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PLANS AND PROGRAMS COMMITTEE
WEDNESDAY, APRIL 22, 2020, 9:00 A.M.

GUIDANCE FOR PUBLIC ACCESS TO THE PLANS & PROGRAMS COMMITTEE MEETING

MEETING ACCESSIBLE VIA ZOOM AT: https://us04web.zoom.us/j/73650166460

TELECONFERENCE

Dial: 1 669 900 6833
Meeting ID: 736 5016 6460

This meeting is being conducted in accordance with Governor Newsom's Executive Orders N-25-20, N-29-20 and N-35-20

There will be no physical location for this meeting. Members of the public wishing to participate via teleconference, can do so by dialing the following number: 1 669-900-6833, Meeting ID: 736 5016 6460. If you wish to make public comment, call the number above during the meeting or submit your comments in writing to BoardSecretary@omnitrans.org by Tuesday, April 21, 2020 at 5:00 p.m. Written comments will be read into the record. If you wish to address the board during the meeting, you must mute your phone until called upon by the Chair to speak. If you do not wish to speak, please silence/mute your device during the meeting.

Any member of the public requiring a reasonable accommodation to participate in this meeting in light of this announcement shall contact the Board's Secretary prior to April 21, 2020 at 5:00 p.m. The Board Secretary's telephone number is 909-379-7110 (voice) or 909-384-9351 (TTY).

A. CALL TO ORDER
1. Pledge of Allegiance
2. Roll Call

B. ANNOUNCEMENTS/PRESENTATIONS
1. Next Committee Meeting: July 22, 2020

C. COMMUNICATIONS FROM THE PUBLIC

This is the time and place for the general public to address the Board for items that are not on the agenda. In accordance with rules applicable to meetings of the Plans & Programs Committee, comments on items not on the agenda and on items on the agenda are to be limited to a total of three (3) minutes per individual.

D. POSSIBLE CONFLICT OF INTEREST ISSUES

Disclosure – Note agenda items contractors, subcontractors and agents, which may require member abstentions due to conflict of interest and financial interests. Board Member abstentions shall be stated under this item for recordation in the appropriate item. N/A

Posted: April 16, 2020

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PLANS AND PROGRAMS COMMITTEE
WEDNESDAY, APRIL 22, 2020, 9:00 A.M.

Posted: April 16, 2020

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1700 W. Fifth St.
San Bernardino, CA 92411
909-379-7100
www.omnitrans.org

ITEM # E1

PLANS AND PROGRAMS COMMITTEE
JANUARY 22, 2020 MINUTES

A. CALL TO ORDER

The Plans & Programs Committee Meeting was called to order by Committee Chair Penny Lilburn at 9:00 a.m., January 22, 2020.

COMMITTEE MEMBERS PRESENT
Mayor Pro Tem Penny Lilburn, City of Highland – Committee Chair
Council Member Ron Dailey, City of Loma Linda
Council Member Cynthia Moran, City of Chino Hills – Via Teleconference
Supervisor Janice Rutherford, County of San Bernardino
Council Member Sam Spagnolo, City of Rancho Cucamonga
Mayor John Dutrey, City of Montclair

COMMITTEE MEMBERS NOT PRESENT
Mayor Deborah Robertson, City of Rialto
Council Member Alan Wapner, City of Ontario

LEGAL COUNSEL
Steve DeBaun, Legal Counsel

OMNITRANS ADMINISTRATIVE STAFF PRESENT
Erin Rogers, Interim CEO/General Manager
Trischelle Baysden, Director of Rail
Shawn Brophy, Director of Operations
Jeremiah Bryant, Director of Strategic Development
Alex Chen, Interim Director of Information Technology
Nicole Ramos, Interim Director of Marketing
Janice Kuhn, Marketing Specialist
Aaron Moore, Director of Special Transportation Services
Suzanne Pfeiffer, Director Human Resources
Art Torres, Director of Procurement
Don Walker, Director of Finance
Melissa Castillo, Customer Service Manager
Victor Cuate, Business Intelligence Analyst
Anna Jaiswal, Development Planning Manager
Maurice Mansion, Treasury Manager

B. ANNOUNCEMENTS/PRESENTATIONS

There were no announcements.

C. COMMUNICATION FROM THE PUBLIC

There were no communications from the public.

D. POSSIBLE CONFLICT OF INTEREST ISSUES

There were no Conflicts of Interest Issues

E. PUBLIC HEARING

1. Close Public Hearing – *ConnectForward* Service Adjustments

   Committee Chair Lilburn opened the Public Hearing. There were no Public Comments.

   M/S (Spagnolo/Dutrey) that closed the Public Hearing concerning the Proposed Service Changes in the *ConnectForward* Plan, held at 9:00 a.m. Wednesday, January 22, 2020, at the Omnitrans Metro Facility, 1700 West Fifth Street, San Bernardino, CA 92411. Roll call vote was taken and the Motion was passed unanimously by Members present.

   Director of Strategic Development, Jeremiah Bryant, provided a brief background on the item as detailed in the staff report. He provided information regarding the number of meetings held to date and the comments received regarding the proposed service changes. Mr. Bryant noted that the only significant feedback received in a formal manner was related to the City of Yucaipa. He explained that some residents have requested additional service and for service to be extended beyond the City boundary. Additionally, he explained that they have expressed their displeasure with the proposed reductions, particularly regarding the cuts to weekend service. Interim CEO/General Manager, Erin Rogers, provided additional information regarding the service in Yucaipa and its impact to the Access Program.

   Mr. Bryant informed that customers impacted by the changes would receive information regarding alternatives available and information regarding the public meetings.

   The Committee engaged in a robust discussion regarding the study and had several questions regarding the service impacts to the community in Yucaipa and at-large. Mr. Bryant and Ms. Rogers responded to the Committee's questions.

   Mr. Bryant advised that this item would also be presented to the Board at its February 5th Board Meeting.

F. DISCUSSION ITEMS

1. Approve Plans & Programs Committee Minutes – October 23, 2019

   M/S (Dutrey/Dailey) that approved the Committee Minutes of October 23, 2019. Roll call vote was taken and the motion was passed unanimously by Members present.

2. Receive and Forward to the Board of Directors, West Valley Connector Update

   Director of Strategic Development, Jeremiah Bryant, provided a brief background on this item as detailed in the staff report.

   Member Dailey had some questions regarding the grant management for this project. Interim CEO/General Manager, Erin Rogers provided additional information regarding how both local and federal grants are managed collaboratively between Omnitrans and SBCTA. He also had some questions regarding the roles and responsibilities of each Agency related to this project. Ms. Rogers reviewed those roles and responsibilities.

   The Committee received and forwarded this item to the Board.

3. Receive and Forward to the Board of Directors, Inland Empire Annual Survey Report

   Interim Director of Marketing, Nicole Ramos, provided a brief background on this item as detailed in the staff report.

   Vice Chair Dutrey asked how the survey participants are selected. Ms. Ramos responded that this is a random survey and provided additional details about how the survey is conducted.

   The Committee received and forwarded this item to the Board.

4. Receive and Forward to the Board of Directors, ABBG Customer Satisfaction Survey of Omnitrans

   Business Intelligence Analyst, Victor Cuate, provided a brief background on this item as detailed in the staff report.

   The Committee engaged in a robust discussion regarding safety and lighting at bus stops. There was also some discussion regarding emergency phone numbers and other resources for the public in case of an emergency.

   The Committee received and forwarded this item to the Board.

F. REMARKS AND ANNOUNCEMENTS

There were no announcements

H. ADJOURNMENT

The Plans & Programs Committee meeting adjourned at 9:49 a.m. The next Committee Meeting is scheduled Wednesday, April 22, 2020 at 09:00 a.m., with location posted on the Omnitrans website and at Omnitrans' San Bernardino Metro Facility.

Prepared by:

_____

Araceli Barajas, Sr. Executive Asst. to the CEO
Clerk of the Board

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1700 W. Fifth St.
San Bernardino, CA 92411
909-379-7100
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ITEM # E2

DATE: April 22, 2020

TO: Committee Chair Penny Lilburn and
Members of the Plans and Programs Committee

THROUGH: Erin Rogers, Interim CEO/General Manager

FROM: Connie Raya, Director of Maintenance

SUBJECT: **ZERO-EMISSION BUS ROLLOUT PLAN**

FORM MOTION

Receive and forward to the Board of Directors Omnitrans Zero-Emission Bus Rollout Plan.

BACKGROUND

The California Air Resource Board's (CARB) Innovative Clean Transportation (ICT) regulation requires all public transit agencies in the State of California to transition from conventional buses (compressed natural gas, diesel, etc.) to zero-emission buses (battery-electric or fuel cell electric) by 2040. The regulation requires all large agencies operate only zero-emission (ZE) buses by 2040.

The Rollout Plan is considered a living document and is meant to guide the implementation of ZEB fleets and help transit agencies work through many of the potential challenges and explore solutions.

The Rollout Plan must include a procurement schedule which details how the Agency plans to be 100 percent ZEB compliant by 2040, a schedule for infrastructure, a plan to train its employees, and identification of potential funding sources. In addition, the Rollout Plan must also be approved by the transit agency's governing body through the adoption of a Resolution, prior to submission to CARB.

Omnitrans must comply with the following schedule under the ICT regulation:

- **July 1, 2020** – Board-approved Rollout Plan and Resolution must be submitted to CARB
- **January 1, 2023** – 25 percent of all new bus purchases must be ZE
- **January 1, 2026** – 50 percent of all new bus purchases must be ZE
- **January 1, 2029** – 100 percent of all new bus purchases must be ZE
- **January 1, 2040** – 100 percent of fleet must be ZE
- **March 2021 – March 2050** – Annual compliance report due to CARB

WSP's Role. In response to the ICT Regulation, SBCTA issued a contract task order to WSP USA, Inc. to conduct an analysis to determine the best path forward for the transit operators in San Bernardino County. The goals of the analysis were three-fold:

1 Determine the most cost-effective approach to a 100 percent ZEB fleet

2 Determine the capital improvements required to support ZEB fleets

3 Provide a financing and purchasing strategy to acquire ZEBs in accordance with the ICT regulation

As part of the Master Plan, WSP prepared a County-wide Roll-Out Plan. The study focused on fleet conversion using a collaborative procurement approach towards compliance that involved all Transit Operators within the County; this included Omnitrans, Victory Valley Transit Authority (VVTA), Mountain Transit, Morongo Basin Transit Agency (MBTA), and the City of Needles.

Since the ICT regulation does not require smaller agencies to submit a Rollout Plan until 2023, Omnitrans was the only transit operator in the county that will be submitting a Rollout Plan to CARB by the July 1, 2020 deadline for large transit operators. This plan, prepared by WSP, in collaboration with Omnitrans, will be submitted to CARB prior to July 1, 2020.

Omnitrans Role. The Zero-Emission Rollout Plan is a living document. During the course of the next several years, zero-emission bus technology is expected to significantly improve, Omnitrans service requirements will change, vehicle charging infrastructure will evolve, and Omnitrans will prepare an updated Zero-Emission Rollout Plan and annual compliance report to CARB beginning in March 2021.

CONCLUSION

Receive and forward to the Board of Directors Omnitrans Zero-Emission Bus Rollout Plan.

ER:CR

Attachment A – Omnitrans Zero-Emission Bus Rollout Plan

OMNITRANS

ZERO-EMISSION BUS ROLLOUT PLAN

WSP USA Inc.

862 E. Hospitality Lane, Suite 350
San Bernardino, CA 92408
wsp.com

April 8, 2020

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1 ROLLOUT PLAN SUMMARY

AGENCY BACKGROUND

Transit Agency's Name	Omnitrans
Mailing Address	1700 W. Fifth Street San Bernardino, CA 92411
Transit Agency's Air District	South Coast Air Quality Management District
Transit Agency's Air Basin	South Coast Air Basin
Total number of buses in Annual Maximum Service[1]	135
Urbanized Area	Riverside – San Bernardino
Population of Urbanized Area[2]	1,932,666
Contact information of general manager, chief operating officer, or equivalent	Erin Rogers General Manager 909.379.7100 Erin.rogers@omnitrans.org
Rollout Plan Content	
Is your transit agency part of a Joint Group[3]	No
Is your transit agency submitting a separate Rollout Plan specific to your agency, or will one Rollout Plan be submitted for all participating members of the Joint Group?	N/A
Please provide a complete list of the transit agencies that are members of the Joint Group (optional)	N/A
Contact information of general manager, chief operating officer, or equivalent staff member for each participating transit agency member	N/A
Does Rollout Plan have a goal of full transition to ZE technology by 2040 that avoids early retirement of conventional transit buses?	Yes
Rollout Plan Development and Approval	
Rollout Plan's approval date	05/06/20
Resolution No.	321-2020
Is copy of Board-approved resolution attached to the Rollout Plan?	Yes (Appendix A)
Contact for Rollout Plan follow-up questions	Connie Raya Director of Maintenance 909.379.7183 Connie.raya@omnitrans.org
Who created the Rollout Plan?	Consultant
Consultant	WSP

[1] The ICT regulation defines "Annual Maximum Service" (13 CCR § 2023(b)(3)) as the number of buses in revenue service that are operated during the peak season of the year, on the week and day that maximum service is provided but excludes demand response buses.
[2] As last published by the Census Bureau before December 31, 2017
[3] The ICT regulation defines a Joint ZEB Group or Joint Group (13 CCR § 2023.2) as two or more transit agencies that choose to form a group to comply collectively with the ZEB requirements of section 2023.1 of the ICT regulation.

2 EXECUTIVE SUMMARY

2.1 INTRODUCTION

In accordance with the California Air Resource Board's Innovative Clean Transportation regulation, the following report serves as Omnitrans' Rollout Plan to transition its bus fleet to 100 percent zero-emission (ZE) by 2040.

2.2 BACKGROUND

2.2.1 CALIFORNIA AIR RESOURCE BOARD'S INNOVATIVE CLEAN TRANSPORTATION REGULATION

The California Air Resource Board's (CARB) Innovative Clean Transportation (ICT) regulation requires all public transit agencies in the State of California to transition from conventional buses (compressed natural gas, diesel, etc.) to zero-emission buses (battery-electric or fuel cell electric) by 2040. The regulation requires a progressive increase of an agency's new bus purchases to be zero-emission buses (ZEBs) based on their fleet size. By 2040, CARB expects all transit agencies in the state to be operating only ZEBs.

To ensure that each agency has a strategy to comply with the 2040 requirement, the ICT regulation requires each agency, or a coalition of agencies ("Joint Group"), to submit a ZEB Rollout Plan ("Rollout Plan") before purchase requirements take effect. The Rollout Plan is considered a living document and is meant to guide the implementation of ZEB fleets and help transit agencies work through many of the potential challenges and explore solutions. Each Rollout Plan must include a number of required components (as outlined in the Rollout Plan Guidelines) and must be approved by the transit agency's governing body through the adoption of a resolution, prior to submission to CARB.

Omnitrans must comply with the following requirements under the ICT regulation [4]:

- **July 1, 2020 –** Board-approved Rollout Plan must be submitted to CARB
- **January 1, 2023 –** 25 percent of all new bus purchases must be ZE
- **January 1, 2026 –** 50 percent of all new bus purchases must be ZE
- **January 1, 2029 –** 100 percent of all new bus purchases must be ZE
- **January 1, 2040 –** 100 percent of fleet must be ZE
- **March 2021 – March 2050 –** Annual compliance report due to CARB

2.2.2 ZERO-EMISSION BUS TECHNOLOGIES

According to the ICT regulation, a ZEB is a bus with zero tailpipe emissions and is either a battery-electric bus (BEB) or a fuel cell electric bus (FCEB).

BEBs depend on a system to store and retrieve energy much as cars and trucks need fuel. BEBs have multiple battery packs that power an electric motor, resulting in ZE. BEBs, similar to many other battery-powered products,

4 The ICT defines a "Large Transit Agency" as an agency that operates in the South Coast or the San Joaquin Valley Air Basin and operates more than 65 buses in annual maximum service or it operates outside of these areas, but in an urbanized areas with a population of at least 200,000 and has at least 100 buses in annual maximum service. A "Small Transit Agency" is an agency that doesn't meet the above criteria. Each class of transit agency has its own purchase requirements.

must be charged for a period of time to be operational. Currently, BEBs can be charged at the facility, on the route (opportunity charging) and via a number of connectors and dispensers.

A FCEB uses hydrogen and oxygen to produce electricity through an electrochemical reaction to power the propulsion system and auxiliary equipment. This ZE process has only water vapor as a byproduct. FCEB can replace diesel or compressed natural gas (CNG) fuel buses without significant changes to operations and service and functions as a resilient backup alternative in case of natural disaster. The fuel cell is generally used in conjunction with a battery, which supplements the fuel cell's power during peak loads and stores electricity that is recaptured through regenerative braking, allowing for better fuel economy.

While both of these technologies provide ZE benefits, the feasibility and viability of their application is largely based on an agency's service and operational parameters.

2.2.3 OMNITRANS' EXISTING ZERO-EMISSION BUS EFFORTS

Omnitrans is already embracing the prospects of a ZE future and is taking multiple steps to not only meet the requirements of CARB's ICT regulation, but to also provide a cleaner and more sustainable future for the communities that it serves. These efforts include:

- The technical feasibility and viability of Omnitrans adopting and operating an all-ZEB fleet was analyzed in the San Bernardino County Transportation Authority's (SBCTA) *San Bernardino Countywide Zero Emission Bus Study* (herein after referred to as "Master Plan"). The Master Plan serves as a guiding document for the five transit agencies within San Bernardino County (Mountain Area Regional Transit, Morongo Basin Transit Authority, Omnitrans, City of Needles, and Victor Valley Transit Authority) to transition to all-ZEB fleets by 2040. Omnitrans (and other agencies) were instrumental in the Master Plan's development and success. Agencies supported the development of the plan by knowledge sharing, facilitating site visits, and reviewing and providing feedback on the plan and technical documentation.
- In February 2020, Omnitrans purchased four BEBs that are expected to be delivered and operational in 2021.
- Omnitrans is actively engaged with Southern California Edison (SCE) to take advantage of their Charge Ready Program which will provide support on the planning, design, installation, and funding of BEB-supporting infrastructure.
- Omnitrans' future West Valley Connector, a planned bus rapid transit (BRT) project, is currently being developed and Omnitrans, in partnership with SBCTA and WSP, is analyzing the technical feasibility of utilizing ZEBs to serve the line.

2.3 OMNITRANS' PATH TO ZERO-EMISSION BUS ADOPTION

The decision on whether to adopt BEBs and/or FCEBs is largely based on availability, applicability, and costs. Due to rapidly changing technologies, it's highly likely that strategies to adopt ZEBs today may need to be adapted and revised to account for advancements and changes in ZEB technology in the future. The plans presented in the Rollout Plan are subject to alterations and may not necessarily reflect the ultimate implementation strategy of Omnitrans. This Rollout Plan will serve as a guiding document for ZEB implementation, or as a baseline for subsequent studies and implementation towards ZEB adoption pursuant to the ICT regulation.

2.3.1 EXISTING CONDITIONS

Omnitrans is the largest and highest-ridership transit operator in San Bernardino County. Omnitrans served over 11.1 million riders in Fiscal Year 2018-2019, a substantially-higher total than any of the other San Bernardino County transit operators. Omnitrans was established in 1976 through a joint powers agreement, which now includes 15 cities and unincorporated parts of the county.

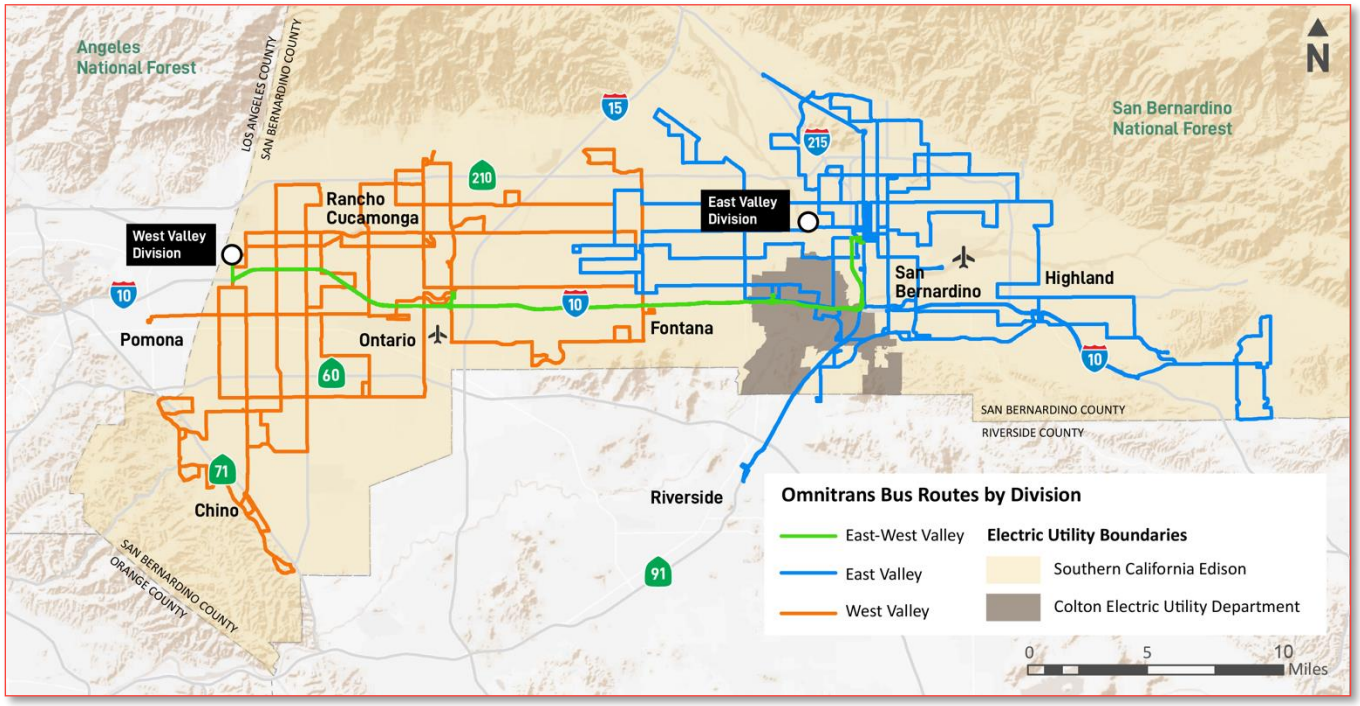
As of April 2020, Omnitrans directly operates 186 CNG-powered buses for fixed-route service. These buses are served by two divisions, the West Valley Division in Montclair, and the East Valley Division in San Bernardino. Table 2-1 summarizes the existing conditions of each division and Figure 2-1 presents the locations and associated routes of each division.

Table 2-1. Existing Conditions Summary

AGENCY	FACILITY	# BUSES	TYPES OF BUSES	FUEL TYPE
Omnitrans	West Valley	71	Standard	CNG
	East Valley	115	Standard; Articulated	CNG

Source: WSP, February 2020

Figure 2-1. Omnitrans Divisions and Routes



Source: WSP, February 2020

2.3.2 PROPOSED ZERO-EMISSION BUS STRATEGIES

Previous and current ZEB analyses have determined that at present, BEBs and supporting infrastructure is the ZEB technology that best meets the needs of Omnitrans for its purchasing and transition requirements pursuant to the ICT regulation.

Based on existing service needs and site configurations, overhead (plug-in and/or pantograph) chargers are proposed at both the West Valley and East Valley divisions. The proposed layout are based on utilizing a 150-kW DC charging cabinet in a 1:2 charging orientation (one DC charging cabinet energizes two separate dispensers/buses). This charger-to-dispenser ratio would meet the requirements to charge Omnitrans' fleet overnight and minimize peak electrical demand.

At this time, the space constraints of the division coupled with the full BEB buildout precludes the feasibility of onsite storage or generation of hydrogen. However, there is a possibility for offsite fueling with the proposed plan. There is also an opportunity to convert to primarily FCEBs, however, Omnitrans recent procurements of BEBs is being used as a baseline for a larger adoption of the technology. That said, Omnitrans remains open to FCEB integration as the technology and market continues to advance. Table 2-2 summarizes the agency's ZEB facility improvements.

Table 2-2. ZEB Strategies Summary

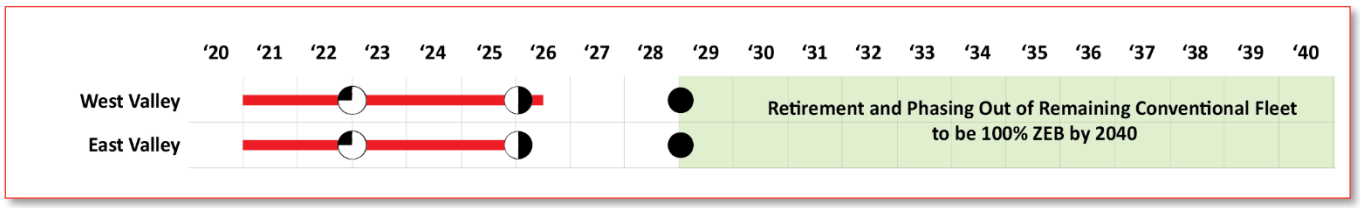
DIVISION	PROPOSED ZEB STRATEGY	BEB	# OF EXISTING BUSES	# OF BUSES SUPPORTED	# OF CHARGERS	# OF DISPENSERS	CHARGER RATING
West Valley	BEB	Overhead-Mounted; Plug-In/Pantograph	71	74	37	74	150 kW
East Valley	BEB	Overhead-Mounted; Plug-In/Pantograph	115	120	60	120	

Source: WSP, February 2020
Note: Chargers are based on a 1:2 ratio (i.e., one charger for two buses).

2.3.3 PHASING AND CONSTRUCTION

The process of integrating ZEBs into Omnitrans' fleet is broken down into a number of important tasks and phases related to construction of supporting facilities. The assumed approach is a design-bid-build strategy. Multiple requests for proposals need to be developed and put out for bid, with accompanying design and construction activities taking place. Utility upgrades, onsite (phased) construction, and other activities are expected to last approximately five years, for each division. Since ZEBs are not operational unless the facilities are in place, it is pertinent to meet construction deadlines because it has the ability to impact both service and ICT regulation compliance. It is assumed that buses can be procured 18 months before the conclusion of the facilities' construction. ICT regulation bus procurement requirements (percentage of new bus acquisitions) are indicated via Harvey Balls in 2023, 2026, and 2029. Figure 2-2 presents the construction schedule for each division and the various milestone purchase requirements pursuant the ICT regulation.

Figure 2-2. Summary of Omnitrans' Construction and Purchase Schedule



Source: WSP, February 2020

2.3.4 START-UP AND SCALE-UP ISSUES

Based on the Rollout Plan, Omnitrans will meet the purchase and reporting requirements pursuant to the ICT regulation. However, it should be noted that the plan assumes a number of factors for this to happen. For instance, it is assumed that existing range issues will be resolved by the time Omnitrans procures buses (i.e., each existing bus will be replaced at a 1:1 ratio). It is also assumed that funding is in place to construct and implement infrastructure in the allotted time.

The following briefly describes some of the challenges that Omnitrans must address or overcome in its adoption of an all ZEB fleet:

- **Operating conditions.** Omnitrans operates in extreme temperatures. Hot summer conditions, in particular, require air conditioning that can rapidly deplete batteries, and thus, range.
- **Range issues.** Omnitrans has many blocks that exceed current BEB *and* FCEB ranges. This means that Omnitrans will have to consider the following strategies to reduce or avoid service disruptions:
  - **Buy more buses.** This can assist with service requirements; however, more buses will require more chargers, more space at the division, and potentially higher utility costs.
  - **Opportunity charging.** This strategy could potentially reduce the costs (per bus) due to a smaller battery requirement, however, it would result in more capital infrastructure and utility costs.
  - **Service changes.** This would require the manipulation of block structure. While the riders may not notice the change, the agency will have to consider the potential impacts to operator and maintenance costs.
- **Technological adaptation.** With the 2040 deadline looming, it is difficult to anticipate future technological enhancements and changes, such as improved batteries and chargers. Slight changes in these technologies could improve bus ranges, in turn, reducing costs. Omnitrans has to be aware of these changes as it would be counterproductive to invest in technologies that will soon be outdated.
- **Costs.** Adoption of ZEBs has many benefits, including potential lifecycle cost savings. However, the investment required for capital and change management will be very expensive. Omnitrans will have to be creative with funding mechanisms and sources to ensure that the transition to ZEB will not be detrimental to its operations and service.
- **Market Production Factors.** The ICT regulation will put a lot of pressure on original equipment manufacturers (OEMs) to produce ZEBs at unprecedented rates. However, it is not only California that is interested in converting to ZEBs. These monumental policy changes will have a great impact on these transitions, however, it will also make it challenging to meet ZEB goals for Omnitrans if the supply of buses cannot meet demand.

2.3.5 NEXT STEPS

The process to transition to ZEBs should and will be iterative to minimize risk, but also to accommodate new developments in a rapidly evolving market. Omnitrans will use the information outlined in both the Rollout Plan and Master Plan to identify and further refine the following:

- **Determination of the proper mix of BEBs and FCEBs.** Both the Rollout Plan and the Master Plan address and analyze Omnitrans' unique operational conditions to determine paths forward toward 100 percent ZEB adoption. The recommendations contained herein address what the WSP team believes is the most feasible and cost-effective means of implementation. However, Omnitrans will have to re-address these issues and determine whether these recommendations regarding feasibility based on costs, service requirements, and availability have changed as Omnitrans transitions to ZEBs.
- **Address incomplete service blocks.** The WSP team's analysis has revealed that many blocks cannot be completed when considering BEBs and FCEBs, meaning, Omnitrans will have to determine if they're going to file exemptions (under ICT regulation), purchase additional buses, restructure service to suit technological limitations, or invest in opportunity charging. These choices are rooted in Omnitrans' policies and plans outside of ZEB considerations.
- **Costs refinement.** Construction, capital, operating, and maintenance costs vary based on a number of factors. It will be important to get an understanding of the up-front costs and lifecycle costs and savings of investing in ZEBs. The WSP team developed cost estimates (presented in the Master Plan) and Omnitrans will need to revisit these estimates to determine if pricing has changed and make implementation changes, such as changes in their purchasing schedules, accordingly.
- **Explore collaboration opportunities.** Whether purchasing vehicles via CalACT or strategizing on a joint agreement for opportunity charging, Omnitrans can continue to maximize their outcomes by engaging with other regional and local agencies. It is important for Omnitrans to continue to participate in groups such as the Zero-Emission Bus Resource Alliance (ZEBRA) working group, California Transit Association (CTA) and the state's chapter of the Association for Commuter Transportation (ACT), the American Public Transportation Association's (APTA) Bus Technology Committee, and other industry working groups.
- **Engage utilities.** Whether adopting BEBs or FCEBs, there is a good chance that the amount of power at the yard is either insufficient or needs to be adapted to these new technologies. While procuring buses and installing chargers may be relatively straightforward, the process and protocols associated with electrical enhancements on the utility side can be complex. Therefore, it is recommended that Omnitrans continues to engage with SCE to ensure that they can meet critical deadlines.
- **Consider pilot opportunities.** At this time, Omnitrans is able to commit to BEB and/or FCEBs. Since four BEBs are currently on order, it will be easy for Omnitrans to pilot and gauge the performance of a BEB on its routes. However, it may be of interest to engage FCEB OEMs and/or peer agencies that operate FCEBs to collaborate on a pilot project.

3 INTRODUCTION

In accordance with the California Air Resource Board's Innovative Clean Transportation regulation, the following report serves as Omnitrans' Rollout Plan to transition its bus fleet to 100 percent zero-emission (ZE) by 2040.

3.1 BACKGROUND

3.1.1 CALIFORNIA AIR RESOURCE BOARD'S INNOVATIVE CLEAN TRANSPORTATION REGULATION

The California Air Resource Board's (CARB) Innovative Clean Transportation (ICT) regulation requires all public transit agencies in the State of California to transition from conventional buses (compressed natural gas, diesel, etc.) to zero-emission buses (battery-electric or fuel cell electric) by 2040. The regulation requires a progressive increase of an agency's new bus purchases to be zero-emission buses (ZEBs) based on their fleet size. By 2040, CARB expects all transit agencies in the state to be operating only ZEBs.

To ensure that each agency has a strategy to comply with the 2040 requirement, the ICT regulation requires each agency, or a coalition of agencies ("Joint Group"), to submit a ZEB Rollout Plan ("Rollout Plan") before purchase requirements take effect. The Rollout Plan is considered a living document and is meant to guide the implementation of ZEB fleets and help transit agencies work through many of the potential challenges and explore solutions. Each Rollout Plan must include a number of required components (as outlined in the Rollout Plan Guidelines) and must be approved by the transit agency's governing body through the adoption of a resolution, prior to submission to CARB.

According to the ICT regulation, each agency or Joint Group's requirements are based on its classification as either a "Large Transit Agency" or a "Small Transit Agency". The ICT defines a Large Transit Agency as an agency that operates in the South Coast or the San Joaquin Valley Air Basin and operates more than 65 buses in annual maximum service or it operates outside of these areas, but in an urbanized area with a population of at least 200,000 and has at least 100 buses in annual maximum service. A Small Transit Agency is an agency that doesn't meet the above criteria.

Omnitrans is categorized as a "Large Transit Agency" under the ICT regulation and must comply with the following requirements [5]:

- **July 1, 2020 –** Board-approved Rollout Plan must be submitted to CARB
- **January 1, 2023 –** 25 percent of all new bus purchases must be ZE
- **January 1, 2026 –** 50 percent of all new bus purchases must be ZE
- **January 1, 2029 –** 100 percent of all new bus purchases must be ZE
- **January 1, 2040 –** 100 percent of fleet must be ZE
- **March 2021 – March 2050 –** Annual compliance report due to CARB

5 The ICT defines a "Large Transit Agency" as an agency that operates in the South Coast or the San Joaquin Valley Air Basin and operates more than 65 buses in annual maximum service or it operates outside of these areas, but in an urbanized areas with a population of at least 200,000 and has at least 100 buses in annual maximum service. A "Small Transit Agency" is an agency that doesn't meet the above criteria. Each class of transit agency has its own purchase requirements.

3.1.2 OMNITRANS

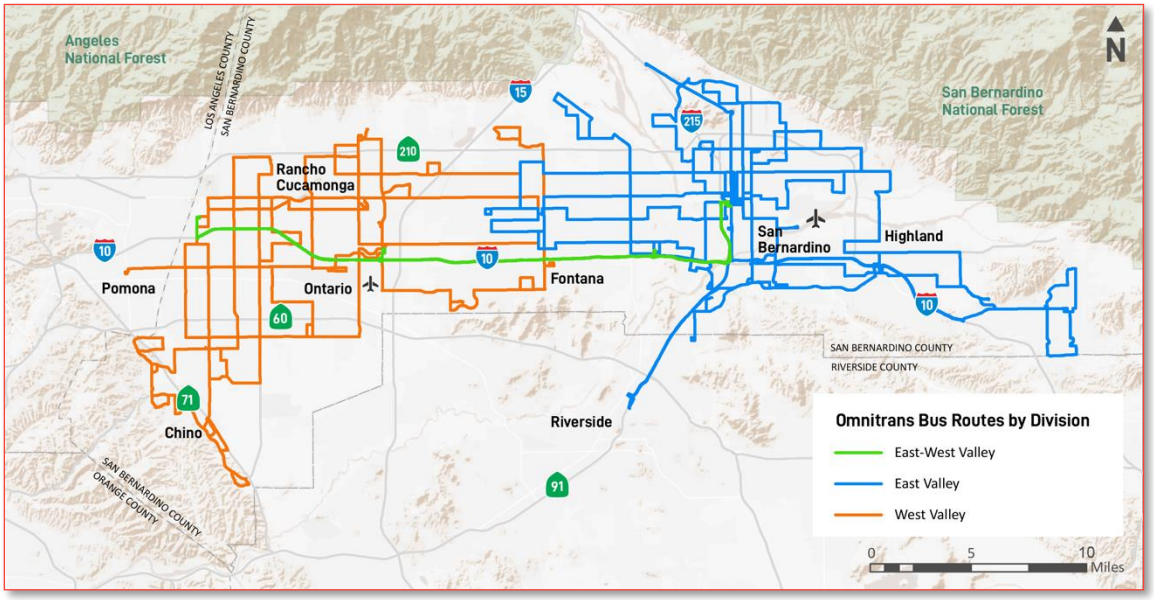
Omnitrans is the largest and highest-ridership transit operator in San Bernardino County. Omnitrans served over 11.1 million riders in Fiscal Year 2018-2019, a substantially-higher total than any of the other San Bernardino County transit operators. Omnitrans was established in 1976 through a joint powers agreement, which now includes 15 cities and unincorporated parts of the county.

SERVICE AREA

Omnitrans serves the urbanized area referred to as the San Bernardino Valley, south of the San Bernardino Mountains, which has a population of approximately 1.7 million and includes the cities of Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Redlands, Rialto, San Bernardino, Upland, Rancho Cucamonga, Yucaipa, and portions of unincorporated areas of the County of San Bernardino. The service area includes Ontario and San Bernardino airports, several Metrolink and Amtrak stations, as well as connections to several other regional bus transit authorities: Foothill Transit, Riverside Transit Authority, Mountain Transit (MT), Victor Valley Transit Authority (VVTA), and Pass Transit (Beaumont and Banning); and a connection with Sunline (Palm Springs area) will begin in May 2020.

Omnitrans' service is organized into two divisions: East Valley Division, which serves the cities of Colton, Fontana, Grand Terrace, Highland, Loma Linda, Redlands, Rialto, San Bernardino, Yucaipa and unincorporated areas of the County; and West Valley Division, which serves the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, Upland, and unincorporated areas of the County. There are also two smaller division locations that Omnitrans currently uses primarily for paratransit vehicles.

Figure 3-1. Omnitrans Service Area



Source: WSP, February 2020

ENVIRONMENTAL FACTORS

The San Bernardino Valley area is typical of Southern California in terms of environmental conditions. With a hot-summer Mediterranean climate, average high temperatures that peak in August at 96 degrees; December is the

coldest average month with a 41-degree average low. During the fall, the region is particularly affected by the Santa Ana winds, bringing higher temperatures and increased risk of wildfires.

SCHEDULE AND OPERATIONS

Omnitrans operates 34 bus routes across four types of service: standard intercity routes, BRT, freeway express, and local shuttles (Table 3-1). Routes in Omnitrans' system connect at several transit centers, which are off-street facilities, and transfer centers, which are on-street stops with multiple routes. The transit centers Omnitrans uses include: Chaffey College Transit Center, Chino Transit Center, Fontana Transit Center (Metrolink), Montclair Transit Center (Metrolink), Pomona Transit Center (South Pomona Metrolink), Riverside Metrolink, San Bernardino Transit Center (Metrolink), and Yucaipa Transit Center. Omnitrans does not own or operate any transit center or transfer center with the exception of the San Bernardino Transit Center.

Table 3-1. Omnitrans Summary of Routes

COMMUNITY	ROUTES
Bloomington	19, 29
Chino	81, 83, 84, 85, 88, OmniGo 365
Chino Hills	88, OmniGo 365
Colton	1, 15, 19, 22, 215, 290
Fontana	10, 14, 15, 19, 20, 29, 61, 66, 67, 82
Grand Terrace	OmniGo 325
Highland	3, 4, 15
Loma Linda	sbX Green Line, 2, 8, 19, OmniGo 325
Mentone	8
Montclair	66, 85, 88, 290
Ontario	61, 80, 81, 82, 83, 86, 290
Pomona	61
Rancho Cucamonga	61, 66, 67, 80, 81, 82, 85
Redlands	8, 15, 19, 208
Rialto	10, 14, 15, 19, 22
San Bernardino	sbX Green Line, 1, 2, 3 & 4, 5, 7, 8, 10, 11, 14, 15, 208, 215, 290
Upland	66, 83, 84, 85
Yucaipa	8, 19, 208, OmniGo 308/309/310

Source: WSP, February 2020

The vast majority of Omnitrans' routes operate daily. Most routes operate with limited service on Saturday, and service is further limited on Sundays. All but two standard routes operate on Saturday; a select few do not operate on Sunday.

All single- and double-digit routes are standard intercity routes. These routes range from seven to 30 thirty miles in route length. The 200-level routes are freeway express routes, serving Interstate 10 and Interstate 215 corridors with limited stops; these routes are also generally longer than the intercity routes. Lastly, the 300-level routes are OmniGo shuttles, which use smaller vehicles to travel short, circular routes in the communities of Yucaipa, Grand Terrace, and Chino Hills.

Omnitrans' only current BRT service is the sbX Green Line, which travels along the E Street Corridor between Cal State University San Bernardino and Loma Linda University and Medical Center. Five of the sbX Green Line's 16

miles are in dedicated bus lanes. Omnitrans has a planned future system of 10 BRT routes; SBCTA is currently leading the final design of the West Valley Connector bus rapid transit line, expected to start operation in 2024, and will provide service in the cities of Montclair, Ontario, Pomona, and Rancho Cucamonga. See Section 3.2.3 for additional details.

3.2 EXISTING ZEB PLANS, PROCUREMENTS, AND PROJECTS

3.2.1 SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY'S COUNTYWIDE ZERO-EMISSION BUS STUDY

In April 2019, SBCTA issued a contract task order to WSP USA, Inc. to conduct an analysis to determine the best path forward for the City of Needles, MT, Morongo Basin Transit Authority (MBTA), Omnitrans, and VVTA, respective of the ZEB transition pursuant to the ICT regulation.

The goals of the analysis are three-fold for each agency:

1. Determine the most cost-effective approach to a 100 percent ZEB fleet
2. Determine the capital improvements required to support ZEB fleets
3. Provide a financing and purchasing strategy to acquire ZEBs in accordance with the ICT regulation

The overall results of WSP's analysis will be presented in two documents, a Countywide Rollout Plan and the *San Bernardino Countywide Zero Emission Bus Study* (herein after referred to as "Master Plan"), The Rollout Plan serves as each agency in San Bernardino's compliance document per CARB's ICT regulation[6]. The Master Plan is a preliminary planning document that supports each agency in its implementation goals.

The Master Plan is considered a living document and is iterative in nature due to rapid technological development and changes within the ZEB market.

3.2.2 EXISTING ZERO-EMISSION BUS PROCUREMENTS

In February 2020, Omnitrans awarded a purchase order to New Flyer of America, Inc. for the provision of four 40-foot BEBs (expected delivery in 2021). To support these vehicles, Omnitrans is actively engaged with the utility, Southern California Edison (SCE). SCE's Charge Ready Program will provide the agency with support on the planning, design, installation, and funding of BEB-supporting infrastructure at Omnitrans' East Valley and West Valley divisions.

3.2.3 WEST VALLEY CONNECTOR

The West Valley Connector is a BRT project that proposes limited stops, providing speed and quality improvements to the public transit system within the corridor. Among the numerous benefits, BRT provides premium transit with 10-15-minute headways, Transit Signal Priority, dedicated lanes, enhanced stations and integration with other bus routes.

The project seeks to improve mobility in the San Bernardino Valley with an enhanced, state-of-the-art BRT system to address the growing traffic congestion and the projected one million increase in population by 2030. Omnitrans,

6 Omnitrans was analyzed separately since as a "Large Transit Agency" they are required to submit in 2020. The four other agencies included in the Countywide Rollout Plan are not required to submit a Rollout Plan until 2023, therefore, they may opt to file individually (using their respective section in the Countywide Rollout Plan), or receiving individual Board approvals to submit as a "Joint Group".

in partnership with SBCTA and WSP, is currently analyzing the feasibility of utilizing BEBs or FCEBs to serve the West Valley Connector.

3.3 ROLLOUT PLAN APPROACH

Pursuant to the ICT regulation, the Rollout Plan identifies a strategy for Omnitrans to procure and operate all ZEBs by 2040. Due to the rapidly-evolving nature of ZEB technologies, it is possible that the findings and recommended approaches in this report will be outdated when it is time for implementation. For that reason, several generous assumptions were included to account for technological advancements. For example, current BEB technology is not sufficient to meet the range requirements of all of Omnitrans' service blocks. To account for potential future improvements, the Rollout Plan assumes that battery technology will eventually meet the requirements of Omnitrans, therefore, a 1:1 (conventional bus to ZEB) replacement ratio was used to account for future ZEB bus procurements and facility enhancements. This approach ensures that Omnitrans is planning for the future and not conforming to or purchasing infrastructure that will only be compatible with existing technologies. To account for potential fleet increases, facilities are planned and designed for maximum build-out to ensure that enough ZEB infrastructure is in place for fleet expansion.

The *Start-Up and Scale-Up Challenges* section identify the barriers that may prohibit or make these full-buildout scenarios difficult to achieve. These challenges will serve as the springboard for refinements and strategies in the next stages of implementation.

3.4 ROLLOUT PLAN PURPOSE AND STRUCTURE

In accordance with CARB's Rollout Plan Guidance, the Rollout Plan provides an overview of several key components to Omnitrans' ZEB transition, including, but not limited to, fleet acquisitions, facilities and infrastructure enhancements, implementation schedule, personnel training, and funding considerations.

The Rollout Plan is structured as follows:

1. **Introduction** *Details the ICT regulation and provides background on Omnitrans.*
2. **Fleet and Acquisitions** *Presents the existing fleet and procurement plan for buses through 2040.*
3. **Facilities and Infrastructure Modifications** *An overview of each division and the proposed ZEB modifications.*
4. **Disadvantaged Communities** *Discusses the disadvantaged communities (DACs) that will be impacted by the ZEB transition.*
5. **Workforce Training** *Provides background on personnel training requirements for ZEB implementation.*
6. **Costs and Funding Opportunities** *Discusses rough order of magnitude costs and potential funding sources.*
7. **Start-Up and Scale-Up Challenges** *Provides an understanding of challenges and issues that will need to be mitigated or addressed towards ZEB adoption.*

4 FLEET ACQUISITIONS

The following section provides an overview of Omnitrans' existing bus fleet, justification for ZEB technology, and a ZEB procurement schedule through 2040.

4.1 EXISTING BUS FLEET

As of April 2020, Omnitrans directly operates 186 compressed natural gas (CNG)-powered buses for fixed-route service. Table 4-1 presents a summary of Omnitrans' existing bus fleet.

Table 4-1. Summary of Omnitrans' Existing Bus Fleet

MANUFACTURER	SERIES	FUEL TYPE	LENGTH	IN SERVICE YEAR	BUS TYPE	NUMBER OF BUSES
New Flyer	C40LF*	CNG	40'	2003	Standard	4
	XN40	CNG	40'	2009	Standard	27
		CNG	40'	2011	Standard	17
		CNG	40'	2012	Standard	20
		CNG	40'	2014	Standard	16
		CNG	40'	2015	Standard	15
		CNG	40'	2016	Standard	13
		CNG	40'	2018	Standard	24
		CNG	40'	2019	Standard	23
	XN60	CNG	60'	2012	Standard	14
		CNG	60'	2018	Standard	1
					Total Buses	**186**

Note: *There are an additional 12 C40LF's that serve as Omnitrans' contingency fleet.
Source: Omnitrans, April 2020

4.2 ZEB TECHNOLOGY APPLICATION

Past and ongoing ZEB analysis for Omnitrans' operations has determined that BEB adoption is the ZEB technology that best meets the needs of Omnitrans for their purchasing and transition requirements pursuant to the ICT regulation. However, Omnitrans remains open to FCEB integration as the technology and market continues to advance. The following provides an overview of overarching specifications for each ZEB type that Omnitrans is considering in their transition.

4.2.1 BATTERY-ELECTRIC BUS

Omnitrans' future BEBs are expected to have specifications that are compatible with the Society of Automotive Engineers' (SAE) J1772 (plug-in) and SAE J3105 (pantograph) charging standards. By supporting both standards, Omnitrans' buses will have flexibility in charging in multiple layouts. The plug-in standard will allow buses to charge at the base (overnight) and while being serviced, and the pantograph standard will allow buses to charge at the base and at potential on-route charging stations. The roof-mounted charging rails that are associated with the pantograph standard will allow a BEB to access high-power charging (200-600 kW) (Figure 4-2).

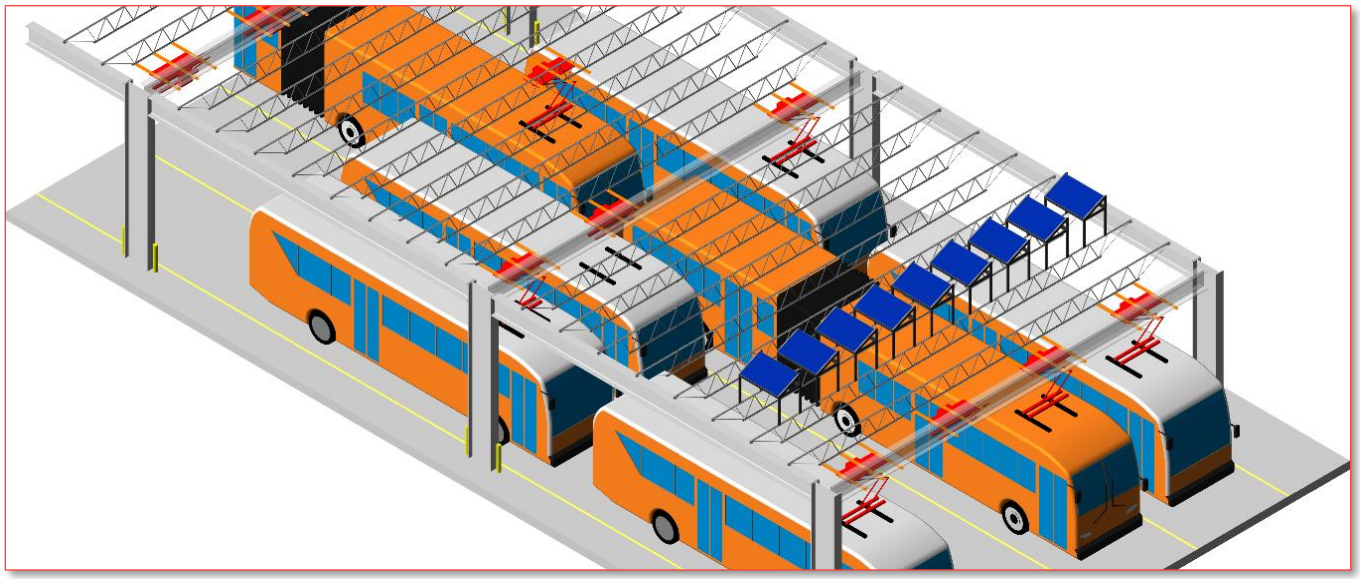
Based on Omnitrans' existing service needs and site configurations, it is recommended that an overhead-mounted (pantograph and/or plug-in) charging strategy be implemented to support BEBs at both West Valley and East Valley divisions. The dispensers will be supported by an overhead frame that will cover the surface of the bus parking tracks. This overhead strategy is due to space constraints at both divisions. The overhead frame can also support photovoltaic panels and electrical equipment and components (conduit, etc.).

The proposed facility layouts for each division are based on utilizing a 150-kW DC charging cabinet in a 1:2 charging orientation (one DC charging cabinet energizes two separate dispensers/buses). This charger to dispenser ratio maximizes space utility, reduces costs, and meets the requirements to charge the fleet during servicing and dwell time on the site while minimizing the peak electrical demand. However, Omnitrans is currently exploring other strategies that may require less power and space, such as a 1:3 charging orientation.

Inductive (wireless) charging for BEBs is also a future consideration, however, this technology is still very expensive, and has yet to be deployed on a large scale to prove its viability for fleet operations.

Based on current site circulation and configurations, all plug-in ports shall be at the rear of the bus. The following figures illustrated the various BEB connection types that Omnitrans is considering. Figure 4-1 presents a conceptual pantograph charger with supporting frame.

Figure 4-1. Overhead-Mounted Pantograph Charger



Note: The frame can also support plug-in dispensers, however, they will have to be situated above the rear of the bus to be compatible with some OEMs.
Source: WSP, March 2020

Figure 4-2. Inverted Pantograph and Charge Rails

Source: WSP, March 2020

4.2.2 FUEL CELL ELECTRIC BUS

For the specific routes which route-modeling has identified as not capable of being served by existing BEB technology, it is recommended that FCEBs be considered. If FCEBs are integrated into the fleet, they should be fueled at a future commercial or public hydrogen fueling station located in either Ontario or Chino. Based on the recommended BEB strategy, onsite storage or generation is infeasible due to space constraints, however, if plans are revised, onsite solutions may be deemed feasible.

On-site liquid storage (delivered by truck) is a consideration dependent upon space constraints. Alternatively, an on-site electrolyzer that generates hydrogen from water, could be used to eliminate the need to deliver hydrogen to the site. Note that while possible to self- generate, the available space at both Omnitrans' sites do not allow for a large enough electrolyzer to generate more hydrogen than could be used to fill four to six FCEBs, daily (assumption of 37 kilograms per bus at 350 bar).

Even with technical feasibility, there are a number of risks and potential community concerns that would need to be addressed and mitigated with both on-site hydrogen production and/or storage before integration.

4.3 PROCUREMENT SCHEDULE

In accordance with the ICT regulation, Omnitrans will prioritize ZEB purchases and progressively increase the percentage of ZEB purchases over time. Based on initial analysis, the last CNG bus is expected to be purchased in 2028. All new buses purchases are anticipated to be ZEB starting in 2029, in accordance with the ICT regulation.

Early retirement should not be an issue pursuant to the ICT regulation based on Omnitrans' assumed procurement schedule. However, if it becomes an issue, Omnitrans will deploy a number of strategies to ensure that buses fulfill their "useful life". One potential strategy is to place newly acquired buses on Omnitrans' longest (distance) blocks of service. This will ensure that these buses meet their distance-based useful life requirement more rapidly.

Omnitrans' existing fleet consists of 186 buses. Assuming a 1:1 replacement ratio, each existing bus will eventually be replaced with an equivalent BEB or FCEB. However, the number of ZEBs required may increase with time based on service requirements.

Table 4-2 presents a summary of Omnitrans' anticipated bus procurements through 2040. Years 2023, 2026 and 2029 are highlighted because these indicate when Omnitrans' new purchases should be 25 percent, 50 percent, and 100 percent ZEB, respectively.

Table 4-2. Summary of Omnitrans' Future Bus Purchases (through 2040)

		ZERO-EMISSION BUSES				CONVENTIONAL (CNG) BUSES			
YEAR	TOTAL BUSES	NUMBER	PCT.	BUS TYPE	FUEL TYPE	NUMBER	PCT.	BUS TYPE	FUEL TYPE
2020*	**4**	4	100%	40'	BEB	0	0%	-	-
2021	**0**	0	0%	-	-	0	0%	-	-
2022	**0**	0	0%	-	-	0	0%	-	-
2023	**0**	0	0%	-	-	0	0%	-	-
2024	**0**	0	0%	-	-	0	0%	-	-
2025	**31**	8	26%	40'	BEB	23	74%	40'	CNG
2026	**34**	17	50%	40'/60'	BEB	17	50%	40'/60'	CNG
2027	**0**	0	0%	-	-	0	0%	-	-
2028	**16**	8	50%	40'	BEBs/FCEBs	8	50%	40'	CNG
2029	**15**	15	100%	40'	BEBs/FCEBs	0	0%	-	-
2030	**13**	13	100%	40'	BEBs/FCEBs	0	0%	-	-
2031	**0**	0	0%	-	BEBs/FCEBs	0	0%	-	-
2032	**29**	29	100%	40'/60'	BEBs/FCEBs	0	0%	-	-
2033	**23**	23	100%	40'	BEBs/FCEBs	0	0%	-	-
2034	**0**	0	0%	-	BEBs/FCEBs	0	0%	-	-
2035	**0**	0	0%	-	BEBs/FCEBs	0	0%	-	-
2036	**0**	0	0%	-	BEBs/FCEBs	0	0%	-	-
2037	**8**	8	100%	40'	BEBs/FCEBs	0	0%	-	-
2038	**17**	17	100%	40'/60'	BEBs/FCEBs	0	0%	-	-
2039	**23**	23	100%	40'	BEBs/FCEBs	0	0%	-	-
2040	**33**	33	100%	40'/60'	BEBs/FCEBs	0	0%	-	-

Note: CNG buses assumed to be replaced after 14 years in service and BEBs assumed to be replaced after 12 years in service.
In February 2020, Omnitrans procured their first four BEBs
Source: WSP, February 2020

4.3.1 ZEB RANGE REQUIREMENTS AND COSTS

Omnitrans operates 334 blocks during weekdays, 296 of which are longer than 100 miles. Omnitrans' longest block is approximately 410 miles. Depending on operational parameters, including operator behavior, ambient temperature, traffic, and ridership, these ranges may be unattainable or difficult to achieve on certain days. Based

on existing routes, Omnitrans will only be able to support BEB on a 1:1 ration until 2028 (pending advancements in the technology). If vehicle manufacturers cannot meet these range requirements after 2028, Omnitrans will consider a number of strategies to supplement onboard battery storage, including additional buses, midday charging, battery/charging management systems, and solar and battery storage. As mentioned, in future ZEB applications, Omnitrans will also consider FCEBs, especially if battery technology doesn't advance as forecasted.

4.3.2 ZEB CONVERSIONS

Conventional bus conversions to ZEB technologies are not currently being considered at this time. However, Omnitrans will remain open to conversions if they are deemed financially feasible and align with ZEB adoption goals.

5 FACILITIES AND INFRASTRUCTURE MODIFICATIONS

The following section details the planned charging strategies, infrastructure, detailed division improvements, and construction and phasing schedule.

5.1 METHODOLOGY

Since ZEB technology continues to evolve, it is difficult to commit to a costly strategy that may become outdated or obsolete in the future. However, it is also pertinent to ensure that strategies are future-ready. For this reason, the recommended facility and infrastructure modifications are based on what can physically be accommodated at each division. This provides Omnitrans with a ceiling for what can physically be constructed and worst-case scenario for electric utility planning. Since service changes and bus movements may occur multiple times a year, by establishing a full-build scenario, Omnitrans can optimize, and tailor strategies based on existing (or anticipated) service.

As previously mentioned, the current path forward for Omnitrans is all BEB, however, the analysis of FCEB feasibility is ongoing. In anticipation of future FCEB integration, a hydrogen storage footprint was established at each division where vehicles and space can support it.

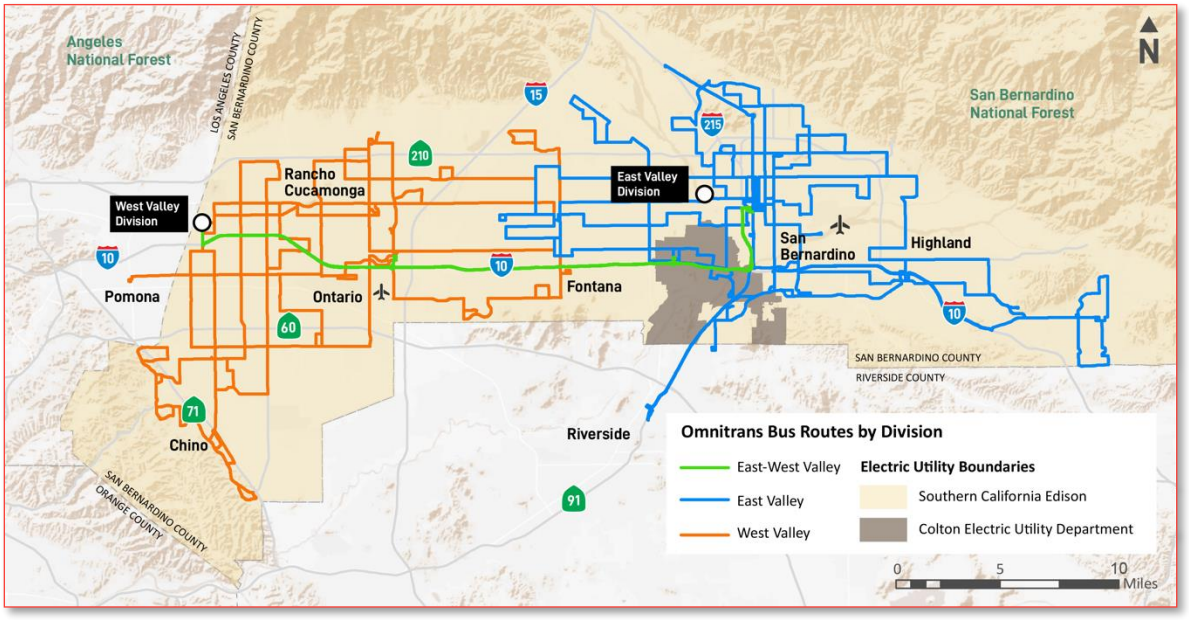
5.2 FACILITY MODIFICATIONS

Omnitrans' transition to ZE technologies will require a number of modifications and changes to existing infrastructure and operations. This will include the enhancements and expansions of electrical equipment, additional electrical capacity, and the installation of BEB chargers, dispensers, and other components. These modifications will occur at Omnitrans' two divisions, the West Valley Division in City of Montclair, and the East Valley Division in the City of San Bernardino. Opportunity for on-route charging is also being considered and being analyzed at potential transit centers and layover locations.

Based on existing service needs and site configurations, overhead (plug-in and/or pantograph) chargers are proposed at both the West Valley and East Valley divisions. The proposed layout are based on utilizing a 150-kW DC charging cabinet in a 1:2 charging orientation (one DC charging cabinet energizes two separate dispensers/buses). This charger to dispenser ratio would meet the requirements to charge Omnitrans' fleet overnight and minimize peak electrical demand.

Figure 5-1 illustrates the location of Omnitrans' divisions and Table 5-1 summarizes the modifications and schedule of each division.

Figure 5-1. Omnitrans' Base Locations



Source: WSP, February 2020

Table 5-1. Omnitrans' Division Summary

GARAGE	ADDRESS	MAIN FUNCTIONS	PLANNED INFRASTRUCTURE	SERVICE CAPACITY	UPGRADES REQ'D?	TIMELINE
West Valley	4748 E. Arrow Hwy. Montclair, CA	Fueling, Storage, and Maintenance	Overhead Pantograph or Plug-In Charging	74 buses	Yes	2021-2026
East Valley	1700 W. 5th St. San Bernardino, CA	Fueling, Storage, and Maintenance	Overhead Pantograph or Plug-In Charging	120 buses	Yes	2021-2026

Source: WSP, February 2020

The following sections detail the process of each division's transition from existing conditions to BEB-readiness.

5.2.1 WEST VALLEY DIVISION

EXISTING CONDITIONS

West Valley Division is located at 4748 E. Arrow Highway in the City of Montclair. The division has an assumed maximum bus capacity of 74 buses with electrical service provided by SCE.[7]

Currently, 71 CNG-powered buses are stored, maintained, fueled, and serviced at the division. The division includes the following separate structures and major site areas: A one-story maintenance building, one-story transportation building, stand-alone wash building, stand-alone fuel building, an employee parking lot on Arrow Highway, and a CNG compressor yard with support equipment.

Buses enter from Arrow Highway and park in the yard before undergoing service. Individual buses are then taken by nightly service staff to the fuel lanes for fare retrieval and fueling before pulling forward to the bus wash lanes.

7 It is assumed that the West Valley Division is supported by a 12 KV line, which can support approximately 8.3 MW of peak power. It is likely that this circuit supports more than West Valley, though. In order to determine the specific amount of power available and the means to get it to the division, a method of service study needs to be conducted by SCE.

After fuel and wash, buses are circulated back into the bus parking tracks, parking in either herringbone or angled configurations. The interiors of the buses are cleaned during the fueling process. Once re-parked after nightly service, buses remain parked in-place until morning pull out unless a maintenance issue has been identified.

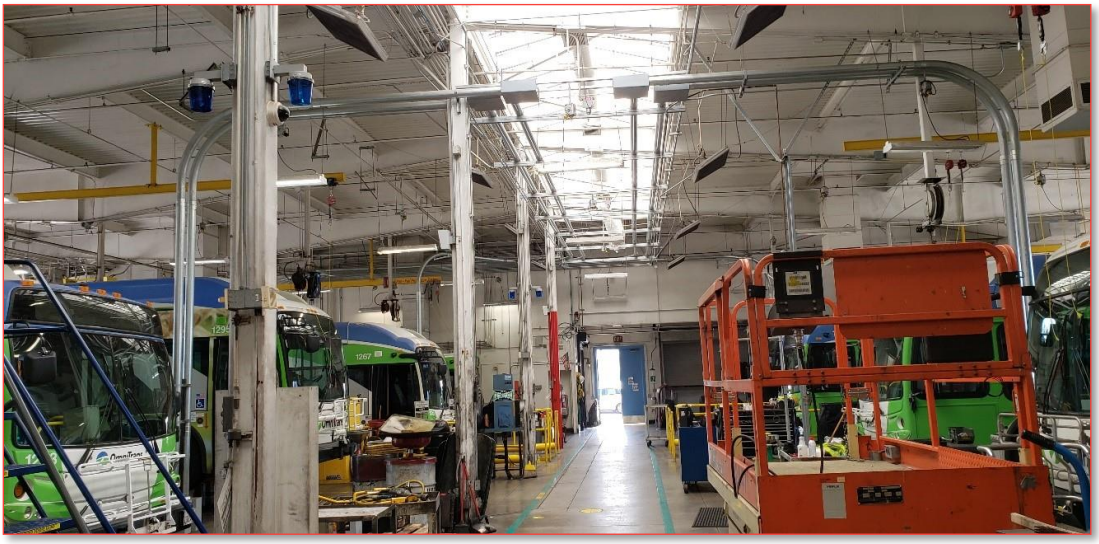
All bus parking tracks are approximately 13-feet wide and buses are assigned to specific spaces. Non-revenue vehicles (NRVs) are parked in a row of spaces along the western edge of the bus parking spaces. Additionally, battery electric NRV's are parked and charge along the eastern wall of the maintenance facility.

According to Omnitrans, a new overhead transformer and a 600-amp service meter along with two power cabinets and four depot charge boxes will be installed in the north west corner of the yard for the first four BEBs (expected delivery in 2021). This is part of the SCE Charge-Ready Transport program.

Figure 5-2. West Valley Division - Existing Conditions

Source: Google Earth, February 2020

Figure 5-3. West Valley Division's Maintenance Bays



Source: WSP, February 2020

PLANNED ZEB MODIFICATIONS

It is recommended that the West Valley division adopt an overhead platform-mounted retractor cord DC plug-in or overhead pantograph charging solution. With this approach, the West Valley division is capable of parking 74 buses (max capacity of the division) with 74 charging positions in a 1:2 charger to bus dispenser ratio. Ground-mounted charging cabinets and dispensers are not recommended for West Valley as they would create a significant reduction in bus parking capacity due to parking losses to accommodate ground-mounted charging equipment.

Table 5-2 summarizes the ZEB infrastructure planned at the West Valley division.

Table 5-2. West Valley Division Supporting Infrastructure Summary

DIVISION	CHARGING STRATEGY	# OF EXISTING BUSES	# OF BUSES SUPPORTED	# OF CHARGERS	# OF DISPENSERS	CHARGER RATING
West Valley	Overhead Plug-in or Pantograph	71	74	37	74	150 kW

Source : WSP, February 2020

The following BEB equipment and locations are proposed:

— 37 ground-mounted DC charging cabinets located at both ends of the proposed overhead support structures. Distribution to 74 retractor cord plug-in dispenser (or pantograph) charging positions mounted from overhead support structures in a new 45-degree track parking layout.

— Dispensers are located for connecting to the rear of the bus to reduce the length of support structure at the rear of the parking tracks in order to maintain bus turning clearances.

— The overhead support structure columns are to be placed every three to four tracks. These columns will also provide the mounting space for retractor cord controls to be installed to control each overhead dispenser's charging cable position for a plug-in option, or to support overhead mounted pantographs.

The plug-in charging dispensers (or pantographs) and charging cabinets will be served by the following electrical infrastructure:

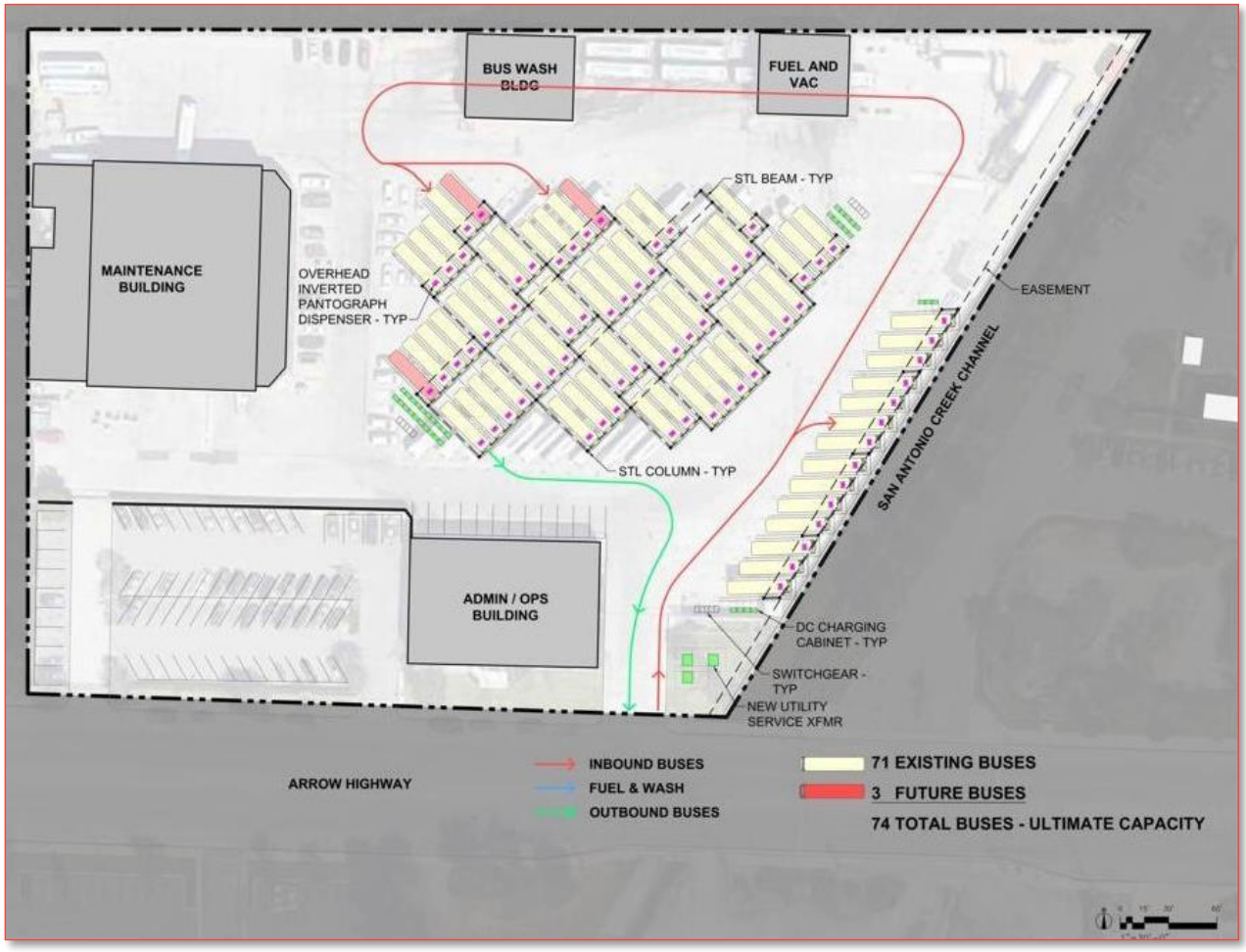
— Three medium voltage utility service transformers in a new utility yard in the open space south of the existing parking yard and east of the site entrance.

— Three sets of switchgear will be located near the proposed overhead support structures to reduce long-distance medium voltage conduit runs.

If FCEBs are to be integrated in the future (using the proposed configuration), it is recommended that offsite commercially available hydrogen fueling stations be utilized. Required clearances around liquid hydrogen storage exceed what the current site configuration is able to accommodate, making onsite hydrogen fueling infeasible at this time.

Figure 5-4 illustrates the West Valley Division at full build-out.

Figure 5-4. West Valley Division – Full ZEB Build-Out



Source: WSP, March 2020

PHASING AND CONSTRUCTION STRATEGY

The process of integrating ZEBs into Omnitrans' fleet is broken down into a number of important tasks and phases related to construction of supporting facilities. The assumed approach is a design-bid-build strategy. Multiple

requests for proposals (RFPs) need to be developed and put out for bid, with accompanying design and construction activities taking place. Utility upgrades, onsite (phased) construction, and other activities are expected to last approximately five years, for each division. This five years is a conservative estimate based on the amount of time it will take the utility to provide upgraded electrical equipment *outside* of the division. The onsite upgrades and construction of BEB supporting infrastructure can be done concurrently.

To minimize or avoid operational or service impacts, it is recommended that onsite construction be implemented in phases. This method essentially segments the yard and ensures that construction continues without completely shutting down the division.

Since ZEBs are not operational unless the facilities are in place, it is pertinent to meet construction deadlines because it has the ability to impact both service and ICT regulation compliance. It is assumed that buses can be procured 18 months before the conclusion of the facilities construction.

The following provides details on recommended phasing for the West Valley division.

PHASE 1

The recommended first phase of charger installation the for the West Valley Division is to install all of the in-ground conduit to route electrical service from the new electrical yard to seven charging cabinets with 14 overhead plug-in (or pantograph) dispensers mounted to the new overhead support structure on the eastern boundary of the yard.

PHASE 2

Phase 2 at West Valley will consist of yard trenching to distribute electrical service to the northern yard parking area and construct the overhead support structure over 30 bus positions and dispensers for an additional 20 charging positions.

PHASE 3

Phase 3 at West Valley will complete yard trenching to distribute to electrical service to the southern yard parking grouping and the remainder of the overhead support structure and remaining dispensers.

5.2.2 EAST VALLEY DIVISION

EXISTING CONDITIONS

East Valley Division is located at 1700 West 5th Street in the City of San Bernardino. The division has an assumed maximum bus capacity of 120 buses with electrical service provided by SCE.[8]

Currently, 115 CNG-powered buses are stored, fueled, and serviced at the division. The East Valley facility includes the following separate structures and major site areas: A two-story maintenance building, two-story transportation building, stand-alone wash building, stand-alone fuel building, an employee parking lot, and a CNG compressor yard with support equipment. Employee parking is on site in the employee parking lot along 5th Street or the satellite employee parking, which is off Medical Center Drive.

Buses enter from Medical Center Drive and park facing west in the yard before undergoing service. Individual buses are then taken by Omnitrans nightly service staff to the fuel lanes for fare retrieval and fueling before pulling forward to the bus wash lanes. After fuel and wash, buses are circulated back into the bus parking tracks and re-parked facing

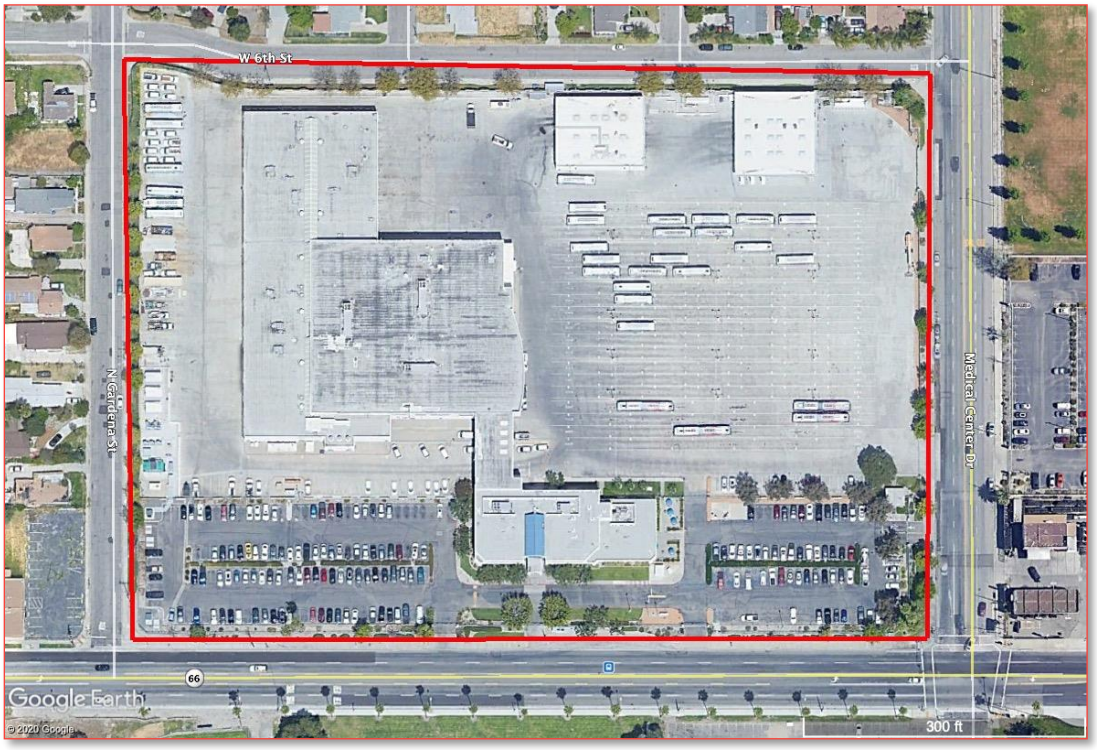
8 It is assumed that the West Valley Division is supported by a 12 KV line, which can support approximately 8.3 MW of peak power. It is likely that this circuit supports more than West Valley, though. In order to determine the specific amount of power available and the means to get it to the division, a method of service study needs to be conducted by SCE.

east in nose-to-tail tracks. The interiors of the buses are cleaned during the fueling process. Once re-parked after nightly service, buses remain parked in-place until morning pull out unless a maintenance issue has been identified.

All bus parking tracks are approximately 13-foot wide and buses are not assigned to specific spaces. NRV vehicles are parked in a row of spaces along the southern edge of the maintenance building and the southern fence in the bus circulation area south from the maintenance building. Additionally, battery electric NRV's are parked and charge along the southern fence in this area.

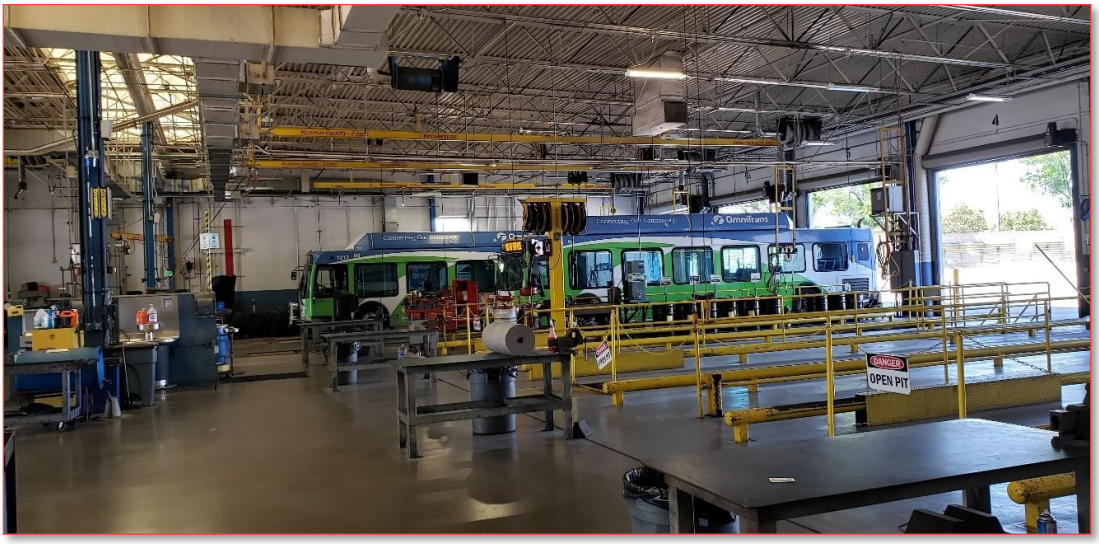
A new transformer and a 600-amp service meter along with two power cabinets and five depot charge boxes will be installed along the east side of the property along Medical Center Drive for the first four BEBs. This is part of the SCE Charge-Ready Transport Program.

Figure 5-5. East Valley Division - Existing Conditions



Source: Google Earth, February 2020

Figure 5-6. East Valley Division's Maintenance Bays



Source: WSP, February 2020

PLANNED ZEB MODIFICATIONS

It is recommended that the East Valley division adopt an overhead platform-mounted retractor cord DC plug-in or overhead pantograph charging solution. With this approach, the West Valley division is capable of parking 120 buses (max capacity of the division) with 120 charging positions in a 1:2 charger to bus dispenser ratio. Ground-mounted charging cabinets and dispensers are not recommended for East Valley as they would create a significant reduction in bus parking capacity due to parking losses to accommodate ground-mounted charging equipment.

Table 5-3 summarizes the ZEB infrastructure planned at the East Valley division.

Table 5-3. East Valley Division Supporting Infrastructure Summary

DIVISION	CHARGING STRATEGY	# OF EXISTING BUSES	# OF BUSES SUPPORTED	# OF CHARGERS	# OF DISPENSERS	CHARGER RATING
East Valley	Overhead Plug-in or Pantograph	115	120	60	120	150 kW

Source : WSP, February 2020

The following BEB equipment and locations are proposed:

— 60 ground-mounted charging cabinets located in a centralized island in the middle of the parking racks. Distribution to 120 retractor cord plug-in dispenser or overhead pantograph charging positions mounted from an overhead support structure in the existing track parking.

— Dispensers are located for connecting to the rear of the bus to reduce the length of support structure at the rear of the parking tracks in order to maintain bus turning clearances. Additionally, the eastern-most front row of tracks will have the dispensers staggered back slightly to allow for less support structure and easier maneuvers out of the track parking area.

— Overhead support structure columns will be placed every four tracks. These columns will also provide the mounting space for retractor cord controls to be installed to control each overhead dispenser's charging cable position.

The plug-in (or pantograph) charging dispensers and charging cabinets will be served by the following electrical infrastructure:

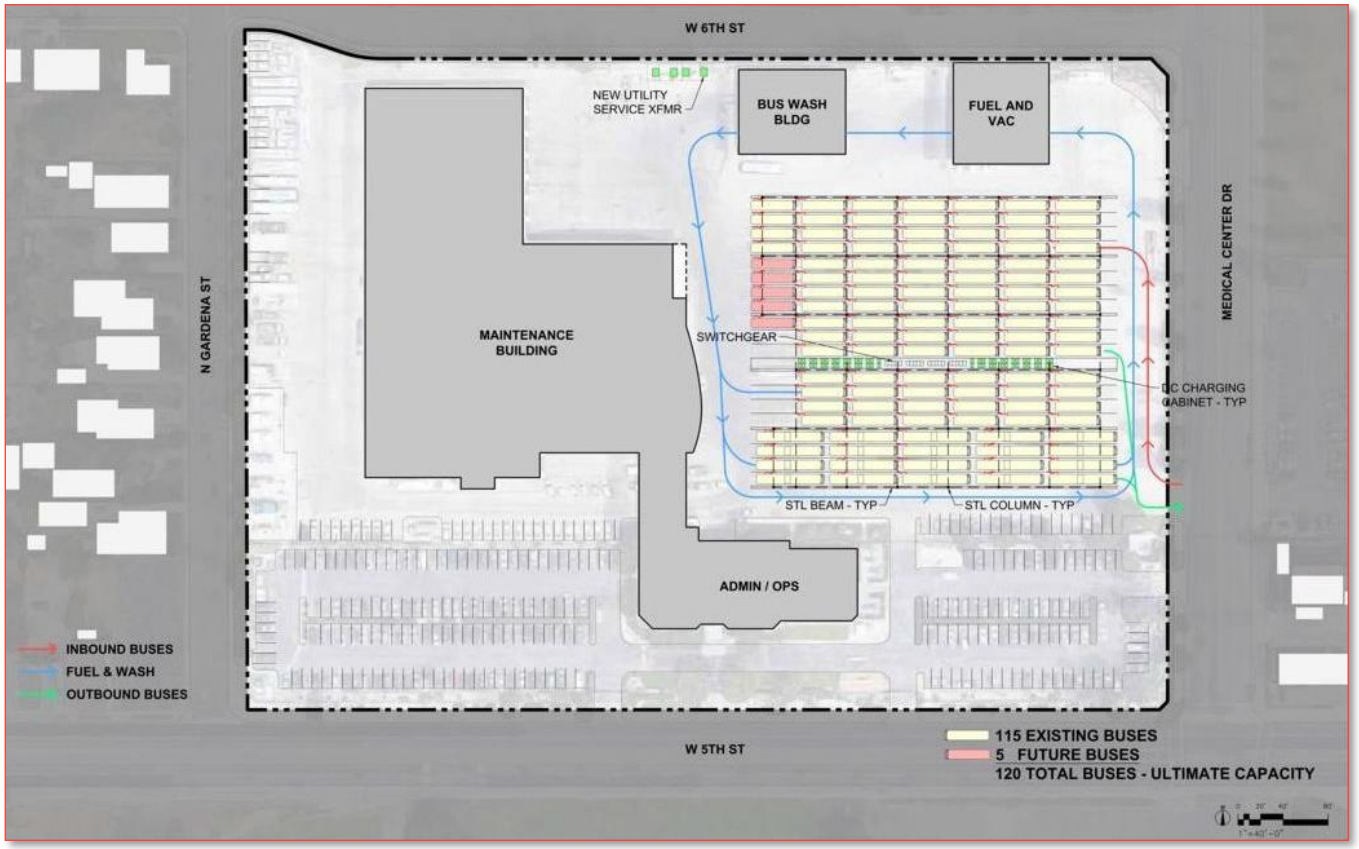
— Four medium voltage utility service transformers in a new utility yard in the open space along the northern site wall and west of the existing bus wash.

— Four sets of switchgear in a central utility yard in the open space at a central island in the parking tracks.

If FCEBs are to be integrated in the future (using the proposed configuration), it is recommended that offsite commercially available hydrogen fueling stations be utilized. Required clearances around liquid hydrogen storage exceed what the current site configuration is able to accommodate, making onsite hydrogen fueling infeasible at this time.

Figure 5-7 illustrates the East Valley Division at full build-out.

Figure 5-7. East Valley Division – Full ZEB Build-Out



Source: WSP, February 2020

PHASING AND CONSTRUCTION STRATEGY

The process of integrating ZEBs into Omnitrans' fleet is broken down into a number of important tasks and phases related to construction of supporting facilities. The assumed approach is a design-bid-build strategy. Multiple RFPs need to be developed and put out for bid, with accompanying design and construction activities taking place. Utility upgrades, onsite (phased) construction, and other activities are expected to last approximately five years, for each division. This five years is a conservative estimate based on the amount of time it will take the utility to

provide upgraded electrical equipment *outside* of the division. The onsite upgrades and construction of BEB supporting infrastructure can be done concurrently.

To minimize or avoid operational or service impacts, it is recommended that onsite construction be implemented in phases. This method essentially segments the yard and ensures that construction continues without completely shutting down the division.

Since ZEBs are not operational unless the facilities are in place, it is pertinent to meet construction deadlines because it has the ability to impact both service and ICT regulation compliance. It is assumed that buses can be procured 18 months before the conclusion of the facilities construction.

The following provides details on recommended phasing for the East Valley division.

PHASE 1

The first phase of construction will include the installation of all in-ground conduit to route electrical service from the new electrical service yard to the proposed overhead structure and charging cabinet island. A portion of the support structure should be installed over the northern half of the exiting parking tracks and the charging cabinet platform should be installed on the southern central edge of the new support structure to support the initial 30 charging cabinets. The conduit routing power from the electrical yard to the support structure should be sized for the ultimate distribution demand to meet the needs of the subsequent phase without further trenching. 60 overhead retractor cable plug-in (or pantograph) charging dispensers will be hung from the new support structure to serve each of the covered parking spaces and controls for the retractor cable (plug-in charging) in each spot will be located on the nearest support structure column.

PHASE 2

Phase 2 at East Valley will consist of construction of the southern half of the support structure and charging cabinet in a mirrored design of the northern portion completed in Phase 1. The additional transformer and switchgear will be installed on the pads and conduit constructed in the electrical yard during Phase 1 and routed via the overhead support structure, so that no new trenching will be required. The new support structure housing an additional 60 retractor cable plug-in (or pantograph) charging dispensers and overhead platform with 30 additional charging cabinets will be installed to provide the entire yard with charging capabilities.

6 DISADVANTAGED COMMUNITIES

DACs refer to the areas that suffer the most from a combination of economic, health, and environmental burdens. The CalEPA and California's Senate Bill 535, define a "disadvantaged" community as a community that is located in the top 25th percentile of census tracts identified by the results of the California Communities Environmental Health Screening Tool (CalEnviroScreen).

CalEnviroScreen uses environmental, health, and socioeconomic data to measure each census tract (community) in California. Each tract is assigned a score to gauge a community's pollution burden and socioeconomic vulnerability. A higher score indicates a more disadvantaged community, whereas a lower score indicates fewer disadvantages.

The replacement of conventional buses with ZEBs can yield many benefits in the communities they serve, including a reduction of noise and harmful pollutants. DACs are disproportionately exposed to these externalities, thus, should be prioritized and considered during initial deployments of ZEBs.

6.1 OMNITRANS' DISADVANTAGED COMMUNITY ANALYSIS

To understand ZEBs impacts on Omnitrans' service area, it was pertinent to establish if (1) its garage is in a DAC; and (2) if its routes traverse DACs.

At this time, both the West Valley and the East Valley divisions are located in DACs. Both yards also serve routes that traverse DACs. The West Valley division serves 129 Census tracts, 78 of which (60 percent), are considered disadvantaged. Whereas, the East Valley division serves 163 Census tracts, 103 of which (63 percent), are considered disadvantaged.

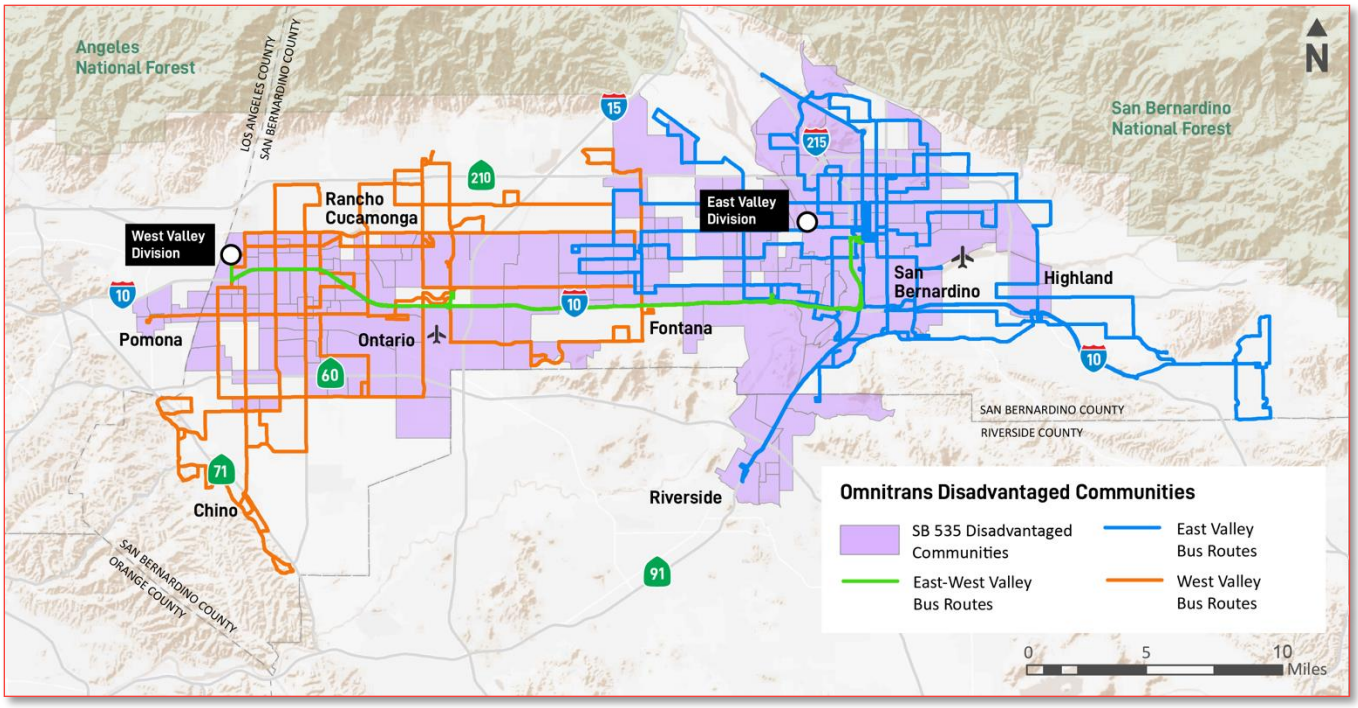
Table 6-1 summarizes Omnitrans' divisions and census tracts served in terms of DACs. Figure 6-1 illustrates Omnitrans' divisions and the Census tracts that they serve.

Table 6-1. Omnitrans' Disadvantaged Communities

DIVISION	IN DAC?	NOx EXEMPT AREA?	COMMUNITIES SERVED	DACs SERVED	PCT. OF DACs SERVED
West Valley	Yes	No	129	78	60%
East Valley	Yes	No	163	103	63%

Source : CalEnviroScreen 3.0, February 2020

Figure 6-1. Omnitrans' Disadvantaged Communities



Source : CalEnviroScreen 3.0, February 2020

7 WORKFORCE TRAINING

The following section provides an overview of Omnitrans' plan and schedule to train personnel on the impending transition.

7.1 TRAINING REQUIREMENTS

The transition to ZEBs will significantly alter Omnitrans' service and operations. Converting to ZEBs from CNG is an arduous endeavor and will impact all ranks of the organization. This will require extensive change management and training which will be provided by the OEMs and Omnitrans. Training will need to be conducted after buses are procured and in advance of the delivery of the first buses. Omnitrans procured its first BEBs in 2020 with an expected 2021 delivery. Therefore, it is expected that all personnel will be sufficiently trained before the buses arrive. Training conditions and schedules will be included in procurement documents, as they are with all existing procurements. If other OEM-provided buses are procured in the future and/or if new components, software, or protocols are implemented, it is expected that Omnitrans' staff will be trained well in advance of the commissioning of these additions. Since battery technology is rapidly evolving, it is likely that buses and their supporting battery chemistries and software will change between 2020 and 2040, therefore, Omnitrans' future procurements/deliveries will require refresher or updated trainings for relevant staff.

Safety training, however, will be provided on an annual or other recurring basis to ensure that staff is knowledgeable and maintains best and safe practices when operating, handling, or servicing BEB-supporting components or infrastructure.

The following provides a list of personnel and positions that will need to be retrained upon adoption of ZEBs (this list is not exhaustive):

- **Bus Operators**
  Bus operators will need to be familiarized with the buses, safety, bus operations, and pantograph operations.
- **Facilities Maintenance Staff and Maintenance**
  Maintenance staff will need to be familiarized with scheduled and unscheduled repairs, high-voltage systems, and the specific maintenance and repair of equipment.
- **First Responders**
  Local fire station staff will need to be familiarized with the new buses and supporting facilities.
- **Tow Truck Service Providers**
  Tow truck providers will need to be familiarized with the new buses and proper procedures for towing ZEBs.
- **Body Repairers**
  Body repairers at the contracted operator will need to be familiarized with the safety-related features and other components of ZEBs.
- **Instructors**
  Maintenance instructors will need to understand all aspects of the transition of ZEBs to train others.
- **Utility Service Workers**
  Staff will become familiarized with proper charging protocol and procedures that are ZEB-specific.
- **Management Staff**
  All Management will be familiarized with ZEB operations and safety procedures.

8 COSTS AND FUNDING OPPORTUNITIES

The following section identifies preliminary capital costs and potential funding sources that Omnitrans may pursue in its adoption of ZEBs.

8.1 PRELIMINARY CAPITAL COSTS

As expected, the cost of ZEB adoption is going to be very expensive. It is assumed that a full transition for just BEBs and supporting charging infrastructure (based on existing conditions) will cost approximately $223.1 million (in 2020 dollars). This assumes approximately $100K and $50k for charging equipment (DC cabinets and dispensers) and support equipment (conduit, trenching, cabling, etc.), respectively, per bus. This also includes an assumed cost of $1M per bus, however, this will vary depending on length, customizations, etc.[9] This rough order of magnitude (ROM) cost does not factor in operating costs, utility costs, midlife overhauls, training, and soft costs that will all need to be considered in ZEB adoption. The total cost of ownership is further refined and explored in the Master Plan.

8.2 POTENTIAL FUNDING SOURCES

There are a number of potential federal, state, local, and project-specific funding and financing sources at Omnitrans' disposal. Omnitrans will monitor funding cycles and pursue opportunities that yield the most benefits for the agency pursuant to the ICT regulation. The following table identifies the many funding opportunities that Omnitrans may take advantage of in the next 20 years.

Table 8-1. ZEB Funding Opportunities

TYPE	AGENCY	FUNDING MECHANISM
Federal	United States Department of Transportation (USDOT)	Better Utilizing Investments to Leverage Development (BUILD) Grants
	Federal Transportation Administration (FTA)	Capital Investment Grants – New Starts
		Capital Investment Grants – Small Starts
		Bus and Bus Facilities Discretionary Grant
		Low- or No-Emission Vehicle Grant
		Metropolitan & Statewide Planning and Non-Metropolitan Transportation Planning
		Urbanized Area Formula Grants
		State of Good Repair Grants
		Flexible Funding Program – Surface Transportation Block Grant Program
	Federal Highway Administration (FHWA)	Congestion Mitigation and Air Quality Improvement Program
	Environmental Protection Agency (EPA)	Environmental Justice Collaborative Program-Solving Cooperative Agreement Program
	Department of Energy (DOE)	Design Intelligence Fostering Formidable Energy Reduction and Enabling Novel Totally Impactful Advanced Technology Enhancements

9 Charging equipment and support equipment assumptions were based on peer agency inputs that were then condensed to a "per bus" cost. The average cost of a bus ($1M) was based on Omnitrans' recent BEB procurements and multiplied by the future potential buildout of both the West and East Valley Divisions (194 total buses).

TYPE	AGENCY	FUNDING MECHANISM
State	California Air Resources Board (CARB)	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)
		State Volkswagen Settlement Mitigation
		Carl Moyer Memorial Air Quality Standards Attainment Program
		Cap-and-Trade Funding
	California Transportation Commission (CTC)	Solution for Congested Corridor Programs (SCCP)
	California Department of Transportation (Caltrans)	Low Carbon Transit Operations Program (LCTOP)
		Transportation Development Act
		Transit and Intercity Rail Capital Program
		Transportation Development Credits
		New Employment Credit
Local and Project-Specific		Joint Development
		Parking Fees
		Tax Rebates and Reimbursements
		Enhanced Infrastructure Financing Districts
		Opportunity Zones

Source : WSP, February 2020

9 START-UP AND SCALE-UP CHALLENGES

To comply with the ICT regulation's purchase and transition requirements, there are a number of challenges and opportunities that Omnitrans has identified. The following sections briefly describe some of the challenges that Omnitrans faces for its transition.

- **Range issues.** Omnitrans has some blocks that exceed current BEB range. This means that Omnitrans will have to consider the following strategies to reduce or avoid service disruptions:
  - **Buy more buses.** This can assist with service requirements; however, more buses will require more chargers, more space at the division, and potentially higher utility costs.
  - **Opportunity charging.** This strategy could potentially reduce the costs (per bus) due to a smaller battery requirement, however, it would result in more capital infrastructure and utility costs. It can also be difficult in acquiring permission to install chargers on rights-of-way that Omnitrans doesn't own.
  - **Service changes.** This would require the manipulation of block structure. While the riders may not notice the change, the agency will have to consider the potential impacts to operator and maintenance costs.
- **Technological adaptation (FCEB, BEB, or both?).** Currently, Omnitrans is modeling and planning for a transition based on existing service and ZEB technology. With the 2040 deadline looming, it is difficult to anticipate future technological enhancements and changes, such as improved batteries and chargers. Slight changes in these technologies could improve bus ranges, in turn, reducing costs. Omnitrans (and the market) has to be aware of these changes as it would be counterproductive to invest in technologies that will soon be outdated.
- **Costs.** Adoption of ZEBs has many benefits, including potential lifecycle cost savings. However, the investment required for capital and change management will be very expensive. Omnitrans will have to be creative with funding mechanisms and sources to ensure that the transition to ZEB will not be detrimental to its operations and service.
- **Market Production Factors.** The ICT regulation will put a lot of pressure on OEMs to produce ZEBs at unprecedented rates. However, it is not only California that is interested in converting to ZEBs. These monumental policy changes will have a great impact on these transitions, however, it will also make it challenging to meet ZEB goals for agencies if supply of buses cannot meet demand.

10 NEXT STEPS

As mentioned, the process to transition to ZEBs should and will be iterative to minimize risk, but also to accommodate new developments in a rapidly evolving market. Omnitrans will use the information outlined in both the Rollout Plan and the Master Plan to refine and determine the following:

- **Determination of the proper mix of BEBs and FCEBs.** Both the Rollout Plan and Master Plan address and analyze Omnitrans' unique operational conditions to determine paths forward toward 100 percent ZEB adoption. The recommendations contained herein address what WSP's team believes is the most feasible and cost-effective means of implementation. However, Omnitrans will have to re-address these issues and determine whether these recommendations regarding feasibility based on costs, service requirements, and availability have changed as Omnitrans transitions to ZEBs.
- **Address incomplete service blocks.** The WSP team's analysis has revealed that many blocks cannot be completed when considering BEBs and FCEBs, meaning, Omnitrans will have to determine if they're going to file exemptions (under ICT regulation), purchase additional buses, restructure service to suit technological limitations, or invest in opportunity charging. These choices are rooted in Omnitrans' policies and plans outside of ZEB considerations.
- **Costs refinement.** Construction, capital, operating, and maintenance costs vary based on a number of factors. It will be important to get an understanding of the up-front costs and lifecycle costs and savings of investing in ZEBs. The WSP team has developing cost estimates in the Master Plan and Omnitrans will need to revisit these estimates to determine if pricing has changed and make implementation changes, such as changes in their purchasing schedules, accordingly.
- **Explore collaboration opportunities.** Whether purchasing things via CalACT or strategizing on a joint agreement for opportunity charging, Omnitrans can continue to maximize their outcomes by engaging with other regional and local agencies. It important for Omnitrans to continue to participate in groups such as the ZEBRA working group, CTA and the state's chapter of the ACT, APTA's Bus Technology Committee, and other industry working groups.
- **Engage utilities.** Whether adopting BEBs or FCEBs, there is a good chance that the amount of power at the yard is either insufficient or needs to be adapted to these new technologies. While procuring buses and installing chargers may be relatively straightforward, the process and protocols associated with electrical enhancements on the utility side can be complex. Therefore, it is recommended that Omnitrans continues to engage with SCE to ensure that they can meet critical deadlines.
- **Consider pilot opportunities.** At this time, Omnitrans is able to commit to BEB and/or FCEBs. Since four BEBs are currently on order, it will be easy for Omnitrans to pilot and gauge the performance of a BEB on its routes. However, it may be of interest to engage FCEB OEMs and/or peer agencies that operate FCEBs to collaborate on a pilot project.

Moreover, this analysis is only the beginning. Much more will be required as Omnitrans procures buses and engages firms to design and build the needed infrastructure, and to ensure these steps remain the most cost-effective options with respect to their impacts on service operation and maintenance. Finally, while a variety of funding sources have been identified, Omnitrans must tailor its grant funding applications based on its needs and resources.

While the Rollout Plan and the Master Plan have limitations, they both are "future-proofed" as much as possible based on the team's knowledge of technology and cost trends to date. Moreover, both plans intend to be a

guide on how best to implement a ZEB transition. Thus, it remains up to Omnitrans to decide how best to use these recommendations.

APPENDIX A: OMNITRANS' BOARD RESOLUTION

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ITEM # E3

DATE: April 22, 2020

TO: Committee Chair Penny Lilburn and
Members of the Plans and Programs Committee

THROUGH: Erin Rogers, Interim CEO/General Manager

FROM: Connie Raya, Director of Maintenance

SUBJECT: **ADOPT RESOLUTION NO. 321-2020 ZERO-EMISSION BUS ROLLOUT PLAN**

FORM MOTION

Recommend the Board of Directors adopt Resolution No. 321-2020 submittal of Omnitrans Zero Emission Bus Rollout Plan to the California Air Resource Board.

BACKGROUND

In accordance with the Innovative Clean Transit (ICT) regulation adopted by the California Air Resources Board (CARB), all transit agencies in the State of California must transition to zero-emission buses (ZEB) by 2040. In order to achieve this goal, each large transit agency must submit a Rollout Plan to CARB by July 1, 2020 and include the following:

- Acquire a minimum number of Zero Emission Buses (ZEBs) at the time of purchase
- Must be 100 percent ZEB fleet by 2040
- Schedule for Construction and Infrastructure
- Offer training program for Operators and Mechanics
- Identify potential funding sources
- Board Approved Resolution

A Board approved Zero-Emission Bus Rollout Plan is a requirement of the ICT regulation as well as the adoption of a Resolution. The Resolution authorizes the Interim CEO/General Manager to submit a Rollout Plan, which further establishes Omnitrans' commitment to transitioning to a zero-emission bus fleet.

Omnitrans has begun an early adoption of the regulation by purchasing its first four battery-electric buses from New Flyer of America, along with the procurement of the plug-in electric chargers needed to charge these four buses. Staff will follow the procurement schedule for future ZEBs outlined in the Zero-Emission Bus Rollout Plan.

Strategic Initiative Supported – Omnitrans FY2017-2020 Strategic Plan, Technology goal, strategies 3.1 Phase in new bus and non-revenue vehicle technology (CNG/electric) and 3.2 Decrease facility energy cost through implementing energy efficient technologies.

CONCLUSION

Staff recommends that the Board of Directors adopt Resolution No. 320-20 as a requirement of CARB's ICT regulation.

ER:CR

Attachment A: Resolution No. 321-2020

ATTACHMENT A

RESOLUTION NO. 321-2020

A RESOLUTION OF THE OMNITRANS BOARD OF DIRECTORS, SAN BERNARDINO COUNTY, CALIFORNIA, ADOPTING THE OMNITRANS ZERO-EMISSION BUS (ZEB) ROLLOUT PLAN

WHEREAS, in 2018, the California Air Resources Board (CARB) adopted the Innovative Clean Transit (ICT) Regulation, which requires public transit agencies to transition to a 100 percent zero-emission bus (ZEB) fleet, such as battery-electric or fuel cell electric, by 2040.[1]

WHEREAS, the ICT includes the following requirements for bus purchases for large agencies such as Omnitrans:

- 25 percent of all new bus purchases must be ZE by January 1, 2023;
- 50 percent of all new bus purchases must be ZE by January 1, 2026;
- 100 percent of all new bus purchases must be ZE by January 1, 2029;
- 100 percent of fleet must be ZE by January 1, 2040; and
- Annual compliance reports must be submitted to CARB by March of every year from 2021 to 2050.

WHEREAS, the ICT regulation requires each agency to submit a ZEB Rollout Plan ("Rollout Plan") to CARB by July 1, 2020. The Rollout Plan is a living document intended to guide the agency's conversion to a ZEB fleet.

WHEREAS, the Rollout Plan must be approved by the transit agency's governing body through the adoption of a resolution prior to submission to CARB.

WHEREAS, per the requirements of the ICT, the Rollout Plan includes the following components:

- Introduction, including Omnitrans' operations, service area, and environmental factors;
- Fleet and Acquisitions, including Omnitrans' proposed fleet procurement plan through 2040;

[1] The ICT applies to all transit agencies that own, operate, or lease buses with a gross vehicle weight rating (GVWR) greater than 14,000 lbs. The ICT includes standard, articulated, and cutaway buses; however, the purchase requirements for articulated and cutaway buses will not begin until 2026 or later and will only go into effect when these types of ZEB vehicles pass Altoona testing.

- Facilities and Infrastructure Modifications, including a description of each operating and maintenance facility and potential facility modifications needed to support a ZEB fleet;

- Disadvantaged Communities, which describes the disadvantaged communities (DACs) that will be impacted by the ZEB transition;

- Workforce Training, which provides background on personnel training requirements for ZEB implementation;

- Costs and Funding Opportunities, which outlines rough order-of-magnitude costs and potential funding sources for ZEB implementation; and

- Start-Up and Scale-Up Challenges, which describes challenges the agency will have to mitigate during ZEB implementation.

NOW, THEREFORE, BE IT RESOLVED that the Omnitrans Board of Directors hereby adopts the Omnitrans Zero-Emissions Bus Rollout Plan and approves it for submission to CARB.

Certification of Resolution on following page:

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Omnitrans Board of Directors, at their regular meeting held on the sixth day of May 2020, by the following vote, to wit:

AYES:

NOES:

ABSENT:

_____
Erin Rogers, Interim CEO/General Manager
Secretary, Omnitrans Board of Directors

The foregoing resolution is hereby approved this sixth day of May 2020.

_____
David Avila
Board Chair, Omnitrans Board of Directors

Approved as to form:

_____
Steven DeBaun
Counsel for Omnitrans

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San Bernardino, CA 92411
909-379-7100
www.omnitrans.org

ITEM # E4

DATE: April 22, 2020

TO: Committee Chair Penny Lilburn and
Members of the Plans and Programs Committee

THROUGH: Erin Rogers, Interim CEO/General Manager

FROM: Jerome Rogers, Director of Safety, Security and Regulatory Compliance

SUBJECT: **PUBLIC TRANSPORTATION AGENCY SAFETY PLAN**

FORM MOTION

Recommend that the Board of Directors adopt the Public Transportation Agency Safety Plan as required by the Federal Transit Administration.

BACKGROUND

The Federal Transit Administration (FTA) requires that public transportation systems receiving federal funds develop a Public Transportation Agency Safety Plan (PTASP) that that includes the processes and procedures to implement a Safety Management System (SMS). The rule (49 CFR Part 673) went into effect on July 19, 2019 with a compliance date of July 20, 2020.

The core element of the PTASP is implementing the SMS which includes four key pillars:

1. Safety Management Policy
2. Safety Risk Management
3. Safety Assurance
4. Safety Promotion

Additionally, the PTASP requires the creation of an agency safety committee to provide oversight and direction toward achieving safety goals. Omnitrans implemented this committee with the Kick-Off Meeting on February 25th 2020.

The PTASP is a required document that must be updated and submitted to the FTA annually. It formalizes and codifies Omnitrans existing safety practices in one comprehensive document.

CONCLUSION

Adopting the Omnitrans PTASP ensures compliance with the FTA's new safety requirements.

ER:JR

Attachment A: Omnitrans' Public Transportation Agency Safety Plan

ATTACHMENT A

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2020 AGENCY SAFETY PLAN (ASP)

TABLE OF CONTENTS

A. AGENCY SAFETY PLAN(ASP) RECORD OF REVISION

RECORD OF REVISION

Version No.	Section/Pages Affected	Reason for Change	Date Issued	Comments
1	All	Development and Implementation		

§ 673.23(a) – A transit agency must establish its organizational accountabilities and responsibilities and have a written statement of safety management policy that includes the agency's safety objectives.
Relevant to ASP- B (1.0 – 2.3)

1.0 Safety Management Policy (SMP)

SMP is the foundation of an agency's Safety Management System (SMS), it focuses on the SMP elements as stated: (1) Written statement with safety objectives (2) Employee safety reporting program (3) Communication of the SMP throughout the agency and, (4) Establishment of authorities, accountabilities, and responsibilities.

1.1 Accountable Executive Policy Statement

Omnitrans Accountable Executive Policy Statement

Safety is a core value of Omnitrans, and managing safety is a core business function of the agency. Omnitrans is committed to developing, implementing, maintaining, and continuously improving processes to ensure the safety of its customers, employees, and the public. Omnitrans will use safety management processes to direct the prioritization of safety and allocate its organizational resources, people, processes, and technology, in balance with its other core business functions. Omnitrans aims to support a robust safety culture, and achieve the highest level of safety performance, meeting all established safety standards.

All levels of management and all frontline employees are accountable for the delivery of the highest level of safety performance, starting with the Chief Executive Officer/General Manager. Omnitrans is committed to:

Executive Commitment to Safety: Executive Management will lead the development of an organizational culture that promotes safe operations and provides appropriate resources to supporting this core management function through fostering and ensuring safe practices, improving safety when needed, and encouraging effective employee safety reporting and communication. Omnitrans will hold executives, managers, and employees accountable for safety performance.

Communication & Training: Employee engagement is crucial to a functioning Safety Management System. Communication systems are in place to enable greater awareness of Omnitrans safety objectives and safety performance targets, as well as to provide ongoing safety communication up, down, and across the organization. All levels of management must proactively engage employees and work to keep the lines of safety communication honest and open. All employees will be made aware of the importance of Omnitrans Safety Management System and trained in safety reporting procedures.

Responsibility & Accountability: All levels of management will be responsible for delivering safe and quality transit services that represent Omnitrans performance of its Safety Management System. Managers take an active role in the Safety Risk Management process and ensure that Safety Assurance functions are supported. Managers are responsible for ensuring that Safety Risk Management is being performed in their operational areas of control to assure that the safety risk associated with safety

hazards is assessed and mitigated. Safety performance is an important part of performance evaluations for Agency managers and employees.

Responsibility of Employees & Contractors: All employees and contractors support safety management by ensuring that hazards are identified and reported.

Employee Reporting: Executive management has established a safety reporting program as a viable tool for employees to voice their safety concerns. All frontline employees are responsible for utilizing this program as part of the Safety Management System. No action will be taken against any employee who communicates a safety condition through the Omnitrans safety reporting program unless such disclosure indicates the following: an illegal act, gross misconduct or negligence, or a deliberate or willful disregard of agency rules, policies, and procedures.

Performance Monitoring & Measuring: Omnitrans has established realistic measures of safety performance and established safety performance targets to ensure continual improvement in safety performance. Managers will verify that the safety risk mitigations put in place are appropriate and effective.

Review & Evaluation: Omnitrans will measure Safety Management System performance by analyzing key safety performance indicators, reviewing inspections, investigations, and corrective action reports, and auditing the processes that support the Safety Management System. These activities will become the basis for revising or developing safety objectives, safety performance targets and plans with the goal of continuous safety improvement.

Responsibility for making our operations safer for everyone lies with each one of us- from executive management to frontline employees. Each manager is responsible for implementing the SMS in their area of responsibility and will be held accountable to ensure that all reasonable steps are taken to perform activities established as part of the SMS.

Ultimate responsibility for safety at Omnitrans rests with me, as the Accountable Executive.

_____ _____

Accountable Executive Date

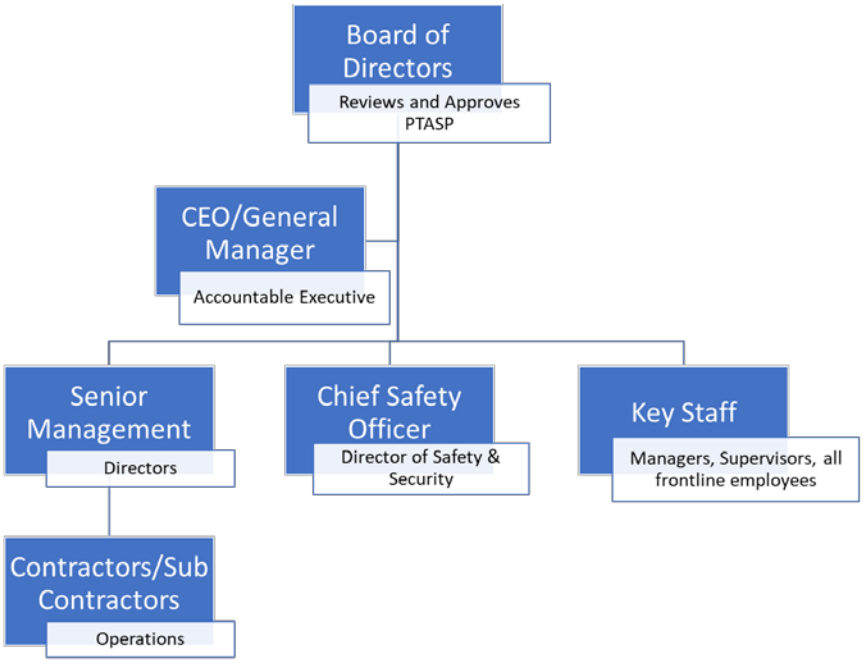
Erin Rogers Interim CEO/General Manager

2.0 Authorities, Accountabilities and Responsibilities

§ 673.23(d) – The transit agency must establish the necessary authorities, accountabilities, and responsibilities for the management of safety amongst the following individuals within its organization, as they relate to the development and management of the transit agency's Safety Management System (SMS).

Omnitrans CEO/GM, and all Senior Leadership (Directors) have authority, accountability and responsibility for the day-to-day implementation and operation of ASP. The Agency has established the authorities, accountabilities, and responsibilities necessary for the development and management of its ASP to reflect the size and complexity of the Agency's operations. Omnitrans has identified specifically below the authorities, accountabilities, and responsibilities by position for the Accountable Executive, Chief Safety Officer, Senior Leadership, and Key staff who play a substantial role in safety implementation and management of the ASP.

2.1 Organizational Chart



2.2 Authorities, Accountabilities and Responsibility by Position

Accountable Executive - Chief Executive Officer/ General Manager (CEO/GM)

1. Must understand how SMS works, what it seeks to achieve, the potential benefits it will generate for the Agency, and his or her role in the management system operation, and have an understanding of significant safety issues that Omnitrans might face during delivery of services.
2. Must allocate adequate resources to develop and maintain the Public Transportation Agency Safety Plan (ASP), Transit Asset Management (TAM) plan and approve the SMS implementation strategy.
3. Is responsible for designating an adequately trained Chief Safety Officer.

4. Supports SMS communication throughout the Agency, including presenting the ASP initially and annually thereafter for Board of Directors approval and certification.

Chief Safety Officer (Director of Safety & Security)

1. Is responsible for advising executive and senior management on all safety policy and related matters.
2. Interfaces with all Omnitrans departments at all levels of the organization on behalf of ASP and SMS implementation.
3. Responsible for establishing and implementing; policies, procedures, and programs to ensure the Agency is effectively implementing its responsibilities under the ASP.
4. Reports directly to the Accountable Executive to avoid any competing priorities from various departments across the agency that may conflict with the needs of SMS implementation.
5. Will procure technical and staffing resources as needed and organize ad hoc support committees or teams for the ASP development, implementation, and monitoring.

Senior Management, (all Omnitrans Directors)

1. Responsible for day-to-day implementation and operation of an agency's SMS.
2. Must ensure the incorporation of safety management practices in the agency's operational areas.
3. Must take ownership of the feasibility and effectiveness of the policies and procedures the key staff within their departments who will support the drafting of policies and procedures on behalf of their respective departments.
4. Ensure that their staff comply with the SMS processes and procedures; assist in ensuring that resources are available to achieve the outcomes of the SMS; and continually monitor their area of SMS responsibility.
5. Must designate representatives from Operations, Maintenance, and other revenue service support functions to serve as Key Staff, encourage SMS training for staff, and take ownership of safety management processes and activities as they are implemented.
6. Must implement, monitor, and manage the collection and analysis of safety information; manage hazard identification and safety risk evaluation activities; monitor safety risk mitigations; and provide periodic reports on safety performance.

Key Staff

1. Key staff is the individuals who perform the work within the departments, and who provide input on behalf of the Senior Managers within their departments. Key staff must be assigned by Department Directors and are frontline employees, such as mechanics, coach operators, facilities (managers, supervisors) and safety personnel.
2. Will provide expertise on how to adapt existing departmental practices to work in concert with SMS. Key staff will identify departmental data and information resources to support SMS decision making.
3. At the direction of the Director of Safety & Security, Key Staff shall be organized into an SMS Implementation Teams with regular meetings and work sessions. These individuals are familiar with their department's processes and practices and can voice ideas, concerns, and solutions for SMS implementation that works in concert with their practices and duties.
4. All Omnitrans employees have a duty to identify and report safety hazards. Employees are the "eyes and ears" of a transit agency, in terms of hazard identification. They deal with

hazards in the workplace on a daily basis and know firsthand how hazards interfere with Agency systems.

2.3 Contractor/Sub Contractor Responsibilities

1. Contractors and sub-contractors shall:
   a. Cooperate with Agency audits, inspections, and reviews activities conducted by Omnitrans, including the review of practices and documents and any findings resulting from internal or other audit/inspection activities will be assigned a corrective action, and contractors are required to address assigned corrective actions a stated in the inspection findings. All corrective actions and issues are to be documented in Omnis safety file.
   b. Shall provide Omnitrans with reports on incidents, accidents and identified hazards as delineated in the contract or Omnitrans SOPs, report identified trends or concerns to Omnitrans and coordinate with the Director of Safety and Security on the investigation and corrective actions addressing abnormal trends involving safety concerns.
   c. Shall, institute policies for the safety and protection of the environment and persons who may encounter hazardous materials used at any Omnitrans property. These practices shall be approved by Omnitrans. accordance with the requirements of Cal OSHA CCR Title 8 OSHA regulations in 29 CFR Part 1910(CCR), and environmental Title 22, Division 4.5.
   d. Contractors shall update training programs and testing as needed to ensure all federal, state, and local regulations are adhered to as required. Ensure employees are properly trained as outlined in contracts and required by state and federal regulations. Provide training reports as outlined in contracts and other agreements with Omnitrans
   e. Contract service operators shall implement their own ASP and Security Program Plan (SPP) program plans. The ASP and SSP program plans will be submitted to Omnitrans annually as required. The plans shall attest to the following:

      1. The adoption and implementation of an ASP Safety Management Systems (SMS) in accordance with established standards set forth in federal, state, and local regulations including 49 CFR Part 673.
      2. A statement must be signed by an officer or person directly responsible for management of the Contractor/subcontractor attesting to compliance with federal, state, and local regulations.

2. Omnitrans Contract Project Managers will ensure contractor/sub-contractor compliance by:
   a. Reporting findings of any audits to Omnitrans within 1 business day (immediate notification is required if imminent danger exists) of completion of the review containing the following:
      - Identification of the findings, including a detailed description of any deficiency.
      - Required corrective action and a schedule for implementation of the corrective action to be taken for each deficiency.
      - Any required suspension of service should Omnitrans determine the continued operation of the service, or a portion thereof, poses an immediate danger to public safety.
      - If the contractor/subcontractor fails to correct specific deficiency(ices) in accordance with federal, state, and local regulations and the established implementation schedule, Omnitrans Director of Procurement will initiate actions to issue a notice to review the contract.
      - Ensure employees are properly trained as outlined in contracts and required by state and federal regulations.

- Contractors training and certification ensure all vehicle repair personnel are properly trained as detailed in industry standards and Original Equipment Manufacturer (OEM) training programs. Document all training in a Safety file.

3.0 Plan Development, Approval, Modifications, Review and Updates

§ 673.11 (a)(1) –Agency Safety Plan and subsequent updates must be signed by the Accountable Executive and approved by the agency's Board of Directors or an Equivalent Authority.

3.1 Development and Approval

The responsibility for modifications, revisions, implementing and distributing of the ASP resides with the Director of Safety & Security. Responsibility for control and update of this ASP is vested with the Omnitrans CEO/GM.

Development and FTA approval of Version 1.0, of Omnitrans Public Transportation Agency Safety Plan (ASP) is scheduled for July 20, 2020. This ASP is a living document subject to update or revision as needed to meet the evolving safety needs of the Agency. The annual review of this ASP shall take place between May 1 and June 30th of each subsequent year.

3.2 Modifications, Review and Updates

§673.11(a)(5) – Each transit agency must establish a process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

The Accountable Executive, Directory of Safety & Security and Senior Leadership will conduct annual reviews of the ASP and submit a revised document prior to July 1st of each year. All revisions will be reviewed by the Director of Safety & Security and Senior Leadership and approved by the CEO/GM and the Board of Directors.

Name of Entity That Drafted This Plan	Omnitrans	
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
Approval by the Board of Directors or an Equivalent Authority	**Name of Individual/Entity That Approved This Plan**	**Date of Approval**
	Relevant Documentation (title and location)	
Certification of Compliance	**Name of Individual/Entity That Certified This Plan**	**Date of Certification**
	Relevant Documentation (title and location)	

Revisions and updates will be issued as necessary and will supersede previous pages or editions. The Director of Safety & Security will convene a committee represented by Senior Leadership to review

the current plan and make any necessary changes, additions, or deletions as necessary or when Omnitrans:

1. Determines its approach to mitigating safety deficiencies is ineffective.
2. Makes significant changes to service delivery.
3. Introduces new processes or procedures that may impact safety.
4. Changes or re-prioritizes resources available to support SMS; and/or
5. Significantly changes its organizational structure.

All revisions will be noted in the revision record at the beginning of the document. If any revision requires a change in process, a notice will be disseminated to appropriate personnel explaining the 1) document change, 2) reason for change, 3) and its impact on any job functions. Omnitrans employees will be notified of a substantially revised plan by an email or letter from the Director of Safety & Security.

The revised plan will be disseminated by one or more of the following methods: delivered as a hard copy and/or emailed as a soft copy to each relevant operating entity, or available through request from the Director of Safety & Security. Contractor employees specifically involved with Omnitrans contracted services and operations will be required to sign a hard copy of their plan.

4.0 Safety Plan Documentation, Rules and Procedures

§ 673.31– At all times, a transit agency must maintain documents that set forth its Agency Safety Plan, including those related to the implementation of its Safety Management System (SMS) and results from SMS processes and activities. A transit agency must maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that the agency uses to carry out its Public Transportation Agency Safety Plan. These documents must be made available upon request by the Federal Transit Administration or other Federal entity, or a State Safety Oversight Agency having jurisdiction. A transit agency must maintain these documents for a minimum of three years after they are created.

4.1 Rules and Procedures Documentation

1. Omnitrans maintains several databases for document storage that sets forth its ASP, including those related to the implementation of its Safety Management System (SMS) and results from SMS processes and activities. Documents that will be maintained are those documents that describe the Agency's ASP, including those related to implementation and results from safety and security processes and activities.

2. Omnitrans maintains documents that are included in whole, or by reference, that describe the programs, policies, and procedures that the agency uses to carry out its ASP. These documents will be made available upon request by the Federal Transit Administration. Omnitrans maintains these documents for a minimum of three years after they are created.

3. All relevant existing documentation that describes safety and security processes, procedures, and other information will be referenced directly as to the name and location of those documents to reduce the need to summarize processes and activities already described elsewhere

4. Omnitrans coordinates and promotes bus maintenance and operational safety through multiple initiatives, procedures, and processes.

5.0 Transit Agency Information and System

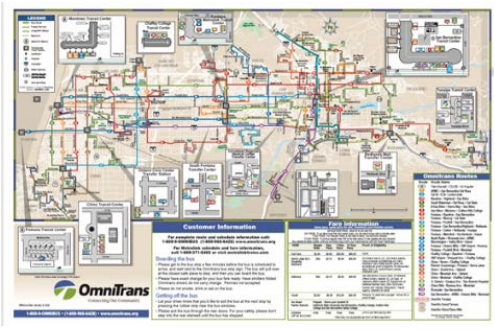
Transit Agency Name	Omnitrans			
Transit Agency Address	1700 West 5th Street, San Bernardino CA 92411			
Name and Title of Accountable Executive	Erin Rogers, Interim CEO/General Manager			
Name of Chief Safety Officer or SMS Executive	Jerome Rogers, Director of Safety and Security			
Mode(s) of Service Covered by This Plan	Bus Transit		**List All FTA Funding Types (e.g., 5307, 5310, 5311)**	5307, 5310, 5339 and 5309
Mode(s) of Service Provided by the Transit Agency (Directly operated or contracted service)	Fixed Route Bus Mode , Non-Fixed Route Bus Mode			
Does the agency provide transit services on behalf of another transit agency or entity?	Yes ☐	No ☒	**Description of Arrangement(s)**	
Name and Address of Transit Agency(ies) or Entity(ies) for Which Service Is Provided				

5.1 System Description

Omnitrans is a public transit agency serving the San Bernardino Valley, providing safe, reliable, affordable, friendly, and environmentally responsible transportation. Omnitrans currently operates local and express bus routes as well as sbX rapid bus transit service, OmniGo hometown shuttle service, and Access, a paratransit service for the disabled.

Established in 1976 through a joint power's agreement, Omnitrans carries approximately 16 million passengers each year throughout its 480-square mile service area, covering 15 cities and portions of the unincorporated areas of San Bernardino County. Major destinations within the Omnitrans service area include transportation centers, medical centers, educational facilities, shopping malls, business parks, and community centers.

Service Routes



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5.2 Board of Directors

Omnitrans is a Joint Powers Authority (JPA) administered by a Board of Directors, made up of the Mayor or Council Member from each member-City and four Supervisors of the County of San Bernardino. Each City and the County has one designated alternate Board Member.

5.3 Omnitrans Services

With a fleet of (188) 40 foot-buses, (15) 60-foot articulated buses, and a work force of 707 employees, Omnitrans multi-modal approach to its provision of services is detailed below:

Fixed Route

Omnitrans fixed-route service consists of 27 convenient routes, including one peak-hour only service, two peak-hour trippers, and one regional express route, providing safe, dependable, and environmentally friendly transportation throughout the San Bernardino Valley. Omnitrans fixed-route service area covers 15 cities and portions of the unincorporated areas of San Bernardino County, to major destinations such as transportation centers, medical centers, educational facilities, shopping malls, business parks, and community centers. Routes are operated with 40-foot buses and twelve 30-foot buses, running primarily along major east-west and north-south corridors. Headways vary from 15-minute to hourly service, with service span of approximately 18 hours of service on weekdays, 13 hours on Saturdays, and 12 hours on Sundays.

sbX

The sbX Green line, San Bernardino County's first-ever express passenger service, offers quick, convenient, comfortable, and affordable transportation to major destinations in the cities of San Bernardino and Loma Linda. The sbX fleet consists of 15 deluxe 60-foot articulated vehicles powered by environmentally friendly compressed natural gas, with 16 art-inspired stations at key destinations along the 16-mile route, dedicated bus-only lanes, traffic signal prioritization, and bike racks. Service runs weekdays every 10 minutes during peak hours, 15 minutes off peak. On Saturdays, service runs every 20 minutes. In addition to the existing Green Line, the next planned sbX route is the West Valley Connector Corridor. The West Valley Connector project development is being managed by the San Bernardino County Transportation Authority.

OmniGo

OmniGo is three circulator service routes serving the communities of Chino Hills, Grand Terrace and Yucaipa. OmniGo service features 16-passenger vehicles and fixed route fares, enabling residents of these communities to have access to major area destinations, including middle-schools and high-schools, senior centers, and shopping centers. Frequency of the circulator's ranges from 30 to 70 minutes and all three routes provide service on weekends.

Access ADA Service

Omnitrans Access Service is an Americans with Disabilities Act (ADA) mandated public transportation service for people unable to independently use the fixed route bus service for all or some of their trips. Access provides curb-to-curb service to complement the Omnitrans fixed-route bus system and is available during the same periods that fixed-route service operates. The Access service area is up to 3/4 mile on either side of an existing bus route.

Special Transportation Services

The Special Transportation Services (STS) Department provides additional mobility solutions and support services for seniors and persons with disabilities. This includes the Travel Training Program which provides instruction and guidance on how to use the Omnitrans bus system, the Volunteer Driver Program which provides a mileage reimbursement for persons with disabilities or seniors who are unable to use public transportation, and the RIDE Taxi & Lyft Program which allows eligible residents in the Omnitrans service area to purchase taxi and Lyft fares at a discounted price.

6.0 Employee Safety Reporting Processes (ESRP)

§ 673.23(b) – A transit agency must establish and implement a process that allows employees to report safety conditions to senior management, protections for employees who report safety conditions to senior management, and a description of employee behaviors that may result in disciplinary action.

Omnitrans has established and implemented several process and procedures that allow employees to report safety conditions to senior management as part of the Safety Management System (SMS).Omnitrans employee reporting is a key component of ensuring that safety is a priority for the agency. Data collected by the employee reporting process and procedures will guide safety decisions within the Agency, reducing the risk of harm to people, equipment, and the environment.

6.1 Processes and Procedures

Omnitrans has set forth the following processes and procedures that leverage firsthand knowledge to alert management to safety concerns through:

1. Agency Safety and Security Committee
2. Safety and Security Executive Committee
3. WeTIP Hotline
4. Safety and Security online Anonymous web-based reporting of; incidents, near misses and occurrences.
5. Text a Tip: See Something, Say Something Program
6. Form-based reporting systems
7. Direct reporting to management
8. Observations of operations
9. Inspections and Audits
10. Employee Reporting Forms
11. Governmental sources (FTA, National Transportation Safety Board (NTSB), state or regional oversight)
12. Customer and public feedback or complaints from Customer Service Hotlines

6.2 Non-Punitive Reporting Policy

Omnitrans is committed to the safest transit operating standards possible. To achieve this, it is imperative that Omnitrans have uninhibited reporting of all incidents, near miss, and occurrences which may compromise the safe conduct of our operations. To this end, every employee is responsible for the communication of any information that may affect the integrity of transit safety. Such communication must be completely free of any form of reprisal.

Omnitrans will not take disciplinary action against any employee who discloses an incident or occurrence involving transit safety. This policy shall not apply to information received by Omnitrans from a source other than the employee, or which involves an illegal act, or a deliberate or willful disregard of promulgated regulations or procedures.

Omnitrans method of collection, recording and disseminating information obtained from transit safety reports has been developed to protect, to the extent permissible by law, the identity of any employee who provides transit safety information.

Omnitrans urges all employees, and contractors to practice the SMS transit safety procedures outlined in this ASP to help the Agency become a leader in providing transit riders and employees with the highest level of transit safety.

1. That under no circumstance will employees be retaliated against for the act of reporting safety related information.
2. What to report, what not to report, and how to report.
3. Describe employee behaviors that may result in disciplinary action (and therefore, are excluded from protection.
4. What managers should do when employees report safety concerns.
5. How reports are documented.
6. How employees will receive feedback about the results of their reports.

7.0 Emergency Management Program

Natural and manmade events can impact transit operations at any time and place. Life safety is and will always be the top priority during emergency response efforts. This section reviews the key elements of Omnitrans emergency preparedness. Full details on the emergency management program can be found in Omnitrans System Security and Emergency Response Preparedness Plan (SSERPP).

All on-scene emergency response activities will utilize the Incident Command System (ICS). Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) are component of ICS to create a framework that enhances coordination between responders and resources from various entities (state, local, non-governmental agencies, and volunteers).

7.1 Meetings with External Agencies

Omnitrans participates in the following external meetings and provides training with external first responder agencies:

1. San Bernardino County Operational Area
2. City of Redlands Disaster Council
3. Inland Valley Emergency Communications Service (IVECS)
4. Chino Valley MET-NET

7.2 Planning Responsibilities

Omnitrans and its contractors can be valuable resources for assisting first responders at incident scene or managing resources for the emergency by sharing their subject matter expertise and

problem-solving skills. Their understanding of incident response and coordination with first responders is critical for managing transit incidents while keeping life safety as the top priority.

Omnitrans Safety & Security Department administers the SSERPP which provides guidance for employees to execute a well-organized, informed, and efficient response to critical incidents, should one occur, in order to reduce or mitigate resulting impacts.

7.3 Revision and Distribution of Emergency Response

Omnitrans Safety & Security Department is responsible for managing and distributing the SSERPP and other security and emergency preparedness procedures. These are living documents, available for review always to staff and contractors. Comments and revisions may be submitted to the Safety & Security Department for evaluation and inclusion in the next iteration of the plan. The plan will be updated as needed and reviewed at a minimum, annually.

C. DRUG AND ALCOHOL PROGRAM

8.0 Purpose

This section applies to all employees and contractors connected with Omnitrans system services. Omnitrans shall require all operations and maintenance contractors to submit to a comprehensive drug and alcohol policy (including appropriate training) that conforms to FTA's requirements in 49 CFR Parts 40 and 655 and a substance abuse management and testing program in accordance with for all subject personnel.

The purpose of this program is to assure worker fitness for duty and to protect our employees, passengers, and the public from the risks posed using alcohol and prohibited drugs. The Agency has developed and implemented a drug and alcohol testing program designed to help prevent accidents and injuries resulting from the misuse of alcohol and illegal drugs by employees who perform safety-sensitive functions. Omnitrans Drug and Alcohol Policy will be attached in a separate document.

Third-party contractors employing safety-sensitive employees are required to submit an FTA compliant plan to Omnitrans prior to conducting any work or services on Agency property.

D. ENVIRONMENTAL MANAGEMENT

9.0 Purpose

Public transportation plays an important role in confronting environmental challenges. Omnitrans requires all industrial, maintenance, support, and construction activities of the Agency to comply with applicable federal, state, and local environmental protection laws, standards, and regulations. These include applicable requirements of the:

1. United States Environmental Protection Agency (USEPA),
2. California Environmental Protection Agency (CalEPA),
3. Certified Unified Program Agencies (CUPA)
4. Resource Conservation and Recovery Act (RCRA),
5. Department of Toxic Substances Control Act (DTSC),
6. Clean Water Act (CWA),
7. South Coast Air Quality Management District (SCAQMD),

8. California State Water Resources Control Board (CSWRCB),
9. Prevention, Control and Countermeasure (SPCC),
10. Noise Control Act (NCA),
11. California Air Resources Board (ARB)
12. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),
13. Emergency Planning and Community Right-To-Know Act (EPCRA),
14. Pollution Prevention Act and Superfund Amendments and Reauthorization Acts (SARA)
15. Medical Waste Management Act, Public Health San Bernardino California.

Omnitrans maintains a Storm Water Pollution Prevention Plan (SWPPP) for its East and West Valley facilities as well as the contractor occupied facilities located on I St., San Bernardino and Feron St., Rancho Cucamonga. Omnitrans will identify any potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the construction site. Specific environmental management procedures are included as attachments in separate documents. Design review and substantial completion inspections assist in ensuring that all Omnitrans facilities are designed and constructed in accordance with the applicable environmental laws and regulations.

9.1 Responsibilities

Directors, Managers and Supervisors of Maintenance and Operations at each facility are assigned collateral duties responsible for ensuring compliance with applicable environmental regulations. The Director of Safety & Security is responsible for providing technical advice to the Directors, Managers, Supervisors, and employees for ensuring regulatory compliance.

E. HAZARDOUS MATERIALS MANAGEMENT PROGRAM

10.0 Purpose

Omnitrans is committed to achieving excellence in providing a healthy and safe working environment, and to supporting environmentally sound practices in the conduct of Agency activities. This section outlines the Omnitrans hazardous materials program developed to ensure that adequate safeguards are in place to prevent exposure to hazardous materials for employees, contractors, passengers, and the general public and to minimize environmental damage. All Agency activities are to be conducted in a manner that ensures applicable health, safety and environmental protection laws, and regulations. All employees, vendors and contractors are subject to this section and must comply with applicable local, state, and federal laws pertaining to environmental protection, and to the use, handling, purchase, store, and transport hazardous materials. Areas of responsibilities include:

1. Clean Water Act (CWA),
2. South Coast Air Quality Management District (SCAQMD),
3. California State Water Resources Control Board (CSWRCB),
4. Prevention, Control and Countermeasure (SPCC), spill response, cleanup, and investigation
5. Environmental compliance Inspections of facilities
6. Storm Water Management; storm water pollution prevention plan (SWPPP)
7. Spill Prevention Control and Countermeasure (SPCC)

10.1 Responsibilities

1. Omnitrans Director of Safety & Security shall:
    a. Develop and Maintain the CUPA Business Plan
    b. Develop, implement, evaluate, report, and document all materials associated with the Hazardous Materials Management Program.
    c. Perform inspections to ensure that hazardous materials and waste are identified, labeled, evaluated, inventoried, handled, managed, and monitored in compliance with applicable regulations to minimize risk to staff, patients and visitors and their impact on the environment.
    d. Providing the protocol for reporting and investigating hazardous materials spills, releases, and exposures in order to provide the appropriate and effective response, and to prevent reoccurrences.
    e. Ensuring that employees are oriented to and trained about the proper procedures to follow in order to protect themselves from exposure to hazardous materials.
    f. Have oversight responsibility for maintaining the Hazardous Materials Inventory and master file of Safety Data Sheets (SDS), by updating and maintaining the Chemical Inventory Program on Omnitrans intranet located in the Safety and Security Section.

2. The Director/s of Safety & Security and Maintenance/Facilities shall collaborate to**:**
    a. Ensure the effectiveness of engineering and administrative controls with environmental air monitoring surveys and work procedure analyses.
    b. Ensure that mandated licenses and permits are maintained in compliance with applicable law and regulations and the granting regulatory agency requirements.
    c. Conduct periodic assessments of the Agency's hazardous materials generation and storage areas and evaluates hazardous materials handling procedures. Inspections are conducted of all departments at least quarterly to ensure compliance with applicable regulations and hazardous materials policies. Reports of significant problems and recommendations are forwarded to the appropriate Department Director.

3. Department Directors, Managers and Supervisors shall:
    a. Provide emergency procedures that prescribe specific precautions, equipment, and protective equipment to be utilized in response to hazardous materials spills, releases, and exposures.
    b. Monitor and ensure compliance with applicable hazardous materials and hazardous waste procedures. Implement the Hazardous Materials and Waste Management Plan.
    c. Ensure hazardous materials and waste are properly handled, contained, stored, and labeled as required by applicable federal, state, and local regulations.
    d. Develop and implement department specific procedures concerning the use of hazardous materials in their departments.
    e. Maintain compliance with the Hazard Communication standard by ensuring current Safety Data Sheets (SDS) are available and that staff has been adequately trained regarding the use of hazardous materials within their department.
    f. Ensuring an annual physical Chemical Inventory has been completed annually by their department.
    g. Ensure that all hazardous materials purchased are pre-approved by the Safety &Security Department staff prior to delivery to any Omnitrans properties.

h. Ensure that contractors are following Omnitrans Hazardous Materials and Waste Management Plan.

4. Omnitrans Procurement Department shall:
    a. Coordinate with the Safety &Security Department staff to review all potential Request for Proposal (RFP) and/or contracts containing hazardous materials to verify each contract is environmental compliant.
    b. Coordinate with Safety &Security Department staff to ensure RFP's follow all applicable local, state, and federal environmental regulations as required.
5. Employees are responsible for the following:
    a. Maintain familiarity with Omnitrans, and work site specific Safety Procedures regarding the safe handling of hazardous materials and understand their specific responsibilities.
    b. Attend training sessions, as required.
    c. Maintain familiarity with site-specific safety procedures and response procedures for hazardous materials spills and exposures.
    d. Maintain awareness of hazards both within their department and elsewhere in the facility. Report hazards to their supervisor or the Safety & Security Department staff.
    e. Maintain familiarity with Hazard Communication Program and understand the content and purpose of a Safety Data Sheet (SDS).

F. OMNITRANS SAFETY RISK MANAGEMENT

§ 673.25(a) – A transit agency must develop and implement a Safety Risk Management process for all elements of its public transportation system. The Safety Risk Management process must be comprised of the following activities: safety hazard identification, safety risk assessment, and safety risk mitigation.

11.0 Safety Risk Register

Omnitrans will utilize a Safety Risk Register as an information management tool to document the Agency's Safety Risk Management (SRM) and Safety Assurance activities. It will record the hazards identified by the Agency, the potential consequences associated with these hazards, initial safety risk ratings, new mitigations implemented to eliminate or minimize the risk associated with the hazard, revised safety risk rating, and mitigation monitoring measures and activities to ensure the implementation and effectiveness of mitigations.

11.1 Purpose

Omnitrans Safety Risk Register will serve a dual purpose:

- It will provide Directors and Managers with an on-going, up-to-date picture of.
    a) the overarching safety concerns that the Agency faces during transit service delivery and supporting operations, and
    b) the controls (safety risk mitigations) put in place to address them, and
- It allows personnel involved in the agency's Safety Management System (SMS) to:
    a) formally document hazards, potential consequences of the hazards, safety risk assessment results, and anticipated safety risk mitigations, and
    b) track the status of implemented safety risk mitigations.

Omnitrans Safety Risk Register includes the following processes for managing safety risk:

a) Hazard Identification,

b) Risk Assessment, and
c) Risk Mitigation.

11.2 Hazard Identification

§ 673.25(b)(1) – A transit agency must establish methods or processes to identify hazards and consequences of the hazards.

§ 673.25(b)(2) – A transit agency must consider, as a source for hazard identification, data and information provided by an oversight authority and the FTA.

Through safety data acquisition, analysis, and coordination by the Director of Safety & Security, and with support from Operations and Maintenance, hazards will be identified on an ongoing basis. The physical and functional characteristics of the system to be analyzed are Omnitrans operations, maintenance, facilities, procedures, employee practices, and contract/sub-contractor oversight.

Knowledge of how the individual system elements interface with each other is essential to the hazard identification effort. Hazards will be identified through:

1. Daily tasks and routine activities conducted by Omnitrans staff and contractor/sub-contractors,
2. Inspections and observations conducted by Departmental Directors and Managers, and the Director of Safety & Security.
3. Internal inspection and audit and records reviews,
4. External audits conducted by regulatory agencies,
5. Design reviews where representatives of Safety and Security as well as Procurement, Operations and Maintenance participate.
6. Hazard analyses and special reports prepared by consultants, Agency employees, contractors, and suppliers.
7. Hazards that develop as a result of accidents/incidents.
8. Information obtained from other transit agencies.

Specific Goals:

1. Implement a reporting system to capture errors, hazards and near misses that is simple to use and accessible to all personnel.
2. Proactively identify all the major hazards and asses the risks related to current activities.
3. Implement a safety reporting system that provides feedback to the reporter of any actions taken (or not taken) and, where appropriate, to the rest of the organization.
4. Implement a process for performing safety audits/investigations to identify underlying causes and potential hazards for existing and future operations.
5. Define a process whereby safety reports are acted on in a timely manner.
6. Apply hazard identification processes that is ongoing and involves all key personnel.
7. Train all personnel responsible for investigating in investigation techniques.
8. Apply causal/contributing factors to all investigations (why it happened, not just what happened,), and as needed apply a Root Cause Analysis (RCA).
9. Documentation of all hazards identified, will be stored in the Agency's safety database, and kept available for future reference; and

10. Use the results of investigation of incidents and accidents as a source for hazard identification in the system.

11.3 Risk Assessment

§ 673.25(c)(1) – A transit agency must establish methods or processes to assess the safety risks associated with identified safety hazards.

§ 673.25(c)(2) – A safety risk assessment includes an assessment of the likelihood and severity of the consequences of the hazards, including existing mitigations, and prioritization of the hazards based on the safety risk.

Omnitrans will use the sample risk matrix described below to assess the severity and probability (likelihood) of the consequences of hazards, and prioritize the hazards based on the safety risk.

Hazard Severity is the measure of the consequence the hazard presents. The greater the potential hazard consequence, the more severe the hazard. The probability that a consequence associated with a given hazard will occur will be described in potential occurrences per unit of time, events, population items or activity. Employees are encouraged to immediately address hazards that may be easily resolved, such as a trip hazard that may be easily moved.

Hazards that require more extensive measures for resolution will be elevated to Directors, Managers or Safety &Security Department personnel for corrective action. Directors, Managers, Supervisors, and Safety &Security personnel are encouraged to conduct appropriate investigations to determine the potential risk as evaluated through examining factual data, the severity and probability of the hazard will be categorized as one of the following:

1. **Catastrophic** – Death or system loss (often called a Category I)
2. **Critical** – Severe injury, severe occupational illness, or major system damage (or Category II)
3. **Marginal** – Minor injury, minor occupational illness, or minor system damage (or Category lll)
4. **Negligible** – less than minor injury, occupational illness, or system damage (or Category Vl)

MATRIX 1: SEVERITY OF THE CONSEQUENCE

CATEGORY NAME	LEVEL	CHARACTERISTICS
Catastrophic	1	Could likely result in death, permanent total disability, severe property damage or irreversible environmental damage.
Critical	2	Could likely result in permanent partial disability, injuries or occupational illness that may result in hospitalization, or reversible significant property/environmental damage.
Marginal	3	Could likely result in injury or occupational illness resulting in one or more lost workdays(s), reversible moderate property/environmental damage.
Negligible	4	Could likely result in injury or illness not resulting in a lost workday, minimal property/ environmental impact.

Hazard Frequency (probability) Categories

The hazard consequence occurrence probability, or frequency of occurrence, represents a qualitative judgment of the relative likelihood of occurrence of an accident caused by an uncorrected or uncontrolled hazard as a result of an event or series of events. All identified hazards are assigned one of five probability levels, as provided in the Hazard Frequency Categories chart below:

Hazard probability is a subjective measure of likelihood that a specific hazard will occur and will be categorized as follows:

a. **Frequent**-likely to occur frequently or continuously (weekly 200K miles)

b. **Probable**-Will occur several times in life of an item (monthly 800K miles)

c. **Occasiona**l -Likely to occur sometime in the life of an item (yearly 11 million miles)

d. **Remote** – Unlikely but possible to occur in life of an item (decade 110 million miles)

e. **Improbable**-So unlikely, it can be assumed occurrence may not be experienced

MATRIX 2: LIKELIHOOD OF OCCURRENCE OF THE CONSEQUENCE

QUALITATIVE DEFINITION	VALUE	MEANING
Frequent	**A**	Likely to occur with high frequency. Likely to Occur Frequently (>10-1)
Probable	**B**	Will occur many times in life of an item or at a specific location. Likely to Occur Several Times (<10-1 but >10-3)
Occasional	**C**	Likely to occur one or more times in life of an item or at a specific location. Likely to Occur Sometime (<10-3 but >10-6)
Remote	**D**	Unlikely but possible to occur in life of an item or at a specific location. Very Unlikely to Occur (<10-6 but >10-8)
Improbable	**E**	So unlikely, it can be assumed occurrence will not be experienced at a specific location. Almost inconceivable that the event will occur (<10-8)

A qualitative hazard probability will be derived from research, analysis, and evaluation of safety data from the operating and service experience of Omnitrans or other similar transit agencies.

Risk Assessment Matrix				
Likelihood	*Severity*			
	1 (Catastrophic)	**2 (Critical)**	**3 (Marginal)**	**4 (Negligible)**
A (Frequent)	1A	2A	3A	4A
B (Probable)	1B	2B	3B	4B
C (Occasional)	1C	2C	3C	4C
D (Remote)	1D	2D	3D	4D
E (Improbable)	1E	2E	3E	4E

Risk Assessment Matrix Color Code	
Tolerability" based on identified severity and likelihood	
	Unacceptable under the existing circumstances.
	Acceptable based upon mitigations.
	Acceptable with senior management approval.

11.4 Assessing the Risk

Risk assessment determines the acceptability of assuming a risk associated with a hazard, the necessity of implementing corrective measures to eliminate or reduce the hazard, or a combination of both. The results of the analysis will be shared with Senior Leadership by the Director of Safety & Security on an ongoing basis to identify appropriate actions. All "unacceptable" hazards must be eliminated, and measures will be taken for the remaining risk acceptance categories to minimize risk.

11.5 Hazard Resolution and Mitigation "Resolving" does not mean "Eliminating"

§ 673.25(d) – A transit agency must establish methods or processes to identify mitigations or strategies necessary as a result of the agency's safety risk assessment to reduce the likelihood and severity of the consequences.

Once the hazards are identified and categorized, subsequent analysis will be undertaken using the risk register described above to resolve the issue and minimize risk associated with the identified hazard. A hazard resolution matrix will be developed combining hazard severity and hazard frequency, as shown in the matrix above, to identify the level of acceptance for a specific hazard/risk.

11.6 Corrective Actions

Omnitrans safety database is designed to provide notification of the corrective action to responsible parties as well as alert them of upcoming due dates and overdue corrective actions. The results of such analysis will be shared with agency staff and employees through Safety Communication and support.

Completed hazard identifications and safety risk assessments and mitigation processes are documented and approved as appropriate and any hazard needing correction are entered and tracked in Omnitrans Safety database. Corrective actions will have:

1. Original finding information,
2. A suggested corrective action,
3. The responsible parties assigned, and
4. A due date identified.

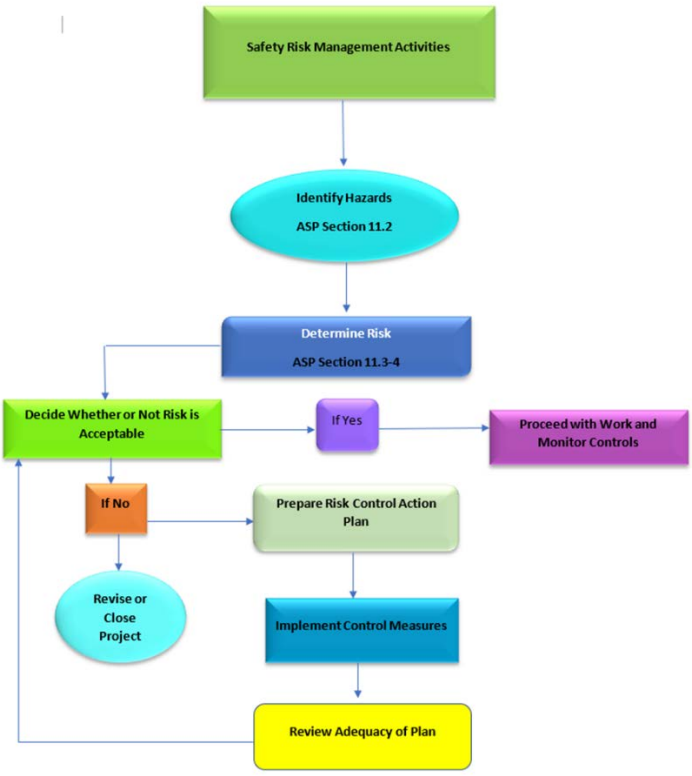
Individuals assigning a corrective action and those responsible for the corrective actions are expected to work together to effectively mitigate and/or eliminate the issue.

Specific Goals:

1. Implement a structured process for the management of risk that includes the assessment of risk associated with identified hazards, expressed in terms of severity and probability.
2. Develop criteria for evaluating the level of risk the Agency is willing to accept.
3. Implement risk control strategies that include hazard elimination, risk control, risk avoidance, risk acceptance, risk mitigation, and where applicable an action plan.
4. Implement mitigating actions resulting from the risk assessment, including timelines and allocation of responsibilities are documented.

5. Ensure that risk management is routinely applied in decision making processes.
6. Ensure that effective and robust mitigations and controls are implemented.
7. Appropriately justify risk assessments and risk ratings.

RISK MANAGEMENT FLOW CHART PROCESS



G. SAFETY ASSURANCE

§ 673.27(a) – Bus transit agencies must develop processes for (1) safety performance monitoring and measurement, (2) management of change, and (3) continuous improvement. Safety Assurance (SA) activities serve as a check on the agency's Safety Risk Management (SRM) process.

12.0 Safety Data Acquisition and Analysis

Safety Assurance means processes within the agency's Safety Management System that function to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that Omnitrans meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

12.1 Data Collection

The activities of this section complement and are supported by Section F "Safety Risk Management (SRM)". Safety statistics and data are gathered through field inspections and evaluations, facility inspections, incidents, observations, compliance audits, and records reviews. Data is recorded in a safety database, which is used for tracking both safety and security related data.

The objectives of the data acquisition and analysis are to:

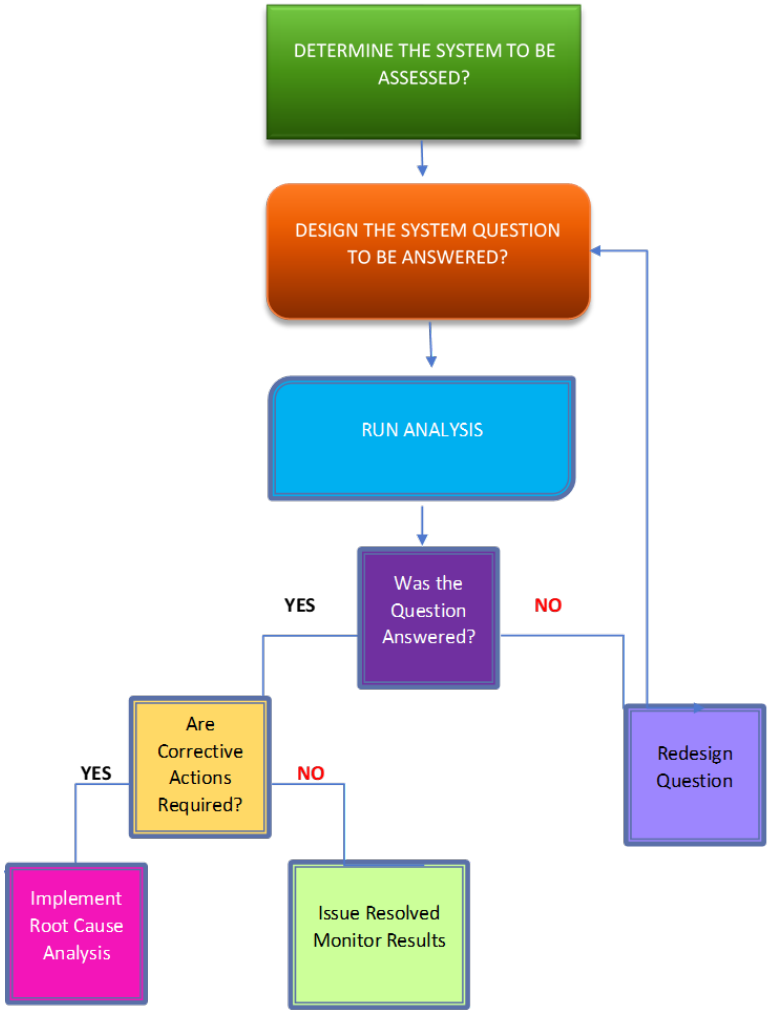
1. Monitor overall safety performance of all Omnitrans transportation service systems.
2. Identify potentially hazardous or unsafe trends and act before they cause, or contribute to the cause of, injuries, accidents, or damage.
3. Establish performance measure and targets.
4. Document organizational efforts to improve safety and the results thereof.

12.2 Analysis

The Agency safety database/s offer reporting features to allow users to trend data for reporting. Monthly, quarterly, annual, and ad-hoc reports must be run by Senior Leadership and the Director of Safety & Security to examine data trends in comparison with previous time periods. Senior Management and the Director of Safety & Security examine reports in the following areas:

1. Broad contract compliance inspection activities that include internal, external, and regulatory inspections and audits.
2. External reporting from NTD, ABBG, and other industry standards.
3. Corrective action status for all modes.
4. Near miss and unusual occurrence activities for all modes.
5. Any factors that reveal unsafe trends are addressed through corrective action measures.

DATA ANALYSIS PROCESS FLOW CHART



12.3 Reporting and Distribution

Senior Leadership and the Director of Safety & Security will use results of trending and data analysis to develop various reports. A report must be provided on a quarterly basis, to the CEO/GM. A quarterly report is presented to Omnitrans Operations and Safety Committee (Board of Directors sub-committee) at quarterly meetings to highlight key safety and security performance indicators.

1. Omnitrans Director of Safety & Security shall:
   a. Directly investigate or assign an investigation of potential risks discovered through inspections and other reporting activities.
   b. Submit monthly safety and security reports to Senior Leadership for presenting to Omnitrans Board of Directors.
   c. Report abnormal trends and issues at each applicable Department.

2. Other Omnitrans Departments shall:

a. Analyze safety issues resulting from data trends.
b. Cooperate with Safety & Security Department staff during regular audits or an investigation.

13.0 Investigation and Reporting

§ 673.27(b)(3) – Conduct investigations of safety events to identify causal factors…

This section describes Omnitrans process for conducting accident and incident investigations to identify casual factors.

13.1 Investigations

1. Accidents and emergencies must be subject to a formal and objective investigation. Incidents shall be investigated at the discretion of Omnitrans Director of Safety & Security, with support from other Departments.
2. Omnitrans is prepared to conduct a thorough investigation to determine causation of an incident occurred and to develop strategies to avoid similar incidents.
3. As with any investigation, time is of the essence, therefore investigations should proceed as soon as practical to avoid potentially losing valuable information.
4. Only trained investigators are to conduct investigations and under no circumstance may an investigator examine his/her own work area incident. The major objective is fact finding, not fault finding.
5. In the event investigators from any regulatory agency should observe an internal investigation or conduct their own investigation of an incident occurring on any Omnitrans services or property, all parties involved shall cooperate fully with the needs and requests of these agencies.
6. Accidents related to all contract operations or infrastructure is investigated by the Director of Safety & Security with support from Departmental Staff.

13.2 Investigation Procedure

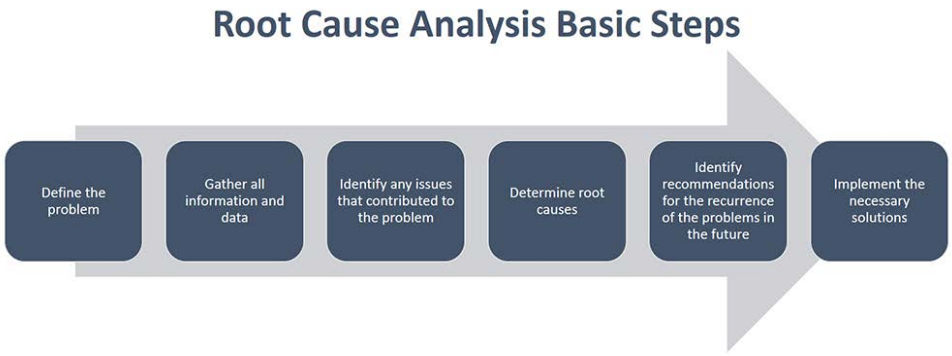
The procedures below are designed to conduct effective incident investigations and analyze incidents and develop corrective actions. The incident management system is a process. Management uses the process in each incident as a template from which to discover the multiple causes that may be involved.

A complete investigation is comprised of the following four stages being completed:

1. Investigation and interview stage: All relevant information is found.
2. To identify multiple causes a Root Cause Stage will be implemented to identify: Contributing factors and root cause is determined, and information is recorded in the Agency's database.
3. Preventative strategies are implemented through corrective actions. Recommendations are prepared and recorded.
4. For near-miss reports, a full investigation may not be required. In this case, the Director of Safety & Security will determine the level of investigation appropriate to effectively address the report.

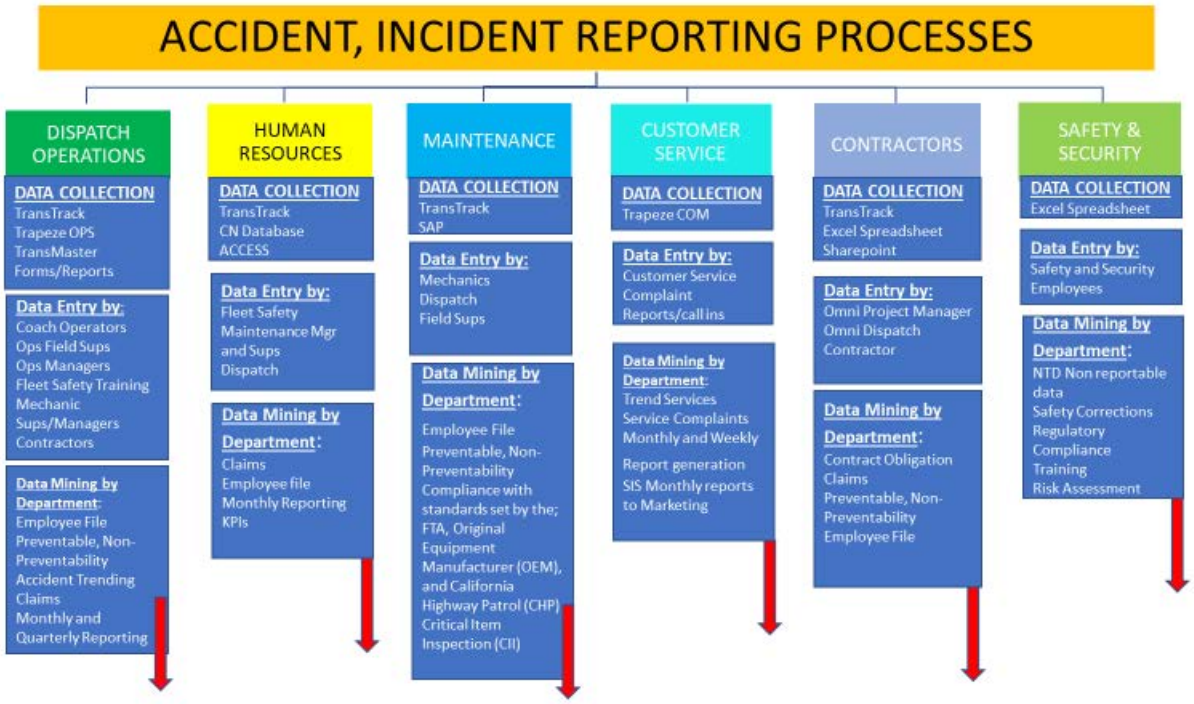
The Director of Safety & Security with support from Department Staff, reviews the facts that have been presented from the investigation and implements a Root Cause Analysis (RCA) to

determine a root cause/s for why the incident occurred.



13.3 Reporting

Omnitrans collects safety data across all departments into several databases. Each Department is responsible to review and report any concern they might have regarding the data entered in their departments. Additionally, the Chief Safety Officer (CSO) will review the data collected in Dispatch, Operations, Safety and Security, Customer Service, Contractors and Maintenance for any hazard and their consequences are appropriately identified, reported, and resolved. The CSO, or designee will follow up directly to determine whether, or not to take further action after mitigations are implemented.



13.4 Responsibilities of External Reporting

San Bernardino Sheriff's Department or Local Law Enforcement investigates (as applicable):

1. Traffic collisions and incidents.
2. Death of any person onboard a bus vehicle when related to the movement of a vehicle.
3. Grade crossing collisions involving buses.
4. Death of any person on board a bus, related to the movement of the bus.

5. Any impact between a bus and a pedestrian, trespasser, motor vehicle, occupied bicycle, or other object under the control of another person.
6. Unusual criminal activity.
7. Law enforcement reports of the investigation and conclusions are usually reported within 30 days of the occurrence.

Service Contractor

All contracted vehicle service operators involved in an incident will complete an Accident/Incident Report form while still at the scene. Documents, courtesy cards, photographic film, scene diagram and any other investigative material will be sent to contractors Purchased Transportation Administrators. Copies also will be kept and held at the location division. The Purchased Transportation Administrators will archive the file on any Incident Reports on all fatality incidents. The National Transportation Safety Board (NSTB) will be notified on all contracted service vehicles incidents meeting the reporting criteria.

The service contractor performs and assists in the formal investigations of:

1. Bus and/or paratransit vehicle collisions
2. Passenger injuries
3. Incidents that result in damage to Omnitrans equipment, structures, or property
4. Employee injuries and occupational illnesses

A preliminary report is required within the next business day of an incident. A comprehensive written report with all supporting data shall be submitted within 24-72 hours of the occurrence. If additional time is required to determine the root causes of an incident, a written communication stating such must be provided to Omnitrans Special Transportation Services (STS), and Operations Directors and the Safety, Security and Regulatory Compliance Department.

As soon as practicable following any event involving injury or death to any person or damage to equipment, all information must be obtained, secured, and retained for further investigation.

The service contractor shall notify Omnitrans (STS), Operations and the Safety and Security Directors of the following incidents:

1. Collision
2. Employee Injury
3. Passenger/Third-Party Injury
4. Assault
5. Facility/Property Damage
6. Any other significant incident

The Directors of Operations and Safety & Security shall, at its discretion, elect to perform an independent investigation of accidents involving transit vehicles or occurring on its property or involving its bus services, regardless of the parties involved.

The reviewing body will then issue written recommendations to address or mitigate any such conditions or practices. Recommendations will be tracked until completed or closed.

13.5 Corrective Actions Resulting from Accident Investigation Team

1. Omnitrans develops corrective action plans based on the results of the investigation. Causal, root cause analysis and contributing factors will be assessed, and any areas identified as in need of improvement may be included in a corrective action plan. All corrective actions will be input and tracked in the safety database. Such solutions relate directly to each of the causes that are identified in each incident.
2. Corrective action is taken as soon as possible after the investigation and analysis process is complete. An immediately identified hazard or employee problem is addressed and corrected without delay to prevent another incident from happening again or a problem to become more severe.
3. Lessons learned from the incident are communicated through training.

14.0 Internal Safety & Security Inspection/Audit Process

§ 673.27(b)(2) – A transit agency must establish activities to monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.

System audits and inspections are a formal process of managing the Agency's ASP and SMS requirements. Inspections and audits verify that all identified safety elements in an environment are in place and perform as designed. This section summarizes Omnitrans internal safety and security inspection/audit processes. Internal inspections and audits are performed by the Safety & Security department and external contracted auditor.

14.1 Departments and Functions Subject to Review by both Internal and Third-Party Audits

The following groups are subject to audits and inspections:

1. Safety and Security
2. Transit Strategic Planning
3. Bus Operations
4. Bus Service contractor (s)
5. Facilities (Office and buildings etc.)
6. Contractors
7. Vehicle Maintenance Shop
8. Stops and Stations Maintenance
9. Outside third-party contractors or sub-contractors.
10. Procurement

14.2 Scheduling Audits

The Director of Strategic Planning supported by Omnitrans Director of Safety & Security will schedule safety and security triennial audits to evaluate compliance and measure the effectiveness of this ASP. Internal safety and security audits are conducted in compliance with state and federal regulations.

The Director of Safety & Security with support from the Director of Strategic Planning will prepare and submit a schedule to Departments at least 14 calendar days prior to the beginning of any

scheduled audits. Safety and Security Department documents the internal safety and security audits performed during each calendar year within the safety database.

Audits are conducted in accordance with written checklists by the Director of Strategic Planning with support from the Director of Safety & Security to verify compliance and the effectiveness of the ASP activity.

Audits will be independent from the first line of supervision responsible for performance of the activity being audited.

Audits performed on the Safety, Security and Regulatory Compliance Department is conducted by the Director of Strategic Planning.

14.3 Scheduled Monthly Safety Inspections

The Director of Safety & Security and Department staff with support from department Directors, Managers, or Supervisors performs monthly inspections of the following programs and facilities:

1. Maintenance shop activities
2. Security Facilities
3. Building Facilities (Office and Building etc.)
4. Maintenance Shop activities
5. Stops and Stations facilities
6. Bus Service operations
7. Construction activities
8. Employee environmental Health and Safety activities
9. Contracted Bus Services activities

14.4 Unannounced Safety and Security Internal Audits

The Director of Safety & Security and Department staff performs unannounced inspections of the following programs and facilities:

1. Maintenance Shop activities
2. Building Facilities maintenance activities
3. Stops and Stations facilities
4. Bus Service operations Special Transportation Services (STS)
5. Construction activities
6. Employee Health and Safety activities
7. Leased and contracted facilities

14.5 Scheduled Inspections By the FTA

In addition to Omnitrans internal inspections and audits, Omnitrans ASP is audited by the FTA once every three years. At the conclusion of these reviews, a formal report is submitted to Omnitrans by the FTA. Omnitrans is responsible for preparing a response to each recommendation and submitting a written reply to the audit findings with 45 working days depending on the type of audit being performed, and following receipt of the report. The time really depends upon what type of audit that

has been done.

If the findings cannot be resolved prior to submitting Omnitrans response, Omnitrans will develop a corrective action plan for each outstanding item. The corrective action plan shall include the finding, noted by number and specific narrative, the proposed resolution of each finding, as well as interim methods to mitigate the issue, the individual responsible for resolving the finding, and the estimated date of closure.

14.6 Review Process Development of Checklists

All internal safety inspections and audits will be performed by using checklists; monthly walk through inspection checklists and quarterly audits reports are maintained and recorded in the safety database where findings from these audits and inspections are recorded and tracked by Departmental Directors and the Director of Safety & Security until closure.

14.7 Issuing of Findings

Any finding during any audit or inspection containing a recommended corrective action will be assigned to select responsible parties with a due date. The Director of Safety & Security and all applicable Department Directors are responsible to follow up and verify closure and completion of corrective actions. Findings that threaten the health and safety of employees, property or the environment will be dealt with immediately at the time and site of the finding.

14.8 Reporting Requirements

The triennial internal safety audit report will state the results of each internal audit in terms of the adequacy and effectiveness of this ASP and includes the status of any subsequent findings and corrective actions.

14.9 Responsibilities

1. The Director of Safety & Security in concert with the Director of Strategic Planning will conduct triennial audits for the areas assigned in the list provided above and in accordance to the triennial audit schedule. Triennial Audits will be distributed to Senior Leadership and the Director of Safety & Security.
2. The Director of Safety & Security will perform announced monthly safety walks to ensure their oversight works in conjunction with the practices outlined in this ASP. Directors and Managers will receive all inspection reports.
3. The Director of Safety & Security will perform unannounced internal safety inspections to ensure their oversight works in conjunction with the practices outlined in this ASP. Directors and Managers will receive all inspection reports.
4. Omnitrans Directors are responsible for assigning and ensuring cooperation and coordination of Division staff with internal safety audits and announced and unannounced inspection activities.

15.0 Safety Performance Measures and Targets

§673.11(a)(3) – The Public Transportation Agency Safety Plan must include performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. Each transit agency must include SPTs in its ASP.

Omnitrans will include in its ASP, performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. These targets will be specific

numerical targets set by the Agency and based on the safety performance measures established by FTA in the National Public Transportation Safety Plan. The CEO/GM and Senior Management are responsible to establish and monitor these detailed performance targets.

15.1 Performance Measure Objectives

Omnitrans determines safety performance measures using several measures, including lagging indicators such as accidents, fatalities, injuries, and property damage associated with transit agencies' provision of service, and leading indicators. Leading indicators will provide the agency the ability to monitor information or conditions that may affect safety performance. Lagging indicators provide information on events that have already taken place. The thresholds for "reportable" fatalities, injuries, and events are defined in the National Transit Database (NTD).

Performance Measures included in the National Public Transportation Safety Plan are:

1. **Fatalities** (total number of reportable fatalities and rate per total vehicle revenue miles by mode)
2. **Injuries** (total number of reportable injuries and rate per total vehicle revenue miles by mode)
3. **Safety Events** (total number of reportable events and rate per total vehicle revenue miles by mode)
4. **System Reliability** (mean distance between major mechanical failures by mode)

Safety Performance Measures Specific Goals:

1. Quantifiable (ease of analysis and examining trends)
2. Representative of what is being measured
3. Consistent when measuring the same conditions
4. Detectable even when there are changes in environmental or behavioral conditions
5. Efficiency of obtaining and using measures is consistent with the benefits
6. Easily understood by those who collect and analyze them
7. Capable of data quality control and verification
8. Manageable total set of measures, metrics, and indicators

15.2 Targets

Safety performance targets will be created for each safety measure. The Agency will ensure all relevant targets are being met. Omnitrans will use statistics to determine Agency targets by data stored in an internal safety database.

Mode of Service	Fixed Route Bus FY2019	Fixed Route Bus FY2020	Non-Fixed Route Bus FY2019	Non-Fixed Route Bus FY2020
Performance Measures	Performance Targets			
Fatalities (total)	0	0	0	0
Fatalities (rate*)	0	0	0	0
Injuries (total)	3% Reduction of previous year NTD reports	3% Reduction of previous year NTD reports	3% Reduction of previous year NTD reports	3% Reduction of previous year NTD reports
Injuries (*rate)	Based upon total reported injuries	Based upon total reported injuries	Based upon total reported injuries	Based upon total reported injuries
Safety Events (total)	3% Reduction of previous year NTD reports	3% Reduction of previous year NTD reports	3% Reduction of previous year NTD reports	3% Reduction of previous year NTD reports
Safety Events (*rate)	Based upon total reported Safety Numbers	Based upon total reported Safety Numbers	Based upon total reported Safety Numbers	Based upon total reported Safety Numbers
System Reliability**	2% Increase in system Reliability based on previous years of NTD Reported Numbers	2% Increase in system Reliability based on previous years of NTD Reported Numbers	2% Increase in system Reliability based on previous years of NTD Reported Numbers	2% Increase in system Reliability based on previous years of NTD Reported Numbers

** Rate is per 100000 revenue miles*

*** System reliability is calculated as mean distance between major mechanical failures*

15.3 Safety Performance Monitoring and Measurement

Omnitrans, has established several activities to monitor operations and maintenance for compliance with procedures. These processes are also used to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. Non-compliance with procedures is generally addressed through counseling, training, and other management oversight activities. Insufficient procedures are addressed through safety risk management activities.

1. Monitor system for compliance with, and sufficiency of, the agency's procedures for operations and maintenance.
2. Monitor operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.
3. Conduct investigations of safety events to identify causal factors and root cause; and
4. Monitor information reported through any internal safety reporting programs.

Omnitrans will be able to determine whether safety objectives and safety performance targets are being met.

15.4 Target Coordination

§ 673.15(a) – A State or transit agency must make its safety performance targets available to States and Metropolitan Planning Organizations to aid in the planning process.

Omnitrans will coordinate with the Southern California Association of Governments (SCAG) metropolitan planning organization (MPO) for San Bernardino, and the California Department of Transportation (Caltrans), for the state requirements. Omnitrans will report to each agency, the maximum extent practicable.

16.0 Facility Inspections

§ 673.27(b)(2) – A transit agency must establish activities to monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.

16. 1 Objective

Omnitrans strives to enhance safety through performing facilities inspections to identify potential hazards. All potential hazards are assessed for elimination or mitigating as outlined in Section 11.4 Omnitrans facilities inspections, addresses the safety of passenger use areas, bus stops, shelters, and waiting areas. Criteria for locating and equipping customer areas are developed, including maintenance and security plans.

16.2 Periodic Inspections: Omnitrans Transit Centers, and Bus Stops

Omnitrans Transit Centers, and Bus Stops are subject to reviews and inspections by Maintenance Facilities, and Strategic Planning (Stops and Stations) with support from the Director of Safety & Security to verify that all facilities are well maintained and free of serious hazards. Activities performed by the Facilities Department, Stops and Stations and the Safety and Security Department will consist of a combination of some or all the following:

- Field inspections
- Claims
- Customer Service
- Records reviews
- Internal audits
- Observations
- Evaluations

Omnitrans Stops and Stations and Facility Maintenance are responsible for maintenance and cleaning of the bus service platforms and facilities. Omnitrans is responsible for security at these locations. Hazard identification and resolution at these facilities is coordinated as applicable.

16.3 Responsibilities

Omnitrans Strategic Development Department (Stops and Stations) shall:

1. Perform Bus Stop maintenance. The Agency has different levels of amenities at different bus stops based on ridership demand, Stops and Stations will provide applicable maintenance and cleaning as stated:
    a. pressure washing, glass panel repair, graffiti removal, change out of customer information, etc.
    b. graffiti removal and pressure washing all benches.
    c. the bus stops with trash cans need trash pickup, etc.
    d. perform inspections and provide Facilities Manager and Security Specialist of any deficiencies via, email, phone, and Facilities Notifications.
2. Assign corrective actions for non-compliant items that need to be addressed
3. Identify abnormal or unsafe trends
4. Correct or address trends through investigation and solution activities

Facilities shall:

1. Assign Work Order actions for non-compliant items that need to be addressed (lights etc.)
2. Perform repairs of all reported Facility Notifications

The Safety, Security Department Staff shall:

1. Perform separate facility inspections/audits focused on facility safety, environment, and emergency preparedness items. These inspection inspection/audits may overlap with facility maintenance oversight primarily performed by the Facilities Department
2. Perform internal “announced” monthly inspections, “un-announced” quarterly audits and triennial audits from a contracted auditor
3. Perform quarterly Cal/OSHA inspections at all major transit facilities and report findings to the Facilities Department
4. Communicate any findings to the Facilities Department for review and proper assignment either through a corrective action or Facilities Notifications (SAP work order).

Response to Unsafe Conditions

1. Discrepancies, potential hazards, or unsafe conditions discovered through inspections or by any other means should be resolved promptly through mitigation or maintenance action by the party responsible.

2. The Director of Safety & Security will immediately notify the appropriate, directors, manager(s) and/or supervisors of any reported hazards for investigation and follow-up.
3. Omnitrans Facilities: A discrepancy or condition related to an Omnitrans facility, whether administrative, fleet maintenance, transit center or maintenance and operations facility that does not present an immediate hazard or unsafe condition must be reported to the Omnitrans Facilities Department who will forward to the appropriate contractor or Director for resolution.

16.4 Inspections: Facilities Maintenance Activities

Facilities Maintenance inspections ensure that effective maintenance activities are being performed for equipment, and associated systems and structures. This practice applies to all parties performing inspections, maintenance, and repairs to all Omnitrans transit, supporting vehicles, communication systems, and support structures. Inspections, audits, tests, maintenance, and repairs of items subject to this section are performed in compliance with standards set by the FTA, and California Occupational Safety and Health Administration (Cal/OSHA), Occupational Safety and Health Administration (OSHA), National Fire Protection (NFPA), California Building Codes etc., American Public Transportation Association (APTA) and with Omnitrans maintenance practices, procedures and guidelines. Facility Maintenance Plan v9.0.docx;Fac Maint Plan Appendix 10 Fac QC.xlsx

16.5 Tracking Corrective Actions to Conclusion

Corrective actions identified through Omnitrans inspections/audits and are entered into the safety database and tracked until completion. Hazards discovered through the contractor's inspection and maintenance process are corrected or removed through normal maintenance procedures.

If, for any reason, a hazard is determined unacceptable and cannot be resolved through the normal maintenance process, the equipment or structure is not returned to service, or its service is restricted to the limits of a lower level of compliance until repairs are completed. Under no circumstance is any equipment or structure not in compliance with applicable federal or state regulations allowed to remain in service.

17.0 <u>Vehicle Maintenance Program</u>

Omnitrans Vehicle Maintenance inspections are used to verify that effective maintenance activities are being performed for equipment, and associated systems and structures. This practice applies to all parties performing inspections, maintenance, and repairs to all Agency transit and supporting vehicles.
Inspections, tests, maintenance, and repairs of items subject to this section are performed in compliance with standards set by the, FTA, Original Equipment Manufacturer (OEM), California Highway Patrol (CHP) Critical Item Inspection (CII) and Occupational Safety and Health Administration (Cal/OSHA) and with Omnitrans maintenance policies, practices, and guidelines.

Vehicle Inspections: Omnitrans Maintenance Department performs the following:

1. **Operator's Daily Report (ODR) Review**
   An authorized maintenance person reviews all pre-trip inspections, otherwise known as an Operator's Daily Report (ODR), to ensure all noted deficiencies are caught by transit Operations and/or maintenance staff and to ensure that all such deficiencies are properly

handled in accordance with corrective action procedures. Maintenance Supervisors generate work orders based on ODR entries.Maint-AdminColorCopi_20200225_103210.pdf; Maint-AdminColorCopi_20200225_103223.pdf

2. **Preventative Maintenance Vehicle Inspections (PMVI's)** Maintenance conducts PMVI's on a periodic basis.
3. **A Critical Item Inspection (CII)** is conducted semimonthly and meets the California Highway Patrol inspection criteria. Maint Plan '14 Appendix 2 QC Checklist PMVI.pdf; Maint Plan '14 Appendix 4 PMVI Checklist.pdf

17.1 Vehicle Preventive Maintenance

Preventative maintenance and inspections are carried out at a minimum in accordance with the Original Equipment Manufacturer (OEM) recommendations. This process occurs every 10,000 miles and varies in the complexity based on the mileage interval. Inspections include:

1. Brake inspection
2. Lube and oil filter
3. General inspection
4. Wheelchair ramp
5. Air conditioner
6. Electrical
7. Cooling
8. Compressed Natural Gas (CNG) and fire suppression
9. Farebox
10. Transmission
11. Differential and diaphragms

All inspections are documented and kept for the life of the vehicle. Specific details on the preventative maintenance program are explained further in the Maintenance Manual that is maintained by the Maintenance Department. The California Highway Patrol (CHP) conducts an independent audit of the preventative maintenance program annually.

17.2 Vehicle Repair Personnel

1. Omnitrans utilizes mechanics trained and evaluated specifically with reference to the maintenance of Agency vehicles. Only qualified mechanics perform maintenance on vehicles owned and operated by Omnitrans. Omnitrans mechanics are encouraged to acquire Automotive Service Excellence (ASE) certifications to perform bus safety inspections.
2. The Operations and Maintenance Directors are responsible for ensuring that everyone performing inspections and/or maintenance is qualified as follows:
    a. Understands the requirements set forth in Federal and State regulations and can identify defective components.
    b. Is knowledgeable of and has mastered the methods, procedures, tools, and equipment used when performing maintenance and inspections.

17.3 Quality Control Practice

Supervisors conduct quality control inspections on vehicle repairs performed by mechanics.

17.4 Non-Operation of Vehicles with Safety Problems

All vehicles with identified safety problems are taken out of service until the safety-related problems are corrected.

17.5 Data Tracking System

The SAP database system provides traceability and history on all vehicle repairs/inspections. In addition to a preventive maintenance scheduling and tracking capability, Omnitrans, under SAP, includes the following systems in vehicle maintenance management:

1. Cost Accounting - A system that tracks the labor and material costs attributable to each vehicle, class of vehicle and the total fleet.
2. Work Order Processing - A system that utilizes a sequentially numbered form for the purposes of recording a comprehensive description of the repairs chargeable against a specific vehicle, including the time required to complete the repairs and the parts utilized in the process. A Work Order is used in all cases whether the work is contracted out or performed in-house. The types of work orders include repair, rework. and warranty.
3. Status Tracking - A system that tracks the history of each vehicle, including repairs, road calls, costs, mileage, configuration, component rebuilds and inspections.
    1. Materials Management - A system that maintains track of:
        a. Parts and component inventories
        b. Parts and component usage patterns
        c. Warranty programs
        d. Purchases and receipts
        e. Part costs.

17.6 Bus Safety Inspections

Maintenance personnel perform bi-monthly Critical Item Inspection (CII) on all buses operated by Omnitrans. Each bus receiving a safety inspection shall be checked for compliance with the requirements for safety devices and equipment as referenced or specified by all applicable guidelines. A safety inspection report will be prepared by the individual(s) performing the inspection and will include the following:

1. Identification of the individual(s) performing the inspection
2. The date of the inspection
3. Identification of the bus inspected
4. Identification of the equipment and devices inspected including the identification of equipment and devices found deficient or defective
5. Identification of corrective action(s) for any deficient or defective items found and date(s) of completion of corrective action(s)
6. Records of safety inspections and documentation of any required corrective actions will be retained for a minimum of three years for compliance review.

17.7 Pre-Trip Vehicle (Inspections)

Operations staff observes Omnitrans drivers conducting their pre-trip inspections to ensure that all parts of the inspection are completed and documented. The daily pre-trip inspections apply to all agency vehicles including vehicles owned by Omnitrans. ODR_.pdf

17.8 Supporting Documentation

1. Vehicle Maintenance Recordkeeping
   a. Preventative Maintenance Vehicle Inspections (PMVI's) shall be maintained in the Maintenance Department office for a minimum of three (3) years.
   b. All pre-trip inspections forms will be maintained by the Maintenance Department office for a minimum of three (3) years.

2. Post Vehicle Incident Recordkeeping
   a. When a transit vehicle is involved in an incident in which the maintenance and/or inspections records could be used in the investigation and/or resolution of a claim, all maintenance and inspection records must be secured for future review. Omnitrans Operations Director will direct this process.
   b. All records for the three (3) previous years prior to the incident date must be secured. The following methods will be used:
   c. Maintenance data is backed up to ensure the previous three (3) years of maintenance records are available for the vehicle in question.
   d. Paper documents (i.e. Pre-trip Inspections) for the vehicle in question are secured and labeled "Do Not Destroy or Transfer without approval of the Director Safety & Security".
   e. If the vehicle in question is scheduled for disposal or sale, all records for three (3) years before the incident date must remain available to Omnitrans in anticipation of claim litigation.

3. Operator's Daily Report (ODR
   All pre-trip inspection records (ODR's) shall be maintained in the Maintenance Department office for a minimum of three (3) years.

H. SAFETY PROMOTION

18.0 Objective

The Agency's goal is to achieve a high level of staff competency while meeting all regulatory requirements.

18.1 Training Program

§ 673.29(a) – A transit agency must establish and implement a comprehensive safety training program for all agency employees and contractors directly responsible for safety in the agency's public transportation system. The training program must include refresher training, as necessary.

The agency's training plan outlines the requirements set forth by Omnitrans regulatory agencies. This plan sets the minimum training requirements for all agency employees which includes mandatory and optional in-house and external training. Detailed training programs are necessary to ensure policies, procedures, and programs are followed accordingly. Formal training programs entailing in class activities, curriculums, training manuals, lesson plans, field exercises, drills, computer-based training, written and video communications, and testing, have been established for Coach Operates, Dispatch, Safety & Security, Customer Service, Mechanics, Facilities Maintenance personnel, and front-line employees.

The training programs received by an employee are dependent on his/her job classification and the responsibilities of his/her position as determined by a Job Hazard Analysis (JHA.) The training programs may also include on-the-job training that is monitored by a supervisor. Training efforts are first started at the initial stages of employment and are continued periodically throughout an employee's career as necessary to maintain certifications and to ensure the employee can perform his/her duties in a safe and efficient manner.

The agency's training plan outlines each Departments responsibility and lists the course requirements based on the employee's role at Omnitrans. Examples of training programs include, but are not limited to:

1. Environmental Health and Safety mandated training
2. Vehicle Operator Training
3. Maintenance training for various job classifications
4. Mechanics Technical Training
5. Equipment Operation Training
6. ADA Laws and Regulations Compliance
7. Sexual Harassment Prevention Training
8. Injury and Illness Prevention Training
9. Customer Relations Training
10. Emergency Preparedness and Response Training including NIMS/ICS
11. Alcohol and Drug Abuse Policy
12. Bloodborne Pathogens Training
13. Hazard Communication
14. Hazard Identification and Risk Management Awareness training
15. Causal and Root Cause Analysis
16. Accident and incident Investigations

Persons performing the following job functions are expected to have adequate training, qualifications, and/or certifications to complete their duties in a safe and effective manner:

1. Operations Field Supervisors
2. Dispatch
3. Customer Service
4. Bus Vehicle Maintenance Employees
5. Facility Maintenance Employees
6. Safety and Security
7. Front Line Employees
8. Student Coach Operator Training Courses:
    - Student Coach Operator Manual
    - National Safety Council Defensive Driving Course
    - Coach Simulator
    - CO Performance Standards Handbook
    - Radio Procedures – MDT
    - Farebox
    - DL 520 – Application for Employer Number
    - DL 814 – ETP Commercial Driving Performance Evaluation Route and Directions

- DL 807 – ETP Commercial DPE Maneuver Checklist
- ETP Primary Route Map # 2411-0003P
- DL 260 – Transit Driver Training Record
- ETP Primary Route Map # 2411-0003P
- DL 260 – Transit Driver Training Record
- DL 170 – Certificate of Driving Skill
- SR 1 – Report of Traffic Accident Occurring in California
- How to Burn and Wrap Video
- Video Query
- Ride Check Evaluation
- DMV Brake Check, Pre-Trip Inspection & Skills Test
- American with Disabilities Act of 1990
- CNG Fuel Safety Awareness
- Portable Fire Extinguishers
- Bloodborne Pathogens
- Hazardous Communications
- Ergonomics
- Heat Illness Training Program
- Back Posture
- ODR Completion Instruction Worksheet

9. Annual Training Certificate Renewal (ATCR) Classes:
    - Annual Training Certificate Renewal (ATCR) Classes
    - DL260 - Transit Training Record

18.2 Voluntary Bus Safety Certification Training Program

As part of Omnitrans comprehensive training program, the agency has chosen to incorporate Pursuant to the rule, 49 CFR Part 672, the Safety Promotion component of SMS. Only select employees will complete and maintain training requirements as outlined in Public Transportation Safety Certification Training Program, these include but are not limited to; all agency employees and contractors directly responsible for safety in the agency's public transportation system must complete both initial and annual refresher training.

FTA's voluntary Bus Safety Certification Training Program curriculum will include the following courses:

1. Effectively Managing Transit Emergencies
2. Transit Bus System Safety
3. Fundamentals of Bus Collision Investigation
4. SMS Awareness
5. SMS Safety Assurance
6. SMS Principles for Transit

18.3 Safety Communication

§ 673.29(b) – A transit agency must communicate safety and safety performance information throughout the agency's organization that, at a minimum, conveys information on hazards and safety risks relevant to employees' roles and responsibilities and informs employees of safety actions taken in response to reports submitted through an employee safety reporting program.

Effective communication is an essential requirement of the ASP, to ensure and demonstrate closed-loop communication (lessons-learned) and as a part of the continuous improvement of the ASP throughout the Agency, to all its employees, directors, managers, and executives, as well as contractors, and to the Board of Directors. Omnitrans communications methods vary but will comprise both internal and external communication/awareness.

Internal Communication Internal communication/awareness may be accomplished using:

1. Live Streaming TV
2. Management Meetings
3. Employee reporting systems
4. Departmental Meetings
5. Agency Safety & Security Meetings
6. Safety and Security Executive Committee
7. Safety & Security Newsletters
8. Safety and Security Intranet
9. Employee Handbooks
10. Employee mailboxes
11. Signature of Receipt
12. New Hire Training
13. Safety and Security Training
14. Safety & Security Communication Boards
15. Regular training sessions or email communications

Omnitrans Director of Safety & Security is, with assistance from the senior management, responsible for worksite specific internal safety communication. Worksite communication consisting of ad hoc and regularly established activities designed to communicate and reinforce the Agency's ASP and SMS related elements to all affected employees, to include:

1. The importance of conformance and the potential consequences of non-conformance with ASP, SMS processes or procedures
2. Share information about hazards and safety risks, and what actions are taken in response to reports submitted through the employee safety reporting program
3. Provide explanations of changes to ASP requirements, policies, activities, or procedures
4. Individual roles and responsibilities in achieving conformance with the ASP
5. The risks associated with work activities revealed from ASP data
6. Relevant output from management ASP reviews
7. Local/site reported hazards/near-misses and incidents
8. Agency hazards/near-misses and incidents of note and relevance
9. ASP performance data
10. Key results of internal/external assessments and audits

The Safety & Security Director will be the focal point for all internal ASP, SMS communication and will maintain a respective intranet site. Additionally, the director will liaise with other departments to respond to ASP-related inquiries from regulatory authorities.

External Communication: Omnitrans shall determine that significant risks identified through the operation of the ASP, SMS will not be communicated to the general public unless required by federal, state, or local regulations. Information regarding general Agency operation and specific risks identified will be communicated to the appropriate governing body as required only.

The Director of Marketing or designee is responsible for media communications regarding ASP, SMS issues and in consultation with the Directors of Safety & Security and HR/legal company entities where appropriate.

I. OMNITRANS SYSTEM MODFICATION PLAN

19.0 Managing System Modifications and Change

§ 673.27(c)(1) – A transit agency must establish a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance.

§ 673.27(c)(2) – If a transit agency determines that a change may impact its safety performance, then the transit agency must evaluate the proposed change through its safety Risk Management Process.

19.1 Objective

Omnitrans has implemented a structured Management of Change (MOC) process. The Agency will follow this process to review all proposed changes to equipment, raw materials, processes, and procedures before the changes are implemented to evaluate the impact and risks associated with the change.

Project plans for system modifications to transit operations, maintenance, or infrastructure will include a safety element that addresses the projects overall impact to employees and passenger's safety, as well as a safety plan to be followed during the construction and implementation of the project. The system modification review process will identify and analyze current or new technologies, systems or processes that will mitigate or eliminate hazards and resulting risks identified by a risk-based hazard analysis. These risks will be recorded and tracked in Omnitrans Safety Database.

For purposes of management of change, the changes that must be addressed include but not limited to:

1. Activity changes (e.g. changes to processes, equipment, infrastructure, software)
2. Regulatory requirements
3. Audit results
4. City or regional planning
5. Service environment
6. New technology

7. Organizational changes (e.g. personnel or staffing changes)
8. Material changes (e.g. new chemicals, storage, packaging)
9. Changes to the EHS management system (e.g. procedures, training, audits)

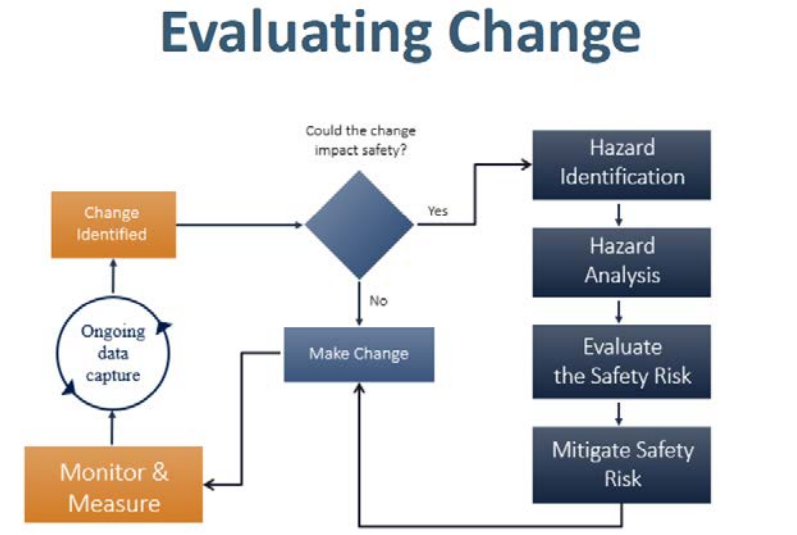
19.2 Responsibilities for the Management of Change Process

To ensure that proposed designs meet safety and security requirements and are consistent with the requirements of the Agency, Management of Change (MOC), processes will be the responsibility of Omnitrans Safety and Security Agency Committee (SSAC) chaired by the Director of Safety & Security will be responsible to convene as needed to perform internal reviews. The Safety and Security Executive Committee (SSEC) will be responsible for approval/disapproval of all submitted MOC request documents prior to any changes made.

19.3 MOC Review Committee "Objectives"

Members of Omnitrans Safety, and Security Agency Committee (SSAC) will serve on the review committee to determine those operations and activities that are associated with the identified hazard(s) where the implementation of controls is necessary to manage. The Safety, Security Executive Committee (SSEC) will make the final approval or denial decisions. The management of change requirements, will include the following important concepts:

1. System Analysis of a request for change
2. Impact analysis to identify of the hazards associated with "change"
3. Assessment of the risks associated with "change"
4. Consideration of all hazards and risks prior to the introduction of the "change"
5. Implementation of the controls needed to address the hazards and risks associated with the "change."
6. Monitor and Measure



Management of Change analyzes proposed system modifications/changes to assure additional hazards are treated.

J. PROCUREMENT

20.0 PROCUREMENT STANDARDS CRITERIA

Omnitrans Procurement policies spell out all necessary steps taken to ensure that vehicles that are purchased are appropriate for the intended use, and that all federal, state and local safety laws and regulations are met by the manufacturer and vendor at the time of vehicle purchase.

1. Basic safety and security user requirements are provided by the Safety and Security Office and the Project Managers includes them in procurement contract specifications and coordinates with appropriate offices. As new facility, system, hazardous materials, supplies, or equipment specifications are proposed, responding contractors are required to resolve any identified hazards.

2. Specifications include the requirement that contractors who provide systems, subsystems, or equipment that affect safe movement of vehicles or passenger/employee safety, establish and maintain a system safety program in accordance with an Omnitrans-approved system safety procedures, which defines objectives, tasks, procedures, schedules, and data submittals for the safety activities that will be performed by the contractor. The contractor's system safety program plan and supporting documentation will be reviewed and approved by Omnitrans Project Manager and the Safety, Security Department.

20.1 Responsibilities

1. Project Managers and Departmental Directors have primary responsibility for ensuring that the Request for Proposals (RFP) is in accordance with Omnitrans Safety & Security processes and procedures.
2. All departments are instructed to include review of such proposals by the Safety & Security Department and to follow all Safety Procedures as well as Policies/Instruction issued by the Procurement staff regarding the storage, distribution, and issuance of hazardous materials, chemicals; and any changes made to such products being delivered.

20.2 Procurement of Chemicals and Hazardous Materials

1. All chemicals and hazardous materials must be pre-approved by the Safety & Security Department and include the Safety Data Sheet (SDS) prior to purchase and use by employees, contractors, and sub-contractors on agency property.
2. The use of Purchase Cards to procure chemicals and hazardous materials is not permitted by the Agency.
3. Any changes to contracts for the delivery of chemicals or hazardous material must be pre-approved by the Project Manager and Safety & Security Department prior to the change.

20.3 Inspection of Contractor Equipment

1. Vehicles, Work and Deliverables
   All equipment and vehicles which a contractor intends to use in any facility or upon any Agency property must be evaluated and approved by the assigned the Project Manager (PM), acknowledged by the Contract Administrator and subject to review and approval by the PM and Safety, & Security Department, prior to use. The extent of inspection varies with the contract and

the product or service procured. At a minimum, the Project Managers and Omnitrans Parts Manager are required to inspect contractor deliveries in order to determine whether:

a. The proper type or kind of supplies was provided
b. The correct quantity of supplies was provided
c. Any changes or deviations from contract requirements exists
d. The product operates as intended
e. The item is properly identified or marked

2. Inspection Methods of the contract deliverables by the Project, and Parts Managers include:
   a. Sensory and dimensional checks
   b. Performance or physical tests
   c. Quality tests

3. Nonconformance with the contract specifications is unacceptable if it adversely affects:
   a. System safety, or the safety and health of the product user
   b. Reliability, durability, or performance
   c. Interchangeability of parts or assemblies
   d. Any other basic objective of the contract

20.4 Materials Management

1. Materials Management System: maintains track of:
   a. Parts and component inventories
   b. Parts and component usage patterns
   c. Warranty programs
   d. Purchases and receipts
   e. Part costs

2. Quality Control System: The system incorporates and/or causes the incorporation of a quality control system that controls the quality of parts and component assemblies by:
   a. documenting the configuration of parts and component assemblies; including descriptions in purchase orders,
   b. by inspecting the parts and component assemblies for compliance, workmanship, and function prior to installation in the Agency's buses,
   c. providing traceability and history of the inspection, acceptance and/or rejection process., and
   d. ensuring traceability and history of the inspection, acceptance and/or rejection process.

3. Tracking System: In addition to a preventive maintenance scheduling and tracking capability, the transit system includes the following systems in the management of its repair operations:
   a. Cost Accounting: tracks the labor and material costs attributable to each vehicle, class of vehicle and the total fleet.
   b. Work Order Processing: utilizes a sequentially numbered form for the purposes of recording a comprehensive description of the repairs chargeable against a specific vehicle, including the time required to complete the repairs and the parts utilized in the process. A Work Order is used in all cases whether the work is contracted out or performed in-house. The types of work orders include repair, rework, and warranty.

c. Status Tracking: tracks the history of each vehicle, including repairs, road calls, costs, mileage, configuration, component rebuilds and inspections.
d. Failure Monitoring: tracks the component failures for each vehicle, reports frequency by type of repair and tracks road call types and frequencies.
e. Maintenance and Repair Quality Monitoring: compiles and tracks part and component assembly acceptance and rejection information, and compiles and tracks inspections of maintenance and repair work.

J. LIST OF DEFINITIONS AND ACRONYMS USE

1. ACCESS: Omnitrans Access Service is an Americans with Disabilities Act (ADA) mandated public transportation service for people unable to independently use the fixed route bus service
2. WeTIP: provides the most effective, anonymous citizens crime reporting hotline system in the nation. WeTip promises and ensures absolute anonymity, not just confidentiality. WeTip provides intelligence and information to local, state, federal and international law enforcement agencies relating to criminal activity obtained from an online and telephone crime reporting hotline.
3. Americans with Disabilities Act (ADA)
4. Storm Water Pollution Prevention Plan (SWPPP)
5. United States Environmental Protection Agency (USEPA),
6. California Environmental Protection Agency (CalEPA),
7. Certified Unified Program Agencies (CUPA)
8. Resource Conservation and Recovery Act (RCRA),
9. Department of Toxic Substances Control Act (DTSC),
10. Clean Water Act (CWA),
11. South Coast Air Quality Management District (SCAQMD),
12. California State Water Resources Control Board (CSWRCB),
13. Prevention, Control and Countermeasure (SPCC),
14. Noise Control Act (NCA),
15. California Air Resources Board (ARB)
16. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),
17. Emergency Planning and Community Right-To-Know Act (EPCRA),
18. Pollution Prevention Act and Superfund Amendments and Reauthorization Acts (SARA)
19. Medical Waste Management Act (MWMA)
20. Public Health San Bernardino California (PHSBC)
21. Request for Proposal (RFP)
22. Clean Water Act (CWA),
23. South Coast Air Quality Management District (SCAQMD),
24. California State Water Resources Control Board (CSWRCB),
25. Prevention, Control and Countermeasure (SPCC), Spill response, cleanup, and investigation
26. Storm Water Management; storm water pollution prevention plan (SWPPP)
27. Spill Prevention Control and Countermeasure (SPCC)
28. HAZMAT Hazardous Materials Management
29. The National Transportation Safety Board (NSTB)
30. Root Cause Analysis (RCA)
31. Safety Risk Management (SRM)

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Connecting Our Community.

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ITEM # E5

DATE: April 22, 2020

TO: Committee Chair Penny Lilburn and
Members of the Plans & Programs Committee

THROUGH: Erin Rogers, Interim CEO/General Manager

FROM: Jeremiah Bryant, Director of Strategic Development

SUBJECT: **CONNECTFORWARD FISCAL YEAR 2020-2021 SERVICE PLAN**

FORM MOTION

Recommend that the Board of Directors adopt the Omnitrans ConnectForward Fiscal Year 2020-2021 Service Plan.

BACKGROUND

The Fiscal Year 2020-2021 (FY2021) Service Plan is called the ConnectForward Service Plan and is the first-year implementation of the forthcoming ConnectForward Short-Range Transit Plan (SRTP) for Fiscal Years 2021-2025. This ConnectForward Service Plan provides an overview of Omnitrans' service offerings, service changes, service policy changes and fare policy for FY2021.

This ConnectForward Annual Service Plan finds Omnitrans, the San Bernardino Valley and the world in an unprecedented situation responding to the COVID-19 pandemic. The service plan is both:

1) the culmination of nearly a year of work designed to position Omnitrans on stable long-term financial footing by reducing service levels by approximately 11%; and,
2) a rapidly evolving, flexible and scalable plan that can match service levels to the fluid ridership, workforce, funding and economic realities caused by the COVID-19 pandemic.

Generally, this document is focused on the long-term ConnectForward Plan that began with the work of the joint Omnitrans and SBCTA Ad Hoc Committee that included both service reductions and an increase in funding. Most of this plan was developed long before Coronavirus and COVID-19 impacted system ridership and revenue. However, before getting to that detail, the impact of the pandemic on transit must be explored.

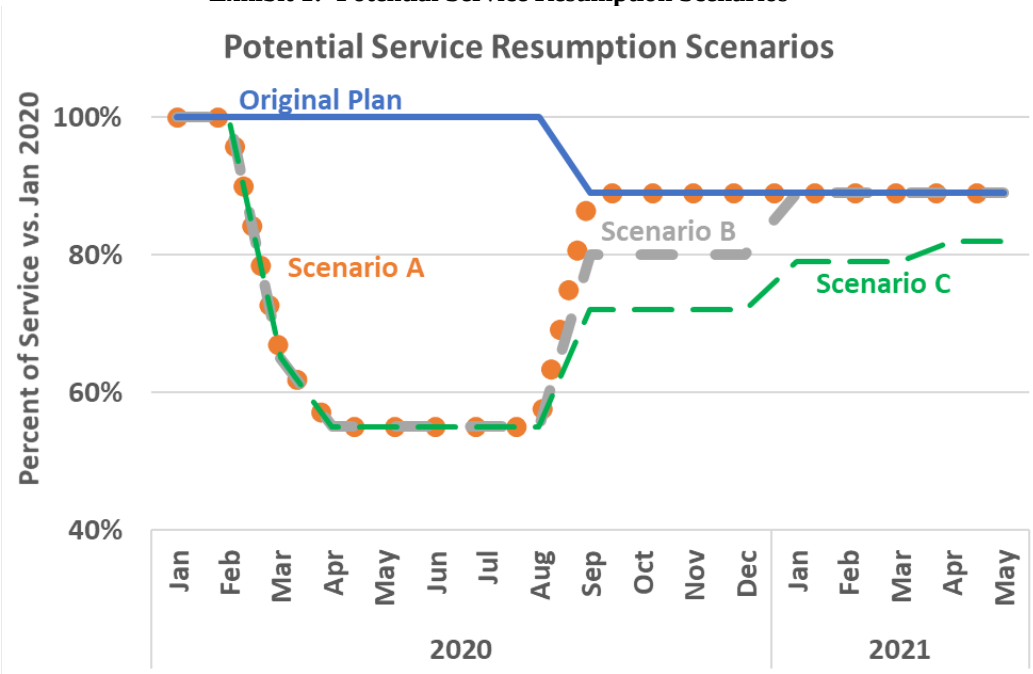
In response to the pandemic, the Stay at Home Order, and the resulting decline in ridership, Omnitrans implemented its Emergency Service Deployment Plan Level 3 on March 23rd which

reduced service by approximately 35% through frequency reductions. On April 13th, Omnitrans implemented further targeted reductions which brought the total reduction from approximately 35% to 45%. The implementation of the Emergency Service Deployment plan now has Omnitrans operating service well below the planned September 2020 service level.

With the decline in ridership and general level of uncertainty related to both travel patterns and economic activity, there is a high degree of uncertainty about when and how to resume planned service levels. As a result, Omnitrans believes it prudent to consider a flexible and scalable approach to return service to the planned September service levels or possibly to a level below the initially planned.

Exhibit 1 shows possible service resumption scenarios. The Blue Line shows the initially planned service starting at 100% in early 2020 and declining to 89% in September 2020 with the planned 11% service reduction. The Orange, Gray and Green Lines all show the enacted Emergency Service reductions through April 2020 with different service resumption scenarios. Even if the Stay at Home Order is lifted, Omnitrans will likely continue to run reduced service through the summer.

Exhibit 1: Potential Service Resumption Scenarios



The trigger for Omnitrans to increase service levels will likely be tied to schools resuming normal activities. As this occurs, decisions must be made regarding whether or not service should return to the planned September service level, take a staggered approach to the September service level (Scenario B) or take a staggered approach that does not reach the planned September service levels (Scenario C). If Omnitrans continues to operate below plan and adjusts staffing levels accordingly, each scenario offers different potential savings opportunities in FY2021. Scenario A would save approximately $3.5 million in FY2021, compared to the original plan. Scenario B would save approximately $5.0 million and Scenario C would save approximately $8.5 million during the year. The specific service reductions to achieve these levels has not been determined.

In response to this situation, the ConnectForward Service Plan contemplates a scalable service plan that would establish the planned September service level as the targeted service resumption level which would be evaluated based on ridership and revenue. The initial financial, fare and ridership impacts can be covered by CARES Act Funding while work continues to evaluate and understand the magnitude of these impacts in the short-term and in the updated long-term financial forecast. In order to move forward into the new fiscal year with an approved service plan and budget, it is recommended that the service level planned for September be approved with the understanding that regular monthly updates on budget, ridership, and recommended service levels will be presented to the Administrative and Finance Committee.

Through the discussion with the Board of Directors, the ConnectForward plan was developed considering eight guiding principles including:

1) Minimize Customer Impact
2) Business Approach: Maximize Efficiency & Productivity
3) Maintain Core Weekday Productivity Network
4) Reduce Coverage Area Duplication
5) Provide Only Mandated ADA Service
6) Maintain Service Quality
7) Minimize Impact on Employees
8) Provide Service to All JPA Members

These principles were evaluated in connection with a significant data analysis highlighted in Section 3 of the report. Based on the data analysis discussed and after meeting with each JPA member, conducting public hearings and completing required Title VI Service Equity Analysis, Omnitrans proposes eight categories of service changes:

- **Route Eliminations:** Routes 5, 7, 20, 80, 86, 308, 325 and 365
- **Frequency Changes:** Routes 2, 3, 4, 8, 14, 22, 61, 66, 290, 309, and 310
- **Map Changes:** Routes 1, 29, 81, 82, 83, and 84
- **New Routes:** Routes 6, 87, 305, 383
- **New Services:** MicroTransit Chino Hills
- **Contracting Services with Smaller Vehicles:** Route 12 and 29, Weekend service on 84 and 88
- **Access Map Changes:** Eliminate Beyond the Boundary Service and map changes associated with fixed route changes
- **Access Policy Changes:** 3-day reservation window

These are detailed in Section 4 of the report. On an annualized basis, these changes result in the 11%, 71,000 revenue hour, and $5 million reduction as recommended by the Ad Hoc Committee.

Omnitrans held 22 public meetings in order to gather public input. During these meetings, Omnitrans staff interacted with approximately 750 people. Omnitrans received 358 comments at these meetings, via email, over the phone and through social media. 66% of these comments were related to the Service Change Proposals. Of the comments that identified a route, a total of 70% of the comments related to OmniGo Yucaipa and OmniGo Grand Terrace. Based on the feedback

received, the proposals on Route 8, 22, 81, 83 and 383 were modified slightly. Additionally, based on feedback on MicroTransit in Chino Hills the hours, service area and fare were modified.

Omnitrans also completed the FTA required Service Equity Analysis in compliance with the Civil Rights Act of 1964. The service changes did not result in disparate impact or impose disproportionate burdens on minority populations.

CONCLUSION

By approving the ConnectForward Service Plan the 11% service reduction recommended by the Ad Hoc Committee will become the targeted service resumption level. Staff will evaluate the timing of the service resumption based on ridership, revenue and updated financial forecasts. The plan can be implemented within the constraints of the proposed Fiscal Year 2020-21 Omnitrans budget.

ER: JB

Attachment A: ConnectForward Annual Service Plan

ATTACHMENT A

OmniTrans
Connecting Our Community.

Service Plan 2020-2021

Sustainable Connected Innovative

Connect Forward

April 22, 2020

Omnitrans
1700 W. Fifth St.
San Bernardino, CA 92411

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TABLE OF CONTENTS

LIST OF EXHIBITS

1. INTRODUCTION

The Fiscal Year 2020-2021 (FY2021) Service Plan is called the ConnectForward Service Plan and is the first-year implementation of the forthcoming ConnectForward Short-Range Transit Plan (SRTP) for Fiscal Years 2021-2025. This ConnectForward Service Plan provides an overview of Omnitrans' service offerings, service changes, service policy changes and fare policy for FY2021.

This ConnectForward Annual Service Plan finds Omnitrans, the San Bernardino Valley and the world in an unprecedented situation responding to the COVID-19 pandemic. The service plan is both:

1) the culmination of nearly a year of work designed to position Omnitrans on stable long-term financial footing by reducing service levels by approximately 11%; and,
2) a rapidly evolving, flexible and scalable plan that can match service levels to the fluid ridership, workforce, funding and economic realities faced in light of the COVID-19 pandemic.

Generally, this document is focused on the long-term ConnectForward Plan that began with the work of the joint Omnitrans and SBCTA Ad Hoc Committee that included both service reductions and increased funding. Most of this plan was developed long before Coronavirus and COVID-19 impacted system ridership and revenue.

While the service reduction plan was already in development for September 2020, starting in March 2020, Omnitrans implemented the Emergency Service Deployment plan due to the impacts of COVID-19. This initially brought service levels down approximately 35% on March 23rd and subsequently down 45% on April 13th. As the pandemic fades, Omnitrans will need to determine both when resume service levels and to what level. Besides answering these questions based on social distancing guidelines and stay at home orders, the response is complicated by economic uncertainty and the potential change in travel patterns as employers and schools shift further towards online settings.

Mitigating some of the short-term economic concerns, transit agencies including Omnitrans benefit from the economic stimulus elements of the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The CARES Act funding can be used to cover operating costs, lost fare revenue and similar expenses that resulted from the pandemic. While this funding will be crucial to overcoming near-term challenges, the path towards long-term recovery remains uncertain. As a result the CARES Act funding must be judiciously utilized to ensure it can sustain essential transit service until both the pandemic is over and the economy rebounds.

2. OMNITRANS SERVICE OFFERING

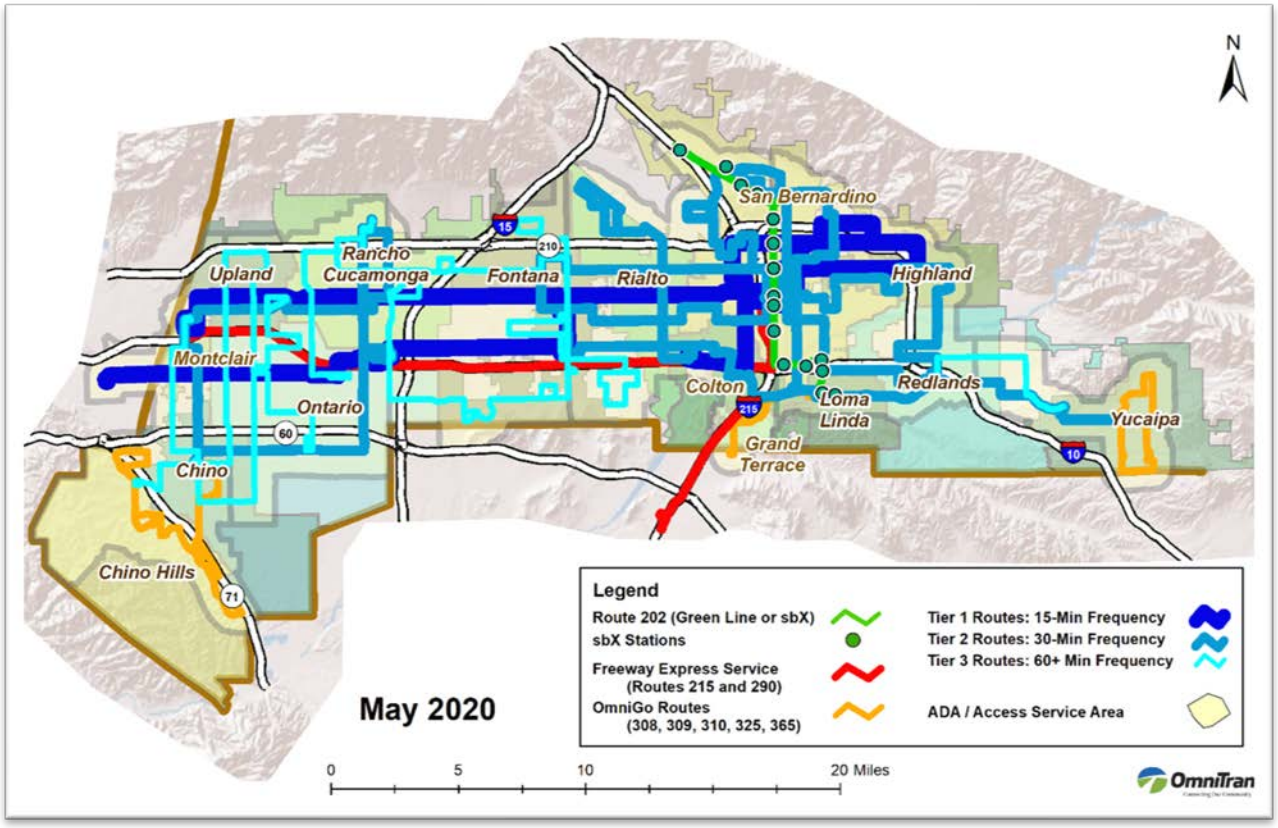
At the close of Fiscal Year 2020, Omnitrans' Family of Services includes Bus Rapid Transit (BRT), Express and Local Bus service, Community Circulator service and ADA Paratransit service. These can be seen in Exhibit 1.

In FY2021, Omnitrans proposes adding a new service type to the family of service. This service is MicroTransit, which is a real-time customer-requested, technology-enabled, automatically dispatched, on-demand service. Omnitrans has partnered with transportation contractor First Transit and technology provider RideCo to initiate a MicroTransit pilot program in Chino Hills. First Transit will provide economies of scale in MicroTransit service delivery as First Transit will also provide OmniAccess and OmniGo service starting in July 2020. RideCo has implemented MicroTransit technology in dozens of locations throughout North America and was recently awarded a contract as the MicroTransit technology partner with LA Metro. One of the elements of the FY2021 Marketing Plan will be to brand and promote this pilot MicroTransit Service.

Exhibit 1: Omnitrans Family of Service Offerings

Service	Type	Brand	Image	Description
Fixed Route	Bus Rapid Transit (BRT)	sbX		BRT service mirrors light-rail service with dedicated lanes, amenities, stations and vehicles.
	Express	Omnitrans		Freeway bus service connecting two or more areas of highly concentrated activity.
	Local	Omnitrans		Traditional large bus service operating on a set route with a set schedule at defined frequencies.
	Community Circulator	OmniGo		Smaller bus service designed to offer lifeline mobility for areas with relatively low population and employment density.
Demand Response	MicroTransit	To be determined		Real-time customer requested, technology-enabled, automatically dispatched demand responsive service
	ADA Paratransit	OmniAccess		Curb-to-curb service provided to comply with the Americans with Disabilities Act (ADA) that is provided within ¾-mile of a fixed route service.
Special Transit Services				As the designated Consolidated Transportation Services Agency (CTSA), Omnitrans offers a variety of mobility services including Travel Training, Volunteer Driver programs, a Lyft & Taxi program, and many Regional Mobility Partnership programs.

Exhibit 2: Map of Omnitrans Family of Service Offerings



Omnitrans' current service offerings can be seen in the map in Exhibit 2. Omnitrans proposes eight types of service changes during FY2021. These service change types include:

1) Route eliminations,
2) Frequency changes,
3) Map changes,
4) New routes,
5) New services,
6) Contracting services with smaller vehicles,
7) Access map changes, and
8) Access policy changes.

Section 3 of this report provides a high-level description of the data used to make these different service recommendations. Section 4 of this report provides the detailed service changes by route and community within these eight types of service changes.

Collectively these changes reduce service by 11% of revenue service hours during the year, reducing overall service by slightly more than the goal of a 71,000 revenue hours and $5 million service reduction.

3. SERVICE CHANGE ANALYSIS

The proposed service changes described in the FY2021 ConnectForward Annual Service Plan are the result of a thorough data analysis that evaluated current transit ridership levels and community needs compared to both existing standards and comparatively to similar services offered by Omnitrans. This analysis was shared with Omnitrans Executive, Administration and Finance, and the Operations and Safety Committees in August 2019 and Board of Directors in September 2019.

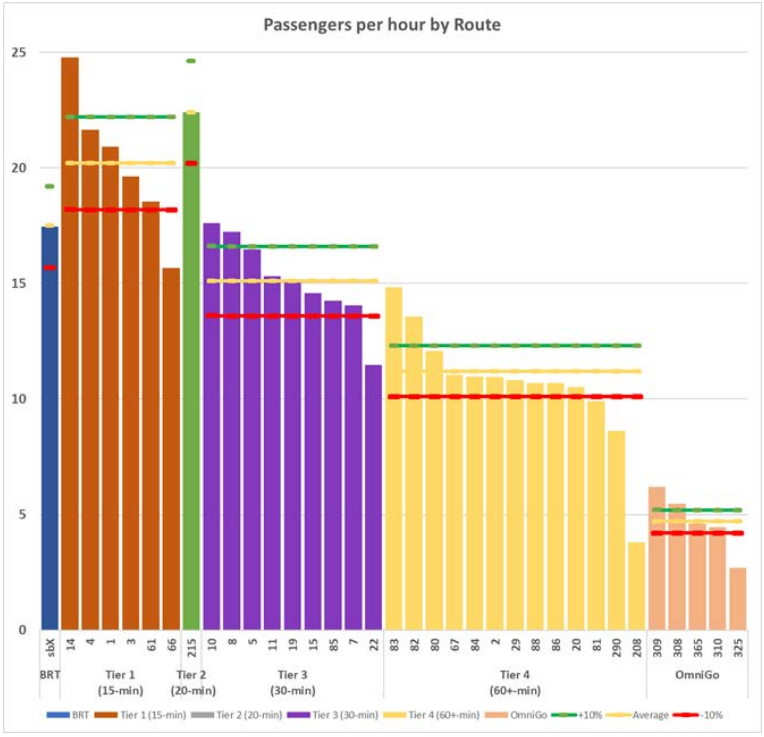
At its November 2019 meeting, the Omnitrans Board of Directors adopted eight guiding principles for the ConnectForward Plan including:

1) Minimize Customer Impact
2) Business Approach: Maximize Efficiency & Productivity
3) Maintain Core Weekday Productivity Network
4) Reduce Coverage Area Duplication
5) Provide Only Mandated ADA Service
6) Maintain Service Quality
7) Minimize Impact on Employees
8) Provide Service to All JPA Members

These goals provided a framework for Omnitrans staff to develop the recommendations in this Plan using the customer experience and transit needs as a guidepost. Specific recommendations were then developed based on a detailed data analysis.

One of the first key analyses was comparing each route's productivity measured by passengers per hour compared against routes in the same service tier (routes with a comparable headway). This analysis can be seen for weekdays in Exhibit 3. Routes operating at their tiers respective yellow line were operating at the peer route average. Routes operating near the red line, were operating at 10% below the peer route average. These routes near, at, or below the redlines were initial areas to look at for service reductions. This analysis was also completed for Saturday and Sunday service.

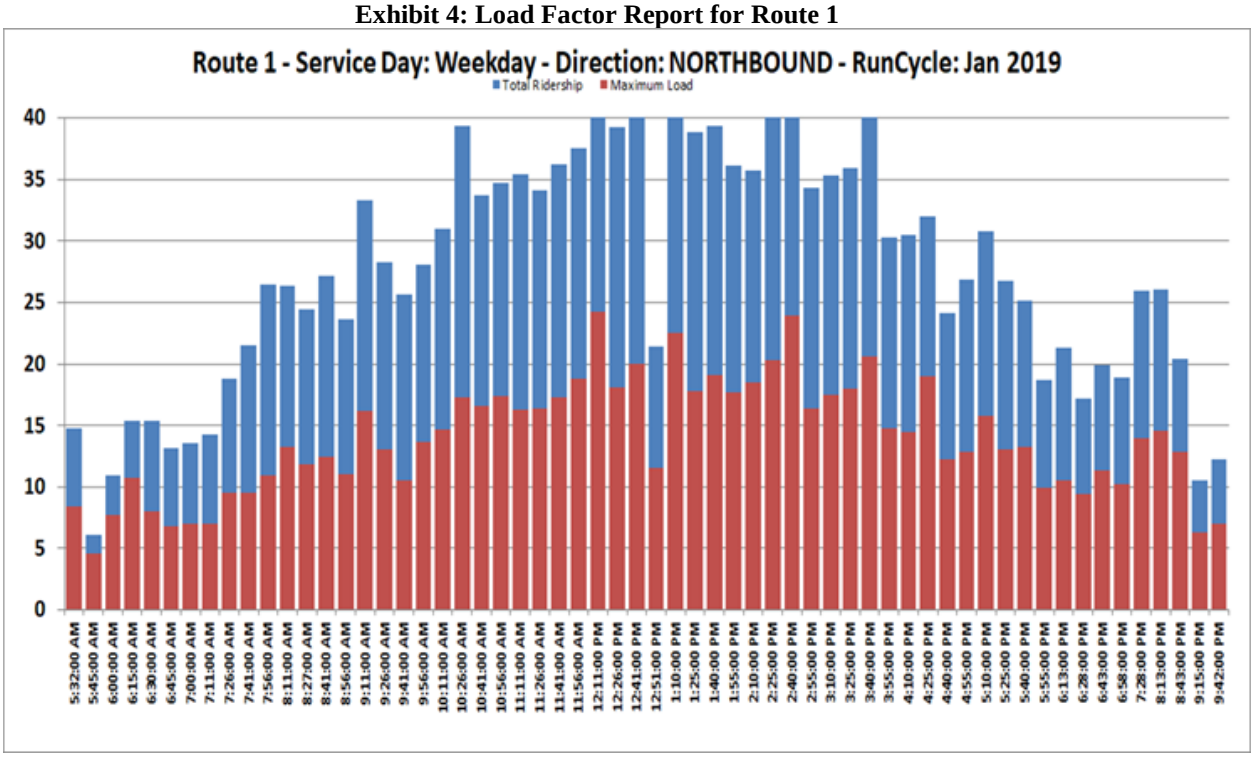
Exhibit 3: Passengers per revenue hour by Route



Another key area that was evaluated was each route's performance by time of day. Specifically, a route

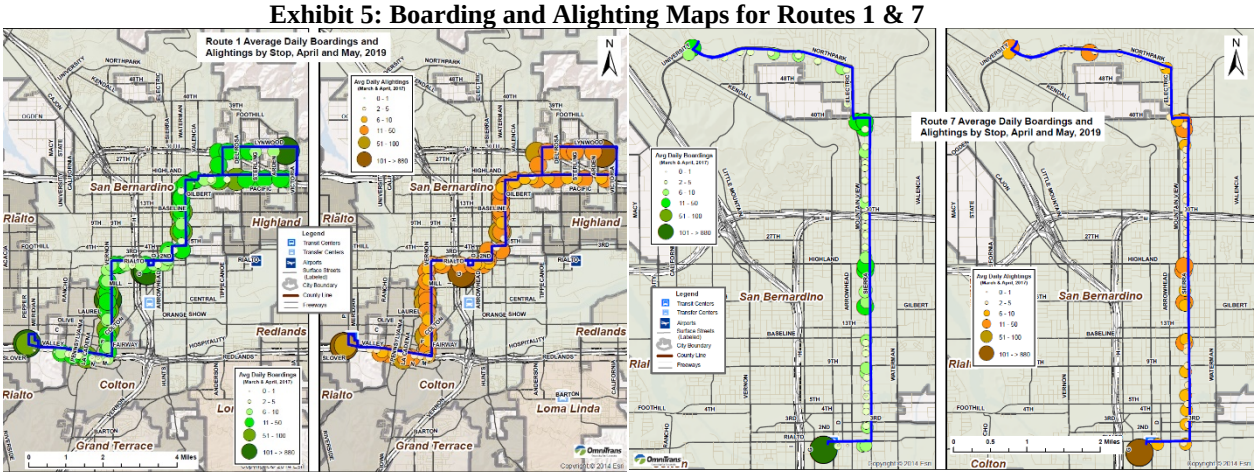
was evaluated based on two key factors: ridership by trip and peak passengers on board by trip, also called load factor. An example of this analysis can be seen in Exhibit 4for Route 1. The red bars indicate the maximum passengers on board at one time on a typical trip and the blue bars represent the total passengers that typically board the bus on that trip. This analysis was completed by day of the week and direction. With this type of analysis, route schedules can be honed based on the typical ridership demand.

Exhibit 4: Load Factor Report for Route 1



Routes and services were also evaluated based on their geographic performance. Using automated passenger counter data, a route's boardings and alightings can be measured on weekdays, Saturdays and Sundays. This allows for determination of areas of relative strength and weakness at the route and system level. A comparison of Route 1 and Route 7 boarding and alighting data can be seen in Exhibit 5. This data demonstrates, for example, that Route 1 has strong ridership

Exhibit 5: Boarding and Alighting Maps for Routes 1 & 7



throughout its service area, while Route 7 does not. This kind of analysis led to the map change recommendation in this Plan.

This route level boarding and alighting data can also be evaluated systemwide as shown in Exhibit 6. This data is particularly valuable when compared to areas where there is service duplication which can be seen in the areas in orange in Exhibit 7. Combined this data allows for further recommendations of map changes in line with the goal of reducing coverage area duplication.

Exhibit 6: Systemwide Boarding Map

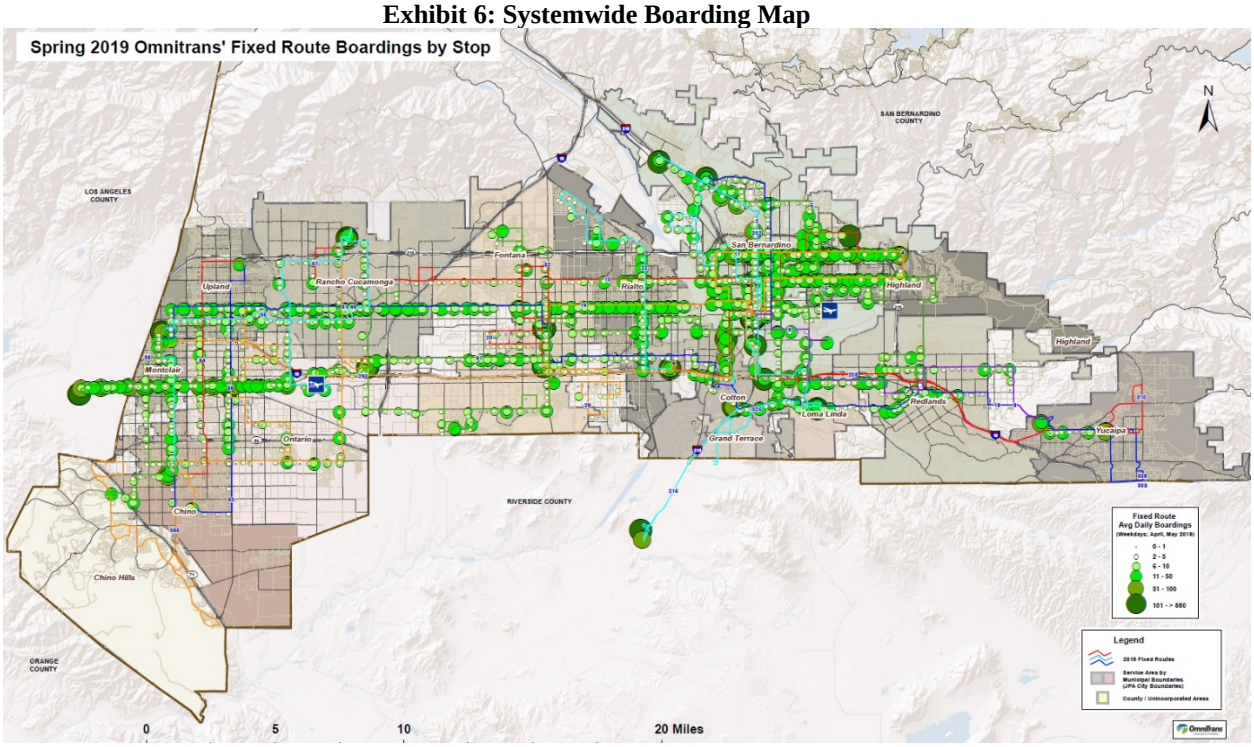
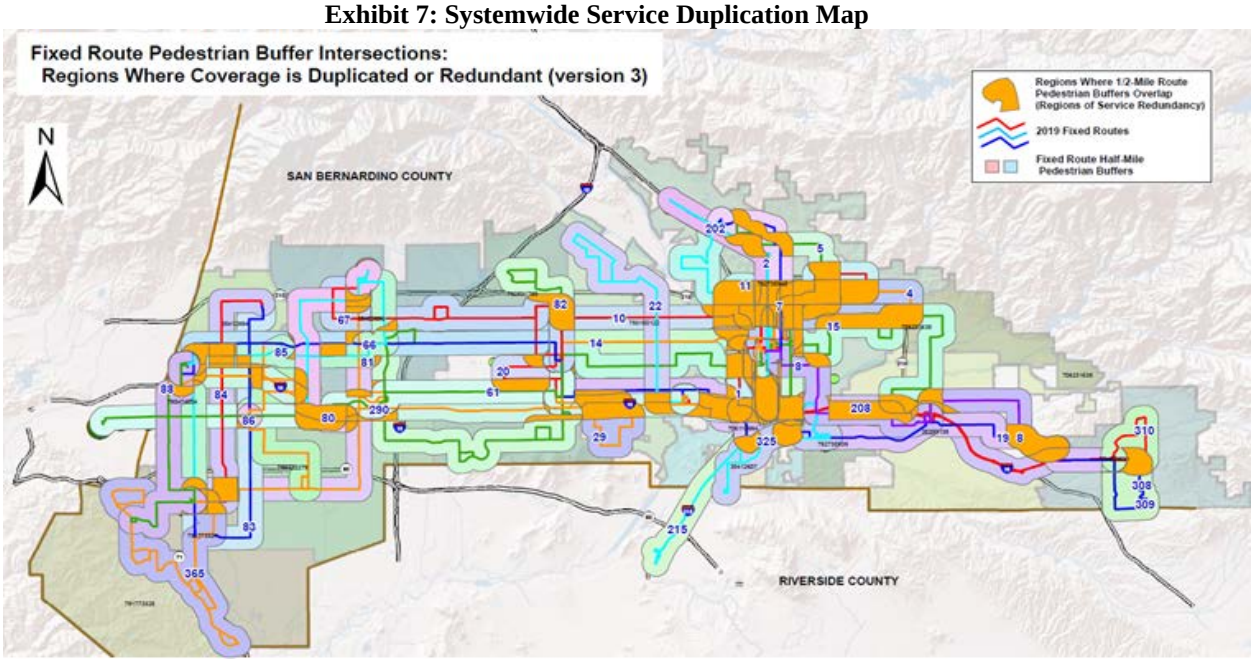
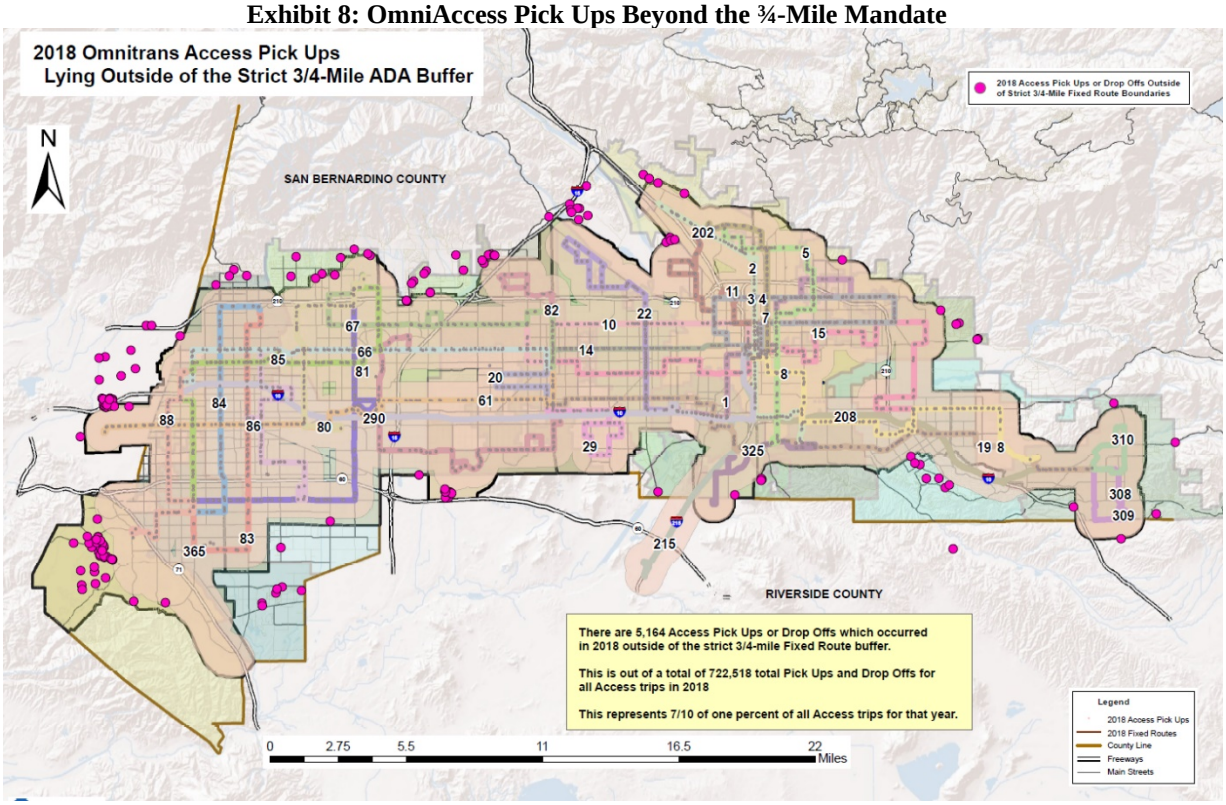


Exhibit 7: Systemwide Service Duplication Map



OmniAccess ADA Paratransit service can also be evaluated for geographic effectiveness. The ADA mandates that paratransit service be provided within ¾-miles of fixed route service. With that mandate, Omnitrans typically cannot modify this required ADA service without changing the underlying fixed route network. However, the map in Exhibit 8 illustrates that nearly 1% of OmniAccess trips originate outside of the ¾-mile mandate. Given that OmniAccess service is the most expensive service that Omnitrans operates, it is not sustainable to continue to provide this service beyond the mandate.

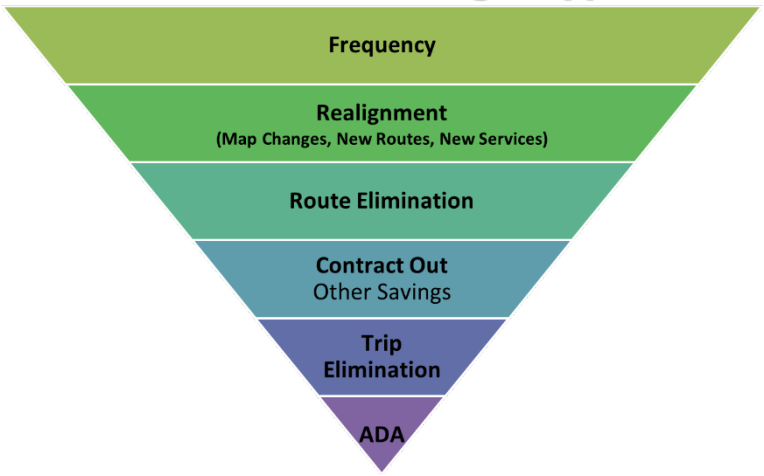
Exhibit 8: OmniAccess Pick Ups Beyond the ¾-Mile Mandate



Omnitrans began providing "Beyond the Boundary" service in approximately 2009 after receiving a grant, which was fully expended by 2014. Now, the Special Transportation Service Department offers multiple options for these trips that did not exist in 2009.

After evaluating the full set of data that was highlighted above, a menu of service reduction strategies was developed and prioritized. These strategies are shown in Exhibit 9. The details of these proposals are described in Section 4 of this report.

Exhibit 9: Service Change Types



4. SUMMARY OF PROPOSED SERVICE

Based on the data analysis discussed in Section 3 of this report and after meeting with each JPA member, conducting public hearings and completing the required Title VI Service Equity Analysis, Omnitrans proposes eight categories of service changes:

- **Route Eliminations:** Routes 5, 7, 20, 80, 86, 308, 325 and 365
- **Frequency Changes:** Routes 2, 3, 4, 8, 14, 22, 61, 66, 290, 309, and 310
- **Map Changes:** Routes 1, 29, 81, 82, 83, and 84
- **New Routes:** Routes 6, 87, 305, 383
- **New Services:** MicroTransit Chino Hills
- **Contracting Services with Smaller Vehicles:** Route 12 and 29, Weekend service on 84 and 88
- **Access Map Changes:** Eliminate Beyond the Boundary Service and map changes associated with fixed route changes
- **Access Policy Changes:** 3-day reservation window

Collectively the goal of these service changes is to put Omnitrans on a long-term financially sustainable footing. Based on the financial forecasts developed in Summer 2019, this requires an 11% reduction in annualized fixed route revenue hours, equivalent to $5 million and 71,000 revenue hours. Exhibit 10 shows that annualized directly operated service is planned to decline 13.1% equivalent to 85,274 annual hours. Contracted fixed route service is projected to increase 7,677 revenue hours (24.7%), bringing the total fixed route reduction to 11.4%. OmniAccess revenue hours are projected to decrease 5.6% bringing the systemwide decline to 10.3% on an annualized basis.

Each of these service changes is described in more detail in the subsections below.

Exhibit 10: Revenue Hours by Service Current vs. Proposed

Route	Total Annual Revenue Hours			
	Current	Proposed	Δ	%Δ
1	42,941	42,962	21	0.0%
2	19,112	12,258	(6,854)	-35.9%
3	31,207	30,379	(828)	-2.7%
4	29,815	29,249	(566)	-1.9%
5	20,708	-	(20,708)	-100.0%
6	-	19,624	19,624	n/a
7	10,902	-	(10,902)	-100.0%
8	20,111	16,330	(3,782)	-18.8%
10	14,103	14,192	89	0.6%
12	16,021	-	(16,021)	-100.0%
14	34,481	32,418	(2,063)	-6.0%
15	35,153	35,152	(1)	0.0%
19	42,655	42,844	189	0.4%
20	4,279	-	(4,279)	-100.0%
22	18,456	12,919	(5,538)	-30.0%
29	3,017	-	(3,017)	-100.0%
215	12,485	12,713	228	1.8%
290	7,115	5,447	(1,668)	-23.4%
61	68,968	65,563	(3,405)	-4.9%
66	46,032	38,637	(7,395)	-16.1%
67	7,586	7,854	268	3.5%
80	10,223	-	(10,223)	-100.0%
81	15,181	9,218	(5,963)	-39.3%
82	19,274	19,464	190	1.0%
83	15,807	14,009	(1,798)	-11.4%
84	8,752	5,087	(3,664)	-41.9%
85	31,603	31,145	(457)	-1.4%
86	8,216	-	(8,216)	-100.0%
87	-	15,489	15,489	n/a
88	11,784	7,760	(4,025)	-34.2%
40' Total	**605,988**	**520,713**	**(85,274)**	**-14.1%**
Green	45,998	45,998	-	0.0%
sbX	**45,998**	**45,998**	**-**	**0.0%**
Directly Operated	**651,986**	**566,711**	**(85,274)**	**-13.1%**
29	-	3,590	3,590	n/a
305	-	5,508	5,508	n/a
308	3,131	-	(3,131)	-100.0%
309	8,481	1,833	(6,648)	-78.4%
310	2,096	1,785	(311)	-14.8%
320	1,196	-	(1,196)	-100.0%
325	5,018	-	(5,018)	-100.0%
329	563	-	(563)	-100.0%
365	10,563	-	(10,563)	-100.0%
365T	-	441	441	n/a
383	-	5,356	5,356	n/a
84 Weekend	-	1,916	1,916	n/a
88 Weekend	-	2,383	2,383	n/a
12	-	15,913	15,913	n/a
Contracted	**31,049**	**38,726**	**7,677**	**24.7%**
Total Fixed Route	**683,035**	**605,437**	**(77,597)**	**-11.4%**
Access	161,473	152,475	(8,998)	-5.6%
Access	**161,473**	**152,475**	**(8,998)**	**-5.6%**
System-wide	**844,507**	**757,913**	**(86,595)**	**-10.3%**

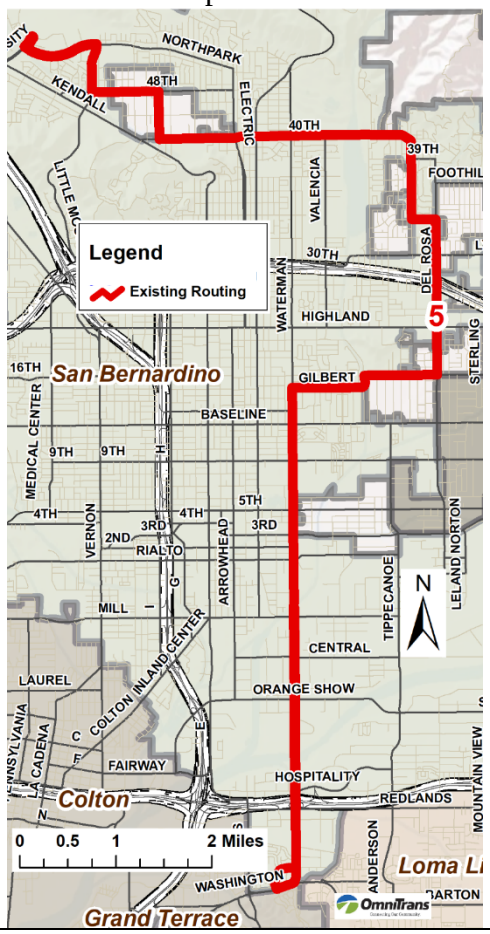
4.1 Route Eliminations

The ConnectForward Plan proposes elimination of eight route numbers as can be seen in Exhibit 11. In each of these route eliminations, the majority of the route is still covered by an alternative routing shown as either a new route or a map change, as shown in sections 4.3 and 4.4. The maps of the eliminated routes can be seen below.

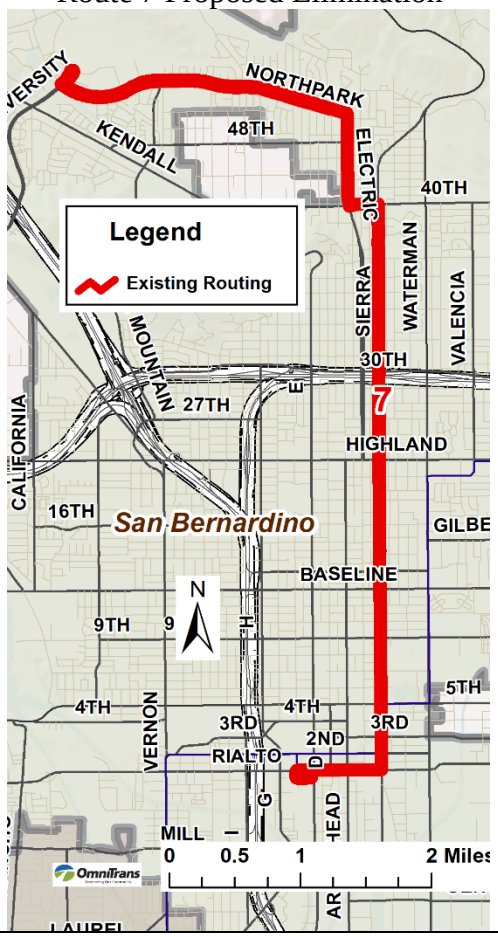
Exhibit 11: Route Elimination Proposals

Route	Area Served	Alternate
5	San Bernardino	Partially covered by Route 1 and new Routes 6 and 305
7	San Bernardino	Partially covered by new Route 6
20	Fontana, Unincorporated County	Partially covered by change to Route 82
80	Rancho Cucamonga, Ontario	Majority covered by new Route 87
86	Upland and Ontario	Majority covered by new Route 87
308	Yucaipa	Covered by alternate direction loop route 309
325	Grand Terrace	Barton Corridor covered by new Route 305
365	Chino Hills	Service area to be covered by MicroTransit and High School Tripper service

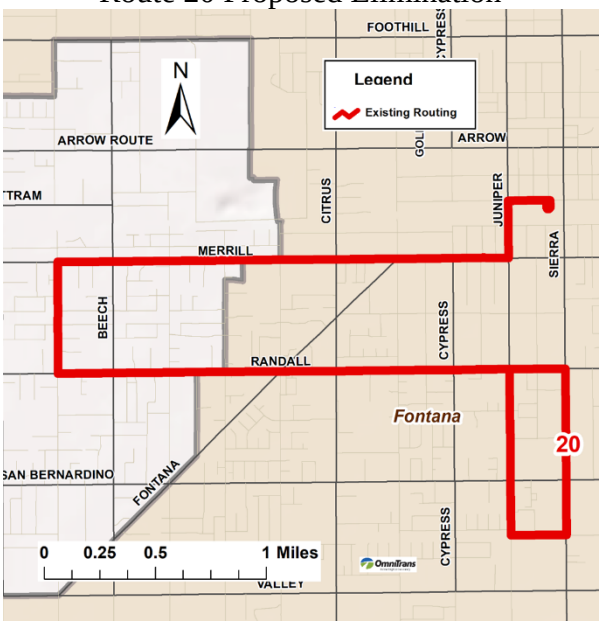
Route 5 Proposed Elimination



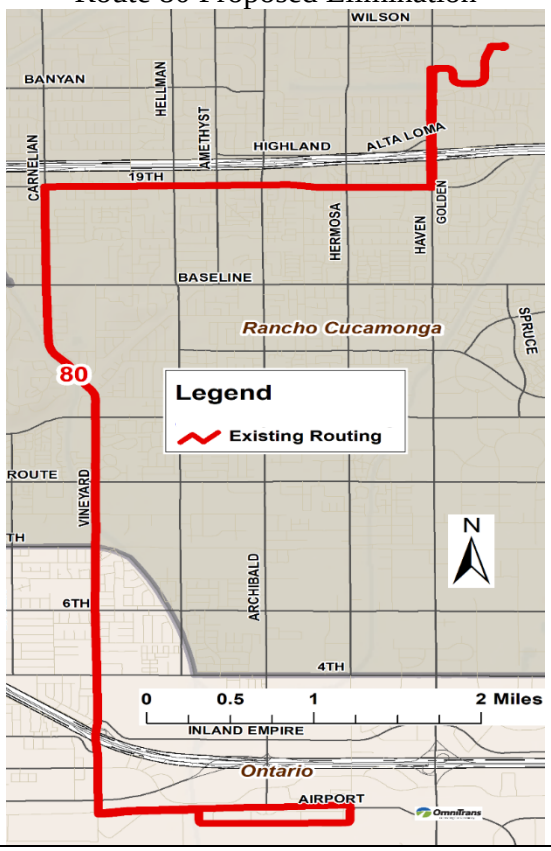
Route 7 Proposed Elimination



Route 20 Proposed Elimination

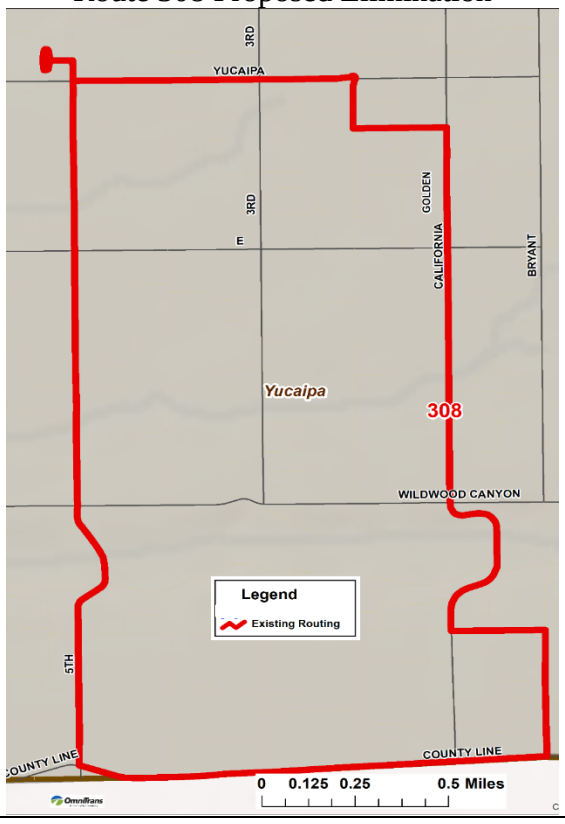


Route 80 Proposed Elimination

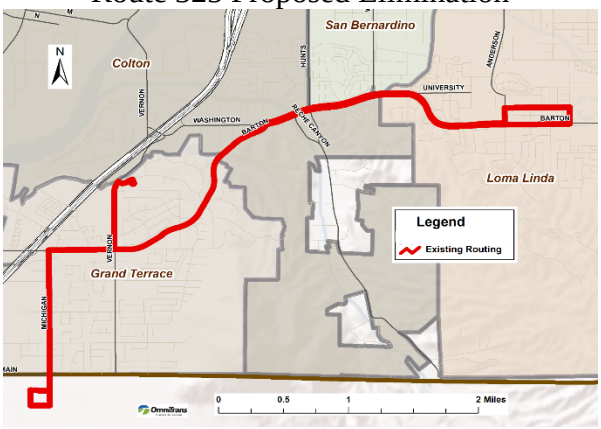


Route 86 Proposed Elimination

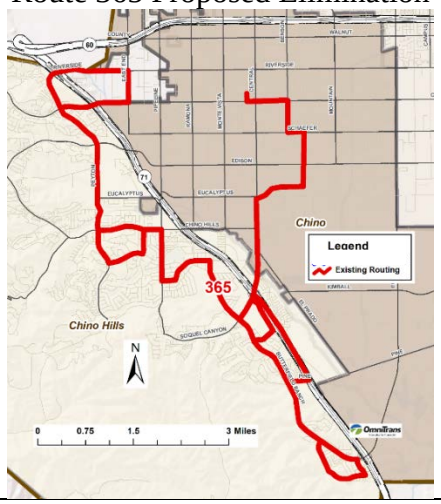
Route 308 Proposed Elimination



Route 325 Proposed Elimination



Route 365 Proposed Elimination



4.2 FREQUENCY CHANGES

The ConnectForward Plan proposes frequency changes on 11 routes. A frequency change, also called a headway change, means that while the route still exists the bus comes less often. For instance, a 30-minute route today may be reduced to an hourly route. These proposals were based on the passengers per hour and load factor analysis described in Section 3.

Exhibit 12: Frequency Change Proposals

Route	Days	Area Served	Change
2	All	San Bernardino, Loma Linda	30/60 minutes to 70/75 minutes
3	Weekend	San Bernardino, Highland	20 minutes to 22/25 minutes
4	Weekend	San Bernardino, Highland	20 minutes to 22/25 minutes
8	Weekday	San Bernardino, Loma Linda, Redlands, Yucaipa	30/60 minutes to 35/60/70 minutes (peak frequency between SBTC and VA Ambulatory Clinic)
14	Weekend	San Bernardino, Rialto, Fontana	15 minutes to 20 minutes
22	Weekday	Rialto, Colton	30 minutes full route to 30 minute short (ARMC to Baseline) and 60 minutes north of Baseline
61	Weekend	Fontana, Rancho Cucamonga, Ontario, Montclair, Pomona	15 minutes to 20 minutes
66	Weekday	Fontana, Rancho Cucamonga, Montclair	15 minutes to 20 minutes
290	Weekday	San Bernardino, Colton, Ontario, Montclair	Eliminate midday trips
309	Weekday Weekend	Yucaipa	30 minutes to 60 minutes Renamed 319 Eliminated
310	Weekday	Yucaipa	30 minutes to 60 minutes Renamed 319

Based on feedback from the public and stakeholders, short versions of the Route 8 and Route 22 maintained higher than originally planned frequencies. On the Route 8, the maintained frequency is between the SBTC and the VA Ambulatory clinic during peak travel periods. Similarly, the Route 22 maintains higher peak hour frequency between Arrowhead Regional Medical Center and Baseline Rd.

4.3 MAP CHANGES

The ConnectForward Plan proposes map changes on six routes. These changes were designed to eliminate service area duplication or to cover areas of relatively strong ridership on routes that were eliminated.

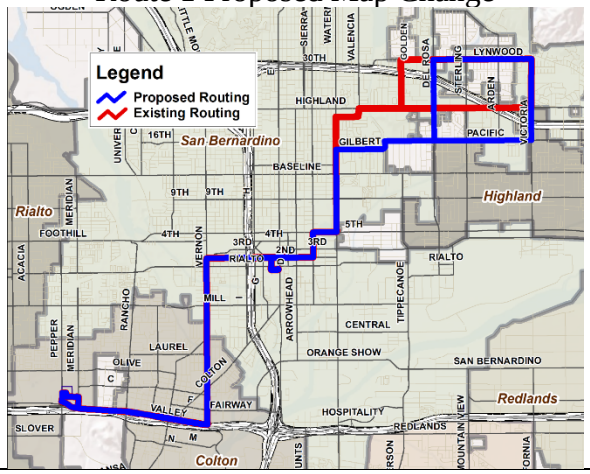
The change to Route 1, provides new service to San Gorgonio High School and increases the service frequency at Pacific High School.

The Route 29 change ensures that there is service at the main entrance of Kaiser Fontana Medical Center to cover the stop that was previously covered by Route 82.

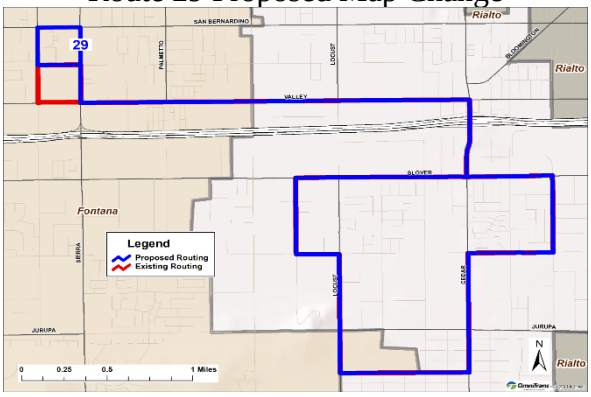
The Route 81 change provides a new transit connection at the East Ontario Metrolink station. Initially the Route 81 was going to travel north/south on Haven Ave. without deviating to Ontario Mills. Following public input and development of detailed schedule development, it was determined that there was time available on the route to maintain service on Route 81 to Ontario Mills.

The Route 83 and 84 map changes allow the areas of Upland north of Foothill to be served by a smaller cutaway vehicle instead of a larger transit vehicle. Additionally, the changes ultimately allow for additional service to Montclair (Route 84) and Upland (Route 383) Metrolink stations.

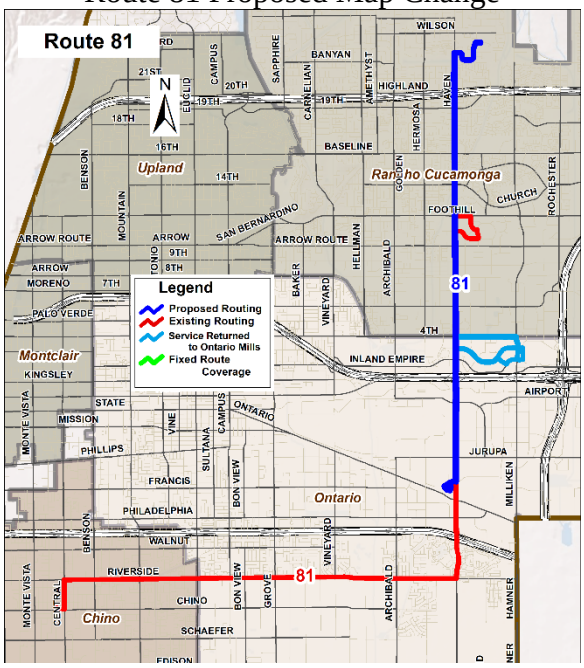
Route 1 Proposed Map Change



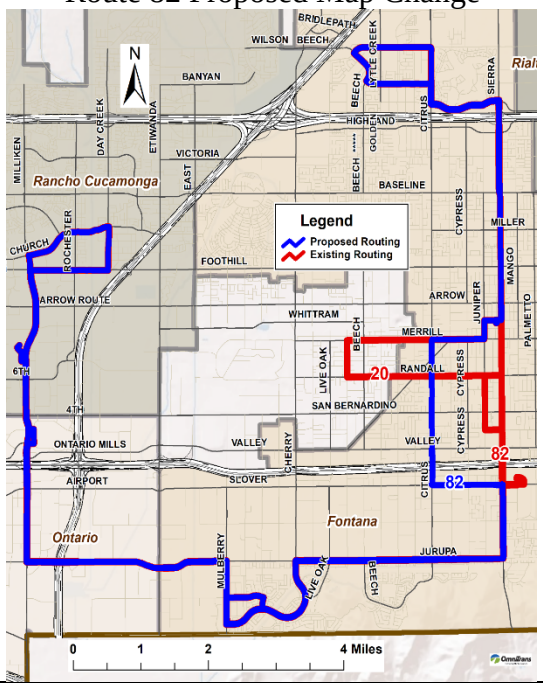
Route 29 Proposed Map Change



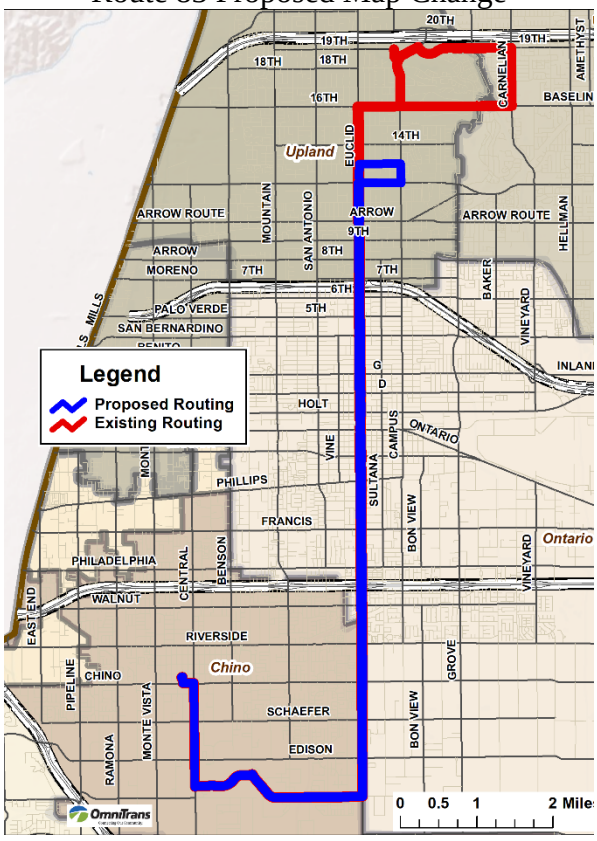
Route 81 Proposed Map Change



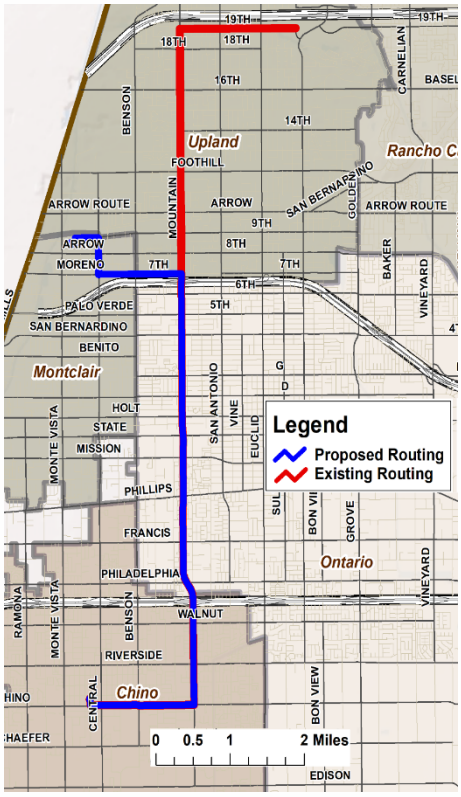
Route 82 Proposed Map Change



Route 83 Proposed Map Change



Route 84 Map Change Elimination

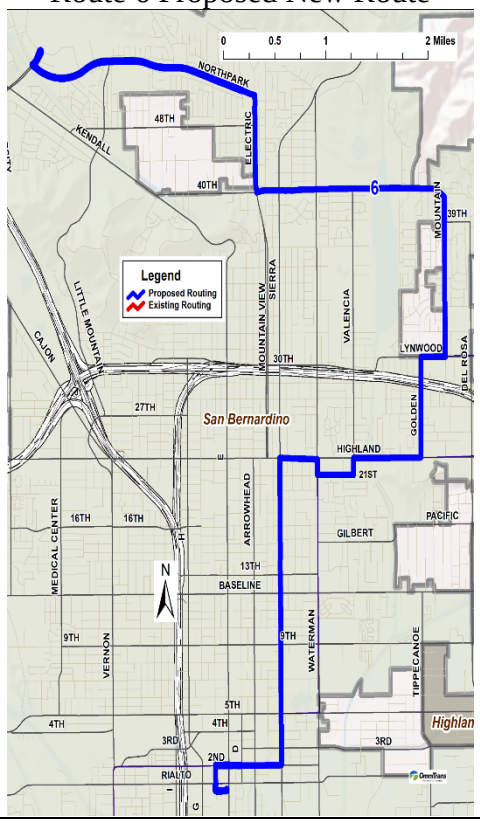


4.4 NEW ROUTES

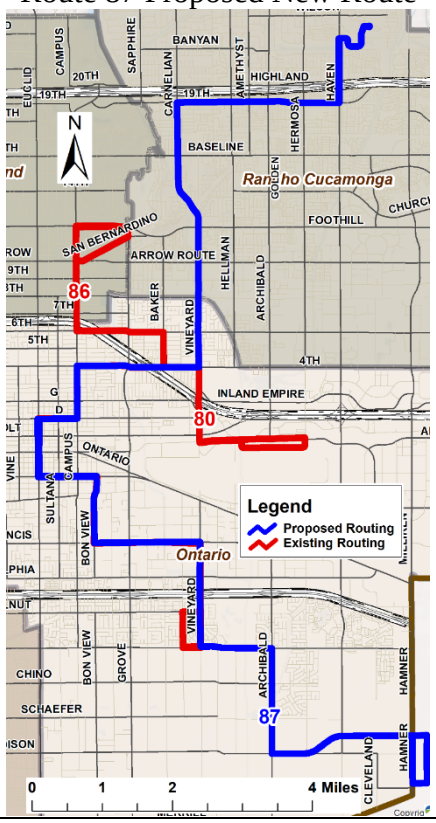
The ConnectForward Plan proposes four new routes. Two of these routes (6 and 87) are direct combinations of the higher performing sections of other routes. Route 6 is a combination of existing but proposed elimination of Routes 5 and 7. These two routes, and the new Route 6 primarily serve North San Bernardino. Route 87 is a new combination of existing but eliminated Routes 80 and 86. This route will create a new cross county connection between San Bernardino County and Riverside County at the Ontario/Eastvale city limits.

The other two new routes (305 and 383) shift service from directly operated 40-foot bus service to contracted smaller bus service along lower performing parts of existing routes. The 305 serves South Waterman Ave. and Barton Ave. in San Bernardino, Colton and Grand Terrace. The 383 primarily serves north Upland and adds service to the Upland Metrolink station.

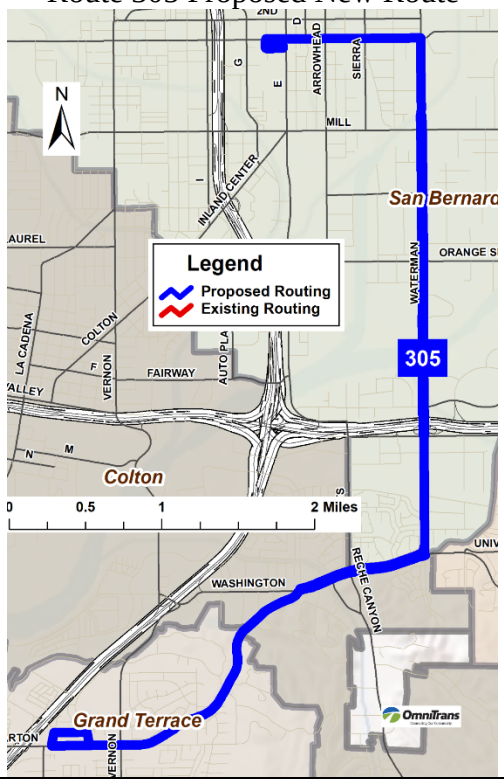
Route 6 Proposed New Route



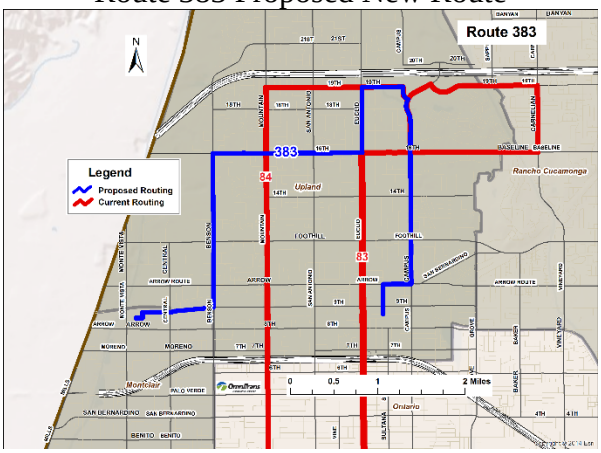
Route 87 Proposed New Route



Route 305 Proposed New Route



Route 383 Proposed New Route



4.5 New Services

Omnitrans proposes implementing a pilot MicroTransit service primarily in the City of Chino Hills to replace OmniGo Chino Hills Route 365. MicroTransit is a real-time customer requested, technology-enabled, automatically dispatched demand responsive service. Omnitrans Marketing & Communications team will develop branding for the MicroTransit service prior to launch.

Exhibit 13: Omnitrans' MicroTransit Partners

Omnitrans is partnering with First Transit to provide the vehicles and drivers for the MicroTransit Service as was awarded by the Omnitrans Board of Directors in March 2020. First subcontracted with technology provider RideCo for the MicroTransit platform including the customer app, automated dispatching software and payment processing.

RideCo has partnered on some of the most successful MicroTransit projects in the United States when measured by cost effectiveness and passengers per hour. RideCo has implemented large transit partnerships in: San Antonio, TX with VIA Transit; Los Angeles, CA with LA Metro; and in Calgary, Canada with Calgary Transit. Additionally, RideCo has partnered with numerous cities, employers and airports to provide MicroTransit technology.

Building on RideCo's experience as well as public and stakeholder input, Omnitrans' initial MicroTransit proposal for Chino Hills has been modified from what was originally proposed at

the public hearings. As shown in Exhibit 14, RideCo completed a simulation of probable trip patterns. Based on this simulation and underlying population and employment density in the area, RideCo strongly recommended extending the MicroTransit service area to include the Chino Transit Center and a major employment area of the City of Chino. This area in Chino is approximately bordered by Chino Ave. on the North, Oaks Ave. and Central on the East and the Chino/Chino Hills city limit on the West and South.

Exhibit 14: RideCo Peak Period Trip Simulation and Recommended Service Area

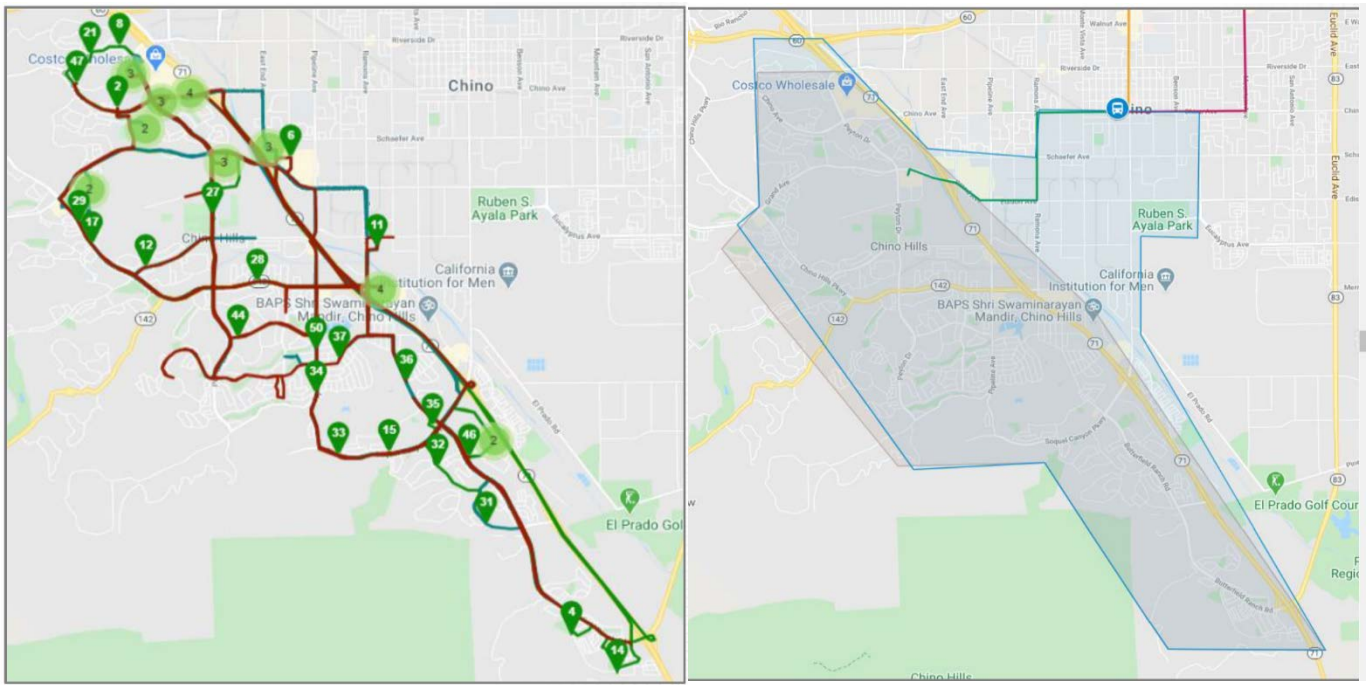


Exhibit 15 and Exhibit 19 show residential household distribution, employment distribution and travel patterns for the initial proposal and the refined proposal. The result shows that the refined proposal was able to increase the amount of households covered by 30%, employment by 205% and intra-zone commuting by 130%. The trip modeling showed that these increases can be accomplished with the same number of shuttles and maintain a goal of less than 15-minute average wait time once trips are requested compared to a 60-minute frequency on Route 365. As a result, Omnitrans proposed implementing the refined MicroTransit zone shown in Exhibit 14.

The RideCo MicroTransit platform is based on a virtual stop model. This means that general public trips will not be dispatched to someone's house, but to a virtual stop at the closest intersection. The app can recommend the intersection or offer choices in travel time and pickup time between multiple intersection based on currently scheduled trips. In this way, RideCo can help batch shared rides making the MicroTransit service as cost-effective as possible. Major destinations will have immediately adjacent virtual stops at the closest safe location.

Since the MicroTransit service will also cover ADA paratransit trips in the region, ADA riders can be appropriately coded within the RideCo platform and offered riders without need to travel to the closest intersection.

Exhibit 15: Initial MicroTransit Proposed Zone: Residential and Employment distribution and Intra-Zone Commuting

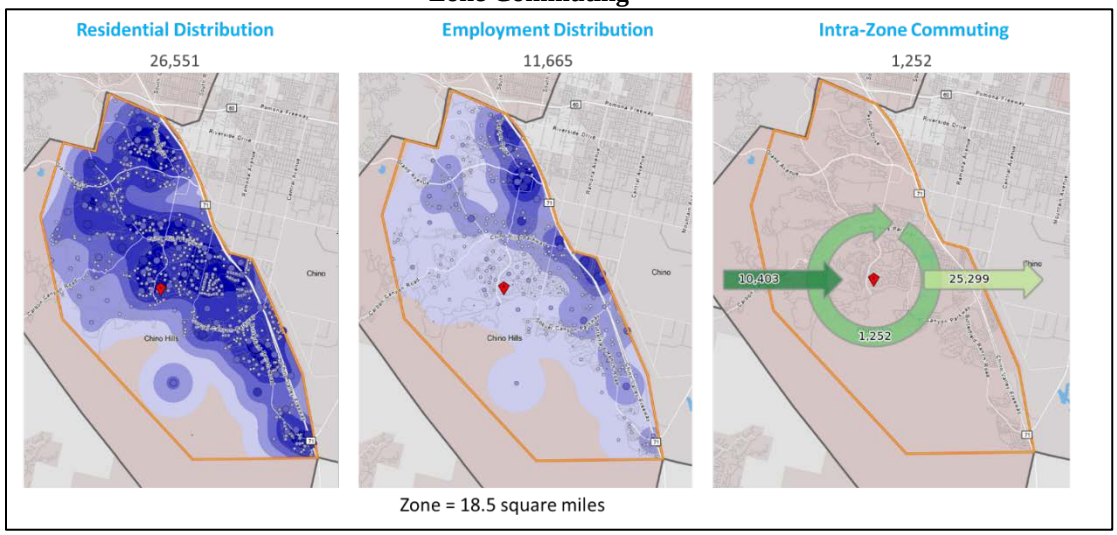


Exhibit 16: Refined MicroTransit Proposed Zone: Residential and Employment distribution and Intra-Zone Commuting

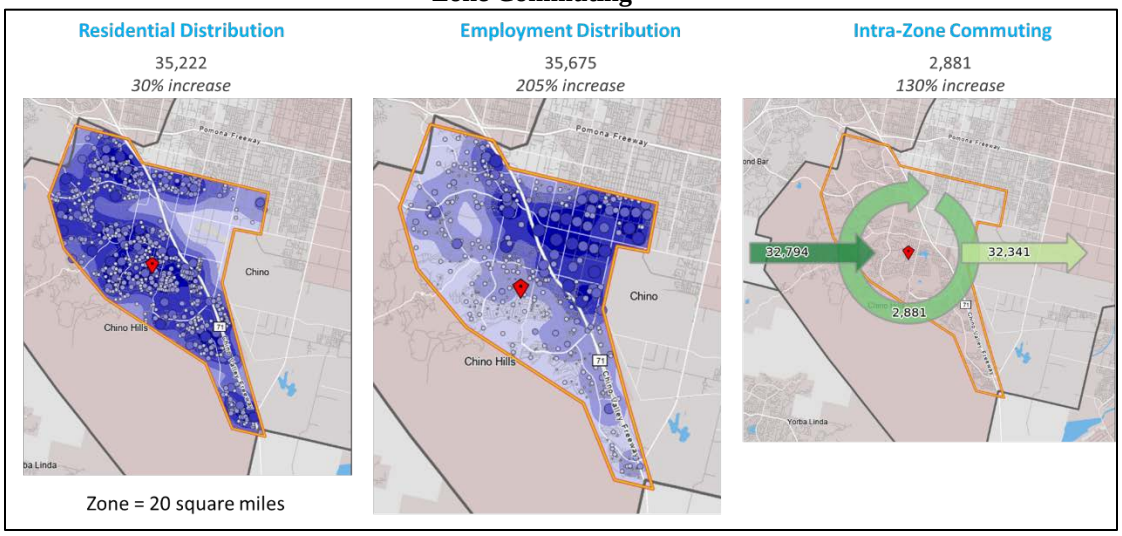


Exhibit 17 shows the key service characteristics for the Chino Hills Pilot MicroTransit service.

Exhibit 17: Chino Hills MicroTransit Key Service Characteristics

Service Days	Monday-Friday
Service Hours	6:00am-8:00pm
Annual Revenue Hours	10,752
Annual Direct Purchased Transportation Costs	$750,000
Average Weekday Ridership	200 (51,000 per year)
Fares: Full Fare/Discounted includes a day pass that can be used on fixed route only	$4.00 full fare/$2 S/D/Vet
Expected Average Wait Time	<15 minutes
Expected Average Travel Time	<15 minutes
Expected share of shared rides	>75%

4.6 CONTRACTING SERVICE

Based on route-level ridership patterns and smaller cutaway vehicles being freed up because of declining OmniAccess ridership levels, Omnitrans proposes to operate additional fixed route service using smaller cutaway vehicles. These cutaways would be operated by the same contractor that operates OmniAccess and OmniGo. When the purchased transportation contract was awarded to First Transit in March 2020, the option to add additional fixed route service was included in the contract.

Omnitrans proposes increasing the use of smaller vehicles with contracted service on weekends. Weekend service is ideal for contracting out because ridership is lower on weekends and more appropriate for a smaller vehicle and the use of OmniAccess vehicles is significantly lower on weekends. As a result, Omnitrans proposes to operate contracted service on weekend Routes 12, 84 and 88. (Note: Route 12 has been contracted out due to low ridership during the COVID-19 pandemic on both weekends and weekdays, and is now proposed to remain contracted out as part of the FY2021 service plan).

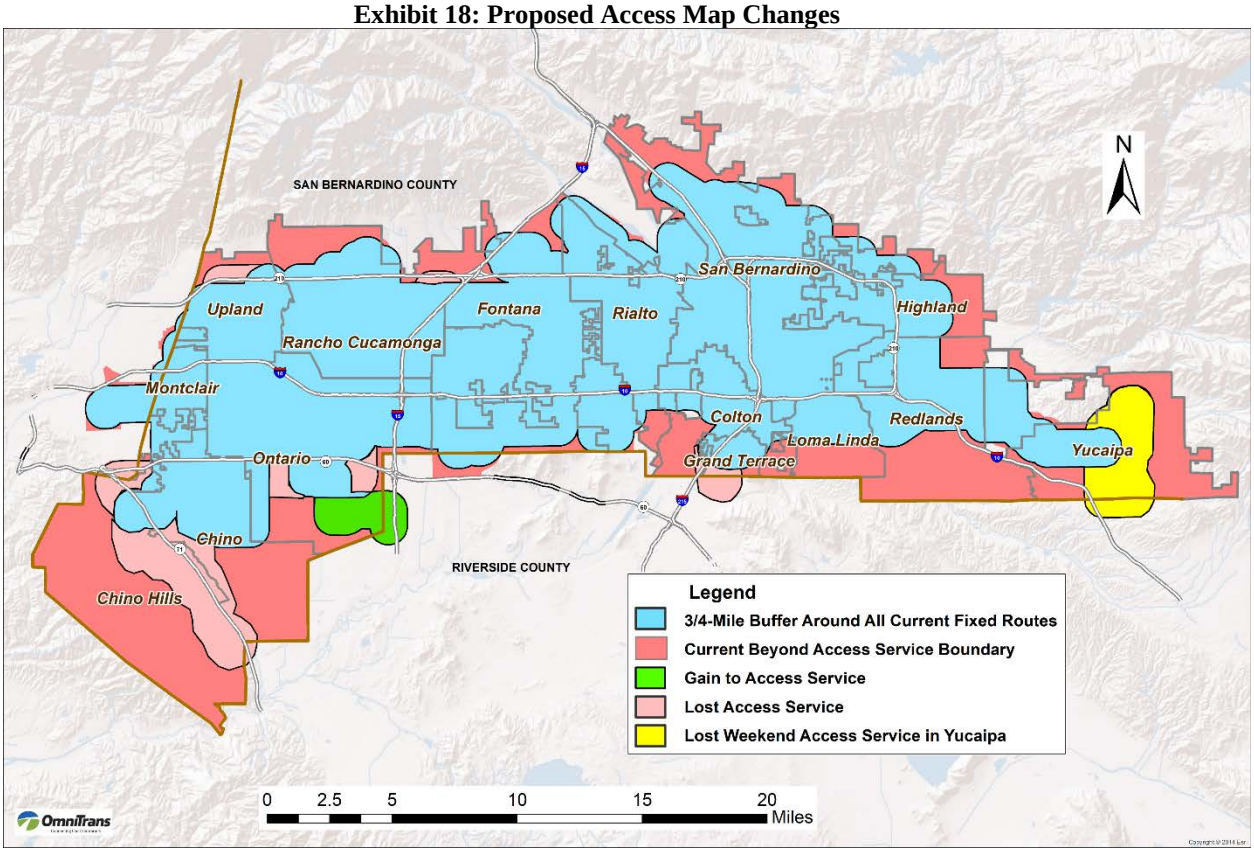
Omnitrans currently contracts out weekend service on Route 29, primarily in Bloomington. This has been successful for Omnitrans since it was implemented in 2010. As a result, Omnitrans proposes to fully contract out Route 29 starting in September 2020.

4.7 ACCESS MAP CHANGES

Access service is the most expensive and most subsidized service that Omnitrans offers. OmniAccess ridership accounts for approximately 3% of systemwide ridership, but more than 17% of systemwide operating costs. OmniAccess service is mandated by the ADA, which requires that paratransit service be offered within ¾-miles and during the same days and hours of fixed route service. Since OmniAccess is an expensive and mandated service, the ConnectForward Plan recommends that Omnitrans provide the service in a manner that is specifically mandated by ADA regulations.

The blue area shown in Exhibit 18 is the ¾-mile service area required based on the proposed fixed route changes described above. The light pink areas are areas that are currently mandated but would no longer be mandated based on the fixed route service changes described above. The small green area is a new mandated area that OmniAccess would need to cover based on the new Route 87 connection to Eastvale. The dark pink area represents areas that are currently and will continue to be beyond the boundary or beyond the mandate and hence proposed for elimination. Lastly, the area in yellow currently has service seven days a week but would have weekday only service based on the fixed route service changes. Riders in these areas have been contacted and provided information about these other options they may be able to use through the Special Transportation Services Department.

Exhibit 18: Proposed Access Map Changes



4.8 Access Policy Changes

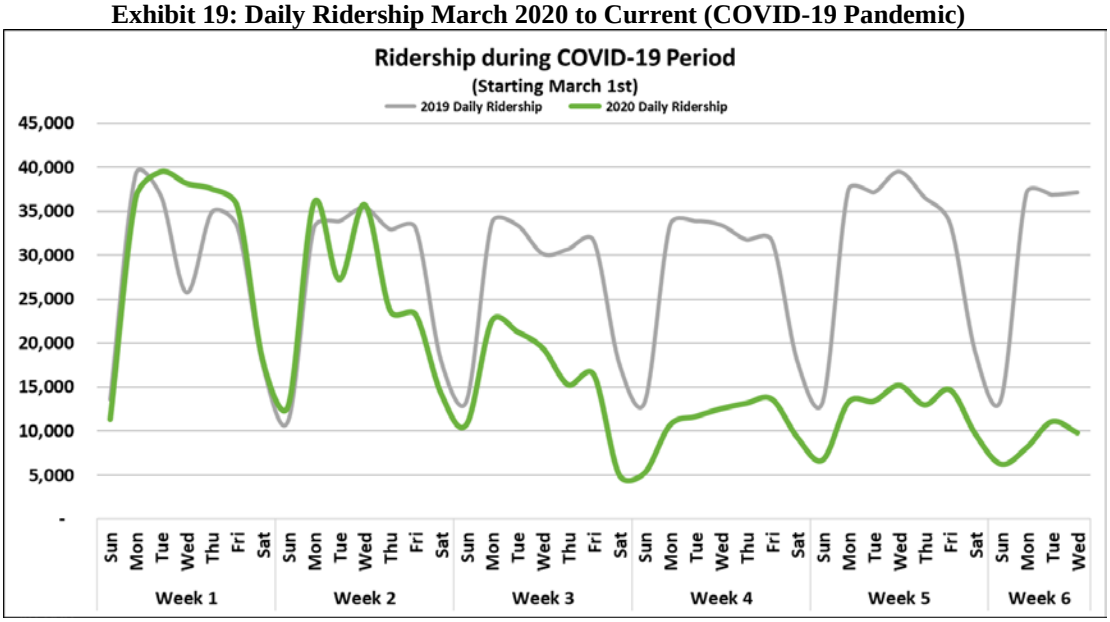
In addition to map changes, the ConnectForward plan proposes a change to the advanced reservation policy for OmniAccess. Currently, OmniAccess riders can make a reservation between one and seven days ahead of the travel day. The proposed reservation window will reduce this call-in window to three days ahead of the travel day. The goal of this change is to reduce the number of cancellations and no shows which have an estimated cost of over $300,000 per year. Currently, 65% of the no shows and late cancellations are from riders that schedule their trip more than three days in advance, who account for only 21% of the trips scheduled. Additionally, Omnitrans has implemented a program called PASS-Web which allows OmniAccess riders to schedule trips online, making this change to the call-in window less impactful since reservations can be made through multiple channels.

5. Coronavirus Service Changes and Scalable Service Changes

In January 2020, the first cases in what became the COVID-19 Pandemic were diagnosed in the US. Approximately two months later, California Governor Newsom issued a statewide Stay at Home Order. The pandemic and subsequent Stay at Home Order significantly changed life in California, including travel and transit patterns.

Through the end of February, Omnitrans systemwide ridership was up 1.8% compared to the year before. FY2020 was on pace to be the first positive ridership year since FY2012. Following the Stay at Home Order, Omnitrans ridership fell 65% compared to the prior year and remained at that level from mid-March through the writing of this report in mid-April. This ridership trend can be seen in Exhibit 19.

Exhibit 19: Daily Ridership March 2020 to Current (COVID-19 Pandemic)



In response to the pandemic, the Stay at Home Order, and the resulting decline in ridership, Omnitrans implemented its Emergency Service Deployment Plan. This plan has seven service levels ranging from Level 1, status quo 100% of regular service, to Level 7, which is approximately a 70% decline in service.

Omnitrans initially implemented Emergency Service Level 3 on March 23rd which reduced service by approximately 35% through frequency reductions. Routes that operated every 10-, 15- or 20-minutes were reduced to 30-minutes and routes that operated every 30-minutes were reduced to hourly. This kept every Omnitrans route in service in order to provide lifeline coverage service throughout Omnitrans' service area. This also implemented seven of the eleven frequency reductions initially planned for September 2020 as described in Section 3 of this report.

As ridership continued to decline and the data began to show that routes which primarily served schools were seeing the largest decline, it was clear that further reductions were required. On April 13th, Omnitrans implemented further targeted frequency reductions, route eliminations and

contracted out more routes to use smaller vehicles. This increased the service reduction from approximately 35% to 45%.

These April 13th service changes also implemented some of the planned September service changes ahead of schedule. These included:

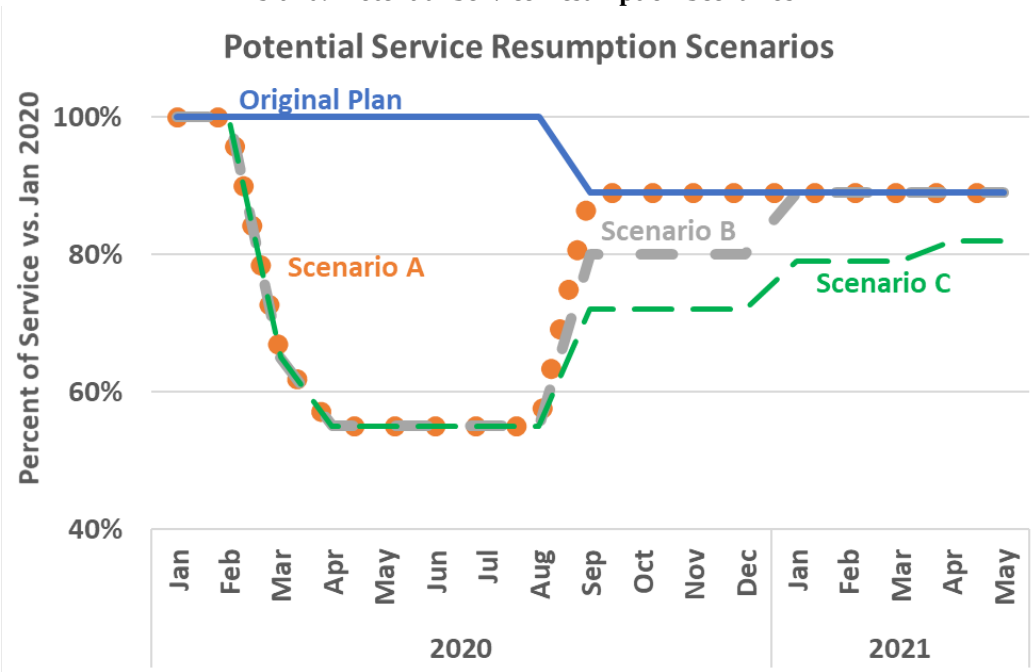
- Elimination of Route 7 (northern San Bernardino),
- Elimination of Route 20 (Fontana),
- Elimination of Route 308 (Yucaipa),
- Contracting out of Route 12 (San Bernardino, Muscoy, Rialto, Fontana), and,
- Contracting out of Route 29 (Bloomington).

There were additional changes that occurred at this period as well, however, these are currently planned to be temporary changes that will return following the pandemic.

The implementation of the Emergency Service Deployment plan now has Omnitrans operating service well below the planned September 2020 service plan. Additionally, with the decline in ridership and resulting fare revenue and the state of the economy and resulting financial uncertainty, there is a high degree of uncertainty about how and when service levels will be resumed to planned levels. As a result, Omnitrans believes it prudent to consider flexible and scalable scenarios to return service to the planned September service levels or possibly to a level below the initially plan September service level.

Exhibit 20 shows possible service resumption scenarios. The Original Plan Blue Line shows the initially planned service starting at 100% in early 2020 and declining to 89% in September 2020 with the planned 11% service reduction. Scenarios A, B and C all show the enacted Emergency

Exhibit 20: Potential Service Resumption Scenarios



Service reductions through April 2020. Omnitrans currently assumes that these reduced levels will continue through the end of the summer. Even if the Stay at Home Order is lifted, Omnitrans will likely continue to run reduced service through the summer as ridership will likely not rebound quickly and summer ridership is typically 10%-15% below other months.

Schools, colleges, and universities reopening for normal activities will likely be the trigger for beginning to restore service. As this occurs, Omnitrans will need to decide if service should jump to the planned September service level as shown in Scenario A or take a staggered approach to the September service level as shown in the Scenario B, with service resumption in January 2021. Alternatively, in Scenario C, service is resumed in smaller segments, but does not reach the planned September service levels as Omnitrans may need to further reduce service due to economic conditions.

This Service Plan is still based on the Original Plan in Exhibit 20. Costs associated with lost fare revenue are eligible expenses in the federal CARES Act. However, Omnitrans fully plans to monitor ridership, community activity, and economic conditions and will choose a service resumption path that aligns with the conditions. If Omnitrans continues to operate below plan and adjusts staffing levels accordingly, each scenario offers different potential savings opportunities in FY2021. Scenario A would save approximately $3.5 million in FY2021, compared to the original plan. The Scenario B would save approximately $5.0 million and Scenario C would save approximately $8.5 million during the year. The specific service reductions to achieve these levels has not been determined. This type of scalable adjustment as Omnitrans moves towards planned service levels will allow Omnitrans to meet budget requirements even during uncertain times.

Omnitrans will bring regular monthly reports on budget, service and ridership levels to the Administrative and Finance Committee. During these reports, the Committee will be given staff recommendations on the service resumption plan which the Committee can recommend moving to the full Board of Directors. Additionally, the development and implementation of the Business Resumption Plan will be an action item in the FY2021 Management Plan.

6. PROPOSED FY2021 SERVICE LEVELS

This section provides FY2021 projections for key service characteristics at systemwide, fixed route and ADA paratransit services levels. As described in Section 5, there are multiple factors and possible scenarios to consider as the nation rebounds from the COVID-19 pandemic. The forecasts in this section were developed prior to the pandemic and correspond to the blue line shown in Exhibit 20. Keeping these forecasts at the original projections will help document changes compared to planned service and fare revenue in response to the pandemic.

Omnitrans has already implemented the Emergency Service Deployment Plan bringing FY2020 Fourth Quarter service levels down by approximately 45% compared to plan. Since service levels are already reduced below the planned September 2020 (FY2021) levels, Omnitrans will have the opportunity to return service in a flexible and scalable way based on ridership levels, workforce availability and economic/financial conditions. The Board will be kept apprised of changes in ridership, revenues/costs and workforce levels on a monthly basis in order to determine how and when service levels are increased.

6.1 SYSTEMWIDE SERVICE

Systemwide service characteristics are the summation of the fixed route and OmniAccess service characteristics provided in the sections below. Traditional fixed route service dominates systemwide service characteristics because 71% of Omnitrans' FY2021 revenue hours are directly operated 40-foot bus service, compared to 6% for sbX, 3% for OmniGo contracted fixed route service, and 20% for ADA paratransit service. From a ridership perspective, traditional fixed route service dominates the service characteristics by an even larger share accounting for 88% of boardings compared to 8% for sbX, 1% for OmniGo and 3% for OmniAccess.

Exhibit 21 shows that Omnitrans' revenue hours are projected to decline 8.7% during FY2021, falling from 843,000 hours in FY2020 to 770,000 in FY2021. This is a total decline of 73,000 revenue hours during the year as a result of the service changes proposed in Section 4 of this report. Revenue miles see a similar decline of 8.2% also driven by the proposed service changes. Ridership levels are projected to decline 3.5% during the year, equivalent to approximately 382,000 boardings. Fare revenue is projected to decline 1.8% as the Fiscal Year still see positive fare impacts from the full year implementation of the September 2019 fare increase.

Exhibit 21: System-wide Service Characteristics Summary

System Total (in Thousands except vehicles and ratios)		Actuals				Year-End Estimate	Projection	Percent Change
		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Financial	Fare Revenue	$ 14,193	$ 13,314	$ 13,078	$ 13,595	$ 14,863	$ 14,597	-1.8%
Operating Data	Revenue Miles	11,320	11,389	11,415	11,425	11,609	10,662	-8.2%
	Total Miles	12,741	12,742	12,805	12,818	12,902	11,838	-8.2%
	Revenue Hours	831	832	830	833	843	770	-8.7%
	Total Hours	900	897	898	898	915	835	-8.6%
	Passengers	12,813	11,653	11,210	10,864	11,059	10,676	-3.5%
Fleet Data	Peak Revenue Fleet	248	250	251	251	250	250	0.0%
	Spare Fleet	32	31	31	32	34	34	0.0%
	Total Fleet	278	281	282	283	284	284	0.0%
Key Stats	Passengers per Hour	15.4	14.0	13.5	13.0	13.1	13.9	5.7%

Omnitrans' total fleet is projected to remain unchanged at 284 vehicles, including articulated coaches, 40-foot coaches and Access cutaways. This projection is for maximum vehicles during the year, which includes the planned service prior to the September 2020 service changes. The number of total vehicles will fall by nineteen 40-foot coaches following the implementation of the September service changes.

6.2 FIXED ROUTE SERVICE

The service changes described in Section 4 of this report drive the proposed fixed route service changes shown in Exhibit 22. Section 4 describes an annualized change in total revenue hours of 11.4% and 77,597 revenue hours. The projection for FY2021 in Exhibit 22 shows a 9.4% decline, or a decline of 64,000 revenue hours. The difference between the two estimates is that the FY2021 estimates have the service reduction in place for 10 of the 12 months of FY2021, while the projections in Section 4 are fully annualized figures.

Fixed route fare revenue is projected to decline 1.9%, to $13.2 million while ridership is projected to decline 3.5% to 10.3 million riders, down 379,000 riders from the initial year-end estimate of 10.7 million riders for FY2020.

Exhibit 22: Total Fixed Route Service Characteristics Summary

Total Fixed Route (in Thousands except vehicles and ratios)		Actuals				Year-End Estimate	Projection	Percent Change
		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Financial	Fare Revenue	$ 12,439	$ 11,577	$ 11,463	$ 12,150	$ 13,416	$ 13,155	-1.9%
Operating Data	Revenue Miles	8,733	8,833	8,985	9,111	9,201	8,388	-8.8%
	Total Miles	9,452	9,568	9,769	9,917	9,991	9,089	-9.0%
	Revenue Hours	661	665	673	676	682	618	-9.4%
	Total Hours	691	697	705	709	714	646	-9.5%
	Passengers	12,380	11,220	10,832	10,503	10,728	10,349	-3.5%
Fleet Data	Peak Revenue Fleet	152	154	155	155	154	154	0.0%
	Spare Fleet	32	31	31	32	34	34	0.0%
	Total Fleet	182	185	186	187	188	188	0.0%
Key Stats	Passengers per Hour	18.7	16.9	16.1	15.5	15.7	16.8	6.5%

The peak fleet utilized during the year will remain at 154 vehicles as the service change does not occur until September. Following the September service change, the peak fixed route fleet will decline to 138 vehicles including cutaways, coaches and articulated buses.

In order to quantify the impact of the COVID-19 pandemic, the initial year-end estimate shown in Exhibit 22 is compared to a newly revised forecast shown in Exhibit 23 based on: 1) Maintaining reduced service through the end of the fiscal year, 2) social distancing guideline remain in place through the end of the fiscal year, which has Omnitrans maintain rear door boarding only, with no fare collection, and, 3) average daily ridership trends from late March/early April continue to the end of the fiscal year.

Exhibit 23: FY2020 Initial vs. Revised Forecast (COVID-19 Impact)

Total Fixed Route (in Thousands except vehicles and ratios)		FY2020 Estimates			
		Initial	Revised	Δ	%Δ
Financial Data	Fare Revenue	$ 13,416	$ 9,754	$ (3,662)	-27.3%
Operating Data	Revenue Miles	9,201	8,155	(1,046)	-11.4%
	Total Miles	9,991	8,855	(1,136)	-11.4%
	Revenue Hours	682	604	(78)	-11.4%
	Total Hours	714	633	(81)	-11.4%
	Passengers	10,728	8,704	(2,024)	-18.9%
Fleet Data	Peak Revenue Fleet*	154	92	(62)	-40.3%
Key Stats	Passengers per Hour	15.7	14.4	(1.3)	-8.5%

*Estimated peak fleet at end of year including cutaways, 40' buses and articulated buses

6.3 OMNIACCESS SERVICE – ADA PARATRANSIT SERVICE

Over the last several years, Omnitrans' Special Transit Service Department has implemented several programs which have mitigated growth on Access, including travel training, Regional Mobility Partnerships (RMP), volunteer driver programs, and RideLyft/Taxi partnerships. This decline has not been a regional nor national trend, and as such, Omnitrans does not project ridership declines to continue from these programs.

However, OmniAccess ridership forecasts are also impacted by the elimination of the Beyond the Boundary service, map changes associated with the proposed fixed route service changes, and changes to the reservation window. Additionally, July 1, 2020 is the contractor transition to operate OmniAccess service. The new contractor, First Transit, has proposed several efficiencies that if implemented will increase productivity measured by passengers per hour.

As a result of the above-mentioned factors, OmniAccess ridership is projected to decline 1.0%, from 331,000 passengers in FY2020 to 328,000 riders in FY2021. Declining ridership on OmniAccess often helps the agency save operating costs, as OmniAccess trips are the most expensive service offering at the agency, typically costing seven times as much per trip as a comparable trip on fixed route service.

Since service characteristics such as revenue hours and revenue miles on OmniAccess are demand-driven and determined by ridership levels, Access' service characteristics follow the ridership trend. Revenue hours and miles are expected to decline by 5.6% at 2,274,000 revenue miles and 152,000 revenue hours during FY2021. Exhibit 23 below shows the estimated service characteristics for OmniAccess during FY2021.

Exhibit 24: Access Service Characteristics Summary

Access (in Thousands except vehicles and ratios)		Actuals				Year-End Estimate	Projection	Percent Change
		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Financial	Fare Revenue	$ 1,754	$ 1,736	$ 1,614	$ 1,445	$ 1,447	$ 1,442	-0.3%
Operating Data	Revenue Miles	2,587	2,556	2,431	2,314	2,408	2,274	-5.6%
	Total Miles	3,290	3,174	3,036	2,901	2,911	2,749	-5.6%
	Revenue Hours	170	167	158	157	161	152	-5.6%
	Total Hours	209	200	193	189	201	190	-5.6%
	Passengers	434	432	378	360	331	328	-1.0%
Fleet Data	Peak Revenue Fleet	96	96	96	96	96	96	0.0%
	Spare Fleet	-	-	-	-	-	-	0.0%
	Total Fleet	96	96	96	96	96	96	0.0%
Key Stats	Passengers per Hour	2.5	2.6	2.4	2.3	2.1	2.2	4.8%

7. FARE STRUCTURE

Omnitrans raised fares in FY2020 and proposes no fare change during FY2021. Exhibit 24, Exhibit 25 and Exhibit 26 provide details of Omnitrans' FY2021 fare structure.

Exhibit 25: Fixed Route Fares

	Full-Fare	Senior/Disability/Medicare	Youth	Veteran
31-Day	$ 60.00	$ 30.00	$ 45.00	$ 30.00
7-Day	$ 20.00	$ 9.00	$ 15.00	$ 9.00
1-Day				
Single Day Pass	$ 6.00	$2.75	n/a full-fare	$ 2.75
Packs of Ten	$ 54.00	$ 25.00	n/a full-fare	$ 25.00
Single Ride				
Individually	$ 2.00	$ 0.90	n/a full-fare	$ 0.90
Packs of Ten	$ 18.00	$ 8.50	n/a full-fare	$ 8.50
Free Rides	**MetroLink Transfers:** Free to rider; SCRRA pays one-half base fare for each boarding with a MetroLink ticket/pass; RCTC pays a half base fare for Metrolink transfers on Rt. 215. **Children:** Height < 46"; limit 2 free per fare paying riders **Personal Care Attendant**: Accompanying a ADA Rider; **Omnitrans Employees and Family Members**: With Employee/Family ID; **RTA Employees and Family Members**: With Employee/Family ID; and, **LAMTA, Foothill Transit, OCTA & Pass Transit Employees**: With Employee ID **Promotional Fares**. **Uniformed active military, police and fire personnel.**			
Go Smart Fare	• The Go Smart fare is a pre-negotiated fare for any student, employee, member or client of a partner organization. Participants must have an active, valid Omnitrans-compatible ID card as proof of fare.			

Exhibit 26: Access Fares

	Cash	Beyond ADA Boundary
1-3 zone	$ 3.25	$ 8.25
4 zone	$ 4.25	$ 9.25
5 zone	$ 5.25	$ 10.25
6 zone	$ 6.25	$ 11.25

Exhibit 27: MicroTransit Fares

	Full-Fare	Senior/Disability/Medicare	Youth	Veteran
One-Ride (includes day pass on fixed route)	$ 4.00	$ 2.00	$ 4.00	$ 2.00

There will be a promotional free ride period at the beginning of MicroTransit service. This may be followed by a short discounted promotional period prior to reaching .

8. PUBLIC INPUT AND TITLE VI SERVICE EQUITY ANALYSIS

Best practices in transit planning are built upon thorough public input. Omnitrans staff held public meetings associated with the update of the SRTP. Feedback was also attained during the survey and focus groups associated with the sbX Before and After Study. Additionally, Omnitrans participates in the American Bus Benchmarking Group (ABBG) annual Customer Satisfaction Survey. The Strategic Development Department also tracks and considers all service requests that are received. These inputs inform Omnitrans' recommendations for service changes.

Federal Transit Administration (FTA) regulations require public hearings and Title VI Service Equity Analyses for any major service change or any fare increase. The FTA requires that agencies define a major service change. Omnitrans has defined this as a change to any route's hours, miles or passengers by 25% or more on any day of service. Given the totality of the service changes, this service change was deemed a major service change and required a public hearing.

8.1 PUBLIC INPUT

In order to maximize the potential for public involvement, Omnitrans held 22 public meetings. There were nine formal public hearings and thirteen informal public meetings. Additional, Omnitrans staff presented at four City Council meetings upon request from each of those four cities.

This approach is based on Omnitrans' Public Outreach Plan, which was adopted by the Board in 2007. Omnitrans has found informal public hearings in the community to be much more successful in generating public participation than a single public hearing held at a Board Meeting. The Public Hearings schedule is shown in Exhibit 27.

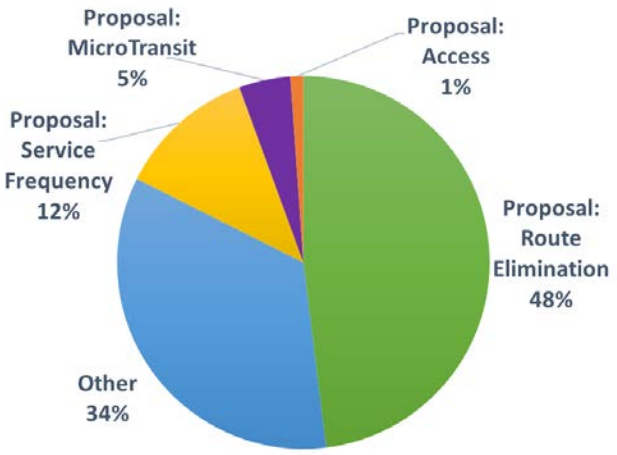
Exhibit 28: Public Meetings

CITY	LOCATION	DATE	TIME
San Bernardino	San Bernardino Transit Center	Monday, January 13, 2020	6:00 A.M. – 9:00 A.M.
San Bernardino	San Bernardino Transit Center	Monday, January 13, 2020	3:00 P.M. – 6:00 P.M.
***Yucaipa**	**Yucaipa City Hall**	**Tuesday, January 14, 2020**	**3:00 P.M. – 5:00 P.M.**
Fontana	Fontana Transit Center	Wednesday, January 15, 2020	6:00 A.M. – 9:00 A.M.
***Upland**	**Upland City Hall**	**Wednesday, January 15, 2020**	**3:00 P.M. – 6:00 P.M.**
Fontana	Fontana Transit Center	Thursday, January 16, 2020	3:00 P.M. – 6:00 P.M.
Rialto	Foothill & Riverside Bus Stops	Friday, January 17, 2020	11:00 A.M. – 2:00 P.M.
Montclair	Montclair Transit Center	Tuesday, January 21, 2020	6:00 A.M. – 9:00 A.M.
Chino	Chino Transit Center	Tuesday, January 21, 2020	3:00 P.M. – 6:00 P.M.
***San Bernardino**	**Plans and Programs Meeting**	**Wednesday, January 22, 2020**	**9:00 A.M.**
Redlands	Redlands Mall Bus Stops	Thursday, January 23, 2020	3:00 P.M. – 6:00 P.M.
Ontario	Ontario Mills	Friday, January 24, 2020	11:00 A.M. – 2:00 P.M.
***Grand Terrace**	**Grand Terrace Community Room**	**Monday, January 27, 2020**	**3:00 P.M. – 5:00 P.M.**
Montclair	Montclair Transit Center	Wednesday, January 29, 2020	11:00 A.M. – 2:00 P.M.
***Chino Hills**	**Chino Hills City Hall**	**Wednesday, January 29, 2020**	**4:00 P.M. – 7:00 P.M.**
San Bernardino	San Bernardino Transit Center	Thursday, January 30, 2020	6:00 A.M. – 9:00 A.M.
***Fontana**	**Fontana City Hall**	**Thursday, January 30, 2020**	**3:00 P.M. – 6:00 P.M.**
***Ontario**	**Dorothy Quesada Community Center**	**Monday, February 3, 2020**	**4:00 P.M. – 7:00 P.M**
Colton	Arrowhead Regional Medical Center Transfer Center	Tuesday, February 4, 2020	11:00 A.M. – 2:00 P.M.
***San Bernardino**	**Omnitrans: East Valley Facility**	**Tuesday, February 4, 2020**	**4:00 P.M. – 7:00 P.M.**
***San Bernardino**	**Board Meeting**	**Wednesday, February 5, 2020**	**8:00 AM**
Rancho Cucamonga	Chaffey College Transit Center	Thursday, February 6, 2020	11:00 A.M. – 2:00 P.M.

***Formal Public Hearings.**

During these meetings, Omnitrans staff interacted with approximately 750 people. Omnitrans received 358 total comments at these meetings, via email, over the phone and through social media. 66% of these comments were related to the Service Change Proposals. The remaining 34% were categorized as "Other" comments.

Exhibit 29: Public Comment Summary

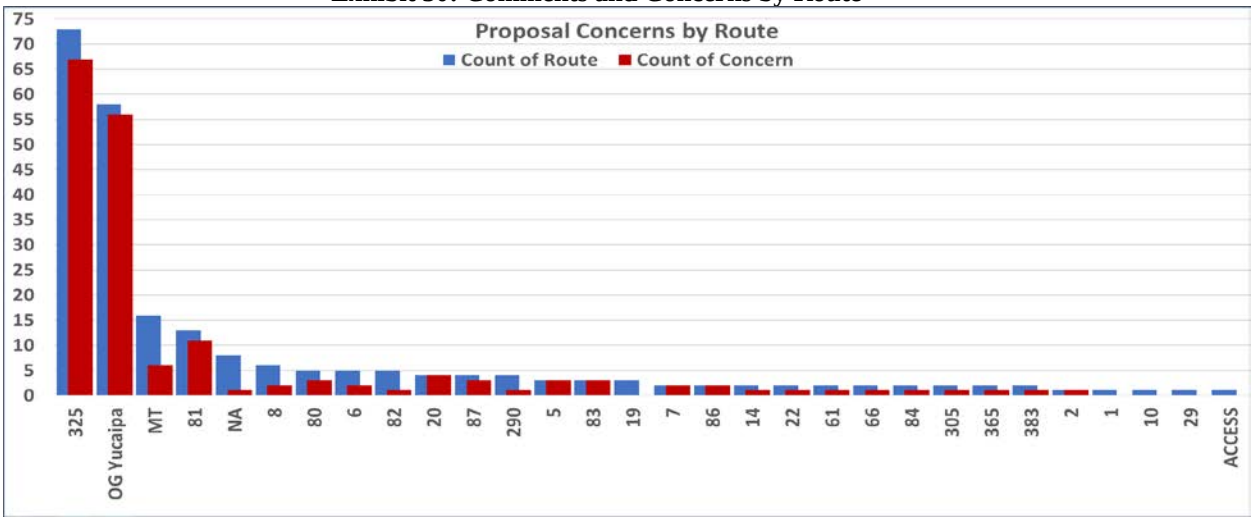


Of the comments that identified a route, a total of 70% of the comments related to OmniGo Yucaipa (Routes 308/309/310) and OmniGo Grand Terrace (Route 325). Of the 70%, 32% related to Yucaipa and essentially asked for additional service rather than service reductions. Of the 70%, 38% where related to OmniGo Grand Terrace and over half of those were from one individual. The requests in Grand Terrace related to maintain service to the Grand Terrace Senior Center and maintaining a one-seat ride between the VA Hospital and the Senior Center.

While Omnitrans understands the requests from these communities, the primary services in these areas are not financially sustainable. In both cases, Omnitrans' Special Transportation Services Department partners with the cities through the Regional Mobility Partnership (RMP) program. A new call for projects has been issued for the RMP program and Omnitrans will help the cities apply for additional grant funding.

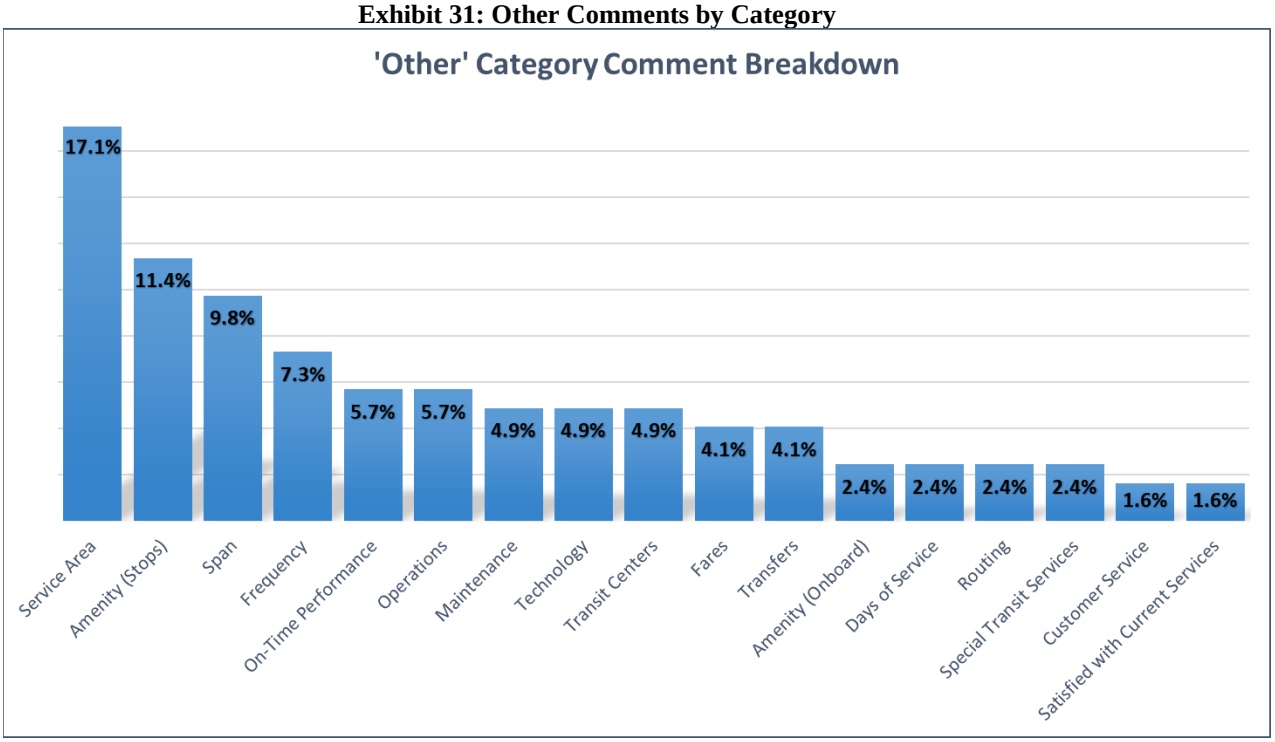
Exhibit 29 shows the distribution of comments by route. The blue is the total number of comments, the red the total number of concerns, and then the gap between the blue and the red show the share of positive comments by route. As can be seen in this graph, there were very few comments on any service change other than OmniGo Grand Terrace (325) and OmniGo Yucaipa. The only other comment with double digit concerns related to Route 81, where there were requests to maintain service to Ontario Mills. Following these comments, Omnitrans was able to maintain service to Ontario Mills.

Exhibit 30: Comments and Concerns by Route



The breakdown of the 34% of "Other" comments can be seen in Exhibit 30. The four most common other comments include: 1) a desire for additional service area, with Redlands Community Hospital and South Ontario/Chino coming up most frequency, 2) requests for additional stop amenities including shelters and benches, 2) Request for longer service, particularly on weekend evenings, and 3) more frequency across routes that were not seeing service changes.

Exhibit 31: Other Comments by Category



8.2 Service Equity Analysis

Omnitrans is required to complete a Title VI service equity analysis for every fare and/or major service change before it occurs. These requirements are outlined in the FTA Circular 4702.1B, dated October 1, 2012, and more generally in Section 601 of Title VI of the Civil Rights Act of 1964. This states that no person will be discriminated against, excluded from, or denied service based on race, color, or national origin. In order to abide by the Civil Rights Act, each transit agency must report on the services it provides in relation to the population in its service area. In this way, it must demonstrate that no group or groups are being denied service based on discriminatory planning.

Exhibit 31 renders all the proposed route changes in total. Note that OmniGo Route 365 in Chino Hills will be eliminated and replaced by a MicroTransit Option. The blue routes show the existing network of routes following the proposed September 2020 service change. The red routes shows routes or part of routes that exist today that would no longer exist following the September 2020 service change.

Exhibit 32: System Map Changes

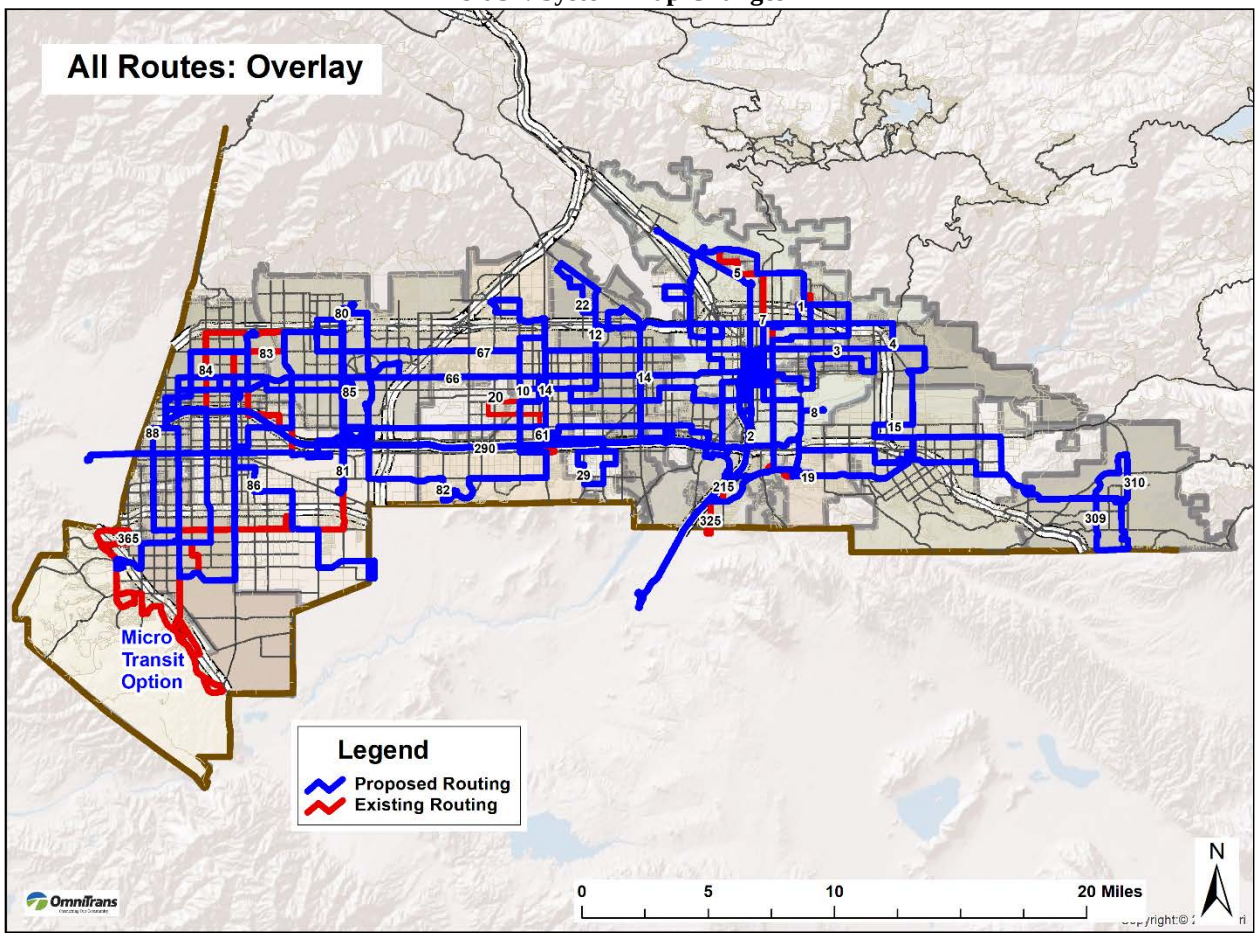


Exhibit 32 shows the tabulated data of all service equity analyses performed for all proposed route changes. In each case of a change, the percent minority and percent Low-Income/Minority (LIM) are determined for current routing and for proposed routing. Results in each case are compared in terms of proposed change demographic profile versus the current routing demographic profile. From these two figures, the difference is obtained for both Minority proportion and for LIM proportion. This difference is measured in terms of percentage difference, Positive differences mean that the minority/LIM proportion served is greater in the proposed routing scenario than it is currently, while a negative difference means that the minority/LIM proportions of the population served would be reduced in the proposed scenario.

For the Title VI Service Equity Test up to ten-percent difference is permissible based on Omnitrans' Disparate Impact Policy service change threshold in order to remain compliant with Title VI requirements, and positive changes should always be compliant. In each comparison, the difference is adjudicated as being within acceptable bounds or not.

All proposed changes are within acceptable bounds. None of the proposed changes result in disparate impact or impose disproportionate burdens on minority populations, and for these reasons, Omnitrans will remain compliant with its Title VI obligations.

Exhibit 33: Demographic Comparison of Service Changes

COMPARISON TO ROUTES	% Minority	% LIM	Difference	Within Acceptable Bounds?
Population of County (ACS 2015 data)	70.1%	73.3%		
Population of Service Area (Includes Area within ALL JPA Cities' Limits)	72.4%	76.9%		
Population of ADA/Access Service Area	75.4%	79.6%		
ROUTE COMPARISONS				
ROUTES 1, 5, 7, and 325 (Proposed Routes 1, 6, 305)--- Route 6, Golden Alternative				
Half-Mile of Current Routes Affected by Changes	77.5%	84.0%	1.5%	Yes
Half-Mile of Proposed Fixed Route Changes	79.1%	85.1%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	78.7%	84.6%	0.9%	Yes
One Mile of Proposed Fixed Route Changes	80.0%	85.5%		
ROUTE 8				
Half-Mile of Current Routes Affected by Changes	61.8%	69.1%	-0.1%	Yes
Half-Mile of Proposed Fixed Route Changes	61.7%	68.1%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	64.1%	71.9%	No Change	Yes
One Mile of Proposed Fixed Route Changes	64.1%	71.9%		
ROUTE 29 (Proposed Route 29)				
Half-Mile of Current Routes Affected by Changes	85.4%	88.3%	-0.5%	Yes
Half-Mile of Proposed Fixed Route Changes	84.9%	88.2%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	85.5%	88.3%	0.1%	Yes
One Mile of Proposed Fixed Route Changes	85.6%	88.4%		
ROUTE NEW 81, 86 (Proposed Alternative to 81, 86)				
Half-Mile of Current Routes Affected by Changes	71.8%	75.3%	-0.9%	Yes
Half-Mile of Proposed Fixed Route Changes	70.9%	74.6%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	71.2%	74.7%	-0.1%	Yes
One Mile of Proposed Fixed Route Changes	71.1%	74.6%		
ROUTE 82, 20 (Proposed Route 82)				
Half-Mile of Current Routes Affected by Changes	83.7%	86.2%	-0.7%	Yes
Half-Mile of Proposed Fixed Route Changes	83.0%	85.5%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	82.7%	85.1%	-0.6%	Yes
One Mile of Proposed Fixed Route Changes	82.1%	84.5%		
ROUTE 83, 84 and 383 Upland Circulator / Upland OmniGo Proposal				
Half-Mile of Current Routes Affected by Changes	70.6%	74.5%	2.2%	Yes
Half-Mile of Proposed Fixed Route Changes	72.8%	76.5%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	69.9%	73.7%	2.7%	Yes
One Mile of Proposed Fixed Route Changes	72.6%	76.3%		
ROUTE 308				
City of Yucaipa Demographics for Comparison	33.9%	43.3%	3.1%	Yes
Half-Mile of Proposed Fixed Route Changes	37.0%	50.7%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
City of Yucaipa Demographics for Comparison	33.9%	43.3%	4.0%	Yes
One Mile of Proposed Fixed Route Changes	36.6%	47.3%		
ROUTE 365				
Cities of Chino & Chino Hills Demographics for Comparison	69.4%	71.8%	0.7%	Yes
Half-Mile of Proposed Fixed Route Changes	70.1%	72.4%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
Cities of Chino & Chino Hills Demographics for Comparison	69.4%	71.8%	0.8%	Yes
One Mile of Proposed Fixed Route Changes	70.3%	72.6%		
PROPOSED ROUTE CHANGES ONLY				
Half-Mile of Current Routes Affected by Changes	74.1%	78.6%	0.3%	Yes
Half-Mile of Proposed Fixed Route Changes	74.4%	78.9%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	74.6%	78.9%	9.1%	Yes
One Mile of Proposed Fixed Route Changes	85.5%	88.0%		
10-, 15-, 20-Minute Frequency Service				
Half-Mile of Current Routes Affected by Changes	82.5%	86.8%	0.1%	Yes
Half-Mile of Proposed Fixed Route Changes	82.6%	86.8%		
30-Minute Frequency Service				
Half-Mile of Current Routes Affected by Changes	75.6%	80.2%	-0.3%	Yes
Half-Mile of Proposed Fixed Route Changes	75.3%	79.9%		
60+-Minute Frequency Service				
Half-Mile of Current Routes Affected by Changes	74.9%	78.8%	0.6%	Yes
Half-Mile of Proposed Fixed Route Changes	75.5%	79.4%		
ENTIRE PROPOSED SYSTEM				
Half-Mile Buffer Around 2019 Fixed Route System	75.6%	79.8%	0.4%	Yes
Half-Mile Buffer Around Proposed Fixed Route System	76.0%	80.2%		
For Local Demographic Character Associated with Routes (One Mile Buffer):				
One Mile of Current Routes Affected by Changes	74.4%	78.7%	0.3%	Yes
One Mile of Proposed Fixed Route Changes	74.7%	79.0%		