at your future development? .....	7
Q4. What obstacles are preventing you from pursuing partnerships for Park & Ride lots? ....	9
Next Steps .....	10

## Figures

Figure 1. Q1 Results .....	5
Figure 2. Q2 Top Results .....	6
Figure 3. Q3 Top Results .....	8
Figure 4. Q4 Top Results .....	9

## INTRODUCTION

As part of the San Diego and Western Riverside Park & Ride Strategy (Park & Ride Strategy), strategies and regional recommendations are being developed to help the Park & Ride program adapt to the Region's changing mobility needs. One strategy of interest is:

*Developing public-private partnerships to incorporate and improve Park & Ride facilities within private property.*

To support SANDAG's and RCTC's efforts to engage in more effective public-private partnerships, private sector stakeholders were engaged through an online survey and phone interviews. These engagement tools were used to enhance the understanding of private sector stakeholders' interests, motivations, and willingness to partner (including their perceived conditions for success). This memorandum summarizes key findings and recommendations for SANDAG and RCTC to incorporate into the Regional Park & Ride Strategy.

## OVERVIEW OF SURVEY METHODOLOGY

Survey development was implemented in three steps:

- 1) A draft survey was developed collaboratively with members of the project development team (PDT) of the Park & Ride Strategy.
- 2) The draft survey was tested with a developer, a property owner, and a property manager separately via phone interviews.
- 3) After the phone interviews were complete, the survey was refined and finalized for distribution to a wider list of stakeholders.

The final survey was administered in two rounds: 1) an online survey distributed to a list of private sector stakeholders developed by PDT members (July 2018); and 2) an online survey distributed to existing partnerships and professional organization membership lists (between September 2018 and February 2019). Between the two rounds, the survey was distributed to over 200 private sector stakeholders. The survey tool can be found in **Appendix A**.

## SUMMARY OF KEY FINDINGS

The phone interviews and online survey results revealed the private sector's interest in better understanding and learning more about Park & Ride facilities. This was primarily demonstrated in the results of the first question where nearly 80% of participants selected the option of "open to learning more about the benefits [of Park & Rides]." This represents a clear opportunity for RCTC and SANDAG to actively engage the private sector into the future.

Shared maintenance costs and conditional zoning for additional development were the top incentives highlighted by participants for accommodating Park & Ride operations at their respective sites. However, the lack (or perceived lack) of excess parking was reported as the largest obstacle for the private sector to enter a Park & Ride partnership.

Based on this feedback, it is recommended for SANDAG and RCTC to engage in the following activities:

- *Develop readily accessible digital and printed marketing material to inform the private sector of what Park & Rides are and how each audience type can benefit.*

Participants wanted to be more informed about what benefits they can receive. It was also pointed out by property owners and managers that it would help to be able to give their tenants a marketing brochure on the Park & Ride program as each tenant is allocated a certain number of parking spaces through their lease agreements. Tenants would need to be engaged for parking spaces to be reserved for Park & Ride operations.

- *Collaborate with transit operators and jurisdictions to develop additional financial incentives and mobility services for private sector partners. Quantify benefits for private sector stakeholders to create a sense of value for Park & Ride facilities by developing and including relevant data (e.g. how much Park & Rides can increase foot traffic). Advertise the benefits that help private sector financially and ways partnership could reduce parking demand while increasing foot traffic at their sites.*

The private sector cares about how they can financially benefit and how they can meet their parking demand. If one or both of these criteria are met, they are more likely to partner.

The private sector cares about data. Multiple participants pointed out about wanting to know exactly how much a Park & Ride can benefit them.

- *Review and update existing policies to identify and mitigate barriers private sector stakeholders have that prevent them from partnering.*

The private sector pointed out several barriers that prevent them from partnering such as lack of excess parking, parking restrictions, increased liability, and covenants, conditions and restrictions (CCRs).

Responses from the private sector are encouraging and suggest that continued engagement could lead to new, mutually-beneficial partnerships.

## SURVEY RESULTS

The private sector survey was designed to identify potential strategies to increase private-public partnerships in the context of Park & Ride development. The following section describes the questions that were asked of participants and provides a summary of the primary results. The questions are presented in the order participants were asked. Figures showing the detailed responses are included in **Appendix B**.

### Q1. WOULD YOU CONSIDER PARK & RIDE OPERATIONS AT FUTURE SITES?

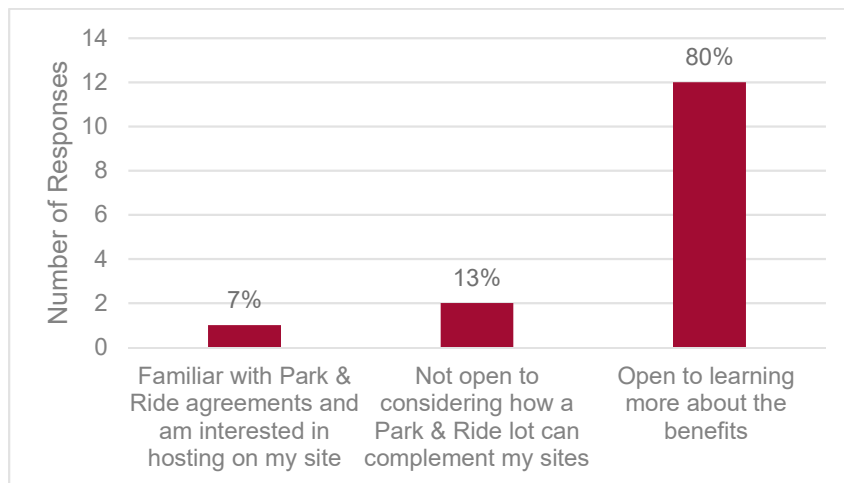
Question 1 (Q1) was included to understand the current interest of Park & Ride among private sector stakeholders.

#### RESULTS

Nearly 80% of survey respondents were open to learning more about the benefits to Park & Ride facilities (see **Figure 1**). About 7% were already interested in hosting a Park & Ride facility at their site.

Participants from the phone interviews indicated being interested in learning more about the benefits. One participant asked if there was accessible material that informed what a Park & Ride is and what the benefits are. This participant highlighted the need for this material to inform their tenants and have them be part of the process.

**Figure 1. Q1 Results**



#### Q1 Key Highlights

##### Results:

- 80% of survey participants interested in learning benefits

##### Recommendations:

- Improve existing marketing program to effectively target developers, property owners, property managers, and their tenants
- Develop accessible and persuasive digital and/or printed marketing material
- Focus on marketing how private sector stakeholders can benefit

#### RECOMMENDATIONS

The online survey and phone interviews show that most private sector stakeholders are interested in Park & Ride lots but may not be aware of how they can benefit from them. This lack of awareness shows that SANDAG and RCTC should investigate ways to improve the marketing of the Park & Ride program to



effectively target private sector stakeholders. Currently, neither agency has printed or digital marketing material to easily deliver to a potential private sector partner or their tenants.

SANDAG and RCTC should consider developing marketing material that succinctly displays key information and reasons for having Park & Ride operations. Some information to consider including in the material are:

- What is a Park & Ride?
- Who uses a Park & Ride?
- What are the benefits?
- How can a Park & Ride bring you success?
- Who should you contact for more information?
- What are examples of successful Park & Ride partnerships

Q2. BELOW ARE A LIST OF CHARACTERISTICS THAT MIGHT BE SUPPORTIVE OF PARK & RIDE OPERATIONS. DO ANY OF THESE APPLY TO NEW DEVELOPMENTS YOU ARE CONSIDERING?

Question 2 (Q2) helps gauge whether or not new developments for the private sector align with characteristics of an ideal Park & Ride lot. Through this question, SANDAG and RCTC can understand what type of developments the private sector is moving forward with.

## RESULTS

Many survey participants have sites that meet one or more characteristics for ideal Park & Ride locations. The top site characteristics selected by survey participants were:

- near a freeway,
- places where travel times from nearby communities to employment centers is high,
- nearby populated residential neighborhoods, and
- places where peak demand for existing customers is during evenings or weekends.

Figure 2. Q2 Top Results



### Q2 Key Highlights

#### Results:

- Site locations of participants meet several characteristics of ideal locations for Park & Ride operations
- Peak demand for parking at many sites was during evenings or weekends

#### Recommendations:

- Develop characteristics of an ideal Park & Ride location to be included in marketing material
- Develop a process to engage jurisdictions in identifying Park & Ride lots
- Create an inventory of potential Park & ride locations

---

## RECOMMENDATIONS

SANDAG and RCTC should consider adding the characteristics of Park & Ride lots to any marketing material. Informing the private sector about what makes an ideal Park & Ride lot may help them understand which of their sites might work for this program.

If possible, the regions should investigate creating an inventory of potential sites that fit the characteristics. This could be achieved through the following ways:

- performing a GIS analysis of parcels in the regions that align with high performing characteristics
- create a platform that jurisdictions can access to add “strong candidate” sites currently going through the entitlement process or have been approved

### Q3. WHAT WOULD MAKE YOU INTERESTED IN PARTNERING WITH A PUBLIC AGENCY TO ALLOW PARK & RIDE OPERATIONS AT YOUR FUTURE DEVELOPMENT?

Question 3 (Q3) addresses a key purpose for this survey effort which is to identify the ways which the public sector might motivate private sector stakeholders to partner for the implementation of Park & Ride lots.

---

## RESULTS

From the online survey results, the top incentives selected by survey participants were:

- shared maintenance cost,
- conditional zoning to allow additional development on site,
- increased security,
- increase in customer sales and customer base,
- one-time cost reimbursements (e.g. implementation costs, enhancements costs, and tax breaks), and
- the opportunity for transit to serve areas closer to my site.

Participants were also allowed to suggest incentives not listed as an option. Some of the written-in responses included:

- free transit for team members,
- provide a built-in customer base,
- a reduction in employee expenses,
- quicker commute times to draw from a broader employee base,
- reducing greenhouse gas (GHG) emissions, and
- quantifying benefits.

The phone interviews also re-enforce the online survey results. The top incentives from the phone interviews were conditional zoning to allow additional development on site and reducing parking requirements for a site.

### Q3 Key Highlights

#### *Results:*

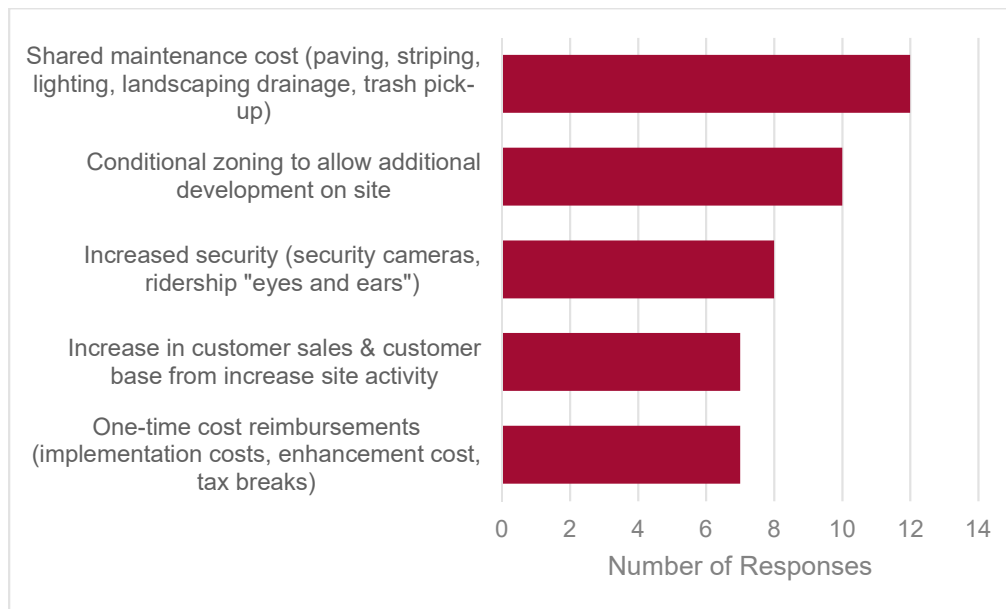
Top incentives for partnering:

- Shared maintenance cost
- Conditional zoning to allow additional development
- Private sector cares about financial benefits

#### *Recommendations:*

- Include list of benefits in marketing material
- Develop benefits that are cost-saving or provide a financial value
- Quantify benefits to have the private sector understand “how much” they can benefit

**Figure 3. Q3 Top Results**



## RECOMMENDATIONS

The incentives highlighted by participants in the online survey and phone interviews show that financial benefits are important to private sector stakeholders. They are more inclined to partner with public agencies and develop Park & Ride operations at their site if they can offset existing maintenance costs or receive in-kind payments. Some ideas for financial benefits included:

- reimbursements,
- leasing spots for a fee, and
- a reduction in their parking footprint to make available more square footage for future development.

SANDAG and RCTC should consider working with their respective jurisdictions and transit operators to identify and develop a list of feasible benefits they can offer to private sector stakeholders. This list can then be advertised in marketing material, be included in the entitlement process, and used in future Park & Ride negotiations with private sector stakeholders. Private sector stakeholders are financially motivated, and data driven. If an identified benefit can be quantified or include a cost-saving/monetary value, it would be important to do so. Some benefits that can be quantified include:

- increase in sales and customers,
- cost savings for people who use Park & Ride facilities, and
- reduction in parking if a Park & Ride facility is included at the site.

## Q4. WHAT OBSTACLES ARE PREVENTING YOU FROM PURSUING PARTNERSHIPS FOR PARK & RIDE LOTS?

The next question (Q4) in the survey identifies the challenges private sector stakeholders have for developing Park & Ride operations at their existing and future sites.

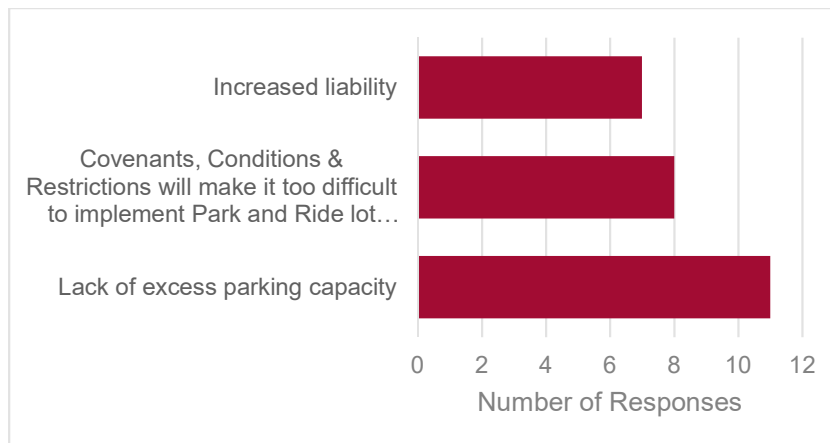
### RESULTS

The online survey results show that the top obstacles for participants are:

- lack of excess parking capacity
- increased liability, and
- covenants, conditions, and restrictions (CC&Rs) make it too difficult.

The participants from the phone interviews pointed out similar obstacles in addition to lease agreements. Participants mentioned that existing standing lease agreements guarantee a specific number of parking spots for their tenants, making it hard to find additional parking spots for Park & Ride operations.

**Figure 4. Q4 Top Results**



### RECOMMENDATIONS

The results from questions 3 and 4 highlight that parking is an important consideration for private sector stakeholders when pursuing partnerships for Park & Ride lots. Meeting parking requirements and parking demand make it difficult for private sector stakeholders to allocate spaces for Park & Ride operations. If SANDAG and RCTC find a site that has potential for being a Park & Ride location, both agencies can investigate the following:

- add provisions to the shared-use agreement to provide mobility services
- perform a shared parking study to demonstrate parking availability

### Q4 Key Highlights

#### Results:

Top obstacles for partnering:

- Lack of excess parking
- Parking restrictions
- Private sector stakeholders make financial and data driven decisions.

#### Recommendations:

- Help reduce parking demand at sites with additional mobility services
- Perform a shared parking study to show that the peak parking demand at sites is opposite of Park & Ride operations

Provisions for additional transit service, bikeshare, transportation network company (TNCs) pick up/drop off areas, a shuttle program, and other shared mobility services, can help alleviate parking demand at the site. This in turn would make the private sector stakeholders more inclined to allocate spaces at their site for Park & Ride operations.

In addition, performing a shared parking study can help the private sector stakeholder better understand what their actual parking demand is and when it occurs. Private sector stakeholders have a perception that their parking lots are full when, they may not be a reality. A shared parking study can show that their parking demand occurs at a different time from Park & Ride operations. This can help alleviate the perception that there is no excess parking available. SANDAG and RCTC can also work with their respective jurisdictions to potentially make a shared parking study as a requirement for the entitlement process.

Despite the obstacles participants have about pursuing partnerships for Park & Ride lots, many of them are open to learning more about the benefits as shown in the results for question one (Q1). SANDAG and RCTC should consider ways to rebrand the perception of Park & Ride lots and bring more awareness to the benefits for partnering. Through marketing materials and presentations, there is an opportunity to show that the benefits of Park & Ride lots outweigh the obstacles. It is also an opportunity to inform private sector stakeholders that there are strategies and tools that can be implemented to address their concerns about parking demand and security.

## NEXT STEPS

The key results and recommendations identified in this memorandum will be used to inform the Park & Ride Regional Strategy. This strategy will aim to outline the regional action steps for SANDAG and RCTC regarding the framework of the future Park & Ride program.

# Appendix A

## Distributed Survey



# Public-Private Partnership

## 5-Minute Survey

The San Diego Association of Governments (SANDAG) and Riverside County Transportation Commission (RCTC) would like to gain a better understanding of how to improve current and potential public-private partnerships relating to Park & Ride lots.

Park & Ride lots allow commuters to leave their vehicles and transfer to a bus, rail system, or carpool/vanpool. A common trend in developing Park and Ride lots is the shared use of existing parking lots at commercial establishments such as shopping centers, movie theaters, and other businesses.

We are seeking your feedback on potential incentives that could encourage more partnerships between public agencies and private sector developers or property managers. We anticipate this survey to take less than five minutes.

\* Required

1. Would you consider Park and Ride operations at future sites? (Select One) \*

- ☐ Familiar with Park & Ride agreements and am interested in hosting on my site
- ☐ Open to learning more about the benefits
- ☐ Not open to considering how a Park & Ride lot can complement my sites

2. Below are a list of characteristics that might be supportive of Park & Ride operations. Do any of these apply to new developments you are considering? (Select All that Apply) \*

- ☐ Lot(s) with more than 50 spaces
- ☐ Current land is "over-parked"—more parking is provided than is needed

[Back](#) Computer Mob

2. Below are a list of characteristics that might be supportive of Park & Ride operations. Do any of these apply to new developments you are considering? (Select All that Apply) \*

- ☐ Lot(s) with more than 50 spaces
- ☐ Current land is "over-parked"—more parking is provided than is needed
- ☐ Peak demand for existing customers is during evenings or weekends
- ☐ Lot(s) are close (within 1 mile) or near (within 5 miles) of the freeway
- ☐ Travel times from nearby communities to employment centers is high
- ☐ Nearby populated residential neighborhoods
- ☐ Ample amenities available on-site (benches, bike racks, trash receptacles, shelter, etc.)

3. What would make you interested in partnering with a public agency to allow Park and Ride operations at your future development? (Select All that Apply) \*

- ☐ Conditional zoning to allow additional development on site
- ☐ Shared maintenance cost (paving, striping, lighting, landscaping drainage, trash pick-up)
- ☐ One-time cost reimbursements (implementation costs, enhancement cost, tax breaks)
- ☐ Increase in customer sales & customer base from increase site activity
- ☐ Advertisement / Campaigns placed on trains, buses or high-visibility locations (hub transfer locations, freeway walls, etc.)
- ☐ Free marketing opportunity for strategic placement of advertising material (banners, signs, or online marketing) at high-traffic transportation sites or on relevant agency websites
- ☐ Public acknowledgement for helping the community (e.g. sign on freeway, recognition on public agency's social media)
- ☐ Increased security (security cameras, ridership "eyes and ears")
- ☐ Opportunity for transit to serve areas closer to my site
- ☐ Other (Please Specify Below)

4. Other reasons that would make you interested in partnering with a public agency to

[Back](#) Computer Mob☐ Other (Please Specify Below)

4. Other reasons that would make you interested in partnering with a public agency to allow/expand Park & Ride operations at your site?

5. What obstacles are preventing you from pursuing partnerships for Park and Ride lots? (Select All that Apply) \*

- ☐ My site will be too far from transit service
- ☐ Covenants, Conditions & Restrictions will make it too difficult to implement Park and Ride lot operations
- ☐ Standing lease agreements
- ☐ Lack of excess parking capacity
- ☐ Increased liability
- ☐ Limited knowledge about Park & Ride
- ☐ Other (Please Specify Below)

6. Other obstacles that are preventing you from pursuing partnerships for Park & Ride lots?

7. Please provide any comments you wish for public partners to consider when it comes to Park & Ride facilities.

[Back](#) Computer Mob

- ☐ Lack of excess parking capacity
- ☐ Increased liability
- ☐ Limited knowledge about Park & Ride
- ☐ Other (Please Specify Below)

6. Other obstacles that are preventing you from pursuing partnerships for Park & Ride lots?

Enter your answer

7. Please provide any comments you wish for public partners to consider when it comes to Park & Ride facilities.

Enter your answer

8. Please provide your name and email. \*

Enter your answer

Submit

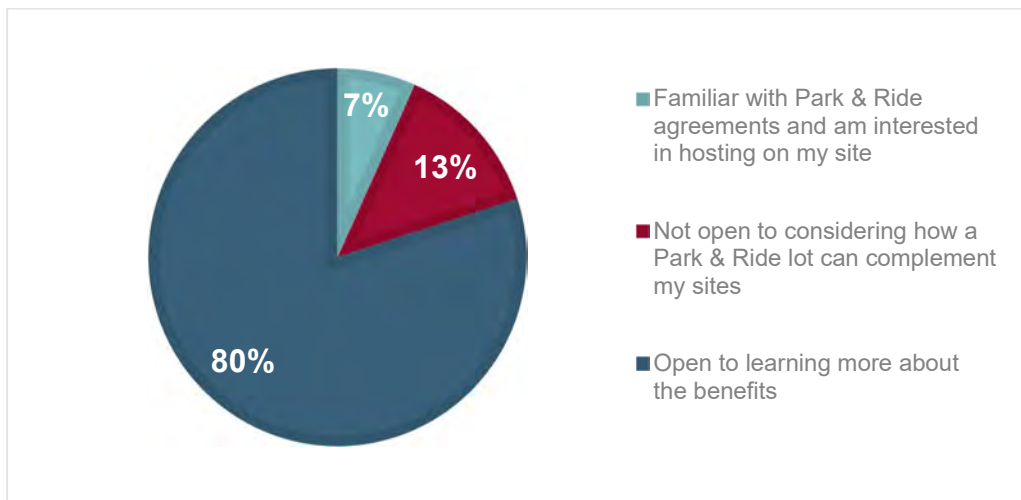
This content is created by the owner of the form. The data you submit will be sent to the form owner. Never give out your password.

Powered by Microsoft Forms [Privacy and Cookies \(https://go.microsoft.com/fwlink/p/?linkid=857875\)](https://go.microsoft.com/fwlink/p/?linkid=857875)

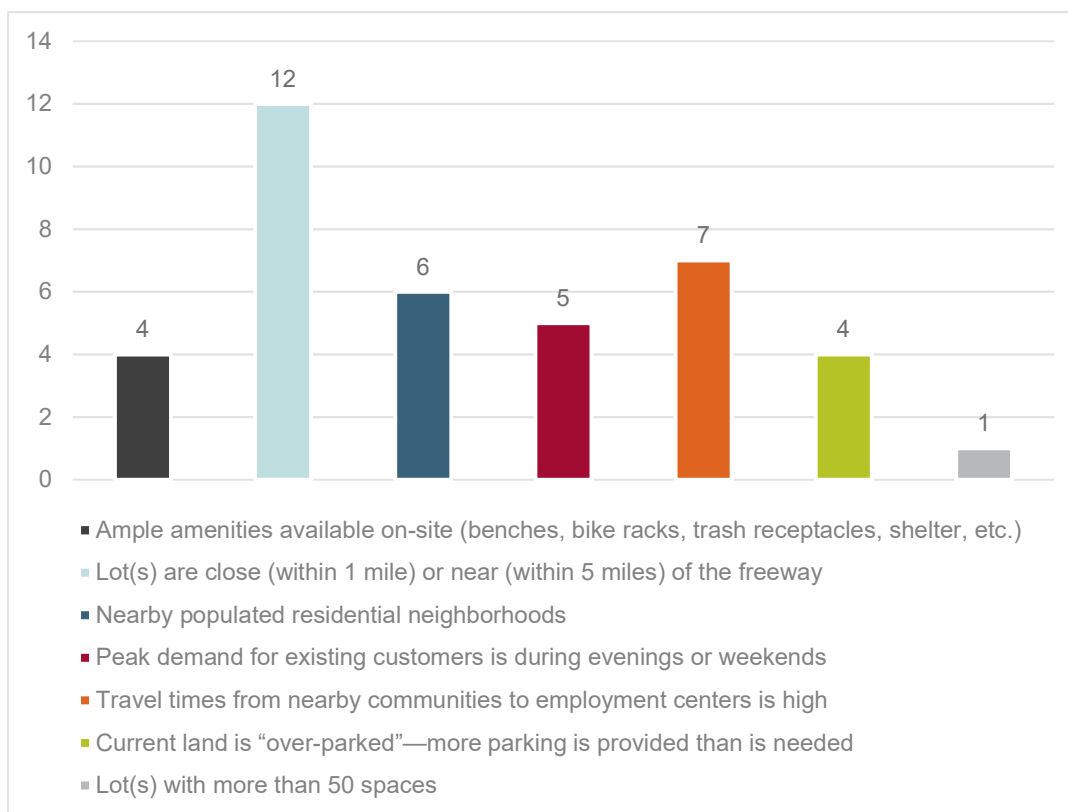
# Appendix B

Detailed Breakdown of Survey Results

Response results to "Would you consider Park & Ride operations at future sites?"

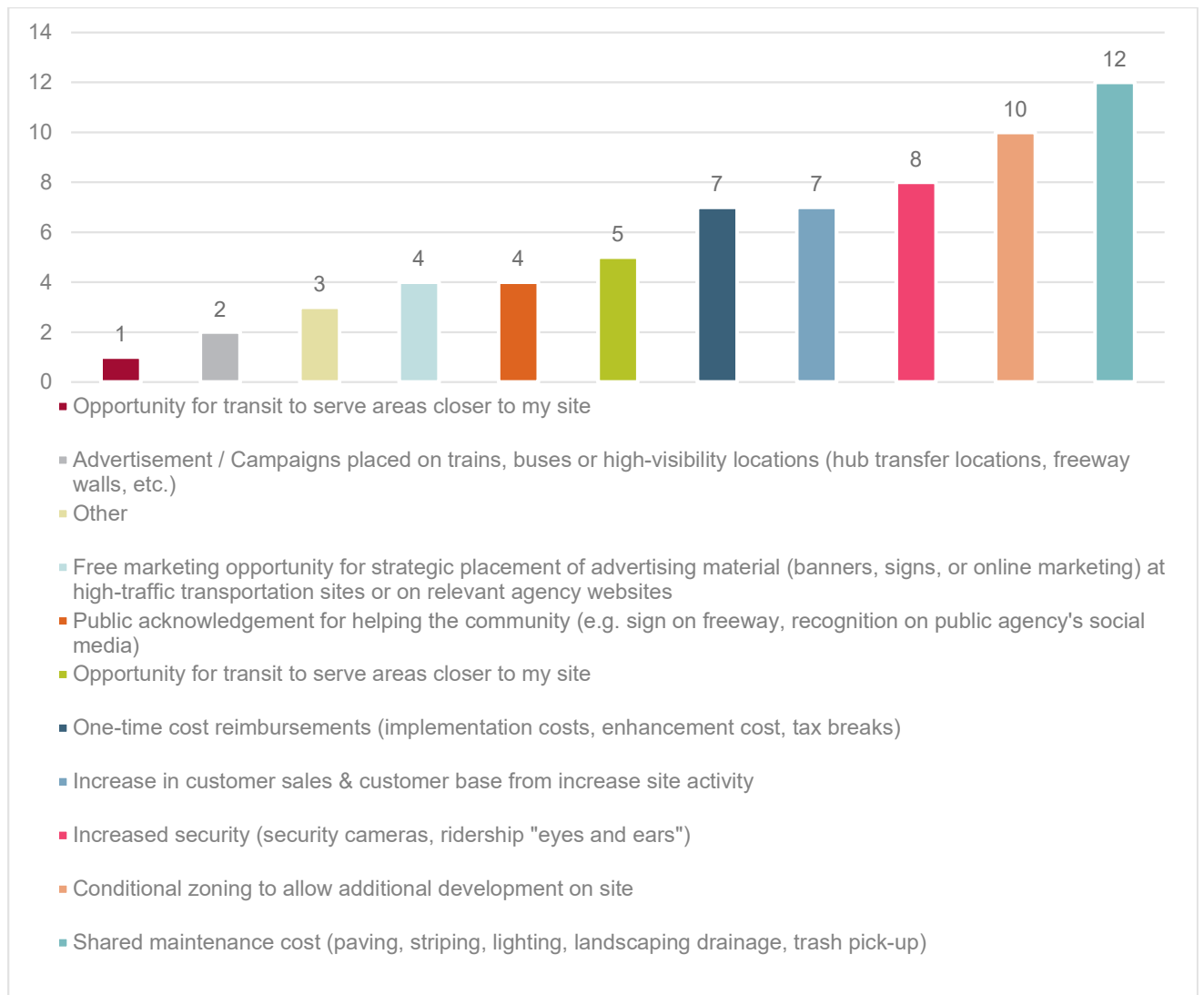


Response results to "Below are a list of characteristics that might be supportive of Park & Ride operations. Do any of these apply to new developments you are considering?"

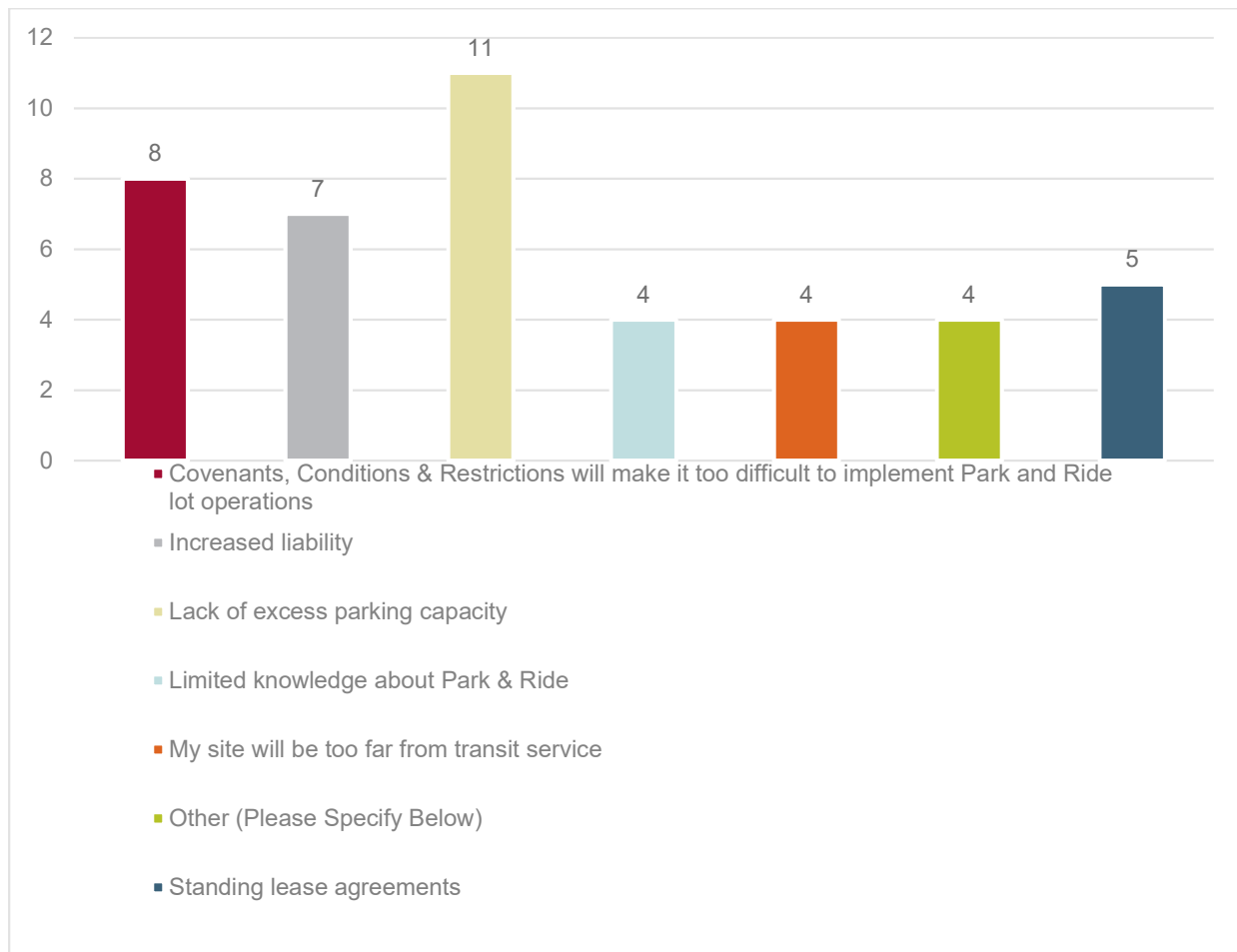




Response results to "What would make you interested in partnering with a public agency to allow Park & Ride operations at your future development?"



Response results to "What obstacles are preventing you from pursuing partnerships for Park & Ride lots?"



*This page has been intentionally left blank.*

# APPENDIX G: FUNDING SOURCES

*This page has been intentionally left blank.*

# POTENTIAL FUNDING SOURCES

This section identifies potential funding sources that can be leveraged for planning, building, and improving Park & Ride facilities. Submitted funding applications compete with other agencies and other project types. It is recommended that applicants requesting funds for a Park & Ride lot include other critical transportation components and elements such as improvements and amenities for bikeways, pedestrian access, transit, freeway, and roadway safety. This will allow the application to be more competitive but potentially improve the conditions of the Park & Ride lots near other transportation assets.

## Public Sources

Program Name	Agency	Description	Eligible Projects
<b>Federal Lands Access Program (FLAP)</b>	FLAP, FHWA	Provides funds for projects on federal lands access transportation facilities that are located on or adjacent to, or that provide access to, federal lands.	<ul style="list-style-type: none"> <li>• Transportation planning, research, engineering, preventive maintenance rehabilitation, restoration, construction, and reconstruction of federal lands access transportation facilities</li> <li>• Operation and maintenance of transit facilities</li> <li>• Any transportation project eligible under title 23 of the United States Code that is within or adjacent to, or that provides access to, federal lands open to the public</li> </ul>
<b>Federal Lands Transportation Program (FLTP)</b>	FHWA	The FLTP funds projects that improve access within the federal estate (national forests, national parks, national wildlife refuges, national recreation areas, and other federal public lands) on transportation facilities in the national federal lands transportation inventory and owned and maintained by the federal government.	<ul style="list-style-type: none"> <li>• Program administration, transportation planning, research, preventive maintenance, engineering, rehabilitation, restoration, construction, and reconstruction of federal lands transportation facilities</li> <li>• Operations and maintenance of transit facilities</li> <li>• Any transportation project eligible under title 23 of the United States Code that is within or adjacent to, or that provides access to, federal lands open to the public</li> </ul>
<b>Highway Safety Improvement Program (HSIP)</b>	FHWA	The HSIP is a core federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands.	<p>Any project on a public road, trail, or path that is consistent with the state's Strategic Highway Safety Plan and corrects a safety problem is eligible for HSIP funding. Eligible projects include:</p> <ul style="list-style-type: none"> <li>• Intersection improvements</li> <li>• Construction of shoulders</li> <li>• Traffic calming</li> <li>• Improvements for bicyclists, pedestrians, and individuals with disabilities</li> <li>• Minimum standards of retro-reflectivity of traffic signs and pavement markings</li> </ul>



Program Name	Agency	Description	Eligible Projects
<b>National Highway Performance Program (NHPP)</b>	FHWA	The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a state's asset management plan for the NHS.	<ul style="list-style-type: none"> <li>• Construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, or operational improvements of NHS roadways and bridges</li> <li>• Bridge and tunnel inspection and evaluation</li> <li>• A project to reduce the risk of failure of critical NHS infrastructure</li> <li>• Construction, reconstruction, resurfacing, restoration, rehabilitation, and preservation of, and operational improvements for a federal aid highway or bridge not on the NHS, if the project is in the same corridor and in proximity to a fully access-controlled NHS route</li> <li>• Construction of a transit project eligible for assistance</li> <li>• Bicycle transportation and pedestrian walkways</li> <li>• Highway safety improvements</li> <li>• Capital and operating costs for traffic and traveler information, monitoring, management, and control facilities and programs</li> <li>• Infrastructure-based ITS capital improvements</li> <li>• Environmental restoration and pollution abatement</li> <li>• Control of noxious weeds and establishment of native species</li> <li>• Environmental mitigation related to NHPP projects</li> <li>• Construction of publicly owned intracity or intercity bus terminals</li> </ul>
<b>Bus and Bus Facilities Program (Section 5339)</b>	Federal Transit Administration (FTA)/Caltrans Division of Rail and Mass Transportation	The Grants for Buses and Bus Facilities program makes federal resources available to states and direct recipients to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. Eligible recipients include direct recipients that operate fixed route bus service or that allocate funding to fixed route bus operators; state or local governmental entities; and federally-recognized Indian tribes that operate fixed route bus service.	<ul style="list-style-type: none"> <li>• Capital projects to replace, rehabilitate, and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Rural Public Transportation Program (Section 5311)</b>	FTA/Caltrans Division of Rail and Mass Transportation	This program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000, where many residents often rely on public transit to reach their destinations. Funds may be used for public transit services operating: within small urban and rural communities, among small urban and rural communities, or between small urban and rural communities and urbanized areas (cities of 50,000 or more).	<ul style="list-style-type: none"> <li>An eligible recipient may use the funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.</li> </ul>
<b>Rural Transit Assistance Program (RTAP)</b>	FTA/Cal ACT	The RTAP provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in nonurbanized areas. Eligible recipients include states, local governments, and providers of rural transit services.	<ul style="list-style-type: none"> <li>An eligible recipient may use the funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.</li> </ul>
<b>Surface Transportation Block Grant Program</b>	FHWA/Caltrans	The STBGP provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any federal aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.	<ul style="list-style-type: none"> <li>States and metropolitan regions may use these funds for highway, bridge, transit (including intercity bus terminals), and pedestrian and bicycle infrastructure projects. Eligible projects include:</li> <li>Construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements for highways, bridges, and tunnels on any public roadway</li> <li>Construction of new bridges and tunnels on a federal-aid highway</li> <li>Inspection and evaluation of bridges, tunnels, and other highway assets as well as training for bridge and tunnel inspectors</li> <li>Transit capital projects</li> <li>Bicycle, pedestrian, and recreational trails</li> <li>Environmental mitigation efforts</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Transportation Investment Generating Economic Recovery (TIGER) grants</b>	U.S. DOT	The TIGER Discretionary Grant program provides a unique opportunity for the DOT to invest in road, rail, transit, and port projects that promise to achieve national objectives.	Eligible applicants for TIGER Discretionary Grants are state, local, and tribal governments, including US territories, transit agencies, port authorities, MPOs, and other political subdivisions of state or local governments. Funding is eligible for: <ul style="list-style-type: none"> <li>• Highway or bridge projects eligible under title 23, United States Code</li> <li>• Public transportation projects eligible under chapter 53 of title 49, United States Code</li> <li>• Freight rail projects</li> <li>• High speed and intercity passenger rail projects</li> <li>• Port infrastructure investments</li> </ul>
<b>Partnerships to Improve Community Health (PICH)</b>	Centers for Disease Control and Prevention (CDC)	PICH is a three-year initiative that supports implementation of evidence-based strategies to improve the health of communities and reduce the prevalence of chronic disease. Awardees will address, in their communities, chronic conditions in tobacco use and exposure, poor nutrition, physical inactivity, and lack of access to opportunities for chronic disease prevention, risk reduction, and disease management.	Eligible transportation-related improvements include projects that improve community designs to make streets safe for pedestrians, bicyclists, and public transit users (e.g., neighborhood slow zones, community-wide traffic calming)
<b>Transportation Alternatives Program (TAP)</b>	FHWA	FAST Act replaced the TAP program with a set-aside of fund under the STBGP. The TA set-aside encompasses a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.	<ul style="list-style-type: none"> <li>• Bicycle and pedestrian facilities</li> <li>• Safe routes projects for non-drivers</li> <li>• Construction of turnouts and overlooks</li> <li>• Community improvement activities including vegetation management and historic preservation</li> <li>• Environmental mitigation activity</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Caltrans Sustainable Transportation Planning Grant Program</b>	Caltrans	New grant funding through Senate Bill 1	<p>Funds transportation planning studies of interregional and statewide significance, in partnership with Caltrans. Sustainable Communities Project Types:</p> <ul style="list-style-type: none"> <li>• Active transportation plans</li> <li>• Studies that advance a community's effort to reduce transportation related greenhouse gases</li> <li>• Complete Streets Plans</li> <li>• First Mile / Last Mile project development planning</li> <li>• Jobs and affordable housing proximity studies</li> <li>• Studies that evaluate accessibility and connectivity of the multimodal transportation network</li> </ul>
<b>Urbanized Area Formula Grants – Section 5307</b>	FTA	Federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning	<ul style="list-style-type: none"> <li>• planning, engineering, design and evaluation of transit projects and other technical transportation-related studies</li> <li>• capital investments in bus and bus-related activities (e.g., replacement, overhaul and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities)</li> <li>• capital investments in new and existing fixed guideway systems (e.g., rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software)</li> <li>• associated transit improvements and certain expenses associated with mobility management programs are eligible under the program</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Capital Investment Grants – Section 5309</b>	FTA	Funds transit capital investments, including heavy rail, commuter rail, light rail, streetcars and bus rapid transit	<ul style="list-style-type: none"> <li>• <b>Bus and Bus-related Facilities</b> <ul style="list-style-type: none"> <li>• buses and other rolling stock, ferry boats, ancillary equipment, and the construction of bus facilities (e.g., maintenance facilities, garages, storage areas, waiting facilities and terminals, transit malls and centers, and transfer facilities and intermodal facilities)</li> <li>• bus rehabilitation and leasing, Park &amp; Ride facilities, parking lots associated with transit facilities, bus passenger shelters, and intercity bus stations and terminals</li> </ul> </li> <li>• <b>Modernization of Fixed Guideway Systems</b> <ul style="list-style-type: none"> <li>• infrastructure improvements such as track and right-of-way rehabilitation, modernization of stations and maintenance facilities, rolling stock purchase and rehabilitation, and signal and power modernization</li> </ul> </li> <li>• <b>New Fixed Guideway Capital Projects (New Starts and Small Starts)</b> <ul style="list-style-type: none"> <li>• preliminary engineering (PE), acquisition of real property (including relocation costs), final design and construction, and initial acquisition of rolling stock for the system</li> <li>• corridor bus projects that either operate in a separate right-of-way during peak hours or contain significant investment in corridor-based bus improvements</li> </ul> </li> <li>• <b>Corridors to Support New Fixed Guideway Projects</b> <ul style="list-style-type: none"> <li>• protecting rights-of-way through acquisition</li> <li>• construction of dedicated bus and high occupancy vehicle (HOV) lanes</li> <li>• Park &amp; Ride lot</li> <li>• “nonvehicular” capital improvements that will increase transit use in the corridor (e.g., additional safety features that would encourage riders to use transit, walkways and pathways that make transit more readily available, bus shelters, and joint development projects that would improve the livability of a community and increase the benefits transit offers)</li> </ul> </li> </ul>
<b>Community Development Block Grants</b>	HUD	Flexible program that provides communities with resources to address a wide range of unique community development needs	Urban redevelopment, but Park & Ride lot projects in urban redevelopment areas will be considered

Program Name	Agency	Description	Eligible Projects
<b>State Transportation Improvement Program (STIP)</b>	CTC	<p>STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. STIP programming generally occurs every two years.</p> <p>Local agencies work through their Regional Transportation Planning Agency (RTPA), County Transportation Commission, or Metropolitan Planning Organization (MPO), to nominate projects for inclusion in the STIP.</p>	<ul style="list-style-type: none"> <li>• <b>Interregional Improvement Program</b> <ul style="list-style-type: none"> <li>• State highway, intercity passenger rail, mass transit guideway, or grade separation projects. Non-capital costs for transportation system management or transportation demand management may be included where Caltrans finds the project to be a cost-effective substitute for capital expenditures</li> <li>• intercity rail projects (including interregional commuter rail and grade separation projects) and to improvements outside urbanized areas on interregional road system routes</li> </ul> </li> <li>• <b>Regional Improvement Program</b> <ul style="list-style-type: none"> <li>• capital projects (including project development costs) needed to improve transportation in the region</li> <li>• improving State highways, local roads, public transit (including buses), intercity rail, pedestrian and bicycle facilities, grade separations, transportation system management, transportation demand management, soundwalls, intermodal facilities, and safety</li> <li>• Non-capital costs for transportation system management or transportation demand management may be included where the regional agency finds the project to be a cost-effective substitute for capital expenditures. Other non-capital projects (e.g. road and transit maintenance) are not eligible</li> </ul> </li> </ul>

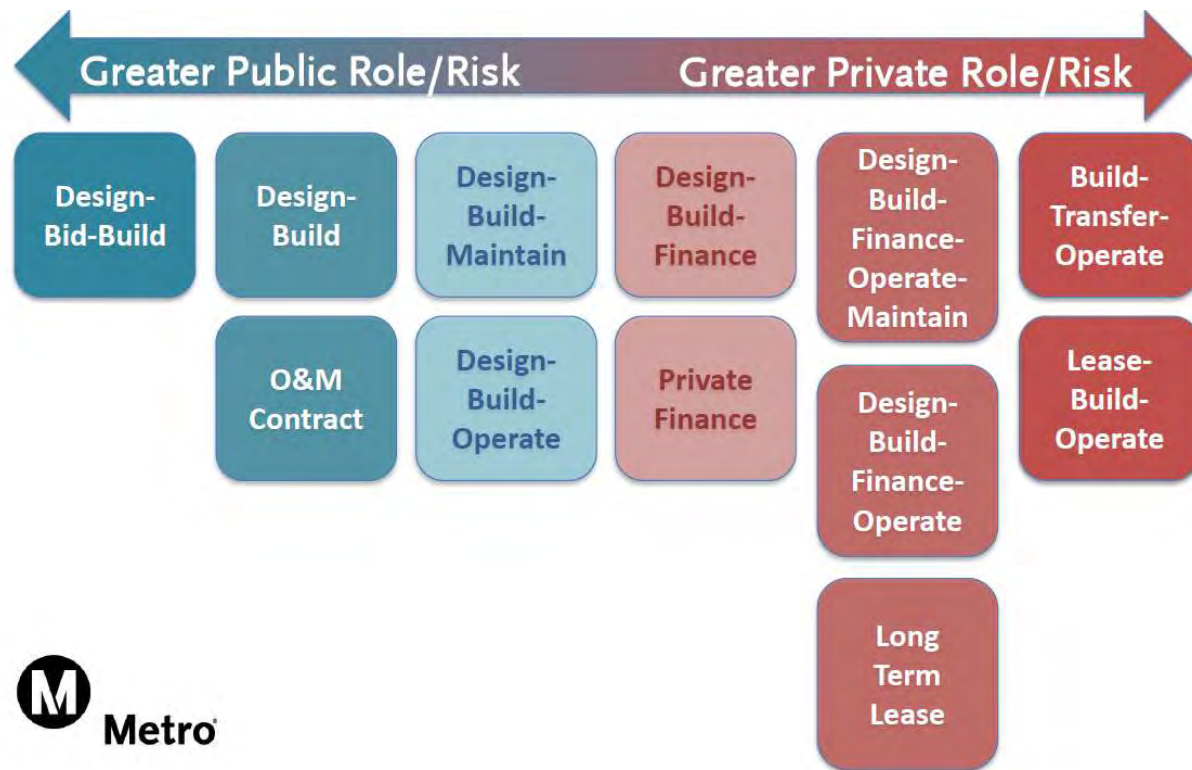


## Public-Private Partnerships (P3)

In addition to pursuing funding from public sources, the private sector is an increasingly willing partner on transportation improvement projects. Public stakeholders can engage the private sector on one or more components of project delivery including planning, design, construction, finance, operations, and maintenance. The benefits and challenges of P3s for public stakeholders include:

Benefits	Challenges
<ul style="list-style-type: none"> <li>• Reduced financial risk</li> <li>• Condensed project delivery timelines</li> <li>• Quality assurances</li> <li>• Lower ongoing costs</li> <li>• Innovation</li> <li>• Greater access to financial resources</li> </ul>	<ul style="list-style-type: none"> <li>• Complex contracting</li> <li>• Matching expertise with project scope</li> <li>• Management and oversight</li> <li>• Partner financial stability</li> </ul>

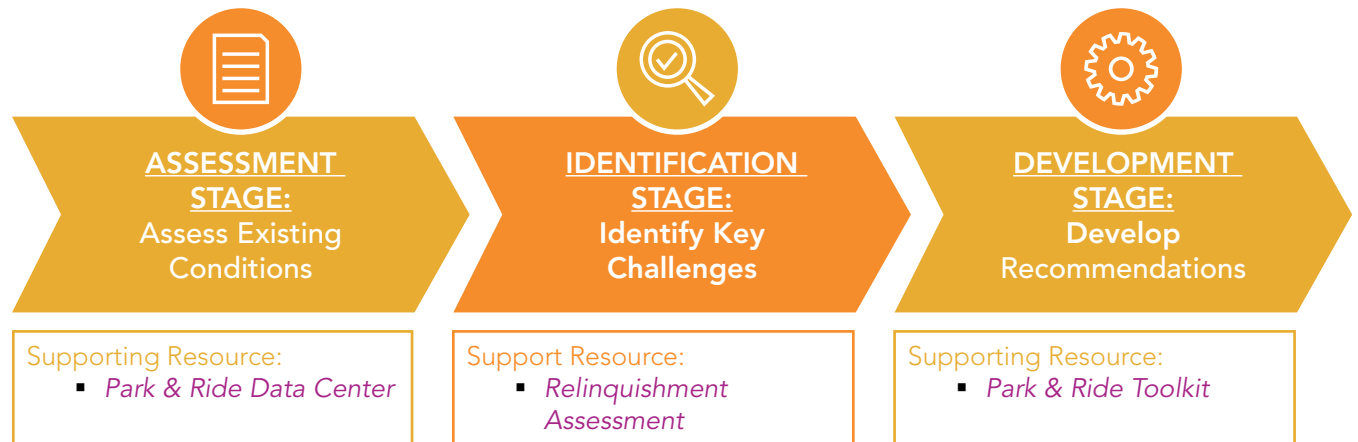
Figure 1 - Different P3 Models (LA METRO)



# APPENDIX H: EXISTING SITE RECOMMENDATION EXAMPLES

# EXISTING SITE RECOMMENDATION EXAMPLES

The *Existing Site Recommendation Examples* applies the recommended process shown in the [Guidance for Existing Site Analysis](#) to six existing sites in the regions of San Diego and Riverside. SANDAG and RCTC provided the six existing sites. Each site is taken through the three stages outlined in the [Guidance for Existing Site Analysis](#) to help users see what could be produced at each stage.



# EXISTING SITE RECOMMENDATION EXAMPLES

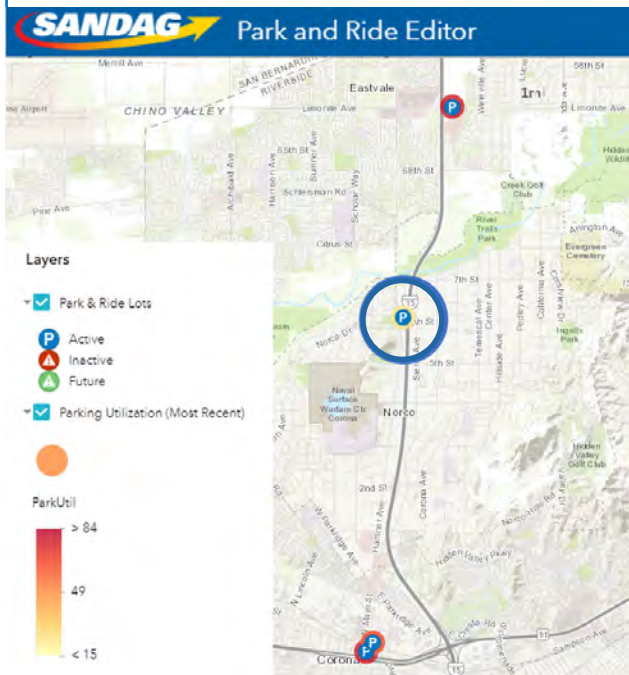
## SITE: HAMNER-NORCO PARK & RIDE

3945 Old Hammer Road, Norco, CA 91760

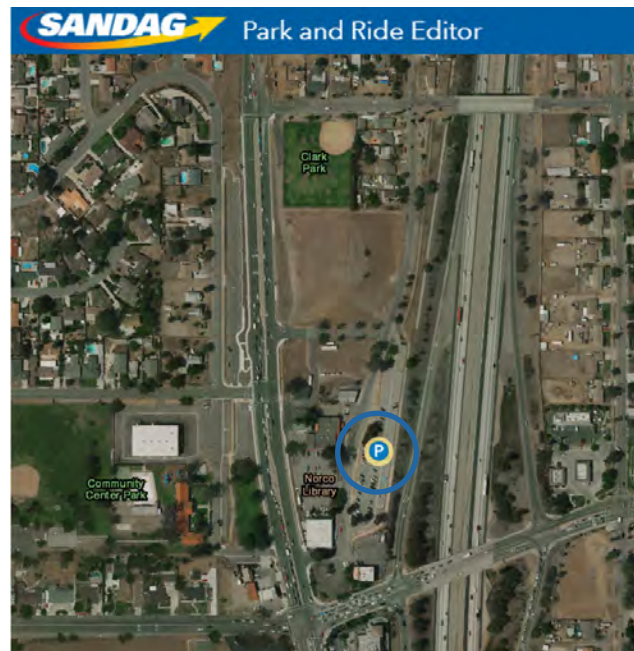
### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

Using the Park & Ride Data Center, a virtual site visit was performed to review the influence of transportation conditions on the site. The following maps highlight the site's transportation conditions at the regional, local, and site circulation perspectives. The site is identified with a blue outlined circle in the maps.

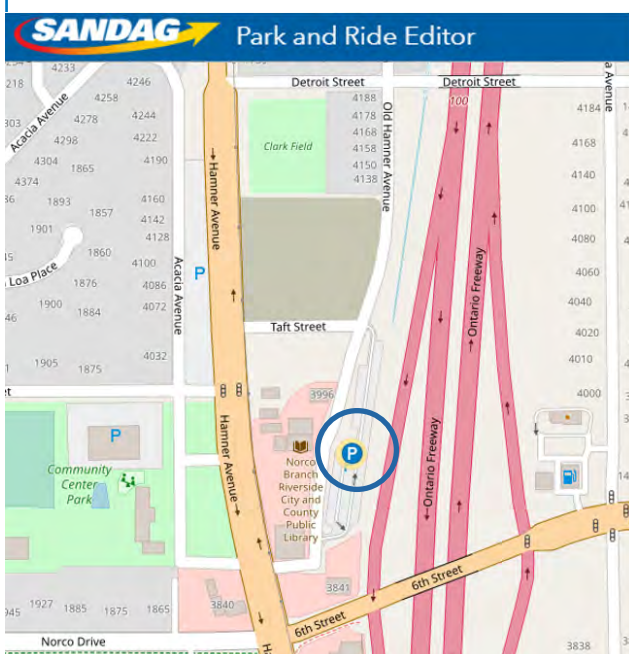
Regional Perspective



Local Perspective



Site Circulation Perspective



Although this city is considered "horse country," there are still a significant number of residents who commute to jobs in other parts of the county. Express lanes located on SR 91, provide access to the Park & Ride location, which is about four miles south of Norco. The 6th Street Park & Ride is sandwiched between two well utilized lots in nearby communities of Corona to the south and Mira Loma to the north. In 2020, 15-miles of express lanes are set to open on the I-15 between Cajalco Road and SR-60. This Park & Ride in Norco will be an ideal location that provides access to the future express lanes.

# EXISTING SITE RECOMMENDATION EXAMPLES

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	<ul style="list-style-type: none"> <li>100 spaces (existing)</li> <li>74 spaces (new)</li> <li>New lot serves as a spillover lot for a community center on the corner of Norco Dr. and Hamner Ave</li> </ul>
<b>User Types:</b> <i>What type of users utilize the site?</i>	<ul style="list-style-type: none"> <li>Carpool and Vanpool Only</li> </ul>
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	<ul style="list-style-type: none"> <li>Owner of Existing: Caltrans</li> <li>Operator of Existing: RCTC</li> </ul>
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	<ul style="list-style-type: none"> <li>Caltrans owned</li> </ul>
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	<ul style="list-style-type: none"> <li>31% during field counts</li> </ul>
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	<ul style="list-style-type: none"> <li>2 entrance points from main road, but one entrance point into lot</li> <li>2 exit points onto main road, vehicles must turn right at both</li> <li>2 exit points for leaving lot</li> </ul>
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	<ul style="list-style-type: none"> <li>No visibility from adjacent major arterials and freeway</li> <li>Limited signs along main access roads (e.g., No signs on Hamner Ave designating "need to turn right" for entrance points, No signs for lot on the I-15 leading to Sixth St exit)</li> <li>1 wayfinding sign found at Sixth St/Hamner Ave intersection (heading westbound on Sixth Ave) but none for users travelling eastbound on Norco Dr</li> </ul>
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	<ul style="list-style-type: none"> <li>Residential</li> </ul>
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	<ul style="list-style-type: none"> <li>Rural</li> </ul>
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	<ul style="list-style-type: none"> <li>Bordered by I-15</li> <li>Offramp is two blocks away</li> </ul>
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	<ul style="list-style-type: none"> <li>Personal Vehicle</li> </ul>

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	<ul style="list-style-type: none"> <li>Fair</li> </ul>
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	<ul style="list-style-type: none"> <li>No</li> </ul>
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	<ul style="list-style-type: none"> <li>No</li> </ul>
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	<ul style="list-style-type: none"> <li>None</li> <li>1 entrance sign at the lot entrance of Old Hamner Rd and Veterans Memorial St</li> </ul>
<b>Bike Parking:</b> <i>Is bike parking available?</i> <i>What kind?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	<ul style="list-style-type: none"> <li>Good</li> <li>Striped</li> </ul>

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	<ul style="list-style-type: none"> <li>Norco Community Center</li> </ul>
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	<ul style="list-style-type: none"> <li>No travel pattern data available</li> </ul>
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	<ul style="list-style-type: none"> <li>No utilization available via Database</li> </ul>

# EXISTING SITE RECOMMENDATION EXAMPLES

## IDENTIFICATION STAGE: KEY CHALLENGES

- **Underutilization (Utilization < 30%):**
  - » Currently averaging 31%. Because it is on the cusp, it is assumed that underutilization is a key challenge for the existing site analysis.
- **Operations and Management:**
  - » **Difficult to Access:** The main arterials to access I-15 are Norco Avenue and Hamner Avenue, and this Park & Ride is not visible from either street because it is located behind the library, Chamber of Commerce, American Legion and Maverick Saloon buildings.
  - » **Security Concerns:** Frequent RV and camping activity incident reports.
- **System Management:**
  - » **Lack of Awareness:** Although this location is identified on the region's 511 website and Google maps, there is no wayfinding signage on the main arterials or on the freeway. Although there is a small Park & Ride sign that is located at the entrance of the lot on Old Hamner Road, there are no wayfinding signs that direct users to turn right on Taft or Veterans American Street to access Old Hamner Road. The site is identified as "Park N Ride" in Google maps, which could allow users to direct them to the site. However, the user would need to know about the site and have an idea of its location to find it in Google maps.

## RELINQUISHMENT ASSESSMENT

		CHALLENGE	ACTION
STEP ONE		Utilization > 85%	Begin strategy identification matrix in the Development Stage.
		Utilization 30% - 85%	Begin strategy identification tool in the Development Stage.
		Utilization < 30%	Continue step two to assess continued need for facility.



# EXISTING SITE RECOMMENDATION EXAMPLES

## DEVELOPMENT STAGE: RECOMMENDATIONS

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules / Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•

## RECOMMENDATIONS FOR THE SITE

### NEAR-TERM

- To increase awareness and usability of this lot, RCTC should work with the City of Norco and Caltrans District 8 to provide wayfinding signage on arterial streets and freeways for this Park & Ride lot.
  - » **Tools:** *Inter-Agency Coordination, and Supporting Mobility Hub Amenities*
- Consider a pilot test of focused enforcement to deter abusive camping at the Park & Ride location. Enforcement may include warnings, ticketing or towing. Consider random security patrols to deter undesired users from loitering and vandalizing on-site. This is also an opportunity to work with the City of Norco Police Department to support this effort. Another option is to partner with donation centers like Salvation Army or Goodwill—these donation centers could provide staff at the Park & Ride lot throughout the day, which should deter undesired activity that occurs at vacant lots. Consider combining this effort with a strategic marketing outreach program to raise awareness for potential new users.
  - » **Tools:** *Focused Enforcement to Deter Abuse, Pilot Programs to Test Potential Maximizing Capacity Solutions, and Marketing Park & Ride Benefits*
- Survey users of this location and adjacent Park & Ride locations to determine the neighborhood origins of users and the employment destinations. Understanding who is parking at the lot may also help identify where a targeted marketing campaign could be successful.
  - » **Tools:** *Proactive Siting, Annual Reporting and Performance Monitoring, and Marketing Park & Ride Benefits*

### MID-TERM

- Consider partnership pilot programs to activate the space and raise awareness of the Park & Ride location in the community. Examples may include [Farmers markets](#), movie nights (e.g., New York Park & Ride lot hosts a Farmers Market; create a [pop-up drive-in!](#)).
  - » **Tools:** *Pilot Programs to Test Potential Maximizing Capacity Solutions and Activate, Lease or Reuse Excess Capacity*
- Consider a targeted marketing campaign with Caltrans District 8 to highlight the opportunity for commuters to carpool and utilize the Express Lanes that are planned to open in 2020.
  - » **Tools:** *Marketing Park & Ride Benefits and Inter-Agency Coordination*

### LONG-TERM

- Consider relocating this Park & Ride at a new location with better access and visibility to major arterials that access the freeway.
  - » **Tool:** *Proactive Siting*

*This page has been intentionally left blank.*

# EXISTING SITE RECOMMENDATION EXAMPLES

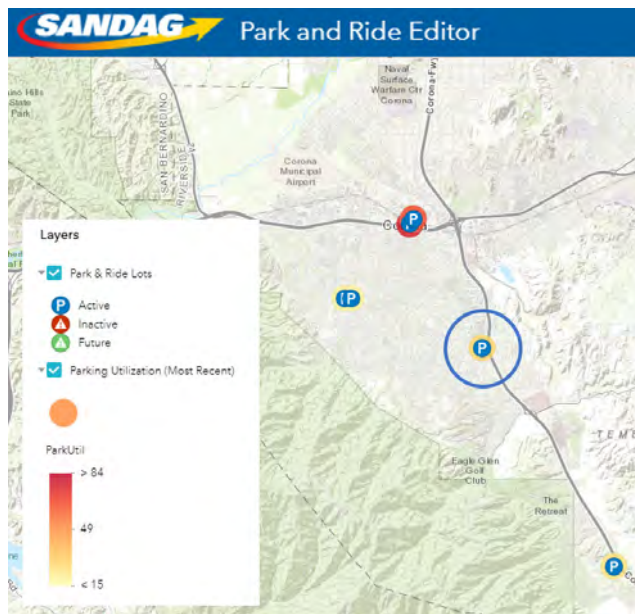
## SITE: CANYON COMMUNITY CHURCH (OF THE NAZARENE) PARK & RIDE

1504 Taber St. Corona, CA 92881

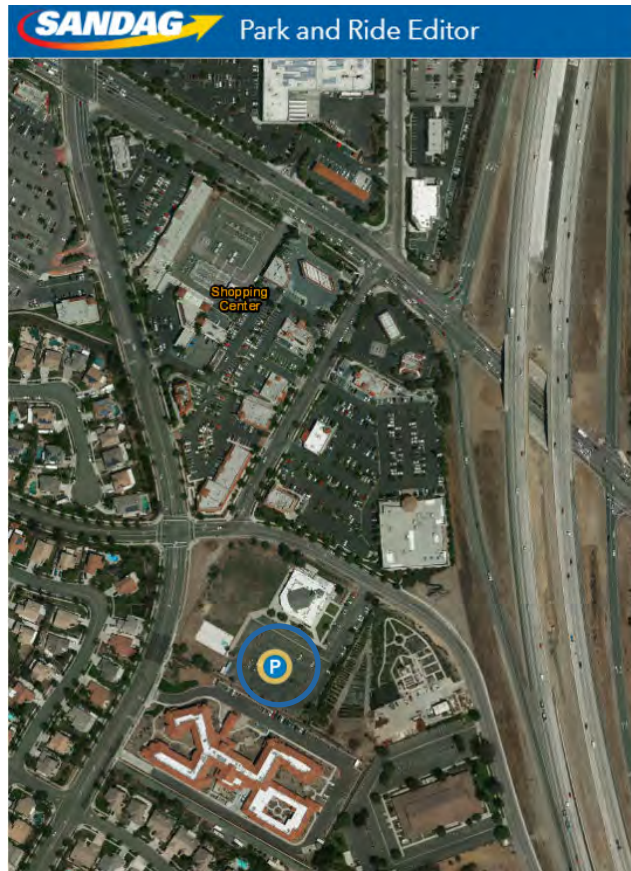
### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

Using the Park & Ride Data Center, a virtual site visit was performed to review the influence of transportation conditions on the site. The following maps highlight the site's transportation conditions at the regional, local, and site circulation perspectives. The site is identified with a blue outlined circle in the maps.

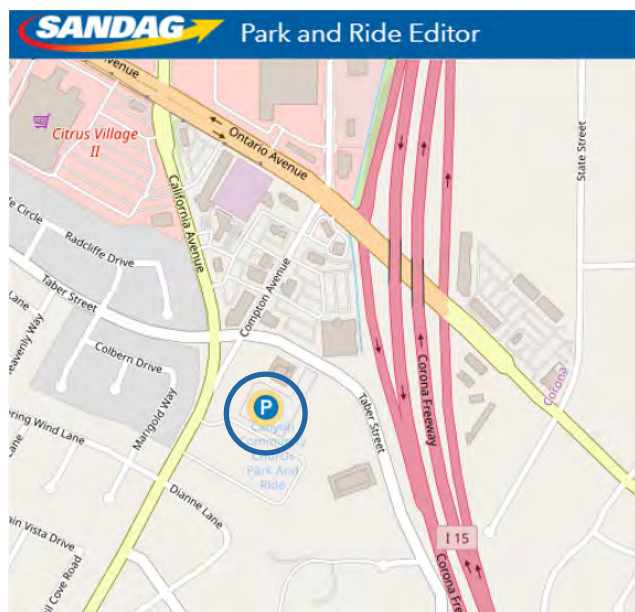
Regional Perspective



Local Perspective



Site Circulation Perspective



There are Express Lanes located on SR 91 between I-15 and SR 71, and this location is just south of that improvement. RCTC leases this location from Canyon Community Church for \$8/space for 75 spaces to use Monday - Friday.

# EXISTING SITE RECOMMENDATION EXAMPLES

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	<ul style="list-style-type: none"> <li>75 spaces</li> </ul>
<b>User Types:</b> <i>What type of users utilize the site?</i>	<ul style="list-style-type: none"> <li>Carpool &amp; Vanpool</li> <li>Transit</li> </ul>
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	<ul style="list-style-type: none"> <li>Operator of Existing: RCTC</li> <li>Owner of New: Canyon Community Church</li> </ul>
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	<ul style="list-style-type: none"> <li>Leased</li> </ul>
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	<ul style="list-style-type: none"> <li>53% during field counts</li> </ul>
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	<ul style="list-style-type: none"> <li>Poor</li> <li>No sign on the main road</li> <li>Sign at entrance</li> </ul>
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	<ul style="list-style-type: none"> <li>Residential</li> <li>Commercial</li> </ul>
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	<ul style="list-style-type: none"> <li>Suburban</li> </ul>
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	<ul style="list-style-type: none"> <li>Bordered major arterial (California Ave)</li> <li>Entrance along minor road</li> <li>Freeway entrance is two blocks from station</li> </ul>
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	<ul style="list-style-type: none"> <li>Personal Vehicle</li> </ul>

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	<ul style="list-style-type: none"> <li>Fair</li> </ul>
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	<ul style="list-style-type: none"> <li>No</li> </ul>
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	<ul style="list-style-type: none"> <li>No</li> </ul>
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	<ul style="list-style-type: none"> <li>None</li> <li>1 entrance sign</li> </ul>
<b>Bike Parking:</b> <i>Is bike parking available?</i> <i>What kind?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	<ul style="list-style-type: none"> <li>Good</li> <li>Striped</li> </ul>

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	<ul style="list-style-type: none"> <li>South of commercial center</li> <li>East of Residential Neighborhood</li> </ul>
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	<ul style="list-style-type: none"> <li>No travel pattern data available</li> </ul>
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	<ul style="list-style-type: none"> <li>No utilization available via <i>Data Center</i></li> </ul>

# EXISTING SITE RECOMMENDATION EXAMPLES

## IDENTIFICATION STAGE: KEY CHALLENGES

- **Utilization 30%-85%:**
  - » Currently averaging 53%.
- **Operations and Management:**
  - » Security Concerns: This is a RCTC leased facility with good usage rate; however, it suffers from loitering and occasional vandalism.
- **System Management/Partnership and Policy:**
  - » Lack of Awareness: Although this location is identified on the region's 511 website, there is no wayfinding signage on the main arterials and none on the freeway. The only Park & Ride sign is on Taber Street. There is another sign within the lot, but users still need to travel through the church parking to get to the Park & Ride lot. The sign on Taber Street does not face the direction of drivers so it can easily be missed.

## RELINQUISHMENT ASSESSMENT

	CHALLENGE	ACTION
STEP ONE	Utilization > 85%	Begin strategy identification matrix in the Development Stage.
	Utilization 30% - 85%	Begin strategy identification tool in the Development Stage.
	Utilization < 30%	Continue step two to assess continued need for facility.

# EXISTING SITE RECOMMENDATION EXAMPLES

## DEVELOPMENT STAGE: RECOMMENDATIONS

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules / Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•



# EXISTING SITE RECOMMENDATION EXAMPLES

## RECOMMENDATIONS FOR THE SITE

### NEAR-TERM

- Survey users of this location and adjacent Park & Ride locations to determine the neighborhood origins of users and the employment destinations. Understanding who is parking at the lot may also help identify where a targeted marketing campaign could be successful.
  - » Tools: *Proactive Siting, Annual Reporting and Performance Monitoring, and Marketing Park & Ride Benefits*
- To increase awareness and usability of this lot, RCTC should work with the City of Corona and Caltrans District 8 to provide wayfinding signage on arterial streets and freeways for this Park & Ride lot.
  - » Tools: *Inter-Agency Coordination and Supporting Mobility Hub Amenities*
- To combat vandalism, loitering, and other safety related issues, it would be beneficial to look at implementing focused enforcement that can include both staffing and technology resources. Consider random security patrols to deter undesired users from loitering and vandalizing on-site. This is also an opportunity to work with the City of Corona Police Department to support this effort. Another option is to partner with donation centers like Salvation Army or Goodwill—these donation centers could provide staff at the Park & Ride lot throughout the day, which should deter undesired activity that occurs at vacant lots.
  - » Tools: *Reduce Security Concerns and Inter-Agency Coordination*

### MID-TERM

- Cameras could help with real-time surveillance and support enforcement. This does require capital improvements on right-of-way that is not owned by RCTC. Investment in cameras could also be combined with smart parking data collection and sharing. If this investment is considered, it would need to be in partnership with Canyon Community Church to support funding, permitting installation and longer-term leases to justify the investment.
  - » Tools: *Smart Parking Systems and Reduce Security Concerns*

### LONG-TERM

- Consider relocating this Park & Ride at a new location with better access and visibility to major arterials that access the freeway.
  - » Tools: *Proactive Siting*

*This page has been intentionally left blank.*

# EXISTING SITE RECOMMENDATION EXAMPLES

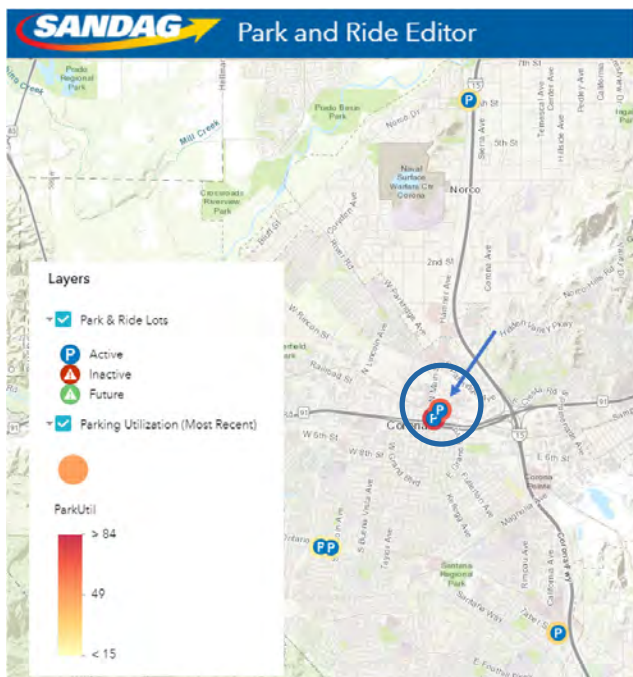
## SITE: NORTH MAIN CORONA METROLINK STATION PARK & RIDE

250 East Blaine Street Corona, CA 92879

### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

Using the Park & Ride Data Center, a virtual site visit was performed to review the influence of transportation conditions on the site. The following maps highlight the site's transportation conditions at the regional, local, and site circulation perspectives. The site is identified with a blue outlined circle in the maps.

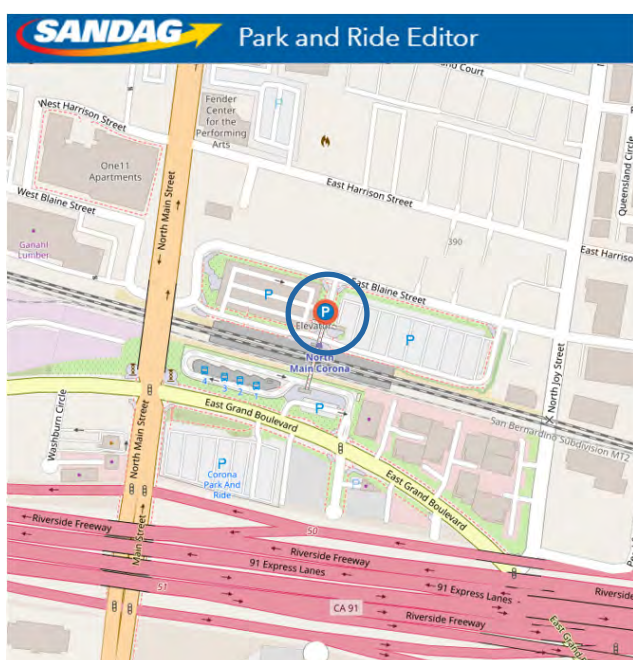
Regional Perspective



Local Perspective



Site Circulation Perspective



RCTC owns and operates all Metrolink facilities in Riverside County. This is an RCTC owned and operated facility where parking is primarily for Metrolink patrons, carpool and vanpool users. Of the 1,386 spaces, 118 are designated for carpool and vanpool. The structure and adjacent level lot benefit from 24/7 monitoring and on-site security. This location also has a "Rideshare 2 Rails" program with 27 spaces dedicated to commuters who carpool to this Metrolink facility. Rideshare 2 Rails participants are issued individually numbered parking permits that must be displayed to allow them to park in specially designated areas. This Metrolink Park & Ride is served by two Commuter Rail lines with connections to UC Riverside, San Diego, Anaheim and L.A. Union Station. The Corona Transit Center is located at this Park & Ride which provides additional local bus service to connect to the Commuter Rail network.

# EXISTING SITE RECOMMENDATION EXAMPLES

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	<ul style="list-style-type: none"> <li>1,386 total spaces</li> <li>118 designated Park &amp; Ride spaces</li> <li>Parking spaces free</li> <li>Overnight parking permitted (up to 72 hours)</li> </ul>
<b>User Types:</b> <i>What type of users utilize the site?</i>	<ul style="list-style-type: none"> <li>Carpool &amp; Vanpool</li> <li>Transit</li> </ul>
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	<ul style="list-style-type: none"> <li>Owned &amp; Operated: RCTC</li> </ul>
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	<ul style="list-style-type: none"> <li>Owned</li> </ul>
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	<ul style="list-style-type: none"> <li>81% during field counts</li> </ul>
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	<ul style="list-style-type: none"> <li>Poor</li> <li>Can't access from North Main Street</li> </ul>
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	<ul style="list-style-type: none"> <li>Poor</li> <li>No sign along the main road</li> <li>No sign at entrance</li> </ul>
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	<ul style="list-style-type: none"> <li>Residential</li> <li>Commercial</li> </ul>
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	<ul style="list-style-type: none"> <li>Urban</li> </ul>
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	<ul style="list-style-type: none"> <li>Surrounded by local roads</li> <li>North of CA-91 freeway</li> </ul>
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	<ul style="list-style-type: none"> <li>Personal Vehicle</li> <li>Transit</li> </ul>

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	<ul style="list-style-type: none"> <li>Good</li> </ul>
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	<ul style="list-style-type: none"> <li>Poor</li> <li>Lacks signage for Park &amp; Ride users</li> </ul>
<b>Bike Parking:</b> <i>Is bike parking available?</i> <i>What kind?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	<ul style="list-style-type: none"> <li>Good</li> <li>Striped</li> </ul>

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	<ul style="list-style-type: none"> <li>South of commercial center</li> <li>East of Residential Neighborhood</li> </ul>
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	<ul style="list-style-type: none"> <li>No travel pattern data available</li> </ul>
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	<ul style="list-style-type: none"> <li>No utilization available via Data Center</li> </ul>

# EXISTING SITE RECOMMENDATION EXAMPLES

## IDENTIFICATION STAGE: KEY CHALLENGES

Refer to the existing conditions summary developed in the Assessments Stage to identify relevant key challenges and their potential causes from the list below.

- **Underutilization (Utilization < 85%):**
  - » Currently averaging 81%. Because it is on the cusp, it is assumed that overutilization is a key challenge for the existing site analysis.
- **Modal Competition (Utilization > 85%) / System Management / Partnerships and Policy:**
  - » This is a shared lot with varying user types and high utilization. Only the reserved “Rideshare 2 Rails” spaces are marked at this Park & Ride lot, which makes it difficult to distinguish between carpool, vanpool and transit users. Although station security provides parking counts, they cannot easily distinguish counts for each user type. Additionally, station counts must be conducted manually.

## RELINQUISHMENT ASSESSMENT

		CHALLENGE	ACTION
STEP ONE		Utilization > 85%	Begin strategy identification matrix in the Development Stage.
		Utilization 30% - 85%	Begin strategy identification tool in the Development Stage.
		Utilization < 30%	Continue step two to assess continued need for facility.

# EXISTING SITE RECOMMENDATION EXAMPLES

## DEVELOPMENT STAGE: RECOMMENDATIONS

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules / Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•

# EXISTING SITE RECOMMENDATION EXAMPLES

## RECOMMENDATIONS FOR THE SITE

### NEAR-TERM

- Survey users of this location and adjacent Park & Ride locations to determine the neighborhood origins of users and the employment destinations. Understanding who is parking at the lot may also help identify where additional access modes at the Corona Transit Center could be successful.
  - » Tools: *Proactive Siting, Annual Reporting and Performance Monitoring, and Enhance Access Modes*
- Consider dedicating space for pick-up and drop-off for Transportation Network Companies that encourage ride-sharing like UberPool, Lyft Line and Waze Carpool. Strategize potential partnerships directly with these companies. In addition, consider re-routing local bus service to this site.
  - » Tools: *Enhance Access Modes and Supporting Mobility Hub Amenities*
- Consider a pilot that expands the Dial-a-Ride service to all users and serves as an on-demand, door-to-door Microtransit option for the nearby community. This could also be implemented through a service like RideCo or Via.
  - » Tools: *Pilot Programs to Test Potential Maximizing Capacity Solutions, Enhance Access Modes, and Supporting Mobility Hub Amenities*

### MID-TERM

- Consider additional partnerships for the “Rideshare 2 Rails” program that encourages dedicated space for carpooling to this Park & Ride location. A partnership with a service like Scoop will provide ride-matching services for commuters who are driving to the Park & Ride from the same neighborhoods.
  - » Tools: *Marketing Park & Ride Benefits and Dedicate Space for Alternative Access Modes*
- Consider a strategic marketing effort with other transit agencies and TDM programs or key campus destinations like UC Riverside to increase the number of potential new users who access this transit hub.
  - » Tools: *Campus Employer Partnerships and Marketing Park & Ride Benefits*

### LONG-TERM

- Consider investing in smart parking. This would provide real-time information that could be integrated into regional apps, dynamic freeway signage and throughout the parking lot and structure. Smart parking investment could be combined with a reservation or paid-parking system. Enforcement could be managed through license plate recognition software with a combined permit system. Revenue from a paid parking system could support other operations and management needs at this location or others in the system.
  - » Tools: *User Type Management, Smart Parking Systems, Inter-Agency Coordination, Annual Reporting and Performance Monitoring, and Implement Paid Parking System*



*This page has been intentionally left blank.*

# EXISTING SITE RECOMMENDATION EXAMPLES

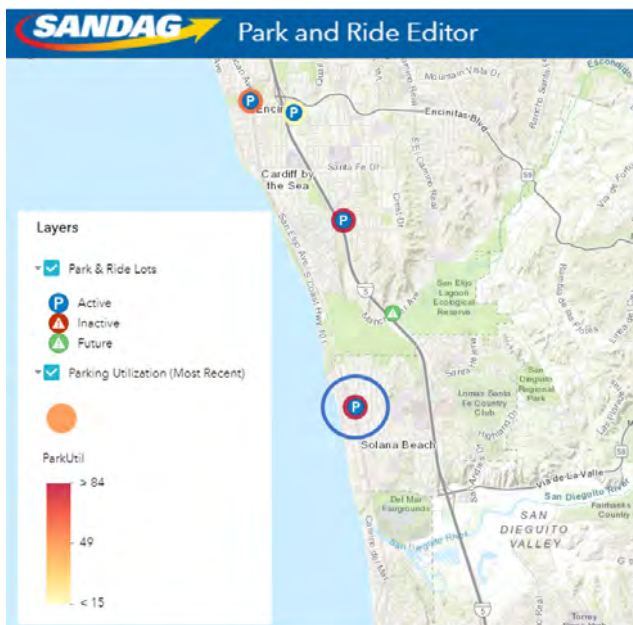
## SITE: SOLANA BEACH TRANSIT STATION PARK & RIDE

105 N. Cedros Avenue, Solana Beach 92075

### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

Using the Park & Ride Data Center, a virtual site visit was performed to review the influence of transportation conditions on the site. The following maps highlight the site's transportation conditions at the regional, local, and site circulation perspectives. The site is identified with a blue outlined circle in the maps.

Regional Perspective



Local Perspective



Site Circulation Perspective



This is a transit-only lot that serves both Coaster and Amtrak commuter trains and local bus route 308 that connects to Escondido Transit Center. It is owned and operated by NCTD. This location, along with the other Park & Ride lots that serve Coaster and Amtrak, is frequently at 100% capacity. This location is walking distance to the beach, retail and single family homes.

Much of the commuter demand may be generated from southern and eastern communities. Due to infrequent headways, some residents who live in the southern parts of the county may choose to drive north to this location even though there are Park & Ride locations closer to their homes. If the I-5 isn't congested enough to delay their trip, some commuters may choose to "race the train" up the freeway. Residents who live in the eastern parts of the county do not have a competitive service connection to the Coaster and Amtrak services. This location is just north of the I-5 and SR 56 interchange which also makes it a more attractive Park & Ride lot compared to the other Coaster Stations.

This location is considered a "Town Center" in SANDAG's Smart Growth Concept Match, which allows for a variety of mixed-use development projects including multi-family residential of up to 20 dwelling units per acre.

# EXISTING SITE RECOMMENDATION EXAMPLES

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	<ul style="list-style-type: none"> <li>• 319 regular, 6 ADA</li> <li>• 325 totale spaces</li> </ul>
<b>User Types:</b> <i>What type of users utilize the site?</i>	<ul style="list-style-type: none"> <li>• Carpool &amp; Vanpool</li> <li>• Transit</li> </ul>
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	<ul style="list-style-type: none"> <li>• Owned &amp; Operated: NCTD</li> </ul>
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	<ul style="list-style-type: none"> <li>• Owned</li> </ul>
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	<ul style="list-style-type: none"> <li>• Near 100% utilization at peak periods</li> </ul>
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	<ul style="list-style-type: none"> <li>• Good</li> </ul>
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	<ul style="list-style-type: none"> <li>• Good</li> </ul>
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	<ul style="list-style-type: none"> <li>• Retail</li> <li>• Residential</li> </ul>
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	<ul style="list-style-type: none"> <li>• Urban</li> </ul>
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	<ul style="list-style-type: none"> <li>• 1 mile of freeway ramps</li> <li>• Adjacent to two major arterials</li> </ul>
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	<ul style="list-style-type: none"> <li>• Auto, Bike, Transit Connection, Pedestrian</li> </ul>

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	<ul style="list-style-type: none"> <li>• Good</li> </ul>
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	<ul style="list-style-type: none"> <li>• No</li> </ul>
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Amtrak Ticket Sales, Information Kiosk</li> </ul>
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	<ul style="list-style-type: none"> <li>• Good</li> </ul>
<b>Bike Parking:</b> <i>Is bike parking available?</i> <i>What kind?</i>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• 4 bike lockers, bike racks</li> </ul>
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	<ul style="list-style-type: none"> <li>• Good, Yes</li> <li>• Straight-in parking</li> </ul>

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	<ul style="list-style-type: none"> <li>• North and east of commercial center</li> <li>• West of Residential Neighborhood</li> </ul>
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	<ul style="list-style-type: none"> <li>• No travel pattern data available</li> </ul>
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	<ul style="list-style-type: none"> <li>• No utilization available via Database</li> </ul>

# EXISTING SITE RECOMMENDATION EXAMPLES

## IDENTIFICATION STAGE: KEY CHALLENGES

Refer to the existing conditions summary developed in the Assessments Stage to identify relevant key challenges and their potential causes from the list below.

- **Overutilization (Utilization > 85%):**
  - » Frequently at 100% capacity. Nearby Coaster Park & Ride lots are also highly utilized
- **Modal Competition (Utilization > 85%) / System Management / Partnerships and Policy:**
  - » The lot is adjacent to retail locations and near the beach. It has been reported that this attracts unauthorized parking at the lot.
  - » Much of the commuter demand may be generated from a very large market area that captures the southern and eastern parts of the county.
- **Funding / System Management:**
  - » NCTD does not have staff to support data collection to monitor utilization, and there is no funding available to support capital investments to increase the number of Park & Ride spaces.

## RELINQUISHMENT ASSESSMENT

		CHALLENGE	ACTION
STEP ONE	Utilization > 85%	Begin strategy identification matrix in the Development Stage.	
	Utilization 30% - 85%	Begin strategy identification tool in the Development Stage.	
	Utilization < 30%	Continue step two to assess continued need for facility.	

# EXISTING SITE RECOMMENDATION EXAMPLES

## DEVELOPMENT STAGE: RECOMMENDATIONS

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules and Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•

# EXISTING SITE RECOMMENDATION EXAMPLES

## RECOMMENDATIONS FOR THE SITE

### NEAR-TERM

- Consider piloting focused enforcement examples to deter unauthorized users such as warnings, ticketing, towing, and on-site patrols at random. This is also an opportunity to work with the City of Solana Beach for shared parking enforcement efforts throughout the City.
  - » *Tools: Focused Enforcement to Deter Abuse, Pilot Programs to Test Potential Maximizing Capacity Solutions, and Marketing Park & Ride Benefits*
- Survey users of this site and adjacent Park & Ride locations to determine the origins of users and their employment destinations. Validating origins of parking lot users may help identify where additional transportation access service opportunities could be successful. Consider strategic partnerships with microtransit companies to expand the first-mile/last-mile service opportunities.
  - » *Tools: Proactive Siting, Annual Reporting and Performance Monitoring, and Enhance Access Modes*
- Consider renting camera equipment to evaluate ongoing uses at the Park & Ride location to better assess user behaviors. This will document the user types, when the lot fills as it relates to service times, and any potential latent demand or “hide and ride” activity. This data would help identify enforcement needs and times or justify potential partnerships and future investments.
  - » *Tools: Proactive Siting, Annual Reporting and Performance Monitoring, User Type Management, Smart Parking Systems, and Inter-Agency Coordination*
- Consider a pilot permit program that guarantees a priority space for those who carpool to transit, which could increase the person per space utilization. A partnership with a service like Scoop will provide ride-matching services for commuters who are driving to the Park & Ride from the same neighborhoods.
  - » *Tools: Dedicate Space for Alternative Access Modes, Pilot Programs to Test Potential Maximizing Capacity Solutions, User Type Management, Enhance Access Modes, and Marketing Park & Ride Benefits*

### MID-TERM

- Consider a partnership with the City of Solana Beach for a Neighborhood Electric Vehicle Program that provides on-demand free rides that serve adjacent retail facilities and the beach. Companies like Circuit that has partnered with the City of San Diego could serve as a model for this Microtransit service.
  - » *Tools: Enhance Access Modes, Inter-Agency Coordination, and Supporting Mobility Hub Amenities*

### LONG-TERM

- Consider investing in smart parking and/or paid parking system. This would provide real-time information that could be integrated into regional apps, dynamic freeway signage and throughout the parking lot and structure. Smart parking investment could be combined with a reservation or paid-parking system. Enforcement could be managed through license plate recognition software with a combined permit system. Including real-time transit arrival and departure times could also help balance demand. Early and accessible information provides a more reliable service by helping re-route commuters to stations or lots with more capacity. Revenue from a paid parking system could support other operations and management needs at this location or others in the system.
  - » *Tools: User Type Management, Smart Parking Systems, Inter-Agency Coordination, Annual Reporting and Performance Monitoring, and Implement Paid Parking System*
- This Park & Ride is located in SANDAG's Smart Growth concept map. Thus, future Transit-Oriented Development is encouraged at this location. Until a robust mobility options become available, there may still be demand for Park & Ride users and may warrant shared-use parking at the TOD. Smart parking can support operations and enforcement to control different user types as it relates to shared-use policies.
  - » *Tools: Encourage Transit-Oriented Development (TOD), User Type Management, and Inter-Agency Coordination*

*This page has been intentionally left blank.*



# EXISTING SITE RECOMMENDATION EXAMPLES

## SITE: I-15 AT SR 76 PALA ROAD PARK & RIDE

3340 Old Hwy, Fallbrook, 92028

### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

Using the Park & Ride Data Center, a virtual site visit was performed to review the influence of transportation conditions on the site. The following maps highlight the site's transportation conditions at the regional, local, and site circulation perspectives. The site is identified with a blue outlined circle in the maps.

Regional Perspective



Local Perspective



Site Circulation Perspective



This lot was relocated to the north side of SR 76 in 2017. It has a capacity of 223 spaces that are shared to accommodate carpool, vanpool, transit, and truck parking. It has fast electric vehicle charging stations and bike lockers. The SR 76 experiences sections of heavy peak hour congestion, particularly westbound. This area is a common stopover for goods movement trucks that sometimes park illegally on the freeway shoulders at night. There is a Mobil gas station and convenient store adjacent to this Park & Ride lot. This is not a designated truck rest stop, but there are no designated truck rest stops in this corridor so there is a significant number of truck activity in designated spaces and around the freeway since there are legal requirements that create the need to stop and rest. Utilization counts are only conducted twice per year, so the data relating to each user type is not available.

There are a significant number of Riverside commuters who are employed in San Diego. Because the I-15 is congested north of SR 76, some commuters informally use Pala Temecula Road to bypass traffic along I-15 and take SR 76 westbound, so there is a significant number of commuters who converge at the I-15 and SR 76 intersection. The ingress and egress of this Park & Ride connects to SR 76, following state policies. The shelter provided at this location was in partnership with the local tribal governments in both San Diego County and Riverside county. There is limited service at this transit facility and wayfinding signage, which may cause confusion.

# EXISTING SITE RECOMMENDATION EXAMPLES

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	<ul style="list-style-type: none"> <li>223 total spaces</li> </ul>
<b>User Types:</b> <i>What type of users utilize the site?</i>	<ul style="list-style-type: none"> <li>Carpool &amp; Vanpool</li> <li>Transit</li> </ul>
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	<ul style="list-style-type: none"> <li>Owned &amp; Operated: Caltrans</li> </ul>
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	<ul style="list-style-type: none"> <li>Owned</li> </ul>
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	<ul style="list-style-type: none"> <li>experiences 50-60% occupancy</li> <li>As of 1/3 capacity increased from 163 spaces to 216. NOTE counts through Spring 217 based on old capacity (163). Updated on 11/22 to 223 spaces. Reopened Nov. 1 217 and now includes 11 spaces for semitrucks and 1 spaces for electric vehicles</li> </ul>
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	<ul style="list-style-type: none"> <li>Good</li> </ul>
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	<ul style="list-style-type: none"> <li>Residential (north)</li> </ul>
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	<ul style="list-style-type: none"> <li>Rural</li> </ul>
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	<ul style="list-style-type: none"> <li>near an intersection of a major on / off ramp to I-15 and SR-76</li> </ul>
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	<ul style="list-style-type: none"> <li>Auto</li> <li>Transit</li> </ul>

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Bike Parking:</b> <i>Is bike parking available?</i> <i>What kind?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	<ul style="list-style-type: none"> <li>Good, Yes</li> <li>Straight-in parking</li> </ul>

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	<ul style="list-style-type: none"> <li>Nearby truck rest stop and gas station</li> </ul>
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	<ul style="list-style-type: none"> <li>No travel pattern data available</li> </ul>
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	<ul style="list-style-type: none"> <li>High utilization at Park &amp; Ride south of site</li> </ul>

# EXISTING SITE RECOMMENDATION EXAMPLES

## IDENTIFICATION STAGE: KEY CHALLENGES

Refer to the existing conditions summary developed in the Assessments Stage to identify relevant key challenges and their potential causes from the list below.

- **Utilization 30% - 85%:**
  - » Currently averaging 50-60% occupancy
- **Modal Competition (Utilization >85%) / System Management / Partnerships and Policy:**
  - » There are a number of shared users at this location and significant congestion on SR 76. This Park & Ride accommodates commuters who are looking for fast charging, carpool and vanpool commuters, transit users and truck drivers and there is no data available to quantify the usage types and peak times of activity. There is a significant amount of congestion on SR 76 and limited service at this location. Wayfinding is limited and there are no official truck rest stops in this corridor area.

## RELINQUISHMENT ASSESSMENT

	CHALLENGE	ACTION
STEP ONE	Utilization > 85%	Begin strategy identification matrix in the Development Stage.
	Utilization 30% - 85%	Begin strategy identification tool in the Development Stage.
	Utilization < 30%	Continue step two to assess continued need for facility.

# EXISTING SITE RECOMMENDATION EXAMPLES

## DEVELOPMENT STAGE: RECOMMENDATIONS

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules / Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•

# EXISTING SITE RECOMMENDATION EXAMPLES

## RECOMMENDATIONS FOR THE SITE

### NEAR-TERM

- Survey users of this location to determine the neighborhood origins of users and the destinations of each user type. Validating the origins of parking lot users may also help identify where additional investments could be successful.
  - » Tools: *Proactive Siting, Annual Reporting and Performance Monitoring, and Enhance Access Modes*
- Another option would be to consider renting camera equipment to evaluate ongoing uses at the Park & Ride location to better assess user behaviors. This data would help identify enforcement needs and times or justify potential partnerships and future investments. This effort could be combined with a truck parking needs assessment to determine the truck parking demand along the corridor and a supply and capacity assessment. Camera footage can provide utilization rates and demand activity over a longer period of time.
  - » Tools: *Proactive Siting, Annual Reporting and Performance Monitoring, User Type Management, Smart Parking Systems, and Inter-Agency Coordination*
- Consider a pilot program to allow goods movement trucks to utilize the full lot overnight, when it is not utilized by regular commuters. This could increase safety of freeway drivers as well as the truck drivers.
  - » Tools: *Annual Reporting and Performance Monitoring, Pilot Programs to Test Potential Maximizing Capacity Solutions, User Type Management, Activate, Lease, or Reuse Excess Capacity, and Inter-Agency Coordination*

### MID-TERM

- Consider a partnership with the local tribal governments for potential Microtransit service solutions to this Park & Ride location. This could also be implemented through a service like RideCo or Via.
  - » Tools: *Enhance Access Modes, Inter-Agency Coordination, and Supporting Mobility Hub Amenities*

### LONG-TERM

- Consider investing in smart parking. This would provide real-time information that could be integrated into regional apps, dynamic freeway signage and throughout the parking lot and structure. The real-time information could also support websites like [www.americantrucparking.com](http://www.americantrucparking.com) that helps truck drivers make decisions on where to rest.
  - » Tools: *User Type Management, Smart Parking Systems, Inter-Agency Coordination, and Annual Reporting and Performance Monitoring*

*This page has been intentionally left blank.*



# EXISTING SITE RECOMMENDATION EXAMPLES

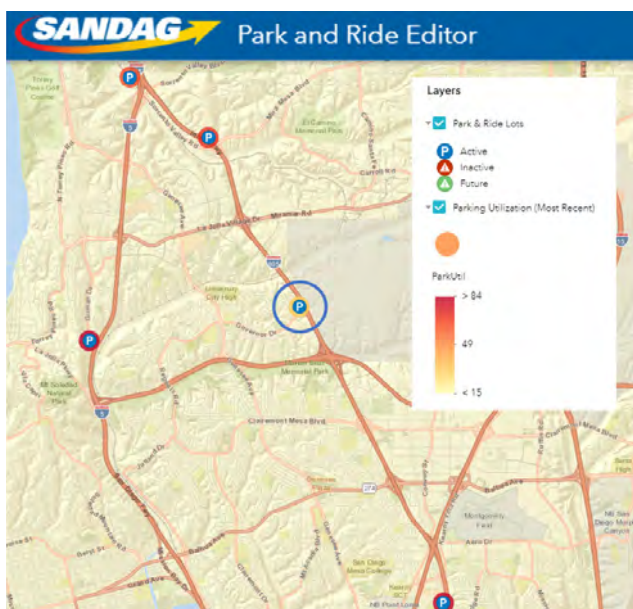
## SITE: GOVERNOR DRIVE PARK & RIDE

5196 Governor Drive San Diego, CA 92122

### ASSESSMENT STAGE: ASSESSING EXISTING CONDITIONS

Using the Park & Ride Data Center, a virtual site visit was performed to review the influence of transportation conditions on the site. The following maps highlight the site's transportation conditions at the regional, local, and site circulation perspectives. The site is identified with a blue outlined circle in the maps.

Regional Perspective



Local Perspective



Site Circulation Perspective



This Park & Ride Lot is owned and operated by Caltrans and is located in the City of San Diego adjacent to I-805 and just north of SR 52. Just north of this Park & Ride location is the Tier 1 employment centers of UTC/ Sorrento Valley. South of this location is another Tier 1 employment center at Kearny Mesa. The lot counts are generally low, which is surprising since there are a significant number of residents in this area who add to the peak hour congestion on I-805, SR 52 and surrounding major arterials. There are a few business parks south of Governor Drive and suburban single-family homes surrounding this Park & Ride. To the east of I-805 are MCAS Miramar and village nurseries. There is a vacant parcel behind this Park & Ride lot that has potential for future development.



# EXISTING SITE RECOMMENDATION EXAMPLES

## EXISTING CONDITIONS TO ASSESS:

SITE CONDITIONS	NOTES
<b>Parking Spaces:</b> <i>What are the number and type of parking spaces available?</i>	<ul style="list-style-type: none"> <li>76 total spaces</li> </ul>
<b>User Types:</b> <i>What type of users utilize the site?</i>	<ul style="list-style-type: none"> <li>Carpool &amp; Vanpool</li> </ul>
<b>Owner/Operator:</b> <i>Is the Park &amp; Ride under shared ownership?</i>	<ul style="list-style-type: none"> <li>Owned &amp; Operated: Caltrans</li> </ul>
<b>Leased or owned:</b> <i>Is the site leased or owned?</i>	<ul style="list-style-type: none"> <li>Owned</li> </ul>
<b>Utilization:</b> <i>What is the utilization of the site?</i> <i>What count collection period was used to develop the utilization rate?</i>	<ul style="list-style-type: none"> <li>Experiences 32% occupancy</li> <li>Tour Bus Passes - Dash Pass</li> </ul>
<b>Egress/Ingress:</b> <i>Is egress/ingress Good/Fair/Poor?</i>	<ul style="list-style-type: none"> <li>Good</li> </ul>
<b>Curb Space:</b> <i>Is there a designated pick-up/drop-off area?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>

OTHER CONDITIONS	NOTES
<b>Wayfinding/Visibility:</b> <i>Is it easy to find the site from main roadways?</i> <i>Can the site be seen from the freeway or major arterial?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Surrounding Land Uses:</b> <i>What type of land uses surround the site?</i>	<ul style="list-style-type: none"> <li>Residential (north)</li> </ul>
<b>Area Type:</b> <i>Is the site in an urban, suburban, or rural area?</i>	<ul style="list-style-type: none"> <li>Rural</li> </ul>
<b>Surrounding Roadway Network:</b> <i>Is the site far (&gt;5+ minute drive) from freeway access ramps?</i> <i>What type of roadway provides access to the site?</i>	<ul style="list-style-type: none"> <li>Located near the Governor Drive on and off-ramps for I-805</li> </ul>
<b>Access:</b> <i>Is the site easy to access?</i> <i>What types of modes can be used to access the site? (e.g., personal vehicle, transit, bike, walking, etc.)</i>	<ul style="list-style-type: none"> <li>Auto</li> </ul>

SITE AMENITIES	NOTES
<b>Lighting:</b> <i>Does the lighting make it feel secure at night?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Mobile Retail/Package Delivery Service:</b> <i>Is mobile retail or package delivery service available to help reduce user trips?</i>	<ul style="list-style-type: none"> <li>Salvation Army Donation Center</li> </ul>
<b>Information Kiosks:</b> <i>What type of information do the kiosks provide users?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Signs:</b> <i>Is there proper wayfinding signage?</i>	<ul style="list-style-type: none"> <li>Poor</li> </ul>
<b>Bike Parking:</b> <i>Is bike parking available?</i> <i>What kind?</i>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Paving/Striping:</b> <i>What is the pavement of the site like?</i> <i>Are the spaces striped?</i>	<ul style="list-style-type: none"> <li>Good, Yes</li> <li>Straight-in parking</li> </ul>

ADDITIONAL CONSIDERATIONS	NOTES
<b>Nearby Activity Centers:</b> <i>What activity centers are within 1 mile of the site?</i>	<ul style="list-style-type: none"> <li>Office park south of site</li> <li>Residential community to the west</li> <li>Military base east of site</li> </ul>
<b>User Travel Patterns:</b> <i>What are the travel patterns (e.g., origin-destination pairs) of the users of the site?</i>	<ul style="list-style-type: none"> <li>No travel pattern data available</li> </ul>
<b>Adjacent Park &amp; Ride Lots:</b> <i>What are the differences between the site being assessed and nearby Park &amp; Ride lots?</i>	<ul style="list-style-type: none"> <li>High utilization at Park &amp; Ride north and south of site</li> <li>However, site has the same number of occupied spaces as the adjacent sites</li> </ul>

## IDENTIFICATION STAGE: KEY CHALLENGES

Refer to the existing conditions summary developed in the Assessments Stage to identify relevant key challenges and their potential causes from the list below.

- **Underutilization (Utilization < 30%):**
  - » Currently averaging 32%. Because it is on the cusp, it is assumed that underutilization is a key challenge in the site analysis.
- **System Management / Operations and Management / Partnerships and Policy:**
  - » This Park & Ride is in the middle of two Tier 1 regional employment centers and has direct access to two major freeway connections but still demonstrates poor utilization. There is no wayfinding signage on the major arterials or on the freeway streets leading to this location. Additionally, the Park & Ride is not visible from the street or freeway level.

## RELINQUISHMENT ASSESSMENT

	CHALLENGE	ACTION
STEP ONE	Utilization > 85%	Begin strategy identification matrix in the Development Stage.
	Utilization 30% - 85%	Begin strategy identification tool in the Development Stage.
	Utilization < 30%	Continue step two to assess continued need for facility.

# EXISTING SITE RECOMMENDATION EXAMPLES

## DEVELOPMENT STAGE: RECOMMENDATIONS

### STRATEGY IDENTIFICATION MATRIX

		KEY CHALLENGES							
		Overutilization ( >85%)	Utilization 30% - 85%	Underutilization (<30%)	Modal Competition	Operations and Management	System Management	Funding	Partnerships and Policy
STRATEGIES IN PARK & RIDE TOOLKIT	Maximizing Capacity at Facilities	•			•	•	•		
	Managing Parking Demand	•			•	•	•	•	
	Secure Facilities and Enforce Rules / Regulations		•	•		•	•		
	Incentivize Target Users		•	•		•			•
	Create Partnerships with Local Jurisdictions and Private-Sector	•	•	•		•	•	•	•
	Align Park & Ride Planning with Local and Regional Goals			•		•	•	•	•

# EXISTING SITE RECOMMENDATION EXAMPLES

## RECOMMENDATIONS FOR THE SITE

### NEAR-TERM

- Survey users of this location to determine the neighborhood origins of users and the destinations of each user type. Validating the origins of parking lot users may also help identify where additional investments could be successful.
  - » Tools: *Proactive Siting, Annual Reporting and Performance Monitoring, and Enhance Access Modes*
- To increase awareness and usability of this lot, RCTC should work with the City of San Diego and Caltrans District 11 to provide wayfinding signage on arterial streets and freeways for this Park & Ride lot.
  - » Tools: *Inter-Agency Coordination and Supporting Mobility Hub Amenities*

### MID-TERM

- Consider a partnership with employers in UTC/Sorrento Valley or Kearny Mesa for a shuttle service that provides direct access to major employer campuses combined with parking reduction policies. Shuttle service could relieve some of the parking demands at their employment locations.
  - » Tools: *Campus Employer Partnerships, Enhance Access Modes, Inter-Agency Coordination, and Supporting Mobility Hub Amenities*
- Consider partnership pilot programs to activate the space and raise awareness of the Park & Ride location in the community. Examples may include [Farmers markets](#), movie nights (New York Park & Ride program hosts a Farmers Market; create a [pop-up drive-in](#)).
  - » Tools: *Pilot Programs to Test Potential Maximizing Capacity Solutions and Activate, Lease or Reuse Excess Capacity*

### LONG-TERM

- Consider investing in smart parking. This would provide real-time information that could be integrated into regional apps, dynamic freeway signage and throughout the parking lot and structure. Work with well-used mapping applications to show Park & Ride as viable alternative to SOV usage
  - » Tools: *User Type Management, Smart Parking Systems, Inter-Agency Coordination, and Annual Reporting and Performance Monitoring*
- Consider plans for future infrastructure investments on I-805 or SR 52 to include plans for future land uses at this Park & Ride lot. With the addition of transit services or managed lanes, there are so many opportunities to maximize the available Caltrans-owned right of way at this Park & Ride lot. Because of its unique location, it could be a future mobility hub or transit-oriented development.

*This page has been intentionally left blank.*

# APPENDIX I: DATA CENTER

## Regional Park & Ride Data Center

**Part I:** The project team developed the Data Center to enhance Park & Ride system performance monitoring capabilities and support efficient and effective regional planning strategies. Part I describes how the Data Center meets that goal.

**Part II:** The poster in Part II of this Appendix was presented at the 2019 California Transportation Planning Conference. It outlines the ways in which the project team envisions the Data Center can add functionality in the future given sustained regional coordination and funding.

### Part I

#### ***The Challenge***

The project team identified two key opportunities to improve regional Park & Ride decision making and developed a Data Center to address them.

##### 1. Inefficient Data Collection

Many agencies throughout the region manage Park & Ride facilities and collect occupancy (count) data on those lots. However, the type of data collected and consistency in reporting varies. Much of this data collection and management is done through field visits using paper and pen and is documented on separate excel sheets which are emailed back and forth. A regional dataset founded on standardized collection procedures would reduce inaccuracies, inconsistencies, and incompatible performance measures.

- Improve and standardize data collection procedures
- Mitigate data transfer errors

##### 2. Lack of Regional Visibility

Lack of data sharing limits the knowledge base stakeholders rely on to operate and manage their Park & Ride networks. Agencies that only assess their assets through the lens of jurisdictional boundaries are blinded to regional trends that are likely affecting their system performance.

Intra-agency and inter-agency data sharing is equally important. Many Park & Ride responsibilities, such as maintenance and security, may be under the purview of an external partner like a local jurisdiction or private developer (under a shared use agreement). These disparate roles and responsibilities contribute to gaps in data or a lack of data standardization.

- Improve data sharing between and within stakeholders
- Improve data analysis

#### ***Actionable Insights***

The Data Center is a foundational step in strengthening regional knowledge and preparing for the role of the facilities in the future. By consolidating and standardizing Park & Ride data, the Data Center drives actionable insights on a local and regional scale.

The following pages describe how the Data Center was designed to address key challenges and opportunities. While the tool addresses these baseline challenges, it is designed to add functionality—particularly in analysis and reporting—to adapt to a stakeholder's or region's needs if funding were to become available to sustain its development.

Park & Ride data should not be considered in isolation. Paired with relevant datasets—such as transit service levels, ridership, peak hour congestion, land use, goods movement corridors, and commuter origin/destination (O/D) pairs—the role of Park & Ride is amplified, and a planner or manager's perspective broadened.



## Data Center Walkthrough

1. Accessibility
2. Visualizing Data
3. Comprehensive Site Information
4. Regional Visibility
5. Virtual Site Visit
6. Collecting Data from the Field
7. System Performance Monitoring
8. Reporting

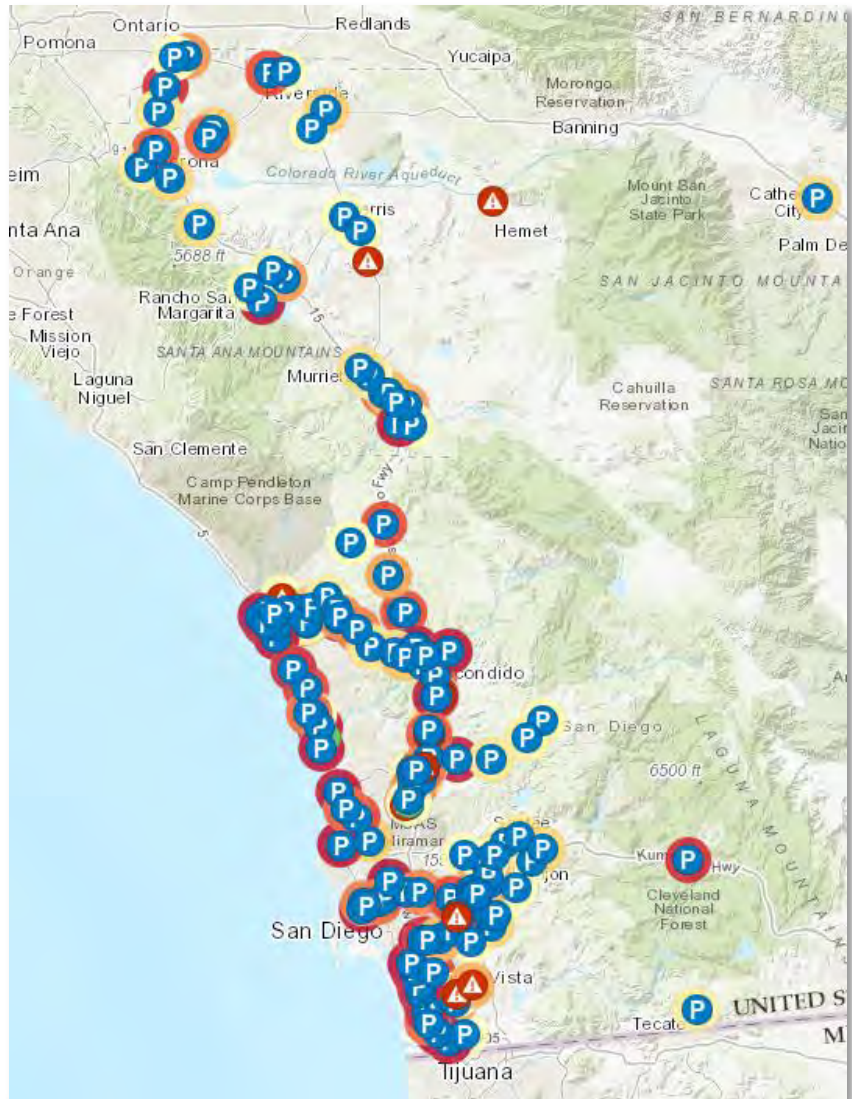
### Accessibility

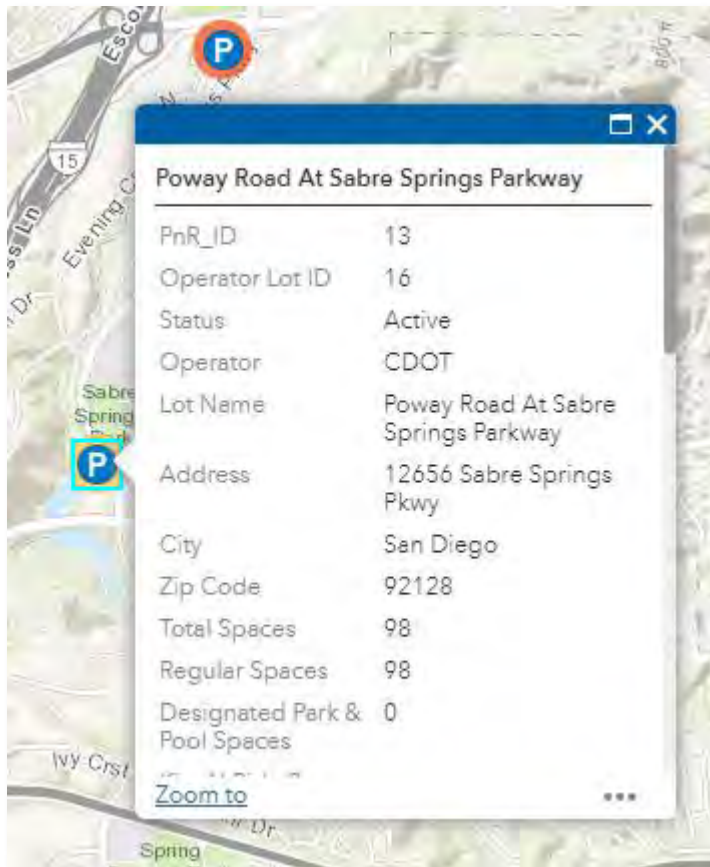
The Data Center is hosted by ArcGIS online. It can be accessed through a web browser or the ArcGIS Collector App on a mobile device. It requires minimal GIS acumen, although some familiarity with filtering and exporting tables is desirable. A cloud-based system facilitates knowledge sharing between agencies and with the public.

### Visualizing Data

The Data Center visualizes the active, future, and inactive facilities in the regional Park & Ride network. These data points are accompanied by a host of layers to inform decision making, which will be described in depth later. The color behind each data point represents the last reported utilization and allows a user to quickly assess network health and corridor occupancy relationships. (yellow represents underutilized lots and the darkest red represents overutilized lots).

Symbology could be used to differentiate Park & Rides such as by operator, capacity, or service type; alternatively, users can establish quick-access filters such as “Only Show Active Lots” or “Only Show MTS Lots.”





### Comprehensive Site Information

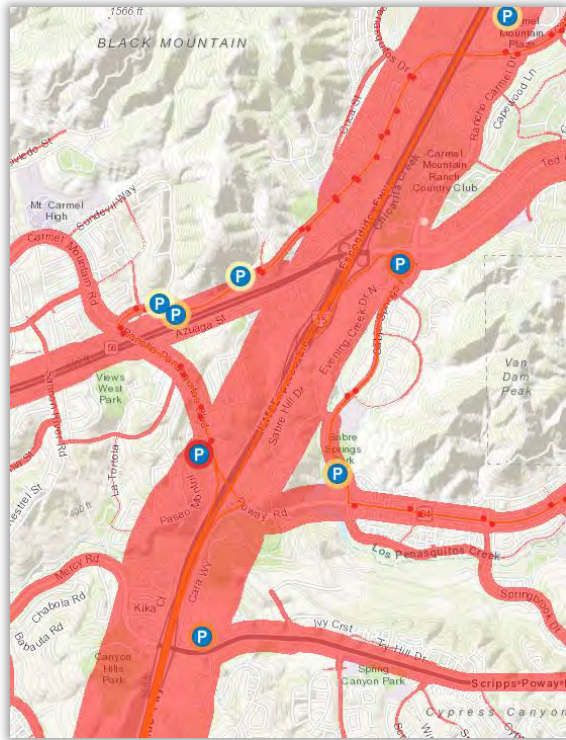
The Data Center consolidated data from several agencies and departments, creating a “one stop shop” that expedites information gathering and analysis.

The type and breadth of data stored is scalable and adaptable to a region’s needs; a public version of the tool with restricted information could be published as a commuter resource.

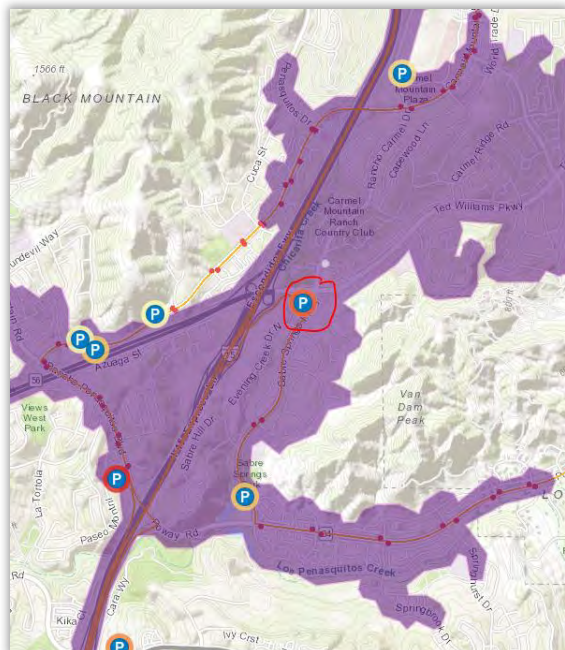
A user can quickly view and edit a single lot’s characteristics in a pop-up window (pictured) or in an attribute table similar to an online Excel spreadsheet. The project team identified over 20 lot attributes to collect and maintain such as the existence of bike lockers, the number and type of spaces provided, and administrative information such as lease costs and service hours. The currently collected attributes are listed below.

### Park & Ride Attributes Collected Currently:

- Status
- Operator
- Lot Name, Address, City, Zip Code
- Total Spaces (regular, designated carpool/vanpool, Kiss N Ride, ADA)
- Service Type
- Owner Note (State, private, city)
- Shared or Exclusive
- Shared With (Church, Retail, etc)
- Lease (Y/N)
- Lease Cost (Per space)
- Parking Permit Required
- Posted Service Hours/Days
- Donation Center (Y/N)
- Lighting (Y/N)
- CCTV (Y/N)
- Food/Beverage Kiosk (Y/N)
- Trash Can (Y/N)
- Public Restroom (Y/N)
- Notes/Comments



This layer (above) shows peak AM hour congestion. Thicker lines equate to more congestion. Understanding which arterials and major roadways experience heavy traffic can help inform siting decisions.



## Regional Visibility

The tool allows the user to access several layers to increase their understanding of local and regional contexts. This information can be instrumental for siting and forecasting decisions. A list of included layers is below.

- Existing transit service
- SANDAG Smart Growth
- Lot utilization (last count)
- SANDAG Land Use
- 5-,10-, and 15-minute drive time travel shed from each lot
- Largest employment center in San Diego region
- Major roadway peak hour congestion (this is a draft layer), but helps give quick visual context

Given sustained funding, additional layers that could be developed and included:

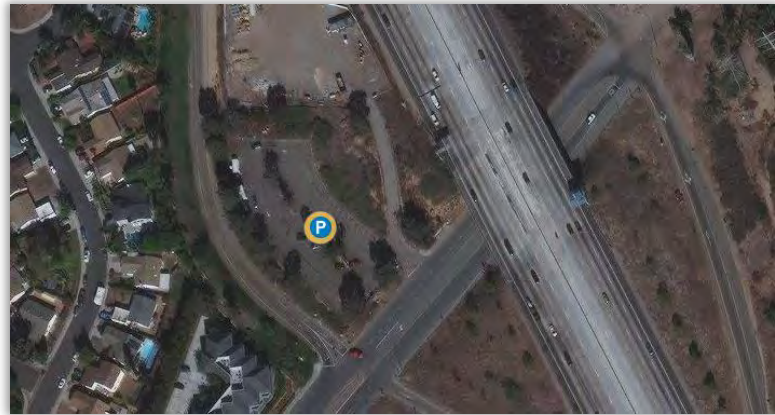
- Peak-hour traffic conditions on major corridors and arterials
- Population density
- Location of Direct Access Ramps and High-Occupancy Vehicle lanes
- Location of Park & Ride wayfinding signs on freeways and local streets
- Electric Vehicle charging network
- IGR Projects to help provide context for potential development in the area of a new or existing Park & Ride
- Parcel data to show exact location of Park & Ride spaces (especially important for shared-use lots where spaces may not be marked clearly or individually at the site)
- Traffic Counts – Number of people who pass by the site every day (data to support an advertising public private partnership opportunity)

This layer (left) shows a 5-minute peak hour drive time catchment area from the circled lot. A travel shed, paired with assumptions about the distance people are willing to travel to a Park & Ride, can help inform siting decisions.



### A Virtual Site Visit

Different basemaps, layers, and historic data can help a Park & Ride manager perform a virtual site visit to support siting decisions and operations strategies. Although in-person site visits are always recommended, satellite images can provide quick and basic insight such as a lot's visibility from the street and surrounding land use.



### Collecting Data from the Field

By facilitating data collection from the field, the tool allows a user to see and share updates in real-time. The collection form can be customized to match region's field survey needs. In the future, smart systems like sensors or video analysis could feed into the Data Center to provide truly a automated real-time system information. This would eliminate the extensive staff time spent visiting sites and performing counts in person in the region every year.

The Data Center currently allows pictures, counts of compliant and non-compliant users, and an option to include notes for things such as maintenance issues for review back in the office.

**Edit Attributes**

←

PnR_ID	3
DateTime	
Count	
Capacity	
Non Compliant User	
15 Minute Count	
Username	
Notes	

**Attachments:**

None

Add:  No file chosen

**Park & Ride Counts**

Related records:

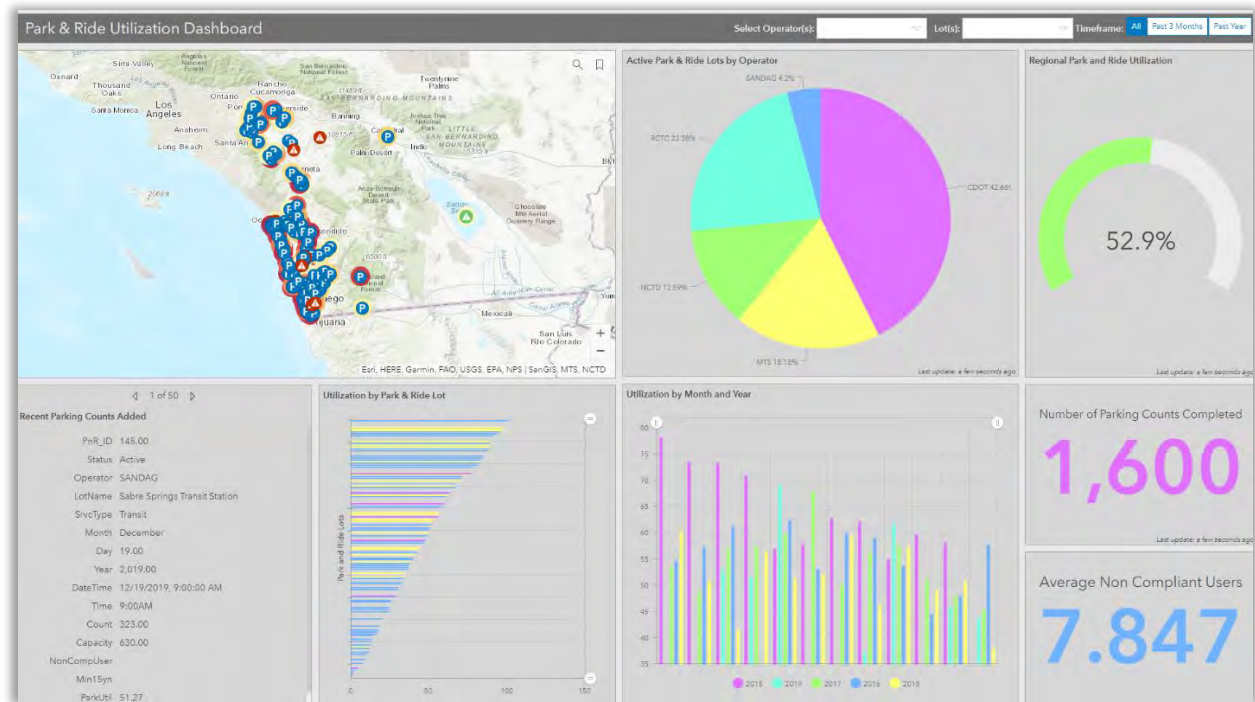
3/1/2016, 9:00 AM	>
4/1/2016, 9:00 AM	>
5/1/2016, 9:00 AM	>
6/1/2016, 9:00 AM	>
7/1/2016, 9:00 AM	>
8/1/2016, 9:00 AM	>
9/1/2016, 9:00 AM	>
10/1/2016, 9:00 AM	>
3/1/2017, 9:00 AM	>
4/1/2017, 9:00 AM	>

...

## System Performance Monitoring

The ArcGIS Dashboard platform synthesizes Park & Ride Data Center inputs in real time, enabling regional system performance monitoring. A filter allows the user to view data by operator, lot, and/or timeframe.

The Dashboard can be customized to show dynamic charts, graphs, and maps. At this time, ArcGISOnline does not support exporting reports from the Dashboard, but this may be part of a future feature update. Table exports are enabled from the Data Center map itself.



## Reporting

This Utilization Report can be accessed from the Data Center and exported into excel. The fields (Utilization by Year or Quarter) can be set up to fit an agency's reporting standards. Summary tables can help identify trends and outliers per site and across the region.

Name	Address	Owner	Spaces	Utilization Most Recent	Utilization Quarter (Past 3 months)	Utilization Year (Past 12 months)	Utilization 2018	Utilization 2017	Notes
Twin Peaks Road (St Gabriel Church)	13734 Twin Peaks Rd	PRIVATE	33	81.8	81.8	95.5	68.2	53.5	
Grossmont Blvd	5230 Bancroft Dr	STATE	29	86.2	86.2	93.1	77.6	83.9	

## **Part II**

This poster was presented at the 2019 California Transportation Planning Conference (CTPC).

# BACK TO THE FUTURE: Modernizing Park & Ride Management with GIS

**Do you manage P&R by taking notes like this?**

**Or this?**

**GREAT SCOTT!**

**Don't limit your potential.  
Go paperless with GIS!**

- Make data more accessible
- Improve resource allocation
- Visualize and identify trends
- Reduce data entry errors

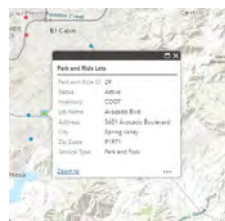
**Paper? Where we're going  
we don't need paper.**

**Why GIS and not Excel?**

**Dynamic data:**

can be viewed and updated from the field using the cloud

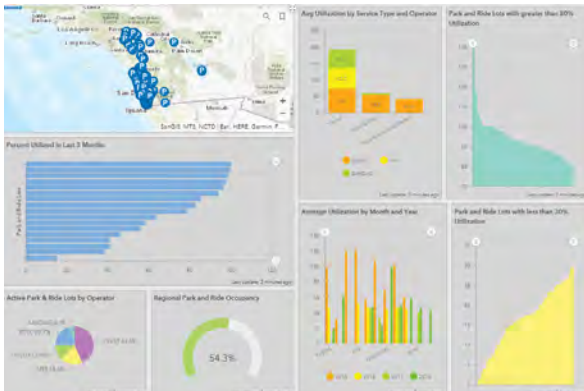
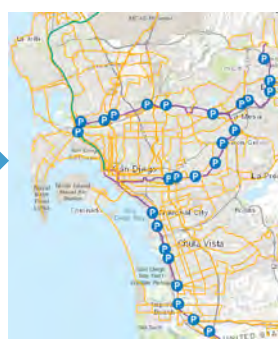
Station	Location	Description	Agency	City	Zip Code	Service Type
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit
Active	San Diego	San Diego	San Diego	San Diego	92101	Transit



Visualize and update data cleanly for internal and public use

**Provide better management tools**

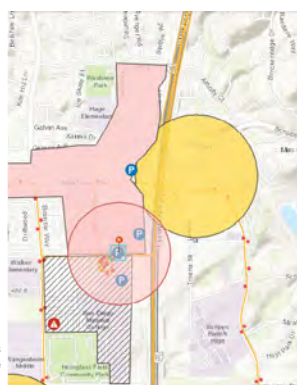
	Aug	Sept	Oct
Beyer Boulevard *	99%	99%	95%
10th Avenue	89%	91%	92%
Palm Avenue	84%	86%	88%
Palomar Street	90%	71%	84%
11 Street	90%	86%	84%
Bayfront/11 Street	83%	87%	85%
24th Street	94%	100%	100%
8th Street	100%	99%	89%
47th Street	65%	73%	63%
Fortified Avenue	67%	83%	82%
Encanto / 62nd Street *	45%	34%	40%
Massachusetts Avenue	54%	48%	54%
Spring Street	28%	51%	74%
Grossmont Center *	87%	92%	96%
Alameda Drive	54%	37%	50%
10th Avenue	50%	67%	35%
Gilman Field	11%	10%	13%
Old Town Transit Center	94%	99%	93%
Moreira	37%	51%	47%
Fashion Valley	62%	51%	67%
Grainville	73%	62%	61%
70th Street	50%	42%	31%
	67%	64%	65%



**Spatial analysis:**

supports siting, forecasting, and local and regional decision making

Layer complex data and analysis tools to gain a detailed perspective and drive improved decision making



**By the numbers**

**111** active P&R lots in the San Diego region managed and operated by transit agencies, local jurisdictions, and state and regional agencies.

**31** Park & Pool lots

**50** Transit lots

**30** lots serve both users

**1,295** paper or Excel counts inputted and visualized in our beta GIS map

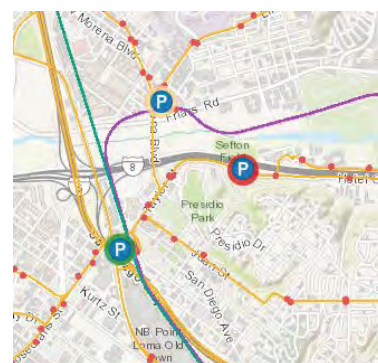
**64%** average utilization of P&R lots in the region in Fall 2018 (August - October)

**9** lots consistently overutilized in Fall 2018 (average more than 80%)

**23** lots consistently underutilized in 2018 (average less than 30%)

**Features coming soon**

- Automatic Quarterly Reporting
- Signage and Wayfinding Inventory
- Forecasting Analysis Tool
- Public Facing Version
- Security Trend Tracking



Beta testing ways to display quarterly utilization



*This page has been intentionally left blank.*

# APPENDIX J: HELPFUL LINKS

## Helpful Links and Resources

There are a variety of useful resources to leverage when implementing Park & Ride strategies. The following links contain information related to previous agency plans/studies, transportation related data, policies, and existing programs.

### 511sd

- A service that consolidates regional transportation information and resources for San Diego
  - <https://511sd.com/>

### Caltrans

- Statewide transportation resources
  - <https://dot.ca.gov/>
- Caltrans Park and Ride Program Resource Guide (2010)
  - <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/f0019533-park-and-ride-program-resource-guide.pdf>

### iCommute

- TDM for Local Governments
  - <https://icommutesd.com/planners/TDM-local-governments>
- TDM for Developers
  - <https://icommutesd.com/planners/TDM-developers>
- iCommute Mobility Management Toolbox
  - <https://icommutesd.com/planners/TDM-local-governments>

### IE511

- A service that consolidates regional transportation information and resources for the Inland Empire
  - <https://www.ie511.org/>

### MTS

- Transit information for central and southern San Diego County
  - <https://www.sdmts.com/>

### NCTD

- Transit information for northern San Diego County
  - <https://www.gonctd.com/>

### RCTC

- Transportation resources in Riverside County
  - <https://www.rctc.org/>

### RTA

- Transit information for northern Riverside County
  - <https://www.riversidetransit.com/>

## San Diego Forward

- SANDAG's Regional Transportation Plan and supporting resources
  - <https://sdforward.com/>

## SANDAG Emerging Technologies White Paper (2018)

- Explores technology trends that have the potential to get more out of our existing infrastructure, improve safety, and provide more mobility choices that reduce greenhouse gas emissions such as shared mobility, electrification, connectivity, and automation.
  - <https://www.sdforward.com/mobility-planning/emerging-technologies>

## SANDAG Regional Climate Action Planning Framework (ReCAP)

- Establishes a technical framework for regionally-consistent climate action planning that preserves local policy flexibility for the unique needs and circumstances of each local jurisdiction.
  - <https://www.sandag.org/index.asp?classid=17&subclassid=46&projectid=565&fuseaction=projects.detail>

## SANDAG Regional Mobility Hub Strategy and Mobility Hub Features Catalog

- Demonstrates how transportation services, amenities, and supporting technologies can work together to make it easier for communities to access transit and other shared mobility choices.
  - <https://www.sdforward.com/mobility-planning/regionalmobilityhub>

## SANDAG Regional Parking Management Toolbox

- Provides guidance on parking management using strategies, technologies, and best practices so that it benefits the economy as well as the overall transportation system.
  - <https://sdforward.com/mobility-planning/parking-toolbox>

## SANDAG Smart Growth Tool Box

- Includes planning and financing tools to encourage smart growth development.
  - <https://www.sandag.org/index.asp?projectid=334&fuseaction=projects.detail>

*This page has been intentionally left blank.*

# APPENDIX K: BASELINE INSTRUCTIONS

# Baselining: GIS Instructions

This appendix is a detailed walk-through of the methodology outlined in the Guidance for New Site Analysis section of this report. Please note: although a reasonable estimating tool, baselining is a guideline and is limited by the accuracy of the data inputs. This tool does not replace a travel demand model, but rather provides managers and planners a method by which to efficiently estimate demand for Park & Ride within an area.

## Process Summary

- Create a typology which summarizes the area of interest. Consider the following factors:
  - Community Context (density, land uses, distance from employment)
  - Proximity to Transit and Carpool/Vanpool supportive infrastructure (Direct Access Ramps, Express Lanes)
  - Transit Service Frequency and Type (Local, Express, Park & Pool, etc.)
  - Amenities
  - Proximity to other Park & Rides (are they sharing demand)
- Collect info for several analogous lots in selected Typology
  - Occupancy (# parked cars)
  - Population within Market Area (census data)
  - **Vehicles per Person (Occupancy / Pop in Market Area) = Ratio**
- Average Ratio for all selected lots to get **Baseline Ratio** for selected Typology
- Apply **Baseline Ratio** to a PROPOSED NEW SITE within defined typology to determine expected occupancy

## Process for Calculating [Baseline Ratio]

### Data/Layers Needed

- Population by Census Block Group
  - *Source: American Community Survey*
- Existing Park & Ride inventory
  - *M:\RES\DataSolutions\GIS\Projects\ParkandRide\Data\PnR\_Backup.gdb*
- [Market Areas]
  - Based on distance from site/proposed site
  - [BUFFER] of [drive distance] for each [P&R Lot] typology
    - Urban (1-3 miles)
    - Suburban (3-5 miles)
    - Rural (5+ miles)

## Process in ArcMap

*Do this process separately for each Typology.*

1. Import [CBG], [Market Areas], P&R Layer (points)
2. Adjust the Areas for Accuracy
  - i. Add field to [CBG] "CBG\_Area"
    - Right click on header, use "Calculate Geometry" tool.
3. Clip the Population
  - i. Overlay [CBG] on [Market Area Buffer\*]



- ii. [Clip] (mutually exclusive) [Market Areas] from [CBG]
  - To achieve mutually exclusive population, please execute the following:
    - IF [Market Areas] overlap:
      - Use [Thiessen Polygon Function](#) to determine accurate [CBG] population
    - Else:
      - Calculate [CBG] normally
- iii. NOTE: \*Only do analysis for the analogous lots & Market Areas
- iv. Achieves: [Clipped\_CBG]
- 3. GIS Analysis
  - a. Calculate Geometry of [Clipped\_CBG]
    - i. Add new (double) field in [Clipped\_CBG] attribute table "A\_Area"
      - i. Right click on header, use "Calculate Geometry" tool.
    - ii. NOTE: calculate same geometry as the units in "CBG\_Area" (typically done in Square Meters)
  - b. Calculate **Overlap Ratio**
    - i. Add new (double) field in [Clipped\_CBG] attribute table "Overlap"
    - ii. Use Field Calculator to divide: "A\_Area" / "CBG\_Area"
      - 2. NOTE: After clip, Result should be 1 or less than 1
  - c. Calculate **Adjusted Population** for [Clipped\_CBG]
    - i. Add new (double) field "A\_Pop" for adjusted population
      - 1. Right click field header and use the Field Calculator to multiply "Population" x "Overlap"
      - 2. Achieves final statistic "A\_Pop"
- 4. **Sum adjusted population** of each block group for market area
  - i. [SUM] clipped population (A\_Pop) for all selected Market Areas - "Sum Population"

## Create Average Baseline Ratio

- 5. Divide "Sum Population" by "Occupancy" for each sample Park & Ride within Typology. (Create **Baseline Ratio**)
- 6. Average **Baseline Ratio(s)** to create Baseline Ratio for Typology [**Baseline Ratio**]

## Application: Sizing a Facility

- $[\text{Sum Population}^*] / [\text{Baseline Ratio}] = \text{Projected Site Occupancy}$ 
  - \*Population of estimated new site facility

# *AGENDA ITEM 8*

<b>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Lorelle Moe-Luna, Multimodal Services Director
<b>SUBJECT:</b>	Senate Bill 743 Implementation Update

**STAFF RECOMMENDATION:**

This item is to receive and file an update on Senate Bill 743 implementation.

**BACKGROUND INFORMATION:**

Senate Bill (SB) 743 was passed in 2013 and amended the California Environmental Quality Act (CEQA) to require that transportation impacts in certain areas be analyzed using vehicle miles traveled (VMT) rather than level of service (LOS). The goal of SB 743 was to promote the statewide policies that would reduce greenhouse gas emissions and particulates; encourage infill development and a diversity of uses instead of sprawl; and promote multimodal transportation networks.

**DISCUSSION:**

Revised state CEQA Guidelines were released by the Governor's Office of Planning and Research in December 2018, adding CCR Section 15064.3, *Determining the Significance of Transportation Impacts*. Criteria for analyzing transportation impacts is set forth under this section and treats land use projects and transportation projects differently. Land use projects specifically identify the use of VMT, whereas transportation projects do not. Section 15064.3(b)(2) of the new CEQA Guidelines states, *"For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements."* However, the criteria also state, *"Generally, vehicle miles traveled is the most appropriate measure of transportation impacts."*

For land use projects, implementation of SB 743 is set to begin July 1, 2020. Many jurisdictions will be adopting resolutions for VMT analysis to be incorporated into environmental documents. A jurisdiction must address appropriate VMT methodologies, thresholds, and feasible mitigation measures.

For transportation projects, Caltrans is preparing guidance for projects on the State Highway System (SHS). On-system projects beginning environmental studies after release of the CEQA guidelines in December 2018 will be required to include a VMT-based transportation impact significance determination in the draft environmental document. Projects that were once

viewed as traffic mitigation because they reduced vehicle delay (such as new, wider, improved roads) may now be viewed as causing a traffic impact because they facilitate or increase VMT. Caltrans has stated that any increase in VMT constitutes a significant impact, and that this threshold will apply when a local or regional agency is the CEQA-lead.

### **Caltrans' Draft Guidance and Next Steps**

Commission staff is closely monitoring the development of the guidance. Most recently, Caltrans issued a memorandum (Attachment 1) on February 12, 2020 titled *Caltrans Implementation of SB 743 – Use of Vehicle Miles Traveled in CEQA* (Memorandum). The Memorandum included a draft of Caltrans' policy relating to the use of VMT as the primary metric to be used on analyzing transportation impacts of projects on the SHS. In response, the Commission submitted comments and issued a letter (Attachment 2) dated February 20, 2020 emphasizing the importance of allowing Caltrans and CEQA lead agencies on state highway projects to have the discretion to use LOS to analyze CEQA impacts, since the use of VMT will have serious consequences such as cost increases and delays, double counting of VMT impacts, exacerbation of the State's housing shortage, and even *increases* in greenhouse gas emissions as unintended consequences. Caltrans has stated that they intend to release draft guidance in mid-March for a 3-day review period.

Caltrans has also provided a list of presumed capacity increasing projects (Attachment 3) that are anticipated to be impacted based on the possibility that they induce VMT increases, which includes 12 projects in Riverside County. These projects are primarily interchanges, auxiliary lanes, and on/off ramp-type improvements. RCTC believes that this list is not comprehensive and thus does not capture the true impact of SB 743 on projects in the county.

Caltrans also issued a draft VMT-focused Transportation Impact Study Guide (TISG) on February 28, 2020 (Attachment 4). The TISG will be used by the Caltrans Local Development-Intergovernmental Review program during environmental review of land use projects and plans and is intended as guidance for Caltrans Districts, lead agencies, developers, and consultants. Comments and feedback on the draft TISG can be provided to Caltrans through March 30, 2020.

Many questions remain, including:

- How do CEQA documents that are in mid-preparation address the new requirements?
- How much VMT is considered significant? Will there be a jurisdiction-wide threshold, a regional threshold, or will VMT need to be addressed on a project-by-project basis?
- How far away from a project site must VMT be calculated?
- For transportation projects, how do we calculate the existing baseline VMT?
- How will self-help counties continue delivering projects promised to the voters?
- Can we realistically mitigate to a level of less-than-significant for large transportation projects? How will this impact the cost of building projects?

Staff is working diligently to review implementation requirements and remain engaged with Caltrans and state policymakers and will provide new information as it is received.

Attachments:

- 1) Caltrans Implementation of SB 743 – Use of VMT in CEQA Memorandum, February 12, 2020
- 2) RCTC Comment Letter re: Caltrans Draft Implementation Memorandum, February 20, 2020
- 3) Caltrans SB 743 Capacity Increasing Project List, February 21, 2020
- 4) Caltrans Draft TISG Memorandum, February 28, 2020
- 4) BB&K SB 743 Presentation at RCTC Commission Workshop, January 31, 2020

# Memorandum

*Making Conservation  
a California Way of Life*

To: TRANSPORTATION STAKEHOLDERS

Date: February 12, 2020

From: ELLEN GREENBERG  
Deputy Director, Sustainability

CHRIS SCHMIDT  
SB 743 Program Manager

Subject: **Caltrans Implementation of SB 743 – Use of Vehicle Miles Traveled in CEQA**

Senate Bill (SB) 743, approved in 2013 and incorporated into the California Environmental Quality Act (CEQA) Guidelines in 2018, better aligned CEQA with the State's climate and air quality goals. It is changing CEQA analysis of transportation impacts associated with both land development and infrastructure projects.

## Overview

SB 743 means major changes in CEQA review of transportation analysis of local land development projects and for transportation analysis of capacity-increasing transportation projects on the State Highway System. These changes follow both the CEQA Guidelines revisions (§ 15064.3) published by the Natural Resources Agency in December 2018<sup>1</sup>, and the "Technical Advisory on Evaluating Transportation Impacts in CEQA" prepared by the Governor's Office of Planning and Research (OPR)<sup>2</sup>. Caltrans supports implementation of the guidance from these State Agency partners.

Key changes to the analysis of transportation impacts include:

- **For land development projects**, SB 743 prohibits identification of automobile delay as a significant impact on the environment within CEQA transportation analysis. By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how new development projects may influence the overall amount of automobile use. Some project types

---

<sup>1</sup> California Department of Natural Resources, 2018. "CEQA Guidelines."  
[https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf)

<sup>2</sup> California Governor's Office of Planning and Research (OPR), 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf)



are exempted in order to streamline developments not likely to cause additional automobile travel, such as those in infill areas.

- **For transportation investments**, Caltrans will also be examining VMT, using methods that reflect a phenomenon called "induced vehicle travel." We see the induced vehicle travel phenomenon repeatedly on congested corridors when a project adds capacity, but traffic relief is short-lived. This happens because drivers make new trips or modify trips to take advantage of new capacity—driving more, at different times, or on different routes.

These changes to the environmental review process aim to reduce automobile dependency by supporting infill development, reducing average length of vehicle trips, and increasing use of more sustainable modes including carpooling, cycling, walking, and transit. These shifts are essential to supporting the State's growing population and economy while meeting climate and air quality goals.

### **Request for Review and Feedback**

Accompanying this memorandum is a draft of Caltrans policy relating to the use of VMT as the primary metric to be used in analyzing transportation impacts of projects on the State Highway System. Caltrans invites your review and informal feedback on the draft by close of business on **February 20, 2020**. Click the link in the eblast message to provide informal feedback on the document.

We will be continuing outreach to stakeholders in the coming months. In addition to continued stakeholder engagement with agency leaders, we are planning several technical roundtables providing an opportunity for peer exchange among senior technical staff and consultants. Members of Caltrans' SB 743 Implementation Team are also available to discuss the Draft and related issues. Please contact Ali Doerr-Westbrook (916-653-2580) to schedule a call or meeting.

Thank you in advance for your contributions to this important work.

Attachment: Review Draft: VMT CEQA Significance Determinations for State Highway System Projects: Implementation Timeline Memorandum



## **VMT CEQA SIGNIFICANCE DETERMINATIONS FOR STATE HIGHWAY SYSTEM PROJECTS IMPLEMENTATION TIMELINE MEMORANDUM**

### **1. Overview**

This memorandum establishes the timing and application of changes to Caltrans' California Environmental Quality Act (CEQA) process to implement Senate Bill (SB) 743 for capacity-increasing projects on the State Highway System (SHS). The memo recognizes that many projects on the SHS will not be affected by these changes, as detailed in Attachment A.

The requirements established in this memorandum are consistent with the January 4, 2019 message distributed by Caltrans Division of Environmental Analysis. It recommended that Districts use VMT to analyze transportation impacts of projects with the potential to increase VMT and for which a Notice of Preparation (NOP) was issued after December 28, 2018, particularly for projects not anticipated to be approved until after July 2020.

#### **1.1 Policy Statement**

Caltrans has determined that Vehicle Miles Traveled (VMT) is the most appropriate primary measure of transportation impacts for capacity-increasing transportation projects on the SHS. The determination of significance of VMT impact will require a supporting induced travel analysis for capacity-increasing transportation projects on the SHS when Caltrans is lead agency or when Caltrans designates another entity as lead agency.

Many types of projects will be unaffected by the use of VMT as a measure of transportation impacts because they are assumed to not lead to a substantial increase in vehicle travel. See Attachment A for detail.

#### **1.2 Guidance Documents**

The Caltrans Divisions of Traffic Operations and Environmental Analysis are currently preparing the following guidance documents addressing the Department's transportation analysis and CEQA procedures:

- **Project Development Transportation Analysis Framework (TAF):** This document will provide guidance for CEQA transportation/traffic analysis for projects on the SHS, including direction to Caltrans Districts related to selecting methods for VMT analysis (including induced travel demand) in project-level environmental documents.

- **Transportation Analysis under CEQA (TAC):** The TAC will provide methodologies for CEQA practitioners to evaluate the transportation impacts of projects on the SHS, including how to determine significance of those impacts, and will identify potential mitigation measures.

We are working to make the documents available in draft form for informal feedback from stakeholders in March 2020, with a target publication date of May 2020. For each of the documents, we are planning an informational webinar during the review period as well as one or more technical roundtables to provide opportunities for discussion and information sharing.

## 2. Implementation Timeline

- 2.1** Projects initiated on or after December 28, 2018 which have reached or will reach Caltrans' Milestone 020 ("Begin Environmental") before July 1, 2020, will be evaluated by the Department in consultation with project sponsors on a case-by-case basis to determine if the use of a VMT-based transportation impact significance determination in the draft environmental document is warranted. Factors that will weigh in favor of including a VMT-based significance determination include, but are not limited to:
- Project scope includes a new alignment and/or additional lane miles and project location is in a corridor/area with existing or projected congestion
  - Environmental Impact Report (EIR) certification expected after July 1, 2022 (regardless of project initiation date)
  - A high level of public and stakeholder interest in the project.

Note that the final environmental document for a project would use the same metric for transportation significance determination as its draft document. If the traffic study requires re-initiation between draft and final, then the project will be subject to the requirements identified under 2.3 below.

- 2.2** Capacity-increasing projects on the SHS that will reach Caltrans' Milestone 020 on or after July 1, 2020, will include a VMT-based transportation impact significance determination in the draft environmental document. The Project Development Team (PDT) shall apply Caltrans published guidance (Transportation Analysis Framework (TAF) and Transportation Analysis in CEQA (TAC)) in conducting the analysis of transportation impacts and making significance determinations based on the VMT metric.



If Caltrans guidance for traffic studies (TAF) and making transportation significance determinations (TAC) have not yet been published when environmental studies begin, the PDT will utilize the CEQA Guidelines<sup>1</sup> and the Governor's Office of Planning and Research (OPR) Technical Advisory<sup>2</sup> in conducting their analysis and in making transportation impact significance determinations based on the VMT metric.

**2.3** Subsequent, supplemental, later tier, or other later CEQA documents which include a new traffic study shall follow the guidance for draft environmental documents per the applicable section below.

**2.3.1** If the traffic study is re-initiated before July 1, 2020, the Department in consultation with project sponsors will determine whether VMT-based transportation impact significance determination will be included, based on the factors listed in item 2.1 above.

**2.3.2** If the traffic study is re-initiated on or after July 1, 2020, for minor technical reasons which do not result in a substantial change to the study's results, and subject to the approval of the Caltrans District Director, no VMT-based transportation impact significance determination will be required.

**2.3.3** If the traffic study is re-initiated on or after July 1, 2020, and the later study may result in substantially different results as compared to the prior study, the PDT shall apply Caltrans-published guidance in conducting the analysis of VMT impacts and making transportation impact significance determinations.

### **3. Additional Considerations**

**3.1** Most projects on the SHS are non-capacity increasing (see Attachment A). These projects are not anticipated to have significant transportation impacts under CEQA and would generally not require quantitative VMT analysis or mitigation.<sup>3</sup>

---

<sup>1</sup> California Department of Natural Resources, 2018. "CEQA Guidelines."

[https://resources.ca.gov/CNRALegacyFiles/ceqa/jadocs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](https://resources.ca.gov/CNRALegacyFiles/ceqa/jadocs/2018_CEQA_FINAL_TEXT_122818.pdf)

<sup>2</sup> California Governor's Office of Planning and Research (OPR), 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf)

<sup>3</sup> OPR, Technical Advisory, 20, 24.

- 3.2** Capacity-increasing projects will require VMT analysis to determine whether significant, adverse transportation impacts are anticipated. The potential for projects to induce additional travel ("VMT attributable to the project" per OPR) will be the basis for determinations of significance. Potential VMT analysis methods include use of elasticity-based calculators, regional travel demand models, and use of the Statewide Travel Demand Model. Methods used will be required to reflect the potential for capacity additions to induce vehicle travel. Caltrans' Transportation Analysis Framework will address selection of appropriate methodologies.
- 3.3** Many capacity-increasing projects will result in significant, adverse transportation impacts and mitigation will be required to reduce those impacts. A Statement of Overriding Considerations may be required to approve projects in the case mitigation cannot reduce adverse impacts to a less than significant level. Utilizing a Statement of Overriding Considerations would follow established CEQA guidance for allowing project approvals despite unavoidable environmental effects to one or more resources.
- 3.4** Note that a Statement of Overriding Considerations can only be made if an Environmental Impact Report has been prepared. For new projects, PDTs should consider the likelihood of a significant impact determination when determining the appropriate level of document. PDTs should also evaluate whether projects currently scoped as Negative Declarations/Mitigated Negative Declarations (ND/MND) may require rescoping to an EIR if a significant impact to transportation appears to be likely using VMT as a metric, and a Statement of Overriding Considerations will ultimately be utilized. Utilizing a Statement of Overriding Considerations would follow established CEQA guidance for allowing project approvals despite unavoidable environmental effects to one or more resources.



## ATTACHMENT A

### **Project types not likely to lead to a substantial increase in vehicle travel**

The language below is excerpted directly from "Technical Advisory on Evaluating Transportation Impacts in CEQA," Governor's Office of Planning and Research, December 2018. Caltrans guidance will indicate that the project types listed would not likely lead to a substantial or measurable increase in vehicle travel. Please note that almost all projects programmed as part of the State Highway Operation and Protection Program (SHOPP) are in categories included in the list below, and therefore will be unaffected by the requirements of SB 743.

Projects that would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis, include:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; transportation management system field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails
- Roadway shoulder enhancements to provide "breakdown space," dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes

- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including transit signal priority (TSP) features
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase
- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage
- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor





4080 Lemon Street, 3rd Floor • Riverside, CA  
 Mailing Address: P.O. Box 12008 • Riverside, CA 92502-2208  
 951.787.7141 • 951.787.7920 • www.rctc.org

February 20, 2020

VIA E-Mail and Online Portal

Mr. Chris Schmidt  
 SB 743 Program Manager  
 California Department of Transportation

**Subject: February 12, 2020 Memorandum re Caltrans Implementation of SB 743 – Use of Vehicle Miles Traveled in CEQA**

Dear Mr. Schmidt:

The Riverside County Transportation Commission (RCTC) has received and reviewed Caltrans's February 12, 2020 Memorandum titled Caltrans Implementation of SB 743 – Use of Vehicle Miles Traveled in CEQA (Memorandum). RCTC serves as the regional transportation planning agency for Riverside County, California, and has acted as both lead agency and responsible agency for billions of dollars in regional transportation projects, often partnering with the California Department of Transportation in the environmental review process under the California Environmental Quality Act (CEQA).

Although RCTC submitted comments via the web portal, RCTC is also providing this letter to provide further clarification and a record of RCTC's comments.

RCTC seeks implementation of SB 743 that minimizes or avoids increasing the cost and time of delivering vital transportation improvements, while achieving the State's environmental goals. The voters of California have entrusted Caltrans and agencies like ours with efficiently putting their tax dollars to projects they have voted to support. We believe that Caltrans is at risk of implementing new policy that does not appropriately consider its consequences on project delivery both for RCTC's projects and many of Caltrans's projects.

Unfortunately, the Memorandum's public review and comment process is being shortchanged—the review and comment period for the significant changes being proposed is a mere 8 days (including a holiday weekend). This hasty process is a sharp contrast from Caltrans's typical process for undertaking such sweeping changes. By way of comparison, Caltrans's "Interim Guidance Determining CEQA significance for Greenhouse Gas Emissions on the State Highway System" was widely circulated to stakeholders and involved public review over many months. It is unreasonable to give stakeholders a mere 8 days to review and comment on such a radical change to how transportation projects are analyzed.

For reasons explained in more detail in the attached exhibit, RCTC disagrees with the Memorandum's position that vehicle miles traveled (VMT) is the best metric for evaluating the impacts of transportation projects under CEQA and believes the Memorandum should be revised accordingly. There are very good reasons why the new State CEQA Guidelines treat land use projects and transportation projects differently—requiring land use projects to use VMT, but *not* transportation projects. (See 14 Cal. Code Regs., § 15064.3(b).) The Memorandum's failure to reflect this critical distinction will have serious consequences for transportation projects, such as steep cost increases and delays, double counting of VMT impacts, exacerbation of the state's

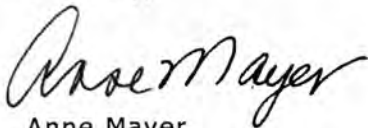


housing shortage, and unintended consequences such as *increases* in greenhouse gas emissions. Thus, as is allowed under the State CEQA Guidelines, Caltrans and CEQA lead agencies on state highway projects should continue to have the discretion afforded to them to use level of service to analyze CEQA impacts—and let local land authorities use VMT for local land use projects, the true source of VMT.

RCTC aligns itself with concerns expressed by other regional transportation agencies who will be responsible for implementing the Memorandum and subsequent policy guidance. Although RCTC's concerns have been previously raised, RCTC appreciates this and every opportunity to comment on Caltrans's efforts to implement SB 743 and looks forward to direct engagement with Caltrans and other implementing agencies on this important subject.

If you have any questions or would like to discuss further, please feel free to contact me. We would welcome a discussion on these topics.

Sincerely,

A handwritten signature in cursive script, appearing to read "Anne Mayer".

Anne Mayer  
Executive Director

cc: Honorable Richard Roth, Senator, District 31  
Honorable David Kim, Secretary, California State Transportation Agency  
Adetokunbo Omishakin, Director, California Department of Transportation  
Mike Beauchamp, District 8 Director, California Department of Transportation  
Kome Ajise, Executive Director, Southern California Association of Governments  
Keith Dunn, Executive Director, Self Help County Coalition

Attachment

## **RCTC's Comments on**

### **Caltrans's Memorandum re Implementation of SB 743**

#### Section 1

Implementation of SB 743 under the new State CEQA Guidelines treats land use projects and transportation projects differently. While land use projects *must* use VMT, transportation projects do not. As stated in the new State CEQA Guidelines: "For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements." (14 Cal. Code Regs., § 15064.3(b)(2).) RCTC believes this distinction between land use projects and transportation projects is absolutely warranted and essential.

However, this distinction is not currently reflected in the Memorandum. The Memorandum states that VMT "is the most appropriate primary measure of transportation impacts for capacity-increasing transportation projects on the SHS." (Section 1.1.) This is problematic for a few reasons.

First, there is not a clear definition or explanation as to which projects increase capacity, and what the basis is for that determination. Attachment A to the Memorandum provides examples of projects "that would not likely lead to a substantial increase or measurable increase in vehicle travel," but that is not necessarily the same as whether a project increases capacity, and whether that increase is "substantial." As noted in examples below, it is possible to increase capacity without leading to a "substantial" or measurable increase in VMT. Also, projects listed in Attachment A, while not considered capacity increasing projects, can result in increases in VMT under the Induced Travel Calculator. For example, per the calculator, the addition of even 0.1 miles of an auxiliary lane shows a VMT increase of 0.5 million VMT/year. Similarly, a vital truck lane safety project on State Route 60 currently under construction by RCTC in partnership with Caltrans was analyzed with a mitigated negative declaration. Some VMT methodologies might have shown an increase in VMT, which would have then required a lengthy and costly environmental impact report (EIR). Indeed, a legal challenge to the environmental document for the project alleged that the project actually increased VMT.

RCTC believes that under the proposed procedures, many of Caltrans's operational improvement projects can be considered to increase VMT and would hence require EIR-level environmental documents, jeopardizing project delivery schedules.

Second, in the context of "induced" travel, there is a presumption that the addition of a lane increases capacity because better flowing traffic will lead to more people opting to use the road for travel. But this ignores the fact that the population is growing (particularly in more affordable areas outside urban centers) and a roadway improvement, itself, does not directly affect VMT or the number of users. Rather, land use decisions, such as zoning and the construction of new homes and businesses more directly dictate VMT. Roadways provide corridors to be used by existing travelers



and, to the extent necessary, account for future capacity needs dictated solely by local land use authorities. These land use authorities are under increasing pressure from the State to increase housing production, particularly in counties such as Riverside. With most employment opportunities still located in coastal areas, a factor that neither local land use authorities nor transportation agencies can control, VMT increases are inevitable to meet the State's housing goals.

To illustrate this point, imagine a new 8-lane roadway built in a remote part of California. The roadway itself would not induce any new travel. Rather, local land use agency decisions to permit new housing and commercial construction along or near the roadway would be the cause for any increase in VMT. And, importantly, those local land use agency decisions are, themselves, subject to CEQA and required to use VMT analyses. Therefore, requiring transportation projects to *also* undergo their own VMT analyses ignores the true cause for increases in vehicle travel and results in double counting of VMT impacts.

Similarly, to the extent capacity is added in urban areas (where there is scarce land available for new development), new roadway capacity projects might only shift travel from one roadway to another—not increase vehicle travel. The trips in such areas may occur with or without the new roadway capacity, and because land in these areas is often fully developed, new roadway capacity will at times, instead of increasing vehicle travel, result in a net *reduction* of greenhouse gases by making existing vehicle trips faster and more efficient, resulting in less idling and fewer greenhouse gas emissions.

Third, and in that same vein, if the goal of SB 743 is to achieve greenhouse gas reduction goals, requiring VMT analyses for all transportation projects may take us further from those goals. The induced demand theory is premised on the idea that free-flowing traffic induces more users and therefore causes more traffic. Thus, according to the theory, it seems preferable to let congestion continue in the hope that the congestion will spur people to seek other modes of transportation. However, what is to be done in situations where there are no other viable modes of transportation, population increases, and more and more vehicles congest the roadway, idling for longer periods of time and increasing greenhouse gas emissions?

Finally, the Memorandum framework does not address the fact that a multi-modal interconnected transportation network is an integral component of Regional Transportation Plans/Sustainable Community Strategies (RTP/SCS). In accordance with SB 32, specific greenhouse gas reduction targets must be met, and it is that target upon which RTP/SCS are based. Caltrans's proposed implementation of the Memorandum's framework outside the context of RTP/SCS implications could jeopardize a region's ability to comply with greenhouse gas reduction mandates.

Thus, it would be far more effective to allow Caltrans and CEQA lead agencies on state highway projects to continue exercising the discretion afforded them to use level of service, as is allowed under the State CEQA Guidelines—and let local land authorities use VMT for land use projects, the true source of VMT.



Additional comments on Section 1 include:

- Section 1 of the Memorandum contains language that is somewhat contradictory. For example, Section 1.0 states: "It is recommended that Districts use VMT to analyze transportation impacts of projects with the potential to increase VMT ...." Whereas, Section 1.1 states: "Many types of projects will be unaffected by the use of VMT as a measure of transportation impacts because they are assumed to not lead to a substantial increase in vehicle travel." The first statement seems to indicate that *any* potential to increase VMT requires a VMT analysis. The second statement seems to indicate that only projects that will cause a *substantial* increase in VMT must have a VMT analysis. This tension reoccurs elsewhere in the memo and warrants clarification and harmonization. Further, we question what justifies the generalization that, "Many types of projects will be unaffected ...."
- Section 1 references a January 4, 2019 message distributed by Caltrans Division of Environmental Analysis. This message should be disseminated (and included with this Memorandum), so that reviewers can understand its role.
- Section 1 states that the January 4, 2019 message "recommended" that Districts use VMT for particular projects. Is this now a requirement? If so, why the change? If not a requirement, how much discretion do Districts have in deciding whether to use VMT?
- Section 1.1 states that VMT is to be used for capacity-increasing projects on the state highway system when Caltrans is the lead agency "or when Caltrans designates another entity as lead agency." What is the basis for Caltrans requiring another agency, designated as the lead agency, to use a particular methodology?
- Section 1.2 states that the TAF document will provide guidance for CEQA transportation/traffic analysis for project on the SHS. Will this require use of the "Induced Travel Calculator" on the National Congress on School Transportation (NCST) website?
- Regarding the future TAF and TAC, referenced in Section 1.2, RCTC requests that there be ample time for comment and *revisions* before the documents are made final. Both documents will be instrumental in shaping the ultimate approach that will be used in CEQA documents, including whether an EIR and statement of overriding considerations will be required. Thus, it is critical that stakeholders—particularly project sponsors—have sufficient time to weigh in on these important documents. Based on indications from Caltrans so far, a significance threshold triggered by *any* increase will effectively condemn most transportation projects to preparing an EIR, which will significantly increase the time and cost for delivering many transportation projects. Such a result runs counter to representations made by Caltrans staff to the Self-Help Counties Coalition that it is not Caltrans's intent to slow projects down; it is also counter to the spirit of SB 1, which coupled new transportation taxes with new efficiencies and a pledge to voters to deliver. Doing so would also be inconsistent with and undermine specific GHG targets already established in RTP/SCS. Thus, RCTC strongly opposes a "zero increase" significance threshold.



- Whether in the TAC, TAF, or Memorandum, it should be made clear that some capacity increasing projects may not require an analysis of induced demand because, as noted previously, not all capacity increasing projects increase VMT (some may decrease VMT).

### Section 2.1

This section appears to apply to all transportation projects – not just capacity increasing projects. As such, there appears *even less* reason to use a VMT-based significance threshold. As noted above, the use of VMT for capacity increasing projects is unwarranted and could lead to unintended consequences of increased greenhouse gas emissions. Thus, there should be no reason why non-capacity increasing projects should use VMT. Further, the simple fact that there is a “high level of public and stakeholder interest in a project” or because an EIR is going to be certified after July 1, 2022, seem irrelevant to whether a VMT-based significance threshold should be used. What’s more, the factors are so broad, that they will result in inconsistent determinations across the state.

Naturally, a lot will depend on what the ultimate significance threshold turns out to be, but it is not hard to imagine many types of projects that do not increase capacity, have a high level of public and stakeholder interest, and result in a slight increase in VMT. Under such circumstances, an EIR would likely be required for projects that have negligible environmental effects.

Section 2.1 also relies on an internal project delivery schedule, Milestone 020 to establish when the new policies apply. But this scheduled implementation is arbitrary, relies on an internal policy that can be changed at any time, and is not grounded in CEQA precedent.

### Section 2.2

For the reasons previously explained, it should not be presumed that a capacity increasing project will result in an increase in VMT. Whether VMT increases is dependent on the land use decisions made by local land use agencies, not roadway projects.

### Section 2.3.1

As explained above, Section 2.1 should be revised and the factors reconsidered. Thus, Section 2.3.1 should not look to the current language of Section 2.1 for guidance.

### Section 2.3.2 and 2.3.3

Because VMT has been known for many years, it is more appropriate to treat it similar to how greenhouse gas emissions are treated in subsequent, supplemental, and later tier CEQA documents, where the original document was certified before greenhouse gas emissions analyses were required. (See *Citizens for Responsible Equitable Environmental Development v. City of San Diego* (2011) 196 Cal.App.4th 515, 531 [greenhouse gas emissions not new information that triggered 14 Cal. Code Regs., § 1512(a)(3)]; *A Local and Reg'l Monitor (ALARM) v. City of Los Angeles* (1993) 12 Cal.App.4th 173, 1802 [letter containing reformulated quantification of traffic study information that

was already included in the EIR was not 'new' information].) Indeed, there should be a presumption that the subsequent, supplemental, and later tier CEQA documents use the same methodology as was used in the original document. To do otherwise will result in confusion (comparing apples to oranges, i.e., an LOS analysis to a VMT analysis) and cause unnecessary use of Supplemental and Subsequent EIRs versus addenda.

### Section 3.2

For the reasons previously explained, it should not be presumed that a capacity increasing project will result in an increase in VMT. Whether VMT increases is dependent on the land use decisions made by local land use authorities, not transportation agencies.

List of Capacity Increasing Projects  
February 21, 2020

ATTACHMENT 3 TO AGENDA ITEM 8

District	county	route	PM	EA	M020	Notes
2	SHA	5	14.8-20.0	02-0H920	4/30/19 (A)	Adding capacity on mainline to create 6 lane facility. In Shasta County/ Redding from 0.3 miles north of Cypress Ave O/C to .6 miles north of Oasis Rd
3	YOL	80	0.0-0.0	03-3H900	1/14/20 (T)	14.9 new mainline lane miles of HOV. I-80 just west of Davis in both directions from Kidwell Rd IC in Solano County to the US-50 /I-5 IC and I-80 /West El Camino IC in Sacramento
3	SAC	005	21.2-34.3	03-4H580	1/14/20 (T)	26.2 lane miles of HOV, Eight Aux Lane locations - Tot. 5.5 lane miles.
4	CC	004	15.5-18.5	04-1J031	1/3/19 (T)	Operational improvement is the auxiliary lanes (1.8 miles).
4	ALA	680	10.6-21.9	04-0Q300	10/1/19 (T)	The project proposes to convert the shoulder into an express lane on SB-680.
4	SM	101	20.3-26.0	04-3G860	2/1/20 (T)	Aux lanes appear to be more than 1 mile in excess of 1 mile on SM-101 - Oyster Point Blvd to SF/SM County Line
4	SCL	101	38.0-40.0	04-0K710	4/20/18 (T)	New interchange (SCL US 101/Zanker Road Interchange) with lanes through grade separated interchange.
4	SM	101	20.7-26.1	04-3I100	6/3/19 (T)	SF-101-280 Managed Lanes. On mainline. May be a conversion of a lane to HOT lane but an alternative may include widening.
4	CC	680	11.3-23.0	04-0Q310	7/15/20 (T)	CONSTRUCT NB HOV HOT LANE, creating new mainline capacity.
5	SB	101	85.7-85.7	05-0H310	10/17/19 (A)	New Interchange for Santa Maria at McCoy/Route 101.
5	SB	101	90.7-90.7	05-0G840	12/18/19 (T)	Interchange improvements at 101/135 intersection. The improvements include reconfiguration from trumpet interchange to diamond or parallel interchange with added through lane for new connection to proposed local road east of Route 101 and turn pockets.
5	MON	101	77.0-85.6	05-0H330	6/28/21 (T)	South Salinas Corridor improvements to upgrade the expressway to a freeway with interchanges and frontage rd.

Draft for Review

Caltrans Division of Environmental Analysis



List of Capacity Increasing Projects  
February 21, 2020

District	county	route	PM	EA	M020	Notes
5	SB	101	22.4-26.0	05-01960	9/22/20 (T)	Overcrossing improvement. City of Goleta is considering alternatives to be considered including motorized vs non-motorized vehicular crossing. Added capacity to local road only. Bicycle and pedestrian improvements would be included.
5	SCR	001	10.4-13.3	05-0C733	7/18/19 (A)	Construct auxiliary lanes between interchanges totalling 2.7 miles. Includes reconstruction of the Capitola Ave. overcrossing to accommodate new lanes on SR 1. Tiered EIR.
6	FRE	180	9.0-23.5	06-0Y230	12/01/2020	180 West extension to construct 2 Lane Expressway on new alignment.
6	MAD	099	15.1-19.9	06-0Y360	10/1/22 (T)	New mainline widening on North Madera 99 by increasing from 4-lane freeway to 6-lane freeway.
6	MAD	099	13.5-14.7	06-0H330	11/1/22 (T)	Modify Avenue 17 interchange. Will include multiple aux lanes less than 1 mile but cumulatively greater than a mile.
6	FRE	099	21.2-24.4	06-0W800	1/14/19 (A)	El Dorado to Clinton Rehab. Rehabilitate 3.2 miles of freeway with CRCP lanes and HMA shoulders. Construct auxiliary lanes to aid in staging and future operations. Reconfigure Olive IC to accommodate Belmont and possibly McKinley ramp closures. Aux lanes between Olive and Clinton and SR 99/180 to Olive appear to be just over 1 mile
6	MAD	099	1.7-7.5	06-0H220	2/13/19 (A)	New mainline widening on South Madera 99 by increasing from 4-lane freeway to 6-lane freeway.
6	TUL	099	25.4-30.5	06-48950	7/24/19 (A)	Tulare City Widening to convert from 4 lanes on mainline to 6-8 lanes.
7	LA	060	11.7-25.5	07-32780	11/1/19 (T)	No funding available. Analysis could be required depending on capacity improvements. Alternative 5 adds capacity (HOV).
7	LA	110	23.73-25.0	07-34300	11/27/19 (T)	LA-110 Dodger Stadium. Analysis could be required depending on capacity improvements.
7	LA	126	2.2-2.2	07-32940	4/1/21 (T)	Modify intersection. No signed PID, so scope is in early stage. Depending on final scope this may or may not add capacity.
7	LA	101	11.45-12.8	07-28980	7/16/21 (T)	New aux lanes over a mile.
7	LA	405	0.0/29.5	07-35432	TBD	HOT Lane Conversion, I-10 to Co Line

List of Capacity Increasing Projects  
February 21, 2020

District	county	route	PM	EA	M020	Notes
7	LA	405	29.5/39.5	07-35433	Jan-20	HOV to HOT Conversion. Likely add an additional HOT lane in each direction.
7	LA	605	0.0/20.2	07-35434	TBD	HOV to HOT Conversion.
7	LA	091	12.100/12	07-35460	4/2/19 (A)	Atlantic to Cherry Ave: Add Aux Lane that is less than 1 mile. Unclear if it meets component related to safety.
7	LA	101	7.58-10.23	07-32740	5/28/21 (T)	Aux lanes is greater than 1 mile for one of two alternatives.
7	LA	105	4.22-4.72	07-30380	6/22/20 (T)	Adds a half-mile long mixed flow lane to the mainline.
7	VEN	101	12.0-17.7	07-35300	8/16/21 (T)	Multiple aux lanes less than 1 mile but cumulatively greater than a mile.
7	LA	010	31.0/48.3	07-35431	March/Apr 2020	Project converts a HOV to HOT lane.
7	VEN	101	4.1-30.8	07-29830	5/31/19 (A)	Project adds an HOV lane in each direction.
7	LA	091	8.400/9.80	07-35920	5/29/19 (A)	Add Mixed-flow Lanes from Acacia Court to Central Ave.
7	LA	405	9.3-13.2	07-35940	7/1/20 (T)	Transition (Auxiliary) Lanes on Northbound and Southbound Route LA-405 Between Main Street and Wilmington Ave.
8	Riv	10	8.2-8.2	1H870	9/19/19 (A)	Riverside 10 Pennsylvania Avenue; new ramps for interchange.
8	Riv	60	9.4-9.8	08-1G400	8/25/20 (T)	Interchange improvements at Riverside 60 and Rubidoux Blvd. On and off ramps would increase from one lane to three lanes. No lanes through the interchange or auxiliary lanes greater than a mile. Local road will get additional right and left turn lanes.
8	RIV	091	15.1-16.2	08-1H180	1/2/20 (T)	Riverside 91 Interchange modifications. The project would widen on and off ramps, add side walks, and add bike lanes. The project would also widen local roads (Indiana Ave. and Adams St.), increasing capacity.
8	RIV	010	8.81-9.81	08-0L160	1/29/21 (T)	Riverside 10 interchange improvements. Project is to "alleviate congestion" Aux lanes will be more than 1 mile. Additionally, local road capacity will increase
8	RIV	015	3.5-6.8	08-1K400	10/1/20 (T)	Temecula aux lanes. Aux lanes are over 1 mile and local road capacity will be increased.

List of Capacity Increasing Projects  
February 21, 2020

District	county	route	PM	EA	M020	Notes
8	SBD	010	39./49-43.	08-0M680	2/2/23 (T)	Riv 10 - Da Vall Dr Interchange. Project will construct a new 6 lane interchange. Project includes Aux lanes. Additionally, the project will extend and widen local road (Da Vall Drive).
8	RIV	015	21.6-22.9	08-0F310	3/12/18 (T)	Riv 15/74 Central. Limited information at this time. Project will increase capacity of local roads.
8	RIV	010	2-2-3-6	08-0G170	4/15/19 (T)	Riverside 10/Cherry Avenue. Capacity increase to local road (Cherry Ave). New sidewalk and bike lanes. On and off ramps will have additional lanes.. Aux lane will be added to EB.
8	RIV	015	3-4-5-0	08-1K401	6/1/20 (T)	Construct NB and SB AUX lanes and install ramp metering at Rancho California Rd IC. Auxiliary lanes will be greater than a mile and local road capacity will increase.
8	SBD	010	37.8-38.8	08-1K090	6/15/21 (T)	New interchange for congestion alleviation. Possible compacity increase on local roads.
8	SBE	210	26.0-28.0	08-0M730	7/1/20 (T)	SBD-210 CONSTRUCT VICTORIA AVE IC. Assume that this will include new lanes through a new grade-separated interchange.
8	RIV	215	31.8-32.8	08-1K830	7/22/22 (T)	Harley Knox Interchange. Limited information at this time. Project will add lanes on local road (Harley Knox Blvd.) No additional information.
8	SBD	010	27.3-27.3	08-1H150	8/24/20 (T)	Mountain View Street Improvement Project at I-10. Project will widen local road (mountain view ave, widen the EB off-ramp and the EB on-ramp, construct new sidewalks.
8	SBD	010	22.8-23.8	08-1G800	9/16/19 (T)	SBD 10/MT VERNON IC MODIFICATIONS. There will be lanes through grade-separated interchanges. There will be auxiliary lanes - 2 new lanes. New local roads will include bike lanes which may result in an exclusion for analysis of a local road.
8	RIV	015	22.3-36.8	08-0I082	9/25/20 (T)	I-15 EXPRESS LANES (SOUTHERN EXTENSION)
8	Riv	10	1.5-2.3	08-0F980	unk	RIV 10 RECONSTRUCT IC @ SINGLETON RD IC. Project will increase lanes for on and off ramps and increase capacity of several local roads.

List of Capacity Increasing Projects  
February 21, 2020

District	county	route	PM	EA	M020	Notes
8	RIV	215	13.75-15.2508-0Q220		9/19/2018	RIV 215 NEW KELLER RD IC. Project will add entrance and exit ramps as well as northbound and southbound aux lanes for over 1 mile (R14.1 to R15.26). Additionally, Keller Rd (local road) will go from 4 lanes to 6 at bridge structure.
10	SJ	205	0.0-12.5	10-1H170	6/15/20 (T)	I-205 Tracy Managed-Lane Widening. PA&ED pushed out 1 year; assuming widening includes new travel lanes.
11	SD	805	0.1-14.6	11-43023	7/1/20 (T)	I-805 South Aux Lanes. Aux lanes: market and home (.26 mi / 1,370 ft. - not in RTP); 8th to telegraph (.47 mi / 2500 ft), 47th to Imperial (.24 mi / 1,283 ft).
11	SD	52	7.3-14.8	11-43012	11/1/19 (T)	Home Fed Operational Improvements on SR52 between I-15 and 125 (HIA). New bike lane (2-way class IV), aux lane (1.1 miles), truck climbing lane (3.2 miles), restriping (2 to 3 lanes), ramp widening.
11	SD	078	0.6-13.2	11-2T241	PAED Funding begins FY 20/21	SR-78 HOV/MANAGED LANES. Potential for new capacity.
11	SD	67	5.4-21.4	11-28700	1/6/20 (T)	SR-67 - WIDEN TO 4 LANES, New mainline capacity proposed.
11	SD	015	30.6-32.0	11-2T240	11/25/19	I-15/SR-78 CONNECTOR. There will be lanes through grade-separated interchanges. Widening proposed for Aux lanes and managed lanes. Barham Dr. widened from 2 lanes to 4 or 6 lanes and new onramp. Bike/ped improvements will be necessary and potential transit.
12	ORA	55	0.0-2.4	12-0L520	1/2/20 (T)	Rte 55 Costa Mesa-Improve Mobility. New tunnel option will not be considered as an alternative in Project Report.
12	ORA	133	10.0-11.0	12-0G009	1/10/22 (T)	SR 133/Great Park Bl. Construct Interchange. No aux lanes or lanes through interchanges. There will be local roads but they will have substantial ped/cyclist improvement.
12	ORA	57	21.2-22.6	12-0C120	7/1/22 (T)	New capacity in an area that is potentially rural but in an urban county. SR 57 Truck Climbing lanes between Tonner Canyon Road and Lambert Road.

List of Capacity Increasing Projects  
February 21, 2020

District	county	route	PM	EA	M020	Notes
12	ORA	5	30.0-45.0	12-00Q950	7/1/20 (T)	I-5 Managed lanes between SR 55 and SR 91. Alternatives will either convert capacity or add new capacity to the mainline. Alternative 2 will convert HOV lanes to HOT lanes. Alternative 3 or 4 will include Alternative 2 and will add a second HOT lane.
12	ORA	133	8.5/9.3	12-0N890	8/24/2018 (A)	Modifies interchange. Extend No.4 lance on SBSR-133 from SB I-5 Connector & add a second lane to NB 405 Connector
12	ORA	241	0.0-10.0	12-00Q680	8/29/2019 (A)	Creates a new alternate north-south route. New capacity.

# Memorandum

*Making Conservation  
a California Way of Life*

To: TRANSPORTATION STAKEHOLDERS

Date: February 28, 2020

From: ELLEN GREENBERG  
Deputy Director, Sustainability

CHRIS SCHMIDT  
SB 743 Program Manager

Subject: **Caltrans Draft VMT-Focused Transportation Impact Study Guide (Draft TISG) – 30 Day Informal Review Period**

Senate Bill (SB) 743, signed in 2013 and incorporated into the California Environmental Quality Act (CEQA) Guidelines in 2018, better aligned CEQA with the State's climate and air quality goals. It is changing CEQA analysis of transportation impacts associated with both land development and infrastructure projects.

## Overview

SB 743 means major changes in CEQA review of transportation analysis of local land use projects. These changes follow both the CEQA Guidelines revisions (§15064.3) published by the Natural Resources Agency in December 2018<sup>1</sup>, and the "Technical Advisory on Evaluating Transportation Impacts in CEQA" prepared by the Governor's Office of Planning and Research (OPR)<sup>2</sup>. Caltrans supports implementation of the guidance from these State Agency partners.

**For land use projects**, SB 743 prohibits identification of automobile delay as a significant impact on the environment within CEQA transportation analysis. By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how new development projects may influence the overall amount of automobile use. Some project types are exempted in order to streamline developments not likely to cause additional automobile travel, such as those in infill areas.

---

<sup>1</sup> California Department of Natural Resources, 2018. "CEQA Guidelines."  
[https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf)

<sup>2</sup> California Governor's Office of Planning and Research (OPR), 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf)

These changes to the environmental review process aim to reduce automobile dependency by supporting infill development, reducing average length of vehicle trips, and increasing use of more sustainable modes including carpooling, cycling, walking, and transit. These shifts are essential to supporting the State's growing population and economy while meeting climate and air quality goals.

### **Request for Review and Feedback**

Caltrans Draft VMT-Focused Transportation Impact Study Guide is attached to this memorandum. It is guidance to Caltrans Districts, lead agencies, developers and consultants regarding Caltrans review of a land use project or plan's transportation analysis using a VMT metric. **Caltrans invites your informal review and feedback on the Draft TISG by close of business on March 30, 2020.** The Draft TISG is posted on Caltrans SB 743 implementation webpage. Click the link on the webpage to provide informal feedback on it.

Caltrans will hold a webinar to discuss the content of the Draft TISG and hear your comments, concerns, and questions. Members of Caltrans' SB 743 Implementation Team are also available to discuss the document. Please contact Ali Doerr-Westbrook (916-653-2580) to schedule a call or meeting.

Thank you in advance for your contributions to this important work.

Attachment: Draft VMT-Focused Transportation Impact Study Guide





# Transportation Impact Study Guide

Vehicle Miles Traveled-Focused DRAFT

February 2020

## 15 TABLE OF CONTENTS

16	Use of this Guidance.....	3
17	1. Introduction .....	4
18	1.1 Changes to CEQA .....	4
19	1.2 Caltrans Updates Our Review of Land Use Decisions and Projects .....	5
20	2. Reducing Greenhouse Gas Emissions and Vehicle Miles Traveled.....	7
21	3. Caltrans Review of Local Development Projects .....	8
22	3.1 VMT Analysis is Caltrans' Focus .....	8
23	3.2 VMT Calculation .....	9
24	4. Projects Presumed to Have a Less than Significant Transportation Impact .....	10
25	4.1 Caltrans' Review of Projects Presumed to Have A Less Than Significant Impact.....	11
26	5. Projects Without Presumption of Less Than Significant Impact.....	13
27	5.1 Caltrans' Review of Projects Without Presumption of Less Than Significant Impact .....	13
28	6. Rural Areas Outside of Metropolitan Planning Organizations (MPOs).....	15
29	6.1 Caltrans' Review of Projects in Rural Areas Outside of MPOs .....	15
30	7. Mitigating Transportation Impacts .....	16
31	8. Appendix .....	18
32		

### 33    **Use of this Guidance**

34    The Transportation Impact Study Guide was prepared by the State of California, Department of  
35    Transportation (Caltrans) to provide guidance to Caltrans Districts, lead agencies, developers  
36    and consultants regarding Caltrans review of a land use project or plan's transportation analysis  
37    using a VMT metric. This guidance is not binding on public agencies and it is intended to be a  
38    reference and informational document. The guidance may be updated based upon need, or  
39    updates to Governor's Office of Planning and Research's Technical Advisory on Evaluating  
40    Transportation Impacts in CEQA.

## 1. Introduction

The Transportation Impact Study Guide (TISG) is used by the California Department of Transportation's (Caltrans) Local Development-Intergovernmental Review (LD-IGR) program during environmental review of land use project and plans. As owner/operator of the State Highway System Caltrans may review projects and plans as a commenting agency or responsible agency under the California Environmental Quality Act (CEQA).

Caltrans LD-IGR program works with local jurisdictions early and throughout their land use planning and decision making processes, consistent with the requirements of CEQA and state planning law. Caltrans seeks to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and reduce GHG emissions. Those goals along with standard CEQA practice create the foundation of Caltrans review of proposed new land use projects.

### 1.1 Changes to CEQA

For 50 years CEQA has required that public agencies examine, disclose, and minimize the anticipated environmental impacts of public and private investments in the state. These investments include both land development projects and infrastructure investments such as freeway projects. Senate Bill 743, approved in 2013 and incorporated into the State's CEQA Guidelines in 2018, better aligned CEQA with the State's climate goals. It is changing CEQA analysis of transportation impacts associated with both land development and infrastructure projects.

For Caltrans, SB 743 means major changes in two activities:

1. Review of land use project or plan's potential impact to the State Highway System, which are generally addressed through the Caltrans Local Development-Intergovernmental Review program, and
2. CEQA analysis of capacity increasing transportation projects on the State Highway System

These changes follow both the CEQA Guidelines and the Governor's Office of Planning and Research (OPR) [Technical Advisory on Evaluating Transportation Impacts in CEQA](#). Caltrans supports implementation of the guidance published by its State Agency partners.

A key change for the LD-IGR program is that CEQA documents will now consider different types of transportation impacts than previously examined. When analyzing the impact of VMT on the State Highway System resulting from local land use projects, the focus will no longer be on

traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how projects are likely to influence the overall amount of automobile use. SB 743 specifies that "...automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (California Public Resources Code Section 21099)

Caltrans supports these changes, which aim to reduce automobile use while increasing use of more sustainable modes that are essential to supporting our growing population and economy while meeting climate goals.

## 1.2 Caltrans Updates Our Review of Land Use Decisions and Projects

For land use projects and plans, automobile delay is no longer considered a significant impact on the environment under the California Environmental Quality Act. (SB 743, 2013). Caltrans review of land use projects and plans is focused on a vehicle miles traveled metric, consistent with changes to the CEQA Guidelines (California Code of Regulations Section 15064.3(b)(1)). This VMT-focused Transportation Impact Study Guide (TISG) provides a foundation for review of how lead agencies apply the VMT metric to CEQA project analysis.

Beyond or in addition to the use of the VMT metric, determining how the State Highway System (SHS) may otherwise be affected by a land use project may still be necessary at times. **A future update of this Transportation Impact Study Guide will include the basis for requesting transportation impact analysis that is not based on VMT (including multimodal conflict/access management issues). It will also define the elements to be included in non-VMT analysis.**

This VMT-Focused Transportation Impact Study Guide is intended for use by the Caltrans Local Development-Intergovernmental Review program, lead agencies, developers, and consultants in preparing a transportation impact analysis for land use projects or plans that may impact or affect the State Highway System. It supports CEQA streamlining for qualifying projects as identified by CEQA Guidelines (California Code of Regulations Section 15064.3(b)(1)).

The objectives of this Guide are to provide:

- a. Guidance in determining when a lead agency for a land use project or plan should analyze possible impacts to the State Highway System, including its users.
- b. An update to the *Guide for the Preparation of Traffic Impact Studies* (Caltrans, 2002) that is consistent with SB 743 and the CEQA Guidelines adopted on December 28, 2018.
- c. Guidance for Caltrans land use review that supports state land use goals, state planning priorities, and GHG emission reduction goals.

- d. Statewide consistency in identifying land use projects' possible transportation impacts to the State Highway System, and to identify potential non-capacity increasing mitigation measures.
- e. Assumptions, data requirements, study scenarios, and analysis methodologies for a high quality analysis of impacts to the State Highway System.
- f. Recommendations for early coordination during the planning phase of a land use project to reduce the time, cost, and/or frequency of preparing a Transportation Impact Study or other indicated analysis.

The TISG replaces the *Guide for the Preparation of Traffic Impact Studies* (Caltrans, 2002). We continue to emphasize the importance of coordination early in the land use project approval/CEQA review process. Early coordination ensures transportation impacts analysis and/or site design elements that address the needs of all users are identified. Early coordination can also minimize costs and time associated with analysis of transportation impacts. The information herein may be used as part of a land use project's CEQA transportation analysis as well as for other elements of a project's review, analysis, or approval processes to determine impacts or potential and appropriate changes or mitigation necessitated by such projects.

## 2. Reducing Greenhouse Gas Emissions and Vehicle Miles Traveled

California law, including Assembly Bill 32 (Nunez, 2006), known as the California Global Warming Solutions Act of 2006, requires greenhouse gas emissions reductions. California Air Resources Board (CARB) developed a Scoping Plan that describes the approach California will take to reduce greenhouse gas emissions. CARB finds per capita vehicle travel needs to be below what today's policies and plans would achieve. CARB's assessment is based on data in the 2017 Scoping Plan Update and 2016 Mobile Source Strategy. In those documents, CARB examined the relationship between VMT and the state's GHG emissions reduction targets. Most recently, CARB's 2018 Progress Report stated:

"With emissions from the transportation sector continuing to rise despite increases in fuel efficiency and decreases in the carbon content of fuel, California will not achieve the necessary greenhouse gas emissions reductions to meet mandates for 2030 and beyond without significant changes to how communities and transportation systems are planned, funded, and built." ([https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf) Page 5)

SB 743, through a new CEQA metric for transportation impacts, sought to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses (Public Resources Code Section 21099 (7)(b)(1)). That is, it sought to modernize CEQA transportation analysis in a way that supports these goals. A new metric, vehicle miles traveled, was selected for land use development based on the expectation that a vehicle miles traveled metric will better support greenhouse gas emission reductions and improve multimodal transportation options for land use development.



### 3. Caltrans Review of Local Development Projects

Caltrans Local Development-Intergovernmental Review program's focus is aligned with Caltrans Strategic Management Plan's goals and targets to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and reduce GHG emissions.

CEQA Guidelines, and OPR's Technical Advisory distinguish types of development projects that are presumed to have a less than significant impact on vehicle miles traveled and therefore, a less than significant adverse impact on transportation. Caltrans review of land use projects is attentive to the distinction and encourages development in low VMT areas while at the same time maintaining safety for the State Highway System and all its users.

#### 3.1 VMT Analysis is Caltrans' Focus

Many lead agencies are adopting VMT metrics in advance of it becoming the standard CEQA transportation metric on July 1, 2020. VMT analysis replaces Level of Service, the prior widely applied metric used for CEQA transportation analysis. Caltrans' primary review focus for a land use project's impacts is now VMT.

Caltrans references OPR's December 2018 SB 743 Technical Advisory as a basis for this guidance document. We recommend use of OPR's recommended thresholds for land use projects. As each lead agency develops and adopts its own VMT thresholds for land use projects, Caltrans will review them for consistency with OPR's recommendations, which are consistent with the state's GHG emissions reduction targets and CARB's Scoping Plan.

Caltrans supports CEQA streamlining for land use projects in transit priority areas and areas with existing low VMT, as described in OPR's Technical Advisory. We recommend following the guidance on methods of VMT assessment found in OPR's Technical Advisory. **Our comments on a CEQA document may note methodological deviations from those methods and may recommend that significance determinations and mitigation be aligned with state GHG reduction goals as articulated in that guidance, CARB's Scoping Plan, and related documentation.**

OPR's Technical Advisory is available online at <http://opr.ca.gov/ceqa/updates/sb-743/>.

## 3.2 VMT Calculation

A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled (Public Resources Code 15064.3 (b)(4)). Caltrans will review an agency's VMT calculator or VMT calculation for consistency with technical considerations in OPR's Technical Advisory.

## 4. Projects Presumed to Have a Less than Significant Transportation Impact

Certain types of projects as identified in statute, the CEQA Guidelines, or in OPR's Technical Advisory are presumed to have a less than significant impact on vehicle miles traveled and therefore a less than significant impact on transportation. Generally, the identified projects contribute to efficient land use patterns enabling higher levels of walking, cycling, and transit as well as lower average trip length. This section addresses how Caltrans will determine which projects will be presumed to have a less than significant transportation impact. These projects include, for example, projects in transit priority areas, projects consisting of residential infill or those located in low VMT areas.

Caltrans references OPR's December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA, which identifies projects and areas presumed to have a less than significant transportation impact. Those include:

1. Residential, office, or retail projects within a Transit Priority Area, where a project is within a ½ mile of an existing or planned major transit stop or an existing stop along a high quality transit corridor.
  - a. A major transit stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (Pub. Resources Code, § 21064.3)
  - b. A high-quality transit corridor is defined as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours (Pub. Resources Code, § 21155).
2. An area pre-screened by an agency as having low residential or office VMT:
  - a. An area where existing residential projects exhibit VMT per capita 15 percent or more below city or regional average.
  - b. An area where existing office projects exhibit VMT per capita 15 percent or more below regional average.
3. Residential projects composed of 100 percent or near-100 percent affordable housing located in any infill location. Additionally, per OPR's Technical Advisory, "Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed use projects) containing a particular amount of affordable housing, based on local circumstances and evidence. Furthermore, a project which includes

any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units.”

4. A locally-serving retail project (such a project typically reduces vehicle travel by providing a more proximate shopping destination, i.e. better accessibility).
5. Mixed-use projects composed entirely of the above low-VMT project types.
6. In any area of the state, absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact.

Construction of such projects is consistent with state VMT and GHG emissions reduction goals. Caltrans supports CEQA streamlining for these projects and acknowledges the importance of streamlining them in improving access to destinations, livability, and community vibrancy. Further, Caltrans encourages these projects because they will help achieve VMT reduction and mode shift goals.

Note, however, a land use project near transit may have a significant impact on VMT if it:

1. Has a floor area ratio less than 0.75.
2. Includes more parking than required by the local permitting agency.
3. Is inconsistent with the region’s Sustainable Communities Strategy (i.e., development is outside region’s development footprint, or in area specified as open space).
4. Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

In very limited situations, analysis or mitigation may be appropriate in low VMT areas to address specific multimodal access management issues directly caused by the project such as issues related to line of sight caused by the placement of a driveway. These situations are to be determined based on the details of specific development proposals and their setting and will be addressed in future guidance.

## 4.1 Caltrans’ Review of Projects Presumed to Have A Less Than Significant Impact

Caltrans will review a proposed land use project in a low VMT area to determine consistency with the OPR SB 743 Technical Advisory’s recommendations and that the proposed project has a less than significant transportation impact (using a VMT metric). Where projects will further California’s VMT goals consistent with CARB’s Scoping Plan and OPR’s Technical Advisory,

261 Caltrans may provide comments to underscore that consistency and achievement. For example,  
262 Caltrans may send a comment letter to describe how the project helps achieve state planning  
263 priorities contained in state law (i.e., AB 857, 2002 Wiggins) and meets state policy goals on  
264 transportation (improving access to destinations), VMT reduction, GHG emissions reduction,  
265 and/or betterment of the environment and human health.  
266

## 5. Projects Without Presumption of Less Than Significant Impact

This section addresses how Caltrans will review projects that are not presumed to have a less than significant transportation impact (using a VMT metric).

For residential and office projects, OPR's Technical Advisory recommends VMT per capita or per employee thresholds 15% below existing city or regional VMT per capita. The recommended thresholds align with the reduction in per capita vehicle miles traveled required to achieve greenhouse gas emissions reductions sufficient to achieve targets contained in State law. Caltrans suggests use of OPR's recommended thresholds of significance for land use projects and may request mitigation from projects and plans which do not meet those thresholds.

Caltrans' comments on the transportation impacts portion of a particular CEQA document may note methodological deviations from OPR's Technical Advisory and may strongly recommend significance determinations and project changes or mitigation aligned with state GHG and VMT reduction goals as articulated in that guidance and in the California Air Resources Board's Scoping Plan and related documentation.

For the State Highway System and connections with the State Highway System, Caltrans may request a targeted operational and safety analysis to address a specific geometric or operational issue, particularly issues that impact multimodal access or conflicts between modes. Improvements requested by Caltrans should avoid increases in VMT and should avoid degrading or adding stressors to pedestrians, bicyclists, and transit users.

### 5.1 Caltrans' Review of Projects Without Presumption of Less Than Significant Impact

Caltrans will review a land use project not presumed to be less than significant (as defined by Statute, CEQA Guidelines, or OPR's Technical Advisory) to determine consistency with OPR's Technical Advisory. Where projects would not support reduction of vehicle miles traveled and greenhouse gas emissions, or where VMT analysis deviates from recommendations for analysis thereby preventing a clear determination, Caltrans may provide comments on the analysis, project details or mitigation. Caltrans may comment in the following instances.

1. Where project VMT analysis and significance determination are undertaken in a manner consistent with OPR's Technical Advisory and state GHG emissions reduction goals, and where transportation impacts (using a VMT metric) are found to be less than significant:
  - a. Caltrans may send a comment letter to describe how the project helps achieve state planning priorities codified in state law (i.e., AB 857, 2002 Wiggins) and meet state

policy goals on transportation (improving access to destinations), VMT reduction, GHG emissions reduction, and/or betterment of the environment and human health.

2. Where project VMT analysis and significance determination are undertaken in a manner consistent with OPR's Technical Advisory and state GHG emission reduction goals, and the project is found to have a significant transportation impact (using a VMT metric), Caltrans may provide comments:
  - a. Recommending changes in the proposed project or mitigation which would reduce the impact to less than significant
3. Where VMT analysis and significance determination are undertaken in a manner which is inconsistent with OPR's Technical Advisory or state GHG emissions reduction goals, Caltrans may provide comments:
  - a. Noting methodological deviations from OPR's Technical Advisory in VMT assessment;
  - b. Recommending significance determinations, project changes or mitigation which is aligned with state GHG reduction goals as articulated in OPR's Technical Advisory and in the California Air Resources Board's Scoping Plan and related documentation;
  - c. Pointing out inconsistency with the region's Sustainable Communities Strategy (development is outside region's development footprint, or in area specified as open space); or
  - d. Suggesting project revisions or mitigation be undertaken to reduce project-generated VMT



## 6. Rural Areas Outside of Metropolitan Planning Organizations (MPOs)

OPR's Technical Advisory indicates significance thresholds for projects in rural areas, i.e. in non-MPO counties, may be best determined on a case-by-case basis. In rural areas, programmatic VMT mitigation is sometimes the most effective. Caltrans may comment requesting VMT-reducing strategies for the rural area be included programatically, including at the General Plan level, for example. Caltrans will also recommend establishment of programs or methods to reduce VMT and support appropriate bicycle, pedestrian, and transit infrastructure, services or incentives.

## 7. Mitigating Transportation Impacts

For years, transportation impacts under CEQA often led to mitigation in the form of roadway widening or otherwise addressing traffic operations with the intention of improving automobile level of service. Based on SB 743, the historic approach to mitigating transportation impacts is being modified.

Caltrans reviews projects for consistency with the recommendations in the VMT Mitigation and Alternatives section of OPR's Technical Advisory with a focus on:

- 1) Whether the lead agency considered applicable measures to reduce VMT from the project, and
- 2) Whether the lead agency identified feasible alternatives that could avoid or substantially reduce a project's significant transportation impacts.

As noted above, reducing or mitigating VMT will serve many state goals, including providing more multimodal transportation options and supporting air quality, public health, and climate goals.<sup>1</sup> The TISG Appendix includes a partial list of resources to reference for supporting information on VMT reduction measures. Caltrans supports both on-site and off-site mitigation measures to reduce VMT.

On-site design features that reduce VMT may minimize or eliminate mitigation necessary to achieve a less than significant transportation impact. For example, a project may incorporate transportation demand management strategies (such as parking supply reduction, on-street bicycle facilities improvements, or pedestrian network improvements) into project design to reduce project VMT. Some local agencies provide online calculator tools to assess a project's VMT and estimate reduction achieved through project design features.

Where further on-site design features are infeasible or not proven to be effective, it may be appropriate and feasible to mitigate VMT associated with a project through direct investments in off-site VMT mitigation. Off-site mitigation measures may include programmatic methods that implement mitigation in advance of and in anticipation of transportation impacts generated by land use projects or plans. Programmatic methods may include, but are not necessarily limited to, VMT mitigation banks, VMT mitigation exchanges, or VMT impact fee programs:

- 1) Jurisdictions that document appropriate nexus and proportionality between a transportation impact fee and VMT reduction may rely on such fees to mitigate VMT

---

<sup>1</sup> Documented benefits of VMT reduction are available at <http://opr.ca.gov/ceqa/updates/sb-743>

transportation impacts from land use development projects. For example, a nexus study that contemplates a capital improvement program consisting of projects that would demonstrably reduce VMT within the jurisdiction's geographic scope and within the buildout time horizon of the proposed project could serve as adequate fair share VMT mitigation.

Similar support for this "fair share" approach comes from CEQA Guidelines and OPR's General Plan Guidelines which advise jurisdictions to collaborate proactively with their regional public and private sector partners to develop and adopt multi-party fair share impact fee programs needed to finance planned transportation infrastructure improvements. The guidelines suggest basing such impact fee programs on multi-modal system improvements with a demonstrated ability to reduce the VMT generated by new development.<sup>2</sup>

2) Jurisdictions can pool fees from individual development projects to facilitate feasible project-level mitigation at a programmatic level, known as a VMT mitigation bank. The improvements must have "additionality", generally meaning they would not have occurred without funding from the VMT mitigation bank.

3) Jurisdictions can also develop a VMT mitigation exchange which would allow a developer to fund off-site VMT mitigation projects from a pre-approved list of mitigation projects that are proportional in size to the transportation impact (using a VMT metric) from the development project. The need for "additionality" applies to exchanges, also.

Caltrans supports efforts to identify and pilot reasonable, feasible, and enforceable programmatic mitigation mechanisms that equitably reduce transportation impacts to the greatest extent feasible.

Caltrans will coordinate with cities, counties, and regional transportation planning agencies to develop and pilot programmatic methods that fund off-site VMT mitigation projects. Such a framework could provide funding necessary for projects that reduce VMT, while providing more transportation options, safer connections between new development and the existing community, and a pathway to mitigating transportation impacts from land use projects to less-than-significant levels.

---

<sup>2</sup> Governor's Office of Planning and Research. 2017. *General Plan Guidelines Update*. Chapter 9: Implementation. Available at: [http://opr.ca.gov/docs/OPR\\_C9\\_final.pdf](http://opr.ca.gov/docs/OPR_C9_final.pdf). (Page 251)

## 8. Appendix

### Links to key resources

1. Governor's Office of Planning and Research December 2018 [Technical Advisory](#) on Evaluating Transportation Impacts in CEQA
2. California Air Resources Board [Scoping Plan-Identified VMT Reductions and Relations to State Climate Goals](#)
3. California Air Resources Board [California's 2017 Climate Change Scoping Plan: the strategy for achieving California's 2030 greenhouse gas target](#)
4. California Air Resources Board [2018 Progress Report: California's Sustainable Communities and Climate Protection Act](#)
5. Public Resources Code, Chapter 2.7: Modernization of Transportation Analysis for Transit-Oriented Infill Projects, [Section 21099](#) (SB 743 in Public Resources Code)
6. California Code of Regulations, Title 14, Division 6, Chapter 3, [Section 15064.3](#) (SB 743-related CEQA Guidelines)
7. VMT Mitigation Resources.

Strategies to mitigate VMT are available within the following resources. Additional mitigation resources will be added to Caltrans SB 743 Implementation webpage.

  - a. Governor's Office of Planning and Research's CEQA Guidelines Update and Technical Advisory [website](#) has information on VMT reduction strategies, even for rural areas.
  - b. California Air Pollution Control Officers Association's (CAPCOA) [2010 Quantifying GHG Mitigation Measures](#) is a current source of VMT reduction by mitigation strategy.
  - c. A 2018 [research paper](#) from University of California Berkeley School of Law's Center for Law, Energy & the Environment focuses on two innovative models that could be used to implement programmatic VMT mitigation strategies for land use or transportation projects. VMT mitigation "banks" and "exchanges" are compared, and examples provided of ways to mitigate VMT under CEQA or

the mitigation fee act. These models are conceptually similar to existing mitigation frameworks such as regional impact fee programs or habitat conservation banks.

- d. A 2020 white paper prepared by Fehr & Peers [VMT Mitigation Through Banks and Exchanges: Understanding New Mitigation Approaches](#) highlights potential VMT mitigation programs including impact fee programs, mitigation exchange, and mitigation bank.

- e. State Smart Transportation Initiative (SSTI) 2018 report [Modernizing Mitigation: A Demand-Centered Approach](#) outlines partnerships possible to reduce the demand for driving.

#### 8. Additional Resources

- a. Governor's Office of Planning and Research [Key Resources on SB 743](#): Studies, Reports, Briefs, and Tools

# Riverside County Transportation Commission

## January 31, 2020



**BEST BEST & KRIEGER**  
ATTORNEYS AT LAW



# Background

- CEQA requires agencies to consider transportation and traffic impacts prior to approving projects.
- Historically, a delay-based metric has been used.
- Level of Service (LOS) measures how efficiently traffic flows through roadways and intersections on an A through F scale.
- LOS impacts are often mitigated through roadway efficiency improvements (widening, restriping, signalization, interchange improvements, connectivity between communities, and fair-share fees).
- Separate from CEQA, LOS standards are also reflected in most city/county general plans.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)

© 2019 BEST BEST & KRIEGER LLP

# The State Steps In

- By the early 2000s, there were growing concerns re greenhouse gases (GHG) and global warming.
  - AB 32 (2006): Legislature recognizes global warming and establishes state-wide GHG reduction targets.
- State focused on the transportation-sector, sought to encourage infill, and tried to limit “sprawl.”
  - SB 375 (2008) – Each Metropolitan Planning Organization must develop a Regional Transportation Plan that “caps” transportation-sector GHGs through a “Sustainable Communities Strategy.”



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP

# The State's Next Step: Senate Bill 743

- SB 743 (2013) amended CEQA (Pub. Resources Code 21099) to require that transportation impacts in certain areas be analyzed using something other than LOS.
- Legislature focused on Vehicle Miles Traveled (VMT) as the new metric.
- CEQA Guidelines 15064.3 confirmed that VMT is generally the most appropriate metric going forward.



[www.BBKlaw.com](http://www.BBKlaw.com)

© 2019 BEST BEST & KRIEGER LLP



# Is SB 743 a Step Forward or Step Back?

- Extensive debate on whether VMT is “better” than LOS. (If your trip is only ten miles, but it takes you two hours to make that trip because of congestion, are you really reducing GHGs?)
- Although intended to facilitate residential infill, does SB 743 unintentionally worsen the housing crisis by making it harder/more expensive for less urbanized areas to build affordable housing?
- Doesn't the switch to VMT disproportionately affect development in areas that are not yet fully developed (like much of the Inland Empire)?



**BBK**

**www.BBKlaw.com**  
© 2019 BEST BEST & KRIEGER LLP

# The Bottom Line Requirement

- Regardless of the uncertainty and arguments, agencies must change their method of analyzing traffic impacts in CEQA documents no later than July 1st.
  - LOS/delay will no longer be considered a “impact”.
  - VMT analysis is “generally” required.
- Caveat per *Citizens for Positive Growth & Preservation v. City of Sacramento* (cert. 12/2019). Argument that LOS is no longer a CEQA impact now.



**BBK**

**www.BBKlaw.com**  
© 2019 BEST BEST & KRIEGER LLP

## Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- It flips traditional traffic impact analysis and mitigation on its head.
- Things that we once viewed as traffic mitigation because they reduced vehicle delay (i.e., new, wider, better roads), might now be viewed as causing a traffic impact because they arguably facilitate VMT in some circumstances.



**BBK**

www.BBKlaw.com  
© 2019 BEST BEST & KRIEGER LLP



# Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- Issues re Cost/Timing:
- “If the [CEQA] document meets the content requirements in effect when the document is sent out for public review,” it need not be updated. (CEQA Guideline 15007.)
- But some real uncertainties with regard to documents that are in mid-preparation.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP

# Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- Issues re how much VMT is “significant”?
- Do agencies want a jurisdiction-wide threshold; a regional threshold; or attempt to address on a project-by-project basis.
  - If VMT threshold is too low, an EIR will be required for virtually every project. (Discourages development?)
  - If VMT threshold is too high, an EIR may never be required. (Illusory?)
- OPR recommends a threshold of reducing VMT to a level of “15% below that of existing development.”
- What happens when thresholds conflict?
- Any threshold must be supported by substantial evidence and be adopted through a public process.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRUEGER LLP

## Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- Issues re Caltrans and RTPs:
- Caltrans working on a proposed VMT threshold.
- How will it apply when local sponsor (RCTC or others) are CEQA lead agency, but Caltrans review is required?
- Will RTPs re-focus on reducing VMTs, rather than facilitating vehicular circulation?



**BBK**<sup>&</sup>

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRUEGER LLP

## Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- Issues re technical analysis:
  - CEQA process still fundamentally the same: describe project; calculate VMT impact; compare to threshold; mitigate if significant.
  - However, technically complex:
    - How “far out” from Project site must VMT be calculated? When does it become speculative?
    - Particularly for transportation projects, how do we calculate the existing “baseline” VMT for purposes of evaluating the impact.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP



# Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- Issues re mitigation:
  - CEQA requires all “feasible” mitigation for significant impacts.
  - Greater emphasis on measures that reduce VMT (bicycles, pedestrian, train, busing, carpool).
  - But can we “feasibly” mitigate to a level of less-than-significant for large projects?
  - Large-scale mitigation comes with large-scale price tags. A regional mitigation approach may be an option.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP

## Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- More issues re mitigation:
- How to show that “mitigation” is additive (over and above what would normally happen)?
- More pressure to “bundle” projects that reduce VMT with projects that increase VMT? A new way of looking at project planning?
- If LOS is no longer an “impact,” what does this mean for current “mitigation” schemes?



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST, BEST & KRIEGER LLP





## Why Is The July 1<sup>st</sup> Deadline Important? (cont.)

- Litigation issues:
- CEQA continues to be a cudgel for many groups.
- Every uncertainty is an opportunity for legal challenge.
- Litigation costs are especially tough on public projects without private sponsors – including nearly all transportation projects.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRUEGER LLP

## **With all the uncertainties around VMT, can agencies at least scratch LOS off their list?**

- Probably not.
- LOS still used in many planning documents (e.g., general plans).
- Land use consistency, land use adjacency, public health, and quality of life issues are tied to LOS in some jurisdictions.
- LOS goals might still be an important factor for decision-makers to weigh before acting on a proposed project.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP

## Where do we go from here?

- Up to RCTC. Potential for active engagement at local, regional, and state levels to help:
  - Maintain project delivery schedules.
  - Control costs.
  - Reflect stakeholder/partner interests.
- Develop a record to reduce risk and uncertainty.



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP



# What can RCTC do?

- Proactive Caltrans, CTC, CalSTA, legislative engagement to ensure project impacts considered in rulemaking and guideline implementation
  - Collaboration with partners to build consensus and best practices:
  - WRCOG and CVAG
  - Self Help Counties Coalition
  - Mobility 21
  - Regional Transportation Planning Agencies
  - SCAG
- Create solutions; don't wait to be told what to do:
  - Coordinated VMT mitigation program like TUMF?
  - Mitigation Bank?
  - Self-mitigate per Traffic Relief Plan
  - Pursue Legislative Clarifications



**BBK**<sup>®</sup>

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP

# QUESTIONS??



**BBK**

[www.BBKlaw.com](http://www.BBKlaw.com)  
© 2019 BEST BEST & KRIEGER LLP

# *AGENDA ITEM 9*



<b>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Martha Masters, Senior Management Analyst
<b>SUBJECT:</b>	2021 Active Transportation Program Cycle 5 Update

**STAFF RECOMMENDATION:**

This item is to receive and file an update on the 2021 Active Transportation Program (ATP) Cycle 5.

**BACKGROUND INFORMATION:**

Senate Bill 99 created the ATP focusing state and federal funds toward projects that improve public health and reduce greenhouse gases. The California Transportation Commission (CTC) is responsible for administering the program including the development of guidelines, which involves local agency and public input. Project categories for these funds mainly include pedestrian and bicycle facilities or programs that enhance or encourage walking and bicycling. ATP 2021 Cycle 5 was kicked-off in November 2019 with Guideline Workshops. The CTC has held several ATP workshops since then, the last one of which was held on March 11 in the city of Orange. The following is the remaining 2021 ATP Cycle 5 schedule:

<b>ATP Milestones</b>	<b>Date</b>
CTC hearing and adoption of ATP Guidelines	March 25-26, 2020
CTC adopts ATP Fund Estimate	March 25-26, 2020
Call for Projects	March 25-26, 2020
Project Applications Deadline (postmark date)	June 15, 2020
CTC adopts statewide and small urban and rural portions of the program	December 2-3, 2020
CTC adopts Metropolitan Programming Organization selected projects	May 2021

The ATP Guidelines can be found on the CTC website: <https://catc.ca.gov/programs/active-transportation-program>.

Each ATP programming cycle will include four years of funding. New programming capacity for the 2021 ATP will be for state fiscal years 2021/2022 through 2024/2025.

The funding amounts anticipated for Cycle 5 are similar to the funding availability through ATP Cycle 4:

- Total of \$445,560 funds available statewide:
  - \$100,000 for each FY 2021/22 through 2022/23; and
  - \$122,780 for each FY 2023/24 through 2024/25.

### **UPDATES FOR 2021 ATP CYCLE 5**

- Per the current draft ATP guidelines, there is no matching requirement for ATP.
- CTC encourages leveraging of additional funds for a project by considering leveraging in the evaluation criteria for the medium and large infrastructure projects, however, applicants are not required to leverage funds.

Below are the five ATP application types:

<b>Application Type:</b>	<b>Application Description</b>	<b>Total Project Cost*</b>
Large Project	Infrastructure only** or Infrastructure/Non-Infrastructure (NI)	Greater than \$7 million
Medium Project	Infrastructure only or Infrastructure/ NI	More than \$2 million and up to \$7 million
Small Project	Infrastructure only or Infrastructure/ NI	\$2 million or less
Non-Infrastructure Only	Non-Infrastructure projects include education, encouragement, and enforcement activities that further the goals of the ATP.	N/A
Plan	Plans may not be combined with applications for infrastructure or NI projects	N/A

\*Applicants applying for infrastructure projects must utilize the application type based on the entire project cost, not the ATP request amount.

\*\*New infrastructure projects will not be programmed without a complete Project Study Report (PSR) or PSR equivalent.

- CTC will be allowing Quick-Build Projects through a pilot. A small number of quick-build projects will be considered. These projects are interim capital improvement projects that further the goals of the ATP. These projects do require construction, but are built with durable, low- to moderate-cost materials and last from one year to five years.
- Healthy Places Index can now qualify a project to be a disadvantaged community.

Active Transportation Resource Center provides resources, technical assistance, and training to partners across California: <http://caatpresources.org/>.

# *AGENDA / ITEM 10*

<b><i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i></b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Martha Masters, Senior Management Analyst
<b>SUBJECT:</b>	Federal Transportation Improvement Program Performance Measures

**STAFF RECOMMENDATION:**

This item is to receive and file information on the Federal Transportation Improvement Program (FTIP) Performance Measures.

**BACKGROUND INFORMATION:**

The 2012 federal transportation authorization legislation, ‘Moving Ahead for Progress in the 21st Century’ (MAP-21) established new requirements for performance management and reporting to ensure the most efficient investment of federal transportation funds. To incorporate the new federal performance requirements into the FTIP, Southern California Association of Governments (SCAG) is required to show (1) that the FTIP “makes progress towards achieving [the region’s] performance targets” and (2) that the FTIP includes, “to the maximum extent practicable, a description of the anticipated effect of the FTIP towards achieving the performance targets.”

**MAP-21 Performance Measures (PM)**

With the enactment of MAP-21 in 2012 and its successor legislation, Fixing America’s Surface Transportation Act in 2015, performance-based transportation planning became a federally mandated activity. A defining feature of MAP-21 was the establishment of a national performance-based transportation planning program, with the objective of ensuring that federally funded transportation system investments are directed toward the achievement of national transportation goals. MAP-21 defined seven specific national transportation performance goals to be addressed through the performance-based planning process, as follows:

1. Transportation Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Movement and Economic Vitality
6. Environmental Sustainability
7. Reduced Project Delivery Delay

To provide a quantitative basis for evaluating progress toward achieving national transportation goals, MAP-21 required the Federal Highway Administration (FHWA) to develop a set of

corresponding performance metrics. These MAP-21 performance measures provide a standardized quantitative metric for evaluating statewide progress toward meeting each of the national goals. FHWA guidelines in support of the federal performance monitoring program have been finalized in three separate rulemakings. Performance Management Rule 1 (PM 1), released in April 2016, addressed performance measures for Highway Safety. Performance Management Rule 2 (PM 2) addressed performance measures for the National Highway System (NHS) pavement and bridge condition. Performance Management Rule 3 (PM 3) addressed performance measures for NHS System Performance, Freight Movement, and the Congestion Mitigation and Air Quality Improvement program (CMAQ). FHWA released PM 2 and PM 3 in May 2017. These federal rulemakings also included guidelines for setting performance targets for the various measures and for reporting on progress toward achievement of the targets.

### **Safety Performance Measures (PM 1)**

FHWA issued the National Performance Management Measures: Safety Performance Management Measures Final Rule to establish performance measures for State Department of Transportations (State DOTs) to carry out the Highway Safety Improvement Program. The Final Rule calls for State DOTs, working with Metropolitan Planning Organizations (MPOs), to assess fatalities and injuries on all public roads, regardless of ownership or functional classification. Specifically, the Final Rule establishes the following five performance measures for five-year rolling averages for:

1. Roadway crash fatality impact
2. Roadway crash fatality - % of Total Project Cost
3. Roadway crash serious injury impact
4. Roadway crash serious injury - % of Total Project Cost
5. Roadway crash fatality and serious injury impact for Bike and Pedestrians
6. Roadway crash fatality and serious injury for Bike and Pedestrians - % of Total Project Cost

### **Pavement and Bridge Condition Measures (PM 2) and Performance of NHS, Freight, and CMAQ Measures (PM 3)**

Federal rulemaking in support of PM 2 (pavement/bridge condition) and PM 3 (NHS performance/freight/CMAQ) establishes performance measures for State DOTs to use in managing pavement and bridge performance on the NHS (PM 2) and performance measures to report on: the performance of the Interstate and non-Interstate NHS to carry out the National Highway Performance Program; freight movement on the Interstate system to carry out the National Highway Freight Program; and traffic congestion and on-road mobile source emissions for the purpose of carrying out the CMAQ Program. The following are the statewide targets for the PM 2 and PM 3 measures:

#### **PM 2**

1. NHS pavement condition impact
2. NHS bridge condition impact

### PM 3

1. Non-Interstate NHS reliability impact
2. Interstate NHS reliability impact
3. NHS criteria pollutant and CO2 emissions impact
4. Interstate goods movement impact
5. Congestion impact

### **Transit Performance Measures**

MAP-21 established two transit performance measures, one for transit asset management (TAM) and one for transit safety. The Federal Transit Administration (FTA) issued the TAM Final Rule (49 CFR 625), effective October 1, 2016. The Final Rule requirements for TAM apply to all recipients and subrecipients of Federal financial assistance under 49 USC Chapter 53 that own, operate, or manage capital assets used for providing public transportation. In this county, TAM plans apply to the Commission, Metrolink, Riverside Transit Agency, SunLine Transit Agency, and the cities of Riverside and Corona. Although SCAG is the designated recipient of certain FTA funds, it does not own, operate, or manage capital assets used for providing public transportation. However, SCAG does have responsibilities for TAM as part of the Regional Transportation Plan (RTP) development, under the Metropolitan Planning Final Rule (23 CFR 450). Regional TAM targets must be established every four years as part of the RTP. Additionally, MPOs must integrate into their RTP, either directly or by reference, the goals, objectives, performance measures, and targets from the transit providers' TAM plans. The Final Rule requires transit providers to develop TAM plans every four years and to establish annual TAM targets for the following measures:

1. Impacts transit assets, such as vehicles, facilities or track
2. TAM related - % of Total Project Cost
3. Consistent with operators' adopted TAM Plan
4. # of revenue vehicles being replaced
5. # of new revenue vehicles being added (non-replacement)
6. # of non-revenue vehicles being replaced
7. # of new non-revenue vehicles being added (non-replacement)
8. # of facilities to be upgraded from poor/marginal conditions to adequate/better conditions
9. # of current route track miles with performance restriction eliminated (e.g. slow zones)
10. # of new route track miles to be constructed (non-replacement)

The following are the Transit Safety measures:

1. Effects transit safety
2. Transit fatalities impact
3. Transit injuries impact



There are only four possible responses to the above PM categories (PM 1-3 and Transit Safety and TAM) which are the following:

- Significant Improvement
- Moderate Improvement
- Minimal Improvement
- No impact

Attached to this staff report are the instructions on what each of the responses represent in reference to each PM category, and a project template of the form that will be sent out to each agency and will be required for each project in the FTIP.

Attachments:

- 1) Performance Measures Instructions
- 2) Performance Measures Project Template

## **Performance Measures Instructions**

### **PM1 - Safety**

- 'Significant' improvement would refer to projects are developed specifically for the purpose of improving roadway safety.
- 'Moderate' refers to projects that include a safety element within a more comprehensive scope of work.
- 'Minimal/No Improvement' would indicate a project that has no discernable safety element within its scope of work.

### **PM2 – Pavement/Bridge Condition**

- 'Significant' improvement would refer to projects whose primary purpose is to improve highway pavement or bridge condition.
- 'Moderate' indicates projects that include a pavement or bridge improvement element within its scope of work but is not its primary focus.
- 'Minimal/No Improvement' refer to projects that have no pavement or bridge improvement element within its scope of work.

### **PM3 – System Performance: Consists of several performance variables related to travel time reliability, air quality improvement, and truck travel time efficiency.**

- 'Significant' improvement would refer to projects that are designed specifically for the purpose of improving travel times, reduce congestion, or improve air quality.
- 'Moderate' improvement would be those projects that include enhancements in these 3 areas as part of its scope of work but is not the primary focus of the project.
- 'Minimal/No Improvement' indicates a project with no specific elements designed to improve performance in roadway travel time or regional air quality.

### **TAM/Transit Safety**

- 'Significant' improvement would refer to projects that have a primary objective to improve safety.
- 'Moderate' improvement would refer to projects that have a secondary objective to improve safety.
- 'Minimal/No Improvement' indicates a project with no specific elements designed to improve safety.



# *AGENDA / ITEM 11*

<b>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Jenny Chan, Management Analyst
<b>SUBJECT:</b>	SB 821 Bicycle and Pedestrian Facilities Program Refresh

**STAFF RECOMMENDATION:**

This item is for the Committee to form a subcommittee to evaluate the SB 821 Program policy, application form, and scoring rubric in preparation for the FY 2021/22 Call for Projects.

**BACKGROUND INFORMATION:**

SB 821 is a discretionary program administered by the Commission to fund local bicycle and pedestrian projects. The program is funded through the Local Transportation Fund (LTF), a state sales tax. Each year, 2% of LTF revenues is set aside for the program and on every odd-numbered year, the Commission conducts a competitive call for projects. Eligible projects include construction of bicycle lanes, sidewalks, ADA curb ramps, and bike and pedestrian master plans.

A subcommittee was last formed in September 2013 to review and update the SB 821 program policies and procedures. As a result, the call for projects was adjusted to a biennial basis, starting in February 2015. It also set the release date for the first Monday of every other February and the close date for the last Thursday of every other April. The next Call for Projects will commence February 1, 2021.

**DISCUSSION:**

During the last Call for Projects, staff received constructive feedback from applicants and evaluators relating to general program policy, the questions on the application form, and the scoring rubric. Some suggestions staff received:

- *Limit the number of applications an agency can submit.*
- *Establish a minimum and maximum award amount for each application or for each applicant.*
- *Refine questions in applications (for example: specifically ask for collision data).*
- *Ask applicants to provide photos of existing conditions.*
- *Award more points for the safety criteria and less for destinations served.*
- *Provide points for quality of application.*

Additionally, staff suggests reexamining the methodology used to score the population equity criteria. Another item for discussion with the subcommittee is to explore opportunities to streamline the process to execute the Memorandum of Understanding between the Commission and awardees after the Commission approves the funding recommendation.

As such, staff is recommending forming a subcommittee within the Technical Advisory Committee to evaluate and potentially incorporate the suggestions received for the program in time for the FY 2021/22 SB 821 Call for Projects release on February 1, 2021.

The subcommittee will meet on an as-needed basis to discuss the suggestions staff has received thus far for the program and to discuss any other potential improvements brought forward by the subcommittee or staff. Based on the number of comments staff has received, it is anticipated the subcommittee will meet every other month through conference calls or in person. Staff expects to complete the effort by August 2020 and bring forward recommendations at the September 2020 TAC meeting for TAC action and forward to the Commission for final action by December 2020.



# *AGENDA / ITEM 12*

<b>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Jenny Chan, Management Analyst
<b>SUBJECT:</b>	Inland Empire Comprehensive Multimodal Corridor Plan – Sub-Corridor Project List

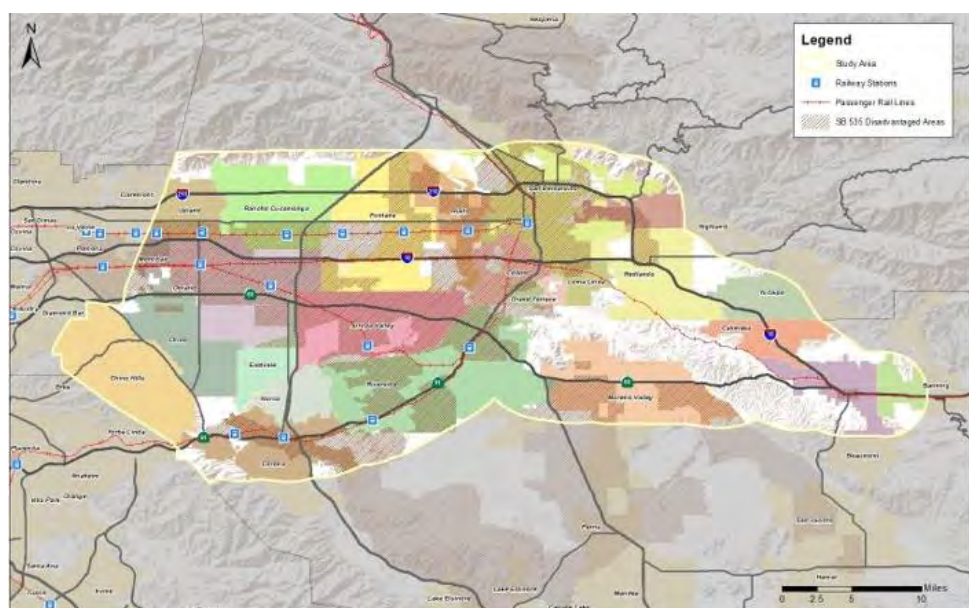
**STAFF RECOMMENDATION:**

This item is to discuss and seek comments to the sub-corridor project lists developed for the Inland Empire Comprehensive Multimodal Corridor Plan.

**BACKGROUND INFORMATION:**

In partnership with San Bernardino County Transportation Authority (SBCTA), Caltrans District 8, and Southern California Association of Governments (SCAG), the Commission is developing the Inland Empire Comprehensive Multimodal Corridor Plan (Plan). Funded with a Caltrans Sustainable Transportation Planning grant, the Plan is intended to go beyond traditional freeway planning efforts and identify potential multimodal infrastructure opportunities within Western Riverside County, see Figure 1 and 2. In the future, Commission staff can work with Coachella Valley Association of Government (CVAG) on developing a multimodal corridor plan for the Coachella Valley. Completing this Plan is required in order for SBCTA and the Commission to compete in the SB 1 Solutions for Congested Corridor Program (SCCP) for 2022 and thereafter. Proposed projects need to be identified in a multimodal corridor plan to be eligible for SCCP funding.

*Figure 1: East/West Corridor Study Area*



SCAG released the Request for Proposals in January 2019 and the project was awarded to Cambridge Systematics. The project kicked off in July 2019.

The project team is developing the Plan in accordance with the Caltrans Comprehensive Multimodal Corridor Plan (CMCP) Guidelines. As specified in the guidelines, “There is no specific format that a CMCP must meet. Plans are unique to the region in which they are prepared.” By the same token, the definition of a corridor is also context sensitive. “A corridor can be defined as a linear geographic area with one or more modes of transportation ... Origins and destinations, land use, place types and existing and future developments that surround the transportation infrastructure influences how the corridor and its limits are defined.”

The CMCP guidelines requires that a number of topics be discussed in the Plan, such as the following:

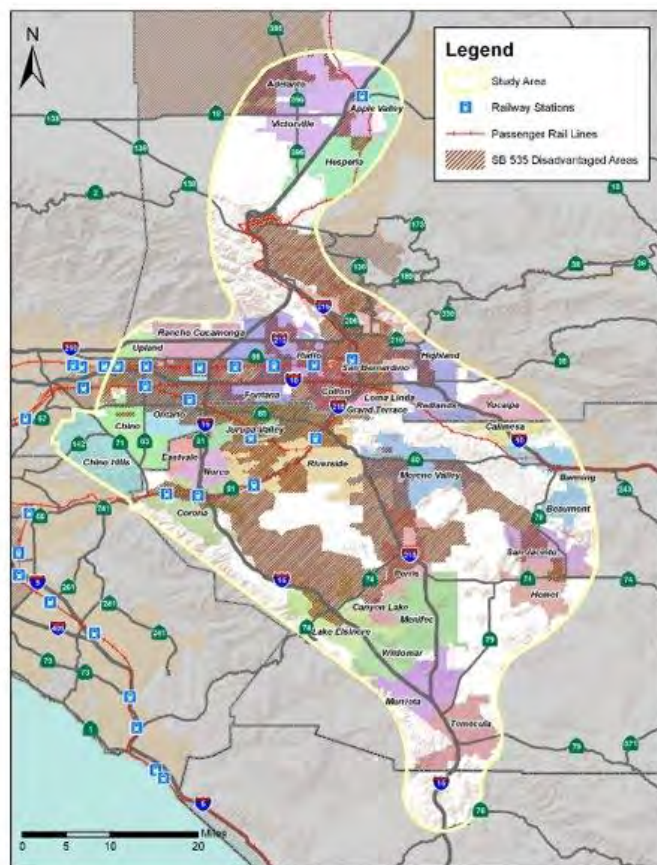
- Clear demonstration of collaboration amongst stakeholders;
- Short, medium, and long-term planning horizon;
- Specific corridor objectives;
- Multimodal consideration for and approaches to address transportation issues;
- Identification and evaluation of performance measures for recommended projects and strategies; and
- Consistency with the SCAG Regional Transportation Plan (RTP), the California Transportation Plan (CTP), and other regional or local planning documents.

In the last eight months, staff has been working closely with the project team to complete the Plan by June 2020. Activities include identifying corridor characteristics, engagement with local entities, reviewing existing transportation plans, and defining specific sub-corridor strategies within the study area.

### Corridor Characteristics Findings

- High Cal-EnviroScreen scores along many freeway corridors.
- Communities of concern are located near I-210/215/10 and I-215/74.
- Relating to daily auto trips, 81% of trips occur within the study area, 11% of trips are to/from Los Angeles County and 5% of trips are to/from Orange County.
- Relating to work commutes, 78% drive alone, 14% carpool, 2% non-motorized, and 1% transit.
- Highest concentration of truck collisions occurs along: SR-60, I-10 near I-15/215 interchange, I-15 near Cajon Pass, and I-215 near city of San Bernardino.

*Figure 2: North/South Corridor Study Area*



- Highest density of bicycle and pedestrian collisions occur in: Riverside, Colton, Rialto, San Bernardino, Moreno Valley, Hemet, and San Jacinto.
- High Ridership Bus Stops include: San Bernardino Transit Center, Canyon Crest at Bannockburn Village, Moreno Valley Mall, Perris Transit Center, Galleria @ Tyler, University Market, and Corona Transit Center.

#### Engagement Activities

- Project team attended regional meetings, including: The Western Riverside Council of Governments (WRCGO) Public Works Committee meeting, WRCOG Planning Directors Committee meeting, and SBCTA's Transportation Technical Advisory Committee.
- For Riverside County, the project team utilized public comments from the #RebootmyCommute public engagement effort.
- For San Bernardino County, the project team released a SurveyMonkey to solicit public comments on needed transportation improvements.

#### Sub-Corridor Analyses

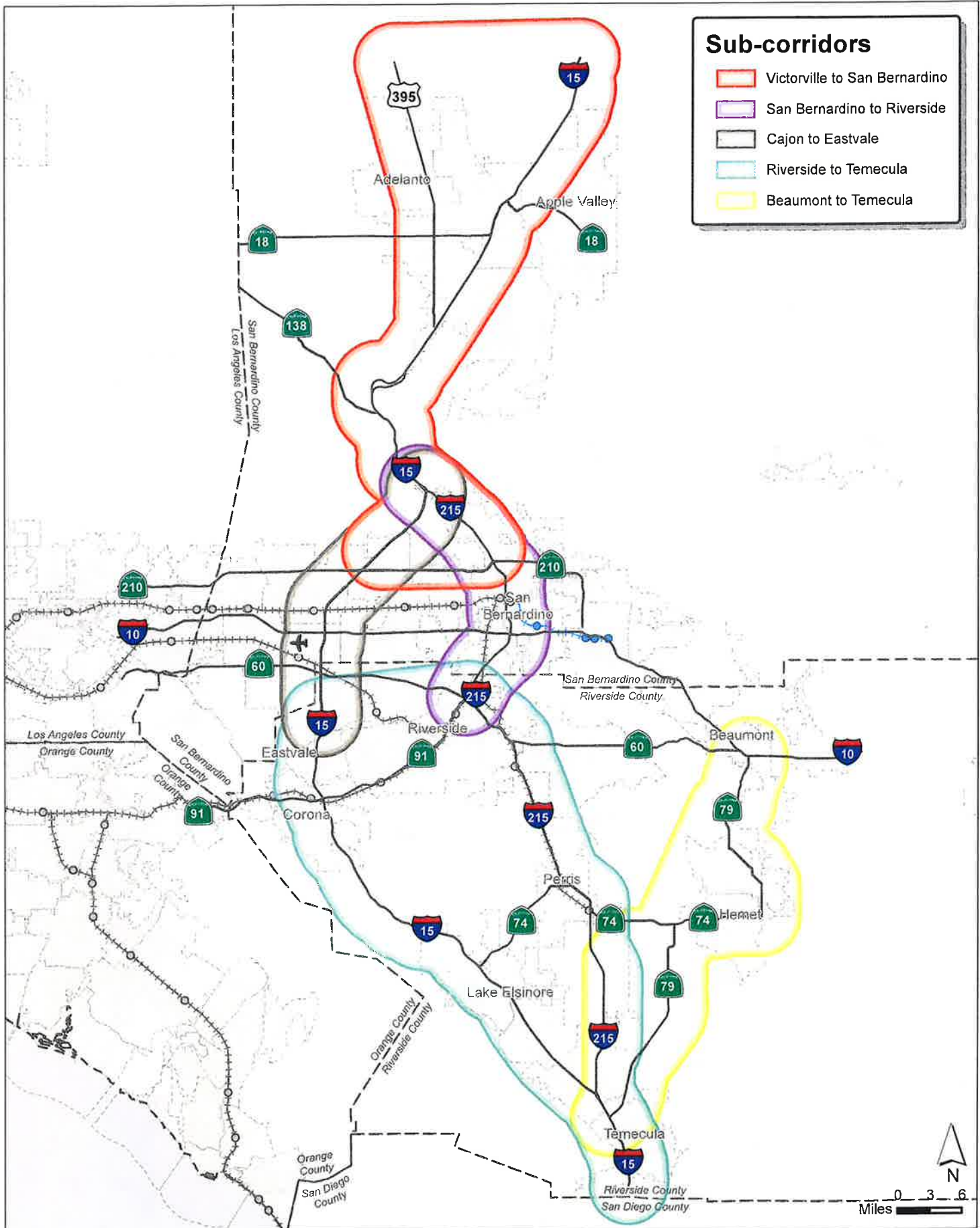
- Project team reviewed existing transportation plans such as: SCAG 2016 RTP/SCS, the draft 2021 Federal Improvement Plan (FTIP), RCTC 10-Year Highway Delivery Plan 2019-2029, SBCTA 10-Year Delivery Plan, WRCOG Active Transportation Plan, SBCTA Non-motorized Transportation Plan, and RCTC Traffic Relief Plan.
- By analyzing existing transportation plans and corridor characteristics, the project team identified ten sub-corridors within the East/West and North/South corridors.
- Project team is developing a list of multimodal strategies that are context sensitive to each corridor's transportation challenges.
- Project team is developing a list of multimodal projects that will reflect the unique vision of each sub-corridor. See Attachment 1 for map of the sub-corridors and its corresponding project list.

#### Next Steps

Staff is soliciting feedback and comments from the TAC for each sub-corridor's project list. Comments can be emailed to Jenny Chan at [jchan@rctc.org](mailto:jchan@rctc.org) and are due March 13, 2020. Additionally, a draft Plan will be available in early-April for TAC review, which will be emailed to the TAC at a later date. The Plan will be finalized in June 2020. Per Caltrans CMCP Guidelines, the Plan will need to be updated approximately every four years based on the lead agency's discretion.

Attachment: CMCP Draft Sub-corridor maps and project lists





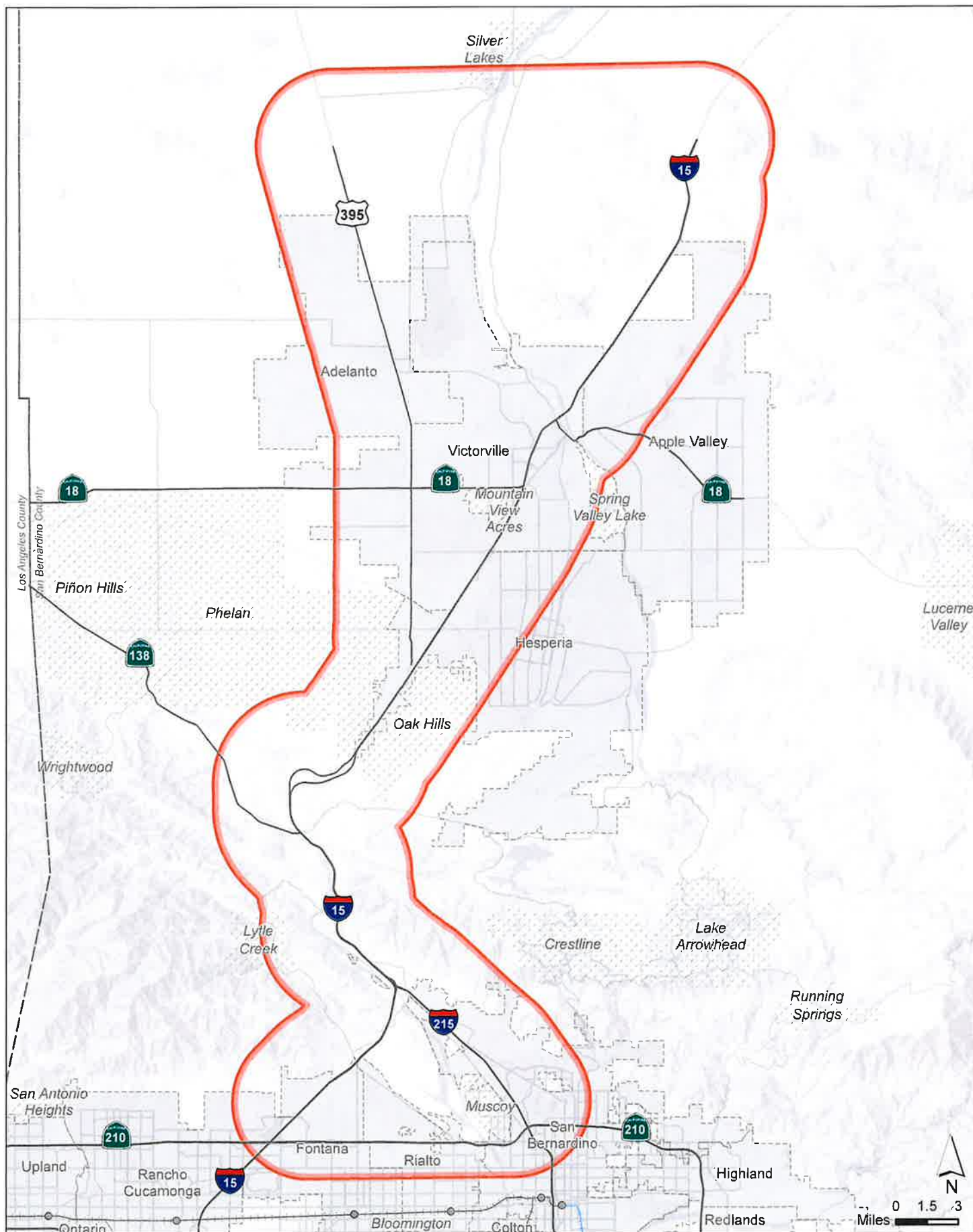
**SBCTA and WRCOG CMCP 2020**  
**North-South Oriented Sub-corridors**

Ontario Intl Airport

Metrolink



Existing  
 Proposed



## SBCTA and WRCOG CMCP 2020

### Sub-corridor #1: Victorville to San Bernardino

Metrolink

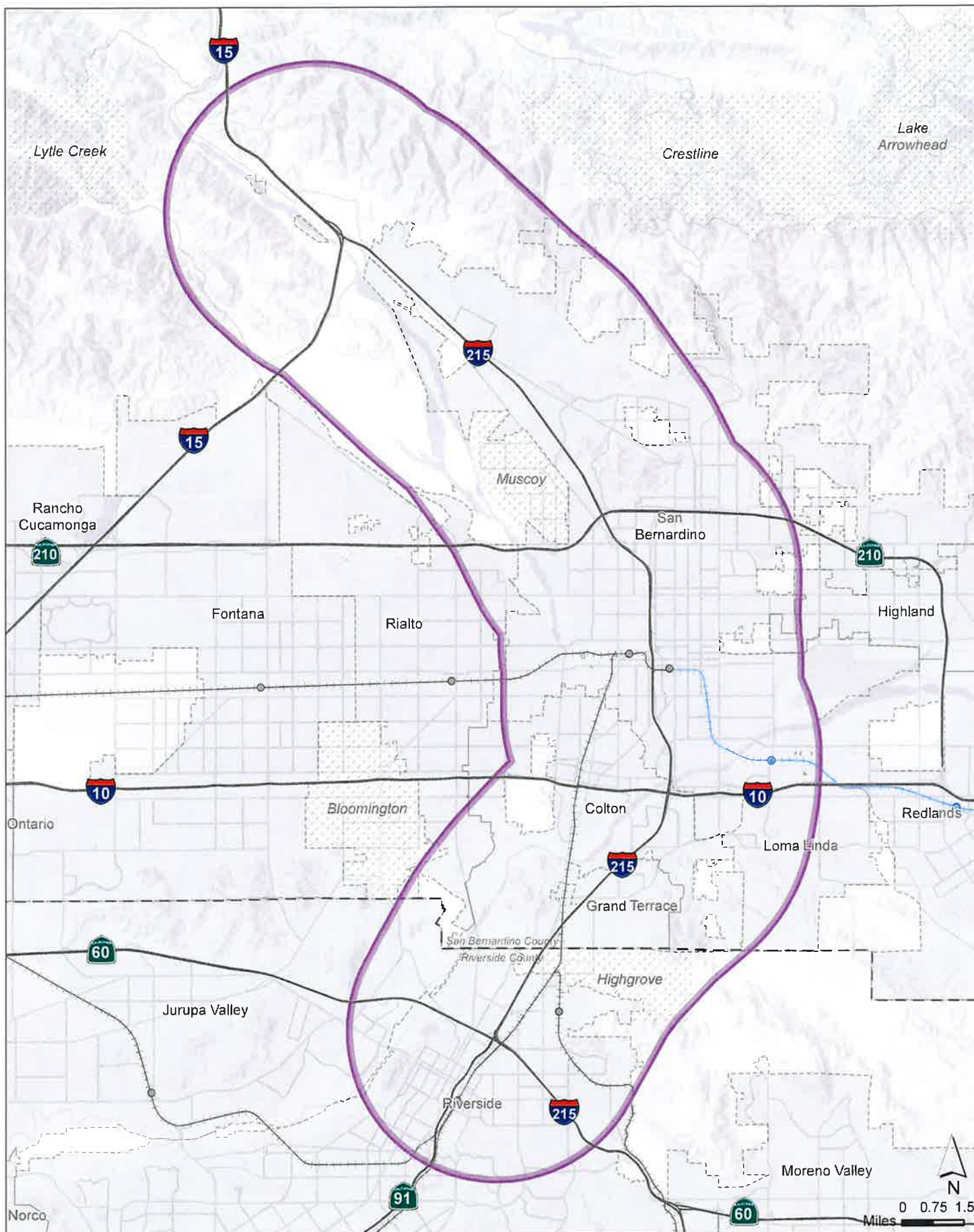
Existing

Proposed



## Victorville to San Bern

[illegible]



## SBCTA and WRCOG CMCP 2020

### Sub-corridor #3: San Bernardino to Riverside

MetroLink

Existing

Proposed

San Bern to Riverside


Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Highway	I-15 Express Lanes	SBCTA RCTC	Env to Construction			10 Year Plan
Highway	215 Ultimate	Riverside	Env to Const	1000		10 Year Plan
Highway	I-10 Truck Climbing Lanes	Calimesa				
		Beaumont	Env to Const	75		10 Year Plan
Highway	91 Downtwon Riverside Managed Lanes	Riverside Norco	Env/Design Construction	22		10 Year Plan
Highway	91 Downtown Riverside Managed Lanes	Riverside Norco	Design/Construction	197		10 Year Plan
Highway	Add at least one lane in each direction on I-215 between SR-60 and Van Buren Boulevard	RCTC Lead Riverside				TRP
Rail	Riverside Downtown track and platform expansion with pedestrian access.	Metrolink	Env			2021 FTIP
Rail	Increase frequency of Metrolink Trains for Inland Empire-Orange County Line	Metrolink				TRP
Rail	New 3rd main Track from Highgrove to Colton for Inland Empire-Orange County Line	Metrolink				TRP
Rail	Parking Structure at Corona North Main, Corona West, Riversid	Corona Riverside				TRP
Rail	Downtown, Riverside-La Sierra.					
Rail	Moreno Valley/March Field double track and platform expansion	RCTC Lead Metrolink	In Environmental	16	2026	2021 FTIP





# **SBCTA and WRCOG CMCP 2020** **Sub-corridor #4: Cajon to Eastvale**

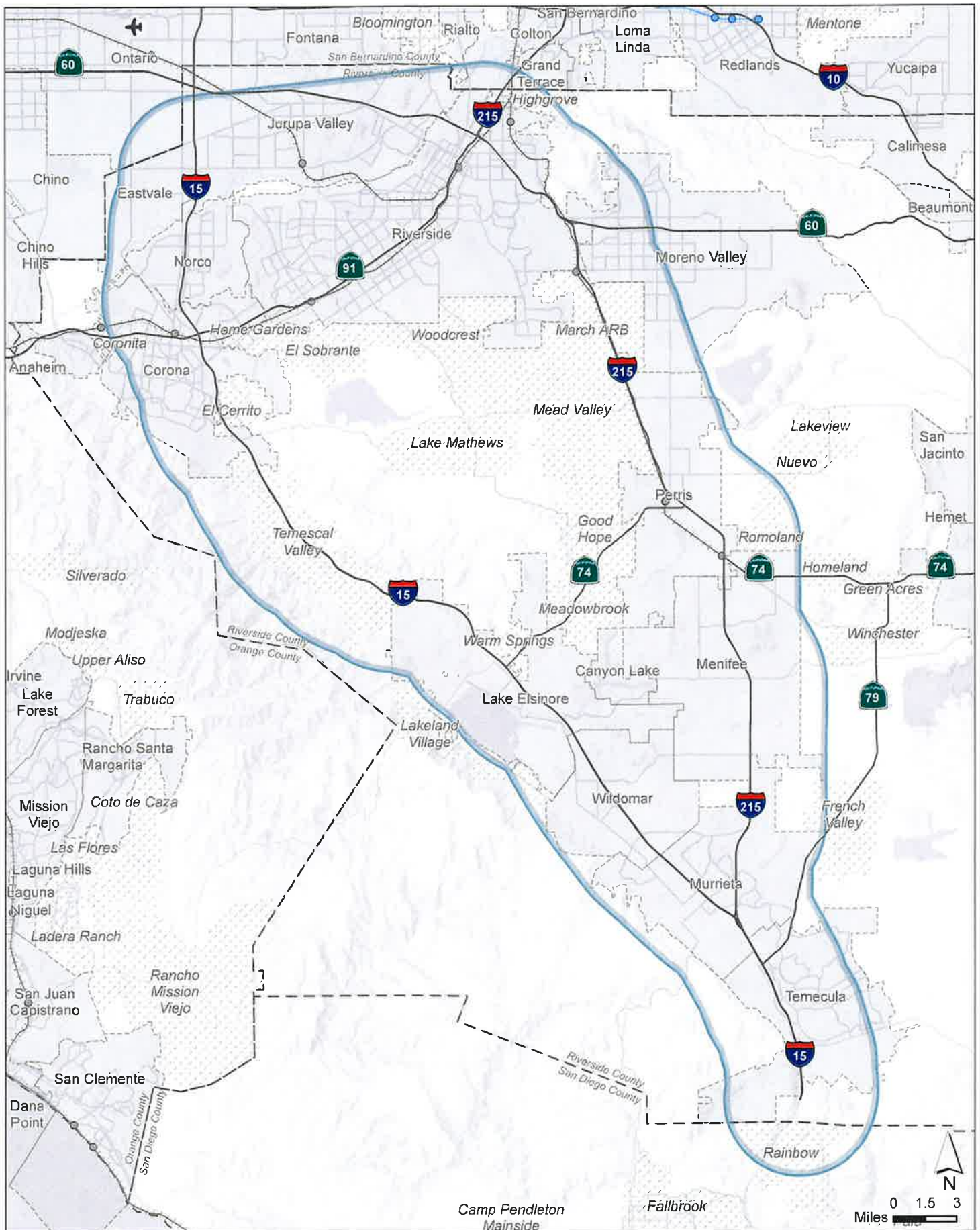
Ontario Intl Airport    Metrolink

— Existing  
 - - - Proposed

## Cajon to Eastvale (NS)

[illegible]



# **SBCTA and WRCOG CMCP 2020** **Sub-corridor #7: Riverside to Temecula**

Ontario Intl Airport Metrolink  
 Existing  
 Proposed



Riverside to Temecula SD (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Highway	60/215 Riverside-Moreno Valley Express Lanes	Riverside Moreno Valley	Env	350	2032	10 Year Plan
Highway	I-215 Gap Project	Murrieta	Env to Construction	18		10 Year Plan
Highway	I-15 Corridor (I-215 to County Line) - Lane Addition or ITS	Temecula Murrieta	Project Study to Env	35		10 Year Plan
Highway	I-15 Corridor (SR-74/Central to I-215) Lane Addition or ITS	Wildomar	Project Study to Env	35		10 Year Plan
Highway	15 Express Lanes Project Southern Extension	Temescal Valley	Env to Construction	550-600	2027	10 Year Plan
Highway	Add at least one lane in each direction on I-15 from Cajalco Road to San Diego County Line	RCTC Lead Corona Temescal Valley Lake Elsinore Wildomar Murrieta Temecula				TRP
Highway	Eliminate the "lane drop" on SB I-15 between Magnolia Avenue and Cajalco Road	RCTC Lead Corona				TRP
Highway	Add at least one lane in each direction on I-215 between SR-60 and Van Buren Boulevard	RCTC Lead Riverside				TRP
Highway	WIDENING OF SR-74 FROM 2 TO 6 THROUGH LANES (3 LANES IN EACH DIRECTION), WEST OF I-15 TO THE ORTEGA MOUNTAINS. OTHER IMPROVEMENTS INCLUDE TURN POCKETS AND ONE TRAFFIC SIGNAL AT INTERSECTION OF SR74 / SOUTHERN CALIFORNIA AVENUE AND GRAND AVE	Lake Elsinore	Planning	12	2026	2021 FTIP
Highway	Smart Freeway Pilot, NB I-15 in Temecula	RCTC Caltrans Temecula	Planning	20	2022	
Highway	I-215 Widening: add one lane in each direction on I-215 between Nuevo Road and Alessandro	RCTC Lead Riverside		145		Measure A

Riverside to Temecula SD (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	French Valley Parkway IC - phase 3	Temecula				10 Year Plan 2021 FTIP TRP
Interchange	French Valley Parkway - Phase 2	Temecula	Env to Construction	120		10 Year Plan 2021 FTIP TRP
Interchange	I-15 Winchester Road ramp widening	Temecula				TRP
Interchange	Reconstruct Central Ave (SR-74)	Lake Elsinore				TRP
Interchange	I-15 Baxter Road	Wildomar				TRP
Interchange	I-15 Bundy Canyon Road	Wildomar				TRP
Interchange	I-215 Keller Road IC	Murrieta	in enviornmental	56	2027	TRP
Interchange	I-215 Garbani Road IC	Menifee	in enviornmental	81	2030	2021 FTIP TRP
Interchange	Reconstruct I-215 Harley Knox Blvd IC	Perris	in enviornmental	35	2030	2021 FTIP TRP
Interchange	AT I-15/FRANKLIN ST IC: CONS AUX LN SOUTH TO RR CYN RD, CONS AUX LN NORTH TO MAIN ST, WIDEN SB ON RAMP FROM MAIN ST FROM 1 TO 2 LNS, INSTALL NEW TRAFFIC SIGNALS AT THE MAIN ST RAMP INTERSECTION, CONS AUTO CENTER DR EXTENSION FROM OLD FRANKLIN ST OC TO FLINT ST AND EXTEND CANYON VIEW ESTATE-CAMINO DEL NORTE FROM OLD FRANKLIN ST TO EXISTING CAMINO DEL NORTE ABOUT 1800 FT S/O MAIN ST.	Lake Elsinore RCTC	in design	68	2023	2021 FTIP

Riverside to Temecula SD (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	AT I-15/SR74 (CENTRAL AVE) IC JCT MOD. BTWN 1,000 FT W/O COLLIER AVE TO RIVERSIDE ST: ADD NB LOOP ENTRY RAMP WITH ACCEL LN, REALIGN NB ENTRY & EXIT RAMPS, ADD SB ACCEL/DECEL LNS, ADD NB DECEL LN, WIDEN SR 74 FROM RIVERSIDE DR. TO CENTRAL AVE 2 TO 4 THROUGH LANES AND FROM COLLIER AVE TO CAMBERN AVE FROM 6 TO 8 THRU LNS, CONST NEW RIVERSIDE AVE OC & SR74 PM 15.5 to	Lake Elsinore	in right of way	58	2026	2021 FTIP
Interchange	MAIN ST/I-15 IC IMPROVEMENTS: WIDENING OF NB MAIN ST UNDER THE FREEWAY FROM 1 TO 2 LNS, ADD AN ADDITIONAL LN TO THE NB ENTRANCE AND EXIT RAMPS. WIDEN SB OFF RAMP TO ACCOMODATE 1 RT LN, 1 LT LN, AND 1 THRU LT LN AT MAIN ST INTERSECTION. INSTALL RAMP METERS & TRAFFIC SIGNALS AT THE ON & OFF RAMPS INTERSECTIONS, AND CAMINO DEL	Lake Elsinore	in design	5	2026	2021 FTIP
Interchange	RECONSTRUCT/WIDEN I-215 IC AT MC CALL BLVD. - WIDEN IC FROM 4 TO 6 LANES (SUN CITY BLVD TO EASTERLY OF ENCANTO DR), WIDEN ENTRY RAMPS (RAMP METERED / NON HOV PREFERENTIAL LANE), WIDEN EXIT RAMPS (DUAL LEFT @ SB & DUAL RIGHT @ NB WITH MCCALL), ADD DUAL LEFT-TURN AND DEDICATED RIGHT-TURN LANES	Menifee	Planning	36	2030	2021 FTIP

Riverside to Temecula SD (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	AT I-215/SCOTT RD IC: WIDEN FROM 6 TO 11 LANES (7 THRU AND 4 TURN) BTWN ANTELOPE RD AND HAUN RD - RECONSTRUCT/WIDEN RAMPS - NB EXIT INCLUDING DECELERATION LN; SB ENTRY RAMP (1 TO 2 LNS); ENTRY RAMPS INCLUDE HOV LN; RAMPS INCLUDE EXTENDED ACCEL/DECEL LNS, ADD EXTENDED RIGHT-TURN LNS.	Riverside County Lead Menifee	in environmental	1	2038	2021 FTIP
Interchange	MODIFY MORENO BEACH DR IC - WIDEN OC FROM 2 TO 6 THROUGH LANES, REALIGN/WIDEN RAMPS (WB EXIT 1 TO 2 LANES), ADD NEW WB ENTRY RAMP (2 LANES), ADD WB AUX LANE, AND INSTALL RELATED DRAINAGE AND ASSOCIATED WORK	Moreno Valley	in right of way	39	2025	2021 FTIP
Interchange	AT I-215/CACTUS AVE IC: WIDEN IC FROM 3 TO 6 THRU LNS (EB FROM 2 TO 3 BTWN W/O BNSF RR TO 1300' E/O VETERANS WAY, ADD 4TH EB LANE FROM NB EXIT RAMP TO E/O ELSWORTH ST, WIDEN WB FROM 1&2 TO 3 THRU LNS FROM COMMERCE CENTER DR TO BNSF RR), WIDEN RAMPS 1 TO 2&3 LNS (ENTRY RAMPS INCL HOV), EXTEND NB AUX LN BTWN ALESSANDRO BLVD SOUTH TO CACTUS AVE NB ENTRY LOOP RAMP & ADD DEDICATED RT-TURN LNS	Moreno Valley	Planning	66	2029	2021 FTIP
Interchange	I-15/MURRIETA HOT SPRINGS RD IC - CONSTRUCT NEW NB LOOP ON RAMP AND REALIGN EXISTING NB OFF RAMP	Murreita	in construction	8	2030	2021 FTIP

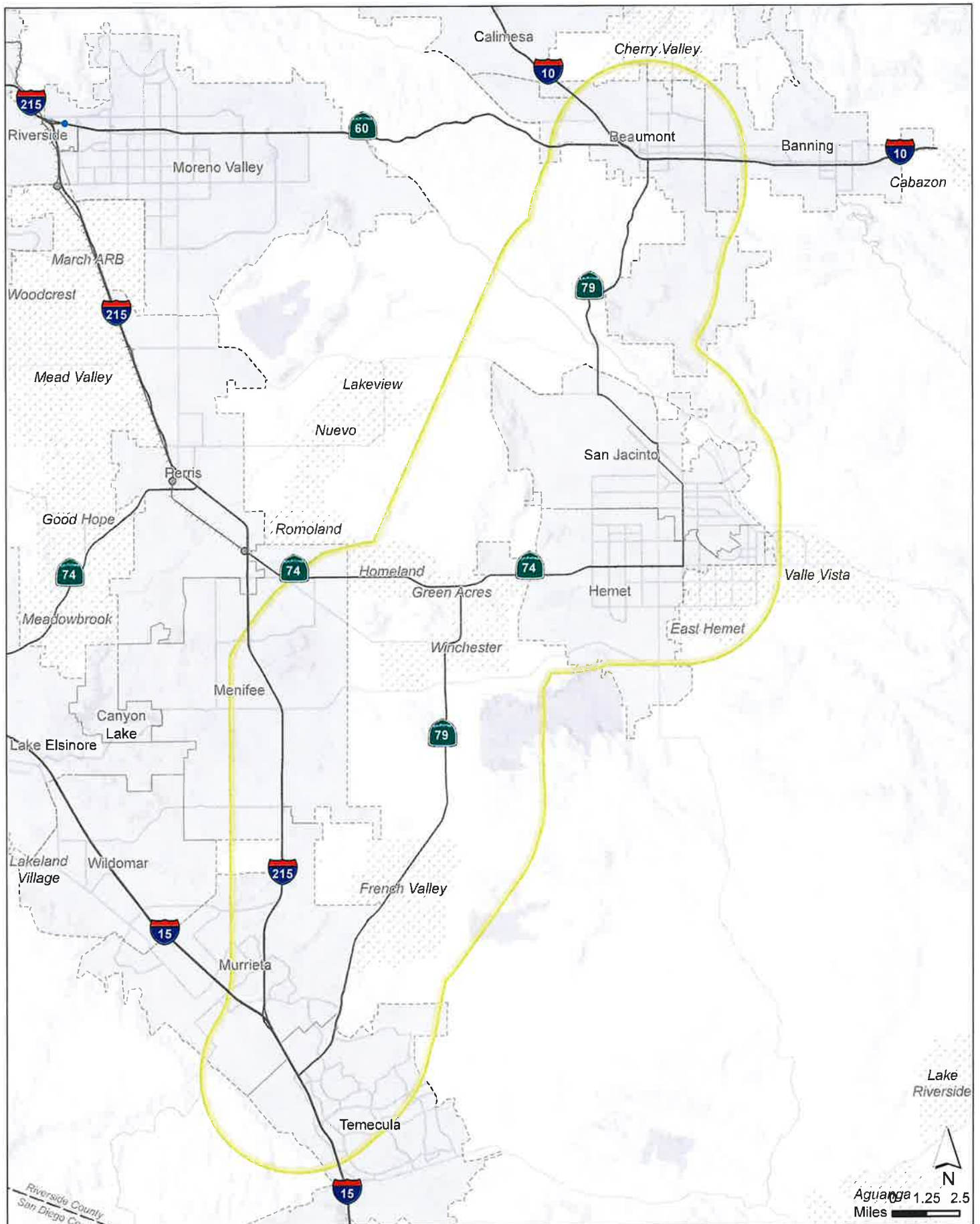
Riverside to Temecula SD (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	I-215/ETHANAC RD IC IMP.: IC OPERATIONAL IMP. OF THE NB & SB OFF RAMP @ I-215/ETHANAC RD AND ON ETHANAC ON EITHER SIDE OF I-215 FOR UP TO 1,200 FT. IMPROVEMENTS CONSIST OF THE WIDENING OF THE ON AND OFF RAMP TO PROVIDE LEFT AND RIGHT TURN POCKETS, T.S. UPGRADE AT THE RAMP TERMINI & WIDEN OC 2 TO 4 LANES WITH TURN LANES.	Perris	Planning	25	2030	2021 FTIP
Interchange	CASE ROAD/MATTHEWS RD. (SR-74) AT I-215 INTERCHANGE: RECONFIGURATION OF THE EXISTING CASE RD/MATTHEWS RD. (SR-74) AT I-215 IC, IMPROVING THE INTERSECTION OPERATIONS AND ELIMINATING CROSS TRAFFIC CONFLICTS ON THE SB RAMP. WIDEN MATTHEWS RD FROM 2/3 LANES TO 4 LANES FROM CASE RD TO TRUMBLE	Perris	in enviornmental	21	2030	2021 FTIP
Interchange	ON I-15 CONSTRUCT NB AUXILIARY LANE FROM TEMECULA PARKWAY ON-RAMP TO THE RANCHO CALIFORNIA ROAD OFF-RAMP	Temecula	Planning	8	2024	2021 FTIP
Interchange ATP	I-215 AT NUEVO INTERCHANGE IMPROVEMENTS: WIDENING OF OC FROM 4 TO 6 LANES (3 LANES IN EA DIRECTION) AND WIDENING OF NB AND SB ENTRY RAMP FROM 2 TO 3 LANES. ADDITIONAL IMPROVEMENTS INCLUDE SIDEWALK INSTALLATION ON BOTH SIDES OF THE OC	Perris	in enviornmental	13	2035	2021 FTIP

Riverside to Temecula SD (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange Major Arterial	AT I-15/CAJALCO RD IC NEAR CORONA: DESIGN, RECONST/REALIGN & WIDEN CAJALCO RD FROM 2 TO 6 THRU LNS FROM TEMESCAL CYN RD TO BEDFORD CYN RD, RECONST/WIDEN SB ENTRY FROM 1-2 LNS, SB EXIT FROM 2-5 LNS, NB ENTRY FROM 1-2 LNS, NB EXIT FROM 2-4 LNS, ADD AUX LNS BTWN NB ENTRY AND NB EXIT TO EL CERRITO RD AND BTWN SB ENTRY FROM EL CERRITO RD AND SB EXIT.	Corona	in construction	74	2020	2021 FTIP
ITS	15 Express Lanes Project Southern Extension - adv operations	Temescal Valley	Env to Construction	28		10 Year Plan
Rail	Riverside Downtown track and platform expansion with pedestrian access.	Metrolink	Env			2021 FTIP
Rail	Increase frequency of Metrolink Trains for 91/Perris Valley Line	Metrolink				TRP
Rail	New 2nd main line track from Moreno Valley to Perris for 91/Perris Valley Line	Metrolink				TRP
Rail	New parking capacity at Corona, Riverside, and Perris	Corona Riverside Perris				TRP
Rail	Constructing accessibility improvements at Moreno Valley/March Field Station	Moreno Valley				TRP
Rail	Moreno Valley/March Field double track and platform expansion	RCTC Lead Metrolink	In Environmental	16	2026	2021 FTIP
Rail	New Metrolink station at Ramona Expressway	Metrolink				TRP
Rail	Perris South station track and layover facility	Metrolink				TRP
Rail	Metrolink Station at Box Springs	Riverside	Planning	20		



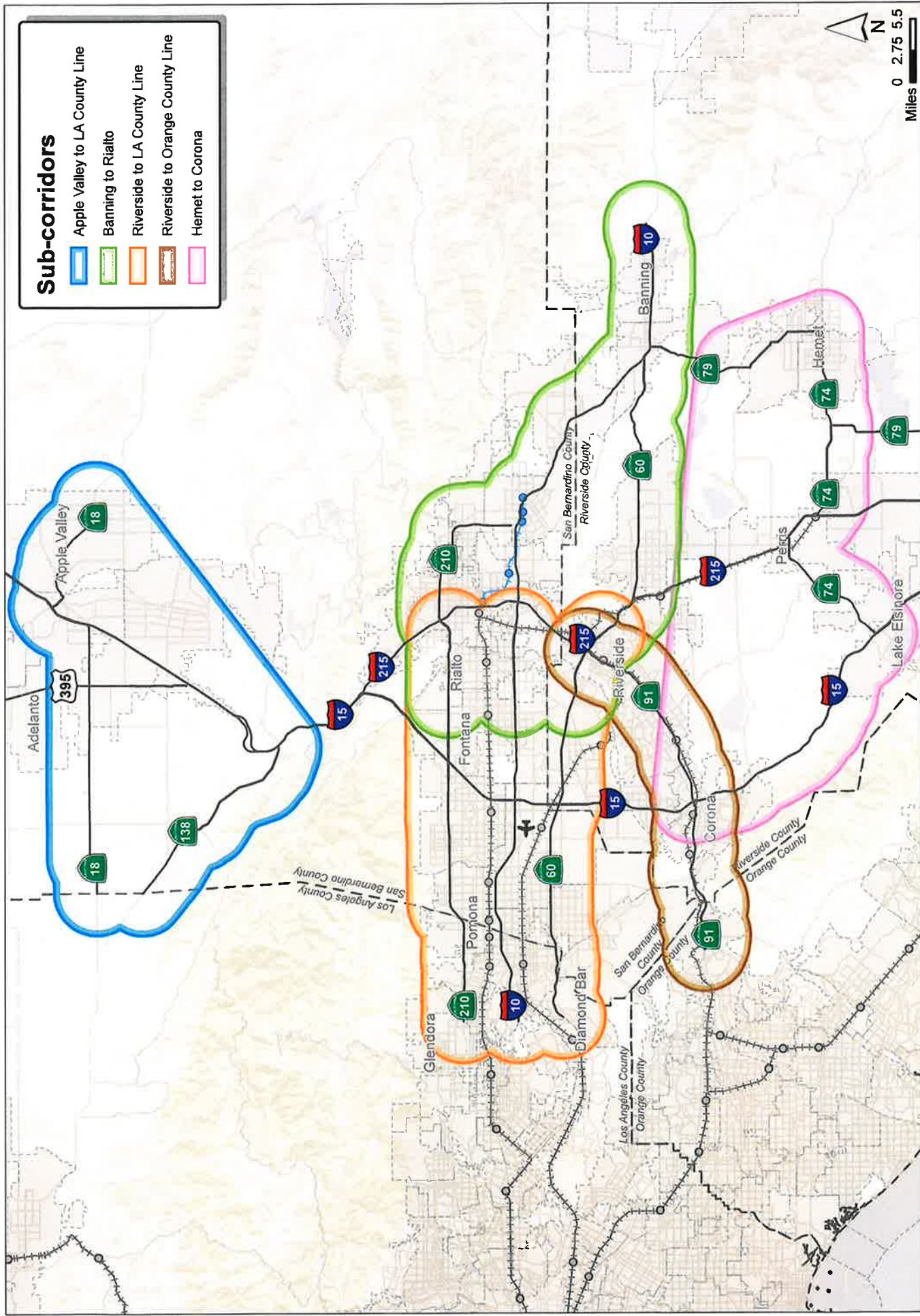


## SBCTA and WRCOG CMCP 2020

### Sub-corridor #9: Beaumont to Temecula

Beaumont to Temecula (NS)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Highway	SR-79 Realignment	Hemet San Jacinto	Design/Right of way to Construction	1,300		10 Year Plan TRP
Interchange	I-215 Keller Road IC	Murrieta	in enviornmental	56	2027	TRP 2021 FTIP
Interchange	I-215 Garbani Road IC	Menifee	in enviornmental	81	2030	TRP 2021 FTIP
Interchange	I-10/HIGHLAND SPRINGS IC IMPROVEMENTS - IMPROVE EXISTING W/B OFFRAMP AND W/B ONRAMP	Banning	Planning	48	2029	2021 FTIP
Highway	Smart Freeway pilot	Caltrans, Temecula	Planning	20	2022	



# SBCTA and WRCOG CMCP 2020 East-West Oriented Sub-corridors

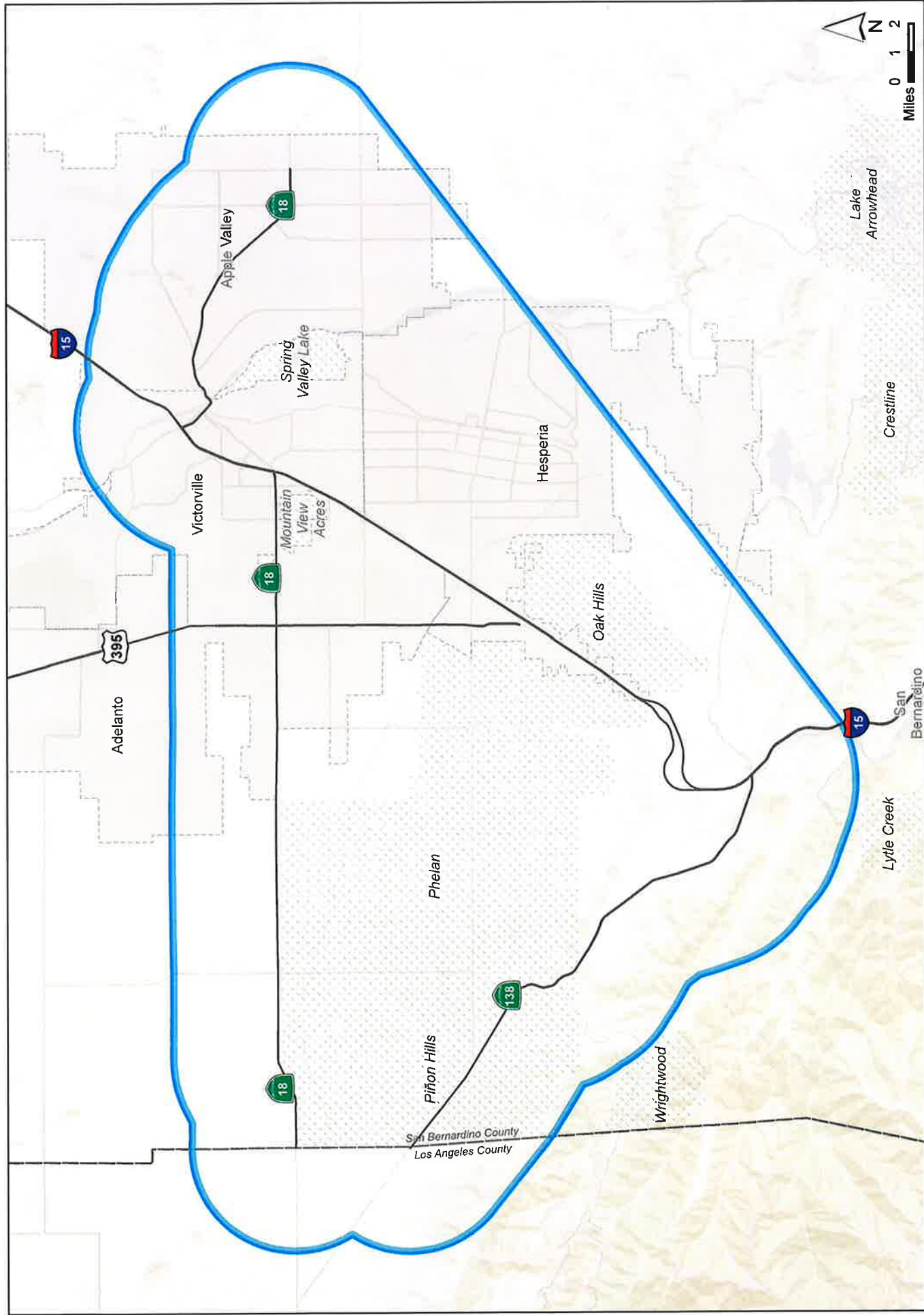
Ontario Intl Airport



Metrolink



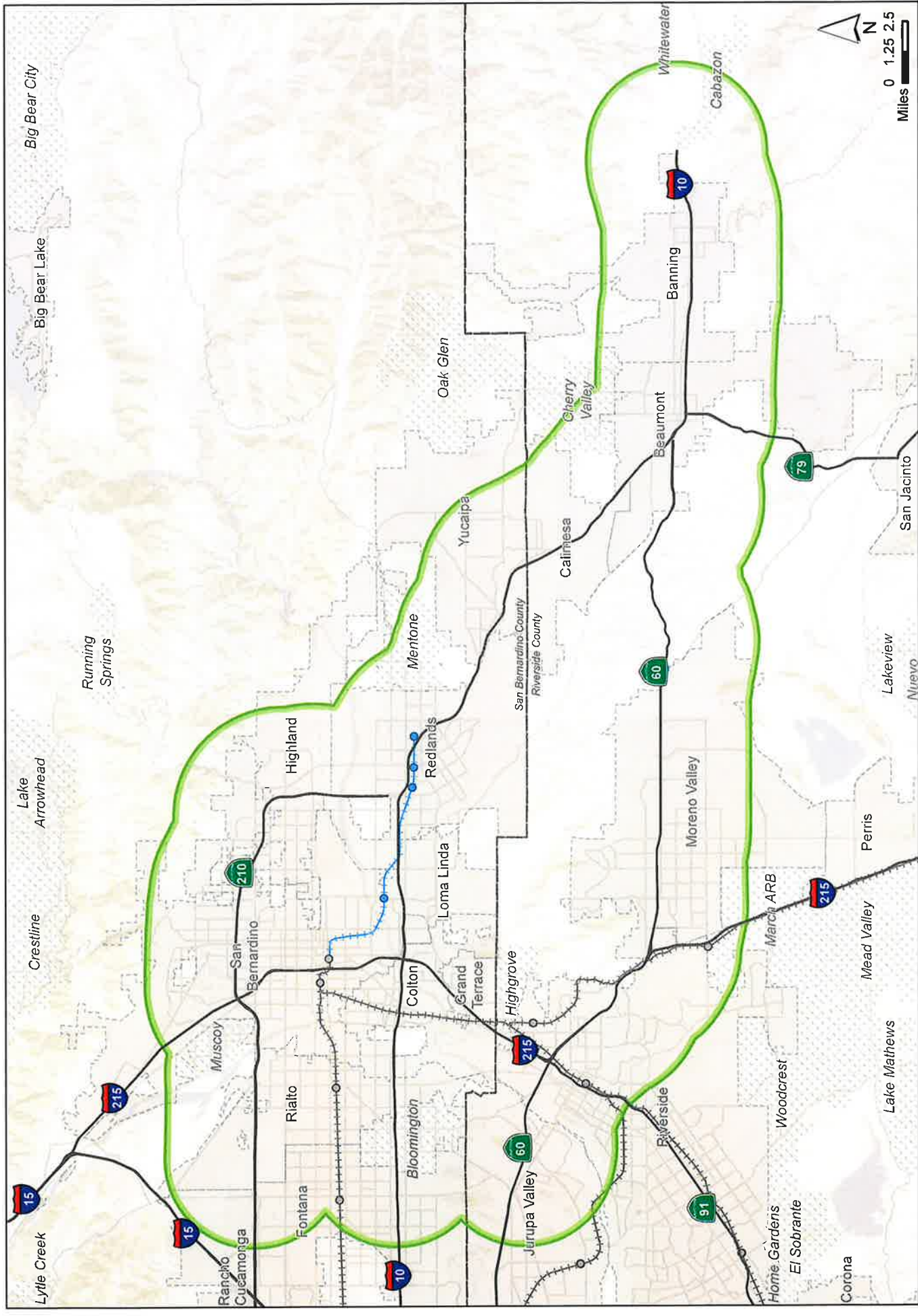




**SBCTA and WRCOG CMCP 2020**  
**Sub-corridor #2: Apple Valley to LA County Line**

## Apple Valley to LA County Line

[illegible]



**SBCTA and WRCOG CMCP 2020**  
**Sub-corridor #5: Banning to Rialto**



Banning to Rialto (SE to NW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Highway	I-10 Truck Climbing Lanes	Calimesa Beaumont	Env to Const	75		Measure A
Highway	60/215 Riverside-Moreno Valley Managed Lanes	Riverside Moreno Valley	Env, Desing, Const	380		
Highway	215 Ultimate	Riverside	Env to Const	1000		Measure A
Highway	I-15 Express Lanes	SBCTA RCTC	Env to const	28		
Highway	Add at least one lane in each direction on SR-60	Moreno Valley				TRP
Interchange	10/60 IC	Banning Beaumont	Env to Const	500		Measure A
Interchange	SR-60 Etiwanda Avenue	Jurupa Valley				TRP
Interchange	SR-60 Rubidoux Avenue	Jurupa Valley	in enviornmental	3	2028	TRP 2021 FTIP
Interchange	SR-60 Redlands Boulevard	Moreno Valley	Planning	62	2030	TRP 2021 FTIP
Interchange	SR-60 Potrero Boulevard	Beaumont				TRP
Interchange	Reconstruct I-10/SR-79 Interchange in Beaumont	Beaumont				TRP
Interchange	I-10 Highland Springs IC	Beaumont Banning				TRP
Interchange	I-10 Pennsylvania Ave	Beaumont	in enviornmental	6	2030	TRP 2021 FTIP
Interchange	I-10 Morongo Parkway	Cabazon				TRP
Interchange	I-10 County Line Road	Calimesa	in enviornmental	25	2030	TRP 2021 FTIP
Interchange	I-10 Cherry Valley Boulevard	Calimesa	in enviornmental	72	2030	TRP 2021 FTIP
Interchange	I-10/HIGHLAND SPRINGS IC IMPROVEMENTS - IMPROVE EXISTING W/B OFFRAMP AND W/B ONRAMP	Banning	Planning	48	2029	2021 FTIP

Banning to Rialto (SE to NW)

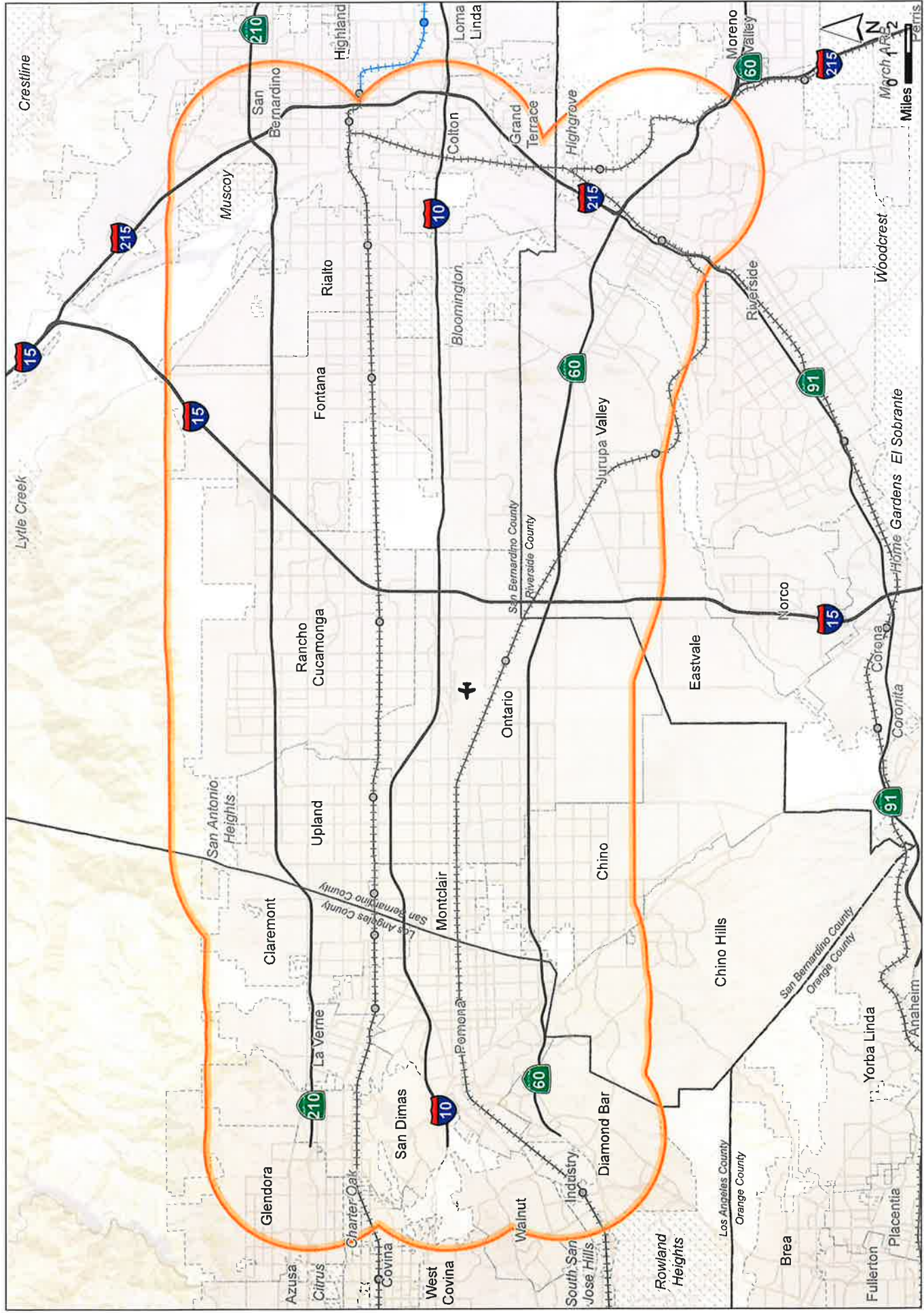
Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	AT I-10/OAK VALLEY PKWY IC: RECONSTRUCT/WIDEN IC FROM 2 TO 6 THROUGH LANES FROM APPROX 500 FT. W/O DESERT LAWN DR TO GOLF CLUB DR, WIDEN RAMPS - EB ENTRY 1 TO 2 LANES, EB & WB EXIT 1 TO 4 LANES, WB ENTRY 1 TO 3 LANES, , ADD NEW EB/WB ENTRY LOOP RAMPS (2 LANES) , ENTRY RAMPS INCLUDE HOV PREFERENTIAL LANE, AND RAMPS INCLUDE EXTENDED ACCELERATION/DECELERATION LANE	Beaumont	in enviornmental	48	2029	2021 FTIP
Interchange	ON I-10/SINGLETON RD IC: RECONSTRUCT/WIDEN 2 TO 4 THROUGH LANES (WOODHOUSE TO CALIMESA BLVD), RECONSTRUCT/WIDEN RAMPS - EB ENTRY 1 TO 2 LNS W/ HOV PREFERENTIAL LN, WB EXIT 1 TO 3 LNS, EB EXIT RAMP (2 LNS), WB ENTRY RAMP (1 LN W/ HOV PREFERENTIAL LN), INCLUDE EXTENDED RAMP ACCEL/DECEL LNS AND RELOCATE CALIMESA BLVD/SINGLETON RD INTERSECTION, AND ADD SB EXTENDED DEDICATED RIGHT-TURN LN	Calimesa	Planning	38	2035	2021 FTIP
Interchange	MODIFY MORENO BEACH DR IC - WIDEN OC FROM 2 TO 6 THROUGH LANES, REALIGN/WIDEN RAMPS (WB EXIT 1 TO 2 LANES), ADD NEW WB ENTRY RAMP (2 LANES), ADD WB AUX LANE, AND INSTALL RELATED DRAINAGE AND ASSOCIATED WORK	Moreno Valley	in right of way	39	2025	2021 FTIP

Banning to Rialto (SE to NW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	AT I-215/CACTUS AVE IC: WIDEN IC FROM 3 TO 6 THRU LNS (EB FROM 2 TO 3 BTWN W/O BNSF RR TO 1300' E/O VETERANS WAY, ADD 4TH EB LANE FROM NB EXIT RAMP TO E/O ELSWORTH ST, WIDEN WB FROM 1&2 TO 3 THRU LNS FROM COMMERCE CENTER DR TO BNSF RR), WIDEN RAMPS 1 TO 2&3 LNS (ENTRY RAMPS INCL HOV), EXTEND NB AUX LN BTWN ALESSANDRO BLVD SOUTH TO CACTUS AVE NB ENTRY LOOP RAMP & ADD DEDICATED RT-TURN LNS	Moreno Valley	Planning	66	2029	2021 FTIP
Interchange	SR-60/GILMAN SPRINGS RD IC - REALIGN GILMAN SPRINGS RD/REMOVE EXISTING EB/WB RAMPS; WIDEN OC FROM 2 TO 6 THRU LANS; WB EXIT IS 1 LANE WIDENING TO 2 LANES THEN TO 3 LANES AT ARTERIAL, WB LOOP & EB ENTRY RAMPS FROM 1 LANE TO 2 LANES W/ HOV; WIDEN EB EXIT RAMPS FROM 1 LANE TO 2 LANES AT EXIT AND 3 LANES AT ARTERIAL; ADD AUX LANES TO WEST OF IC 1200' EB AND 2200' WB	Moreno Valley	Planning	70	2030	2021 FTIP

Banning to Rialto (SE to NW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	SR-60/WORLD LOGISTICS CENTER PARKWAY IC: WIDEN OC FRM 2 TO 4/6 THRU LNS; WIDEN WB EXIT/ENTRY RAMPS FRM 1-2 LNS AT EXIT/ENTRY, 3 LNS AT ART. W/ HOV AT ENTRY; WIDEN EB EXIT RAMP FRM 1-2 LNS AT EXIT & 3 LNS AT ART.; WIDEN EB ENTRY RAMP FROM 1-2 LNS W/HOV; ADD EB LOOP ENTRY WITH 2 LNS AT ART & 1 LN AT ENTRY; ADD AUX LNS 1400' EB DIR E/O IC, 2,500' EB DIR W/O IC, 2,300' WB DIR W/O IC & 1,700' WB DIR E/O IC	Moreno Valley	in enviornmental	107	2028	2021 FTIP
Regional Arterial	I-10 Bypass	Banning Cabazon				TRP
Regional Arterial ATP TSM	SR79 BYPASS EXT NO. PH II - INSTAL OF A 3-LN PRE-FAB BRIDGES ON THE EASTSIDE OF THE PH I POTRERO BRIDGE SR79 BYPASS EXT. NO. (3LNS EA DIRECTION), EXTENDING THE POTRERO BLVD 0.675 MI. NO. FROM THE FUTURE SR60/POTRERO FWY IC, TO CONNECT TO THE OAK VALLEY PKWY IN BEAUMONT, INCLUDING THE INSTAL OF A CLASS I MULTI-PURPOSES TRAIL, FLARED INTERSECTION AND TURNING POCKETS.	Beaumont	in right of way	22	2030	2021 FTIP
Rail	Metrolink Station at Box Springs	Riverside	Planning	20		



SBCTA and WRCOG CMCP 2020  
Sub-corridor #6: Riverside to LA County Line

Metrolink  
Ontario Intl Airport

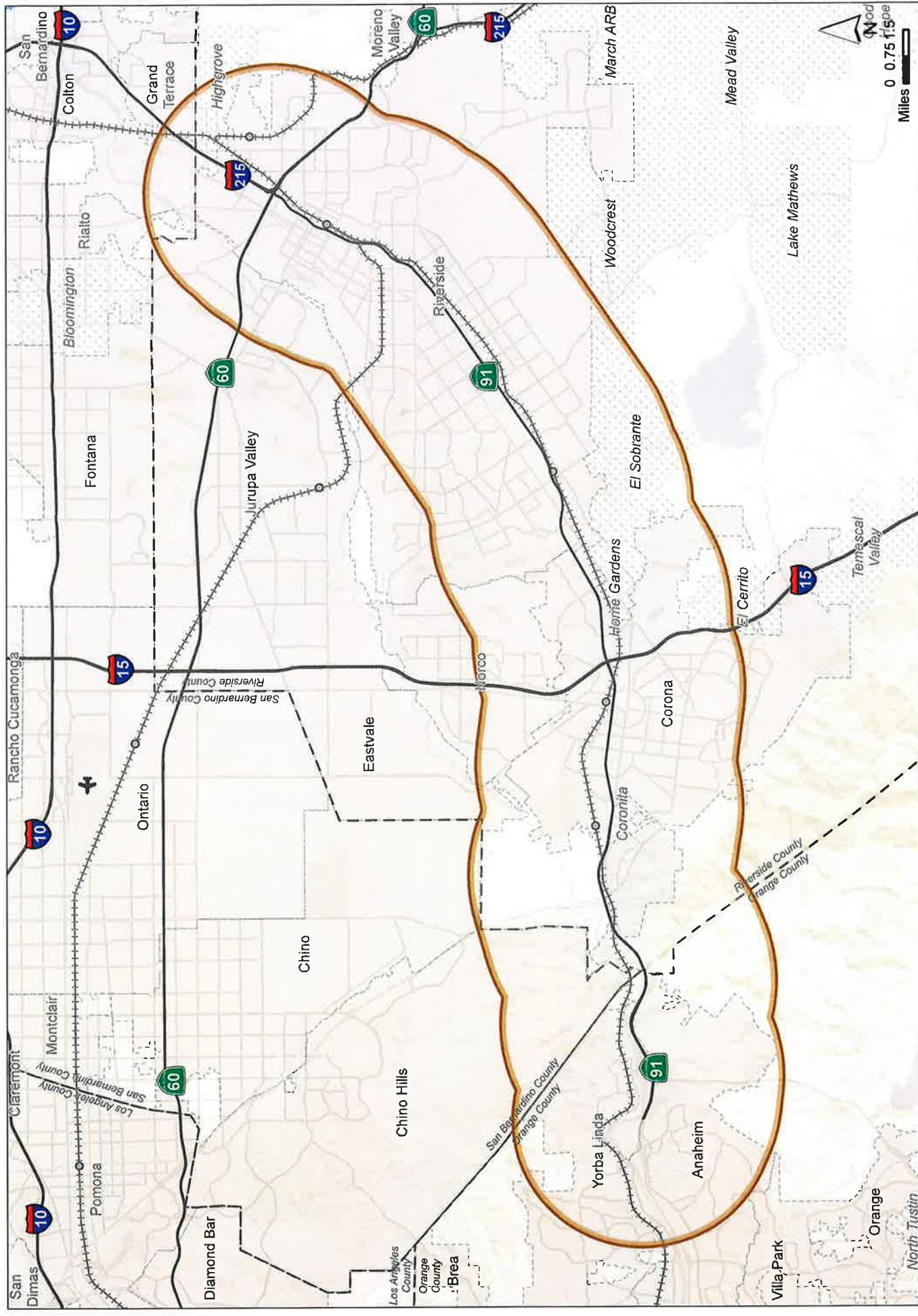
Existing  
Proposed

Miles

Riverside to LA County Line

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Highway	215 Ultimate	Riverside	Env to Const	1000		10 Year Plan
Highway	60 Jurupa Valley - Riverside Managed Lanes	Riverside Jurupa Valley	Env	51		10 Year Plan
Highway	60/215 Riverside-Moreno Valley Managed Lanes	Riverside Moreno Valley	Env, Desing, Const	380		10 Year Plan
Interchange	SR-60 AT RUBIDOUX BOULEVARD INTERCHANGE RAMPS RECONFIGURATION, INCLUDING THE RECONSTRUCTION OF RUBIDOUX BOULEVARD OVERPASS, RUBIDOUX BOULEVARD FROM 29TH STREET TO APPROXIMATELY 1000 FEET WEST OF THE INTERCHANGE	Riverside County Lead Jurupa Valley	in environmental	3	2028	2021 FTIP
Rail	Riverside Downtown track and platform expansion with pedestrian access.	Metrolink	Env			2021 FTIP
Rail	Add line to address service increase and increase frequency of Metrolink Trains for Riverside Line	Metrolink				TRP
Rail	Parking structure at Riverside Downtown	Riverside				TRP





# SBCTA and WRCOG CMCP 2020

## Sub-corridor #8: Riverside to Orange County Line

Ontario Intl Airport

Metrolink

Existing

Proposed

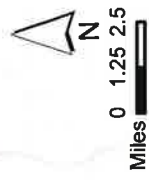
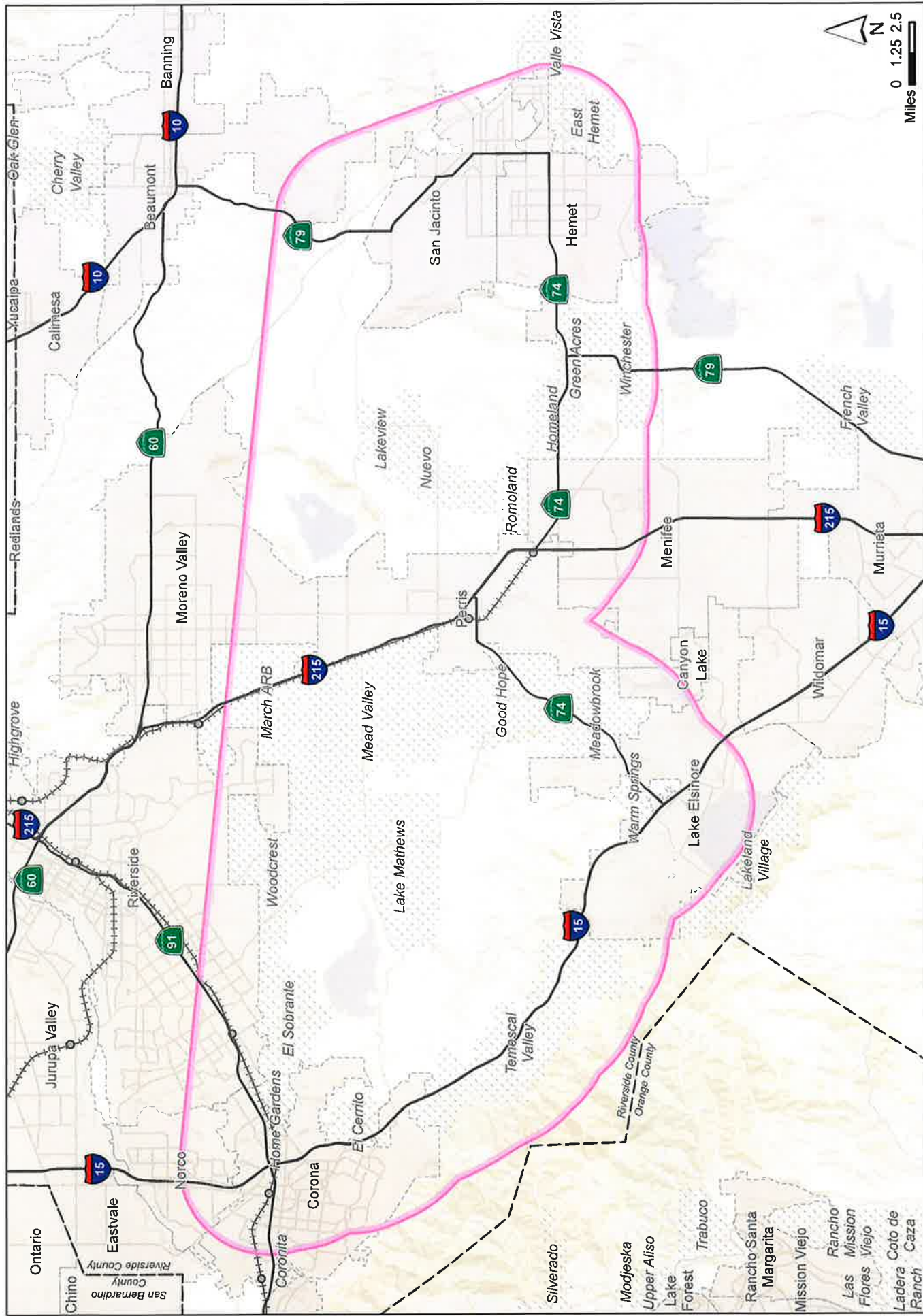
Riverside to OC County Line (EW)

Project Type	Project Title/Description	Partners	Phase/Status	Cost	Completion Year	Source
ATP	Santa Ana River Trail	Corona	Env	65		TRP
Highway	91 Downtown Riverside Managed Lanes	Riverside Norco	Env	22		10 Year Plan TRP
Highway	91 Downtown Riverside Managed Lanes	Riverside Norco	Design/Construction	197		10 Year Plan TRP
Highway	91 Corridor Ultimate Project: 71 to 241	Orange County	Env	50		10 Year Plan
Highway	91 Corridor Ultimate Project: 15 to Pierce Street	Corona	Project Study	25		10 Year Plan
Highway	71 Widening (NS)	Chino Hills	Env to Construction	100		10 Year Plan
Highway	71/91 IC	Corona	Permitting	128		10 Year Plan
Highway	91 COP	Corona		40		10 Year Plan
highway	215 Ultimate	Riverside	Env to Const	1000		10 Year Plan
Interchange	SR-91 Adams Street IC reconstruction	Riverside	in enviornmental	113	2031	TRP 2021 FTIP
Interchange	SR-91 Tyler Street IC reconstruction	Riverside				TRP
Rail	Perris Valley Line Operations & Maintenance (improvements only)	Metrolink				
Rail	Moreno Valley/March Field Station Rehab Platform	Metrolink		0		
Rail	Increase frequency of Metrolink Trains for 91/Perris Valley Line	Metrolink				TRP
Rail	Increase frequency of Metrolink Trains for Inland Empire-Orange County Line	Metrolink				TRP
Rail	New 3rd track Riverside to Fullerton to increase tracking for Inland Empire-Orange County Line	Metrolink				TRP
Rail	New 4th main track West Corona to La Sierra Station to increase tracking for Inland Empire-Orange County line and station improvements.	Metrolink				TRP

Riverside to OC County Line (EW)

Project Type	Project Title/Description	Partners	Phase/Status	Cost	Completion Year	Source
Rail	Parking Structure at Corona North Main, Corona West, Riversid Downtown, Riverside-La Sierra.	Corona Riverside				TRP
Rail	Investing in zero-emissions trains	Metrolink				TRP
Rail	Moreno Valley/March Field double track and platform expansion	RCTC Lead Metrolink	In Environmental	16	2026	2021 FTIP
Rail	Riverside Downtown track and platform expansion with pedestrian access.	RCTC Lead Metrolink	In Environmental	26	2026	2021 FTIP





**Metrolink**  
 --- Existing  
 --- Proposed

# SBCTA and WRCOG CMCP 2020

## Sub-corridor #10: Hemet to Corona

Hemet to Corona (EW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
ATP	Butterfield Ranch Trail/ Southern Emigrant Trail	Corona Riverside County Lake Elsinore				TRP
ATP	Salt Creek Trail	Menifee Riverside County Hemet				TRP
Env. Mitigation	Mid County Parkway - Sweeney Mitigation Site		construction complete - monitoring ongoing until 2024	5		10 Year Plan
Env. Mitigation	Mid County Parkway -		ROW& Environmental Mitigation	40		10 Year Plan
Highway	SR-79 Realignment	Hemet San Jacinto	Design/Right of way to Construction	1,300		10 Year Plan
Highway	Mid County Parkway - Pkg 3	Perris San Jacinto	Env to Construction	800		10 Year Plan TRP
Highway	Mid County Parkway - Pkg 2		Design/Construction	84		10 Year Plan TRP
Highway	Mid County Parkway - I-215 Nuevo to Alessandro		Design/Construction	145		10 Year Plan
Highway	WIDENING OF SR-74 FROM 2 TO 6 THROUGH LANES (3 LANES IN EACH DIRECTION), WEST OF I-15 TO THE ORTEGA MOUNTAINS. OTHER IMPROVEMENTS INCLUDE TURN POCKETS AND ONE TRAFFIC SIGNAL AT INTERSECTION OF SR74 / RIVERSIDE DR AND GRAND AVE	Lake Elsinore	Planning	12	2026	2021 FTIP
Interchange	Reconstruct I-10/SR-79 Interchange in Beaumont	Beaumont				TRP
Interchange	I-10 Highland Springs IC	Beaumont Banning				TRP
Interchange	I-10 Pennsylvania Ave	Beaumont				TRP

Hemet to Corona (EW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	AT I-15/FRANKLIN ST IC: CONS AUX LN SOUTH TO RR CYN RD, CONS AUX LN NORTH TO MAIN ST, WIDEN SB ON RAMP FROM MAIN ST FROM 1 TO 2 LNS, INSTALL NEW TRAFFIC SIGNALS AT THE MAIN ST RAMP INTERSECTION, CONS AUTO CENTER DR EXTENSION FROM OLD FRANKLIN ST OC TO FLINT ST AND EXTEND CANYON VIEW ESTATE-CAMINO DEL NORTE FROM OLD FRANKLIN ST TO EXISTING CAMINO DEL NORTE ABOUT 1800 FT S/O MAIN ST.	Lake Elsinore RCTC	in construction	68	2023	2021 FTIP
Interchange	AT I-15/SR74 (CENTRAL AVE) IC JCT MOD. BTWN 1,000 FT W/O COLLIER AVE TO RIVERSIDE ST: ADD NB LOOP ENTRY RAMP WITH ACCEL LN, REALIGN NB ENTRY & EXIT RAMPS, ADD SB ACCEL/DECEL LNS, ADD NB DECEL LN, WIDEN SR 74 FROM RIVERSIDE DR. TO CENTRAL AVE 2 TO 4 THROUGH LANES AND FROM COLLIER AVE TO CAMBERN AVE FROM 6 TO 8 THRU LNS, CONST NEW RIVERSIDE AVE OC & SR74 PM 15.5 to	Lake Elsinore	in right of way	58	2026	2021 FTIP
Interchange	MAIN ST/I-15 IC IMPROVEMENTS: WIDENING OF NB MAIN ST UNDER THE FREEWAY FROM 1 TO 2 LNS, ADD AN ADDITIONAL LN TO THE NB ENTRANCE AND EXIT RAMPS. WIDEN SB OFF RAMP TO ACCOMODATE 1 RT LN, 1 LT LN, AND 1 THRU LT LN AT MAIN ST INTERSECTION. INSTALL RAMP METERS & TRAFFIC SIGNALS AT THE ON & OFF RAMPS INTERSECTIONS, AND CAMINO DEL	Lake Elsinore	in design	5	2026	2021 FTIP



Hemet to Corona (EW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	RECONSTRUCT/WIDEN I-215 IC AT MC CALL BLVD. - WIDEN IC FROM 4 TO 6 LANES (SUN CITY BLVD TO EASTERLY OF ENCANTO DR), WIDEN ENTRY RAMPS (RAMP METERED / NON HOV PREFERENTIAL LANE), WIDEN EXIT RAMPS (DUAL LEFT @ SB & DUAL RIGHT @ NB WITH MCCALL), ADD DUAL LEFT-TURN AND DEDICATED RIGHT-TURN LANES	Menifee	Planning	36	2030	2021 FTIP
Interchange	AT I-215/SCOTT RD IC: WIDEN FROM 6 TO 11 LANES (7 THRU AND 4 TURN) BTWN ANTELOPE RD AND HAUN RD - RECONSTRUCT/WIDEN RAMPS - NB EXIT INCLUDING DECELERATION LN; SB ENTRY RAMP (1 TO 2 LNS); ENTRY RAMPS INCLUDE HOV LN; RAMPS INCLUDE EXTENDED ACCEL/DECEL LNS, ADD EXTENDED RIGHT-TURN LNS.	Riverside County Lead Menifee	in environmental	1	2038	2021 FTIP
Interchange	Construct I-215 IC at Garbani Road with a new diamond configuration from Antelope Road to Haun Road	Menifee	in environmental	81	2030	2021 FTIP
Interchange	I-15/MURRIETA HOT SPRINGS RD IC - CONSTRUCT NEW NB LOOP ON RAMP AND REALIGN EXISTING NB OFF RAMP	Murreita	in construction	8	2030	2021 FTIP
Interchange	I-215/KELLER RD. IC: REPLACE EXISTING 2-LN I-215/KELLER RD. UNDERPASS WITH A NEW 4-LN (2 LNS IN EA DIR), AUX LANES AT THE SB OFF-RAMP & NB OFF-RAMP (APPROX. 2,400'), ADD 3-LN NB/SB OFF RAMPS, 2-LN NB/SB ON-RAMPS W/HOV, SWs, AND TWO 2-LN TRAFFIC CIRCLES AT THE RAMP TERMINI, AND REALIGN ANTELOPE RD APPROX 1/4 MI EAST.	Murreita	in construction	56	2027	2021 FTIP

## Hemet to Corona (EW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Interchange	FRENCH VALLEY PKWY IC/ARTERIAL PHASES: PH II - CONSTRUCT 2 LN NB CD (N/O WINCHESTER IC ON-RAMPS TO JUST N/O RTE 15/215 JCT WITH CONNECTORS TO RTE 15 AND RTE 215 (I-215 PM: 8.43 TO 9.75); AND PH III - CONSTRUCT 6 LN OC (JEFFERSON TO YNEZ) & RAMPS, NB/SB AUX LN, CD LNS (1 LN NB & 3 LN SB) & MODIFY WINCHESTER RD IC	Temecula	in construction	277	2028	2021 FTIP
Interchange	ON I-15 CONSTRUCT NB AUXILIARY LANE FROM TEMECULA PARKWAY ON-RAMP TO THE RANCHO CALIFORNIA ROAD OFF-RAMP	Temecula	Planning	8	2024	2021 FTIP
Interchange Major Arterial	AT I-15/CAJALCO RD IC NEAR CORONA: DESIGN, RECONST/REALIGN & WIDEN CAJALCO RD FROM 2 TO 6 THRU LNS FROM TEMESCAL CYN RD TO BEDFORD CYN RD, RECONST/WIDEN SB ENTRY FROM 1-2 LNS, SB EXIT FROM 2-5 LNS, NB ENTRY FROM 1-2 LNS, NB EXIT FROM 2-4 LNS, ADD AUX LNS BTWN NB ENTRY AND NB EXIT TO EL CERRITO RD AND BTWN SB ENTRY FROM EL CERRITO RD AND SB EXIT.	Corona	in construction	74	2020	2021 FTIP
Rail	Metrolink extension to Hemet and San Jacinto	Metrolink				TRP
Rail	New Metrolink station at Ramona Expressway	Metrolink				TRP
Rail	Investing in zero-emissions trains	Metrolink				TRP
Rail	Perris South station track and layover facility	Metrolink				TRP
Transit	Rapid transit system between Hemet-San Jacinto Valley and Perris/Moreno Valley/Riverside	Hemet San Jacinto Perris Moreno Valley Riverside				10 Year Plan

Hemet to Corona (EW)

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
Transit	Rapid transit system between Hemet-San Jacinto Valley and Temecula/Meniffee/Murrieta	Hemet San Jacinto Temecula Meniffee Murrieta				10 Year Plan

Project Type	Project Title/Description	Partners	Status	Cost	Completion Year	Source
ATP	Safe Routes to School	Cities	Ongoing	TBD	TBD	TRP
ITS	Supporting infrastructure for vehicle charging or fueling stations	Caltrans Cities	Ongoing	TBD	TBD	
ITS	Employ advanced and innovative technology that can manage transportation demand and or manage the the transportation system	FHWA Caltrans Local Jurisdiction TMC	Ongoing	TBD	TBD	
Rail	Investing in zero-emissions trains	Metrolink	Ongoing	TBD	TBD	TRP
Rail	Rail Station or track improvements that increase safety and improve service and operation.	Metrolink	Ongoing	TBD	TBD	
Rail	Acquisition of clean technology for buses, rail cars, locomotives and other rolling stock.	Metrolink	Ongoing	TBD	TBD	
Transit	Expansion of express and regional bus network with improved frequencies.	RTA	Ongoing	TBD	TBD	
Transit	Acquisition of clean technology for buses, rail cars, locomotives and other rolling stock.	RTA Metrolink	Ongoing	TBD	TBD	
Transit	Traffic Signals and bus equipment that improve bus travel times	RTA	Ongoing	TBD	TBD	TRP
Transit	Zero emission buses and related maintenance and operations	RTA	Ongoing	TBD	TBD	TRP
Park and Ride	Design and construction of Park and Ride Facility	Caltrans Cities	Ongoing	TBD	TBD	
Rideshare	Regional Rideshare Program, including but not limited to: providing commuter information, employer assistance and incentive programs	RCTC	Ongoing	TBD	TBD	

# *AGENDA / ITEM 13*

<b><i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i></b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Jillian Guizado, Planning and Programming Manager
<b>SUBJECT:</b>	California Transportation Commission Meeting Highlights: January 2020

**STAFF RECOMMENDATION:**

This item is to receive and file the January 2020 California Transportation Commission (CTC) meeting highlights.

**BACKGROUND INFORMATION:**

**January 29-30, 2020 CTC Meeting ([Agenda](#))**

TAB 18 – Draft 2021 Active Transportation Program Fund Estimate

TAB 20 – Commission Comments on the Draft California Freight Mobility Plan 2020

TAB 22 – Adoption of the 2020 Solutions for Congested Corridors Program Guidelines

TAB 23 – Presentation of the Draft 2021 Active Transportation Program Guidelines

TAB 24 – Presentation of the Draft 2020 Local Partnership Program Guidelines

TAB 25 – Presentation of the Draft 2020 Trade Corridor Enhancement Program Guidelines

TAB 26 – Presentation of the Draft 2020 SHOPP: draft project list presented by Caltrans with more than \$1,000,000 proposed in Riverside County.

TAB 32 – Local Assistance ATP Projects – construction award readiness, per Resolution G-15-04: 1) City of Riverside’s Citywide Bicycle and Pedestrian Improvements project. 2) County of Riverside’s Clark Street Safe Routes to School Sidewalk and Intersection Safety Improvements project on track to be awarded by June 2020.

TAB 36 – Approval of Caltrans Projects for Future Consideration of Funding: 1) I-10 Pavement Rehabilitation Project in Riverside County (PM R104.9/R134.0). Project is located on I-10, west of SR-177/I-10 Separation in Blythe and includes pavement rehabilitation, and ADA ramps. Estimated total cost of the proposed project is \$370.0 million, programmed in the 2018 SHOPP. Construction scheduled for 20/21. 2) SR-74 Hemet Horizontal Drains in Riverside County. Project



will install horizontal drains, reestablish drainage, repair storm drains, grade slopes, and construct berms (PM 48.4/49.2). Estimated cost of the proposed project is \$7.1 million, programmed in the 2018 SHOPP. Construction scheduled for 21/22.

TAB 50 – Approval of State Highway Operation and Protection Program Baseline Agreements: Caltrans' I-10 Pavement Rehabilitation project in Blythe.

TAB 62 – SHOPP Amendments for Approval: Caltrans projects in 1) Blythe – reduce lane miles and PS&E cost, 2) Hemet – increase right-of-way capital cost, and 3) Coachella – reduce PS&E cost.

TAB 66 – Draft 2019 Program of Projects for the Small Urban and Rural FTA Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities Program: six projects in Riverside County, including: Care-A-Van (Hemet), Palo Verde Valley Transit Agency (Blythe), and Valley Resource Center for the Retarded (EXCEED) (Perris/Hemet).

TAB 68 – ATP – Project Amendment: CVAG proposes to amend Cycle 3A of the ATP – CV Link-Multi-Modal Transportation Corridor project in Riverside County to amend the Scope and Baseline Agreement.

TAB 77 – Request of \$29,447,000 for the locally-administered STIP/ATP Coachella Valley Link Multi-Modal Transportation Corridor project, off the State Highway System.

TAB 81 – Request of \$26,139,000 for 25 ATP projects: including allocating PS&E on Indio's Herbert Hoover Elementary Pedestrian Improvements project in the amount of \$240,000.

# *AGENDA / ITEM 14*

<b><i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i></b>	
<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Jillian Guizado, Planning and Programming Manager
<b>SUBJECT:</b>	RCTC Commission Meeting Highlights: December 2019, January 2020 Workshop, and March 2020

**STAFF RECOMMENDATION:**

This item is to receive and file December 2019, January 2020 Workshop, and March 2020 Commission meeting highlights.

**BACKGROUND INFORMATION:**

**December 2019 Commission Meeting ([Agenda](#))**

Countywide Transportation Improvement and Traffic Relief Plan: Vision, Goals, and Objectives

**Item 7E - COUNTY OF RIVERSIDE REQUEST FOR ADDITIONAL FUNDS FOR THE SALT CREEK TRAIL**

This item was for the Commission to approve federal Congestion Mitigation and Air Quality (CMAQ) funds in the additional amount of \$594,203 for a total amount of \$5,684,203 to fully fund construction of the Salt Creek Trail project.

**Item 7F - LONG RANGE TRANSPORTATION STUDY**

This item was for the Commission to receive and file the Riverside County Long Range Transportation Study (LRTS).

**Item 7I - APPROVE OF AGREEMENTS WITH THE CITIES OF BANNING AND BEAUMONT, CALTRANS, AND WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS FOR THE PREPARATION OF THE INTERSTATE 10/HIGHLAND SPRINGS INTERCHANGE PROJECT STUDY REPORT**

- 1) Approve Cooperative Agreement No. 20-31-008-00 with the cities of Banning and Beaumont for the preparation of a Project Study Report (PSR) for the Interstate 10/Highland Springs Interchange project (Project);
- 2) Approve Cooperative Agreement No. 20-31-025-00 with Caltrans for its review and oversight of the Project in the amount of \$190,000, plus a contingency of \$25,000, for a total amount not to exceed \$215,000;
- 3) Authorize the Executive Director or designee to approve contingency work up to the total amount not to exceed as required for the Project;
- 4) Approve Funding Agreement No. 20-72-018-00 with Western Riverside Council of Governments (WRCOG) for the allocation of Transportation Uniform Mitigation Fee (TUMF) Zone funding for the Project;

- 5) Approve an increase of \$240,000 in the Fiscal Year 2019/20 budget for TUMF Zone revenues and Commission and consultant expenditures related to the Project; and
- 6) Authorize the Executive Director, pursuant to legal counsel review, to execute these agreements on behalf of the Commission.

#### **January 2020 Commission Workshop [\(Agenda\)](#)**

##### **Item 6 – ADDITIONAL AWARDS FISCAL YEAR 2019/20 SB 821 BICYCLE AND PEDESTRIAN FACILITIES PROGRAM FUNDING RECOMMENDATIONS**

- 1) Approve additional project awards for the Fiscal Year 2019/20 SB 821 Bicycle and Pedestrian Facilities (SB 821) program for an additional amount of \$1,611,395 and a total amount of \$5,513,310;
- 2) Direct staff to prepare memorandums of understanding (MOUs) with the project sponsors to outline the project schedules and local funding commitments; and
- 3) Authorize the Chair or Executive Director to execute the MOUs with the project sponsors, pursuant to legal counsel review.

##### **Item 7 – COUNTY OF RIVERSIDE REQUEST FOR A LOAN ON HAMNER BRIDGE PROJECT**

- 1) Approve a loan to the County of Riverside (County) of 2009 Measure A Western County Regional Arterial (MARA) and/or Transportation Uniform Mitigation Fee (TUMF) Regional Arterial program funds in the amount of \$33,463,000 for construction of the Hamner Bridge Replacement and Widening Project (Hamner Bridge Project) with the County's repayment of the loan anticipated from federal Highway Bridge Program (HBP) funds;
- 2) Authorize the Executive Director to develop, finalize and execute Agreement No. 18-31-074-03, Amendment No. 3 to Agreement No. 18-31-074-00, with the County and cities of Eastvale and Norco for the construction of the Hamner Bridge Project to include terms of a loan agreement, pursuant to legal counsel review;
- 3) Authorize the Executive Director, pursuant to legal counsel review, to develop, finalize, and execute a new or amend an existing agreement with the California Department of Transportation (Caltrans) related to the Commission's loan on the Hamner Bridge Project; and
- 4) Authorize the Executive Director, pursuant to legal counsel review, to develop, finalize, and execute agreements with the County, city of Eastvale, city of Norco, and/or Caltrans related to the loan for the Hamner Bridge Project.

#### **March 2020 Commission Meeting [\(Agenda\)](#)**

##### **Item 7G - RIVERSIDE COUNTY 2020 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM FINANCIAL RESOLUTION**

This item is for the Commission to approve Resolution No. 20-002, *"Resolution of the Riverside County Transportation Commission Certifying Riverside County Has Resources to Fund Projects in the Federal Fiscal Years 2020/21 Through 2025/26 Transportation Improvement Program and Affirming Commitment to Implement All Projects in the Program."*

Item 9 - AWARD OF INTERSTATE 15/RAILROAD CANYON ROAD INTERCHANGE PROJECT CONSTRUCTION AGREEMENT TO RIVERSIDE CONSTRUCTION COMPANY

- 1) Award Agreement No. 20-31-034-00 to Riverside Construction Company to construct the Interstate 15/Railroad Canyon Road Interchange Project (Project), in the amount of \$27,698,589, plus a contingency amount of \$2,769,859, for potential change orders and supplemental work in the amount of \$910,000 during construction, for a total amount not to exceed \$31,378,448;
- 2) Approve Agreement No. 20-31-046-00 with the Pechanga Band of Luiseño Indians (Pechanga) for an amount to exceed \$100,000 for Native American monitoring services during construction of the Project;
- 3) Authorize the Chair or Executive Director, pursuant to legal counsel review, to finalize and execute the agreements on behalf of the Commission; and
- 4) Authorize the Executive Director, or designee, to approve contingency work as may be required for the Project.

Item 10 - AWARD OF: (1) DESIGN-BUILD CONTRACT; AND (2) AMENDMENT TO PROJECT AND CONSTRUCTION MANAGEMENT SERVICES AGREEMENT FOR THE INTERSTATE 15/STATE ROUTE 91 EXPRESS LANES CONNECTOR PROJECT

- 1) Award Agreement No. 19-31-074-00 to Myers-Rados, a Joint Venture (Myers-Rados JV) as the design-build contractor to design and construct the Interstate 15/State Route 91 Express Lanes Connector project (15/91 ELC) in the amount of \$164,840,000, plus a contingency amount of \$10,487,000, for a total amount not to exceed \$175,327,000;
- 2) Approve Agreement No. 15-31-001-07, Amendment No. 7 to Agreement No. 15-31-001-00, with Parsons Transportation Group (Parsons) to provide project and construction management services for the proposed 15/91 ELC in the amount of \$14,825,000, plus a contingency amount of \$1,482,000, for a total amount not to exceed \$16,307,000, and extend the term to June 30, 2024;
- 3) Authorize the Chair or the Executive Director, pursuant to legal counsel review, to finalize and execute the agreements on behalf of the Commission; and
- 4) Authorize the Executive Director or designee to approve contingency work up to the total amounts as required for the project.

# *AGENDA / ITEM 15*



## ***RIVERSIDE COUNTY TRANSPORTATION COMMISSION***

<b>DATE:</b>	March 16, 2020
<b>TO:</b>	Technical Advisory Committee
<b>FROM:</b>	Jenny Chan, Management Analyst
<b>SUBJECT:</b>	Caltrans District 8 Local Assistance Update

### **STAFF RECOMMENDATION:**

This item is to receive and file an update from Caltrans District 8 Local Assistance.

### **BACKGROUND INFORMATION:**

Caltrans' Local Assistance Program oversees more than one billion dollars annually available to over 600 cities, counties, and regional agencies for the purpose of improving their transportation infrastructure or providing transportation services. This funding comes from various Federal and State programs specifically designated to assist the transportation needs of local agencies. Annually, over 1,200 new projects are authorized through the Local Assistance Program of which approximately 700 are construction projects.

Caltrans District 8 Local Assistance is responsible for obligating and allocating federal and state funds, providing guidance on federal and state regulations and direction on processes and procedures that are tied to each funding program. Local Assistance is responsible for the current funding programs as identified in Table 1.

**Table 1: Caltrans Local Assistance funding program responsibilities**

<b>Federal Programs</b>	<b>State Programs</b>
Active Transportation Program (ATP)	Active Transportation Program (ATP)
Emergency Relief (ER)	Local Partnership Program <i>Off-system</i> (LPP)
Congestion Mitigation and Air Quality (CMAQ)	Solutions for Congested Corridors Program <i>Off-system</i> (SCCP)
Highway Bridge Program (HBP)	State Transportation Improvement Program (STIP) <i>Off-system</i>
Highway Safety Improvement Program (HSIP)	Trade Corridor Enhancement Program <i>Off-system</i> (TCEP)
State Transportation Improvement Program (STIP) <i>Off-system</i>	
Surface Transportation Block Grant (STBG)	