

OC FLEX MICROTRANSIT PILOT PROJECT

12-MONTH PROJECT UPDATE

OCTOBER 2018 – OCTOBER 2019

BACKGROUND

In 2015, the Board of Directors (Board) of the Orange County Transportation Authority (OCTA) endorsed a comprehensive action plan known as OC Bus 360° to address declining bus ridership. This effort included a review of current and former rider perceptions, a peer review of OCTA's performance and plans, new branding and the use of marketing tactics tied to rider needs, upgraded bus routes and services, technology solutions to improve the passenger experience, pricing and revenue considerations to stimulate ridership, and pursuing new funding opportunities.

One of the technology solutions considered as part of the OC Bus 360° Plan is the evaluation of an on-demand microtransit solution, called OC Flex. Initiated in October 2018, OC Flex is an on-demand, curb-to-curb service that extends or complements the OC Bus and Metrolink services provided in the county. Implemented as a one-year pilot, OC Flex is available in two areas identified after a planning analysis, a market survey, and technology considerations.

Prior to launch, community feedback was gathered to ensure the new service was market-driven and customer-oriented. This research, including a survey and customer focus groups, helped determine areas of highest ridership potential as well as customer preferences regarding fares, hours and days of operation, and points of interest.

As a service concept, the intent of the OC Flex microtransit pilot is to provide a transit option in areas either not adequately served by the existing and planned fixed-route bus network or have recently had unproductive fixed-route bus service removed. The following project goals and performance measures were developed and approved by the Board of Directors to evaluate this service concept.

1. Provide public transit mobility in lower-demand areas
 - *Measure: Ridership/Productivity*
2. Reduce total operating and capital costs
 - *Measure: Subsidy per Boarding*
3. Reduce Vehicle Miles Travelled
 - *Measure: Shared Rides*
4. Extend reach of OC Bus and Metrolink services
 - *Measure: Connecting Transit Trips*
5. Meet customer needs
 - *Measure: Percent of Passengers Satisfied with Service*

This report covers the performance during the first 12 months of operation, from October 15, 2018 through October 31, 2019 based on the Board-approved performance measures. A summary of the performance using these metrics, customer feedback, and strategies for performance improvement are provided.

Overall, the results to date are consistent with expectations for a new service. There is steady growth with observable trends indicating areas of opportunity. The customer response to the service has been positive. Staff reviews performance regularly, seeking opportunities to promote the service and make adjustments that meet customer needs within existing resources to ensure a comprehensive evaluation of this service delivery model.

The two zones included in the pilot program service areas are referred to by color. The Blue Zone represents the OC Flex service operated in parts of Huntington Beach and Westminster. The Orange Zone represents the OC Flex service operated in parts of Aliso Viejo, Laguna Niguel, and Mission Viejo.

Figure 1 Blue Zone – Huntington Beach-Westminster



Figure 2: Orange Zone –Aliso Viejo-Laguna Niguel-Mission Viejo



SERVICE ELEMENTS

The service is operated under contract by Keolis Transit Services, LLC, using four dedicated wheelchair accessible OCTA-owned minivans and two contractor-provided non-dedicated vehicles. Based on demand trends through the first 12 months, three dedicated vehicles are assigned to the Orange Zone, and one is assigned to the Blue Zone. When needed, the contractor will deploy an additional vehicle to either zone. The technology solution selected for the mobile application is provided by Via Transportation, Inc. (Via). The Via software provides customers with an app for their smart phone that allows them to place reservations, pay their fare, and monitor their ride. Via also provides a web interface for dispatching and data collection. In addition, riders can call the contractor directly and book a trip, and they can pay their fare on-board. Passengers receive a discount for using the mobile app to pay their fare. Riders transferring to or from Metrolink or OC Bus can use their Metrolink ticket or the OCTA day pass for a free transfer to/from the OC Flex.

KEY PERFORMANCE MEASURES

Ridership/Productivity

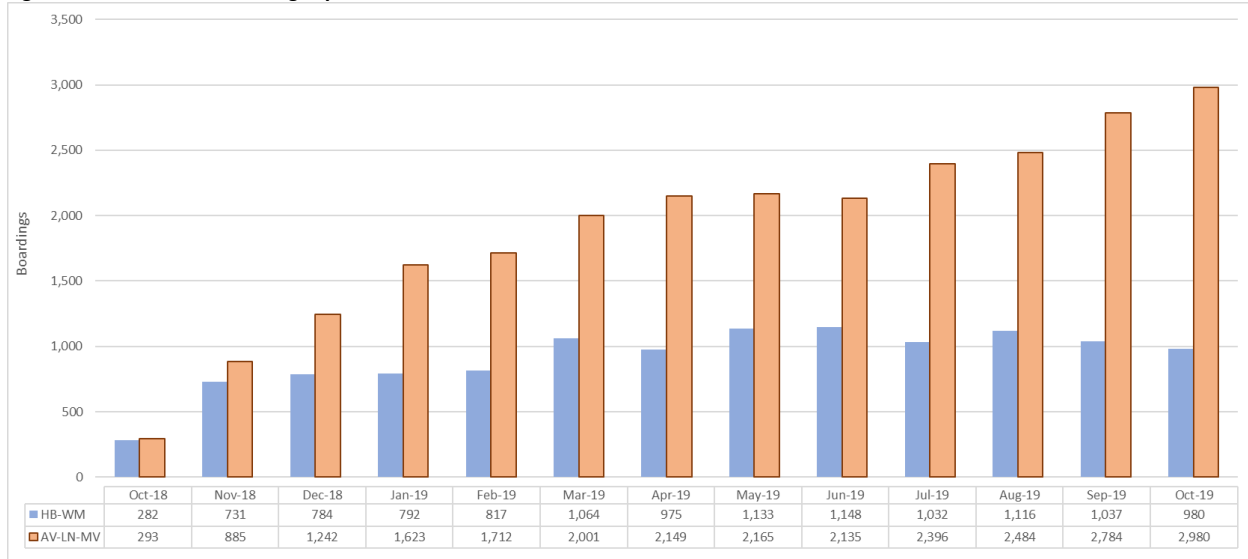
Over the initial one-year review period, OC Flex ridership has steadily increased month-over-month, carrying more than 3,960 riders in October 2019. This represents a 29 percent increase from the 3,065 boardings reported in May 2019 at the time of the six-month update. From October 15, 2018 through October 31, 2019, there were 36,740 total boardings (Figure 3). In October 2019, the average weekly ridership was approximately 850, a 21 percent increase from the weekly average reported at the six-month mark.

During the reporting period, ridership in the Orange Zone steadily increased month-over-month while the ridership in the Blue zone was stable with between 200 and 250 boardings per week.

Notable ridership trends:

- Ridership is heaviest during the weekday peak periods (a.m./p.m.); lower on Saturdays; and light on Sundays
- Highest daily ridership: 178 riders (Friday, March 22, 2019)
- Low ridership was experienced on Holidays (Thanksgiving, Christmas, New Year's Day, etc.)
- A strong commuter base exists in the Orange Zone as many trips begin and/or end at the Laguna Niguel/Mission Viejo (LN-MV) Metrolink Station during the weekday peaks
 - Strong first/last mile connections to points east and west of the rail station

Figure 3 – Total OC Flex Boardings by Month



Productivity is measured using boardings per revenue vehicle hour. This is consistent with how productivity is measured on the OC Bus and OC ACCESS services. Ridership data is captured through the Via microtransit software. The established target for the pilot is six boardings per revenue vehicle hour (B/RVH). For reference, the following table shows the respective productivity rates for OC Bus (by category), OC ACCESS, and OC Flex service for the first quarter of fiscal year 2019-20 (July, August, and September).

Table 1: Service Productivity Comparison

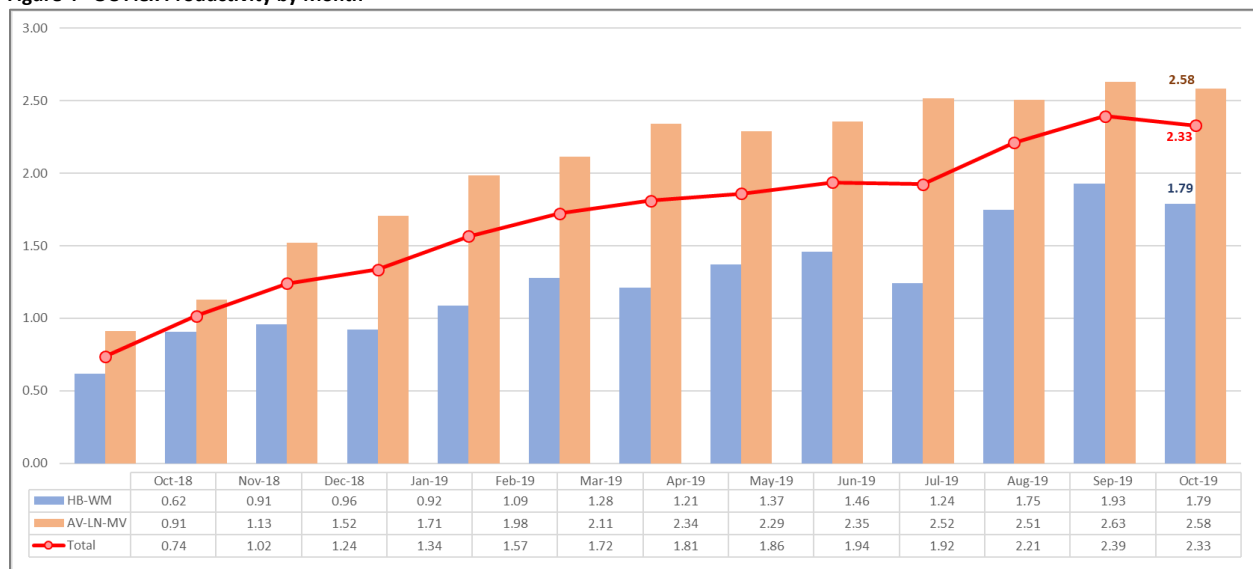
Service	Service Type	B/RVH
OC Bus Local	Fixed-Route	24.0
OC Bus StationLink	Fixed-Route	14.0
OC Bus Community	Fixed-Route	13.1
OC Bus Express	Fixed-Route	5.9
OC Flex Orange	MicroTransit	2.6
AccessACS (OC ACCESS)	ADA Paratransit	2.0
OC Flex Blue	MicroTransit	1.6

ADA – Americans with Disabilities Act

Similar to ridership, productivity on OC Flex is trending positively, increasing from 1.7 B/RVH up to 2.3 B/RVH. A look at the zone level shows productivity in Aliso Viejo-Laguna Niguel-Mission Viejo (AV-LN-MV) increasing to as high as 2.63 B/RVH while productivity in Huntington Beach-Westminster (HB-WM), up to 1.79 B/RVH, has shown signs of improvement since August 2019 with the implementation of operational adjustments.

Though the trend is positive, it is well below the target of six B/RVH. A review of peer agencies implementing microtransit pilots show levels ranging from 3.0 B/RVH to 4.5 B/RVH. Given these findings, a productivity level within this range on OC Flex seems achievable with more time to implement several ridership growth strategies to increase ridership. The specific strategies to achieve this will be discussed later in this report.

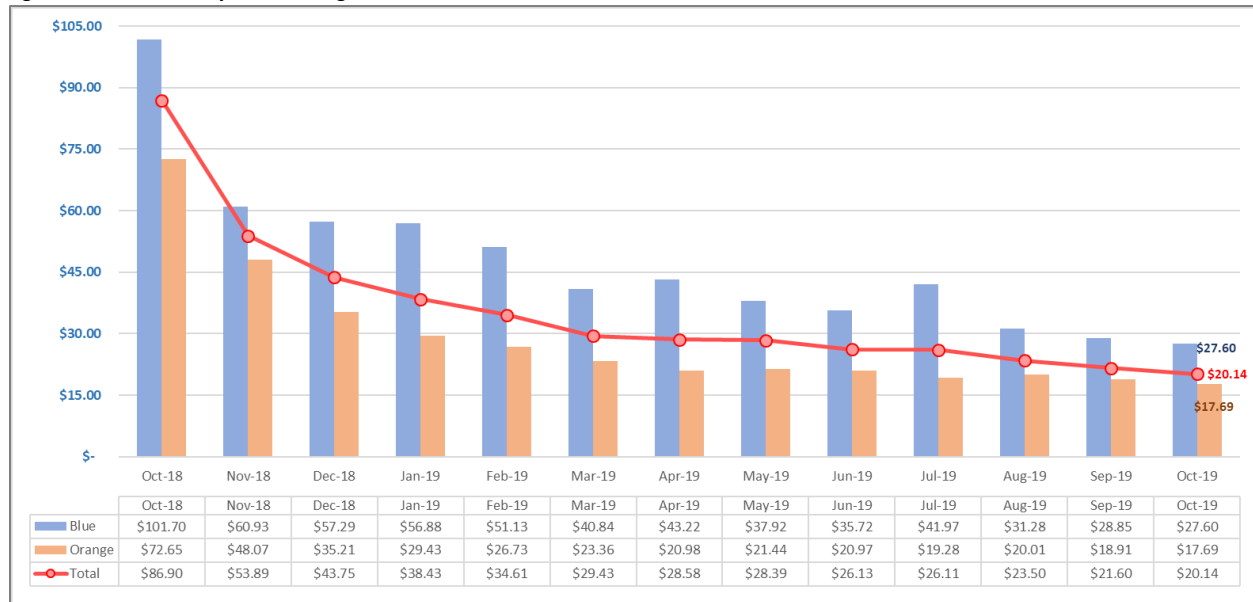
Figure 4 –OC Flex Productivity by Month



Cost Effectiveness

The measure of cost effectiveness for this pilot is subsidy per boarding calculated using the direct cost of the service less fare revenue and divided by the total boardings. The performance target for this measure is \$9.00 per boarding. This is consistent with the productivity target of six B/RVH, as they are inversely related since the cost per operating hour is approximately \$54. As of October 2019, the subsidy per boarding was \$20.14 (Figure 5). As with the increasing trend in productivity, the trend for subsidy per boarding decreased each month, dropping by 32 percent from March to October 2019. At the zone level, the subsidy per boarding in the AV-LN-MV zone is lower, at \$17.69, given the higher ridership and productivity. The subsidy per boarding in the HB-WM zone, though lower in ridership, also decreased to \$27.60 as of October 2019.

Figure 5: OC Flex Subsidy Per Boarding



For reference to the other modes of service provided by OCTA, the following table shows the respective subsidy rates for OC Bus (by category), OC ACCESS, and OC Flex service for the first quarter of fiscal year 2019-20 (July, August, and September). Comparatively, the higher performing OC Flex Orange zone is between the subsidy rate for OC Bus Express (\$14.41) and the services provided under the ADA-related Special Agency Agreements (\$21.75).

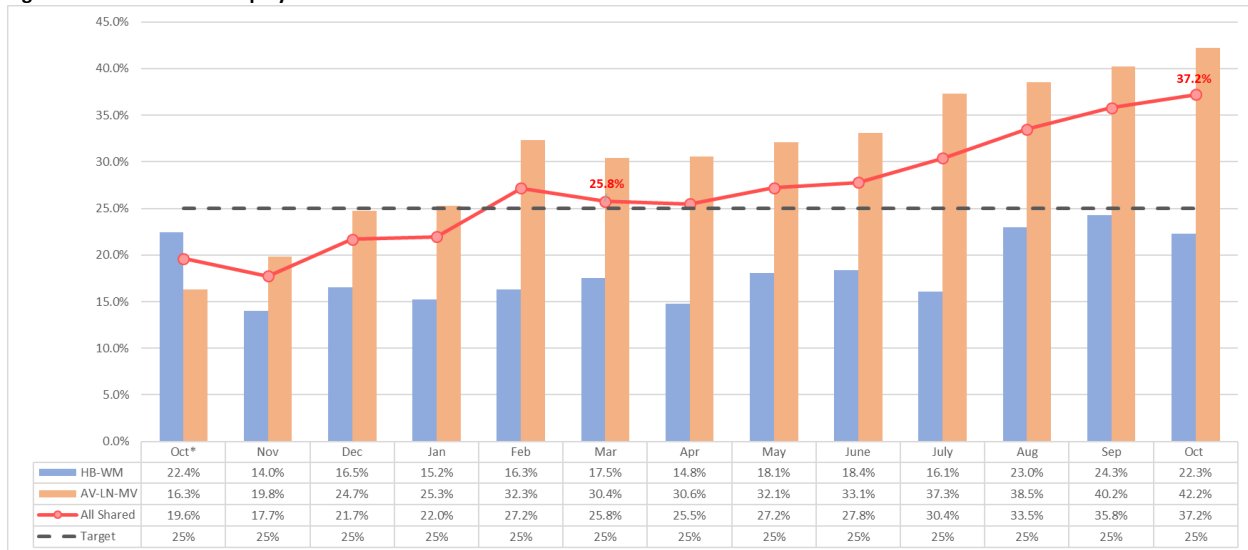
Table 2: Subsidy Rates

Service	Service Type	Subsidy/Boarding
OC Bus Local	Fixed-Route	\$ 2.60
OC Bus Community	Fixed-Route	\$ 3.74
OC Bus StationLink	Fixed-Route	\$ 5.70
Same Day Taxi	Taxi	\$ 14.30
OC Bus Express	Fixed-Route	\$ 14.41
OC Flex Orange	Microtransit	\$ 19.38
Special Agencies Agreements	ADA Paratransit	\$ 21.75
OC Flex Blue	Microtransit	\$ 33.95
OC ACCESS	ADA Paratransit	\$ 38.18
OC ACCESS (Supplemental Taxi)	ADA Paratransit	\$ 39.93

Shared Rides

The key metric for measuring vehicle miles travelled reduction is the percent of shared trips or rides. The data to calculate this measure comes from the microtransit software package that records the number of booked trips that share a vehicle. Performance through October 31, 2019 show a mixed trend for shared rides across both zones. The AV-LN-MV zone performed above the established target, increasing month-over-month since March 2019, reaching 42.4 percent. Though the HB-WM zone has yet to reach the 25 percent target, the trend is positive.

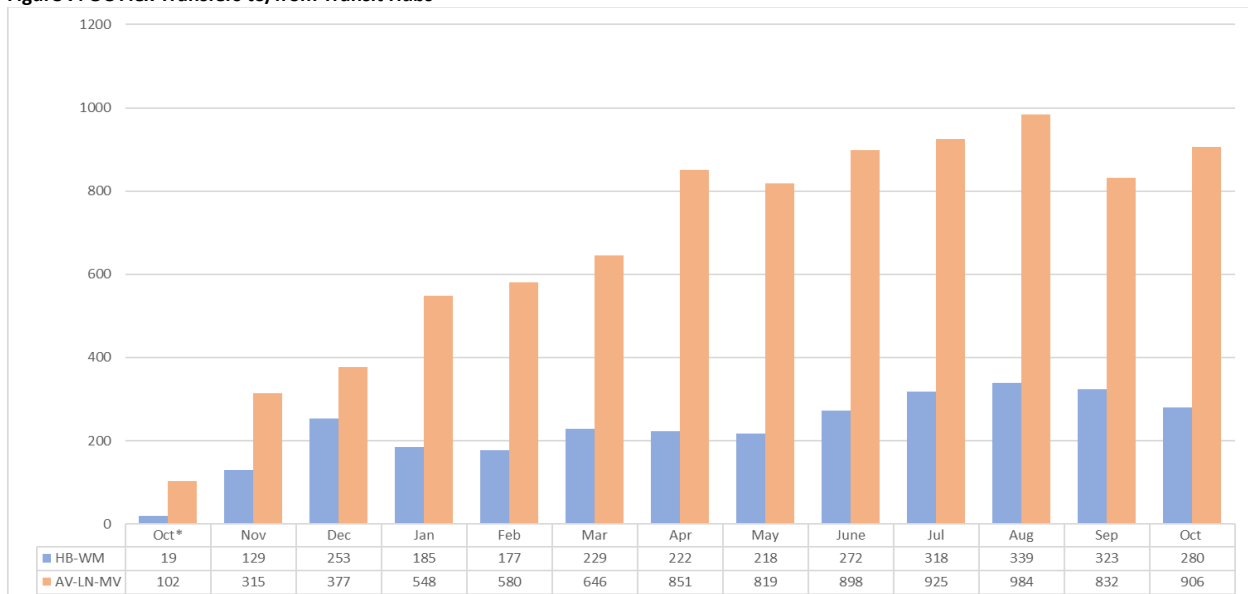
Figure 6: OC Flex Shared Trip by Month



Connecting Transit Trips

The key measure for connecting transit trips is the percentage of trips to/from transit hubs, namely the Goldenwest Transportation Center (GWTC) and the Laguna Niguel-Mission Viejo (LN-MV) Metrolink Station. The transfers by zone show more transfer activity to or from the Metrolink station in the Orange zone while the rate in the Blue zone is much lower, indicating a lower transfer rate.

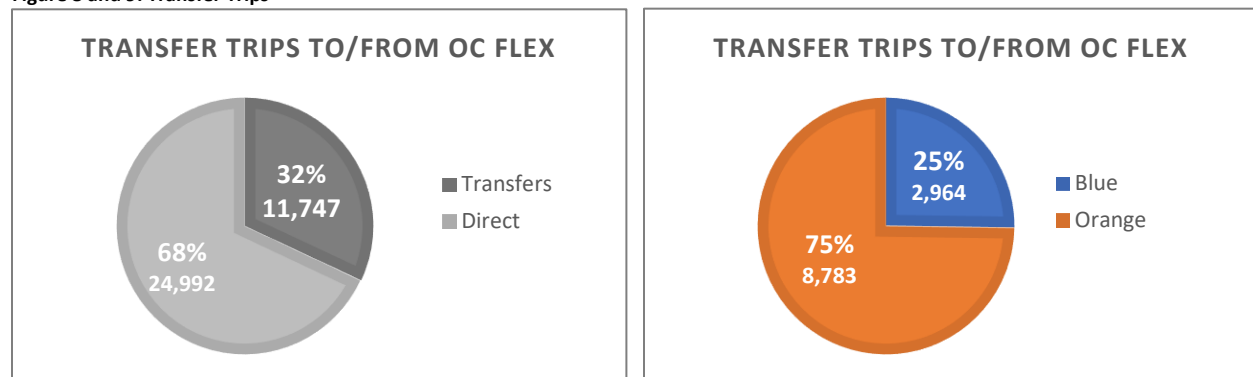
Figure 7: OC Flex Transfers to/from Transit Hubs



Riders connecting to or from OC Flex at GWTC are generally transferring from OC Bus routes. Those riders connecting to and from OC Flex at the LN-MV Metrolink station are assumed to be generally transferring from the regional rail system, though there is a measurable amount of OC Bus transfer activity. The performance target for trips to transit hubs is 25 percent. Of the 36,740 riders through the review period, 11,747 trips were transfers to or from the transit hubs, a rate of 32 percent (Figure 8).

The comparative transfer rate by zone shows that 75 percent of all OC Flex transfers occur in the Orange zone; for each transfer in the Blue zone, three transfers are made in the Orange zone (Figure 9).

Figure 8 and 9: Transfer Trips



Customer Satisfaction

The metric for customer satisfaction was to reach an 85 percent passenger satisfaction level by the end of the first year of service. Based on two customer satisfaction surveys of all OC Flex riders, the service has met and maintained its customer satisfaction goal for the first year of service. A total of 89 percent of respondents to a January 2019 customer satisfaction survey reported that they were “likely to extremely likely” to recommend OC Flex to a friend or colleague (127 respondents). In a following August 2019 survey, those “likely to extremely likely” to recommend OC Flex had increased to 91 percent of the 197 survey respondents. In addition to overall service feedback, OC Flex riders are also prompted to rate each OC Flex trip on a “five-star” score. Of the more than 8,700 ride ratings received from October 2018 to October 2019, 95 percent of the trip scores received have been five stars.

Figure 10: OC Flex Performance: Through the First 12 Months

Board Adopted Goals (Measures)	Target	Performance*	Goal Met?
Productivity (Boardings per Revenue Vehicle Hour)	6	2.33	X
Cost Effectiveness (Subsidy per Boarding)	\$9.00	\$20.14	X
Shared Rides (% of Bookings sharing a vehicle, groups)	25%	37.2%	✓
Connecting Transit Trips (% of transfer trips)	25%	32%	✓
Customer Satisfaction – (by survey) (% “likely”/“very likely” to recommend service)	85%	91%	✓

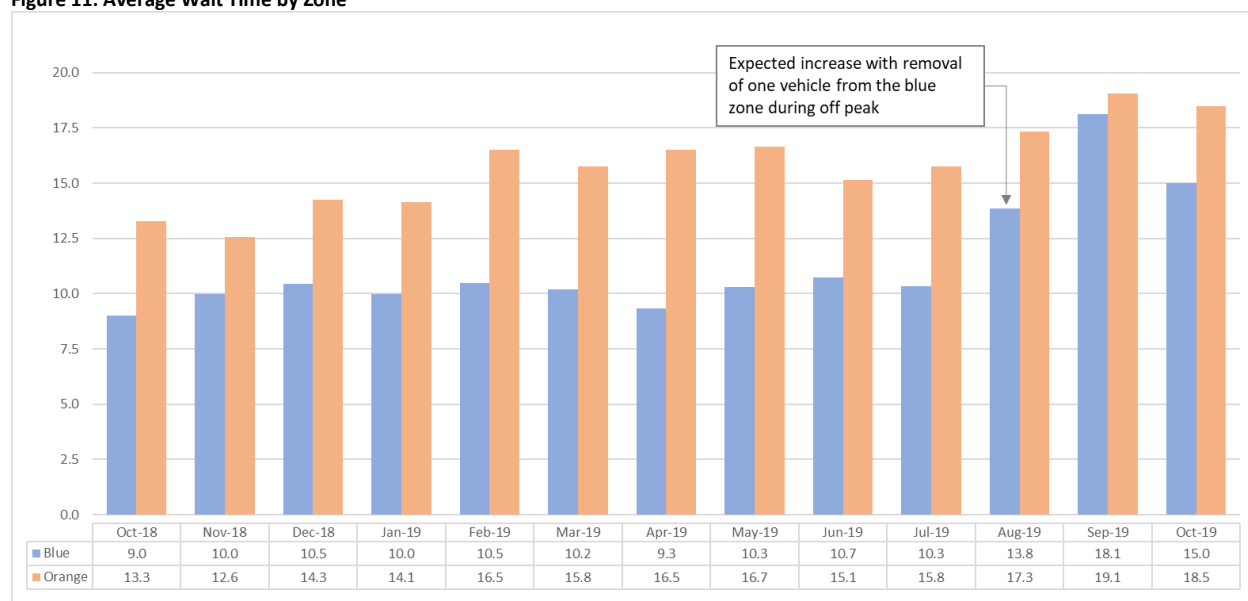
* Performance for October 2019

Other Measures: Customer Experience

Wait Time

A general objective of the OC Flex microtransit pilot is to attract riders who consider traditional transit to be inconvenient or unavailable. Based on a customer survey conducted during the initial planning, the parameters of the service were set to achieve an average wait time of 15 minutes. As of October 2019, the overall average wait time after a rider books an OC Flex trip is over 17 minutes. At the zone level, the average wait time in the Blue Zone was 15 minutes, while the wait time in the Orange Zone is more than 18 minutes, increases of 50 percent and 32 percent, respectively since March 2019. The increase in wait time is attributed to the increase in demand while resources (vehicles) have remained constant. In August 2019, due to low demand, the resources in the Blue zone were reduced to one vehicle all day and an additional vehicle was added to the Orange Zone during the weekday peak periods.

Figure 11: Average Wait Time by Zone



Travel Time

Though shared rides are a primary goal, the in-vehicle time of the customer is tracked to be kept to a minimum in order to meet the customer preference for fast and direct service. Through the first twelve months, the average trip time is approximately 10 minutes. As with wait time, there is a difference at the zone level, with the Blue Zone averaging 10 minutes of in-vehicle time and the Orange Zone averaging 13.8 minutes of in-vehicle time.

ADJUSTMENTS DURING THE 12 MONTHS

An advantage of a pilot service is the ability to implement minor adjustments to service allowing for a more comprehensive evaluation while meeting the customer needs. Over the last six months of service (April 2019 - October 2019) OCTA staff, continued working with the service contractor and technology vendor, to explore various strategies to improve performance. Since many of the strategies discussed required implementation times beyond October 2019, only operational adjustments and extended marketing promotions were made as discussed below.

Vehicle Deployment

Under the operating agreement, the contractor provides up to two vehicles (one in each zone) as necessary to accommodate increased passenger demand during peak periods. To meet the growing demand during the peak period in the Orange Zone, a fourth vehicle was deployed daily during the weekday peak. This adjustment required pulling a vehicle from the Blue zone which had low productivity. The impact of this change includes improved productivity in the Blue zone and helped meet the increasing number of trips requested during the peak in the Orange Zone. The use of toll-road transponders to allow use of CA-73 in the Orange Zone also improved routing and trip times.

Marketing/Promotions

To create awareness of and interest in riding OC Flex, OCTA has conducted ongoing, targeted marketing and outreach campaigns since the service inception. Highlights of the marketing programs included a comprehensive launch campaign including direct mail, business and community outreach, special events, and digital and outdoor advertising that reached nearly 200,000 people. In addition, OCTA partners with 25 businesses which offer discounts to OC Flex customers. Targeted promotions have included incentives to induce ridership during lower-demand time periods such as holidays and weekends. This included a holiday promotion to students, shoppers, and families, as well as a discounted fare promotion for groups with two or more riders during weekends. As a result of these promotions, more than 380 group-ride weekend passes were sold between February and December 24, 2019.

In addition to participating in community events to promote OC Flex, OCTA continues to market the OC Flex to area businesses such as hotels, auto dealerships, and medical complexes to encourage their patrons to use the OC Flex as a transportation option to and from their businesses. More than 80 of the free ride codes were redeemed from these marketing efforts.

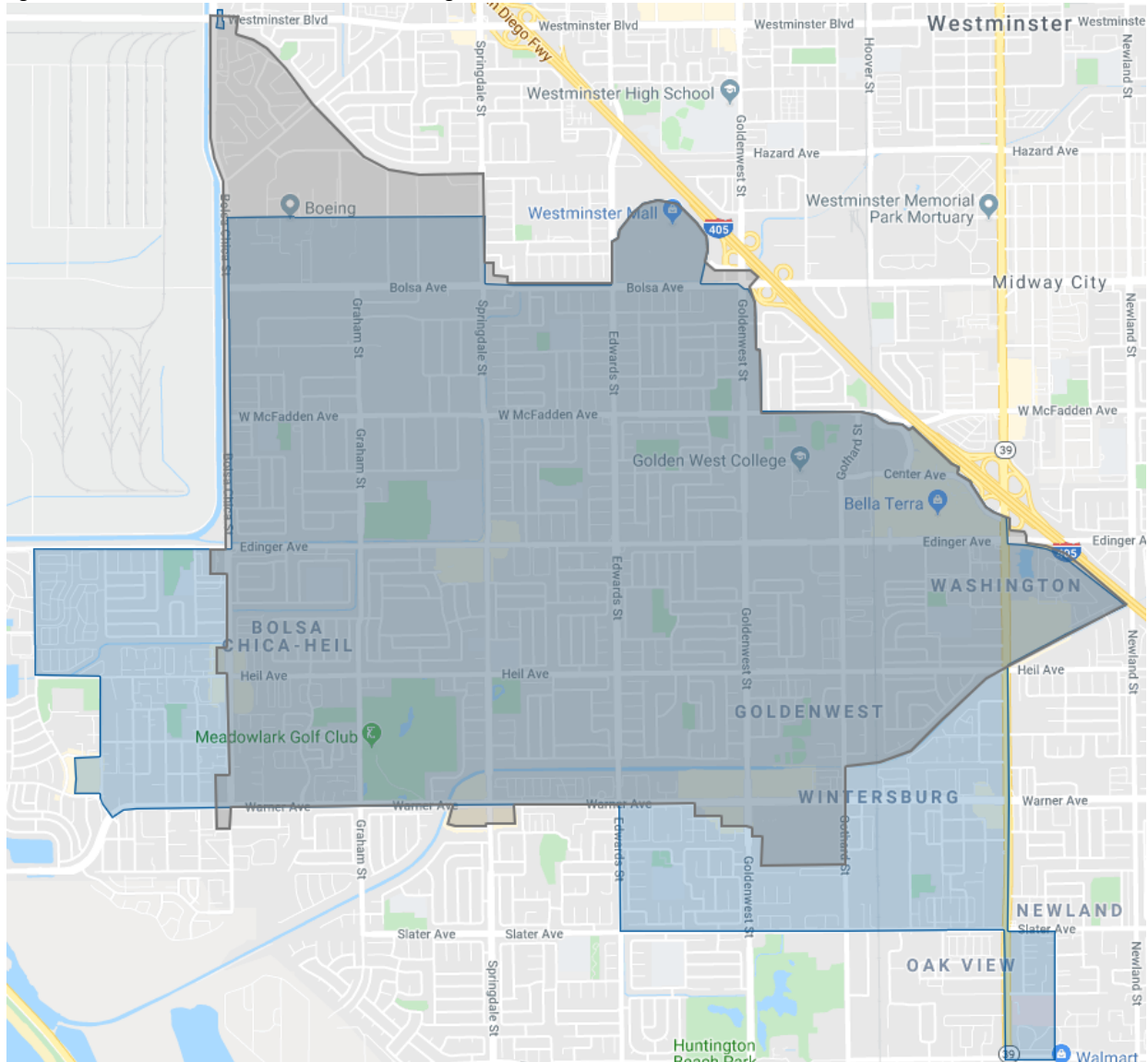
NEXT STEPS – OC FLEX 1.5

Through 12 months of service, the OC Flex microtransit pilot performance has been well received by customers and is exceeding three of the five performance targets and trending favorably in the remaining two. Given these trends, OCTA staff is recommending an extension of the OC Flex microtransit pilot program to October 2020. The intent of the extension is to maintain service continuity, test the strategies considered to improve performance, and allow time for the procurement of a new service contract beyond October 2020 as approved. The strategies include minor changes to the zone boundaries, operational adjustments, pass considerations, and promotions.

Zone Changes

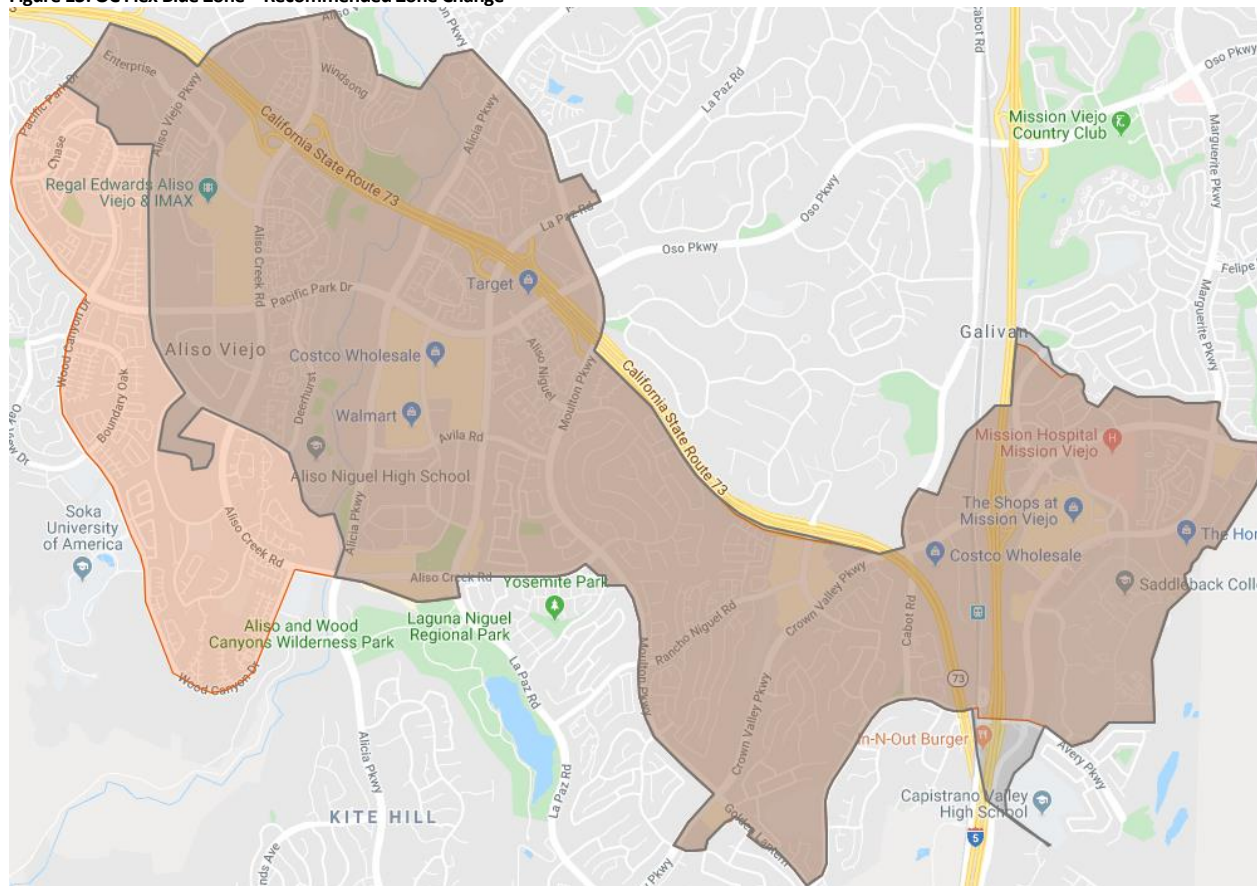
Based on geographic information systems analysis of trip activity and home-work trips, notable concentrations of trip activity in areas adjacent to the existing zones show potential for increased ridership. These findings, coupled with a high volume of customer requests to expand the zone with the same resources, slight modifications to both zones are recommended. Figures 12 and 13 show the proposed modifications extending to adjacent areas and include additional points of interests and high trip generators.

Figure 12: OC Flex Blue Zone – Recommended Zone Change



Changes to the Blue zone boundary include adding high-density trip areas west of the zone and south to Slater Avenue while removing the area north of the Boeing facility and other small areas at the edges due to low activity. A transfer point to OC Bus service (Routes 60 and 560) at Westminister Boulevard will be retained. The zone size increases by one square mile, from approximately 6.5 square miles to 7.5 square miles.

Figure 13: OC Flex Blue Zone – Recommended Zone Change



Changes to the Orange Zone boundary include adding a high-density trip area west of the zone and adjacent to the SOKA University Campus while removing the area south of Avery Parkway that includes Capistrano Valley High School. The Orange Zone size will also increase slightly by one square mile, from approximately 6.2 square miles to 7.2 square miles.

Operational Adjustments

To improve productivity while maintaining service quality, the span of service hours will be adjusted based on utilization. OC Flex service on Fridays and Saturdays will no longer operate until 11:00 p.m. due to very low ridership. OC Flex service will operate from 6:00 a.m. to 9:00 p.m. on weekdays and from 9:00 a.m. to 9:00 p.m. on weekends. To maintain or improve service response time, the number of virtual stops, or predetermined pick-up points, will be increased, and in anticipation of the success of the proposed growth strategies, the second vehicle will be restored to the Blue Zone during peak service hours.

Fares and Passes

To encourage group riders, the existing “50 Percent Off” weekend promotion for two to four riders will be available on all days. Since the promotion was initially launched in February of 2019, 366 promotional passes were purchased. To improve trip grouping at the Metrolink Station, a program for Metrolink passengers will be introduced. The “Train Buddies” program will allow Metrolink riders to use a single transfer pass for multiple riders resulting in a higher grouping rate and more efficient operation. To increase ridership, changes to fare media allowed on OC Flex include other prepaid OC passes. During the initial pilot period, only the OC Bus Day Pass was accepted for free transfer to the OC Flex service. The purpose was to avoid overwhelming

the service given the limited capacity and the inability to implement a variable pricing structure. After the initial pilot period, the trends indicate there is capacity to allow free transfers to OC Flex for passengers with OC Bus 30-day, OC Express, and Express passes. To ensure that the current resource level for OC Flex is not inundated, the acceptance of the additional prepaid OC Bus passes will be implemented for a limited time. The intent of these changes is to encourage group rides and increase ridership.

Promotions

The robust marketing for the OC Flex service will continue. The intent of the marketing activities for the extended pilot period will be to create awareness of the upcoming changes to OC Flex and increase ridership. Promotional campaigns and activities will target residents and businesses in the added areas and continue to position OC Flex as a viable, convenient connection from OC Bus and Metrolink services. Actions include reaching out to inactive account holders and providing a “free-ride” incentive to try the service, gathering feedback from non-users through survey, and promoting the service enhancements via in-person meetings and promotional materials.

SUMMARY

Through 12 months of operation, the performance of the OC Flex microtransit pilot project has been well received and customer satisfaction is high. Of the five Board-approved performance metrics, three have reached the respective targets, and the remaining two, though below their respective targets, are moving in the right direction. With the staff recommendation to continue to operate the pilot through October 2020, several strategies are set for implementation to improve performance during the extended period. These strategies include slightly expanding the existing zones and pricing changes to increase ridership, implementing operational adjustments to improve productivity, and marketing activities to create awareness of the OC Flex options available with the proposed changes. Additionally, as the current operating contract expires in October 2020, staff will be engaged in procurement activities for a new contractor for the OC Flex service. The complete set of the upcoming changes can be implemented by mid-February 2020. Staff will continue to provide quarterly updates on the performance of the OC Flex microtransit pilot and the changes as implemented.