

## 6 FIXED-ROUTE RECOMMENDATIONS

Chapter 5 identified potential corridors for future rapid transit investment. This chapter discusses additional recommendations related to OCTA’s existing fixed-route services:

- **Service Investments.** Continue to upgrade OC Bus routes to meet the headway and span standards in the Board-adopted Service Investment Guidelines described in Chapter 4.
- **Bravo! Upgrade Strategy.** In addition to introducing Bravo! rapid bus service in additional corridors (as recommended in Chapter 5), incrementally upgrade existing and new Bravo! routes to improve operating speed and passenger amenity.
- **Seasonal and Special Event Services.** Building on the success of existing services such as the Laguna Beach Summer Breeze, the OC Fair Express, and the Angels Express, seek other opportunities to provide service where traffic and parking issues make transit an attractive alternative.
- **LOSSAN/Metrolink Corridor Improvements.** Support improvements to Orange County rail service planned by Metrolink and other partner agencies. Proceed with existing plans to improve station access and to reduce the number of at-grade road crossings.

### SERVICE INVESTMENTS

OCTA’s new Service Allocation Guidelines, developed as part of the OC Transit Vision and presented to the OCTA Board, are described in Chapter 4. The guidelines establish minimum service levels for different categories of service (route in each category are shown in Figure 6-1), based on both span (hours of operation) and headway (frequencies) as shown in Figure 6-2. They are intended to reflect reasonable customer expectations while remaining practical from an agency perspective.

As Figure 6-2 indicates, all Major routes—OCTA’s services in its busiest corridors—should operate at least every 15 minutes during peak periods, and until midnight seven days a week. This will ensure that most OCTA passengers can take transit trips at the busiest times without having to consult or plan around schedules, and have service available 18+ hours a day. The expanded hours of service will make OCTA’s core services a viable option for all types of trips, serving people well beyond the 9-to-5 commuter market.

The guidelines also call for Local routes to operate every 30 minutes throughout the day. This ensures most OCTA services are at least reasonably convenient and potentially attractive to large numbers of passengers, rather than functioning only as basic lifeline services for those with no other travel options.

By standardizing the service offered on different categories of transit routes, these recommendations will also improve customer understanding of OCTA bus service. For example, passengers will be able to assume that any OCTA route on a busy street will arrive at least every 30 minutes all day. That level of certainty will encourage use of OCTA bus service for both planned and unplanned trips. OCTA has begun to increase service on some lines to meet the new

## FIXED-ROUTE RECOMMENDATIONS

standards, and additional improvements are anticipated in 2018. OCTA will need to also make sure that added service meets minimum productivity and cost recovery standards.







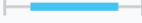
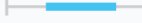






Figure 6-1 Routes by Category

Category	Routes
Major	<ul style="list-style-type: none"> <li>▪ 26 Buena Park-Yorba Linda</li> <li>▪ 29/A La Habra-Huntington Beach</li> <li>▪ 37 La Habra-Fountain Valley</li> <li>▪ 38 Lakewood-Anaheim Hills</li> <li>▪ 42/A Orange-Seal Beach</li> <li>▪ 43 Fullerton-Costa Mesa</li> <li>▪ 47/A Fullerton-Balboa</li> <li>▪ 50 Long Beach-Orange</li> <li>▪ 53/53X Anaheim-Irvine</li> <li>▪ 54 Garden Grove-Orange</li> <li>▪ 55 Santa Ana-Newport Beach</li> <li>▪ 57/57X Brea-Newport Beach</li> <li>▪ 60 Long Beach-Tustin</li> <li>▪ 64/64X Huntington Beach-Tustin</li> <li>▪ 66 Huntington Beach-Irvine</li> <li>▪ 70 Sunset Beach-Tustin</li> <li>▪ 83 Anaheim-Laguna Hills</li> <li>▪ 543 Fullerton Transportation Center-Costa Mesa</li> <li>▪ 560 Santa Ana-Long Beach</li> </ul>
Local	<ul style="list-style-type: none"> <li>▪ 1 Long Beach-San Clemente</li> <li>▪ 21 Buena Park-Huntington Beach</li> <li>▪ 24 Buena Park-Orange</li> <li>▪ 25 Fullerton-Huntington Beach</li> <li>▪ 30 Cerritos-Anaheim</li> <li>▪ 33 Fullerton-Huntington Beach</li> <li>▪ 35 Fullerton-Costa Mesa</li> <li>▪ 46 Los Alamitos-Orange</li> <li>▪ 56 Garden Grove-Orange</li> <li>▪ 59 Anaheim-Irvine</li> <li>▪ 71 Yorba Linda-Newport Beach</li> <li>▪ 72 Sunset Beach-Tustin</li> <li>▪ 76 Huntington Beach-John Wayne Airport</li> <li>▪ 79 Tustin-Newport Beach</li> <li>▪ 82 Foothill Ranch-Rancho Santa Margarita</li> <li>▪ 85 Mission Viejo-Laguna Niguel</li> <li>▪ 86 Costa Mesa-Mission Viejo</li> <li>▪ 87 Rancho Santa Margarita-Laguna Niguel</li> <li>▪ 89 Mission Viejo-Laguna Beach</li> <li>▪ 90 Tustin-Dana Point</li> <li>▪ 91 Laguna Hills-San Clemente</li> </ul>
Community	<ul style="list-style-type: none"> <li>▪ 129 La Habra-Anaheim</li> <li>▪ 143 La Habra-Brea</li> <li>▪ 150/A Santa Ana-Costa Mesa</li> <li>▪ 153 Brea-Anaheim</li> <li>▪ 167 Orange-Irvine</li> <li>▪ 177 Foothill Ranch-Laguna Hills</li> <li>▪ 178 Huntington Beach-Irvine</li> </ul>
Stationlink	<ul style="list-style-type: none"> <li>▪ 453 Orange Transportation Center-St. Joseph's Hospital</li> <li>▪ 454 Orange Transportation Center-Garden Grove</li> <li>▪ 462 Santa Ana Regional Transportation Intermodal Center-Civic Center</li> <li>▪ 463 Santa Ana Regional Transportation Intermodal Center-Hutton Centre</li> <li>▪ 472 Tustin Metrolink Station-Irvine Business Complex</li> <li>▪ 473 Tustin Metrolink Station-UCI</li> <li>▪ 480 Irvine Metrolink Station-Lake Forest</li> </ul>

Category	Routes	
Express	<ul style="list-style-type: none"> <li>▪ 206 Santa Ana-Lake Forest Express</li> <li>▪ 211 Huntington Beach-Irvine Express</li> <li>▪ 212 Irvine-San Juan Capistrano Express</li> <li>▪ 213/A Brea-Irvine Express</li> <li>▪ 216 San Juan Capistrano-Costa Mesa Express</li> </ul>	<ul style="list-style-type: none"> <li>▪ 701 Huntington Beach-Los Angeles Express</li> <li>▪ 721 Fullerton-Los Angeles Express</li> <li>▪ 794/A Riverside/Corona-South Coast Metro Express</li> </ul>

## FIXED-ROUTE RECOMMENDATIONS

Figure 6-2 Service Allocation Guidelines: Level of Service

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

## BRAVO! UPGRADE STRATEGY



Bravo! Route 543 on Harbor Boulevard

Bravo! is OCTA’s brand for “rapid bus” service<sup>1</sup>, a variant of BRT. Compared to conventional local bus service, both rapid bus and BRT feature enhancements to help improve bus speed and reliability. However, rapid bus service features a shorter list of enhancements than BRT (see Figure 6-2).

Figure 6-3 Attributes of Regular Bus, Rapid Bus, and BRT



<sup>1</sup> Los Angeles County Metro refers to its version of such service as “Metro Rapid.”

Both rapid bus and BRT are comprised of packages of operational and capital improvements that can include dozens of possible features. Bravo! service includes four elements common to most rapid bus systems:

- Wide stop spacing, with stops only at busier locations such as transfer points at major cross streets
- Relatively frequent service during periods of higher demand
- Custom branding of vehicles, signs, and other marketing and informational elements such as maps

Bravo! Route 543 was introduced in the Harbor Boulevard corridor in 2013, and Route 560 followed in the 17<sup>th</sup> Street/Westminster corridor in 2016. Both have proven successful, attracting riders with faster, more reliable service. OCTA is planning to expand Bravo! service to the Beach Boulevard corridor, and Chapter 5 recommends implementing Bravo! service on other busy corridors, including Main Street.

In addition to introducing new Bravo! service, OCTA should improve its existing Bravo! service, converting it over time from rapid bus to more robust BRT service. Because both rapid bus and BRT consist of packages of improvements, upgrades can be made incrementally, as funding allows.

The Institute for Transportation and Development Policy has developed a BRT rating system<sup>2</sup> that assigns Gold, Silver, Bronze, and Basic rankings to BRT systems based on a scorecard of features. OCTA should aim to provide Bronze-level or better service in all Bravo! corridors, which would be equivalent to the existing sbX service operated by Omnitrans in San Bernardino (shown below; note the light-rail caliber station and bus-only lanes in the center of the street).



San Bernardino sbX BRT

Source: Omnitrans

OCTA should begin implementing phased upgrades to Bravo! service as described below.

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<sup>2</sup> <https://www.itdp.org/the-brt-standard/>

**Near-Term (0-3 years):**

- Expanded evening and weekend service
- Transit signal priority (TSP) at select traffic signals, resulting in fewer red lights for buses
- Curb extensions at select stops
- Additional shelters, seating, and other amenities at stops (e.g., real-time arrival information displays, maps, bicycle racks)
- All-door boarding pilot program in which passengers with prepaid fares (passes) may enter through rear doors
- Expanded all-door boarding program, including ticket vending machines at busy stops

**Medium-Term: (3-10 years):**

- More frequent service
- Additional TSP corridors
- Queue-jump bypass lanes at select intersections (using existing right-turn lanes from which buses proceed ahead of other traffic with a dedicated signal phase)
- Business Access and Transit (BAT) lanes in select segments
- Raised platforms at busier stops, allowing for near-level boarding
- Additional accommodations for bicycles on vehicles or at stops
- Transition to lower- or zero-emission vehicles
- Use of larger (60-foot) vehicles

**Long-Term (10-20 years):**

- Further expansion of service
- Additional queue jumps
- Additional BAT lanes
- Median or center-running transit lanes and stations in select segments
- Expanded stop-based improvements where feasible

In the near term, OCTA can work with local jurisdictions to pilot some of these improvements. Additionally, bus stops in the existing and future Bravo! corridors may qualify for Measure M Project W funding to improve passenger amenities such as customer information, bus shelters, and seating.

## SEASONAL AND SPECIAL EVENT SERVICES

Orange County boasts many recreational destinations. While some—such as theme parks—are open year-round, others operate for only part of the year or are much busier during the summer.

Public engagement for the OC Transit Vision (see Chapter 3) found widespread support for specialized services to part-time destinations. This support is also reflected in strong ridership on existing routes of this type, including the Laguna Beach Summer Breeze (Route 869) (Figure 6-4), and special-event services such as the OC Fair Express and Angels Express. Many such services are partly funded by partner agencies, for example by the City of Laguna Beach and by grants from the South Coast Air Quality Management District.

Additionally, seasonal and special-events services help introduce new riders to OCTA, who may then become regular riders.

OCTA should explore opportunities to expand its existing seasonal and special-event services. It should also pilot new services through Project V (its program of competitive matching grants for city-provided transit services). A Measure M2 Project V Call-for-Projects in 2018 should focus on additional opportunities for seasonal and special event services that reduce local traffic congestion.

Figure 6-4 Route 869: Laguna Beach Summer Breeze





## LOSSAN/METROLINK CORRIDOR IMPROVEMENTS



Amtrak Pacific Surfliner at San Clemente Pier

The LOSSAN (Los Angeles-San Diego-San Luis Obispo) corridor is the existing rail spine for Orange County. A commuter/intercity rail line, it connects Orange County to downtown Los Angeles. Within Orange County, it runs from Buena Park in the north to San Clemente in the south via major destinations including downtown Fullerton, Anaheim’s Platinum Triangle, downtown Santa Ana, Irvine, and Laguna Niguel. It is served by multiple operators and several lines, including Amtrak’s Pacific Surfliner from San Luis Obispo to San Diego as well as the Metrolink Orange County, 91/Perris Valley, and Inland Empire-Orange County lines.

Figure 6-5 LOSSAN Corridor



## FIXED-ROUTE RECOMMENDATIONS

Additionally, the Metrolink 91/Perris Valley and Inland Empire-Orange County lines operate on tracks east of the LOSSAN corridor, connecting to Riverside County. Figure 6-6 shows the rail network in Orange County, along with station locations and ridership at those stations (note that a new station is currently under construction in Placentia).

Figure 6-6 Orange County Rail Transit



A number of entities are planning improvements to the LOSSAN corridor and the remaining Metrolink corridors in Orange County:

- OCTA, through its grade separations program;
- The LOSSAN Rail Corridor Agency (staffed by OCTA), through its *LOSSAN Corridorwide Strategic Implementation Plan*;
- The Southern California Regional Rail Authority, operator of Metrolink, through its *Integrated Service and Capital Plan (with Discussion on Electrification)*;

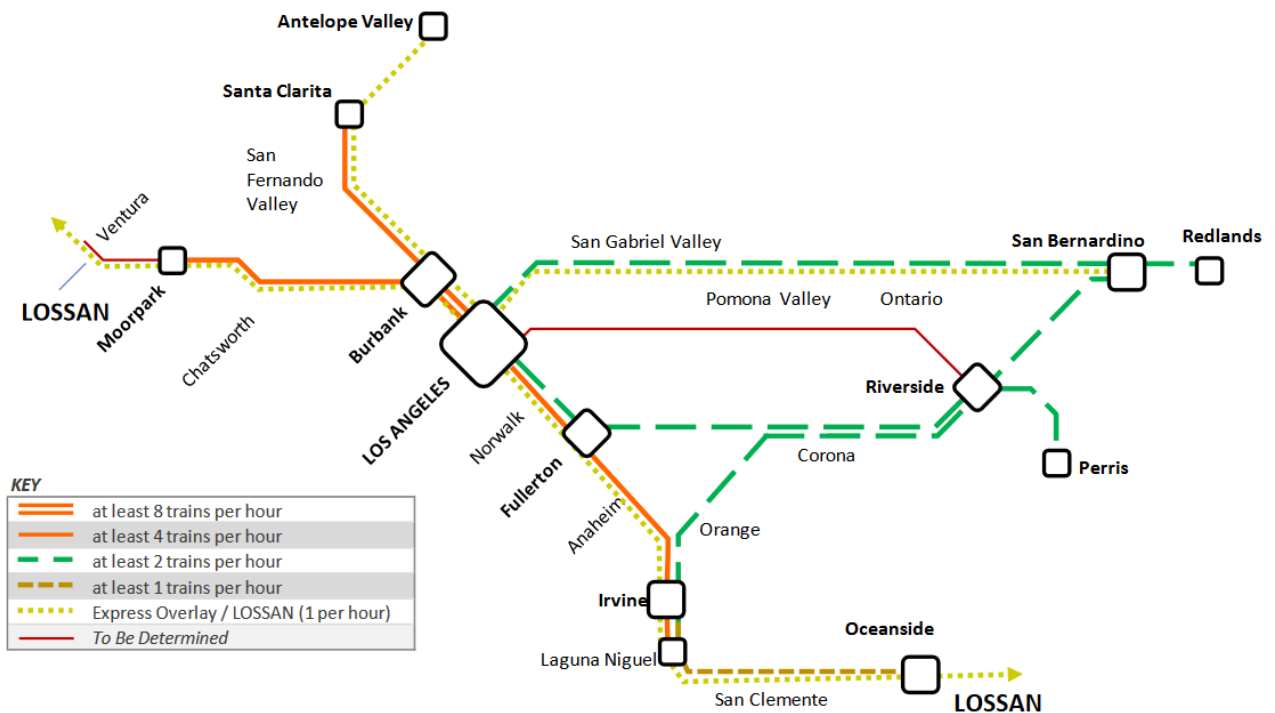
- The California Department of Transportation (Caltrans), through its *California State Rail Plan*; and
- The California High Speed Rail Authority, through its *2016 Business Plan* and other documents related to the Los Angeles to Anaheim Project Section.

Additionally, OCTA has studied multimodal access improvements to Metrolink stations in its *Nonmotorized Metrolink Accessibility Strategy*.

Highlights of these efforts include the following:

- OCTA is partnering with the cities of Santa Ana and Anaheim to grade-separate one rail crossing in each city (at 17<sup>th</sup> Street and at Ball Road).
- The *LOSSAN Corridorwide Strategic Implementation Plan* calls for Orange County service to nearly double by 2030 to 124 daily trains (88 commuter and 36 Surfliner). Some commuter trains would extend from Los Angeles to San Diego. Trains that now terminate at Union Station near downtown Los Angeles would continue north to Santa Clarita and Antelope Valley.
- The *Metrolink Integrated Service and Capital Plan (with Discussion on Electrification)*, released in November 2017, calls for a series of improvements to be completed by 2028, when Southern California will host the Summer Olympic Games (see Figure 6-6). Foremost among these would be electrification of segments including the LOSSAN corridor north of Irvine, allowing service in that segment to increase to every 15 minutes during peak periods. Trains would operate every 30 minutes peak and hourly off-peak on the 91/Perris Valley and Inland Empire-Orange County lines. Changes would also be made in the interim, starting with improved schedule coordination in 2018 to support better connections between trains and buses.

Figure 6-7 Metrolink Planned Service Expansion



Source: Metrolink

- The *California State Rail Plan* calls for changes to intercity rail lines throughout the state by 2040. These include faster service (up to 125 miles per hour on Orange County lines), more frequent service (starting with 30-minute local and hourly express service between Los Angeles and San Diego, with stops in Santa Ana and Laguna Niguel/Mission Viejo, by 2022), electrification (as far south as Laguna Niguel/Mission Viejo), and greater multimodal integration.
- The California High Speed Rail Authority plans to extend high-speed rail service from San Francisco to the Anaheim Regional Transportation Intermodal Center (ARTIC) by 2029, with a possible station in Fullerton. A blended approach calls for high-speed trains to share the LOSSAN corridor with Amtrak and Metrolink. Toward that end, interim improvements include grade-separation of seven crossings in Orange County, benefiting all three operators. Consistent with the Metrolink and state plans, the LOSSAN corridor would be electrified north of Anaheim.
- The OCTA *Nonmotorized Metrolink Accessibility Strategy* recommended a range of pedestrian and bicycle access improvements within Metrolink station areas. It also recommended countywide/systemwide access enhancements including a consolidated bike locker program.

Currently, all of the above plans remain largely unfunded. As the local managing agency for the LOSSAN Rail Corridor Agency (and owner of more than 40 miles of the Orange County railroad), OCTA has an important role to play in advocating for funding. The agency can also move forward to partner with cities on projects including access improvements and grade separations.