



EV Micro Transit Service Expansion Analysis

Fresno County Rural Transit Agency (FCRTA)

Rural Transit Assistance Program Community Rides Grant

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WALKER
CONSULTANTS



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Executive Summary

Summary of Findings

The goal of this project was to both work with the community and conduct data analysis to develop a plan for expansion of Fresno County Rural Transit Agency's (FCRTA) rural electric vehicle (EV) Micro Transit service. Five unincorporated communities were selected for this project including Laton, Lanare, Riverdale, Cantua Creek, and El Porvenir. These communities are in three distinct areas in southwestern Fresno County: (1) Laton, (2) Lanare-Riverdale, and (3) Cantua Creek—Three Rocks—El Porvenir—San Joaquin. Figure 1 on page 5 shows these areas and FCRTA's current service routes.

Most residents are not employed in cities or Census Designated Places, but in rural areas that could be better served separately with Micro Transit.

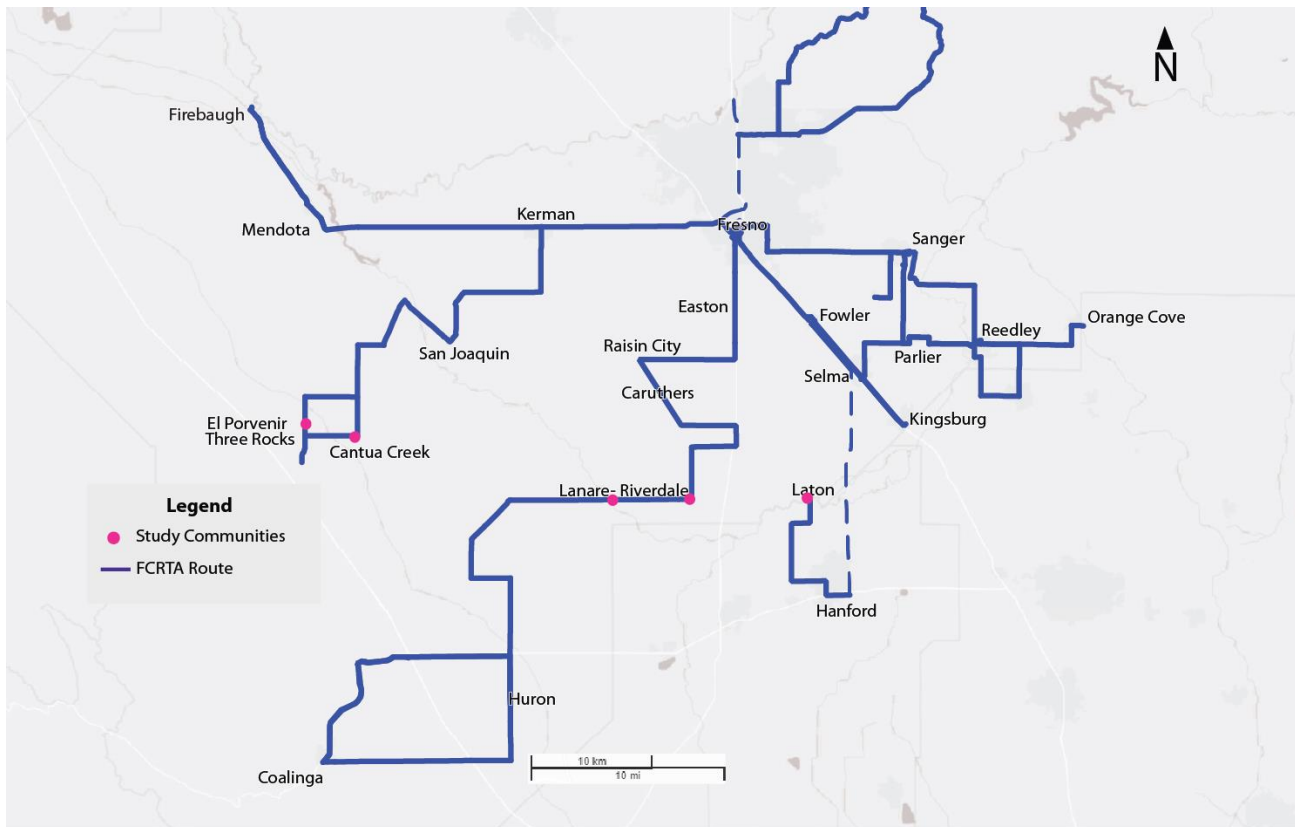
The transportation demand analysis reveals three distinct employment flows. One pattern is a high number of trips taken along Mount Whitney Avenue between Lanare, Riverdale, and Laton. The destinations most strongly driving demand along this route are the cities of Hanford (Kings County) and Fresno. Another pattern is a high number of trips taken from the Cantua Creek—Three Rocks—El Porvenir area toward employment hubs in Fresno, Kerman, and Mendota. A final observation is that most residents were not employed in cities or Census Designated Places, but in rural areas that could be better served separately with Micro Transit.

It is important to note that the service will not just connect residents with their place of employment, but also connect residents to medical appointments, social services appointments, and job training. During community outreach, residents expressed the need for more transportation options to these types of quality of life locations. Further, some of the communities lack commercial uses such as a grocery store or pharmacy. The EV Micro Transit will help connect residents to these critical destinations.

Further, this service takes a more holistic approach to transportation as a community and economic development catalyst by using an innovative approach of hiring drivers from the local community. Working with local drivers has a variety of advantages:

- Local drivers promote community trust in using the service.
- Local drivers can help market the service in their communities, promoting ridership.
- Promotes local employment in disadvantaged rural communities with limited economic opportunities.
- Vehicles will be stationed in local communities, reducing the amount of vehicle deadhead time required.

Figure 1: Study Area Communities and FCRTA Current Service



Source: Walker Consultants, 2022.

Project Background

Fresno County Rural Transit Agency (FCRTA) has the opportunity to expand its rural EV Micro Transit service through an innovative approach that could be cost-effective, fill service gaps, address driver shortages, and bring more riders to the system. The new network of Micro Transit services would use electric vehicles (Chevy Bolts) and for the first time, be driven by residents throughout small unincorporated communities of Fresno County within zones predetermined by FCRTA.¹

Five unincorporated communities were selected for this project including Laton, Lanare, Riverdale, Cantua Creek, and El Porvenir. These communities fall within three distinct areas in southwestern Fresno County:

- (1) Laton - Furthest east and has a population of approximately 1,900
- (2) Lanare-Riverdale – Center of study area with populations of 600 and 2,500, respectively
- (3) Cantua Creek—Three Rocks—El Porvenir—San Joaquin - Furthest west with a combined population of approximately 4,700.

¹ Passengers requiring an ADA accessible vehicle will be provided a van, which could be gas-powered or electric.

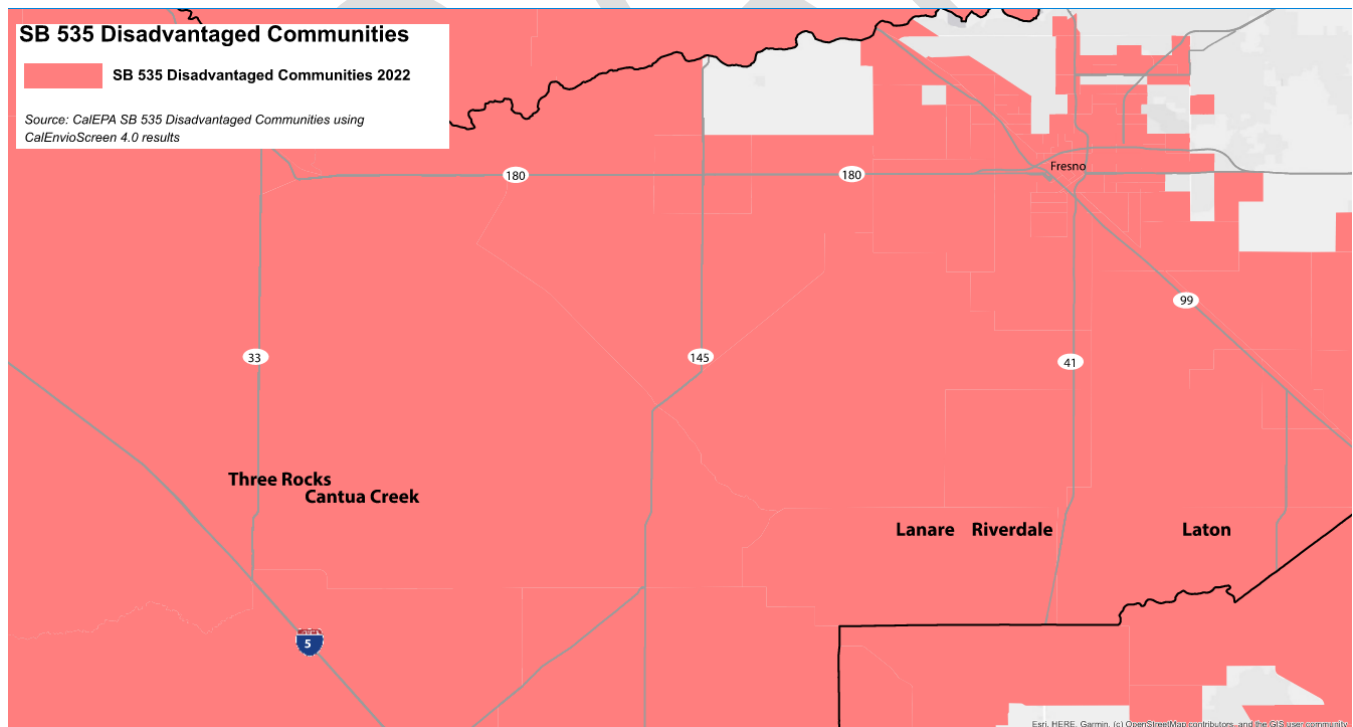
These communities were selected because they are traditionally underrepresented in transportation planning efforts and are lacking in transportation options and access to basic services. Laton, Lanare, Riverdale, Cantua Creek and Three Rocks are all Census Designated Places. El Porvenir is a County Service Area in unincorporated Fresno County. San Joaquin is a small city. In the past, FCRTA has conducted efforts to promote public transit options; however, these efforts were not able to meet farebox requirements to continue with the demonstration projects.

All of the study area communities are designated as disadvantaged by CalEPA for the purpose of SB 535 (see Figure 2) indicating that these communities suffer from a combination of economic, health, and environmental burdens.

The communities generally lack sidewalks, crosswalks, or other pedestrian infrastructure, as shown in Figure 3 on page 7. There are fast and potentially unsafe travel speeds on main roads. Roads in certain locations need to be repaved. The communities have very limited transit service, and because there is little shade; residents often face long walks in the hot sun to get to the nearest bus stop, which is tens of miles away. There are long travel distances between communities, and residents must frequently travel to other communities for essential services and employment opportunities. In addition, these areas experience high rates of unemployment and poverty.

While there is existing transit service, it is limited. Laton is served by Kart Route 14 (2 trips per day) with 6 stops in Laton, and Kart Route 17 (1 trip per day) which makes 1 stop in Laton. Lanare and Riverdale each have 1 bus stop served by FCRTA's Coalinga route (1 trip per day). Cantua Creek/ Three Rocks/ El Porvenir are served by the San Joaquin Transit (Dial-A-Ride) on Tuesdays and Thursdays only. There is no official bus stop in these communities due to lack of sidewalk and curbs.

Figure 2: CalEPA SB 535 Disadvantaged Communities 2022



Source: Walker Consultants, 2022.

Figure 3: Project Location Photos



Source: Walker Consultants, 2022.

Project Goals and Objectives

The key project goals and objectives are as follows:

- Understand how people in the study area communities get around as well as obstacles faced by community members who do not have access to a vehicle.
- Develop recommendations for building on FCRTA's pilot EV Micro Transit service to provide tailored environmentally friendly and affordable mobility options that meet the needs of residents in southwestern Fresno County.
- Increase access for disadvantaged communities and low-income residents to key destinations, including healthcare and social services appointments.

Project Team

The project team consists of Fresno County Rural Transit Agency ("FCRTA"), as the lead agency and Walker Consultants ("Walker") and Leadership Counsel for Justice and Accountability ("Leadership Counsel") as project partners.

The Fresno County Rural Transit Agency (FCRTA) provides public transit service to communities throughout rural Fresno County. FCRTA provides both scheduled and fixed route services with designated bus stops along specific routes, as well as reservation-based, demand responsive service that offers curb-to-curb transportation and EV Micro Transit service in the communities of Biola and West Park.

Walker Consultants provides planning, design, policy, and engineering transit/transportation consulting. Walker works with the public sector to provide more transportation choices for people. Walker believes stakeholder and community engagement is a key factor to transportation planning and combines that input with our analysis and mapping expertise to make informed decisions about where and how to invest in transportation. Walker in

partnership with FCRTA previously planned an EV Micro Transit services for the communities of Biola and West Park, CA.

Leadership Counsel, based in San Joaquin and Eastern Coachella Valleys, works alongside the most impacted communities to advocate for sound policy and eradicate injustice to secure equal access to opportunity regardless of wealth, race, income, and place. Through community organizing, research, legal representation, and policy advocacy, Leadership Counsel impacts land use and transportation planning, shifts public investment priorities, guides environmental policy, and promotes the provision of basic infrastructure and services.

FCRTA provided project vision, planning, and oversight for the project. Walker Consultant lead project administration, budget oversight, developed the community survey, conducted the analysis of the survey results, conducted the EV Micro Transit service analysis, developed recommendations, and prepared the summary report. Leadership Counsel helped develop the survey and distributed the survey to the local communities.

The Rural Transit Assistance program (RTAP) was the project funder.

Purpose of this Report

This report was prepared to summarize the efforts involved as part of this grant funding, including the outreach conducted through the community survey, the employment and ridership demand analyses for the three areas, the key findings, and the recommendation of the three proposed EV Micro Transit Zones. This report addresses general concerns around the overall lack of high quality, affordable, environmentally-friendly transportation options. It provides an understanding of current transportation access and travel choices of rural Fresno County residents within the study area and the community's interest in Micro Transit services, and it demonstrates how an EV Micro Transit service expansion to include three new zones could work in practice and help meet the transportation needs of the community.

Methodology

Walker conducted an EV Micro Transit service analysis by analyzing employment data, transit corridor demand data, existing transit options, and EV charging infrastructure. The project team also developed a community survey to better understand current transportation access and travel choices of rural Fresno County residents in the proposed EV Micro Transit service corridor and gauge the community's interest in a ride reservation transportation service for medical and social services appointments, willingness to pay for the service, and interest in working as a driver. Additionally, the project team conducted stakeholder meetings with social services organizations and governmental entities providing services to rural communities in Fresno County.

EV Micro Transit Service Proposal

An expansion of EV Micro Transit service could effectively serve people who live and work in the study area. The finding that for all three areas studied, most employed residents work in unincorporated rural areas, rather than in employment centers, underscores the importance of providing a transportation service like EV Micro Transit that is flexible enough to meet their needs. The rural communities in the Laton, Riverdale-Lanare, and Cantua Creek-

Three Rocks-El Porvenir-San Joaquin areas currently lack useful public transportation options, with most fixed routes in the area offering limited coverage and schedules.

Many people who responded to the survey stressed urgency and need for better transportation services for the community, especially affordable services for the elderly and those unable to drive to key destinations. Expanding EV Micro Transit service to the study areas would be an environmentally friendly way to provide rural Fresno County residents with a much-needed transportation option to access key destinations, including places of employment, job training, medical service, social services, grocery stores, pharmacy, and other quality of life destinations.

This expansion proposal recommends establishing three Micro Transit zones: (1) Laton, (2) Riverdale-Lanare, and (3) Cantua Creek-Three Rocks-El Porvenir-San Joaquin. One vehicle should operate in each zone, and the vehicles would charge at nearby FCRTA charging stations during the day as well as overnight. Each of the three vehicles is estimated to have ten revenue operating hours and two charging operating hours each day, for a total of 36 daily operating hours for the three vehicles.

Methodology

This section explains the approach taken to conduct the EV Micro Transit Service Expansion Analysis.

Ridership Demand and Transit Service Analysis

This proposal aims to analyze the feasibility of expanding FCRTA's Micro Transit service zones throughout Fresno County. To complete this, the following conditions were taken into consideration:

- Where to expand EV Micro Transit service
- Where to charge vehicles
- How to determine cost of service

Determining service zone locations required an analysis of employment and ridership demand (combined with analysis of the community survey and input from stakeholders). Employment and ridership demand analysis was completed using decennial census data as well as ACS community survey data. The analysis was conducted using GIS mapping and the Census Bureau's "OnTheMap" tool. The tool can be found at: onthemap.ces.census.gov/

Vehicle charge locations were determined by mapping all Level II chargers in Fresno County and cross referencing these locations with the communities of (1) Laton, (2) Lanare-Riverdale, and (3) Cantua Creek—Three Rocks—El Porvenir—San Joaquin. Mapping data was acquired through The US Department of Energy's Alternative Fuels Data Center Mapping tool, found at: afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC crossed referenced with data provided by FCRTA.

Estimating cost of service required an analysis to determine the capital needs, related equipment needs, and operational requirements for expansion of the Micro Transit. Walker developed a service cost model which incorporated revenue hours and miles, driver wage, fuel and oil expenses, maintenance, overhead, administration, and other costs for this purpose. This financial model was guided by the following questions:

- How many electric vehicles will be needed for the new service?
- Where will the electric vehicles be stored, charged, and maintained?
- What are the staffing needs (drivers, maintenance, operations)?
- What other shared mobility can the vehicles perform?
- How will vehicles and resources be distributed?
- What are the service fares?

The analysis helped develop the service standards in Table 1 below:

Table 1: FCRTA Current Services Standards

• Cost Per Vehicle Hour & Mile
• Annual Vehicle Hours Cost
• Annual Vehicle Miles Cost
• Gross Annual Cost
• Estimated Farebox Revenue
• Estimated Net Annual Cost
• Monthly Cost for Service
• Cost per Day
• Vehicle Hours per Day (revenue + deadhead)
• Cost per Vehicle Hour

Stakeholder Meetings

The project team met with community organizations, social services organizations and governmental entities to gather information on current transportation needs and to discuss the proposed service.

Community Survey

FCRTA, Leadership Counsel, and Walker Consultants collaborated to develop the community survey. The survey was available in both paper and electronic format in both English and Spanish. An image of the English survey is included in Figure 4 on page 12 and an image of the Spanish survey is included in Figure 5 on page 13.

Leadership Counsel for Justice and Accountability (“Leadership Counsel”) distributed paper copies of the survey to the community through Leadership Counsel’s regularly scheduled community meetings, local community events, food drives, and vaccine clinics. The community survey was distributed between December 19, 2021, and June 11, 2022.

Walker tabulated the results for the survey. The open-ended feedback questions were reviewed individually for common themes. Walker grouped the questions into themes of Current Transportation Access and Travel Choices, Travel for Medical and Social Services Appointments, and Interest in a Ride Reservation Transportation Service.

Figure 4: National RTAP: Community Survey in English



FCRTA Fresno County
Rural Transit Agency



NATIONAL RTAP: COMMUNITY SURVEY

1. Selected language for the survey:
 - a. English
 - b. Spanish
2. To get to the places they need to go, people might walk, bike, take a bus, train or taxi, drive a car, or get a ride. Typically, how often are you late getting somewhere because of a problem with transportation?
 - a. Often
 - b. Sometimes
 - c. Never
3. Typically, how often do you skip going somewhere because of a problem with transportation?
 - a. Often
 - b. Sometimes
 - c. Never
4. Typically, how often do you have to reschedule an appointment because of a problem with transportation?
 - a. Often
 - b. Sometimes
 - c. Never
5. Typically, how often do you worry about whether or not you would be able to get somewhere because of a problem with transportation?
 - a. Often
 - b. Sometimes
 - c. Never
6. Which of the following best describes your current access to a motorized vehicle?
 - a. I have access to my own vehicle at any time
 - b. I share a vehicle with one or more people
 - c. I do not have access to a vehicle
 - d. Other (please specify):
7. Do you ride public transit regularly or at least once per week?
 - a. Yes
 - b. No
8. If you do not regularly use public transit, please indicate why (check all that apply):
 - a. It takes too long
 - b. It doesn't arrive often enough
 - c. It doesn't take me where I need to go
 - d. I don't feel safe
 - e. The fare is too expensive
 - f. No stops or pick-ups close to me
9. What City or unincorporated community of Fresno County do you live?

10. What City(ies) or unincorporated community(ies) of Fresno County do you go for medical services (list all cities that apply)?

11. What City(ies) or unincorporated community(ies) of Fresno County do you for social services appointments (e.g. job training, food banks, counseling, etc., List all cities that apply)?

12. How do you currently commute to your medical and/or social services appointments?
 - a. Drive alone in your own car
 - b. Borrow a car from family/friend
 - c. Get dropped off by someone (e.g. friend, family member, neighbor, etc.)
 - d. Walk
 - e. Bicycle
 - f. Bus
13. If a transportation service was made available that would enable you to call or use an app to reserve a ride (at least one hour in advance) for medical or social services appointments, would you consider using the service?
 - a. Yes
 - b. No
14. How much would you be willing to pay (per ride) for the service described in question 13?
 - a. \$1-\$2 per ride
 - b. \$2-\$3 per ride
 - c. \$4-\$5 per ride
 - d. \$5-\$7 per ride
 - e. \$7-\$10 per ride
15. Would you use the service described in question 13 to connect to an existing bus stop?
 - a. Yes
 - b. No
16. Would you consider getting paid to be a driver for the service described in question 13?
 - a. Yes
 - b. No
17. Do you have any other feedback or suggestions you would like to share?

Figure 5: National RTAP: Community Survey in Spanish



FCRTA Fresno County
Rural Transit Agency



NATIONAL RTAP: ENCUESTA COMUNITARIA

1. Idioma seleccionado para la encuesta:
 - a. Inglés
 - b. Español
2. Para llegar a los lugares a los que necesitan ir, las personas caminar, andan en bicicleta, toman un autobús, tren o taxi, conducen un automóvil o consiguen un viaje. Por lo general, ¿con qué frecuencia llega tarde a algún lugar debido a un problema con el transporte?
 - a. A menudo
 - b. Algunas veces
 - c. Nunca
3. Por lo general, ¿con qué frecuencia omite ir a algún lugar debido a un problema con el transporte?
 - a. A menudo
 - b. Algunas veces
 - c. Nunca
4. Normalmente, ¿con qué frecuencia tiene que reprogramar una cita debido a un problema con el transporte?
 - a. A menudo
 - b. Algunas veces
 - c. Nunca
5. Por lo general, ¿con qué frecuencia se preocupa por si podría o no llegar a algún lugar debido a un problema con el transporte?
 - a. A menudo
 - b. Algunas veces
 - c. Nunca
6. ¿Cuál de las siguientes opciones describe mejor su acceso actual a un vehículo motorizado?
 - a. Tengo acceso a mi propio vehículo en cualquier momento
 - b. Comparto un vehículo con una o más personas
 - c. No tengo acceso a un vehículo
 - d. Otra (por favor especifique): _____
7. ¿Viaja en transporte público con regularidad o al menos una vez por semana?
 - a. Sí
 - b. No
8. Si no utiliza el transporte público con regularidad, indique por qué (marque todas las opciones que correspondan):
 - a. Toma demasiado tiempo
 - b. No llega con la suficiente frecuencia
 - c. No me lleva a donde necesito ir
 - d. No me siento seguro
 - e. La tarifa es demasiado cara
 - f. No hay paradas ni recogidas cerca de mí
9. ¿En qué ciudad o comunidad no incorporada del condado de Fresno vive?

10. ¿A qué ciudades o comunidades no incorporadas del condado de Fresno acude para recibir servicios médicos (enumere todas las ciudades que correspondan)?

11. ¿Qué ciudad (es) o comunidad (es) no incorporada del condado de Fresno acude para asistir citas de servicios sociales (por ejemplo, capacitación laboral, bancos de alimentos, asesoramiento, etc., enumere todas las ciudades que apliquen)?

12. ¿Cómo se desplaza actualmente a sus citas médicas y / o de servicios sociales?
 - a. Conduzco solo en mi propio coche
 - b. Pido prestado un automóvil a familiares / amigos
 - c. Pido un viaje (por ejemplo, a un amigo, a un familiar, a un vecino, etc.)
 - d. Camino
 - e. Ando en bicicleta
 - f. Autobús
13. Si estuviera disponible un servicio de transporte que le permitiera llamar o usar una aplicación para reservar un viaje (al menos con una hora de anticipación) para citas médicas o de servicios sociales, ¿consideraría usar el servicio?
 - a. Sí
 - b. No
14. ¿Cuánto estaría dispuesto a pagar (por viaje) por el servicio descrito en la pregunta 13?
 - a. \$1-\$2 por viaje
 - b. \$2-\$3 por viaje
 - c. \$4-\$5 por viaje
 - d. \$5-\$7 por viaje
 - e. \$7-\$10 por viaje
15. ¿Consideraría utilizar el servicio descrito en la pregunta 13 para conectarse a una parada de autobús existente?
 - a. Sí
 - b. No
16. ¿Consideraría que le paguen por ser un conductor por el servicio descrito en la pregunta 13?
 - a. Sí
 - b. No
17. ¿Tiene algún otro comentario o sugerencia que le gustaría compartir?

Data and Analysis

This section includes employment and commute data, travel demand analysis, and information on existing transit services available for the study areas. It also presents the results of the community survey and findings from the stakeholder meetings.

Employment Ridership Demand and Transit Service Analysis

This subsection includes an analysis of employment and commute data for each of the communities of Laton, Lanare-Riverdale, Cantua Creek-Three Rocks—El Porvenir, and San Joaquin and summarizes the existing transit services available to these communities.

Laton Employment and Commute Analysis

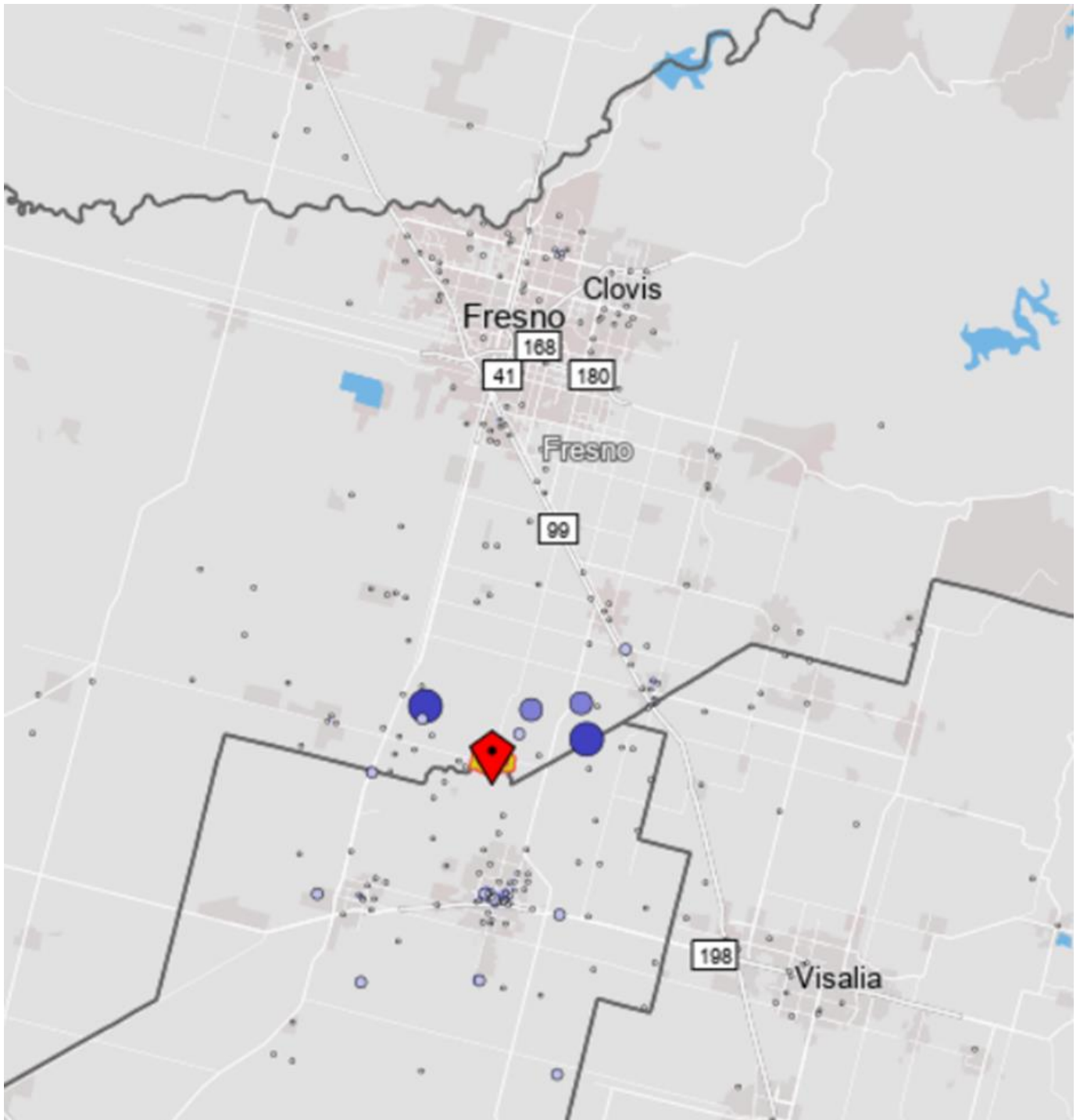
Laton has a population of 1,900 and lies just north of the county line between Fresno County and Kings County. Most of the 218 jobs in Laton are in the educational sector (57 percent) or agriculture (12 percent), as shown in Table 2 on page 15. Most Laton residents are employed outside of Laton, not in employment centers, but dispersed throughout unincorporated areas of rural Fresno County, Kings County, and Tulare County (see Figure 6 on page 16). The top employment centers for Laton residents are Hanford and Fresno (see Table 3 on page 17).

Table 2: Laton Jobs by Industry Sector

	Count	Share
Agriculture, Forestry, Fishing and Hunting	28	12.8%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%
Utilities	11	5.0%
Construction	10	4.6%
Manufacturing	0	0.0%
Wholesale Trade	0	0.0%
Retail Trade	10	4.6%
Transportation and Warehousing	4	1.8%
Information	0	0.0%
Finance and Insurance	0	0.0%
Real Estate and Rental and Leasing	0	0.0%
Professional, Scientific, and Technical Services	3	1.4%
Management of Companies and Enterprises	0	0.0%
Administration & Support, Waste Management and Remediation	0	0.0%
Educational Services	125	57.3%
Health Care and Social Assistance	9	4.1%
Arts, Entertainment, and Recreation	0	0.0%
Accommodation and Food Services	18	8.3%
Other Services (excluding Public Administration)	0	0.0%
Public Administration	0	0.0%
Total	218	100.0%

Source: United States Census Bureau On the Map, 2019.

Figure 6: Where Laton Residents are Employed Heat Map



Source: United States Census Bureau On the Map, 2019.

Table 3: Where Laton Residents Are Employed

	Count	Share
Fresno, CA	65	11.5%
Hanford, CA	48	8.5%
Visalia, CA	23	4.1%
Kingsburg, CA	16	2.8%
Clovis, CA	14	2.5%
Lemoore, CA	13	2.3%
Los Angeles, CA	11	1.9%
Laton, CA	10	1.8%
Avenal, CA	6	1.1%
Madera, CA	6	1.1%
All Other Locations	355	62.6%
Total	567	100%

Source: United States Census Bureau On the Map, 2019.

Employee work flow data for Laton reveals the following (see Figure 7 on page 18):

- 208 people are employed in Laton and live outside of the area boundary
- 10 people both work and live in the area
- 557 people live in the Laton area and work in another city

Of those who work in Laton, the most common commute distance category was “Less than 10 miles” at 40 percent, but there were also sizable shares of commuters traveling longer distances, with 16 percent traveling 25 to 50 miles, and 19 percent traveling greater than 50 miles (see Table 4 on page 18). Table 3, above, showed Fresno and Hanford to be the top employment destinations for Laton residents; similarly, most workers commuting into Laton are also coming from these two cities (see Table 5 on page 19).

Figure 7: Employee Work Flow for Laton



Source: United States Census Bureau On the Map, 2019.

Table 4: Distances Traveled to Work in Laton

	Count	Share
Less than 10 miles	88	40.4%
10 to 24 miles	57	26.1%
25 to 50 miles	34	15.6%
Greater than 50 miles	39	17.9%
Total Jobs	218	100.0%

Source: United States Census Bureau On the Map, 2019.

Table 5: Where Workers Live who are Employed in Laton

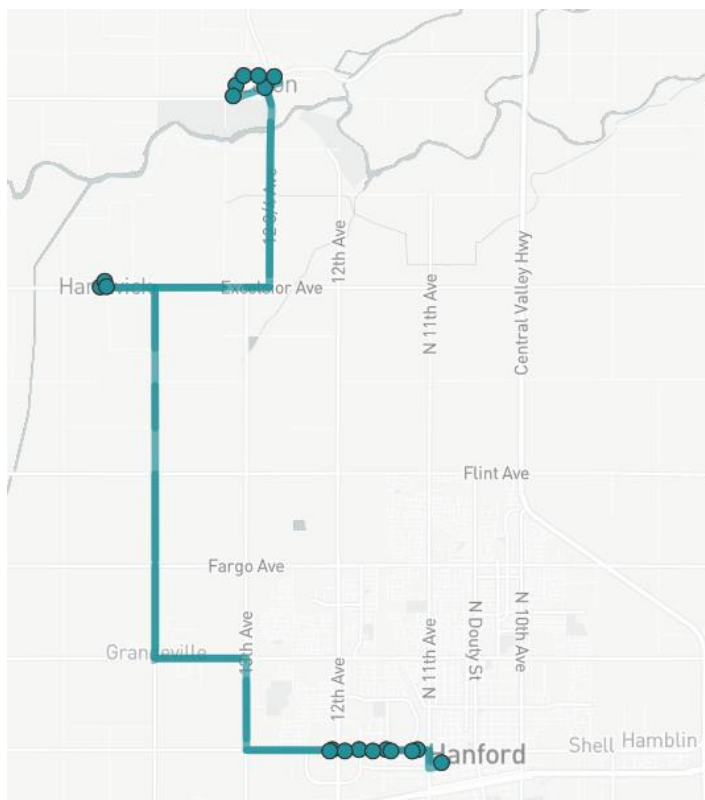
	Count	Share
Hanford, CA	35	16.1%
Fresno, CA	24	11.0%
Lemoore, CA	11	5.0%
Laton, CA	10	4.6%
Riverdale, CA	9	4.1%
Visalia, CA	6	2.8%
Clovis, CA	5	2.3%
Selma, CA	5	2.3%
Kingsburg, CA	4	1.8%
Tulare, CA	4	1.8%
All Other Locations	105	48.2%
Total All Jobs	218	100.0%

Source: United States Census Bureau On the Map, 2019.

Transit Options for Laton

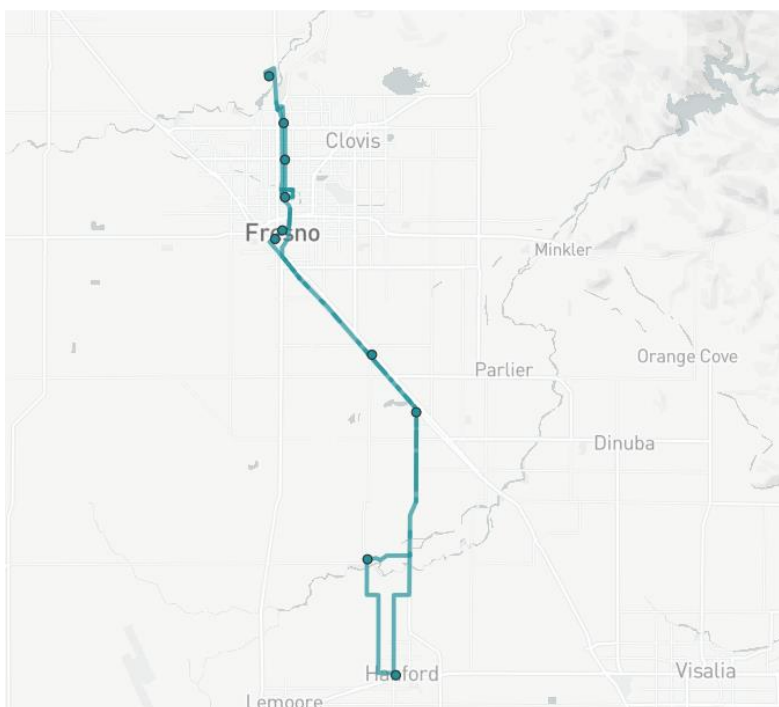
Currently, passengers travelling to and from Laton have very limited transit options. Passengers traveling from Laton to Hanford have the option of taking either the KART Route 14, which operates twice daily from the KART Transit Center in Hanford to downtown Laton (see Figure 8 on page 20) or the KART Route 17. The KART Route 17 operates on weekdays, twice daily from the KART Transit Center in Hanford to the Valley Children's Hospital in Madera via Laton, Selma, Fowler, and Fresno (see Figure 9 on page 20).

Figure 8: KART Route 14 Connecting Hanford and Laton



Source: FCRTA GTFS Schedule Data

Figure 9: KART Route 17 Connecting Hanford, Laton, Selma, Fowler, Fresno, and Madera



Source: FCRTA GTFS Schedule Data

The limited routes and schedule of the existing transit service does not offer many options to those who live and work in Laton. The community would benefit from additional transportation options to Fresno, Hanford, and rural areas of Fresno County, as discussed in the Transit Service Proposal section of this report.

Riverdale - Lanare Employment and Commute Analysis

The Census Designated Places of Riverdale and Lanare lie along W. Mt. Whitney Avenue three miles apart. Riverdale has a population of 2,500, and Lanare a population of 600. Because there are few people living in the census tracts, and most residences are along W. Mt. Whitney Avenue, any proposed Micro Transit service would presumably serve both communities. For the purposes of this study, they are analyzed as one contiguous area. Most of the jobs in Riverdale - Lanare are in the forestry sector (35 percent) and secondarily education (34 percent), as shown in Table 6 on page 22.

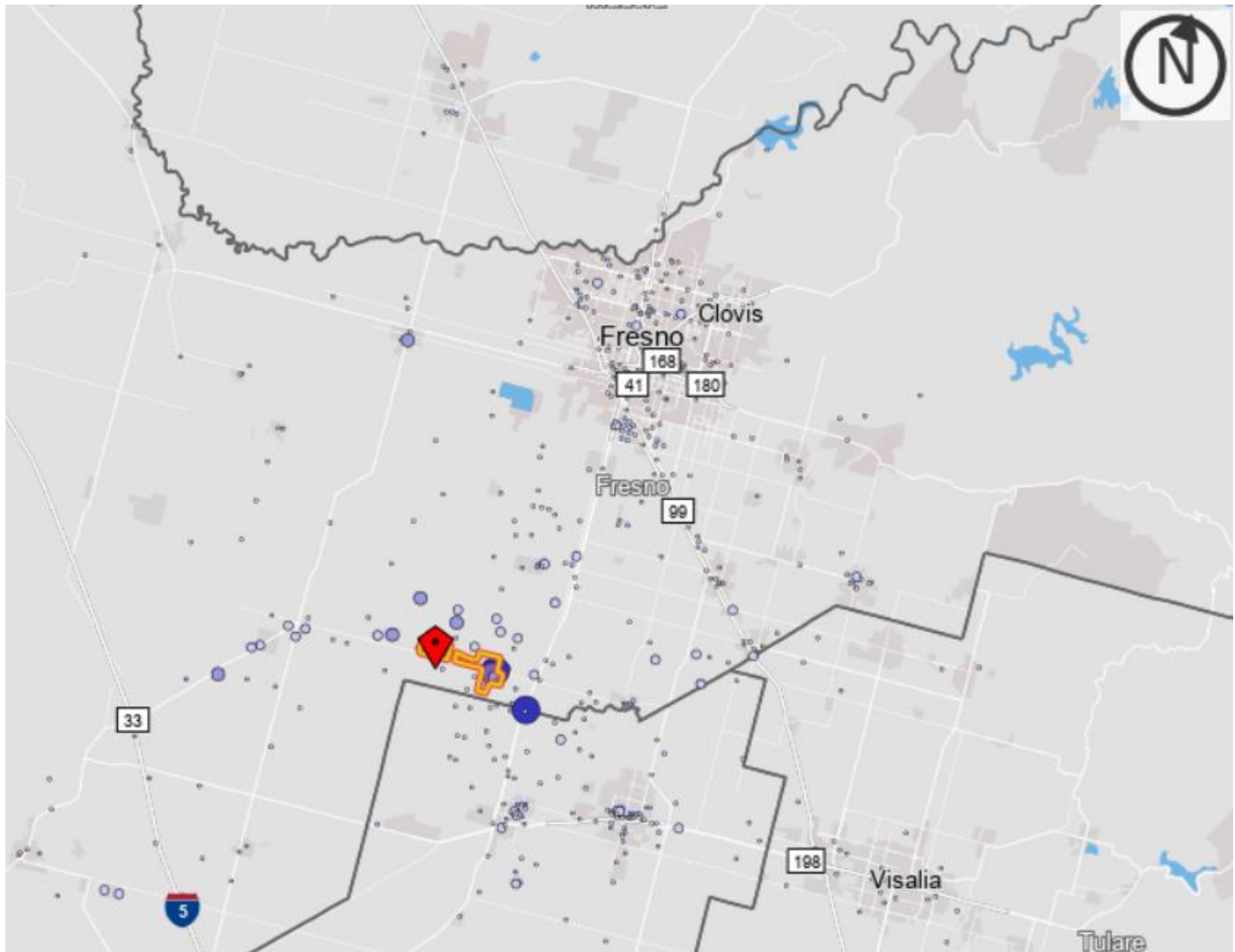
Most Riverdale - Lanare residents are employed outside of Riverdale - Lanare, not in employment centers, but dispersed throughout unincorporated areas of rural Fresno County, Kings County, and Tulare County (see Figure 10 on page 23). The top employment centers for Riverdale - Lanare residents are Fresno, Riverdale, and Hanford (see Table 7 on page 24).

Table 6: Riverdale-Lanare Jobs by Industry Sector

	Count	Share
Agriculture, Forestry, Fishing and Hunting	252	34.9%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%
Utilities	19	2.6%
Construction	0	0.0%
Manufacturing	19	2.6%
Wholesale Trade	0	0.0%
Retail Trade	57	7.9%
Transportation and Warehousing	26	3.6%
Information	0	0.0%
Finance and Insurance	1	0.1%
Real Estate and Rental and Leasing	6	0.8%
Professional, Scientific, and Technical Services	2	0.3%
Management of Companies and Enterprises	0	0.0%
Administration & Support, Waste Management and Remediation	0	0.0%
Educational Services	246	34.0%
Health Care and Social Assistance	56	7.7%
Arts, Entertainment, and Recreation	0	0.0%
Accommodation and Food Services	22	3.0%
Other Services (excluding Public Administration)	17	2.4%
Public Administration	0	0.0%
Total	723	100.0%

Source: United States Census Bureau On the Map, 2019.

Figure 10: Where Riverdale-Lanare Residents are Employed Heat Map



Source: United States Census Bureau On the Map, 2019.

Table 7: Where Riverdale-Lanare Residents are Employed

	Count	Share
Fresno, CA	193	13.4%
Riverdale, CA	138	9.6%
Hanford, CA	51	3.5%
Lemoore, CA	41	2.8%
Clovis, CA	21	1.5%
Los Angeles, CA	19	1.3%
Kingsburg, CA	15	1.0%
Reedley, CA	15	1.0%
Visalia, CA	15	1.0%
Merced, CA	13	0.9%
All Other Locations	924	63.9%
Total	1,445	100%

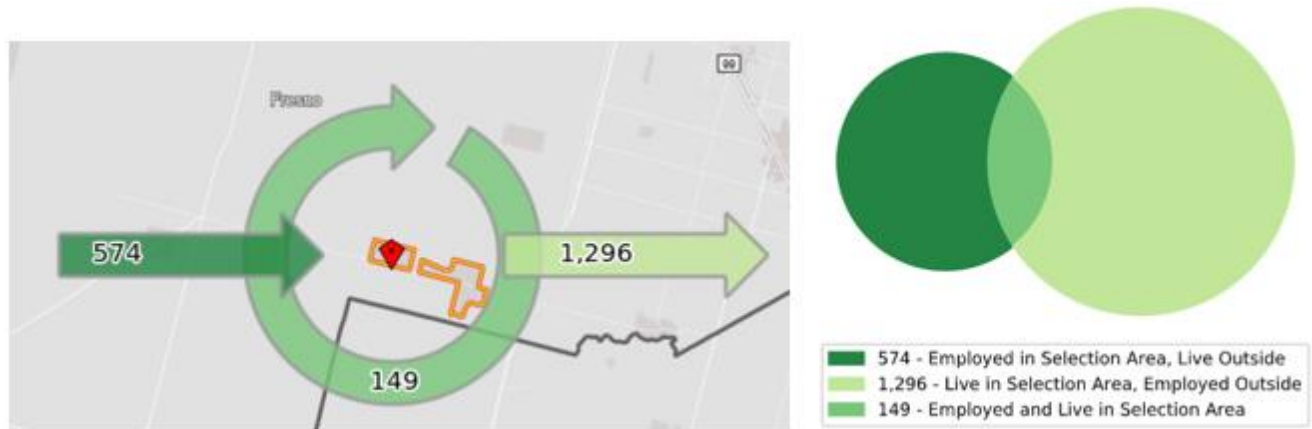
Source: United States Census Bureau On the Map, 2019.

Employee work flow data for Riverdale - Lanare reveals the following (see Figure 11 on page 25):

- 574 people work in the Riverdale - Lanare area and live outside of the area
- 149 people both work and live in the area
- 1,296 people live in the Riverdale - Lanare area and work outside of the area

Of those who work in Riverdale - Lanare, the most common commute distance category was “Less than 10 miles” at 37 percent, but there were also sizable shares of commuters traveling longer distances, with 21 percent traveling 25 to 50 miles, and 20 percent traveling greater than 50 miles (see Table 8 on page 25). Table 7, above, showed Fresno, Riverdale, and Hanford to be the top employment destinations for Riverdale - Lanare residents; similarly, most workers commuting into Riverdale - Lanare are also from these three communities (see Table 9 on page 26).

Figure 11: Employee Work Flow for Riverdale-Lanare



Source: United States Census Bureau On the Map, 2019.

Table 8: Distances Traveled to Work in Riverdale-Lanare

	Count	Share
Less than 10 miles	279	37.6%
10 to 24 miles	163	21.9%
25 to 50 miles	155	20.9%
Greater than 50 miles	146	19.7%
Total Jobs	743	100.0%

Source: United States Census Bureau On the Map, 2019.

Table 9: Where Workers Live who are Employed in Riverdale-Lanare

	Count	Share
Riverdale, CA	131	18.1%
Fresno, CA	87	12.0%
Hanford, CA	40	5.5%
Lemoore, CA	30	4.1%
Clovis, CA	25	3.5%
Lanare, CA	18	2.5%
Reedley, CA	14	1.9%
Los Angeles, CA	13	1.8%
Armona, CA	11	1.5%
Mendota, CA	9	1.2%
All Other Locations	345	47.7%
Total	723	100%

Source: United States Census Bureau On the Map, 2019.

Transit Options for Riverdale - Lanare

Current transportation options for Riverdale – Lanare include FCRTA’s Coalinga Inter-City Transit Route which operates once daily. The route provides scheduled round-trip service from Coalinga to the Fresno-Clovis Metropolitan Area with stops in Huron, 5-Points, Lanare, Riverdale, Caruthers, Raisin, and Easton along the route. The service runs Monday through Saturday from 8:00 am to 5:45 pm.

The limited routes and schedule of the existing transit service, combined with the long distances the Coalinga Inter-City Route must cover, limit transit options to those who live and work in Riverdale - Lanare. The community would benefit from additional transportation options to Fresno, Hanford, and rural areas of Fresno County, as discussed in the Transit Service Proposal section of this report.

Cantua Creek - Three Rocks – El Porvenir Employment and Commute Analysis

The Census Designated Places of Cantua Creek, Three Rocks and El Porvenir form a triangle 4.5 miles apart from one another, roughly 27 miles northwest of Riverdale-Lanare. Given the small but concentrated populations of these places, any proposed Micro Transit service would presumably serve all three communities. There are 667 residents within the Cantua Creek - Three Rocks – El Porvenir study area.

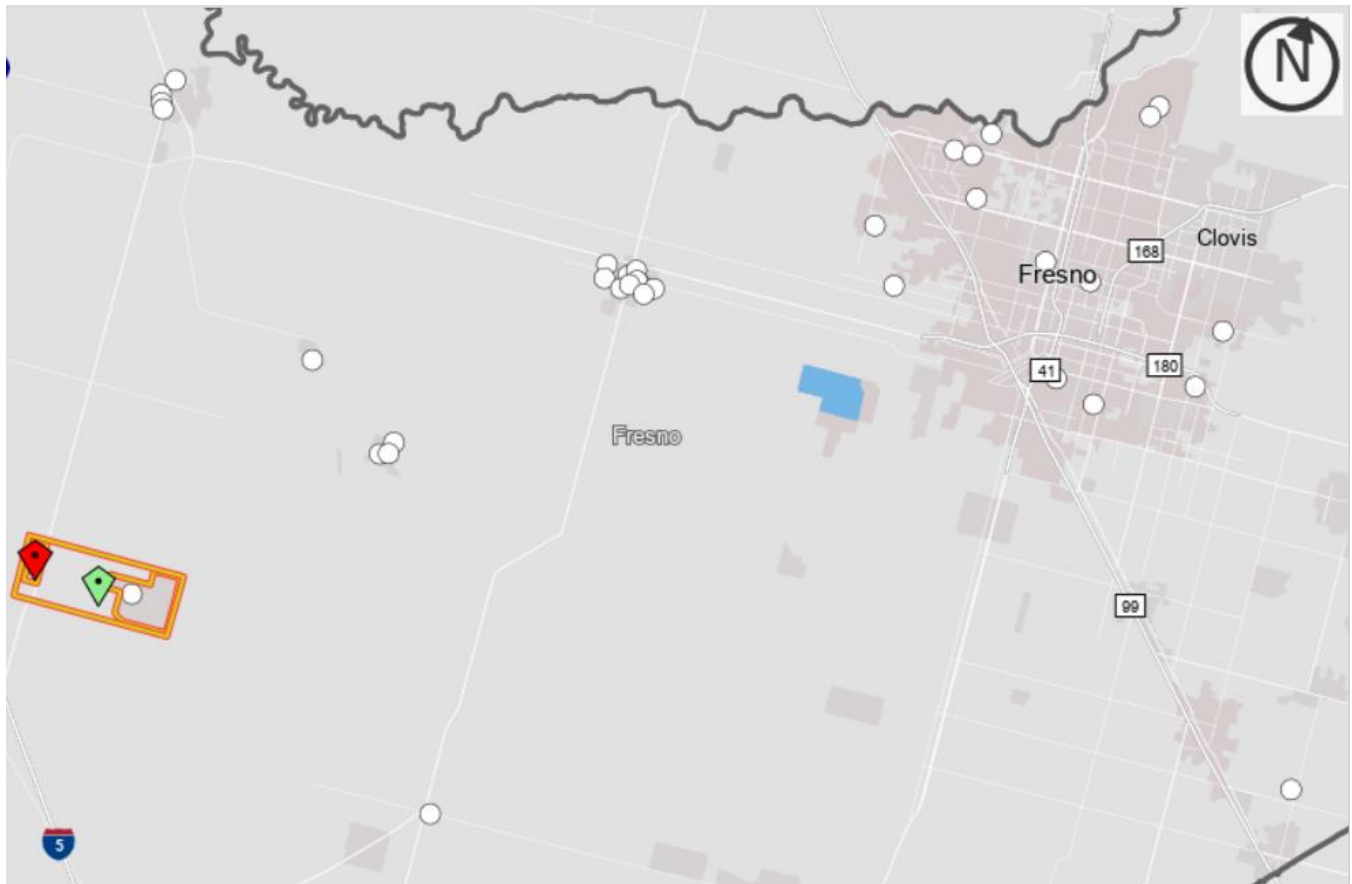
Most of the 65 jobs in Cantua Creek - Three Rocks – El Porvenir are in the forestry sector (46 percent) or education (45 percent), as shown in Table 10 on page 28. Most residents are employed outside of the Cantua Creek - Three Rocks – El Porvenir settlement area, dispersed throughout unincorporated areas of rural Fresno (see Figure 12 on page 29). The top employment centers for Cantua Creek - Three Rocks – El Porvenir residents are the cities of Fresno and Kerman (see Table 11 on page 30).

Table 10: Cantua Creek - Three Rocks - El Porvenir Jobs by Industry Sector

	Count	Share
Agriculture, Forestry, Fishing and Hunting	30	46.2%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%
Utilities	0	0.0%
Construction	0	0.0%
Manufacturing	0	0.0%
Wholesale Trade	0	0.0%
Retail Trade	0	0.0%
Transportation and Warehousing	0	0.0%
Information	0	0.0%
Finance and Insurance	0	0.0%
Real Estate and Rental and Leasing	0	0.0%
Professional, Scientific, and Technical Services	0	0.0%
Management of Companies and Enterprises	0	0.0%
Administration & Support, Waste Management and Remediation	0	0.0%
Educational Services	29	44.6%
Health Care and Social Assistance	6	9.2%
Arts, Entertainment, and Recreation	0	0.0%
Accommodation and Food Services	0	0.0%
Other Services (excluding Public Administration)	0	0.0%
Public Administration	0	0.0%
Total	65	100.00%

Source: United States Census Bureau On the Map, 2019.

Figure 12: Where Cantua Creek - Three Rocks - El Porvenir Residents are Employed Heat Map



Source: United States Census Bureau On the Map, 2019.

Table 11: Where Cantua Creek - Three Rocks - El Porvenir Residents are Employed

Fresno, CA	20	13.1%
Kerman, CA	12	7.8%
Mendota, CA	10	6.5%
San Jose, CA	5	3.3%
Visalia, CA	4	2.6%
Clovis, CA	3	2.0%
Elk Grove, CA	3	2.0%
Madera, CA	3	2.0%
San Joaquin CA	3	2.0%
Tranquility. CA	3	2.0%
All Other Locations	87	56.9%
Total	153	100%

Source: United States Census Bureau On the Map, 2019.

Employee work flow data for Cantua Creek - Three Rocks – El Porvenir finds the following (see Figure 13 on page 31):

- 64 people work in the Cantua Creek - Three Rocks – El Porvenir selection area and live outside of the area
- 1 person both works and lives in the area
- 153 people live in the Cantua Creek - Three Rocks – El Porvenir area and work outside of the area.

Of those who work in Cantua Creek - Three Rocks – El Porvenir, the most common commute distance category was “10 to 24 miles” at 35 percent, and there were also sizable shares of commuters traveling longer distances, with 31 percent traveling 25 to 50 miles, and 32 percent traveling greater than 50 miles (see Table 12 on page 31). Table 11, above, showed Fresno and Kerman to be the top employment destinations for Cantua Creek - Three Rocks – El Porvenir residents; similarly, most workers commuting into Cantua Creek - Three Rocks – El Porvenir are also from these two cities (see Table 13 on page 32).

Figure 13: Employee Immigration and Emigration for Cantua Creek - Three Rocks - El Porvenir



Source: United States Census Bureau On the Map, 2019.

Table 12: Distances Traveled to Work in Cantua Creek - Three Rocks - El Porvenir

	Count	Share
Less than 10 miles	1	1.5%
10 to 24 miles	23	35.4%
25 to 50 miles	20	30.8%
Greater than 50 miles	21	32.3%
Total Jobs	65	100.0%

Source: United States Census Bureau On the Map, 2019.

Table 13: Where Workers Live who are Employed in Cantua Creek - Three Rocks - El Porvenir

	Count	Share
Fresno, CA	15	23.1%
Kerman, CA	10	15.4%
Mendota, CA	4	6.2%
San Joaquin, CA	3	4.6%
Visalia, CA	3	4.6%
Coalinga, CA	2	3.1%
Dinuba, CA	2	3.1%
Wickenburg, AZ	1	1.5%
Alamo, CA	1	1.5%
Atascadero, CA	1	1.5%
All Other Locations	23	35.4%
Total	65	100.0%

Source: United States Census Bureau On the Map, 2019.

Transit Options for Cantua Creek - Three Rocks – El Porvenir

Cantua Creek is currently served by FCRTA’s San Joaquin Transit. San Joaquin Transit provides in-city and inter-city service from San Joaquin to Tranquility, Cantua Creek, Halfway, El Porvenir, Three Rocks, and Kerman on weekdays from 6:30 am to 4:30 pm by reservation only.

The routes and schedule of the existing San Joaquin Transit offers limited options to those who live and work in Cantua Creek - Three Rocks – El Porvenir. The community would benefit from additional transportation options to Fresno, Kerman, Mendota, and rural areas of Fresno County, as discussed in the Transit Service Proposal section of this report.

San Joaquin Employment and Commute Analysis

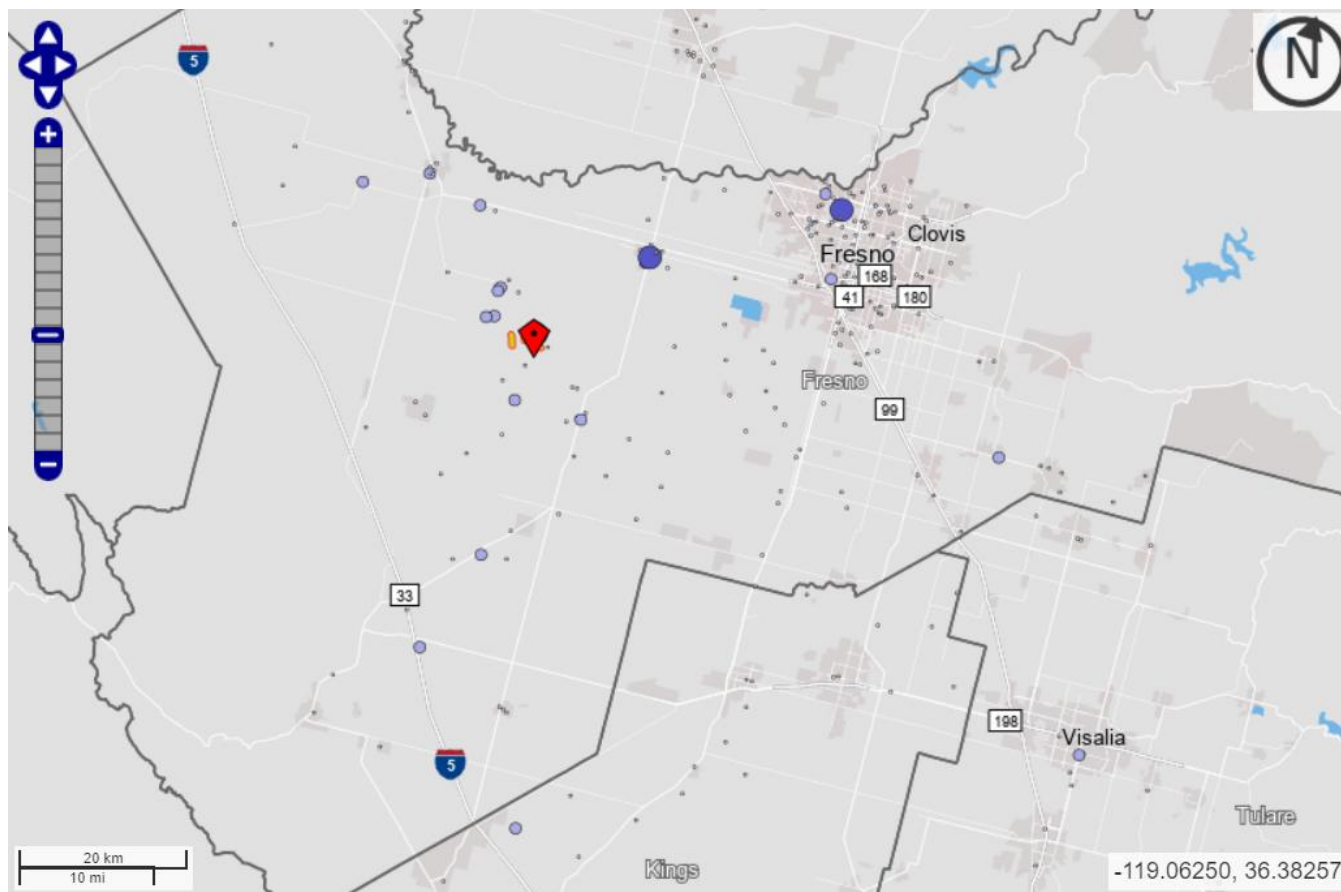
The city of San Joaquin lies northeast of Cantua Creek - Three Rocks – El Porvenir and to the southwest of Fresno. San Joaquin has a small but concentrated population of 4,000 residents. Most of the 698 jobs in San Joaquin are in the Health and Social Assistance sector (31 percent), the Education sector (26 percent), or Agriculture (16 percent) as shown in Table 14 on page 34. Most residents are employed outside of the City of San Joaquin, dispersed throughout unincorporated areas of rural Fresno (see Figure 14 on page 35). The top employment centers for San Joaquin residents are Fresno, Kerman, and San Joaquin itself (see Table 15 on page 36).

Table 14: San Joaquin Jobs by Industry Sector

	Count	Share
Agriculture, Forestry, Fishing and Hunting	111	15.9%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%
Utilities	31	4.4%
Construction	0	0.0%
Manufacturing	9	1.3%
Wholesale Trade	37	5.3%
Retail Trade	34	4.9%
Transportation and Warehousing	5	0.7%
Information	0	0.0%
Finance and Insurance	6	0.9%
Real Estate and Rental and Leasing	37	5.3%
Professional, Scientific, and Technical Services	0	0.0%
Management of Companies and Enterprises	0	0.0%
Administration & Support, Waste Management and Remediation	0	0.0%
Educational Services	184	26.4%
Health Care and Social Assistance	218	31.2%
Arts, Entertainment, and Recreation	0	0.0%
Accommodation and Food Services	5	0.7%
Other Services (excluding Public Administration)	6	0.9%
Public Administration	15	2.1%
Total	698	100%

Source: United States Census Bureau On the Map, 2019.

Figure 14: Where San Joaquin Residents are Employed Heat Map



Source: United States Census Bureau On the Map, 2019.

Table 15: Where San Joaquin Residents are Employed

	Count	Share
Fresno, CA	105	15.7%
Kerman, CA	29	4.3%
San Joaquin, CA	17	2.5%
Los Angeles, CA	12	1.8%
Clovis, CA	10	1.5%
Madera, CA	10	1.5%
Mendota, CA	10	1.5%
San Jose, CA	10	1.5%
Visalia, CA	10	1.5%
Tranquility, CA	9	1.3%
All Other Locations	445	66.7%
Total	667	100.0%

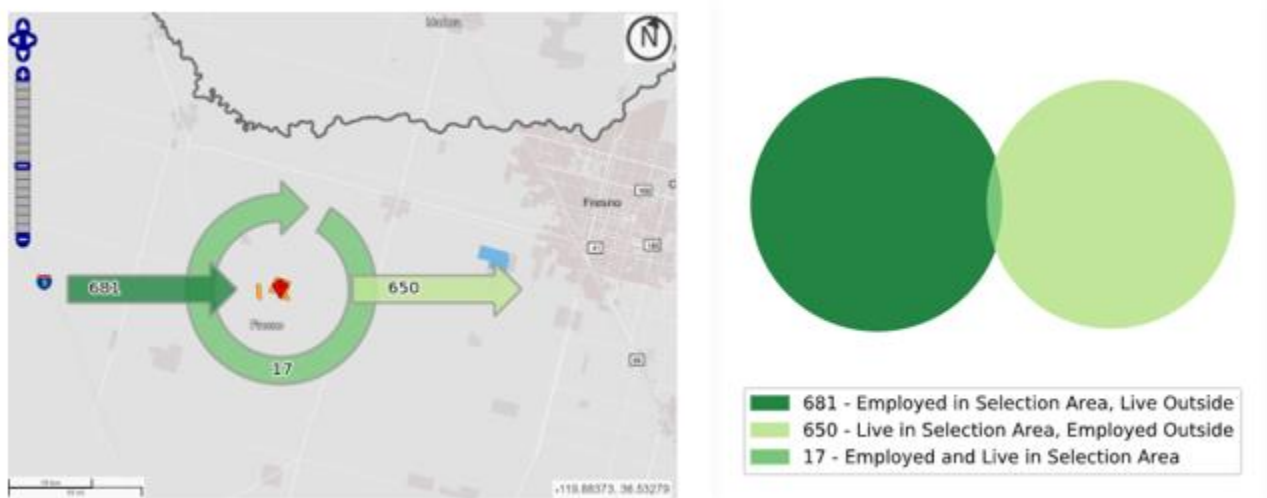
Source: United States Census Bureau On the Map, 2019.

Employee work flow data for San Joaquin finds the following (see Figure 15 on page 37):

- 681 people work in the San Joaquin area and live outside of the area
- 17 people both live and work in the area
- 650 people live in the San Joaquin area and work outside of the area

Of those who work in San Joaquin, commute distance were quite long. The most common commute distance category was “greater than 50 miles” at 43 percent, and only 9 percent traveled less than ten miles (see Table 16 on page 38). Table 15, above, showed Fresno and Kerman to be the top employment destinations for San Joaquin residents; similarly, most workers commuting into San Joaquin are also from these two cities (see Table 17 on page 38).

Figure 15: Employee Work Flows in San Joaquin



Source: United States Census Bureau On the Map, 2019.

Table 16: Distances Traveled to Work in San Joaquin

	Count	Share
Less than 10 miles	61	9.1%
10 to 24 miles	167	25.0%
25 to 50 miles	153	22.9%
Greater than 50 miles	286	43.0%
Total Jobs	667	100%

Source: United States Census Bureau On the Map, 2019.

Table 17: Where Workers Live who are Employed in San Joaquin

	Count	Share
Fresno, CA	184	26.4%
Kerman, CA	100	14.3%
Clovis, CA	37	5.3%
Mendota, CA	24	3.4%
Dinuba, CA	18	2.6%
Firebaugh, CA	18	2.6%
San Joaquin, CA	17	2.4%
Madera, CA	14	2.0%
Sanger, CA	11	1.6%
Tranquility, CA	8	1.1%
All Other Locations	267	38.3%
Total	698	100.0%

Source: United States Census Bureau On the Map, 2019.

Transit Options for San Joaquin

San Joaquin is currently served by FCRTA's San Joaquin Transit. San Joaquin Transit provides in-city and inter-city service from San Joaquin to Tranquility, Cantua Creek, Halfway, El Porvenir, Three Rocks, and Kerman on weekdays from 6:30 am to 4:30 pm by reservation only (due to lack of ridership which has significantly declined over the past few years).

The routes and schedule of the existing transit service offers limited options to those who live and work in San Joaquin. The community would benefit from additional transportation options to Fresno, Kerman, and rural areas of Fresno County, as discussed in the Transit Service Proposal section of this report.

Stakeholder Meeting Feedback

Stakeholders

The project team completed a total of 12 one-on-one stakeholder meetings. Meetings were held with the following organizations:

- League of Women Voters
- Fresno County Public Works and Planning
- Fresno County Department of Public Health
- Fresno County Workforce Development Board
- Fresno County Department of Social Services
- Education and Leadership Foundation
- MV Transportation
- Fresno EOC
- Self-Help Enterprises
- California Rural Legal Assistance, Inc (CRLA)
- Centro La Familia
- Inspiration Transportation

Key Findings

The key findings from the discussions with the meeting with stakeholders included:

- Need for the EV Micro Transit service
 - Transportation is a basic need for destinations such as medical appointments, social services appointments, libraries, and schools.
 - Transportation is a major barrier to residents accessing services. Many residents, especially the younger population do not own their own vehicle. Residents often rely on getting a ride from a family member or neighbor to appointments.
 - Many social services organizations do not offer transportation services for their clients, necessitating a public transit option.
 - Traditional public transit often does not have the convenience and speed that people need in rural areas.

- General issues with traditional public transit include the lack of the ability to take transit for last-minute appointments and to provide door to door service.
- Traditional fixed-route transit service is often too infrequent to provide a reliable option for non-emergency medical needs.
- For workforce training programs and appointments, the current fixed-route service offered often does not meet the need of residents, due to the limited trips offered in one day that do not align with schedules.
- Overall, there is a need to provide transit service in the communities identified to connect people with non-emergency medical needs, such as prescriptions, doctor's appointments, and follow-up appointments.
- More on-demand service would be beneficial as schedules are flexible to meet people's schedules and would result in time savings for people.
- There is a lack of funding for Fresno County to serve unincorporated communities, including planning for expanded transit service.
- Operational considerations for the EV Micro Transit service
 - Insurance requirements for the service are a consideration.
 - A large number of community members are unbanked and it is difficult for local community members to obtain grants to fund programs as there is a need for a fiscal sponsor. Therefore, it is important that the service is under a public entity.
 - Vehicles could be used in off hours (evenings and weekends) for destinations such as school events and community fairs.
 - Many residents are Spanish-speaking; therefore, transit information needs to be provided in both English and Spanish.
 - Technology is a barrier for some individuals, necessitating a call-in option for the service.
- Hiring local drivers to operate the EV Micro Transit service
 - Many community residents are farm workers and do not work in certain times of the year. Being a driver for the EV Micro Transit service could provide an employment option in off-times.
 - Community members may be more likely to ride the service if they already know the driver/the driver lives in their community.
- Marketing the service
 - Several organizations including Fresno Workforce Development Board, Leadership Counsel for Justice and Accountability, and California Rural Legal Assistance (CRLA) offered to help FCRTA market the service to the local community through a variety of means such as placing flyers in community-serving buildings, partnering with FCRTA to provide presentation of the service to organization members, or through social media.
 - Service marketing efforts should be completed in both English and Spanish.

Community Survey Analysis

The FCRTA issued a community survey to gather feedback from residents in the study area. The community survey questions were designed to provide a better understanding of current transportation access and travel choices of rural Fresno County residents (particularly those residents in the proposed EV Micro Transit service corridor), including their vehicle ownership, public transit use, barriers to public transit, key destinations for appointments,

and ways of getting to their destinations. The survey also gauged the community's interest in a ride reservation transportation service for medical and social services appointments, willingness to pay for the service, and interest in working as a driver.

Leadership Counsel for Justice and Accountability ("Leadership Counsel") distributed the survey to the community through Leadership Counsel's regularly scheduled community meetings, local community events, food drives, and vaccine clinics. The community survey was distributed between December 19, 2021, and June 11, 2022. Hard copies of the survey were distributed, and the survey was made available online.

Key Findings

Key findings from the Community Survey are summarized as follows:

- **43 percent of respondents do not have access to their own vehicle at any one time**, and either share a vehicle with others, do not have a vehicle, are unable to drive, or get a ride from someone.
- **Only 13 percent of respondents ride public transit at least once per week.** Commonly cited barriers to public transit include length of travel time, the lack of nearby stops, the infrequency of service, and the inability to reach desired destinations.
- Respondents **live primarily in the five communities** of Cantua Creek, Lanare, Riverdale, El Porvenir, and Three Rocks, **but they travel to a total of 20 different cities and communities** for their medical and social services appointments.
- **Almost all respondents (95 percent) indicated they would use a service that allowed them to reserve rides** to attend medical and social services appointments.
- The respondents' willingness to pay for a ride reservation service varied significantly, with 26 percent willing to pay \$1-\$2 for a one-way trip, 23 percent willing to pay up to \$7-\$10, and 51 percent willing to pay something in between.
- Many **respondents indicated interest in becoming drivers for the service**, and 21 respondents provided their contact information.
- When asked whether they had ever **been late, missed, or rescheduled an appointment because of a transportation problem**, **over half (52 percent) indicated it happened "often" or "sometimes."**
- Respondents **stressed the general urgency and need for better transportation services for the community**, especially affordable services for the elderly and those unable to drive.

Survey Respondents

In total, 91 residents in the study area completed the survey, of which 82 respondents (90 percent) completed the survey in Spanish and nine (10 percent) completed it in English (see Figure 16 on page 42). The most common communities of residence among respondents were Cantua Creek (40 respondents, 44 percent) and Lanare (24 respondents, 37 percent). Other respondents reported living in Riverdale, El Porvenir, Three Rocks, San Joaquin, and Fresno County (see Figure 17 on page 42).

Figure 16: Respondent Language of Survey Completion

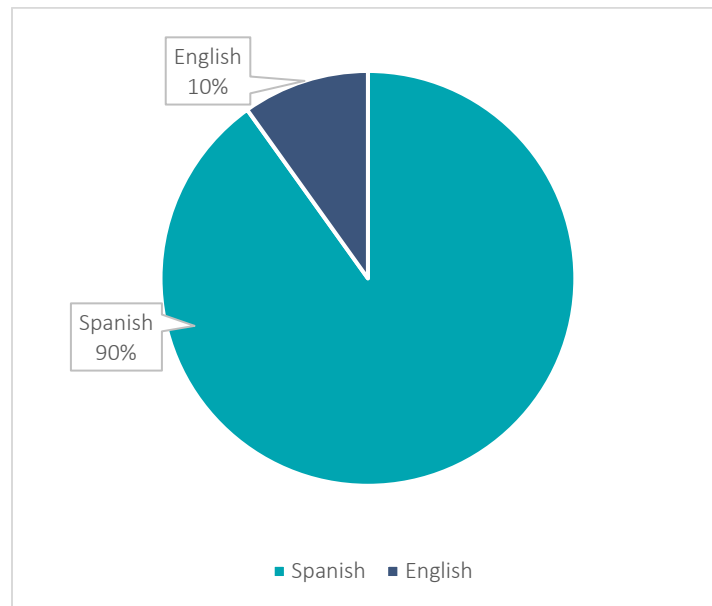
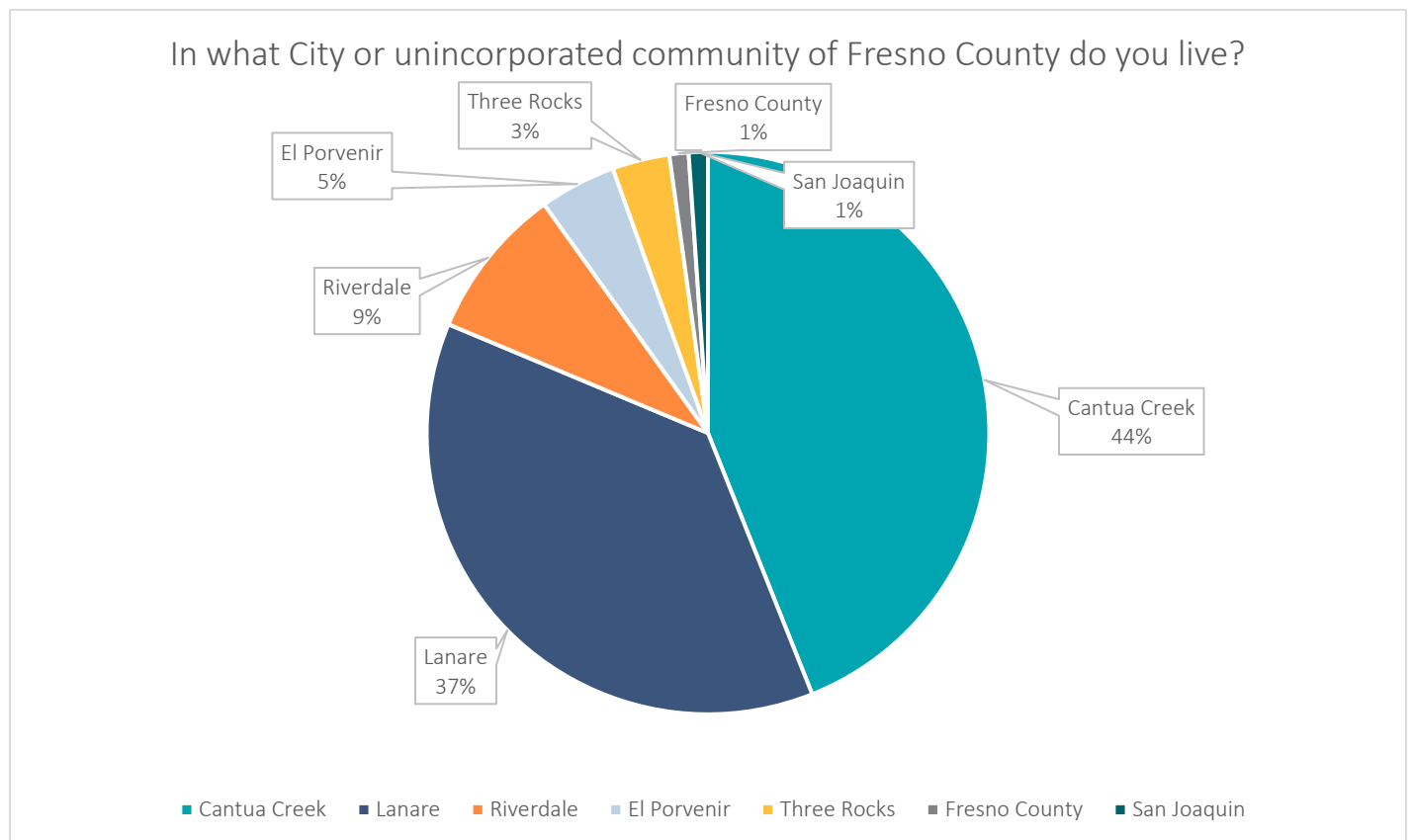


Figure 17: Respondent Places of Residence



Current Transportation Access and Travel Choices

Of the 91 survey respondents, 52 (57 percent) reported having access to their own vehicle at any time, 21 (23 percent) reported sharing a vehicle with others, and 13 (14 percent) reported not having vehicle access. Three respondents (3 percent) selected “other” with two explaining that they were unable to drive, and one explaining that they could get a ride from someone (see Figure 18). Only 12 respondents (13 percent) reported riding public transit regularly or at least once per week (see Figure 19 on page 44). Respondents were able to indicate any reasons for not using public transit more often, and the most common responses were it takes too long, the lack of nearby stops, the infrequency of service, and the inability to reach desired destinations (see Figure 20 on page 44).

Of the survey respondents, 37 percent reported not having vehicle access or sharing a vehicle with one or more people.

Figure 18: Respondent Vehicle Access

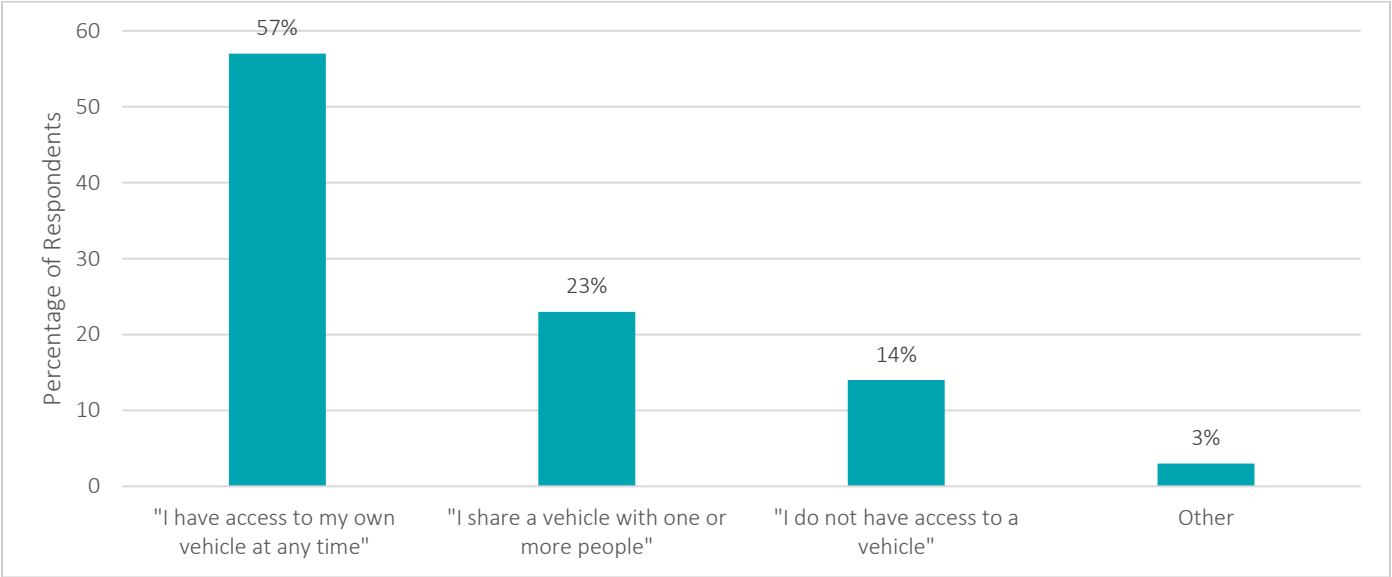


Figure 19: Public Transit Use

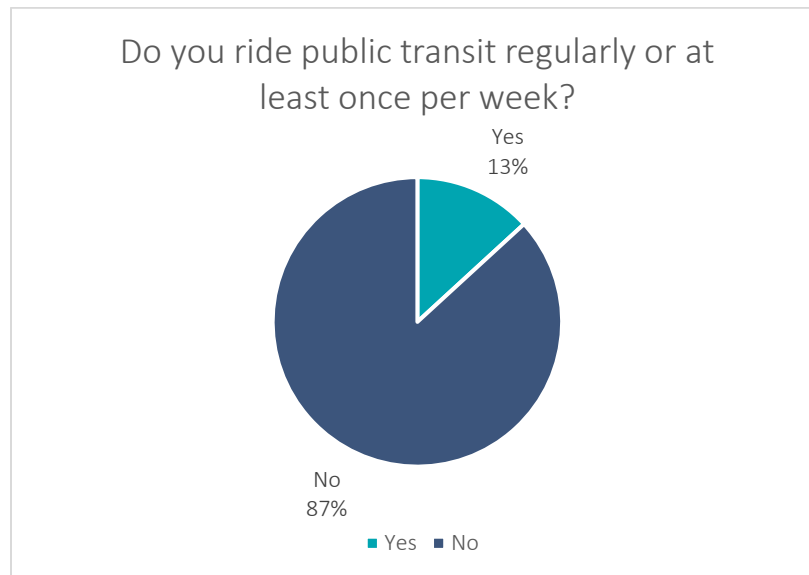
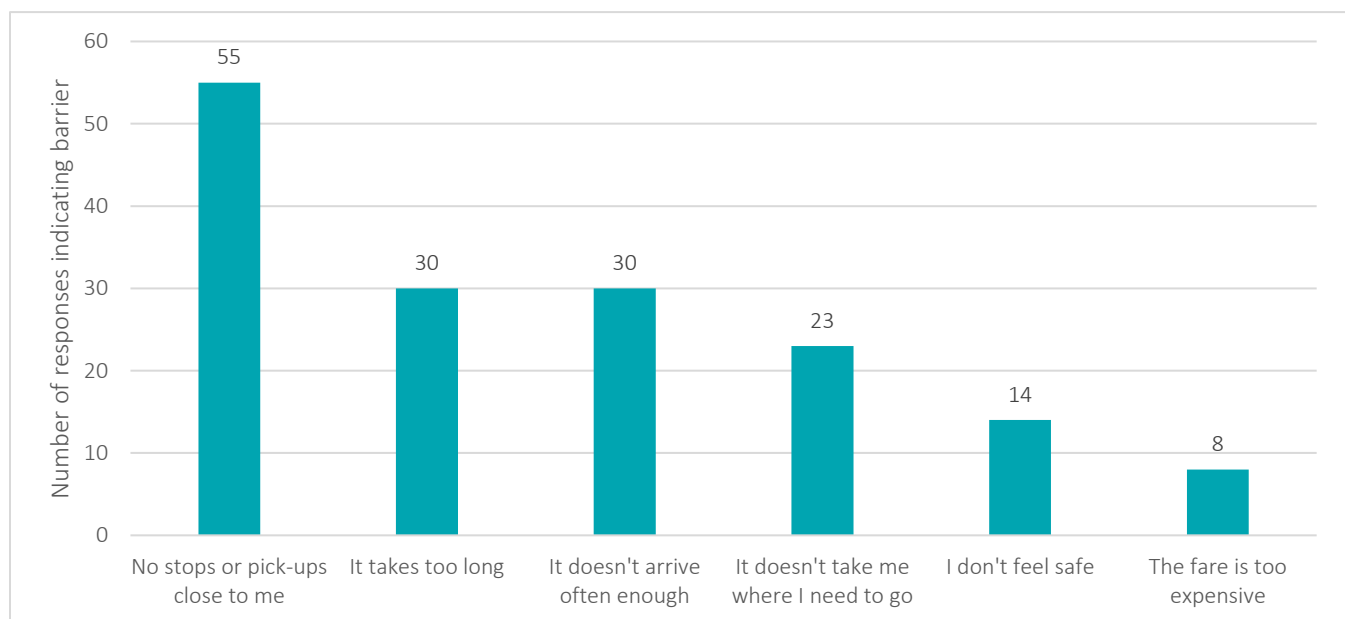


Figure 20: Barriers to Frequent Public Transit Use



Travel for Medical and Social Services Appointments

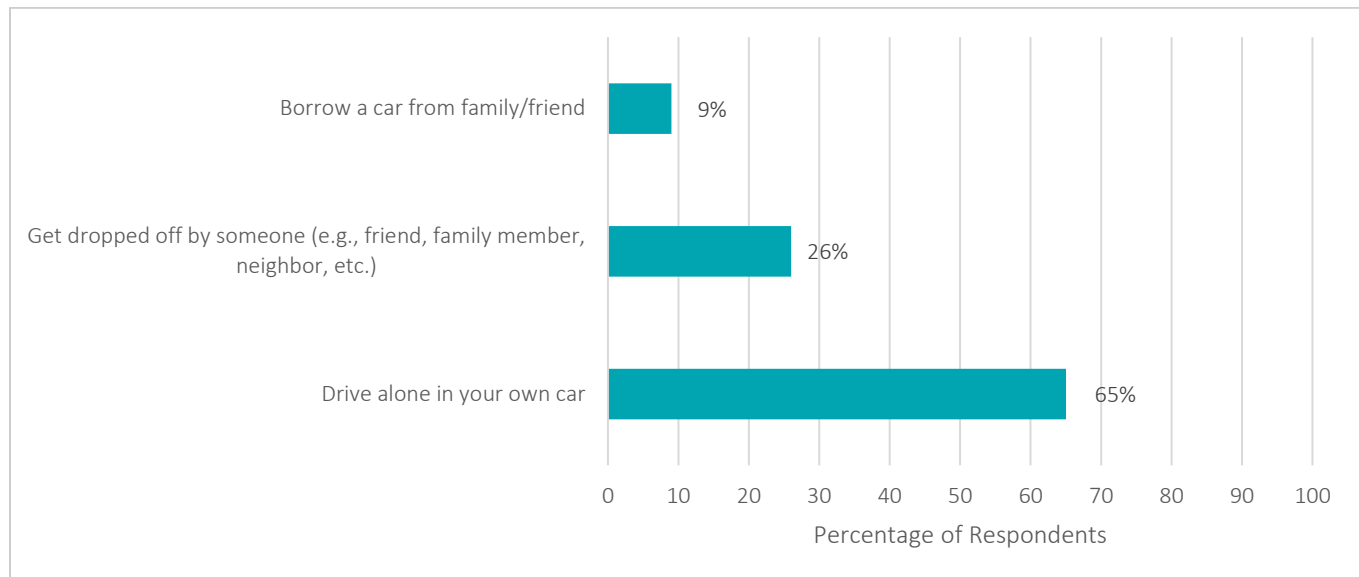
The survey also asked where respondents traveled for medical services and social services appointments (such as job training, food banks, counseling, etc.) and how they commuted to these locations. Respondents listed a total of 20 different cities and communities, with the most common destinations for both medical and social service appointments being Fresno, Hanford, Kerman, Riverdale, San Joaquin, and Mendota (see Table 18 on page 45).

Of the 91 respondents, there were 59 (65 percent) who reported driving alone to these appointments, 24 (26 percent) who reported being dropped off, and 8 (9 percent) reported borrowing a car from a family member or friend (see Figure 21 on page 46).

Table 18: Medical and Social Services Appointment Destinations

Community	Medical Appointments	Social Services Appointments	Total
Fresno	53	47	100
Kerman	35	32	67
Hanford	35	45	80
Riverdale	20	25	45
San Joaquin	18	14	32
Mendota	17	14	31
Lemoore	14	7	21
Madera	11	6	17
Clovis	6	1	7
Coalinga	3	3	6
Visalia	3	6	9
Caruthers	3	2	5
Selma	2	2	4
Firebaugh	1	1	2
Tranquility	1	10	11
Cantua Creek	1	0	1
Gogen	1	0	1
Fowler	1	0	1
Clovis	0	1	1
Tulare	0	1	1
Three Rocks	0	1	1

Figure 21: Method of Traveling to Appointments



Interest in a Ride Reservation Transportation Service

When asked whether they would be interested in a transportation service that would enable them to reserve a ride (at least one hour in advance) for medical or social services appointments, 86 of the 91 respondents (95 percent) indicated that they would use the service (Figure 22 on page 47). When asked how much they would be willing to pay for the service, the most common answers were \$1-\$2 per ride (26 percent) and \$7-\$10 per ride (23 percent), with a relatively even spread of willingness to pay between these two price points (see Figure 23 on page 47).

The survey also asked people whether they would be interested in being a driver for the service and provided an opportunity for those interested to share their contact information. There were 14 “yes” answers, seven of which shared contact information. There were also 15 respondents who did not check “yes” or “no” but did provide contact information (see Table 19 on page 48).

Figure 22: Interest in Ride Reservation Service

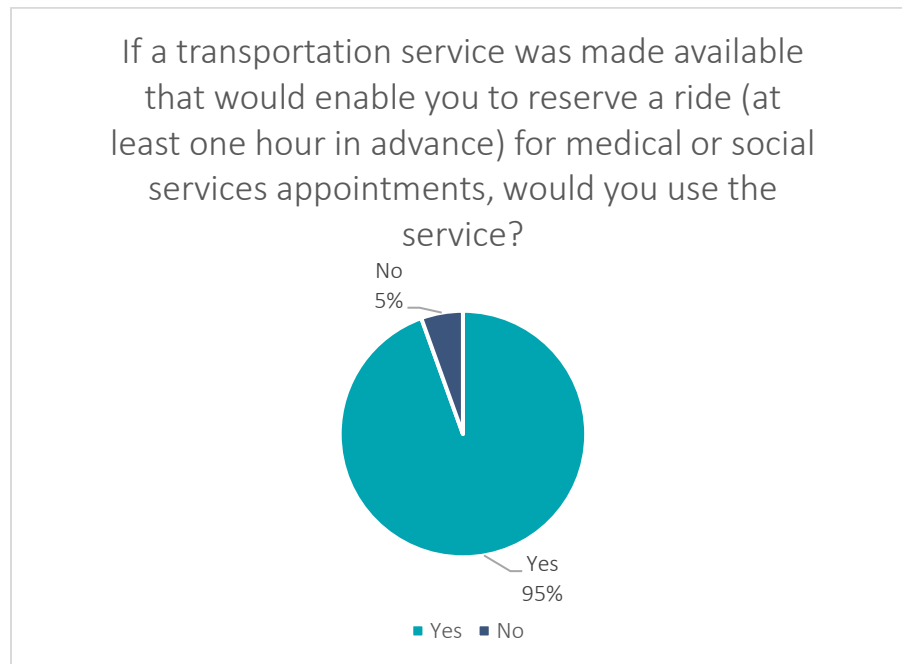


Figure 23: Willingness to pay for a one-way trip to a medical or social services appointment

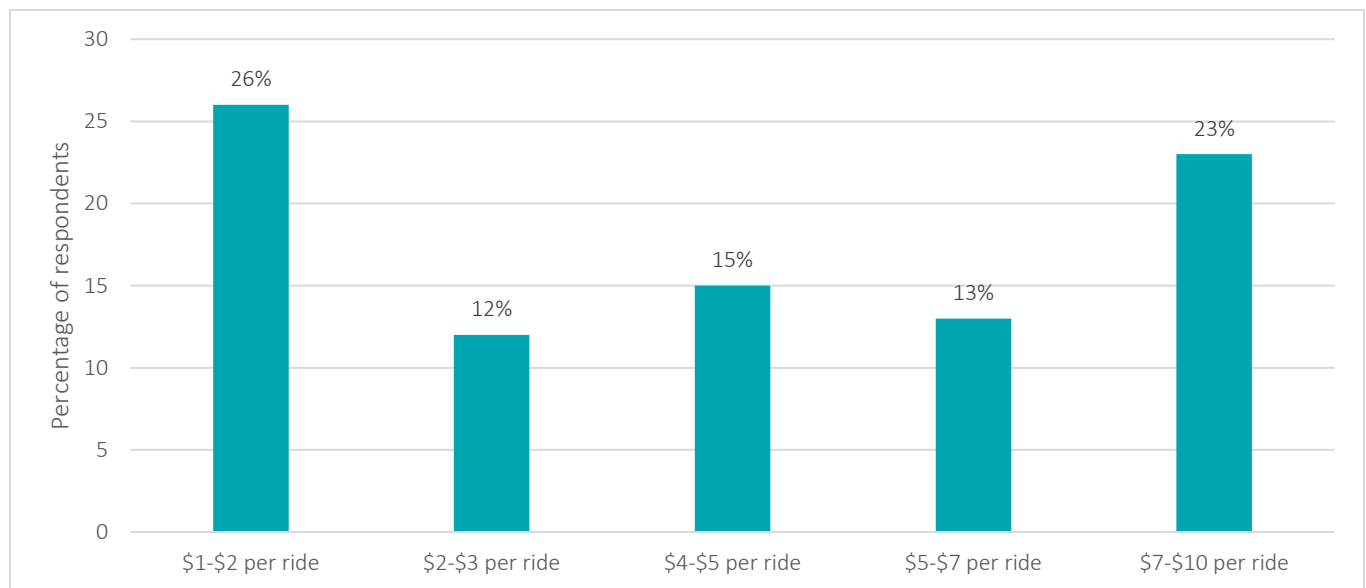


Table 19: Driver interest responses

“If we started a transportation service in your community and provided training, would you like to be a paid driver?”

Response	Number of responses sharing contact information
No (61 respondents)	0
Yes (14 respondents)	6
No answer (16 respondents)	15

The survey demonstrated the difficulty transportation poses for community members to travel to medical and social services appointments. When asked whether they had ever been late, missed, or rescheduled an appointment because of a transportation problem, 24 respondents (26 percent) answered that it happened “often”, 26 (26 percent) answered that it happened sometimes, and 41 (45 percent) answered that it never happened (see Table 20).

Of the survey respondents, 26 percent reported that transportation problems “often” caused them to be late to, miss, or reschedule an appointment.

Table 20: Missed appointments due to transportation problems

“Because of a transportation problem, how often are you late getting somewhere, or miss or reschedule an appointment?”

Often (26%)	Sometimes (26%)	Never (45%)
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Other Feedback and Suggestions

The final question of the survey provided respondents with an opportunity to share any additional feedback or suggestions. Respondents shared a variety of thoughts, including:

- The importance of transportation options for the elderly (5 respondents)
- The importance of service for those unable to drive (5 respondents)
- The importance of service affordability, including for households with multiple children (4 respondents)
- The need for transportation at all hours of the day (3 respondents)
- How transportation difficulties have caused them to miss appointments (2 respondents)
- The need for help fixing the streets (1 respondent)
- The suggestion to use electric cars (7 respondents)
- Other general urgency and need for better transportation services (16 respondents)

Limitations

The community survey did not include responses from the Laton community, as the Leadership Counsel targets their outreach in the Riverdale-Lanare and Cantua Creek-Three Rocks-El Porvenir-San Joaquin areas.

Transit Service Proposal

Analysis of the employment and commute data reveals most employed residents work in unincorporated rural areas, rather than in employment centers, underscoring the importance of providing a transportation service like Micro Transit that is flexible enough to meet their needs, which the existing fixed-route cannot accomplish due to many challenges such as fare requirements, scheduling, driver availability, and funding. The analysis of existing transit service shows that the rural communities in the Laton, Riverdale-Lanare, and Cantua Creek-Three Rocks-El Porvenir-San Joaquin areas currently lack public transportation options, with most fixed routes in the area running only once or twice daily and offering limited coverage.

The community survey complemented the employment and commute data with its focus on transportation to medical and social service appointments. The survey revealed that 52 percent of respondents “often” or “sometimes” missed an appointment due to a transportation problem. Respondents reported commuting to 20 different cities for appointments, with Fresno being the most frequent destination. Almost all (95 percent) of the respondents indicated their interest in paying for a ride reservation service if one were available. Many people stressed urgency and need for better transportation services for the community, especially affordable services for the elderly and those unable to drive. Of the survey respondents, 43 percent do not have access to their own vehicle at any one time, and either share a vehicle with others, get a ride from someone, do not have a vehicle, or are unable to drive.

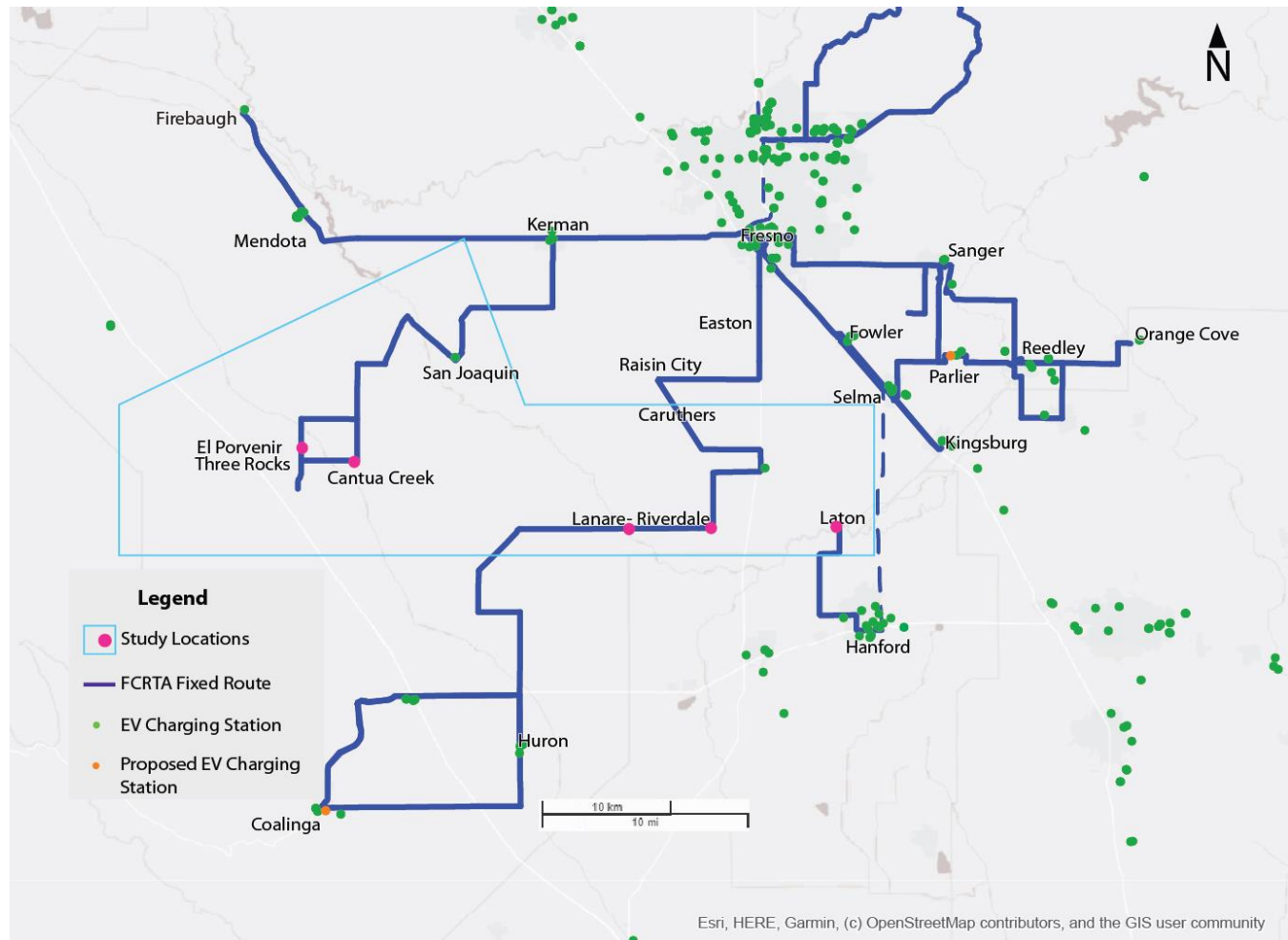
Expanding EV Micro Transit service to the study areas would be an environmentally friendly way to provide rural Fresno County residents with a much-needed transportation option to access key destinations.

This EV Micro Transit Service Proposal will introduce how the service expansion might work, taking into account EV charging considerations, proposing three Micro Transit Zones, and providing service estimates.

EV Charging Considerations

Little to no EV charging infrastructure currently exists in the proposed service areas of Laton, Lanare-Riverdale or Cantua Creek- Three Rocks- El Porvenir-San Joaquin. However, there is ample EV charging infrastructure in Hanford, Kerman, and Fresno, as shown in Figure 24. Zone proposals include charging layovers at one of these charging stations.

Figure 24: Existing Charging Infrastructure

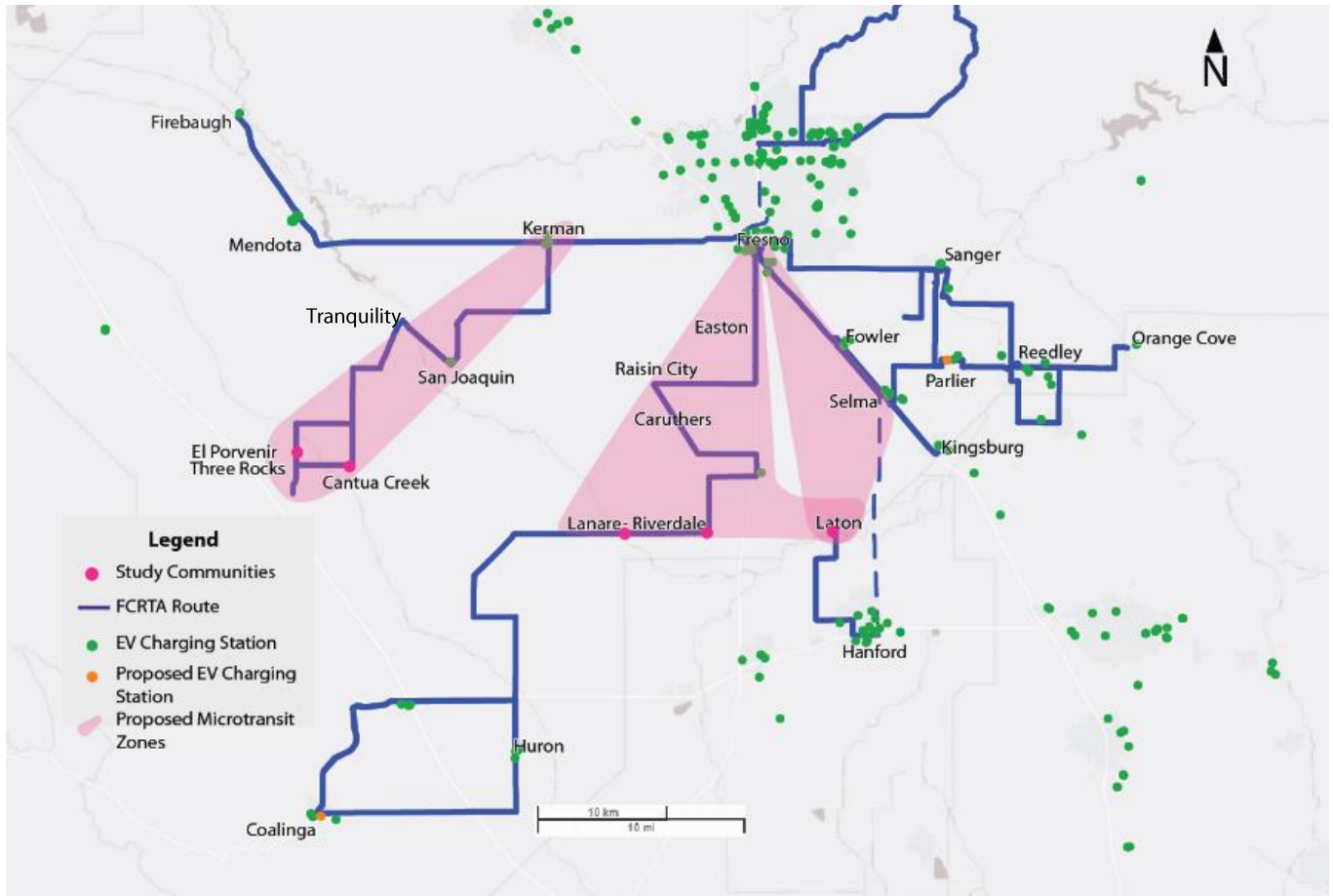


Source: Walker Consultants, 2022.

Proposed Micro Transit Zones

The ridership demand analysis informed the proposal of three distinct Micro Transit zones, as highlighted in Figure 25. This section suggests the area each zone might serve, includes a vehicle charging locations for each zone, and offers examples to show how charging trip routing could work in practice.

Figure 25: FCRTA Proposed Micro Transit Zones

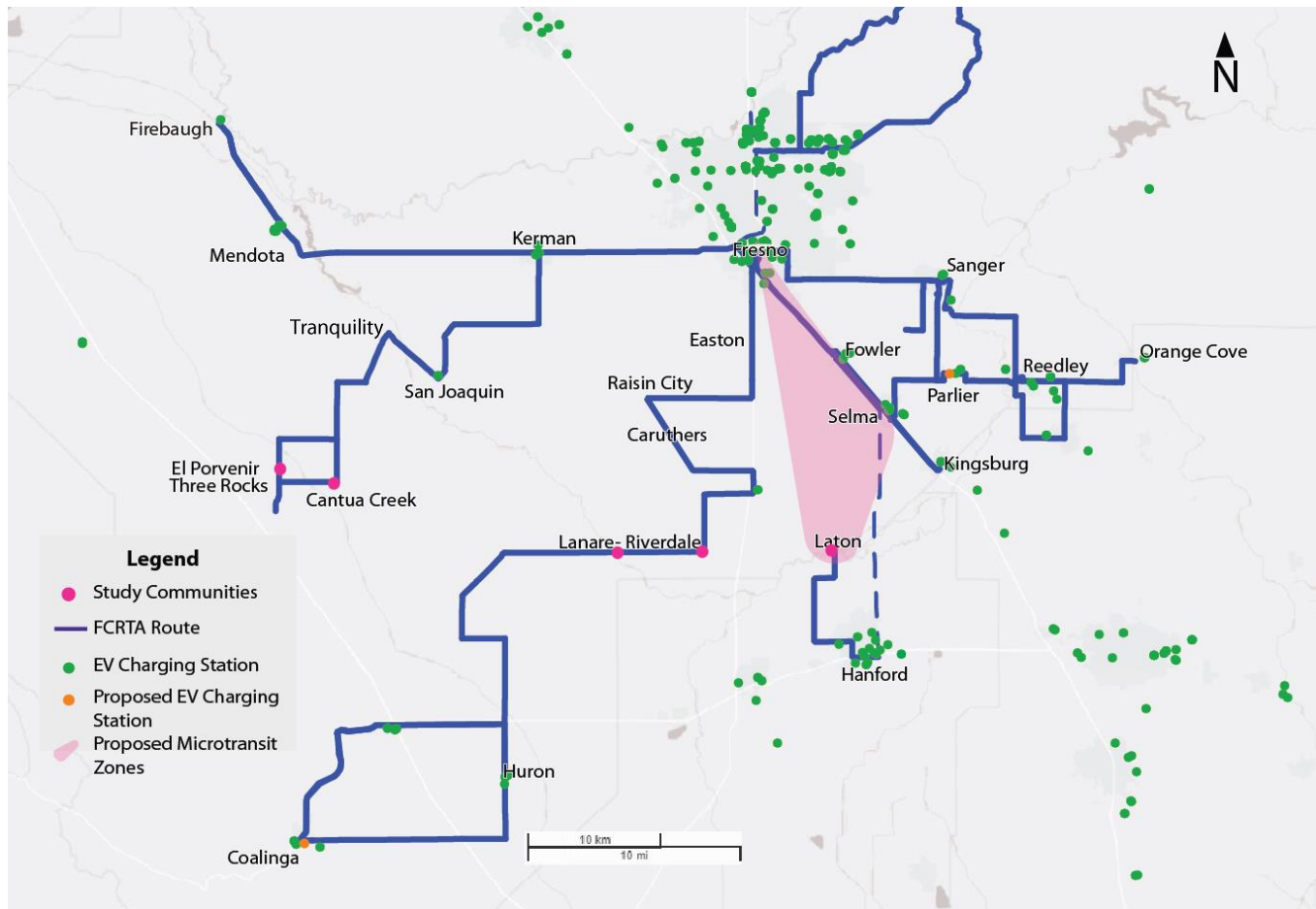


Source: Walker Consultants, 2022.

Zone 221: Laton – Selma

EV Micro Transit in this zone should operate as an on-demand service from Laton with options to serve Selma, Downtown Fresno and other rural areas in Fresno County (see Figure 26). Vehicles could be charged at the Selma bus depot. In this zone, we estimate approximately four trips per day and approximately 25 miles per trip.

Figure 26: Zone 221: Laton - Selma



Source: Walker Consultants, 2022.

Example Trip from Laton to Selma

- Operates between Laton and Selma
- Vehicle has option to charge at Selma maintenance facility
- Trip Length: 14 miles
- Round Trip: 28 miles
- 1- Way Trip Time: 30 minutes
- Trip Revenue: 29 revenue miles and 1 deadhead miles per trip
- Trips Per Day: 8
- Example Selma Trip Routing:
 - Trip begins in Laton
 - De Woody St and E Riverdale Ave to CA-43 N, 3.3 mi

- Turn left onto CA-43 N, 7.6 mi
- Continue on E Mountain View Ave.
- North on Pacific Ave in Selma 3.1 mi

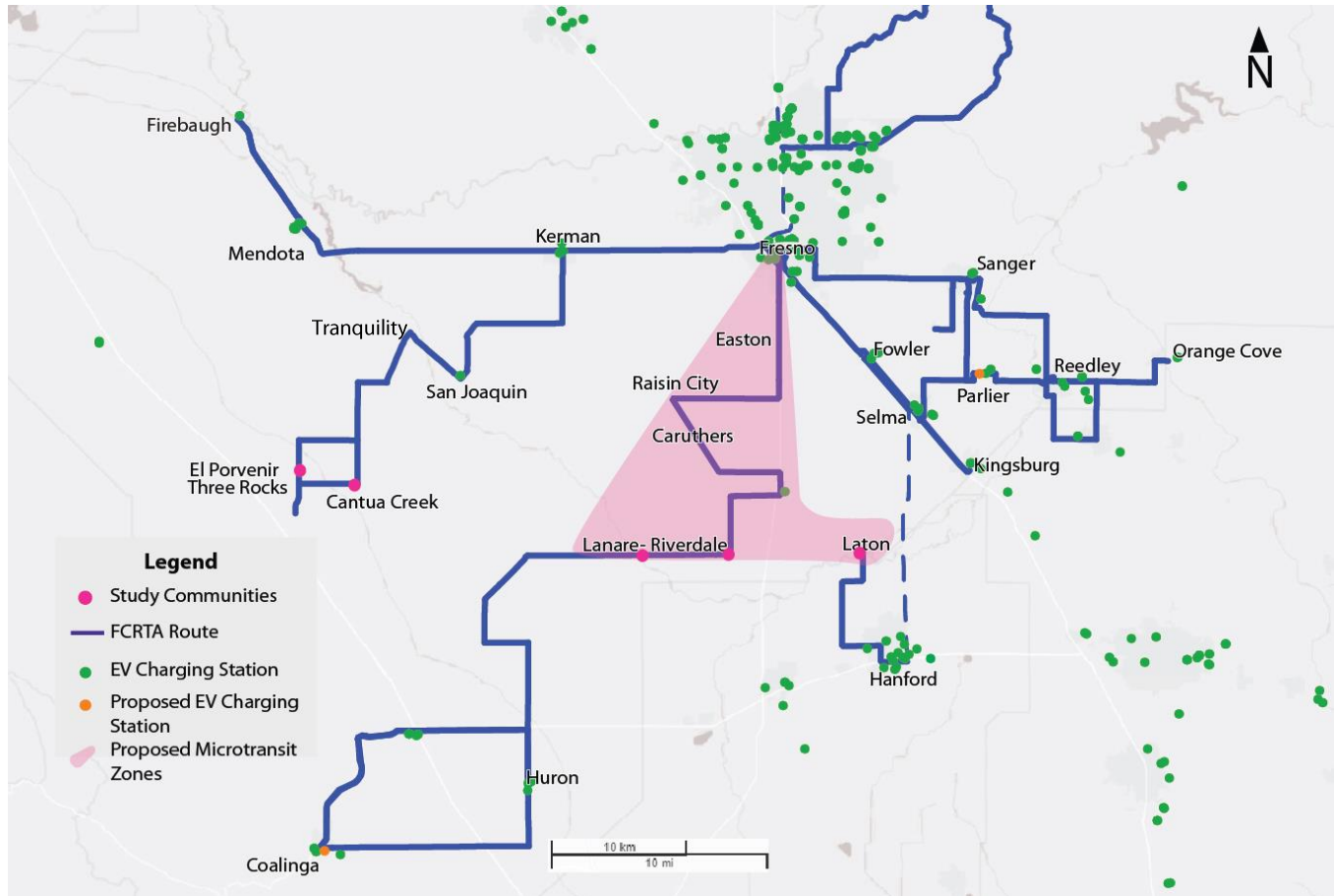
Example Trip from Laton to Downtown Fresno

- Operates between Laton—to Fresno Courthouse Park, FAX Shelter A
- Vehicle could charge in Downtown Fresno
- Vehicle Charging Location: Fresno
- Trip Length: 23.5 miles
- Round Trip: 47 miles
- 1- Way Trip Time: 45 minutes
- Trip Revenue: 19 revenue miles and 4.5 deadhead miles per trip
- Trips Per Day: 4
- Example Fresno Trip Routing:
 - Trip begins in Laton
 - North onto Nares Ave 0.1 mi
 - North onto S Fowler Ave: 4.1 mi
 - East on E Elkhorn Ave: .3 mi
 - North onto S Fowler Ave: 9.3 mi
 - S Fowler Ave east and becomes W Merced St: .1 mi
 - North to merge onto CA-99 N: 8.2 mi
 - Exit 131 to merge onto CA-41 N toward Yosemite: .8 mi
 - Exit 126B for Van Ness Ave toward Civic Ctr: 0.2 mi
 - Turn left onto Van Ness Ave: .6 mi
 - Arrive at Fresno Courthouse Park, FAX Shelter A

Zone 222: Lanare—Riverdale—Laton

The corridor demand analysis reveals high ridership demand between Lanare, Riverdale, and Laton. EV Micro Transit in this zone should operate as an on-demand service between the three communities, with options to serve other rural areas in Fresno County (see Figure 27). In this zone, we estimate approximately four trips per day and approximately 25 miles per trip.

Figure 27: Zone 222: Lanare - Riverdale - Laton



Source: Walker Consultants, 2022.

Example Trip from Laton to Caruthers

- Operates between Laton and Caruthers
- FCRTA will identify a location to install EV charging infrastructure.
- Trip Length: 12 miles
- Round Trip: 24 miles
- 1- Way Trip Time: 20 minutes
- Trip Revenue: 11 revenue miles and 1 deadhead miles per trip
- Trips Per Day: 10
- Example Southwest Transportation Agency Trip Routing:
 - Trip begins in Laton
 - Head east on W Mt Whitney Ave toward S Grantland Ave 5.9 mi

- North onto S Fruit Ave 4.0 mi
- East onto W Elkhorn Ave 1.9 mi
- North onto S Elm Ave 0.3 mi, arrive at Southwest Transportation Agency

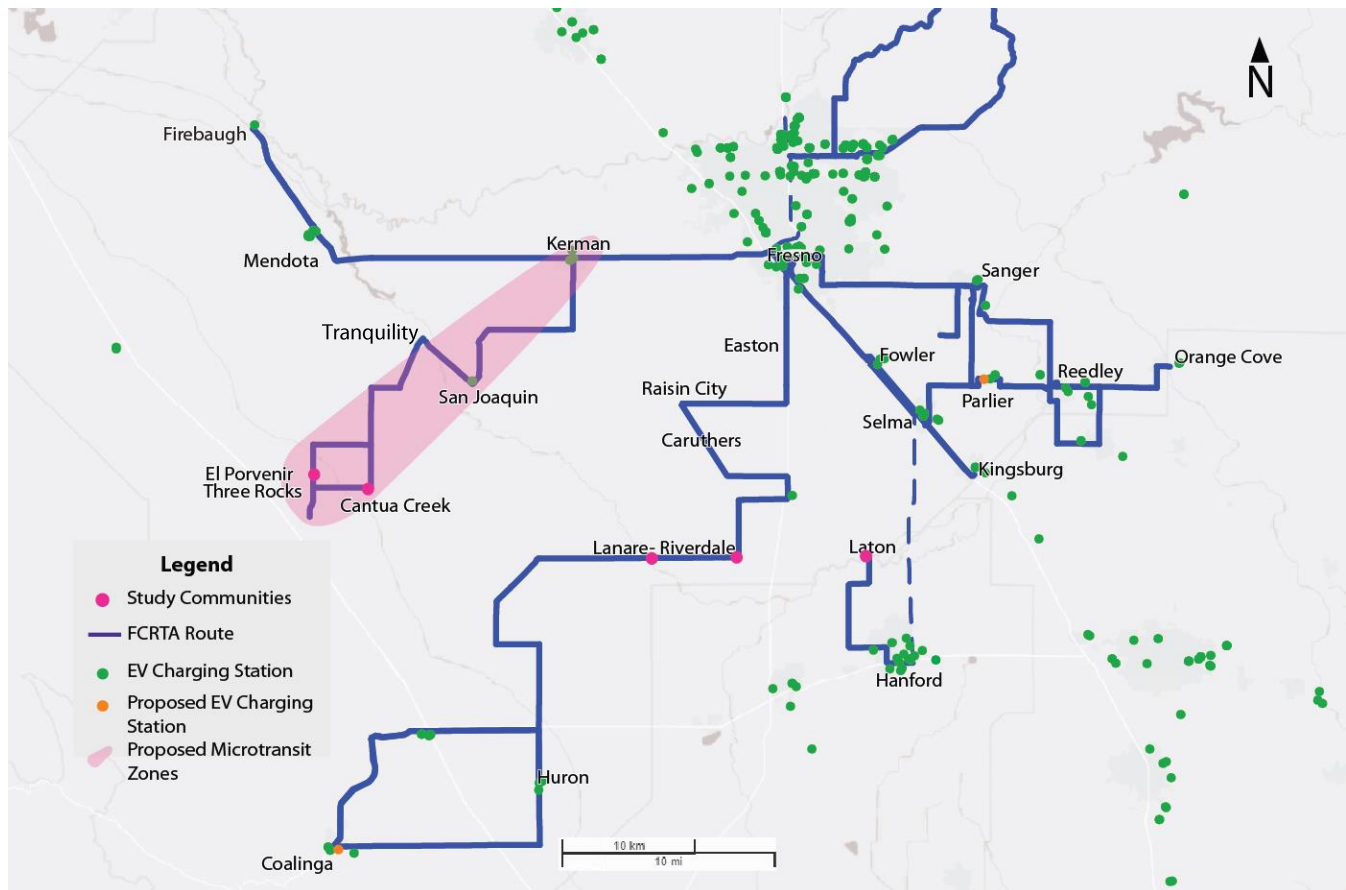
Example Trip between Lanare, Riverdale and Laton

- Trip Length: 13.4 mi
- Note: charging would not occur in this example trip
- Round Trip: 26.8 miles
- 1- Way Trip Time: 25 minutes
- 22.8 revenue miles and 4 deadhead miles per trip
- Trips Per Day: 8
- Routing:
 - Trip begins in Lanare and heads east to Riverdale and Laton via E. Mt. Whitney Ave, making stops in downtown Riverdale and Laton: 13.5 mi

Zone 223: Cantua Creek—Three Rocks—El Porvenir—San Joaquin

EV Micro Transit in this zone should operate as an on-demand service between Cantua Creek, Three Rocks, El Porvenir, and San Joaquin, with options to serve other rural areas in Fresno County (see Figure 28). Vehicles could be charged in either San Joaquin or Kerman. In this zone, we estimate approximately four trips per day and approximately 25 miles per trip.

Figure 28: Zone 223: Cantua Creek - Three Rocks - El Porvenir - San Joaquin



Source: Walker Consultants, 2022.

Example Trip: Cantua Creek - San Joaquin – Kerman

- Trip Length: 36 mi
- Round Trip: 64 miles
- Vehicles could charge in San Joaquin or Kerman
- 1- Way Trip Time: 55 minutes
- 56 revenue miles and 8 deadhead miles per trip
- Trips Per Day: 7
- Routing:
 - Begins in Cantua Creek and heads west to Three Rocks via W Clarkson Ave: 4 mi
 - Heading north, serve Three-Rocks and El Porvenir on CA-33 N: 7.0 mi
 - East onto Manning Ave 18.1 mi, serving San Joaquin and continuing east
 - North onto CA-145 N 7.0 mi
 - At the traffic circle, take the 2nd exit onto CA-145 N/S Madera Ave 1.3 mi

Micro Transit Service Estimates

According to this proposal, one electric vehicle would serve each zone, between the hours of 7 am and 7 pm. Table 21 on page 59 shows estimated miles per trip for each of the three proposed Micro Transit electric vehicles, estimated revenue hours per vehicle, estimated charging hours per vehicle, daily hours per zone, and total daily hours.

Table 21: Micro Transit Service Estimates

MILEAGE PER VEHICLE	Estimated Miles per Trip	Round Trips per day ¹
Zone 221: Laton—Selma	25.0	4
Zone 222: Lanare—Riverdale—Laton	25.0	4
Zone 223: Cantua Creek—Three Rocks—El Porvenir—San Joaquin	35.0	3
TOTAL MILES:	85.0	11

REVENUE HOURS PER VEHICLE	Hours/Day
Zone 221: Laton—Selma	10.0
Zone 222: Lanare—Riverdale—Laton	10.0
Zone 223: Cantua Creek—Three Rocks—El Porvenir—San Joaquin	10.0
TOTAL HOURS/DAY	30.00
Source: Walker Consultants, 2022.	-

Operating Cost and Revenue Projection Assumptions

In addition to the above, operating cost and fare revenue projections assume the following:

- 305 days of service per year
- An average vehicle speed of 36 miles per hour
- Driver salaries of \$20 per hour, with overtime wages of \$30 per hour
- Fare charges are structured by travel distance at \$4.00, \$6.00, and \$8.00 for trips of up to 15, 30, and 60 miles, respectively
- The service performance target can be established at an average of two (2) passengers per hour of revenue service

Additional Service Change Suggestions

As part of the proposed EV Micro Transit service expansion outlined above, we recommend FCRTA make the following modifications:

Additionally, with the proposal of a Micro Transit Zone 222: Lanare—Riverdale—Laton, FCRTA could reconsider the current alignment and scheduling of the Coalinga Inter-City Transit. Since Zone 222: Lanare—Riverdale—Laton would also serve the communities of Caruthers, Raisin City and Easton, there is an opportunity to reassess the routing of Coalinga Transit to operate directly on CA-41, making stops between Riverdale and downtown Fresno.

Operations Structure

FCRTA will operate the new Micro Transit service in partnership with its existing operations partner, MV Transportation. MV will help recruit and hire drivers, drivers will be employed by MV Transportation. MV will also be the insurer of the service and provide dispatching. FCRTA will supply the vehicles, and provide oversight, administration, financial, and planning responsibilities. FCRTA will fund the service through its local Measure C funds and pursue grant funding to provide the operational costs. Measure C is a Fresno County half cent sales tax for transportation.

FCRTA currently has an agreement in place with MV Transportation to operate all of FCRTA's transit services. This agreement has been approved by FCRTA's Board and the California Department of Transportation. In the current agreement, there is a line item for Rural Transit, which is on-demand service for lifeline purposes only operating outside of FCRTA's sphere of influence, which include the Lanare-Riverdale-Laton and Cantua Creek, Three Rocks, El Porvenir, and San Joaquin service areas. There are approximately 2,000 hours currently allocated to the Rural Transit service, which is substantially more hours than is required by the existing Rural Transit service. Therefore, no amendments to the existing agreement will be required to operate the new service in the study area. Consistent with the current agreement structure, MV Transportation will be reimbursed based on revenue service hours. When the Micro Transit service is operational, if it should require more than 2,000 hours to operate, an amendment to the agreement will be initiated (if additional funding is awarded).

Driver Recruitment

Finding local drivers in the communities for the Micro Transit service will be critical to operating the EV Micro Transit service. Consistent with trends seen throughout the Country, MV Transportation is suffering from driver shortages. One advantage of the Micro Transit service is that vehicles will be passenger vehicles, so drivers will only be required to have a Class C drivers license, instead of a commercial license or Class B with endorsements, which is more difficult to acquire. This should open the field for more driver recruitment.

FCRTA's innovative Micro Transit service will also focus on recruiting local drivers to operate the service. Working with local drivers has a variety of advantages:

- Local drivers promote community trust in using the service.
- Local drivers can help market the service in their communities, promoting ridership.
- Promotes local employment in disadvantaged rural communities with limited economic opportunities.
- Vehicles will be stationed in local communities, reducing the amount of vehicle deadhead time required.

Drivers will be employed by MV Transportation, FCRTA's operator. Below summarizes the steps that will be taken to recruit local drivers:

1. The Project Team has compiled the list of interested drivers, including their name, contact information, and community of residence from the Community Survey issued.
2. Leadership Counsel will conduct the initial outreach to each driver to discuss the driver employment opportunity. Leadership Counsel already has community relationships and is a trusted community partner.
3. Drivers are required to have a standard Class C driver's license, as the vehicles that will be used for the service include Chevy Bolts and ADA accessible vans.

4. MV Transportation will invite each interested driver to a driver fair, where MV Transportation, FCRTA and Leadership Counsel will provide additional information regarding the EV Micro Transit service.
5. EV Micro Transit drivers will also be provided information on becoming a full-time driver with MV Transportation, including information on obtaining a commercial driver's license, which is required to operate full-sized buses.
6. MV Transportation will facilitate the employment process including the application process, training, and onboarding.

MV Transportation and Leadership Counsel supported with outreach and event staffing at the driver's fairs. In order to inform the community of Cantua Creek, El Porvenir, and Lanare of the rideshare program, door to door flyering was done in all three communities a few days prior to the event. The flyers provided information in English and Spanish about the Micro Transit service and the need to hire community drivers. The following summarizes the events that were held:

- September 22, 2022 - Lanare
- September 26, 2022 - Lanare
- September 27, 2022 - Cantua Creek/El Porvenir
- September 29, 2022 - Cantua Creek/El Porvenir
- December 7, 2022 - Cantua Creek/El Porvenir
- December 15, 2022 – Lanare
- Door to door outreach in Cantua Creek and El Porvenir (February 1, 2023)
- Door to door outreach in Lanare (February 14, 2023)