

# **SHORT RANGE TRANSIT PLAN**

**2018-2022**

**Adopted  
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## Background

With Fresno County's population expected to grow from the current 965,974 people to 1.3 million people by 2035, the topics of growth management, transit investments and land development policies are timely for proactive planning that may stem the tide of Fresno County's past trends:

- Very little traffic congestion makes driving an automobile very attractive for those who can afford them.
- Low density development is occurring on Fresno's urban fringe where transit services don't exist now and will likely not exist in the future, ensuring automobile dependency.
- Development encroachment on farmland is an ongoing concern due to the high demand for agricultural products from this region.
- The San Joaquin Valley faces significant air quality challenges. The entire Valley is designated as non-attainment for both the national and California air quality standards for ozone and particulate matter.
- 79%<sup>1</sup> of FAX riders take the bus because they either don't drive or cannot afford a car. This rate is about double the transit dependency rate found in other cities of a similar size.
- Due to a number of factors the demand for Transit Oriented Development (TOD) is lower in Fresno than other US cities of similar size, making it a challenge to build, finance and market these projects.

Most of Fresno's travel market has its origins and destinations in metropolitan Fresno. 92% of Fresno residents work in Fresno County, and only 8% commute to destinations outside the county. Of the total commute trips in Fresno County, 77% drive alone, 20% carpool or vanpool, and 1% take transit, walk and work from home.<sup>2</sup> Due to heavy rural to rural commute patterns of farm workers, prison guards and teachers in the San Joaquin Valley, carpools and vanpools represent the largest mode share after the single-occupant automobile. Transportation issues in Fresno exemplify the type of challenge that many cities in California face. The passage of SB375 calls all metropolitan planning areas in the state for a commitment to sustainable solutions.

## Changing Priorities

The Fresno-Clovis Metro region has the most freeway lane miles per capita and local major street lane miles per capita of all the major Cities in California with more lane miles planned and programmed into the long range transportation investment plan. Fresno County and City need new policies, goals and funding priorities that support a new direction in transportation and land use planning, along with education and public awareness of the issues and trade-offs that must occur with the shift away from automobile-dominated transportation planning.

Building a transportation system solely with the automobile in mind based on a level of service "C or D" for the peak 15 minute demand is one of the most expensive transportation systems to build and maintain. Fresno City and County need a new approach or thought process for determining

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<sup>1</sup> Based on a 2014 FAX rider survey.

<sup>2</sup> San Joaquin Valley Express Study by Nelson Nygaard, 2009.

what is needed to attain an alternative future that provides transportation alternatives to the car for a majority of the population. Fresno's metro region is a top five leader in the nation with the least amount of commute congestion and travel time and travel speeds of all major metropolitan regions. In fact, the Fresno COG Travel Demand model suggests that in the next 20-30 years the travel speeds of our region will only decrease by one or two miles per hour, whereas in the same timeframe, the Sacramento metro region's travel speeds will nearly be cut in half.

Fresno County currently does not meet air quality standards, including ozone and particulates. As a result, the County must satisfy Federal requirements calling for consideration of transportation control measures to reduce emissions and demonstrate conformity with the State Implementation Plan for Air Quality. It follows that whatever transportation projects are considered and ultimately implemented must not deteriorate the existing air quality and must support efforts to bring the County into air quality attainment.

Given that auto and truck travel account for about one-third of greenhouse gas emissions, Fresno County and its Cities must consider implementing more-efficient, high-capacity modes of transportation that provide attractive options to the auto. Such transportation modes must provide suitable alternative travel options to parts of the population who have limited mobility, with a focus on higher density and mixed-use corridors where large numbers of households and businesses can be well served by transit investments. Currently the majority of Fresno's transit riders use the system out of necessity, rather than choice. To maximize transit ridership and reduce congestion in the future, it will be important to continue to serve and attract ridership among households that need transit, as well as those who might choose to take transit though they can afford to drive.

### **1.1.0 Purpose of SRTP**

The Fresno Area Express (FAX) Short-Range Transit Plan (SRTP), FY 2018-2022, is the biennial update to the operating plan and the capital program. The purpose of this Plan is to promote a comprehensive, coordinated and continuous planning process for transit service in the Fresno-Clovis Metropolitan Area (FCMA) over a five-year planning horizon. This plan proposes specific recommendations for implementing the long-range objectives of Fresno County's Regional Transportation Plan, and will guide the provision of transit services in the FCMA over the next five years.

The Plan is also used to develop transit capital programming documents which are the basis for State and Federal funding decisions. The Plan provides both the Federal Transit Administration (FTA) and the Fresno Council of Governments (Fresno COG) with the detailed planning justification for awarding operating and capital grants to FAX. This Plan was developed through an analysis of existing needs and available services, and provides an evaluation of projected needs and funding availability for the next five years.

### **1.2.0 Summary of Existing Transit System**

FAX is a department of the City of Fresno and is governed by the Fresno City Council. The City of Fresno is the responsible agency for implementing this SRTP, and for providing transit service within the city limits. FAX's ability to deliver transit service will be impacted by laws, regulations, and policy decisions of several external agencies. These agencies include: the Federal Transit Administration (FTA), the State of California Transportation Department (CALTRANS), the Fresno Council of Governments (Fresno COG), Fresno County, the City of Clovis, the Fresno County Rural Transit Agency (FCRTA), the Consolidated Transportation Service Agencies (CTSA), and various private transportation operators. Although the City of Fresno is the agency responsible for providing metropolitan transit service and for implementing the Plan's recommendations, its actions will be influenced by the actions of these external agencies.

FAX is the largest provider of transit services in the region, with more than 10 million annual boardings and an operating budget of approximately \$42 million per year. A highly efficient operation for its size, FAX service consists of 15 fixed routes in the City of Fresno with three major hubs: the downtown transit mall, the Manchester transit station along Blackstone Avenue north of downtown, and a transfer point at the River Park shopping center in north Fresno.

The standard adult fare is just \$1.25; this is below market compared to other cities this size. Children under age 6 ride for free, and seniors and the disabled pay just 60 cents. Service frequencies vary from 15 minutes to 60 minutes with a majority of routes operating at 30 minute headways. Regular service stops at 10:00 pm on most routes on weekdays, with extended service till 1:00 am on the most heavily travelled sections of certain routes. The service operates till approximately 7:00 pm on weekends. The extended night service is relatively new and was developed to address the limited viability of transit for many workers, students and low-income people who need public transportation outside of current operating hours. Service frequency on the weekends is at 30 minutes for all routes excluding the four lowest performing routes.

This document also addresses the Handy Ride program and the City of Clovis Transportation systems which are described as follows;

- The FAX fixed-route network follows a modified grid pattern with intersecting north-south and east-west bus lines. The Plan proposes to maintain the grid network in the service area, provide higher levels of service and improved amenities to make transit more attractive and implement innovative approaches to address congestion and air quality concerns. The Plan establishes an ongoing process of system evaluation and management to assess the effectiveness and efficiency of existing and proposed services.
- Handy Ride is a demand-responsive program oriented toward providing a high level of service to elderly and disabled persons who, because of physical or mental disabilities, are unable to ride the fixed-route system. In January 2013, FAX awarded the contract for Handy Ride services to Keolis Transit America. The Plan proposes to evaluate Keolis Transit America to ensure that FAX meets its responsibilities under the Americans with Disabilities Act (ADA) for Handy Ride service.

FAX operates some service to the unincorporated urban areas and receives funding from the County of Fresno for this service. It is appropriate that both agencies have a role in the policy making process impacting FAX. The Plan includes a mechanism for such a role.

**Clovis Transit System:** Two transit lines serve the Clovis area. Stageline operates along fixed routes with regularly scheduled stops. Round Up is a demand-response service for senior (age 65+) and disabled residents who call in advance to schedule trips. The Stageline service operates weekdays from approximately 6:15 am to 6:15 pm. FAX route 9 operates in Clovis on Shaw Avenue weekdays from 6:30 am to 7:30 pm and weekends from 8:15 am to 3:15 pm. The fare for the general public from age 6 to 64 is \$1.25 per one-way trip. Seniors 65 and over, children under age 6, and the disabled ride for free. Clovis Transit accepts the Fresno Area Express regular monthly Metro Pass, which eliminates the need for transfers and makes transit more attractive to most users.

### **A Shift in Thinking**

Two major studies of travel and land use development patterns in Fresno have been completed. These are the San Joaquin Valley Blueprint Study<sup>3</sup> and the Public Transportation Infrastructure Study<sup>4</sup>, commissioned by the Fresno Council of Governments. Both studies cite the sprawling, low density land use development patterns of the past as the basis for Fresno's automobile dependency and air quality problems. And, if these trends continue into the future, the greater Fresno area will continue to decline in terms of air quality, mobility indicators and quality of life. However, changes can be brought about to provide for development patterns that will support investments in higher capacity transit modes in metropolitan Fresno. Higher density, mixed-use development projects clustered around high capacity transit corridors have been shown to shift travel away from the automobile and into transit, bicycles and walking modes.

What the PTIS Study discovered through modeled land use scenarios, was that as density and mix of land uses grew (bringing more housing, jobs and shopping in close proximity to each other) the more people tended to take transit, walk or bicycle in the transit corridors. Other model assumptions include tightening the parking supply and pricing available parking at market rates. Most importantly, the PTIS Study demonstrated that if 52% of all new population growth was absorbed into the planned BRT corridors and downtown, a significant and measurable shift in transit mode share (up to 8.5%) and greenhouse gas reductions (as much as 8%) could be achieved.

Thus, a fundamental shift in thinking has occurred in the greater Fresno metropolitan area and at FAX that serving the transit needs of a growing population has as more to do with the support of land use regulators and developers to bring the population growth to where the bus service currently exists than it does with trying to ever-expand the bus service to meet the demands of people who choose to live on the urban fringe where these services cannot be provided in a

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<sup>3</sup> The San Joaquin Valley Blueprint Study was funded by eight Councils of Governments in the San Joaquin Valley, completed in January of 2009.

<sup>4</sup> The Public Transportation Infrastructure Study (PTIS) was funded by the Fresno COG and completed in May of 2011.

financially sustainable way. In a sense, the responsibility has shifted from the transit providers to the community development departments and private developers to make the transit system work and to clean up Fresno's air quality. FAX Administration questions the ability to expand service to meet the transit needs of an ever-outward expanding low density suburban population.

### **1.2.1 Mission Statements**

In 1997, Fax and Handy Ride adopted the following Mission Statements which set a strategic direction and a framework for making policy, planning, and budgetary decisions:

#### ***FAX Mission Statement***

*The mission of Fresno Area Express is to provide a comprehensive transportation system that improves the quality of life in our community.*

#### ***Handy Ride Mission Statement***

*Handy Ride provides transportation comparable to the FAX City fixed-route bus system to meet the needs of American with Disabilities Act (ADA) eligible persons who cannot functionally use the FAX fixed-route bus system.*

### **1.2.2 Public Transportation Policy Directions**

The policies contained in the 2014 Regional Transportation Plan for Fresno County, (adopted by the Fresno Council of Governments, June 2014) provide general guidance to transit operations within the metropolitan area. The following Goals, Objectives, and Policies provide the framework for developing a sound public transportation system throughout Fresno County. They are specifically targeted toward the public and social service transportation systems.

The adopted FAX Policy Directions are compared with the adopted PTIS Policy Recommendations to illustrate how current policy can be integrated into an action plan for implementation.

#### **Policy Direction for FAX**

**Goal:** Provide public transportation mobility opportunities to the maximum number of people in the region.

**Objective:** Continue to pursue expanded federal, state and local funding for both public and social service transportation.

*Policies:*

- ✦ *Provide a transit system that meets the public transportation needs of the service area.*
- ✦ *Provide transit services that serve low income, elderly, and disabled communities.*
- ✦ *Support the coordination and consolidation of social service transportation.*

**Goal:** Provide quality, convenient and reliable public transportation service.

**Objective:** Encourage safety, appropriate frequency of bus service, reasonable fares and the provision of adequate service to satisfy the transit needs which are reasonable to meet.

*Policies:*

- ✦ *Provide reliable and convenient public transit service.*
- ✦ *Provide clean, attractive and comfortable vehicles and facilities.*
- ✦ *Provide a safe system.*

**Goal:** Provide an efficient and effective public transportation system.

**Objective:** Consider advantages and disadvantages of projects, including economic, environmental and social factors.

*Policies:*

- ✦ *Maximize public transportation patronage.*
- ✦ *Minimize operating and capital expenses.*
- ✦ *Encourage the private sector to provide service when economically feasible.*

**Objective:** Provide complete and accurate information that makes public transportation "user-friendly".

*Policies:*

- ✦ *Create and produce publications that promote the use of public transportation.*

**Goal:** Provide for an integrated multimodal transportation system which facilitates the movement of people and goods.

**Objective:** Develop a multimodal transportation network.

*Policies:*

- ✦ *Coordinate service to facilitate multimodal and inter-system transfers.*
- ✦ *Coordinate fare and transfer policies along with service information programs*

**Goal:** Coordinate public transportation policies with land use and air quality policies.

**Objective:** Support transportation investments that work toward accomplishing air quality goals, optimize utilization of land, and encourage a stable economic base.

*Policies:*

- ✦ *Provide incentives to reduce dependency on automobile travel without compromising travel mobility.*
- ✦ *Evaluate the transportation system for air quality, energy and efficiency impacts.*

### 1.2.3 Strategic Plan

At the core of the FAX strategic plan are seven goals, each with specific performance measures. The performance measures encompass the full range of FAX's responsibilities. The transit specific performance measures reflect FAX's current targets for achievement and are discussed below;

#### **Goal 1: Service Levels**

FAX will provide public transportation service to a maximum number of people in the Fresno-Clovis Metropolitan Area (FCMA).

**Objective A:** To provide a transit system that meets the public transportation needs of the service area.

**Standard 1:** FAX's fixed-route bus system should be designed so that a minimum of 90% of the service area population resides within one-half mile of a bus route.

**Standard 2:** FAX scheduled service should provide for maximum headways of 60 minutes on every route whenever service is operated.

**Standard 3:** FAX should meet the demand for public transit service, at some level, seven days a week.

**Objective B:** To provide a transit service (both fixed-route and demand-responsive) that adequately serves the elderly and disabled population.

**Standard 1:** FAX should maintain fixed-route fare levels for elderly and disabled persons no higher than one half the base fare.



**Standard 2:** All wheelchair lifts should be operable at all times.

**Standard 3:** FAX will continue to operate Handy Ride demand-response service in compliance with the requirements of the Americans with Disabilities Act of 1990.

**Objective C:** To secure a stable and sufficient local funding mechanism.

**Standard 1:** FAX should identify and coordinate funding mechanisms that will address all transportation funding needs in the Fresno Clovis Metropolitan Area.

**Standard 2:** FAX should identify short and long range funding needs, and maximize revenue resources utilizing all funding mechanisms including federal grants, developer impact fees, State enabling legislation and farebox revenue.

## **Goal 2: Service Quality**

FAX will provide a quality, convenient and reliable service.

**Objective A:** To provide reliable and convenient public transit service.

**Standard 1:** FAX should operate its fixed route buses so that on time performance is achieved at least 85% of the time. A bus is considered "on time" if it leaves no more than five minutes after the scheduled departure time.

**Standard 2:** FAX should complete 99.5% of all scheduled trips.

**Objective B:** To provide clean, attractive and comfortable vehicles and facilities.

**Standard 1:** All buses returning to the yard after revenue service should be vacuumed and dusted before being assigned for service the following day.

**Standard 2:** The exteriors of FAX buses should be cleaned at least once a week, when there is inclement weather, or as needed.

**Standard 3:** Bus stops should be serviced weekly, to including sign, bench and shelter repair, litter removal and weed control as needed.

**Standard 4:** In the winter, the heaters on FAX buses should work 100% of the time.

**Standard 5:** In the summer, 100% of all buses on the street should have operable air conditioners.

**Standard 6:** Ensure public information at facility kiosks is accurate and up to date.

**Objective C:** To provide a safe system.

**Standard 1:** FAX buses should, at a minimum, operate in excess of 100,000 miles between preventable accidents, and bus operators should be formally recognized for their safe driving.

**Standard 2:** Buses should be checked daily for proper operation and condition of lights, mirrors, radios and fluid. Detailed mechanical inspections should be done every 1,000 miles. Operations, Maintenance and other employees will be provided safety training at the beginning of their employment and such training will be updated on a regularly scheduled basis.

**Standard 3:** FAX should continue to implement a security program.

**Objective D:** To record and respond to all public comments.

**Standard 1:** FAX will continue to track, evaluate, and follow up to all compliments, complaints and inquiries from the public.

### **Goal 3: Provide Efficient and Effective Service**

FAX will operate an efficient and effective bus system.

**Objective A:** To establish and maintain system-wide productivity indicators.

**Standard 1:** FAX should achieve a 24% farebox recovery ratio.

**Standard 2:** FAX should achieve a system wide standard of 35 boardings per revenue hour system wide.

**Standard 3:** FAX should record and report at least, monthly, the following performance indicators:

- Total Monthly Ridership
- Total Monthly Revenue
- Total Monthly Expenses
- Total Revenue Hours
- Total Revenue Miles
- Farebox Ratio
- Total Operating Expense per Passenger
- Total Operating Expense per Revenue Hour
- Total Revenue per Revenue Hour

- Total Operating Expense per Revenue Mile
- Total Revenue per Revenue Mile
- Passengers per Revenue Hour
- Passengers per Revenue Mile
- Average Weekday Ridership
- Average Saturday Ridership
- Average Sunday Ridership
- Percentage of Scheduled Trips Completed
- Percentage of Trips on Time
- Total Road Calls

**Goal 4: System Image**

FAX will promote its service and image in the community and at large.

**Objective A:** To maintain an active marketing program.

**Standard 1:** FAX should stress the positive impact of its operation in the community through press releases, speeches and involvement in community activities.

**Standard 2:** FAX should become involved in and work with citizens' groups, the Chamber of Commerce, the Downtown Association and other area merchant associations to communicate its services and benefits both to local residents as part of a broader marketing strategy to attract new residents to Fresno who would want to live in a TOD environment.

**Standard 3:** FAX should maintain public outreach programs with area employers to promote transit, carpooling and rideshare programs.

**Objective B:** To provide complete and accurate public transit information.

**Standard 1:** Current bus schedules and system information should be available to the public at all major public facilities, trip generators and transfer points.

**Standard 2:** Service information should be available by telephone to the public at all times.

**Standard 3:** FAX will actively seek out and engage members of Fresno's minority, low income and Limited English speaking populations to listen to their needs and provide meaningful information to them about use of the transit system.

**Goal 5: Private Sector and Citizen Involvement**

FAX will provide opportunities for citizens and private business to participate in public transportation operations.

**Objective A:** To provide opportunities for citizen input into FAX's operations.

**Standard 1:** FAX will hold public hearings, as required by the federal government;

- (a) When there is a change in any fare, except promotional fare changes for up to 180 days.
- (b) When there is a service change leading to a 25 percent or greater change in total revenue service hours or revenue service miles.

**Standard 2:** FAX will coordinate and cooperate with the Fresno Council of Governments (Fresno COG) in its annual "unmet transit needs" process, including participation in the Fresno COG Social Services Transportation Advisory Council (SSTAC) meetings and Public Hearing.

**Goal 6: Integrated Multi-Modal Transportation**

FAX will provide an integrated multi-modal transportation system which facilitates the movement of people.

**Objective A:** Develop a multi-modal transportation network.

**Standard 1:** FAX will provide transit service to all airport and passenger rail facilities in the FCMA.

**Goal 7: Coordinate Transportation, Land Use, and Air Quality Policies**

FAX will coordinate transportation policies with land use and air quality policies.

**Objective A:** Support transportation investments that work toward accomplishing air quality goals, optimize utilization of land and encourage a stable economic base.

**Standard 1:** Evaluate FAX system for air quality, energy, and efficiency impacts.

**Standard 2:** FAX will coordinate with City, County, and Regional agencies to promote efficient "Smart Growth" land use and transportation policy integration.

## **1.2.4 Organization**

### **FAX**

FAX is operated by the City of Fresno and is a department headed by the City's Director of Transportation. The Organizational Structure of FAX is shown on Exhibit 1.1.

### **Fresno City Council**

The Fresno City Council consists of seven members within seven jurisdictions of the City of Fresno, and is the policy making board for FAX. The Council is responsible for setting operating policy and annually adopting the budget. FAX underwent a major reorganization of the Department in FY87. The reorganization eliminated the Research and Development Division. The Fresno COG is under a contract agreement with FAX and is responsible for planning, service evaluation, service development, and public outreach functions. This cooperative agreement between the agencies has eliminated duplication of effort and has resulted in substantial cost savings.

### **FAX Committees**

The DAC was established by the City of Fresno in 2008 and is focused on promoting the inclusion of people with disabilities in all areas of community life. The Commission membership is representative of the diversity of the disabled community. In addition, the Social Services Transportation Advisory Committee (SSTAC) was formed by the Fresno COG Policy Board to aid in its review of transit issues with emphasis on the annual identification of transit needs within Fresno County. These include the needs of transit dependent and transit disadvantaged persons, including the elderly, disabled and persons of limited means. This Advisory Council to the Fresno COG consists of a committee of members from the public who advises the Fresno COG Board on any major transit issues. FAX staff participates as part of this committee on a regular basis.

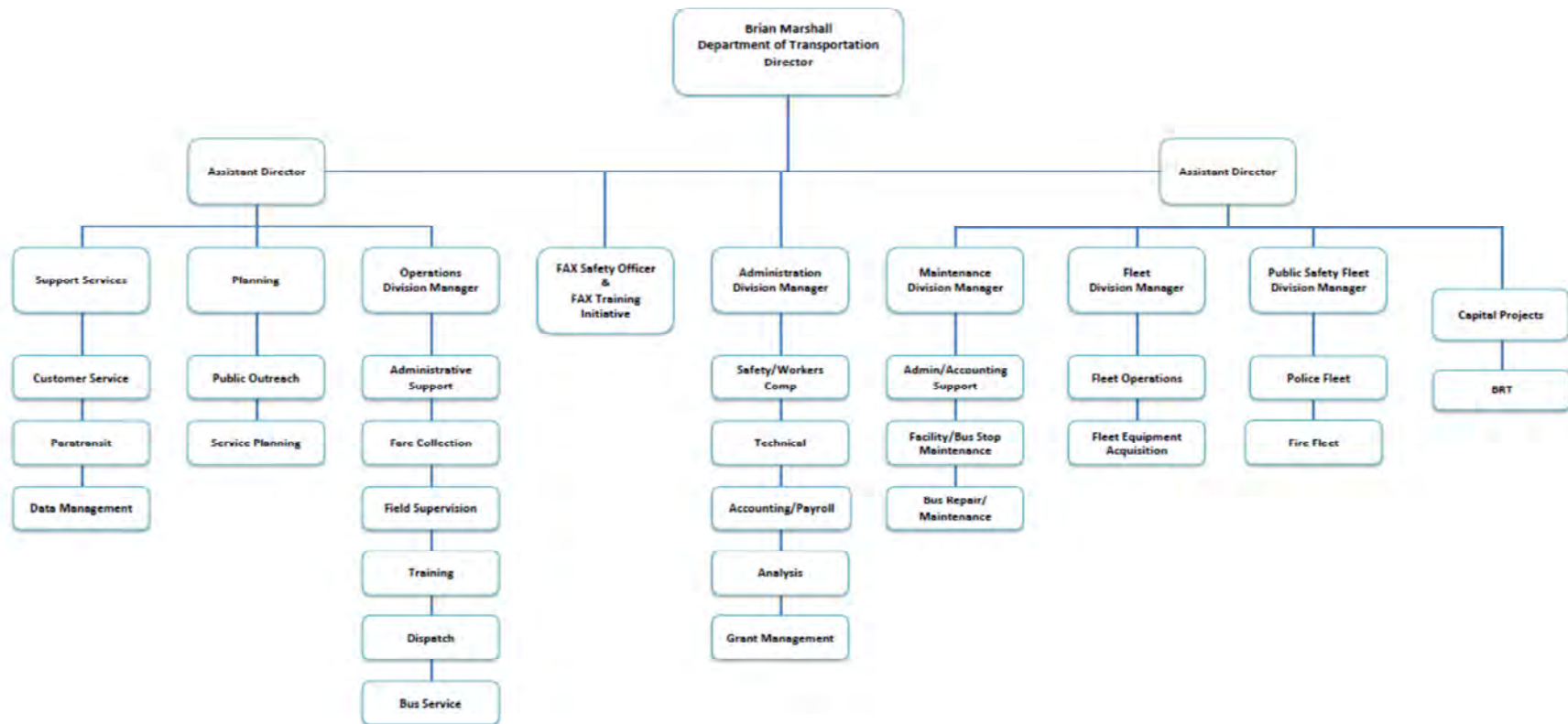
### **FAX Staff**

The Department of Transportation is responsible for the day to day management of FAX and reports directly to the City Manager. FAX consists of five divisions, all headed by a Director of Transportation. Divisions include Administration, Operations, Maintenance, Fleet Management and Public Safety Fleet management.

The Administration Division is responsible for intergovernmental coordination, budgets, grant management, data collection, computer services, personnel, contract administration and policy development.

The Operations Division is responsible for managing the day to day operations of transit service, including driver training. In FY17, FAX vehicle operations will consist of 275 permanent full time bus driver positions, 15 permanent part time bus drivers and 21 Transit Supervisor positions.









Weekday service currently requires an average of 148 drivers with Saturday and Sunday service requiring 85 drivers. The remaining drivers are designated for the extra board, vacation and sick relief. Maintenance is responsible for maintaining the fixed route vehicles, monitoring the maintenance of Handy Ride vehicles, and maintaining bus stops and shelters.

During city wide reorganization in 2010, Fleet Management came under the direction of the Department of Transportation. Fleet is responsible for the repair and maintenance of almost all City vehicles.

In Fiscal Year 2017, Fleet Management was divided into two separate divisions. Fleet Management and Public Safety Fleet Management. Public Safety services all first responder vehicles from the Fire and Police Departments

### **1.3.0 Overview of SRTP**

The SRTP is divided into 5 chapters:

- Chapter 1 provides an overview of FAX and Handy Ride, and the purpose for the SRTP.
- Chapter 2 provides a general overview of the existing FAX and Handy Ride transit systems, including descriptions of current transit services and transit related programs.
- Chapter 3 describes the proposed service improvement plan for FAX and Handy Ride, including recommendations for enhancing customer service and improving mobility and access.
- Chapter 4 sets out the detailed five-year financial plan for FAX and Handy Ride. It also describes the Capital Plans which support the services described in Chapters 2 and 3.
- Chapter 5 provides an overview of the existing City of Clovis transit system, including descriptions of current transit services, recommendations for enhancing customer service, and a detailed five-year financial plan for the transit system.

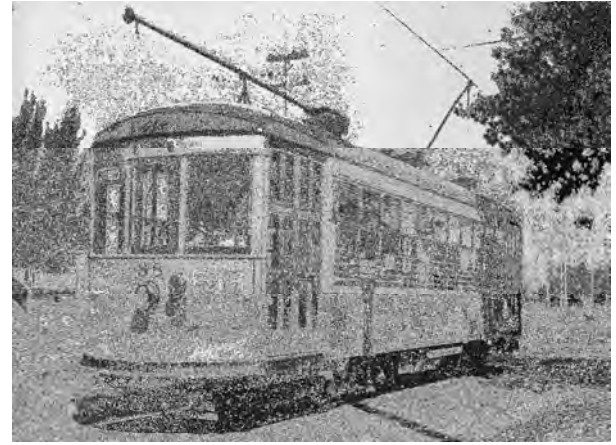
The SRTP includes appendices which provide more detailed information on the Fleet Inventories of each transit agency. In addition, a Glossary of Terms is included in Appendix F to provide assistance in defining transportation related terms. A new Appendix chapter has been added to address Title VI Implementation plans.



## Chapter 2: System Description

### 2.1.0 History of Fresno's Transit Service

Public transit began in Fresno, as in many cities, with horse drawn street cars. The first horse car franchise was issued to the Fresno Street Railroad in 1887, and it began operation in 1889. By the turn of the century, interest in electric streetcars had grown to a point where the Fresno City Railway (FCRY) had been granted a 50 year franchise for the operation of electric streetcars. The system started operations in 1902, and by the end of World War I (now the Fresno Traction and Rail Company) had 50 miles of track. In 1939 the bus service completely replaced the streetcar system. A description of the current services is as follows:



#### Fixed Route Service

From the 1930's to 1961, fixed route bus service was provided by Fresno City Lines, Inc., which was a private corporation. In 1961 the corporation sought to discontinue public transportation due to increasing deficits. The City of Fresno entered into a lease purchase agreement with Fresno City Lines, Inc., in 1961, and established the City of Fresno as the operator of transit services in the Fresno metropolitan area. The early system configuration consisted of a modified radial pattern with all routes originating in the downtown area. This pattern remained essentially the same until 1977. During FY77, FAX instituted numerous changes which increased service to nearly all of the urbanized FCMA, the most significant being the implementation of a grid system consisting of 19 lines in place of the former 13 line radial system. The change was made possible by the purchase of 50 full sized buses. Today FAX operates 16 routes on 15, 20, 30, 45, 50, and 60 minute headways. The system continues to be operated on a modified grid pattern with eight routes intersecting in downtown Fresno, four connecting at Manchester Transit Center, and six making connections at The Market Place Shopping Center.

#### Demand Responsive Service

Specialized transportation services for Fresno's elderly and disabled were started in 1967 by the West Fresno Federation, a nonprofit corporation. The City provided increasing support to the program, and in 1975 assumed the service. In April 1977, FAX began operating Handy Ride service. Handy Ride operates as a generalized demand responsive service for those who are unable to use the regular fixed route service due to a disability. Handy Ride offers advanced reservation and limited subscription service to "ADA Certified" riders. In order to effectively carry out the provisions of the Americans with Disabilities Act of 1990, FAX awarded the contract for Handy Ride service to Laidlaw (formerly Mayflower) Contract Service effective April 3, 1993. In December 2005, MV Transportation assumed the contract and provided service until December 2012 when the contract was awarded to Keolis Transit America to continue paratransit operations. Service hours for Handy Ride mirror those of FAX fixed route service, and reservations are

required one day in advance of the scheduled trip in order to comply with ADA regulations. A limited number of will calls are provided each day based on availability, with priority going to medical appointments. FAX is in full compliance with the ADA. For a more detailed discussion of the ADA, refer to the Americans with Disabilities Act Section 2.3 or the FAX ADA Paratransit Service Plan Updated in June 2003.

**2.2.0 Bus Transit**

FAX’s service area consists of the urban spheres of the Fresno City and Clovis City General Plans with a combined Census 2010 population of 646,648. Within the urban spheres are the Cities of Fresno (2010 Census population of 494,665) and Clovis (2010 Census population of 95,631). The 2010 Census population of the Fresno-Clovis Metropolitan Area (FCMA), an area slightly larger than the Fresno and Clovis urban spheres, is 664,000. The FCMA contains 299 square miles with an overall average population density of 2,200 persons per square mile.

As shown in Table 2.1 below, the FCMA’s population has increased 130% in the last 40 years.

Table 2.1 FCMA Population Trend		
Year	Population	Source
1970	289,200	Decennial Census
1980	358,800	Decennial Census
1990	477,400	Decennial Census
2000	570,299	Decennial Census
2010	664,000	Decennial Census

**2.2.1 Bus Services**

The core bus routes which are operated by FAX and other service agencies are as follows;

**City of Fresno**

The City of Fresno provides two categories of public transportation service in the FCMA. First, the Department of Transportation/FAX provides fixed route service for the general public seven days a week. Secondly, Handy Ride service, which is contracted through Keolis Transit America, provides demand responsive service seven days a week. Handy Ride generally serves those persons unable to use the regular fixed route bus service.

**FAX Fixed Route** - The Fresno-Clovis Metropolitan Area (FCMA) has developed north, west and east of the Central Business District (CBD). The Central Business District is the regional and local governmental center for federal, state, county, city and educational offices. In addition, Community Regional Medical Center is also located in the downtown triangle, which is bounded by Fwy 41, Fwy 180 and Fwy 99. The CBD is a regional financial and legal center, as well as regional shopping center (Fulton Mall). The Fresno Convention Center, two major hotels, various private office buildings, and the railroad and bus station are also located in this area. Eight of FAX's

sixteen routes converge in the CBD. There are six other regional shopping centers located within the FCMA. They include: Fresno Fashion Fair (First/Shaw), Fig Garden Village (Palm/Shaw), Manchester Center (Blackstone/Shields), Sierra Vista Mall in Clovis (Clovis/Shaw), the Market Place at El Paseo (Fwy. 99 and Herndon) and the Market Place at River Park (Blackstone/El Paso). While FAX operates service to all but one of these Centers, Manchester Center and the Market Place at River Park are major connection locations. Four routes converge at the Manchester Transit Center to form a major transfer point in Fresno's geographic center, and six routes serve Market Place at River Park in north Fresno.

Other commercial land uses are spread throughout the FCMA with strip commercial concentrated along Shaw and Blackstone Avenues. Additional office commercial is located along Shaw Avenue, N. First Street, and in the vicinity of the Fresno Yosemite International Airport (FYI). Significant commercial development continues in the Woodward Park community near the River Park Business Complex (Friant/Audubon) and Kaiser Permanente Hospital (First/Nees). The FAX network serves various high schools, colleges and universities as well as numerous parks and entertainment complexes.

FAX operates on a modified grid system and provides service on 16 transit corridors on weekdays and Saturdays and Sundays. The route system is composed of nine lines that provide service in two directions to and from downtown and five cross-town lines. The system is designed to facilitate bus travel by making transfers convenient between intersecting lines and between eight lines which converge in the CBD. The FAX system map is shown in Exhibit 2.1.

**Handy Ride Demand Response** - Handy Ride's service area is bounded by Copper to the north, Central Avenue to the south, Temperance Avenue to the east, and Polk Avenue to the west as identified in Exhibit 2.2. Handy Ride service is available to persons who, because of an impairment or disability, are unable to use Fresno Area Express fixed route system. Population numbers developed for the FAX Americans with Disabilities Act Paratransit Service Plan indicates that the FCMA contains between 7,000 and 12,500 persons who would be eligible for paratransit service under these guidelines.

## **Fresno County**

Fresno County reimburses FAX to partially offset operating costs for fixed route and Handy Ride services in the unincorporated urbanized area. As of the end of 2016, an estimated 489,000 people lived within one-half of a mile of a FAX route. Of those, 45,000 are residents of Fresno County. Fresno County also provides support for rural transit services as described below;

- **Fresno County Rural Transit Agency (FCRTA)** - In August 1979, a joint powers agency was created to coordinate and operate rural transit services in Fresno County. FCRTA, through contract providers or private carriers, provides intra city and intercity service to rural communities and downtown Fresno. Intercity service to Fresno is provided via municipal providers and through Greyhound and Orange Belt Stages. The rural systems interface with FAX in downtown Fresno.

- **Consolidated Transportation Service Agency (CTSA)** - In 1980, the Fresno Council of Governments (Fresno COG) adopted "Assembly Bill 120 Action Plan for Fresno County" (AB120, September 1979) to coordinate social service transportation in Fresno County. The Plan co designates the City of Fresno and the Fresno Economic Opportunities Commission (FEOC) as the CTSA for the Fresno Metropolitan Area and the City of Clovis as the CTSA for the Clovis Urbanized Area. The Fresno County Rural Transit Agency and FEOC are the co designated CTSA for the rural area. Social service transportation in the FCMA began in April 1983 and was initiated in the rural county area in May 1983. Services are provided through vehicle timesharing, ridesharing and consolidation and include those agencies and services listed on Exhibit 2.3.
  
- **Private Operators** - Intercity bus service to the FCMA is provided by Greyhound Lines, Transportes Inter-Californias, and Orange Belt Stages while Amtrak provides intercity rail service. The FCMA is served by numerous private taxi companies and a dial a ride service providing shared ride, demand responsive service. Other private operators are Lyft and Uber, a transportation network company (TNC) connecting paying passengers with drivers who provide the transportation on their own non-commercial vehicles. Several nonprofit agencies and private companies operate services designed to accommodate disabled riders. Exhibit 2.3 lists current public and private transportation providers in the FCMA.
  
- **Ridesharing** - The Fresno COG is responsible for administering the Program and retains a Rideshare Coordinator to implement the Program. The Rideshare Coordinator has been instrumental in developing an effective outreach program to major employers throughout Fresno County for providing match lists for both carpools and vanpools. In addition, through Measure C, a ½ cent sales tax approved in 2006, the Fresno COG manages a Taxi Scrip program that allows seniors 70 years of age and older to purchase taxi scrip at a reduced rate. Measure C also provides a subsidy for vanpools originating in Fresno County.
  
- **Regional Vanpool Program** - The CalVans vanpool program is operated by Kings County Area Public Transit Agency (KCAPTA) in five Valley counties (Fresno, Kern, Kings, Madera, and Tulare), and in Monterey and Ventura Counties. KCAPTA is receiving State and national recognition and is expected to soon become a successful national model replicated throughout the United States. The multi-county Valley transit agency is at the forefront of this pioneering vanpool effort with about 230 vanpools currently operating region-wide.

KCAPTA is a Joint Powers Agency comprised of Kings County and the Cities of Avenal, Lemoore, and Hanford. The Agency is responsible for all transit functions in Kings County, its cities and communities. The Agency also operates route service between Hanford and Visalia, as well as between Hanford and Fresno. The CalVans vanpool program provides a high quality, low cost travel option for rural to rural commuters including farm workers, prison workers and teachers.

The Merced County Association of Governments (MCAG) commissioned a study to identify markets that can support inter-county commuter express transportation services in the San Joaquin Valley region. The study, entitled "San Joaquin Valley Express Transit Study (May 2009)", finds that in the San Joaquin Valley "...for the foreseeable future, the expansion of ridesharing and

vanpool opportunities should be the primary investment to increase transportation choices for inter-county commuters in most of the region. While the whole of the Valley can benefit from enhanced ridesharing opportunities, this will be the primary alternative to single-occupancy vehicle travel for most inter-county commuters travelling to employment destinations other than those along northern SR 99 corridor, the San Francisco Bay Area, and Sacramento.” The study further supports formation of a Joint Powers Authority; use of a single valley-wide ride-matching and vanpool website; and enhanced coordination between participating COGs.

**Figure 2.1: FAX Service Area Map – 3/4-Mile Catchment Area from Existing Routes**

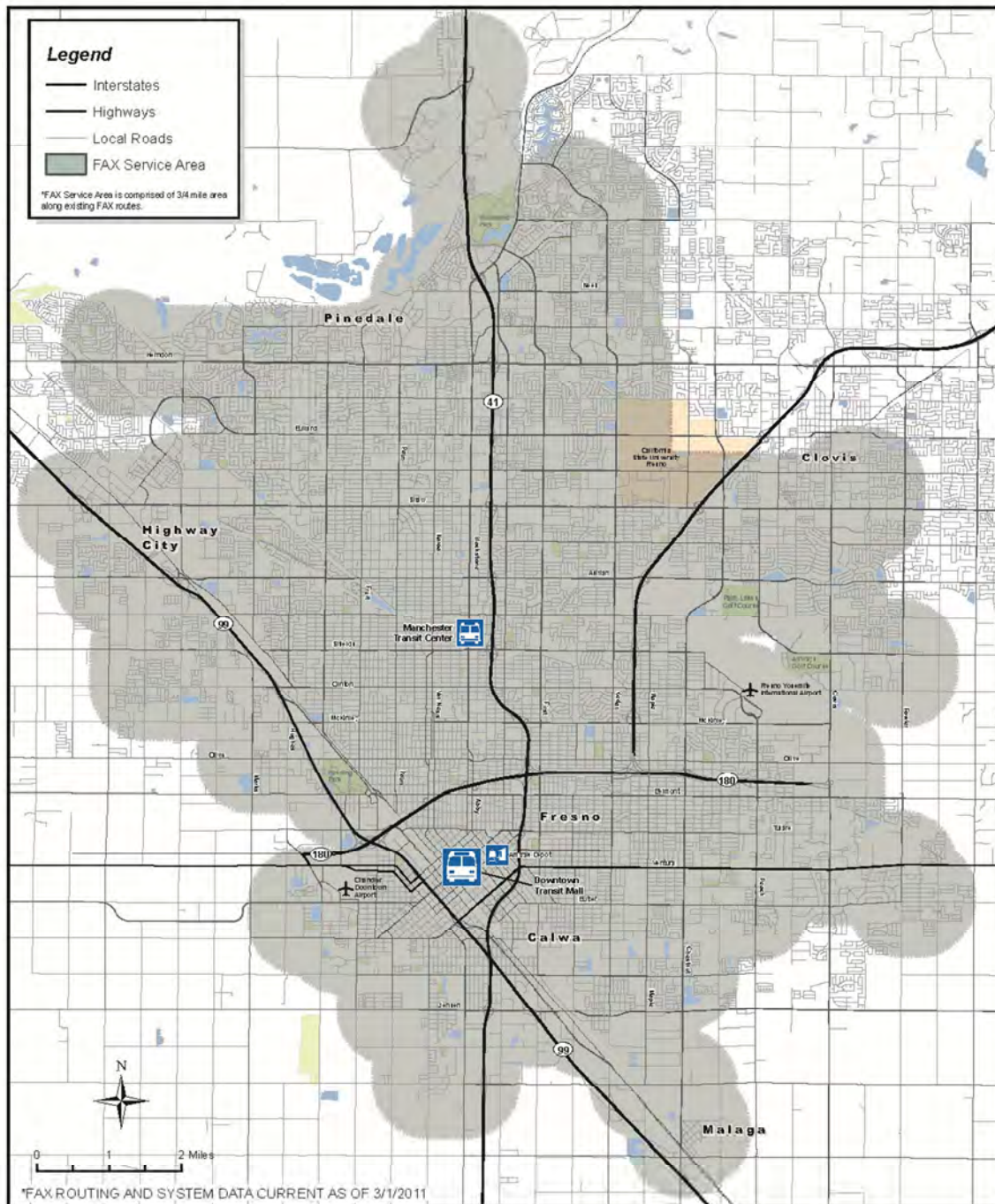




Figure 2.2: FAX Route Map

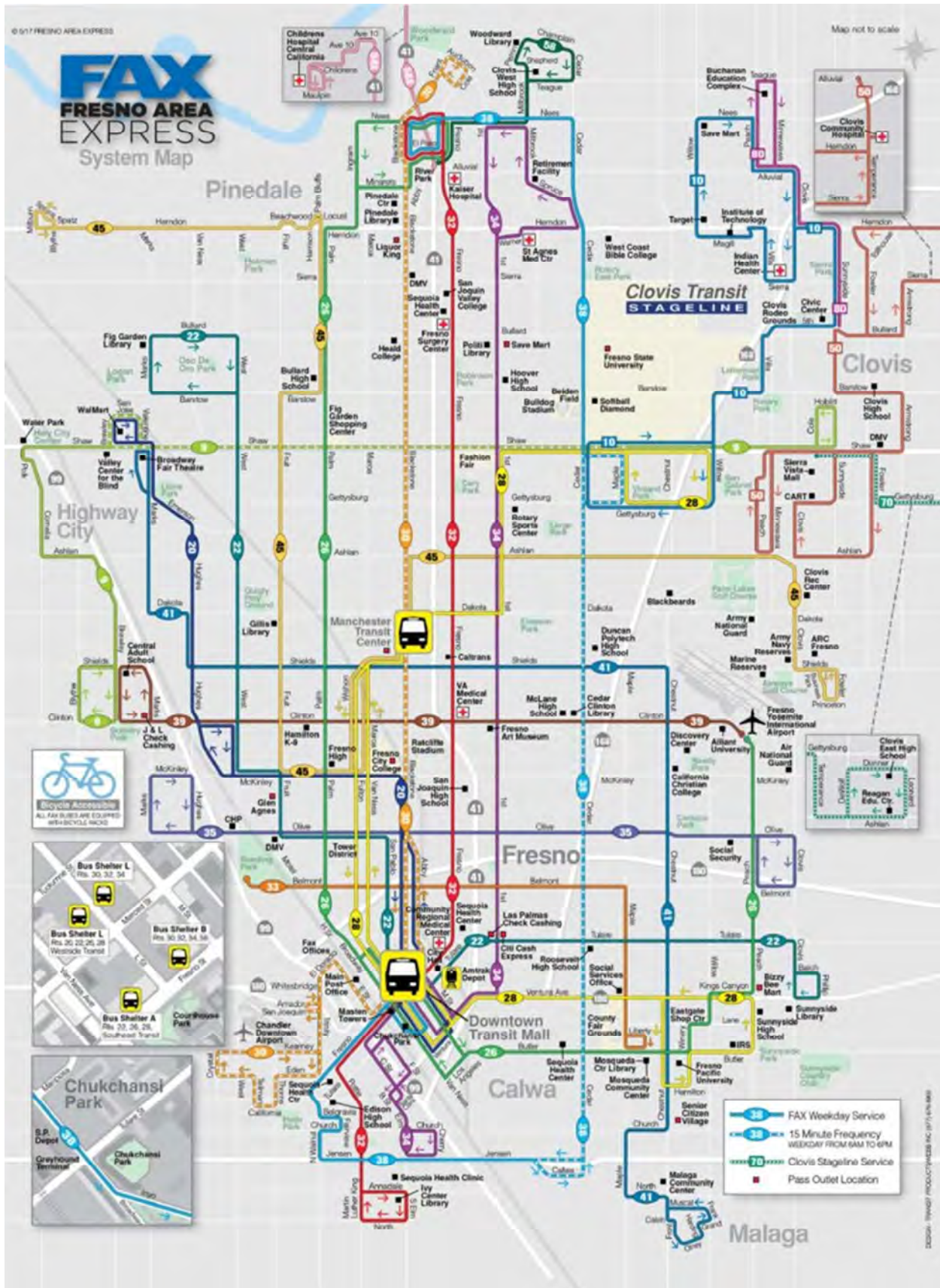
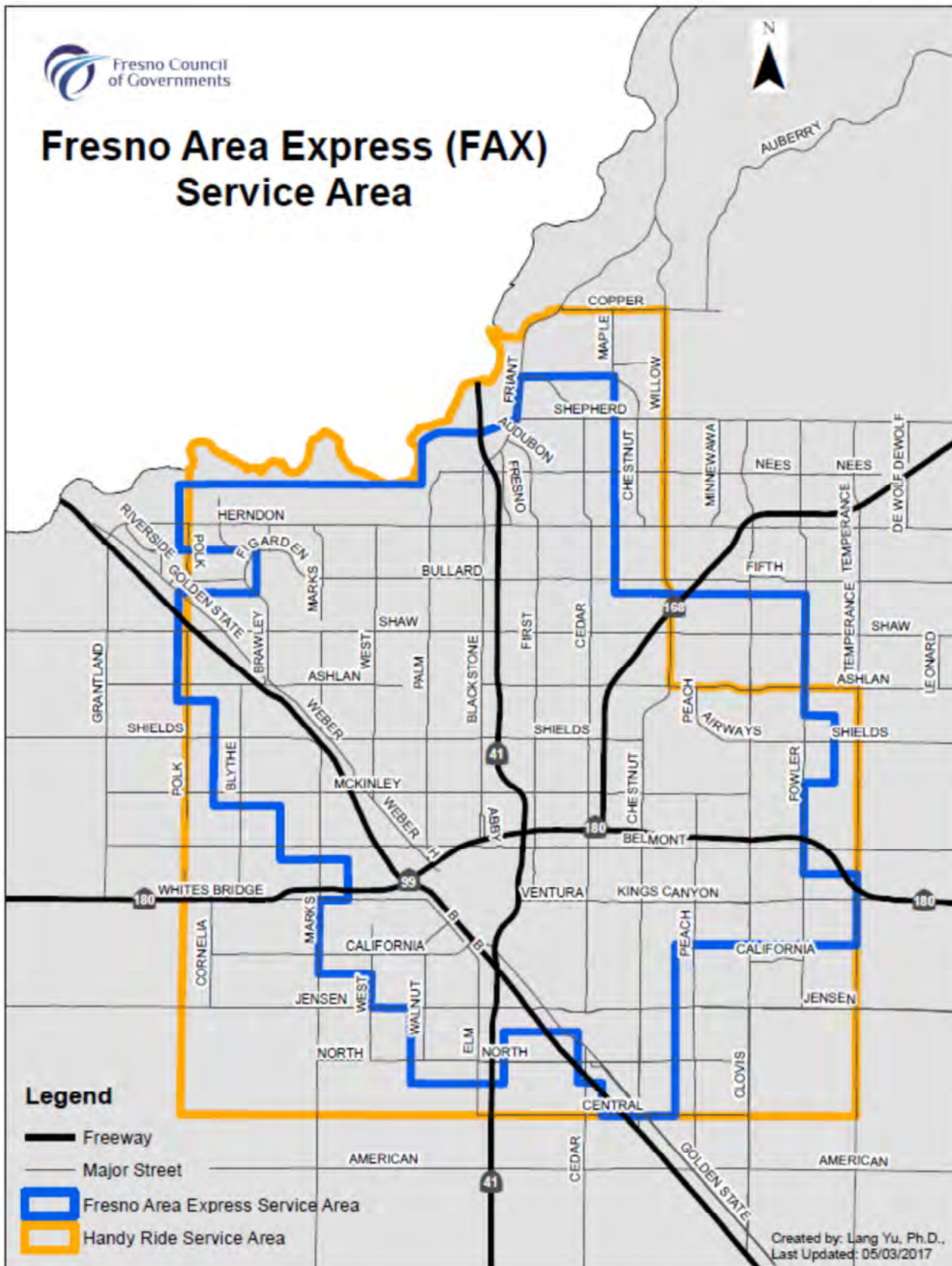




Figure 2.3 Handy Ride Service Area



**Table 2.3 Service Providers in the FCMA 2016**

**BUS LINES & VAN SERVICE**

Clovis Roundup\*  
 Clovis Stage Lines\*  
 Fresno County Consolidated Transportation Agency\*  
 Fresno County Rural Transit Agency\*  
 Fresno Handy Ride\*  
 Fresno Area Express\*  
 Greyhound Bus Lines  
 Fresno Transportation Center  
 Transportes Inter Californias

**BUSES CHARTER & RENTAL**

Fresno Transportation Center  
 Golden Eagle Charter  
 Limo For You  
 Absolute Luxury Limo  
 Classic Charter  
 Rapid Connection  
 Orange Belt Stages  
 Via Trailways

**BUSES -- SCHOOL TRANSPORTATION**

**SERVICES**

Laidlaw  
 Fresno County Rural Transit Agency  
 Access Medical Transport  
 Affordable Transport  
 American Ambulance  
 Comfort Med Trans Inc.  
 Fresno Medical Transportation Company

**TAXICABS**

A1 Yellow Cab  
 A-1 Taxi Cab  
 AA Yellow Cab  
 AAAA Yellow Cab  
 Ace Yellow Cab Co.  
 Airport Cab Company  
 Airport Taxi Cab  
 Alpha Cab  
 American Taxi  
 American Yellow Cab  
 Azteca De Cab  
 Bulldog Cab Co.  
 City Cab Company  
 Checker Cab Company  
 Clovis City Cab Company  
 Clovis Yellow Cab  
 Faretta Cab Company  
 Fiesta Cab Company  
 Fresno Independent Cab  
 Fresno Yellow Cab  
 Golden Express Taxi  
 One ASAP Hour Cab  
 Same Day Express Delivery  
 Scrip Taxi  
 Taxi Azteca  
 Taxi El Cora  
 Taxi Latino  
 Taxi Mexico  
 Taxi Tren  
 Taxi Value Central Company  
 USA Taxi Cab Co.  
 White Star Cab Transportation  
 Yellow Cab  
 Yellow Cab of Fresno  
 Yosemite Cab  
 \* Public Agency

*Source: Pacific Bell Yellow Pages.*

## 2.2.2 Bus Fleet

FAX- FAX's policy is to operate equipment which is suitable to the needs of the public, and is cost-effective to operate and maintain. In making decisions regarding vehicle procurement, FAX considers passenger needs and comfort, standardization of parts and equipment, ease of operation and maintenance, and conformity to the latest clean air, accessibility and safety requirements.

FAX currently has an active fleet of 117 vehicles, which includes over 110 Compressed Natural Gas buses. In addition, all new FAX buses are low floor buses, which are outfitted with ramps that are much easier to maneuver than traditional lifts. The low floor buses also have the ability to lower or kneel to reduce the angle of the ramp. FAX also uses three 30' CNG buses that replaced the 28' cut-away transit coaches previously used.

FAX's next major order will be (9) Gillig CNG 40-foot buses, anticipated to arrive in late 2017, for the BRT revenue service scheduled to start early 2018. FAX continues to showcase its commitment to cleaner vehicles and a cleaner environment.

All new buses meet the accessibility requirements of the Americans with Disabilities Act (ADA), the standards mandated by the Federal Clean Air Act (CAA), the California Air Resources Board (CARB) exhaust emissions standards, the Federal Transit Administration (FTA) First Article Bus Durability Tests and the California Highway Patrol (CHP). Buses in the active fleet operate an average of 45,000 miles annually. An inventory of the current bus fleet is presented in Table 2.2. Bus replacement needs are detailed in Chapter 4 of this document.



**Table 2.2  
FAX Fleet Inventory**

#	Make	Model	Year	Comments
9	Gillig	CNG	2017	40' Low Floor-Ramp
17	Gillig	CNG	2016	40' Low Floor-Ramp
10	Gillig	CNG	2014	40' Low Floor-Ramp
3	Gillig	CNG	2012	30' Low Floor-Ramp
9	Gillig	CNG	2011	40' Low Floor-Ramp
1	New Flyer	Hybrid (Gas/Electric)	2009	40' Low Floor-Ramp
16	New Flyer	CNG	2009	40' Low Floor-Ramp
14	New Flyer	CNG	2006	40' Low Floor-Ramp
2	New Flyer	Hybrid (Gas/Electric)	2005	40' Low Floor-Ramp
10	New Flyer	CNG	2005	40' Low Floor-Ramp
14	Orion	CNG	2003	40' Lift Equipped
6	Gillig	Phantom	1999	40' Low Floor
111	<b>Total Active Fleet</b>			

**Handy Ride** - Handy Ride offers demand responsive, curb to curb service seven days a week during the same hours as the Fixed Route service. Handy Ride service is provided throughout the service area covered by the Fixed-Route, and additionally extends out ¾-mile further than FAX routes. The current service area is bounded by Copper to the north, Central Avenue to the south, Temperance Avenue to the east, and Polk Avenue to the west. The requests for service are accepted on a previous day basis for ADA Certified City of Fresno residents and visitors, and on the same day, if space is available, for ADA and Handy Ride general passengers. In January 2013, a contract was awarded to Keolis Transit America, Inc. for the provision of the Handy Ride service. FAX] monitors Keolis in order to assure compliance with the city contract and with the ADA requirements. Handy Ride's fleet is composed of 46 wheelchair lift equipped mini buses and 9 sedans, all operated and maintained by Keolis Transit America.

### **2.3.0 Accessible Transit Service**

In 2008, the City of Fresno created the Disability Advisory Commission (DAC). The Commission's charge is to advise the Mayor, City Council and staff on issues affecting persons with disabilities and seek avenues for improving services for people with disabilities in the larger community. Included in this charge is public transportation. FAX staff are members of the commission, providing input to the DAC and providing sensitivity training to bus operators.



### 2.3.1 Americans with Disabilities Act

The Americans with Disabilities Act (ADA) was signed into law on July 26, 1990. FAX implemented key ADA requirements and compliance regulations issued by the U.S. Department of Transportation (DOT) and the Architectural and Transportation Barriers Compliance Board as described below:

- All newly constructed transit facilities such as bus stops and transit centers must meet ADA accessibility design guidelines. The renovation of the Manchester Transit Center in 2001 helped to meet the standards. Over the last year new bus stop signs which meet the standard have been installed Citywide, and FAX has improved over 570 bus benches and 190 shelters to meet ADA requirements.
- All procurement of bus vehicles must meet the ADA accessibility design guidelines.
- Information distributed to the public is also required to be made available in accessible formats, such as audio cassettes, discs, large print, via telephone, etc.
- As an operator of a fixed route service, FAX is required to provide complimentary paratransit services. A combination of accessible fixed route transit service and paratransit services are provided for the transportation needs of individuals with disabilities and senior citizens.



The FAX ADA Paratransit Service Plan and subsequent updates have been adopted by the Fresno City Council and approved by the FTA. The Paratransit Service Plan addresses FAX's responsibilities under the ADA for both fixed route and demand responsive service. The FAX Complementary paratransit service has been in complete compliance with federal requirements since 1995.

Among other things, these mandated changes required FAX to expand Handy Ride hours of service to match those of FAX fixed route service.

### 2.3.2 Accessible Bus Service

FAX designated all buses as accessible effective July 1, 1997. All of FAX's buses are equipped with devices to secure a wheelchair or other mobility devices and with lifts and/or ramps for boarding passengers using common mobility devices. Buses purchased since 1993 are equipped with automatic announcements to assist passengers with visual impairments. The announcements are activated when the doors are opened and provide information on the route number and destination.

FAX has adopted standard operating policies and procedures for compliance with ADA which include the following: regular maintenance and prompt repair of accessibility equipment; providing assistance with boarding; calling out bus stops and stations; providing alternative transportation if

a passenger cannot be boarded because of failure of accessibility equipment; allowances for service animals; and specialized training for operators.

### 2.3.3 ADA Paratransit Services

Paratransit service is a specialized form of transportation operated for people, who, because of their disabilities cannot use conventional public transit service. As an operator of a fixed route bus service, FAX is required under ADA to ensure that paratransit service is provided to eligible individuals with disabilities. The level of service provided must be comparable in terms of hours of service and area served to the service provided through the fixed route bus system. Since 1990, FAX has been in full compliance with ADA paratransit provisions.

FAX - FAX contracts for paratransit services with Keolis Transit America. Eligible riders call Keolis to schedule their trips and Keolis provides the trips accordingly. Keolis also provides subscription trips according to policies developed and adopted by FAX.

In FY16, FAX's annual operating cost for paratransit services was \$6.4 million. Handy Ride provided 201,826 paratransit trips during this period.

### 2.4.0 Transit Maintenance Program

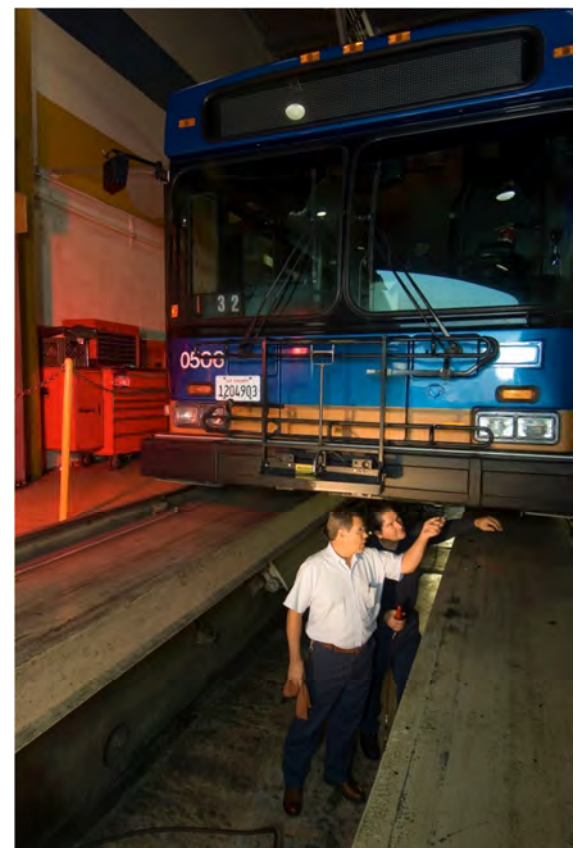
FAX takes a functional approach to the maintenance and servicing of all vehicles, equipment, and facilities, and emphasizes preventative maintenance, comprehensive inspections and overall efficiency and cost-effectiveness to ensure reliable and safe transit service.

The mission of FAX's Maintenance Division is to provide clean, reliable, safe and well maintained vehicles, equipment, and facilities through the efforts of a competent and committed work force using modern facilities, tools and equipment. The purpose of FAX's Maintenance Plan is to provide consistent, systematic and integrated program guidance that will enable the Maintenance Division to properly maintain and service the assigned vehicles, equipment and facilities in support of revenue operation. Policies of the Maintenance Division reflect the following:

- Standardized procedures and practices;
- Compliance with all applicable regulatory requirements;
- An effective maintenance program.

Key components of FAX's current Transit Maintenance Program are as follows:

- A comprehensive bus vehicle maintenance program that includes daily maintenance;
- An aggressive preventative maintenance and component change out program;



- A running repair procedure to avoid removing vehicles from service;
- A centralized overhaul and repair program.

## **Maintenance Program**

The following maintenance functions are described below:

- Bus Maintenance
- Facilities Maintenance

## **Bus Maintenance**

Components of FAX's Bus Maintenance program are as follows:

Daily Servicing - Daily servicing items include the following:

- Vault pull
- Driver defect card analysis
- Fuel island servicing
- Interior/exterior cleaning
- Seat and window cleaning/replacement

Preventative Maintenance - Regular maintenance is performed at prescheduled cycles to ensure optimal performance, efficiency, safety and reliability of assigned equipment. Preventative maintenance inspections are performed within four hundred miles of scheduled cycles. Table 2.3 shows FAX's Preventative Maintenance cycles.

**Table 2.3  
FAX Maintenance Schedule**

<b>P.M. Type</b>	<b>Inspection</b>	<b>Cycle</b>	<b>Within</b>
<b>Minor/safety</b>	A	6,000/7,000 miles	+/- 400 miles
<b>Intermediate</b>	B	12,000/14,000 miles	+1,000/-400 miles
<b>Intermediate</b>	C	18,000/21,000 miles	+1,000/-400 miles
<b>Major</b>	D	24,000/28,000 miles	+1,000/-400 miles
<b>Special Service</b>	Winter	Seasonal	
	Summer	Seasonal	

Note: Services vary by mile ranges depending upon warranty and manufacturer's requirements.

**Running Repair/Corrective Maintenance** - This establishes a procedure to repair items identified by operators during the daily operation of a bus. These repairs are usually completed without removing or withholding a vehicle from normal service. Maintenance repairs or actions for road calls are documented in the fleet information system to assure that proper corrections are made, to provide for consideration of fleet inspections, and to modify the Preventative Maintenance Program, as needed.

**Scheduled Component Change Out** - FAX's component change out program is based on manufacturer's recommendations, failure history and failure analysis. Designated components are tracked and monitored to ensure that the program is efficient and cost-effective. This program allows for the preparation of complete standardized kits with standardized replacement practices for improved efficiency.

**Overhaul and Repair Program** - The O & R Program is a centralized maintenance program which includes paint and body repair, upholstery, farebox repair, component overhaul, and heavy repair/rebuild of engines and other components.

**Facilities Maintenance**

FAX's Facilities Maintenance includes overall environmental regulatory record keeping and oversight; hazardous waste disposal and manifests; timely and reliable maintenance, preventative maintenance, inspections, repair and servicing of FAX's communication system, buildings, shelters, grounds, bus stops and related equipment.



FAX's maintenance facility consists of 49,000 square feet and can accommodate up to 150 buses. However, limited bus parking space has prevented this facility from serving more than 125 buses. The Maintenance Division provides standard bus maintenance and has facilities for body work, painting, welding, machine tooling, and air conditioning. Since the facility enables FAX to perform nearly all maintenance work in-house, reliability of the fleet maintenance is ensured.

In FY16, FAX's service level required approximately 8,000 gallons of diesel fuel per month and an additional 82,000 GGE of compressed natural gas per month. FAX has four underground diesel fuel storage tanks each providing 20,000 gallons of capacity. FAX has one of the largest CNG fueling stations in the area, which supplies the required CNG fuel for the 110 CNG buses.

**Handy Ride** - Handy Ride maintains a total of forty-six vans and nine sedans which are maintained and serviced by Keolis Transit America. The preventative maintenance schedule for Handy Ride vehicles include a regular tune-up of vehicles to ensure that the maximum performance and fuel economy are obtained. Gasoline tune-ups are performed at 12 months or 24,000km/15,000 mile intervals. Additional vehicle components such as brakes and oil filters are changed at various intervals according to Keolis' certified inspection interval and procedures maintenance plan.

## **2.5.0 Transit Passenger Facilities**

This section describes FAX's passenger facilities including transit centers, transit stop improvements and amenities. It also addresses actions to improve operations and passenger convenience as part of FAX's goal to enhance customer focus and improve mobility and access.

### **2.5.1 Transit Improvements and Amenities**

#### **FAX**

**Bus Stop Accessibility** - FAX maintains one transfer center at Manchester Mall and three additional transfer centers in the downtown area, all within the City of Fresno. The transfer centers are safe and convenient facilities for bus-to-bus transfers as well as for inter-modal passenger transfers. Due to age and usage, periodic rehabilitation of FAX's transit amenities have been necessary to maintain them in an attractive, safe and functional condition. Examples of rehabilitation needs include sidewalk repair, painting and repair of structures, and replacement of benches and trash receptacles. In 2002, the Manchester Center was improved and upgraded to accommodate more client service.

In addition, FAX has more than 1,200 bus stops which need to be maintained. An ongoing transit stop improvement program provides convenient passenger access and assures safe operation of transit service. Passenger amenities such as shelters, benches, information signs, and trash receptacles are provided at many transit stops. Transit stop improvements are provided by FAX and by private developers as conditions of project approval by the City.

**Bus Stop Accessibility Improvements** - To assure compliance with ADA, FAX established a program to construct passenger waiting pads, sidewalk extensions, and wheelchair curb ramps where needed. These bus stop improvements benefit transit operations by improving the efficiency of boardings by disabled patrons and reducing the need for ADA paratransit trips. These improvements also provide improved accessibility to non-disabled transit riders. In addition, it should be noted that these improvements are the responsibility of the City of Fresno and not the Transit operator.



**Bus Stop Shelter Program** - FAX shelters are designed to include a brown frame with a dome, lighting for security, and a bus bench and trash receptacle. Design and placement of shelters complies with ADA guidelines. FAX inspects, cleans and maintains shelters as required. FAX works closely with the community in providing shelter service and has allowed one of the local high schools to paint the bus shelter with their school colors.

**Transit Stop and Information Signs** - FAX maintains over 1,200 bus stop information signs throughout the service area. In 2012 FAX replaced all of its bus stop signs with more customer friendly, dual sided signs. In 2016, an additional sign for the visually impaired was installed at all stops. These signs include raised print as well as Braille.

**Bus Stop Amenities** - Benches are provided at over 500 bus stops for the comfort of waiting passengers, and are often provided at bus stops with concentrations of elderly and mobility impaired patrons. Benches are installed based on passenger request, ridership and acceptable site conditions, although the current bench program consists primarily of replacement of old or damaged benches.



**Bikes on Transit** - In 1997, FAX installed bike racks on all fixed route buses. The Bikes on the Bus Program significantly enhanced mobility and access for cyclists in the Fresno City area and helped to increase transit ridership by creating a new ridership market. Beginning in 2008, FAX began installing three position bike racks on a limited number of buses. As funding permits, FAX will continue retrofitting buses to the higher capacity bike rack. To date, all FAX buses have bike racks which can hold at least two bicycles at a time. Future bus procurements will include a three position bike racks.

**2.6.0 Fare Structure**

FAX’s regular adult fare is \$1.25 which became effective January 10, 2011. FAX’s Senior/Disabled one way fare is 60 cents. Beginning in 2005, FAX introduced the Metro Pass, which allows passengers access to unlimited use of the FAX and Clovis fixed route systems. See Table 2.4 for Fare Structure.

**Table 2.4: FAX Fare Structure**

Fare Category	Adult Fare FAX	Adult Fare HANDY RIDE
Single Ride	\$1.25	\$1.50
20 Tokens/50 Tokens	\$ 22.50/\$55.00	N/A
#Metro Pass	\$48.00 (unlimited rides)	\$48.00 (Valid for up to 60 rides)
Children under 6 and Trolley Rides	Free	N/A
	Senior/Disabled Fare FAX	Senior/Disabled Fare HANDY RIDE
Single Ride	\$ .60	\$1.50
Monthly pass	\$24.00	\$48.00 (Valid for up to 60 rides)

# The FAX Metro Pass is for use on FAX and Clovis Stageline services

## **2.7.0 Customer Services**

FAX has made a commitment to provide high quality service, and to portray a positive image of FAX, Handy Ride and public transit in general by providing customer services described below:

### **2.7.1 World Wide Web**

FAX as part of the City of Fresno maintains a World Wide Web page on the Internet (<http://www.fresno.gov/fax>) which includes maps and schedules of the transit system.

### **2.7.2 Public Information Programs**

Public information is the cornerstone of a successful transit system. FAX's public image has been enhanced and shaped by a focus on accuracy and consistency of message. Described below are various information services and programs FAX offers to meet the needs of our customers.

**Information Services** - FAX provides transit information and trip planning services by phone, through mail or in person. FAX's maps and schedule guides are available in over 30 locations citywide. In FY 2004, FAX introduced the 621-RIDE number which provides easier access for passengers to all FAX services. FAX has installed announcements on all buses which provide passengers with bus stop locations and times while on the buses. FAX has also installed On-Street Signs at the Manchester Transit Center, Downtown Shelters, Fresno State University and other locations, which provide actual real arrival and departure times for all routes while passengers are waiting for instant assurance that they have not missed their bus. In the past year, FAX completed installation of an Interactive Voice Response system (IVR) that allows passengers to call in and receive scheduled times by route and stop.

**Manchester Information Center** - FAX operates a walk-up Customer Service Center at the Manchester Mall in central Fresno. The center allows customers to receive personalized trip planning, pick up schedules, purchase passes and tickets, and register a passenger suggestion or complaint.

**Outreach and Partnership Programs** - FAX provides public outreach to various social service groups in the area including senior groups, Students and new immigrants in an attempt to familiarize citizens with the advantages of using transit. In FY16, FAX staff attended 11 different events in the community. Staff provided these public groups with information on how to use public transit, how to read schedules and maps, and about the role transit plays in protecting the environment.

**Multi-cultural Marketing Programs** - FAX provides multi-lingual materials and use of multi-lingual advertisements to reach, educate, and promote ridership among the multi-cultural communities. According to 2014 ACS data the FAX service area is comprised of 47.2% minority population groups who speak more than 9 languages requiring translation of key FAX documents. And 42% or over 204,000 people need language assistance to understand and communicate their basic travel needs. (See the detailed maps of minority, low income and limited English Proficiency population concentrations in the Title VI Appendix of this document).

**Employer Services Program - FAX's** employer services program is designed to benefit local employers by increasing awareness and interest in FAX services. Among the services offered are free informational and promotional materials, on-site promotions, and trip planning assistance. FAX also provides service to several major employers in the area and continues to seek ways to encourage Single Occupant Vehicle riders to consider alternative transportation choices.

**Media Relations** - FAX interacts as needed with local media to promote existing and new services, programs and issues involving transit. Information is provided in English, and Spanish, and is designed to provide general awareness of FAX to both the media and the public alike.

### 2.7.3 Transit Security Program

FAX customer's value safety and security when using the transit system and to address these concerns:

**Transit Security Plan** - FAX security plan provides a highly visible security presence for our transit customers and employees. FAX uses City of Fresno police officers to deliver system wide protection. Our customers see uniformed patrol officers on buses and at transit facilities. As a result of the police presence, passengers feel safer, and public property has been protected from vandalism and graffiti. Since the introduction of the police officers, the number of crimes has been reduced.



**Video Surveillance System** - In an effort to prevent graffiti and vandalism on buses, FAX identified the need for an On Board Video Surveillance program. It is believed that the presence of the video surveillance cameras serve as a deterrent to vandalism and other crimes. In 2012 FAX completed the installation of digital video systems on-board all of its buses. In addition, FAX utilized ARRA funds for transit facility security enhancements, including an access control system and base facility video monitoring.

### 2.7.4 Special Community Services

FAX considers itself a good neighbor and a vital part of the community we serve. The following programs illustrate steps FAX has taken to give more than just transit services to the community:

**Project Safeplace** - FAX leads the nation in transit properties for the number of youth who have taken advantage of the Safeplace Program. The program is a national partnership of community organizations, schools and neighborhood businesses that provide Safeplace designated locations for children and runaways who may be exposed to crime and exploitation. Each one of FAX's 100

buses is a designated Safeplace, and since the inception of the program, over 300 youth have been assisted through the program.

**Bus Interior Public Service** - In an effort to work more closely with the non-profit community, FAX provides space within the buses for various organizations to provide information at no charge. During FY16, over 20 different agencies used this service to provide information regarding social services such as Narcotics Anonymous, Girl Scouts of America, Social Security Administration, and the Workforce Development Department.

**Clean Fuels Program** – FAX has been very involved in converting its fleet to cleaner burning fuels in an attempt to attain maximum efficiencies and to protect the environment. As part of its overall fleet FAX have 110 CNG buses. This accounts for 94% of the fleet.

### **2.8.0 Integration of Transportation and Land Use**

Continuing growth in the FCMA over the past decade has led to increasing traffic and air quality concerns, and has elevated the role of efficient land use planning and its relationships to transportation. Land use determines commute patterns by influencing where people live and work and what convenient means of transportation are available to them to travel between these two points. The sprawling leap frog development patterns that have characterized the growth in Fresno have placed increased pressure on the roadway system and have reduced the convenience of alternate options, such as transit, bicycling and walking. The transportation system also shapes land use patterns as development tends to occur along major transportation corridors. A key effort in achieving this goal is the City of Fresno's 2035 General Plan update which was adopted in 2014 and includes Fresno's first form based codes. Implicit in this document is a section on transportation and land use strategies to create better communities with multiple transportation choices such as Transit Oriented Developments (TOD's) and Pedestrian Oriented Developments (POD's), identifying downtown Fresno as the top priority for redevelopment and reinvestment.

#### **Benefits of coordination**

It is important not just to plan for smarter growth, but to take the steps to implement it. The coordination would forge a stronger connection between regional transportation planning and local land use planning and decision-making.

Land use influences travel behavior and can be a powerful tool to improve the efficiency and effectiveness of the regional transportation system. If it is convenient for people to travel to common destinations by public transit, walking, or biking, the County can reap air quality and congestion-relief benefits at the local and regional scale.

Many aspects of the relationship between land use and transportation are well understood. We know, for example, about the effect that population and employment density have on travel behavior, and what happens to land use when a transportation investment is made.

#### **The use of transportation funds**

The City of Fresno/FAX should research a coordination program that could use transportation funds to provide financial incentives to encourage transit supportive development near transit centers and/or capital grants to local jurisdictions for small-scale transportation improvements. Proposals would be submitted by public agencies, and evaluated for how well they promote the San Joaquin Valley Blueprint and PTIS Principles, and the level of project maturity and commitment to actual physical construction. The program would fund both planning activities and construction of improvements consistent with those planning activities. It would place an emphasis on involving the public in decision-making and taking steps to create places that have the physical attributes that supports walking trips, compact development and civic vitality.

Capital grants may direct transportation dollars to support smaller-scale capital projects that can help promote transportation choices as well as support land use changes in the form of infill housing and transit-oriented development.

### **2.8.1 Development Review Program**

The City of Fresno has a Development Review Committee which reviews all significant projects. Under this program, the City refers proposed new development projects to FAX for comment during the approval process. After comprehensive review, FAX submits recommendations for project conditions or mitigation measures to the City/County. The intent of the Development Review is to ensure compatibility between the transportation system and the development project. FAX reviews over 100 development submittals from the City per year and as a result has been essential in ensuring the construction of numerous transit related and transit friendly improvements by the private sector, such as new bus stops, bicycle and pedestrian pathways and street improvements.





## Chapter 3: Transit Service Improvement Program

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### 3.1.0 Introduction

FAX's Strategic Goals reflects a strong commitment to making transit a more attractive option for travelers within the FCMA. To achieve these goals, FAX plans some significant investments in system improvements. The fast growing population and employment base of the Valley has resulted in a tremendous need for additional transit services. FAX is responding to this need through an ambitious expansion plan with innovative programs and improvements to our existing services. However, in order to achieve the level of service improvements needed, FAX has to mitigate for the array of Federal, State and locally mandated programs and priorities including air quality, energy, congestion management, alternative fuels and protection of minorities, low income and non-English speaking populations. The need for additional transit funding to provide FAX the flexibility to not only conform with mandated requirements, but also to improve the quality of service and initiate progressive transit measures is crucial. The following provides an overview of these areas which will ultimately impact FAX over the next five years and beyond.

**Air Quality** - The very same characteristics that make the San Joaquin Valley the world's most productive agricultural region, also create optimal conditions for creating and trapping air pollution. Due to the Valley's unique geography and meteorology, the bowl shaped valley is perfect for the creation of ozone in the long, hot summers and the trapping of particulates in the cold, damp winter months. This makes it critically important that the state and federal governments continue at least their present level of resource allocation to support local transit programs.

The San Joaquin Valley faces the serious environmental problem of poor air quality during the majority of the year. Air quality is a self-defining term: *the quality of the air that we breathe*. National Ambient Air Quality Standards (NAAQS) are established for criteria air pollutants in order to protect human health and welfare. Criteria pollutants are pollutants proven to be able to harm your health and the environment, and cause property damage. Of the six criteria pollutants, particle pollution and ground-level ozone are the most widespread health threats. EPA calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. Pursuant to federal law, the Environmental Protection Agency (EPA) has designated the entire San Joaquin Valley Air Basin (SJVAB) a nonattainment area that does not meet established standards for ozone and particulate matter. The San Joaquin Valley is designated as attainment/maintenance for PM10 and carbon monoxide (CO). In addition, the State of California also has set "health protective" standards for air pollutants that are even more stringent than federal levels. At the state level the SJVAB is designated as nonattainment for ozone and particulate matter.

The following section summarizes the air pollutants that are of major concern in the San Joaquin Valley.

#### Ozone

Ground level ozone is the major component of Fresno County's summertime "smog" and it affects human health and vegetation. Ozone is formed when two chemicals, volatile organic compounds (VOCs) and nitrogen oxides (NOx), interact with sunlight and heat. (VOC is also referred to as reactive organic gases or ROG) Generally, low wind, stagnant air, no clouds, and warm temperatures provide the best conditions for ozone formation; the conditions in San Joaquin Valley

Air Basin are ideal for this reaction. Since the formation of ozone occurs during warmer weather, it is mostly a problem in summer and early fall. Ozone does not form immediately, but occurs over time and distance; therefore, ozone is a regional pollutant and often impacts a large area. VOCs and NO<sub>x</sub> are emitted from fuel combustion, agricultural processes, and industrial processes, consumer products as well as from natural sources (biogenic sources such as some species of plants and trees). EPA has established ozone standards based on 1-hour averaging periods, and for 8-hour averaging periods.

### Particulate Matter

The other significant pollutant in the San Joaquin Valley is particulate matter (PM). Particulate matter is a mixture of solid particles and liquid droplets in the air. The size of PM is directly related to potential health problems. EPA has set federal standards for PM<sub>10</sub> (PM that is 10 microns or less in diameter) and PM<sub>2.5</sub> (PM that is 2.5 microns or less in diameter). As a reference: a human hair is anywhere from about 50 to 100 microns. The chemical composition of PM is also a factor in the type and severity of health impacts. In addition to directly-emitted particles, "PM can form in the atmosphere through photochemical reactions of precursors. These particles can include basic elements such as carbon and metals, or can be complex mixtures such as diesel exhaust and soil.

Much of the ambient particulate matter is formed from atmospheric reactions of NO<sub>x</sub> (nitrogen oxides). NO<sub>x</sub> is also a precursor for ozone. Mobile sources are the major contributor to NO<sub>x</sub>.

In addition to the ozone problem in summer and early fall, the San Joaquin Valley exceeds the standards for particulate matter at other times of the year. The highest levels of particulate matter in Fresno County and the San Joaquin Valley are found in late fall (October) through winter (February). This, in combination with ozone, creates a year-round air pollution problem. This produces an additional concern for human health in our Valley in that we do not have a "clean" season that would allow for respiratory system recovery. The primary sources of particulate matter include farming operations, paved road dust, fugitive dust, unpaved road dust, and waste burning.

The finer particles pose an increased health risk, because they can reach deep into the lungs and are associated with both acute and chronic health effects including aggravation of existing respiratory diseases, heart and lung disease, coughing, and bronchitis. Diesel particulate matter is further recognized by California's Air Resources Board as a toxic air contaminant based on its ability to cause cancer and other health effects.

### Carbon Monoxide

Carbon monoxide (CO) is formed by the incomplete combustion of fuels. The main source is motor vehicles. CO has been an air quality problem in the past, affecting four of the eight Valley counties in the San Joaquin Valley Air Basin, including Fresno, Kern, San Joaquin, and Stanislaus. The Fresno/Clovis Metropolitan Area was redesignated to a "maintenance area" when EPA proposed direct, final approval for the *1996 Carbon Monoxide Redesignation Request and Maintenance Plan*. Currently the San Joaquin Valley is designated as attainment for CO and has an adopted maintenance plan to ensure continued control. On April 26, 1996 ARB approved the *Carbon Monoxide Redesignation Request and Maintenance Plan*, EPA approved and redesignated on June 1, 1998; on October 22, 1998 ARB revised the SIP to incorporate the effects of ARB action to remove the wintertime oxygen requirement for gasoline in certain areas.

On July 22, 2004 ARB approved the update to the SIP showing the standard will be maintained through 2018.

A close relationship exists between Transportation Systems Management, Transportation Demand Management, air quality, and energy planning. Transportation Systems Management is the efficient management of existing transportation systems so as to improve upon the level of performance (i.e. traffic flow improvements), while Transportation Demand Management involves planning strategies for managing human behavior regarding how, when, and where people travel. Because Transportation System and Demand Management efforts have secondary benefits, (the associated reduction of vehicle miles traveled and fuel use), they prove to be effective strategies in reducing sources of air pollution from transportation sources.

**Federal Requirements** - The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 redefined the joint regulations and created a new framework for linking air quality, transportation, and land use. It intended to produce a significant shift in federal transportation policy from reliance on roads and motor vehicles to a multimodal approach. ISTEA and its successors TEA-21, SAFETEA-LU, Moving Ahead for Progress in the 21<sup>st</sup> Century, (MAP-21), and the current Surface Transportation Reauthorization Act: Fixing America's Surface Transportation, (FAST Act), delegates major planning decisions to the states and MPOs. They also reinforce the goals of the Federal Clean Air Act by making air pollution a central concern of transportation planning and spending decisions.

Federal and state legislation requires an integrated transportation/air quality planning process. The Federal Clean Air Act Amendments of 1990 reaffirmed that all areas are required to attain the National Ambient Air Quality Standards. Numerous specific reductions of emissions and an aggressive attainment time frame were required. Under certain conditions failure to meet requirements may be met with sanctions imposed by the EPA.

#### State Implementation Plans (SIPs)

Federal clean air laws require areas with unhealthy levels of criteria air pollutants (designated as non-attainment) to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that detail how an area will attain National Ambient Air Quality Standards (NAAQS). SIPs are not single documents, but a compilation of new and previously submitted plans, programs, district rules, state regulations and federal controls.

#### **Federal Title VI Requirements – Title VI of the Civil Rights Act of 1964, Section 601 states:**

“No persons in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.”<sup>5</sup>

FAX's responsibility is to guarantee that all transit service, and access to its facilities, are equitably distributed and provided without regard to race, color, or national origin. FAX's goal is also to ensure equal opportunities to all individuals to participate in all local, sub regional and regional transit planning and decision-making processes.

**State Requirements** - In addition to federal requirements, the State of California Air Resources Board requires local air districts to show progress toward meeting the California Clean Air Act (CCAA) air standards. The California Clean Air Act set air quality standards that are more

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<sup>5</sup> United States Department of Justice, Civil Rights Division, Title VI of the Civil Rights Act of 1964

stringent than the federal National Ambient Air Quality Standards. Local air districts are required to draft California *Clean Air Act Triennial Progress Report and Plan Review* which demonstrates local air districts' reasonable progress to attain the more stringent California air pollution standards.

Modifying travel demand is an increasingly important issue for the future, both in terms of congestion management and modifying travel demand. Current financial, energy, and environmental resources are overburdened, and the seriousness of this region's air quality problems may lead to implementation of more stringent measures to reduce future vehicle travel. Public transit will continue to play a major role in any proposed transportation systems management activities which are undertaken. This makes it critically important that the state and federal governments continue at least their present level of resource allocation to support local transit programs.

**SB 375 (Chapter 728, Statutes of 2008)** directs the California Air Resources Board to set regional targets for reducing greenhouse gas emissions. The new law establishes a "bottom up" approach to ensure that cities and counties are involved in the development of regional plans to achieve those targets. SB 375 builds on the existing framework of regional planning to tie together the regional allocation of housing needs and regional transportation planning in an effort to reduce greenhouse gas (GHG) emissions from passenger vehicle trips.

### **AB32**

AB 32, California's Global Warming Solutions Act of 2006, gives the California Air Resources Board authority over sources of greenhouse gas emissions, including cars and light trucks. According to the California Air Resources Board, transportation accounts for some 40 percent of greenhouse gas emissions, with cars and light trucks accounting for almost three-quarters of those emissions (30 percent overall).

SB 375, authored by Senator Darrell Steinberg, directs the Air Resources Board to set regional targets for the reduction of greenhouse gas emissions. Aligning these regional plans is intended to help California achieve GHG reduction goals for cars and light trucks under AB 32, the state's landmark climate change legislation.

Because the existing regional transportation planning and housing allocation processes are overseen by local elected officials selected by their peers to serve on regional agency boards, the law is intended to ensure that cities and counties are closely involved in developing an effective plan for the region to achieve the targets. To increase public participation and local government input, the law strengthens several existing requirements for public involvement in regional planning. The new law establishes a collaborative process between regional and state agencies to set regional GHG reduction targets, and provides CEQA incentives for development projects that are consistent with a regional plan that meets those targets. Cities and counties maintain their existing authority over local planning and land use decisions.

### **Federal Congestion Management System -**

In June 1990, California voters approved legislation requiring that Congestion Management Plans (CA CMP) be developed in urbanized counties to address congestion on California's highways and roads. At the federal level, Congestion Management System (CMS) was first introduced in the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991. CMS became Congestion Management Process (CMP) when the Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) was enacted in 2005. Fresno COG developed its first Congestion Management Program in November 1991, and it was updated subsequently based on legislative requirements. The passage of CA Assembly Bill 2419 (Bowler) in 1996 allowed counties to “opt out” of the California Congestion Management Program if a majority of local governments elected to exempt themselves from the California CMP. The Fresno COG Policy Board rescinded the Congestion Management Program on September 25, 1997 at the request of the local member agencies. The current Fresno County Congestion Management Process is designed to meet the federal requirement under 23 CFR 500.109 and 450.320.

The SAFETEA-LU and the subsequent Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act) mandate that Transportation Management Areas (TMAs), urban areas with population over 200,000, “shall address congestion management through a process that provides for effective management and operation, based on a cooperatively developed and implemented metropolitan wide strategy, of new and existing transportation facilities ... through the use of travel demand reduction and operation management strategies.” It is further required that federal funds may not be programmed in a carbon monoxide and/or ozone non-attainment TMA for any highway project that will result in a significant increase in single-occupant-vehicle (SOV) capacity unless the project is based on an approved CMP. Fresno County is designated as a non-attainment TMA for ozone, and was so designated for carbon monoxide, but the Fresno Urbanized Area was reclassified as attainment for carbon monoxide effective on June 1, 1998. However, because of the ozone non-attainment status, Fresno COG is required to comply with such requirements.

**Need for Additional Transit Funding** - The key problem facing all transportation modes is still the lack of available financing. For public transportation, both service enhancement and ongoing operations and maintenance funding issues remain. Traditional sources of transit funding even when augmented by a locally approved 1/2 percent sales tax, are inadequate to meet identified public transportation needs within the FCMA. Other sources such as the SJVAPCD Remove grants and Moyer funds, and Petroleum Escrow Violation Account (PEVA) funds continue to be pursued. While these sources may provide some one-time capital or short-term project demonstration funds, necessary ongoing operating revenues must be obtained if public transportation is to meet the goals outlined in the Regional Transportation Plan.

The financial outlook assumes stable revenue sources over the next five years. Any significant unanticipated decline in this revenue stream likely would result in reduced levels of service to the community or increases in fares to offset any deficits.

**FAST**, the Fixing America's Surface Transportation Act (P.L. 114-94), was signed into law by President Obama on December 4, 2015. Funding surface transportation programs at over \$305 billion for fiscal years 2016 through 2020, FAST Act is the first federal law in a decade to provide long term funding certainty for surface transportation infrastructure, planning and investment.

The FAST Act maintains our focus on safety, keeps intact the established structure of the various highway-related programs we manage, continues efforts to streamline project delivery and for the first time, provides a dedicated source of federal dollars for freight projects.

**Dedicated Local Support** - On November 7, 2006 the voters of Fresno County authorized the continuation of a ½ cent retail transaction and use tax over twenty years. The sales tax extension will provide an estimated \$1.7 billion in new revenues for transportation improvements throughout the county according to projections estimated through 2027. Prior Measure C funds were allocated at the discretion of the Fresno City Council. The reauthorized measure dedicated approximately 13% of the revenue to FAX as a Local Agency Pass-through. Through Measure C, FAX is estimated to receive \$235 million over the 20-year-life of the measure. This amounts to approximately \$11.7 million per year. Fresno Area Express has established two programs to guide the expenditures of Measure C funds:

**Primary Program** – The goal of the Primary Program is to improve the level of public transit services within the City of Fresno and to continue to seek ways to coordinate and/or consolidate public transit services to achieve a seamless transit system for the public.

- Improve bus frequencies to every 15 minutes on the busiest routes on the public transportation system in Fresno
- Enhance the delivery of paratransit services to the disabled community consistent with federal and state law
- Install and integrate a regional Automated Fare Collection System (AFC) to enhance transit coordination and seamless passenger travel between transit systems
- Complete fleet conversion to low emission buses
- Expansion of service areas to all riders, as Fresno's sphere of influence changes

**Secondary Program** – Secondary Programs include improvements that will be funded after projects in the Primary Program are implemented, provided that funding is available.

- Extend weekend service hours
- Enhance the delivery of paratransit services to the senior community
- Pursue other alternative mass public transportation options such as bus rapid transit, automated people movers, light rail, etc.
- Deploy other operational and infrastructure improvements such as "real time" bus arrival and departure information displays to provide better service to transit users
- Taxi Scrip Program for Seniors 70 years of age and older

Measure C has the potential to have a major impact on public transit in the City of Fresno, and to date, a number of the programs goals have been implemented. Like the senior taxi scrip, the Automated Fare Collection System an 15 minute frequency on key corridors. However, with the recent economic downturn coupled with reduced state funding, FAX has delayed a number of the other projects. Measure C revenue has recently increased from pre economic downturn value and is projected to be \$10.38 million in FY 2018. This is still significantly less than the original projection of more than \$11 million. Fiscal year 2017 is budgeted to be almost \$10 million. Due to the reduced funding from Measure C, projects in the Primary Program have been modified.

### **3.2.0 Improvement Program for Current Service**

In order to achieve the goal of maintaining financial stability, FAX must continuously seek improvements in service productivity and cost-effectiveness. Since the majority of FAX's budget is spent to provide service on the street, it is critical that service be regularly monitored to ensure these resources are being utilized to the fullest extent possible. FAX has addressed system productivity by instituting an ongoing program of service evaluation to identify inefficient use of resources and respond with corrective measures. To address cost-effectiveness, FAX has instituted programs to reduce operating costs and help achieve the highest fare box revenue return as possible. The TDA requires FAX to meet a 20% farebox, and in FY16, FAX exceeded this requirement with a 21% farebox return.

#### **Bus Rapid Transit (BRT) Blackstone Avenue and Ventura/Kings Canyon**

**FAX was awarded a \$38.55 million (at 80% match) by the FTA to develop Bus Rapid Transit.**

***Project Description:*** Fresno Area Express (FAX) plans to implement street-running BRT between north Fresno, downtown Fresno and the Southeast Fresno. The Blackstone/Kings Canyon BRT project includes transit signal priority, real-time bus arrival displays and proof-of-payment fare collection; service would be operated using low-floor, low emission compressed natural gas (CNG). BRT service will replace existing local service in the corridor and offer decreased travel times through fewer stops, more frequent service and the aforementioned priority treatments.

***Project Purpose:*** The Blackstone/Kings Canyon BRT project will improve the speed and reliability of service in a commercial corridor with existing high transit demand. Much of FAX's ridership in the corridor is low-income or transit-dependent. BRT service will provide faster connections between Southeast Fresno; downtown Fresno, a regional hub for civic and governmental institutions; and North Fresno, which houses significant education campuses, medical centers, and commercial centers.

***Project Development History, Status and Next Steps:*** FTA approved the Blackstone/Kings Canyon BRT project into project development as a Very Small Start in December 2010. Over the next year, FAX conducted engineering and design activities. Revenue operations are anticipated to commence in Winter 2018.

The alignment follows N. Blackstone Avenue in the northern portion of the corridor, Fresno and Van Ness Streets through Downtown Fresno and Ventura Avenue-Kings Canyon Road in the eastern portion of the corridor. The alignment begins just north of the River Park Shopping Center on Friant Road at Fresno Street and continues south on Blackstone Avenue to Stanislaus Avenue. The alignment then travels down N Street to Fresno Street and connects to Ventura via Van Ness Avenue. The distance is approximately 15.7 miles. The route is currently served by FAX Route 30, connecting downtown Fresno with Fresno City College, the Manchester Transit Center, and the River Park Transit Center.



The alignment and the BRT service continues east as a single route on Ventura Avenue which turns into Kings Canyon Road east of Cedar Avenue and terminates at Clovis Avenue. The Kings Canyon Road-Ventura Avenue corridor connects to downtown Fresno. The route is currently served by FAX Route 28, and connects downtown Fresno with the Social Services offices, Eastgate Shopping Center, Sunnyside High School, and Fresno Pacific University. A total of 26 station locations have been approved by the Fresno COG for the BRT as identified in **Table 3.1 and located on Figure 3.1** below.

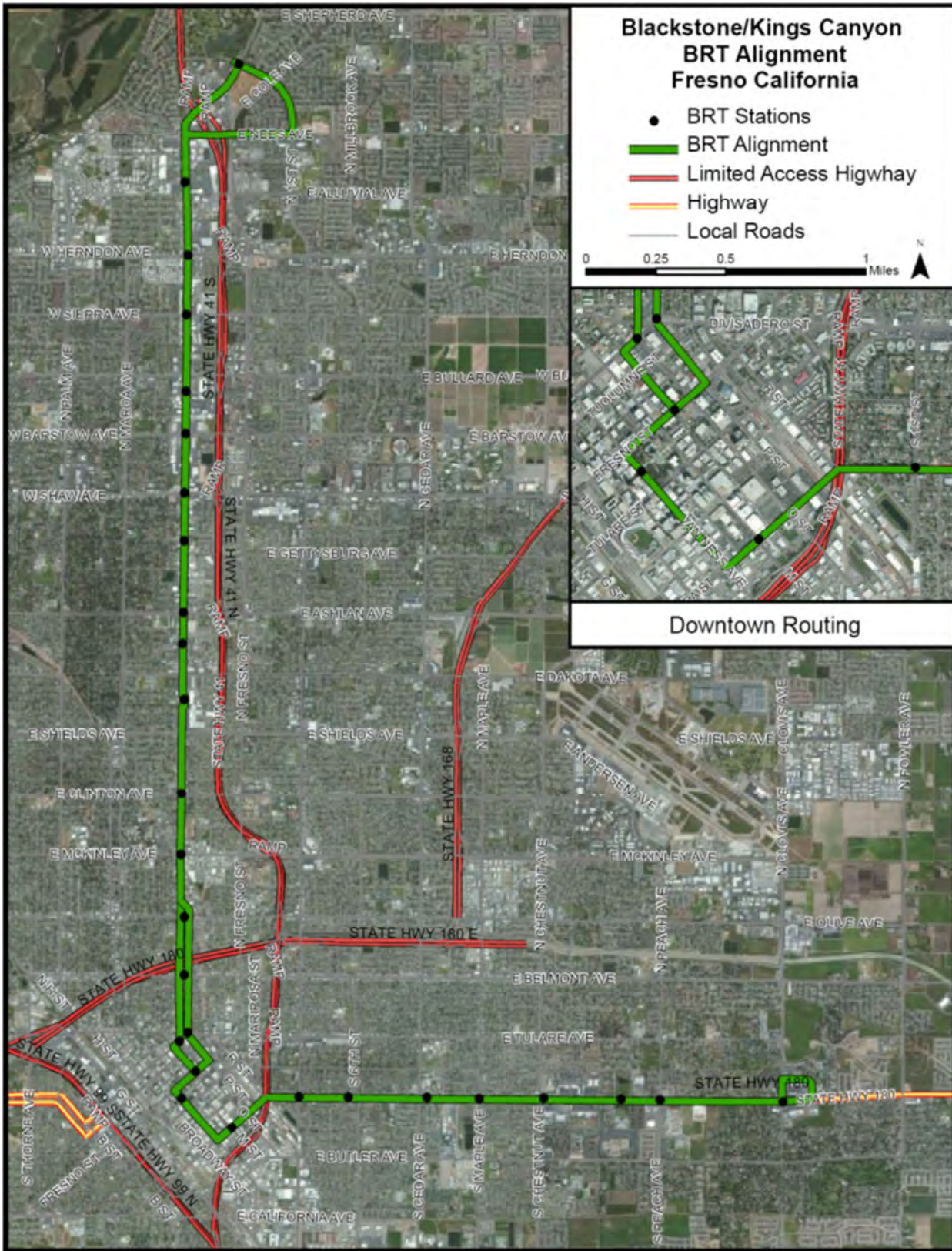
**Table 3.1: Proposed BRT Station Locations**

	Location	Distance From Previous Stop
Friant Road	at Fresno Street (EOL)	-
Blackstone Avenue	at N. of El Paso (NB & SB)	0.70
Blackstone Avenue	at Herndon Ave (NB & SB)	0.61
Blackstone Avenue	at Sierra Ave (NB & SB)	0.50



Blackstone Avenue	at Bullard Ave (NB & SB)	0.50
Blackstone Avenue	at Barstow Ave (NB & SB)	0.50
Blackstone Avenue	at Shaw Ave (NB & SB)	0.49
Blackstone Avenue	at Gettysburg Ave (NB & SB)	0.50
Blackstone Avenue	at Ashlan Ave (NB & SB)	0.50
Blackstone Avenue	at Griffith Way (NB & SB)	0.25
Blackstone Avenue	at Manchester Center (NB & SB)	0.45
Blackstone Avenue	at Clinton Ave (NB & SB)	0.70
Blackstone Avenue	at Weldon Ave (NB & SB)	0.25
Blackstone Avenue Abby Street	at Olive Ave (SB) at Olive Ave (NB)	0.75
Blackstone Avenue Abby Street	at Belmont Ave (SB) at Belmont Ave (NB)	0.51
Abby Street Stanislaus Street	at Divisadero Ave (NB) at O Street (SB)	0.55
N Street Fresno Street	at Fresno Street (SB) at N Street (NB)	0.35
Van Ness Avenue	at Mariposa Mall (NB & SB)	0.35
Ventura Avenue	at M Street (EB & WB)	0.60
Ventura Avenue	at 1 <sup>st</sup> Street (EB & WB)	0.65
Ventura Avenue	at 6 <sup>th</sup> Street (EB & WB)	0.45
Kings Canyon Road	at Cedar Ave (EB & WB)	0.55
Kings Canyon Road	at Maple Ave (EB & WB)	0.50
Kings Canyon Road	at Chestnut Ave (EB & WB)	0.50
Kings Canyon Road	at Willow Ave (EB & WB)	0.49
Kings Canyon Road	at Peach Ave (EB & WB)	0.50
Kings Canyon Road	at Clovis Ave (EOL)	1.02

Figure 3.1: Locations of BRT Stations



### 3.2.0

#### **Unfunded Transit Needs**

**Third Shift and Weekend Evening Service** - The SRTP does not provide for extended fixed-route evening service on weekends, nor does it provide for third shift service at any time. All weekend operations are completed by 7:45 P.M. The need for night service on weekends, to satisfy the needs of transit dependent populations to seek and maintain employment, will be evaluated during the course of this SRTP and is contingent on future revenue.

**From the San Joaquin Valley Express Study** - For a majority of the region, investments in ridesharing are the most cost-effective strategy. The region's focus should be on expanding vanpool offerings in both the northern and southern parts of the Valley. The new Air District rule requiring trip reduction programs from large employers offers the opportunity for both a new funding stream, and an effective marketing strategy for expanded vanpool offerings.

Other projects that have been identified for implementation when funding levels to FAX are restored include:

- Add 2<sup>nd</sup> and 3<sup>rd</sup> shift bus service
- Extend weekend service hours
- Extend bus service to northeast Fresno
- Extend bus service to northwest Fresno
- Extend bus service to southeast Fresno
- Extend bus service to southwest Fresno
- Add East-West service on Bullard Avenue
- Add bus service to areas west of Highway 99
- Enhance on-street transfer locations
- Develop an on campus transit center at CSU Fresno
- Develop a transit center at River Park
- Develop a transit center at Fancher Creek

### **3.2.1 Route Evaluation Process**

The primary assessment of transit service is accomplished by measuring individual route performance using FAX's route evaluation process. When appropriate, corrective action is taken to modify route alignments, and change the service schedule to ensure that resources are used in the most productive manner.

### **3.2.2 Key Transit System Performance Indicators**

There are many methods for evaluating the efficiency and effectiveness of public transportation service. Because each method has unique strengths and weaknesses, FAX employs several service evaluation methods. Among the methods used are: peer review analysis, system minimums assessment, and passenger surveys.

**Peer Review Analysis** - Peer Review Analysis uses standard service measurement criteria to compare one system's performance against another. This kind of analysis is most valuable when standard, well controlled data sets are available, and when the systems being evaluated have similar operating environments.

**FAX Peer Review Analysis** - For this Peer Review Analysis, an automated peer selection process that identifies comparable transit systems for peer analyses was used. This approach was derived by the Florida Transit Information System ([www.ftis.org](http://www.ftis.org)) and uses a variety of criteria in the selection process. Criteria include: Urban Area Population, Vehicle Miles Operated, Operating Budget, Population Density, Service Area Type, Population Growth Rate, Percent Low Income, and others. The five transit agencies selected were: El Paso, TX; Albuquerque, NM; Tucson, AZ; Bakersfield, CA (GET); and Stockton, CA (RTD). All five agencies are Federal Transit Administration (FTA) Grant Recipients, and therefore, required to provide their system performance data to the National Transit Database (NTD). Furthermore, two are California agencies that must operate under the same California State Transportation Development Act Guidelines.

**Table 3.2: System Comparison – Cost-Effectiveness**  
**National Transit Database FY2013**

System	Passengers/ Hour	Passengers/ Mile	Cost/ Hour	Cost/ Passenger	Farebox Recovery	Score	Ranking
<b>FAX</b>	1	1	2	2	1	2.0	1
<b>Tucson</b>	3	2	2	1	2	2.0	1
<b>Albuquerque</b>	2	3	3	3	6	3.4	3
<b>Bakersfield</b>	6	6	1		3	4.0	4
<b>El Paso</b>	5	5	4	5	4	4.6	5
<b>Stockton</b>	4	4	6	6	5	5.0	6

As shown in Figure 3.2, System Comparison - Cost-effectiveness, FAX places very well among the selected peers in three of the four categories. With an average of 34.29 passengers per hour, 24 percent higher than the peer system average of 27.49. FAX ranked number one in this important productivity indicator.

**Figure 3.2: FAX Passengers per Revenue Hour Comparison with Peer Operators**

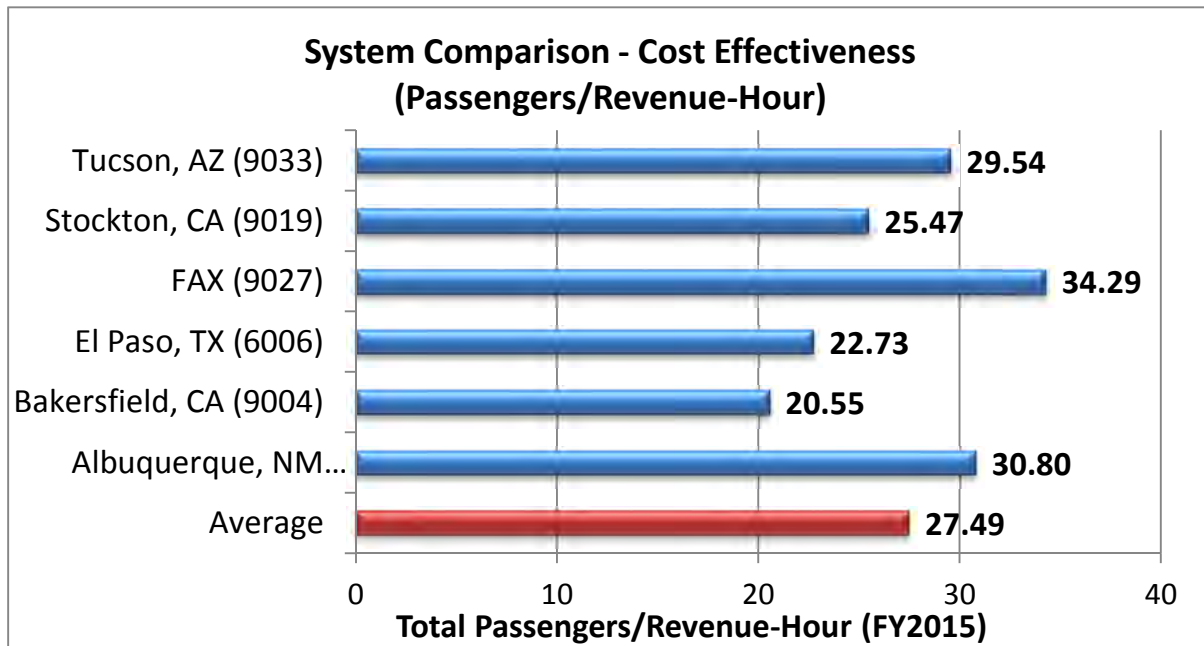
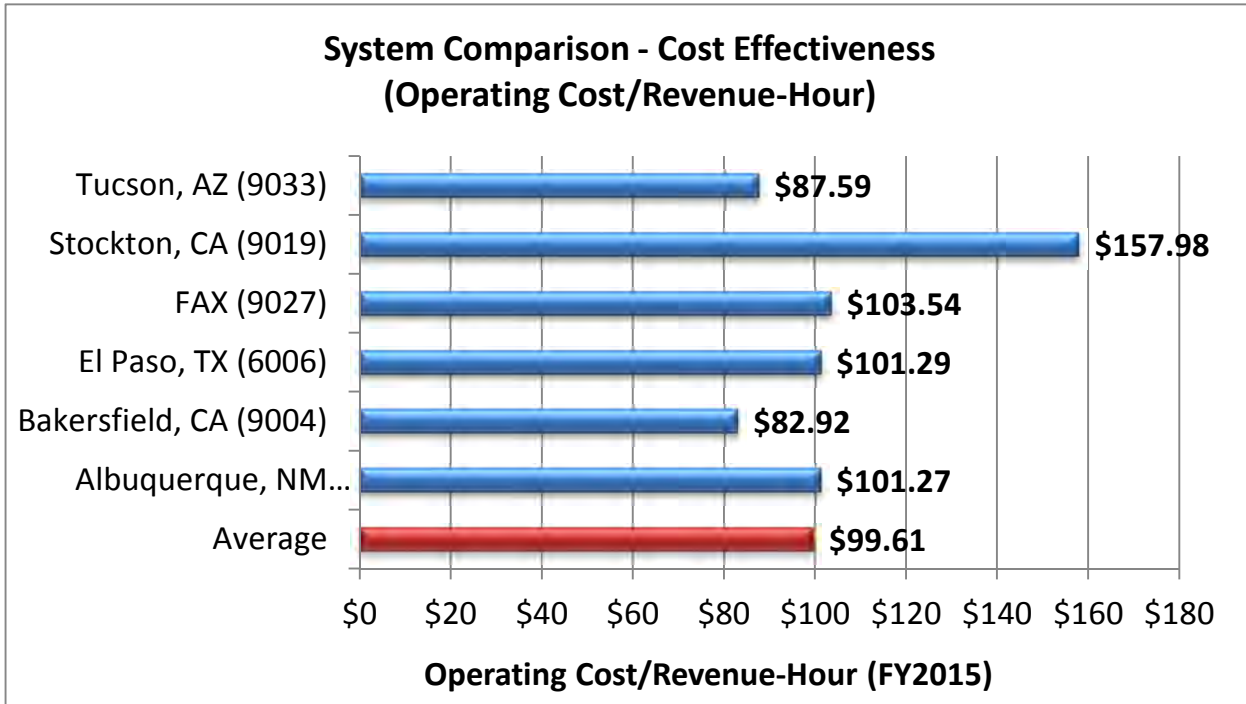


Figure 3.2 above clearly illustrates that FAX is operating an incredibly efficient transit service, carrying almost 7 more passengers per hour than the average of the peer operators.



**Figure 3.3: FAX Operating Cost Per Revenue Hour Comparison with Peer Operators**



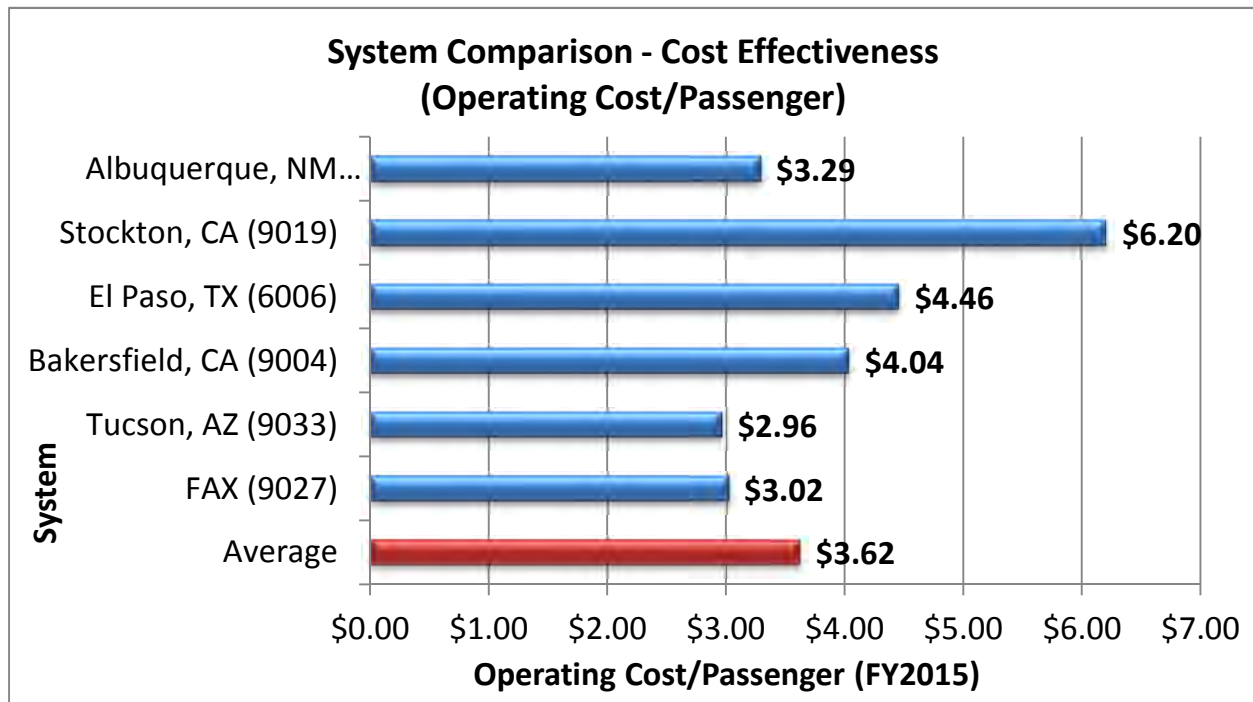
At just over \$103 per hour, FAX is operating above the peer systems average cost per hour and is operating at below the cost of one of the five peer systems. FAX’s operating expense per hour is \$103.54, or 4 percent higher than the peer system average of \$99.61. FAX ranks fifth in terms of operating expense per hour.

It is important to remember that each of the systems used in this comparative analysis has its own unique set of operating properties that can have significant impacts on various performance measures.

The same is true for providing more frequent service, increasing service frequency from 30-minute to 15-minutes effectively doubles the number of service hours; however, only in very rare cases would this lead to a doubling of passenger trips. So, while improved service frequency and longer service hours are important and positive service improvements, they also reduce overall passenger productivity.

Similarly, Stockton RTD provides a high level of commuter service to the Bay Area. Commuter services are predominantly composed of long distance express service. In terms of productivity, commuter services tend to be lower in passenger per hour and mile, and higher in cost per passenger. This is certainly reflected in Stockton RTD productivity.

**Figure 3.4: FAX Operating Cost Per Passenger Comparison with Peer Operators**

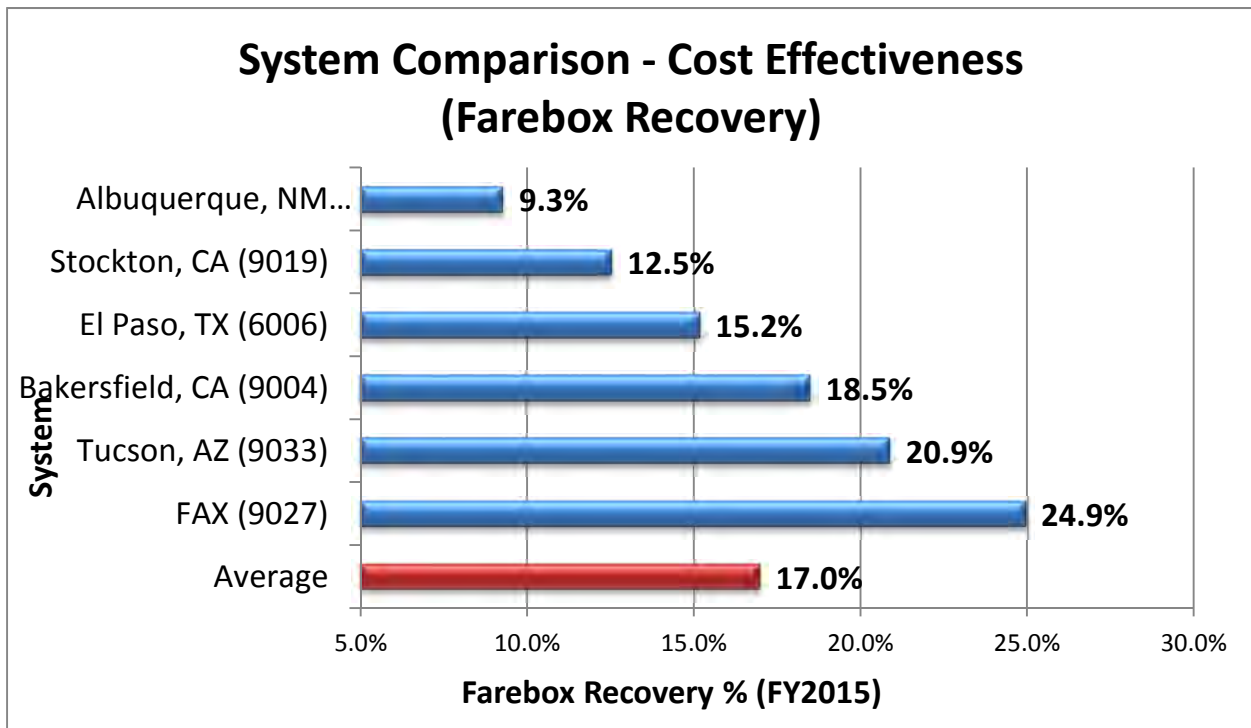


FAX's operating cost per passenger of \$3.02 is lower than the peer operators' average of \$3.61 and is ranks second among the peer operators. FAX operates a very cost efficient transit service.

As with improved service frequencies and service duration, improvements in passenger amenities and supportive services are positive improvements in customer service; however, these improvements come at a significant cost.

**System Minimums Assessment** — System Minimums Assessment uses measurements from the system under evaluation to assess minimum levels of efficiency and effectiveness of its component sub systems. The strength of this service evaluation method is that it makes allowances for unique operating practices and environments. FAX Minimum Standards are established both through legislation and local effort. From a legislative perspective, Federal and State regulations require public transit operators to provide and maintain service in some very specific ways. FTA has rules governing the provision of "Charter Service."

**Figure 3.5: FAX Farebox Recovery Comparison with Peer Operators**



FAX's farebox recovery rate of 24.9% exceeded the system average of 17.0% in FY2015.

The State TDA regulations require FAX to maintain a minimum 20 percent farebox recovery ratio. The TDA also places restrictions on the use of State Transit Assistance (STA) Funds. Regulations require transit agencies to keep cost increases under the State Cost of Living Index (CPI). If cost increases exceed the State CPI, transit agencies are not allowed to use STA Funds for operating expenses. Finally, local and regional concerns are used to develop minimum productivity standards. For FAX, these standards are developed through a coordinated, comprehensive, continuous process carried out by the Fresno Council of Governments (Fresno COG). The Fresno COG's Regional Transportation Plan (RTP) and Short Range Transit Plan for the Fresno Clovis Urbanized Area (SRTP), set guidelines for service evaluation. Additionally, each year the Fresno COG prepares the Annual Transit Productivity Analysis. This document assesses all public transit operators in Fresno County, and reviews the most recent Triennial Audit recommendations.

In 1981, a Transit Corridor Analysis was completed which evaluated the efficiency and effectiveness of service on a route by route basis. At that time, service measures were developed



to assist in evaluating individual route performance in relation to the system wide performance. Those minimum performance measures continue to be the basis of local service evaluation.

At a minimum, an individual route should exceed 60 percent of the system wide average for a number of key indicators. The 60 percent figure is an overall industry standard that assumes a transit system may tolerate some low performing routes if they provide an important component of the system, and especially if the component helps meet the needs of the transit dependent riders. FAX uses several operational indicators to measure the performance and financial status of the system and individual routes. Individual routes should achieve 60 percent of the system average, except for those indicators which measure cost efficiency. Cost performance measures should not exceed 140 percent of the total system average, with 140 percent representing the system maximum. Table 3.3 shows individual routes and their performance in various categories.

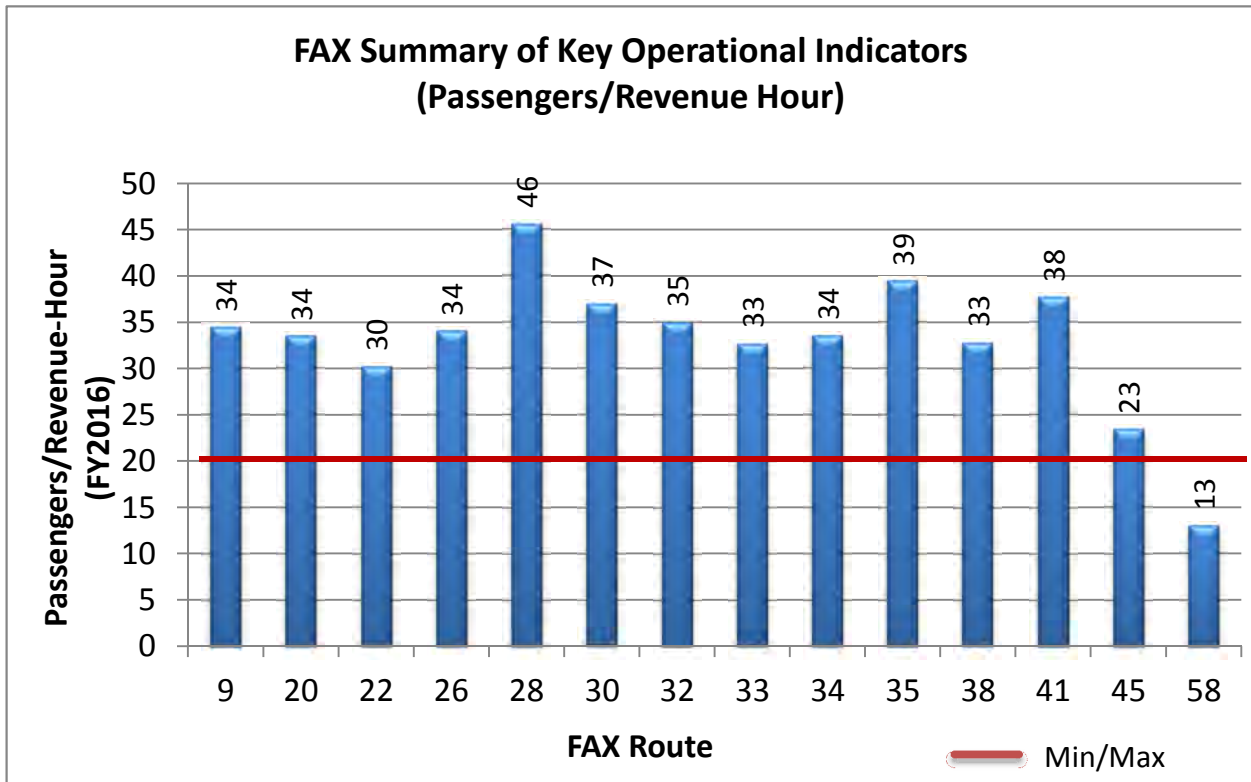
**Table 3.3: FAX Summary of Key Operational Indicators  
July 2015 to June 2016**

Route	Passengers	Miles	Hours	Farebox	Cost	Pass/ Hour	Pass/ Mile	Cost/ Hour	Cost/ Pass.	Fare/ Op. Cost	
9	828,921	302,675	24,054	\$588,232	\$2,814,878	34.46	2.74	\$117.03	\$3.40	20.90%	
20	410,255	170,788	12,245	\$291,131	\$1,588,328	33.50	2.40	\$129.71	\$3.87	18.33%	
22	615,099	269,519	20,356	\$436,496	\$2,506,527	30.22	2.28	\$123.13	\$4.07	17.41%	
26	1,189,204	463,938	34,919	\$843,901	\$4,314,623	34.06	2.56	\$123.56	\$3.63	19.56%	
28	1,499,595	387,874	32,872	\$1,064,165	\$3,607,228	45.62	3.87	\$109.74	\$2.41	29.50%	
30	1,169,464	350,531	31,606	\$829,893	\$3,259,938	37.00	3.34	\$103.14	\$2.79	25.46%	
32	927,435	283,107	26,530	\$658,141	\$2,632,895	34.96	3.28	\$99.24	\$2.84	25.00%	
33	219,470	97,831	6,720	\$155,744	\$909,828	32.66	2.24	\$135.39	\$4.15	17.12%	
34	1,013,437	357,406	30,241	\$719,171	\$3,323,876	33.51	2.84	\$109.91	\$3.28	21.64%	
35	463,136	167,516	11,739	\$328,658	\$1,557,899	39.45	2.76	\$132.71	\$3.36	21.10%	
38	1,139,535	492,570	34,709	\$808,654	\$4,580,901	32.83	2.31	\$131.98	\$4.02	17.65%	
41	857,508	292,888	22,733	\$608,518	\$2,723,858	37.72	2.93	\$119.82	\$3.18	22.34%	
45	292,834	187,570	12,481	\$207,805	\$1,744,401	23.46	<b>1.56</b>	\$139.76	<b>\$5.96</b>	<b>11.91%</b>	
58	49,456	59,879	3,796	\$35,096	\$556,875	<b>13.03</b>	<b>0.83</b>	\$146.71	\$11.26	<b>6.30%</b>	
	10,675,349	3,884,092	304,999	7,575,604	36,122,056	35.00	2.75	\$118.43	\$3.38	20.97%	
						<b>Min/Max</b>	<b>21.00</b>	<b>1.65</b>	<b>\$165.81</b>	<b>\$4.74</b>	<b>12.6%</b>
<b>System Wide Totals</b>						<b>System Wide Ratios</b>					

(\* Routes indicated receive funding support from outside agencies.)

It is important to note that route 58 is subsidized by an outside agency. Route 58 provides service to Valley Children's Hospital (VCH), and receives incremental funding from VCH. Incremental costs are the direct costs associated with the service (such as fuel, tires, and driver wages). Incremental costs do not include overhead costs (such as, FAX Administration costs or facility costs). Revenues received from the farebox on these routes are earned in addition to incremental costs.

Figure 3.6: FAX Passengers per Revenue Hour by Route



As figure 3.6 illustrates, FAX Route 58 was the only one operating below the minimum standard of 21.00 passengers per hour, which is 60% of the system average.

Route 45 (Herndon Avenue, MTC, Ashlan Avenue) is the only weekday route that FAX operates on an hourly headway. Historically, this route has performed below standard in almost every evaluation over the last ten years. In 1999, at the request of Council, Route 45 was extended north of Shaw on Palm, and east on Herndon to serve the medical center located at Herndon and Milburn. At the time, Council had received numerous requests to serve the medical facility. Currently, Route 45 is the only route providing service to the medical facilities at Herndon and Milburn, and is also the only route providing service to The ARC Production Center located at Shields and Clovis Avenue. The Arc of Fresno and Madera Counties offers individuals with an intellectual or developmental disability the opportunity to succeed in a supportive environment.

Figure 3.7: FAX Operating Cost per Revenue Hour by Route

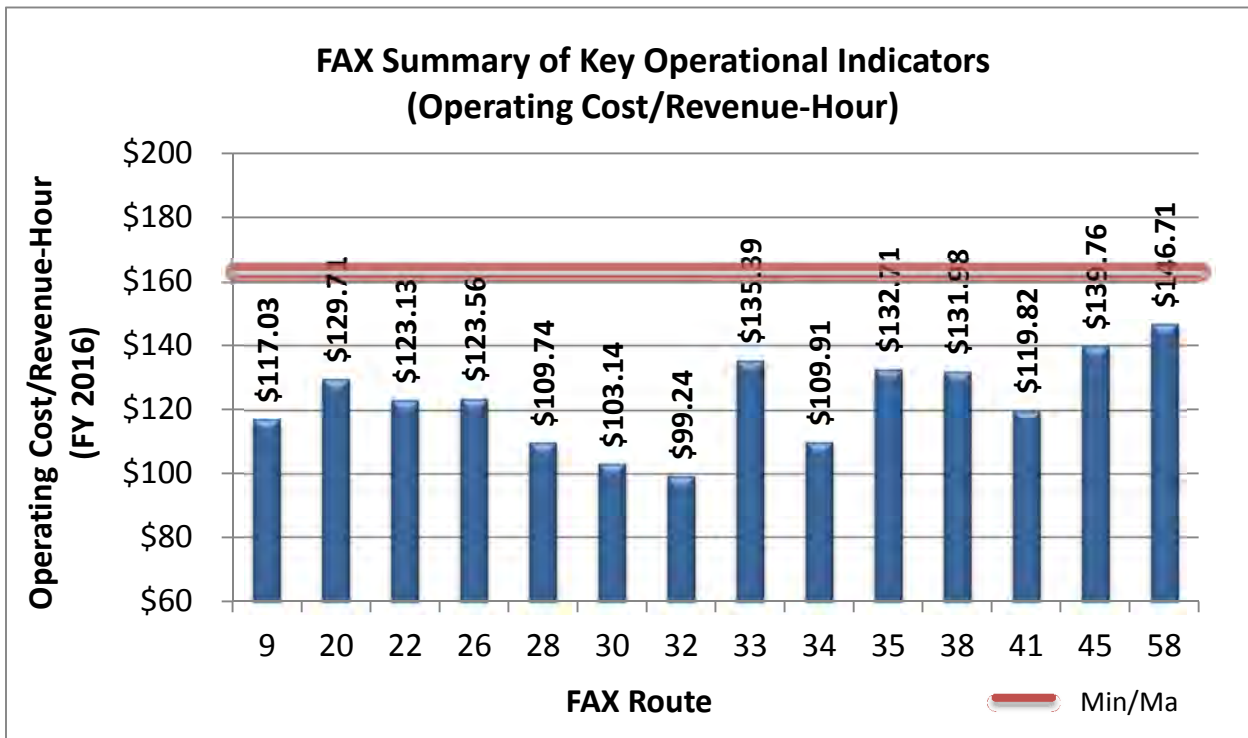


Figure 3.7 illustrates that currently all FAX routes are operating at below the cost per hour system maximum of \$165.81.

Figure 3.8: FAX Operating Cost per Passenger by Route

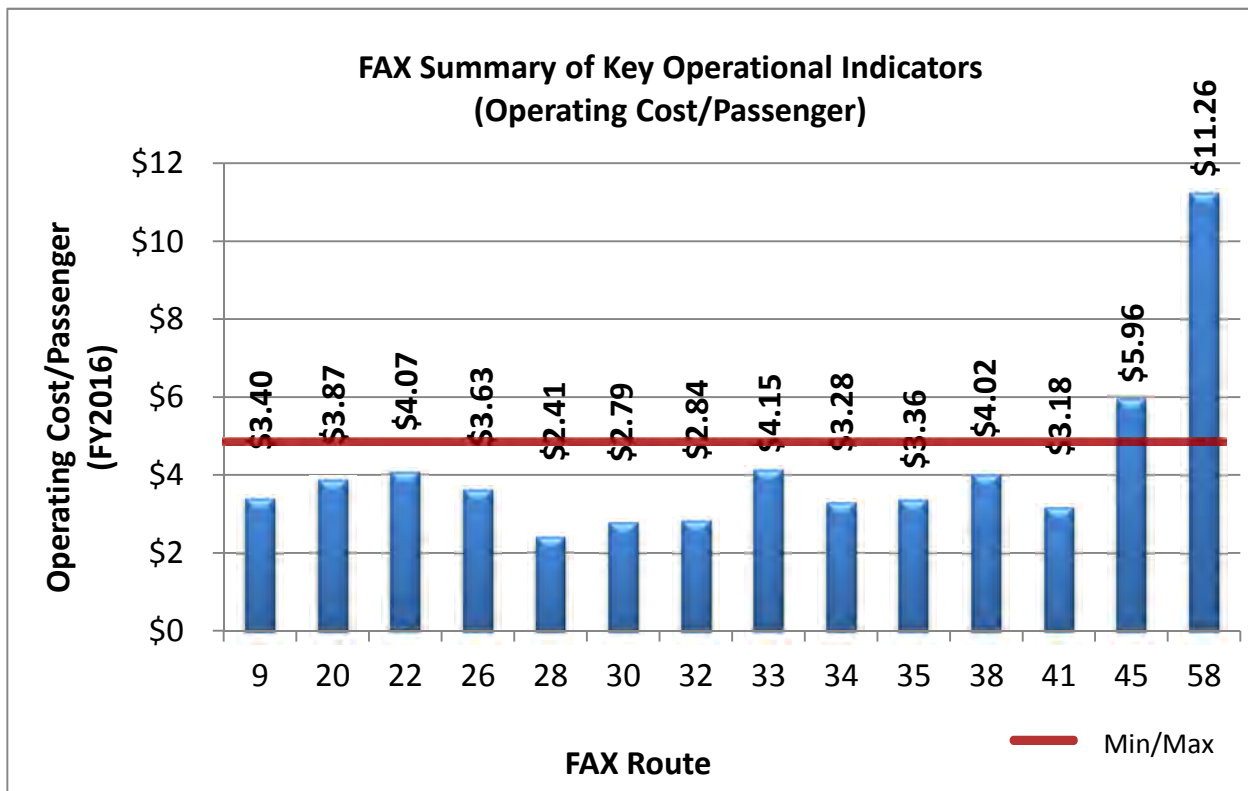


Figure 3.8 illustrates that route 58 had the highest operating cost per passenger in FY2014.

Figure 3.9: FAX Farebox Recovery by Route

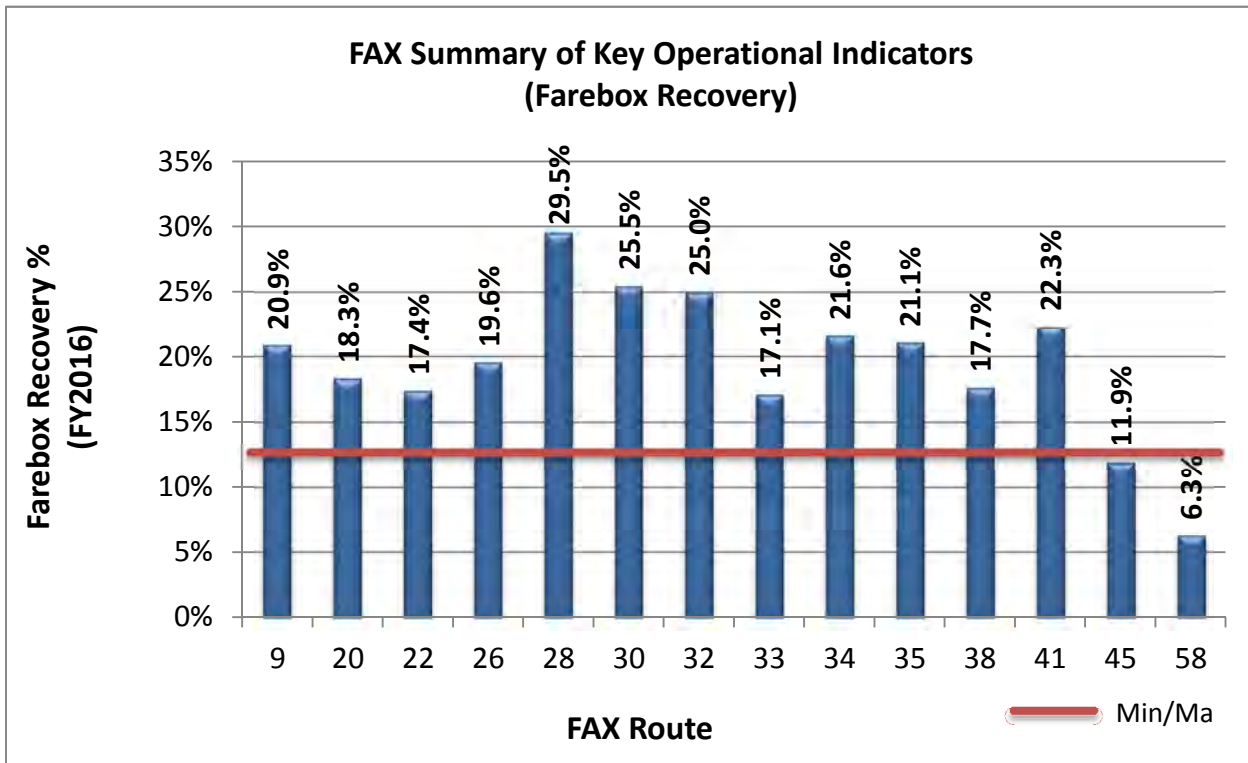


Figure 3.9 above illustrates the best farebox recovery is on routes 28 and 30. Due to the highly efficient nature of these routes operating on Blackstone and Ventura/Kings Canyon, these routes were selected to be upgraded to Bus Rapid Transit.

**FAX Route Ranking** – Table 3.4 shows how each route compares with other routes in the system. Using five key indicators including, Percent of Farebox Recovery, Passenger Trips per Revenue Hour, Passengers per Mile, Operating Cost per Hour and Operating Cost per Passenger. The five key indicator scores for each route were then averaged to develop an overall route ranking score. As expected, the overall ranking places the routes which exceeded system minimum and maximum standards at the bottom of the list.

**Table 3.4: FAX Route Ranking  
July 2015 - June 2016**

<b>Route</b>	<b>Passengers/ Hour</b>	<b>Passengers/ Mile</b>	<b>Cost/ Hour</b>	<b>Cost/ Passenger</b>	<b>Farebox Recovery</b>	<b>Score</b>	<b>Overall Ranking</b>
28	1	1	3	1	1	1.40	1
30	4	2	2	2	2	2.40	2
32	5	3	1	3	3	3.00	3
41	3	4	6	4	4	4.20	4
34	8	5	4	5	5	5.40	5
35	2	6	11	6	6	6.20	6
9	6	7	5	7	7	6.40	7
26	7	8	8	8	8	7.80	8
20	9	9	9	9	9	9.0	9
38	10	10	10	10	10	10.0	10
22	12	11	7	11	11	10.4	11
33	11	12	12	12	12	11.8	12
45	13	13	13	13	13	13.0	13
58	14	14	14	14	14	14.0	14

Route 58 operated on schedules limited by contract with an outside agency.

**Weekend Service Indicators** - Table 3.5 (Fresno Area Express Saturday Service), and Table 3.6 (Fresno Area Express Sunday Service Indicators) utilize a similar methodology to assess weekend route performance. As indicated by the **bold type**, two routes show indicators outside of acceptable standards (Routes 45 and 58). System-wide, FAX's weekend service provides 24.72 passengers per revenue hour on Saturday, and 22.11 passengers per revenue hour on Sunday. The minimum acceptable would be 60 percent of those measures, or 14.83 passengers per revenue hour for Saturday and 13.26 passengers per revenue hour for Sunday.

Passengers per mile averaged 2.00 on Saturday, and 1.78 on Sunday, therefore, the minimum productivity standards is 1.20 and 1.07 respectively. Cost per passenger average on Saturday was \$4.66 and on Sunday \$5.21. Using the 140 percent standard, the Saturday maximum would be \$6.52 and the Sunday maximum would be \$7.29. The farebox recovery ratio for Saturdays averaged 15.2 percent, while on Sundays the average farebox recovery ratio was 13.6 percent. As

with the passengers per hour measure, we evaluate individual routes based on a minimum of 60 percent of the system average, or 14.83 percent for Saturdays and 13.26 percent for Sundays. As noted earlier, Route 58 receives funding support from Children’s Hospital.

**Table 3.5: Fresno Area Express Saturday Service Indicators  
July 2015 to June 2016**

Route	Revenue	Revenue Miles	Revenue Hours	Total Passengers	Operating Cost	Pass/ Hour	Pass/ Mile	Cost/ Hour	Cost/ Pass	Farebox Recovery
9	\$53,491	40,264	3,172	75,378	\$374,455	23.76	1.87	\$118.05	\$4.97	14.3%
20	\$18,047	16,715	1,343	25,432	\$155,450	18.94	1.52	\$115.75	\$6.11	11.6%
22	\$30,702	25,469	2,048	43,265	\$236,862	21.13	1.70	\$115.66	\$5.47	13.0%
26	\$46,768	37,159	2,693	65,904	\$345,579	24.47	1.77	\$128.32	\$5.24	13.5%
28	\$83,014	41,580	3,451	116,981	\$386,694	33.90	2.81	\$112.05	\$3.31	21.5%
30	\$69,605	37,406	3,392	98,086	\$347,876	28.92	2.62	\$102.56	\$3.55	20.0%
32	\$57,604	38,633	3,391	81,174	\$359,287	23.94	2.10	\$105.95	\$4.43	16.0%
33	\$10,843	7,957	650	15,279	\$74,000	23.51	1.92	\$113.85	\$4.84	14.7%
34	\$58,288	37,900	3,398	82,138	\$352,470	24.17	2.17	\$103.73	\$4.29	16.5%
35	\$24,767	16,421	1,358	34,901	\$152,715	25.70	2.13	\$112.46	\$4.38	16.2%
38	\$62,636	51,981	3,991	88,265	\$483,423	22.12	1.70	\$121.13	\$5.48	13.0%
41	\$40,611	26,944	1,977	57,228	\$250,579	28.95	2.12	\$126.75	\$4.38	16.2%
45	\$13,343	19,175	1,347	18,803	\$178,328	<b>13.96</b>	<b>0.98</b>	\$132.39	<b>\$9.48</b>	<b>7.5%</b>
*58	\$2,653	6,598	423	3,739	\$61,361	<b>8.84</b>	<b>0.57</b>	\$145.06	<b>\$16.41</b>	<b>4.3%</b>
Totals	\$572,373	404,202	32,634	806,573	\$3,759,079	24.72	2.00	\$115.19	\$4.66	15.2%
					Min/Max	<b>14.83</b>	<b>1.20</b>	<b>\$161.26</b>	<b>\$6.52</b>	<b>9.1%</b>

\* Note Route 58 is subsidized by Valley Children’s Hospital.



**Table 3.6: Fresno Area Express Sunday Service Indicators  
July 2015 to June 20016**

	<b>Total Passengers</b>	<b>Revenue</b>	<b>Revenue Miles</b>	<b>Revenue Hours</b>	<b>Operating Cost</b>	<b>Pass/ Hour</b>	<b>Pass/ Mile</b>	<b>Cost/ Hour</b>	<b>Cost/ Pass</b>	<b>Farebox Recover y</b>
<b>Route</b>										
<b>9</b>	57,383	\$40,721	38,145	3,005	\$354,749	19.10	1.50	\$118.05	\$6.18	11.5%
<b>20</b>	21,740	\$15,427	15,836	1,273	\$147,275	17.08	1.37	\$115.69	\$6.77	10.5%
<b>22</b>	38,110	\$27,044	24,128	1,940	\$224,390	19.64	1.58	\$115.67	\$5.89	12.1%
<b>26</b>	59,378	\$42,137	35,203	2,551	\$327,388	23.28	1.69	\$128.34	\$5.51	12.9%
<b>28</b>	96,078	\$68,180	39,391	3,270	\$366,336	29.38	2.44	\$112.03	\$3.81	18.6%
<b>30</b>	78,073	\$55,403	35,438	3,213	\$329,573	24.30	2.20	\$102.57	\$4.22	16.8%
<b>32</b>	71,556	\$50,779	36,600	3,212	\$340,380	22.28	1.96	\$105.97	\$4.76	14.9%
<b>33</b>	15,013	\$10,654	7,538	616	\$70,103	24.37	1.99	\$113.80	\$4.67	15.2%
<b>34</b>	72,736	\$51,616	35,905	3,219	\$333,917	22.60	2.03	\$103.73	\$4.59	15.5%
<b>35</b>	27,700	\$19,657	15,556	1,287	\$144,671	21.52	1.78	\$112.41	\$5.22	13.6%
<b>38</b>	78,501	\$55,707	49,245	3,781	\$457,979	20.76	1.59	\$121.13	\$5.83	12.2%
<b>41</b>	48,422	\$34,362	25,526	1,873	\$237,392	25.85	1.90	\$126.74	\$4.90	14.5%
<b>45</b>	15,759	\$11,183	18,166	1,276	\$168,944	<b>12.35</b>	<b>0.87</b>	\$132.40	<b>\$10.72</b>	<b>6.6%</b>
<b>*58</b>	3,029	\$2,149	6,251	401	\$58,134	<b>7.55</b>	<b>0.48</b>	\$144.97	<b>\$19.19</b>	<b>3.7%</b>
<b>Totals</b>	683,478	485,020	392,928	30,917	\$3,561,230	22.11	1.78	\$115.19	\$5.21	13.6%
					<b>Min/Max</b>	<b>13.26</b>	<b>1.07</b>	<b>\$161.26</b>	<b>\$7.29</b>	<b>8.2%</b>
<b>* Note Route 58 is subsidized by Valley Children's Hospital.</b>										

**Weekend Service Ranking** - As with the weekday service, Tables 3.6 and 3.7 use performance standards to rank each route in the system, with routes that fall below the minimum standard are ranked at the bottom.

**Table 3.7: Fresno Area Express Saturday Service Ranking  
July 2015 - June 2016**

Route	Passengers/ Hour	Passengers/ Mile	Cost/ Hour	Cost/ Passenger	Farebox Recovery	Score
28	1	1	4	1	1	1.6
30	3	2	1	2	2	2.0
34	6	3	2	3	3	3.4
35	4	4	5	4	4	4.2
41	2	5	11	5	5	5.6
32	7	6	3	6	6	5.6
33	9	7	6	7	7	7.2
9	8	8	9	8	8	8.2
26	5	9	12	9	9	8.8
22	11	10	7	10	10	9.6
38	10	11	10	11	12	10.6
20	12	12	8	12	11	11.2
45	13	13	13	13	13	13.0
58	14	14	14	14	14	14.0

\* Note Route 58 is subsidized by Valley Children's Hospital.

**Table 3.8: Fresno Area Express Sunday Service Ranking  
July 2015 - June 2016**

Route	Passengers/ Hour	Passengers/ Mile	Cost/ Hour	Cost/ Passenger	Farebox Recovery	Score
28	1	1	4	1	1	1.6
30	4	4	1	2	2	2.6
34	6	6	2	3	3	4.0
33	3	3	6	4	4	4.0
32	7	7	3	6	5	5.4
41	2	2	11	6	6	5.4
35	8	8	5	7	7	7.0
26	5	5	12	8	8	7.6
38	9	9	10	9	9	9.2
22	10	10	7	10	10	9.4
9	11	11	9	11	11	10.6
20	12	12	8	12	12	11.2
45	13	13	13	13	13	13.0
58	14	14	14	14	14	14.0

\* Note Route 58 is subsidized by Valley Children's Hospital.

**Night Service** - Table 3.9 below includes productivity data for FAX night service. Night service is defined as all weekday service after 6:00 p.m. As with day-to-day service evaluations, individual routes are evaluated using system productivity standards. A minimum of 60 percent for passenger performance measures, and system maximum of 140 percent for system cost measures is applied to the system averages for service after 6:00 p.m. Again, routes not performing as required are shown in boldface type. In the case of FAX night service, routes 20, 22, 33, and 45 are all performing outside of productivity guidelines in one or more indicators.

As the table shows, FAX night service performance is far lower than either day or weekend service performance; however, this is typical of transit systems across the country.

**Table 3.9: Fresno Area Express Night Service  
July 2015 - June 2016**

Routes	Passengers	Miles	Hours	Revenue	Operating Cost	Pass/ Hour	Pass/ Mile	Cost/ Pass	Farebox Recovery
9	77,211	4,939	58,968	\$54,792	\$548,402	15.63	1.31	\$7.10	10.0%
20	42,157	3,276	41,580	\$29,916	\$386,694	12.87	1.01	\$9.17	7.7%
22	50,172	5,292	64,764	\$35,604	\$602,305	<b>9.48</b>	<b>0.77</b>	<b>\$12.00</b>	5.9%
26	105,340	9,324	116,172	\$74,753	\$1,080,400	<b>11.30</b>	<b>0.91</b>	\$10.26	6.9%
28	121,886	7,560	74,844	\$86,494	\$696,049	16.12	1.63	\$5.71	12.4%
30	90,996	6,048	66,024	\$64,574	\$614,023	15.05	1.38	\$6.75	10.5%
32	76,476	5,141	59,724	\$54,270	\$555,433	14.88	1.28	\$7.26	9.8%
33	14,490	1,890	22,428	\$10,283	\$208,580	<b>7.67</b>	<b>0.65</b>	<b>\$14.39</b>	<b>4.9%</b>
34	80,545	5,267	60,984	\$57,157	\$567,151	15.29	1.32	\$7.04	10.1%
35	49,208	3,213	38,052	\$34,920	\$353,884	15.32	1.29	\$7.19	9.9%
38	91,227	6,653	86,940	\$64,738	\$808,542	13.71	1.05	\$8.86	8.0%
41	78,724	5,443	76,860	\$55,865	\$714,798	14.46	1.02	\$9.08	7.8%
45	25,988	2,240	32,760	\$18,442	\$304,668	11.60	<b>0.79</b>	<b>\$11.72</b>	6.1%
<b>905,739</b>						<b>13.59</b>	<b>1.13</b>	<b>\$11.50</b>	<b>5.2%</b>
System-Wide Totals						System-Wide Averages			

**Findings** - For this SRTP, an automated peer selection process that identifies comparable transit systems for peer analyses was used. This approach was derived by the Florida Transit Information System ([www.ftis.org](http://www.ftis.org)) and uses a variety of criteria in the selection process. Criteria include: Urban Area Population, Vehicle Miles Operated, Operating Budget, Population Density, Service Area Type, Population Growth Rate, Percent Low Income, and others. The five transit agencies selected were: El Paso, TX; Albuquerque, NM; Tucson, AZ; Bakersfield, CA (GET); and Stockton, CA (RTD). All five agencies are Federal Transit Administration (FTA) Grant Recipients, and therefore, required to provide their system performance data to the National Transit Database (NTD). Furthermore, two are California agencies that must operate under the same California State Transportation Development Act Guidelines.

FAX placed well in the peer review process, with the highest passenger per hour and passengers per mile overall. Further, FAX placed first in farebox recovery. In an overall ranking with the peer systems, FAX scored first in three out five categories, placed second in cost per passenger, and fifth in cost per hour.

In the systems minimum/maximum standard assessment, only two routes were shown to fall outside of accepted standards. Route 58 is subsidized through a contract with Valley Children's Hospital which pays the incremental cost of operation, and as such, provides service to the citizens of Fresno at no extra cost.

The remaining route, Route 45, the City of Fresno has chosen to maintain because of its very high patronage by disabled citizens even though it has been a poor performing route for many years.

**Conclusions** - The bottom line of table 3.3 shows the total gross indicators, and the system wide performance measure. Starting with the first minimum indicator, Passengers per Service Hour, 60 percent of 35.00 is 21.00. Indicators that do not meet the system standard are shown in boldface type. Moving to Cost per Service Hour, the system wide average is \$118.43 and 140 percent of that is \$165.81. Route indicators which exceed this maximum are shown in boldface type.

The Third indicator is Cost per Passenger. The FAX system wide average is \$3.38, and 140 percent of that is \$4.74. As with the other indicators, those that exceed the maximum have been boldfaced. The final indicator is a farebox recovery ratio. The FAX system wide average is 20.97 percent and 60 percent of that is 12.58 percent. Again, those indicators that do not achieve the minimum are shown in boldface type.

At this point in the analysis, it is important to note the route marked with an asterisk: Route 58 is a route that is subsidized by an outside agency. Route 58 is the weekday service to Valley Children's Hospital (VCH), and receives incremental funding from VCH. Incremental costs are the direct costs associated with the service (such as fuel, tires and driver wages). Incremental costs do not include overhead costs (such as FAX Administration costs, or facility costs). Revenues received from the farebox on these routes are earned in addition to incremental costs.

## **Passenger Surveys:**

One of the most important elements of the FAX service evaluation process is the passenger survey. Passenger surveys allow public transit operators to include human aspects of service in the evaluation mix. Measurements of satisfaction, friendliness, and of opinions about services provided are most appropriately collected through customer surveys. Additionally, customer surveys provide an effective way to measure customer expectations and needs, and provide valuable information for quality decision making.

FAX utilizes detailed on board surveys. These surveys are used to collect information that is required by Federal and State agencies including passenger demographics, origin/destination information, and travel habits. This data also provides FAX with insights into the concerns of our passengers. For example, it was one of these passenger surveys that allowed FAX to prioritize service improvement options and select night service in 1999.

FAX Rider Origin, Destination and Needs Assessment - In conjunction with the Fresno Council of Governments (Fresno COG), FAX has hired various firms to conduct Customer Satisfaction Surveys since 1994. The purpose of the surveys is to identify areas which need improvement. Based on the survey findings, FAX has developed training programs and procedures to improve customer satisfaction in specifically identified areas. The surveys include a telephone survey and on-board surveys. The survey consisted of 1,542 completed survey forms with a margin of error of +/-2.5%. The primary purpose of the surveys was to assess the extent to which FAX customers are satisfied with the service they receive. Results of the previous surveys are identified on Table 3.11 Specific areas of inquiry included the following:

- Frequency of riding the bus
- Trip purpose
- Availability of a car for the current trip and other trips
- The extent and ease of using the bus lift
- Interest in training on how to use the lift
- Method of fare payment
- Convenience of the locations where tokens, tickets, and passes are sold
- The extent to which drivers announce the next stop
- Helpfulness of bus stop announcements
- The extent to which riders feel safe while waiting for the bus and while on the bus
- Reasons for not feeling safe
- Effect of knowing that the bus is equipped with a working video camera
- Effect of knowing that there is a vehicle tracking system in place
- Satisfaction with evening service
- Suggestions for improving FAX's overall service
- Respondent demographics such as employment, age, ethnicity, income, and gender

Using a traditional academic grading system, FAX riders gave FAX an 'A' for the following attributes; Bus Drivers Helpfulness, Driving Skills, Safety Awareness, and Availability of Route Information. FAX received a 'B' for Buses Running on Time, Service Frequency, Driver Courtesy,

Proximity of Stops, and Cleanliness of Vehicles and Stops. The lowest grade FAX received was a 'C' for hours of operation on Weekends, indicating a strong desire for service later in the evening on weekends. The overall service provided by FAX received a B+. Table 3.10 is the complete FAX report card including a description of the methodology used to develop the grading system.

**Table 3.10: Fresno Area Express Passenger Survey Report Card  
Rea and Parker Research - June 2014**

Service Attribute	Mean Rating	Report Card
Buses running on time	2.71	B-
Frequency of the buses	2.83	B-
Length of time to complete trip	2.70	B-
Cleanliness inside FAX buses	2.89	B
Cleanliness of the bus stops and exchanges	2.85	B-
Bus drivers' courtesy	2.44	B
Bus drivers' helpfulness	2.17	B+
Bus drivers' driving skills	2.14	B+
Bus drivers' safety awareness	2.17	B+
The overall comfort of the bus rides	2.42	B
Availability of FAX route/schedule information	2.47	B
Bus hours of operation on weekdays	2.67	B
Bus hours of operation on weekends	3.30	C+
Proximity of bus stops to home	2.21	B+
Proximity of bus stops to destination	2.21	B+
Value provided by FAX for the price paid	2.38	B
Overall service provided by FAX	2.30	B+

**Table 3.11 Historical Survey Results**

Research Firm	R & P 2014 *	AIS 2011 *	AIS 2009*	AIS 2007*	Moore 2005
Trip Purpose					
Work	46.0%	42.0%	47.0%	41.0%	26.7%
School	43.0%	38.0%	40.0%	40.0%	19.0%
Shopping	30.0%	25.0%	31.0%	26.0%	10.5%
Medical	18.0%	17.0%	18.0%	11.0%	7.1%
Recreation	13.0%	21.0%	24.0%	16.0%	4.3%
Personal Business	37.0%	39.0%	38.0%	26.0%	23.8%
Other	3.0%	2.0%	N/A	6.0%	8.6%
Transit Dependant	79%	77%	82%	83%	73%
Total Annual Household Income Less Than \$20K	82%	71%	70%	55%	46%
Employed Full or Part-time	46%	41%	41%	43%	41%
Student	21%	28%	30%	27%	31%

\* Respondents were allowed to select multiple answers for trip purpose.

The most recent survey findings by Rea and Parker in June 2014 reported that 23% of FAX riders use the service 9-12 times per week, with an additional 13% using the system more than 12 times per week. Overall, over 36% of the transit riders are taking 9 or more trips per week. Beginning in 2007, the survey allowed individuals to select more than one answer to purpose of trip. This gives us a better indication of who uses the system for multiple trip types and doesn't force a single answer. The most popular trip purpose was work at 46%, closely followed by School at 43%. Personal Business was next at 37% with recreation, medical, and shopping finishing up the list. Rider demographics are somewhat reflective of the trip purpose findings with 46 percent of all riders interviewed being employed either part time or full-time, and 21 percent of all riders interviewed were students. A noticeable trend over the last 10 years is that although a significant number of trips by passengers are still for work related activity, passengers are using the FAX system more and more for shopping and personal business.

Other demographics show that riders tend to be young with 55 percent of riders less than 35 years of age. In addition, Hispanic/Latino comprised 46 percent of those surveyed, while Caucasians and African Americans comprising 25 percent and 18 percent respectively. The remaining 11% comprised of Asians, including Hmong, Cambodian, and Laotian. Finally, the gender split of the riders interviewed was 41% male and 59% female.

The Rea and Parker Research final report identified several areas for possible improvement including on-time performance, time to complete the trip, hours of operation on weekends, and frequency of buses. Survey findings show that overall satisfaction with FAX as a transit provider has decreased with a combined score of 66% for Satisfied or Very Satisfied. Add in Slightly Satisfied and the overall approval equals 86%. Most FAX riders do not have transportation alternatives for work or school. The fact that FAX riders tend to be young, low-income and ethnic minorities, serves to underscore the importance of FAX service in an era of welfare reform. It is also significant to recognize that there is substantial demand for providing more frequency of service and more routes. To the extent that providing such service is feasible, it might well increase access to jobs, education, and increase ridership.

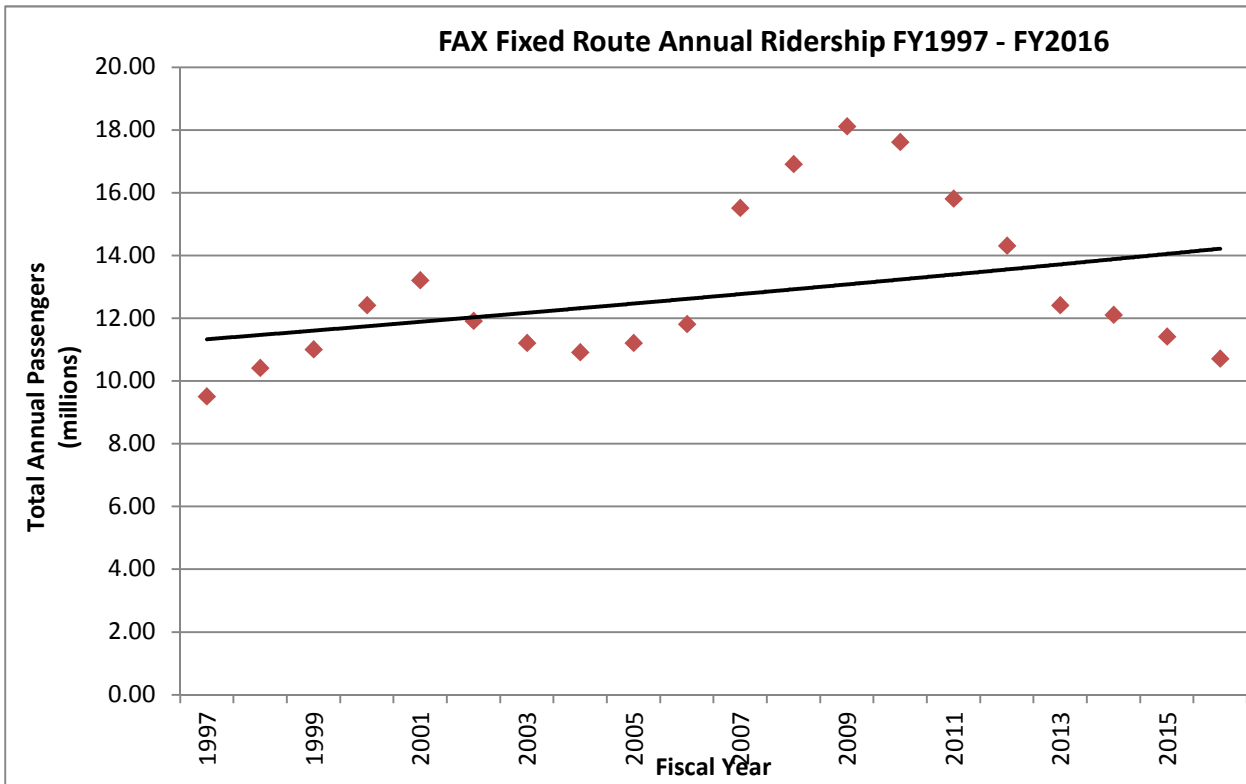
Handy Ride - Handy Ride offers demand responsive, curb to curb service seven days a week during the same hours as the Fixed Route service. The Handy Ride service area is somewhat larger than the fixed route area, and is described in Chapter I. Reservations for ADA Certified individuals are accepted during normal business hours the day before the desired trip. Service hours for Handy Ride mirror those of the FAX system.

From December 2005 to January 2013, MV Transportation, Inc. has been contracted to provide paratransit service for Fresno Area Express. Support Services Division of FAX is responsible for directly overseeing the administration of the Handy Ride contract and assuring full compliance with the requirements set forth by the 1990 Americans with Disabilities Act (ADA). Under this organizational structure, FAX and MV Transportation has made significant progress towards improving the efficiency and cost-effectiveness of the program. "No Shows", when a client fails to fulfill a scheduled trip, have historically hindered the paratransit service. In FY 2010 Handy Ride reduced "No Shows" to just over 2%, representing a savings of \$21,534. In 2012, this number has been reduced to 1.8%. In February 2013, Keolis Transit America took over the contract to paratransit services for the City of Fresno.

FAX continues to closely monitor Handy Ride service in order to assure compliance with the city contract and with the ADA. Handy Ride's ridership increased in FY 2014 from 203,999 passenger rides in FY2013 to 207,322 passenger rides in FY14. Table 3.13 presented below shows Handy Ride's annual ridership. Beginning in late 2002, Handy Ride changed its reservation system from 14 days in advance to 1 day in advance. This change originally resulted in an increase in taxi usage, which peaked in FY 2006 with over 49,000 taxi trips. In FY 2010, MV eliminated taxi usage, and Handy Ride continues to experience no trip denials for its passengers.



Figure 3.10: FAX Fixed Route Annual Ridership FY1997 - FY2016



Annual Ridership on FAX bus routes has increased 10.56% in the 20-year period of time from 1997 to 2016: from 9,545,574 riders in FY1997 to 10,672,577 riders in FY2016.

Figure 3.11: FAX Fixed Route Annual Operating Costs FY1997 - FY2016

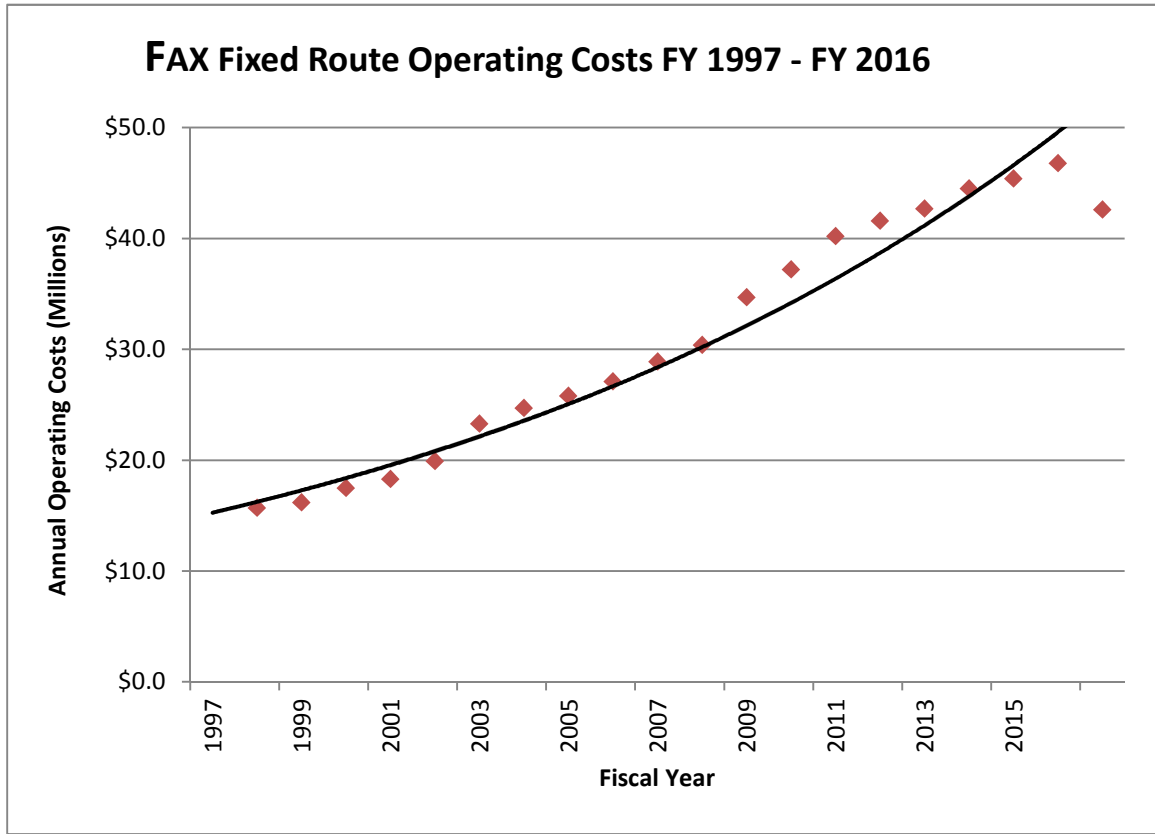


Figure 3.11 illustrates how annual operating costs for the FAX system have steadily increased year after year – from \$15.7 million in FY1995 to \$43.0 million in FY2014.

**Figure 3.12: Comparison of Ridership vs Operating Costs**

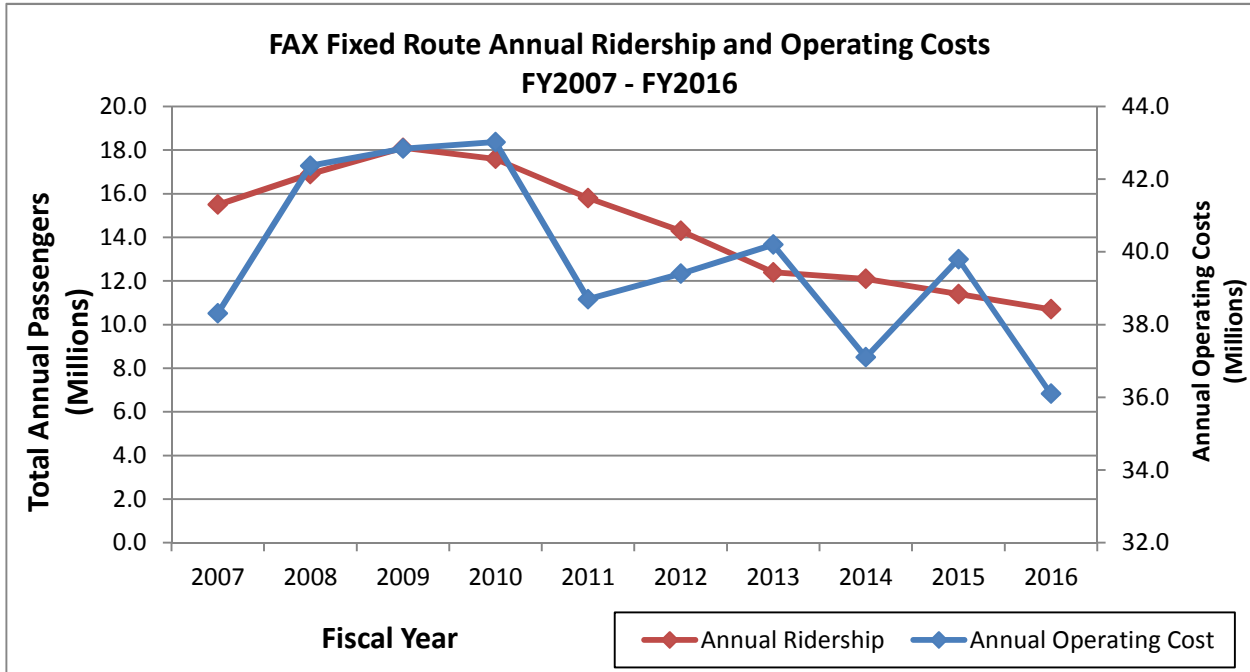


Figure 3.12 illustrates that ridership, since the economic downturn, has fallen faster than operating costs. Prior to 2010, ridership was trending up while operating costs were remaining relatively flat. Because of the effects on service from the economic downturn, FAX began building an operating reserve. Historically, there has been no money being set aside for reserves.

**Table 3.13: Handy Ride Annual Mileage and Ridership FY1995 – FY2016**

<b>FISCAL YEAR</b>	<b>VEHICLE MILES</b>	<b>% CHANGE</b>	<b>TOTAL PASS.</b>	<b>%CHANGE</b>	<b>MILES/ PASS.</b>
1995	575,345	22.9%	89,256	25.3%	6.4
1996	526,562	-8.4%	87,466	-2.0%	6.0
1997	402,443	-23.6%	86,504	-1.1%	4.7
1998	635,611	57.9%	96,026	11.0%	6.6
1999	687,902	8.2%	97,566	1.6%	7.0
2000	773,874	12.5%	95,603	-2.0%	8.0
2001	868,861	12.2%	100,832	5.4%	8.6
2002	920,744	5.9%	102,976	2.1%	8.9
2003	1,011,081	16.9%	133,483	29.63%	7.5
2004	1,182,065	5.9%	169,898	27.01%	6.9
2005	1,084,752	-8.23%	192,556	13.34%	5.6
2006	982,540	-10.4%	182,818	-5.3%	5.4
2007	963,836	-1.94%	180,674	-1.2%	5.4
2008	1,172,610	17.8%	222,428	34.0%	5.3
2009	1,119,986	-4.70%	234,423	5.12%	4.8
2010	1,609,206	30.4%	238,707	1.79%	6.7
2011	1,191,892	-35.01%	227,955	-4.72%	5.2
2012	1,123,401	-6.10%	209,473	-8.82%	5.4
2013	1,094,217	-2.67%	203,999	-2.68%	5.4
2014	1,091,972	-0.21%	207,322	1.60%	5.3
2015	1,147,886	4.87%	209,431	1.01%	5.5
2016	1,140,144	-0.68%	200,826	-3.77%	5.7

### **Handy Ride Assessment of Service and Rider Needs:**

In September 2011, FAX commissioned AIS Market Research to conduct 200 random interviews with Handy Ride customers on their satisfaction with various service attributes. Fifty riders were interviewed in-person while on-board Handy Ride vans and 151 customers were interviewed by phone. The interviews were conducted from early October through mid-November 2011. The last Handy Ride Satisfaction Study, prior to this, was conducted in June 2007.

Overall, a report card with letter grades was generated for the first time in a report on FAX's Handy Ride satisfaction performance. Handy Ride earned 13 A's and 3 B's on the sixteen service attributes evaluated. The relatively less satisfactory performance areas were Scheduled pick-ups, Will Call pick-ups and Value Provided by Handy Ride for the fare paid..

### **3.3.0 Service Justification**

In 2006, Fresno County voters approved a half-cent sales tax called Measure C. Measure C included a projected \$5 million reserve for the completion of the PTIS and the formation of a regional transit agency.

The PTIS evaluated mobility needs and opportunities, and identified strategies for public transit and transit supportive infrastructure development that will result in wider acceptance and use of non-automobile transportation modes such as public transit, bicycle and pedestrian travel. In addition to the development of viable alternative public transportation options for Fresno County, this study developed ridership projections and cost estimates for various growth and development scenarios that will be used to establish a long-range plan leading to optimum connectivity within the region.

A Regional Transit Agency Formation study was completed in 2007. The Study which included peer evaluations, policy level stake holder interviews, an evaluation of existing system performance and coordination efforts, found that Fresno County public transportation operators already have a high level of cooperation and coordination. Additionally, based on peer evaluations, Fresno County Operators are providing a cost-effective and productive service. The Study recommends the formation of a 'Transit Coordinating Council' which would consist of policy level members and technical staff support. The purpose of the Council would be to continue to explore improved coordination potentially leading a regional transit agency.

In June of 2015, the Fresno Council of Governments approved the Fresno Clovis Metropolitan Area Public Transportation Strategic Service Evaluation. This study was commissioned by the Fresno COG to examine metro travel patterns through extensive origin and destination studies; transit ride check and transfer studies; and public and stakeholder input with a goal of reducing transit travel times, increasing service reliability, and improving linkages to major trip generators. The Strategic Services Evaluation identified a preferred transit system network for the

City of Fresno and recommends what is referred to as a 'Frequent Service Network.' The Frequent Service Network which emphasizes 15 minute or more frequent service on key corridors serving the densest development. This would be the foundation for multi-directional travel, and have the most promise to increase productivity throughout the system. Other network strategies include a coverage strategy that would emphasize serving a larger area with less frequent service, but would attract fewer riders and promise lower productivity.

### **3.3.1 Bus Service Expansion Program**

#### **Unmet Transit Needs**

The annual Unmet Needs Report, administered by the Fresno COG has not had any findings related to FAX for the last two years and is not expecting any unmet needs to be identified in FY 2018.

The City of Fresno, in cooperation with the Fresno COG, has reached out to all the major employers in the greater Fresno metropolitan area to determine the public's awareness of the availability of the Fresno Area Express (FAX) bus service and the Valley Rides program. Both services offer excellent transportation alternatives to the drive-alone commuter and are almost sure to save the worker now driving alone to work significant savings over his or her current costs.

FAX has been experiencing capacity issues during peak period service. These capacity issues occur most frequently near schools, and are present for only short periods of time, often less than two hours. The major routes that are impacted have been improved to 15-minute frequency. This has helped, but capacity issues are still prevalent in the system.

Service Coverage - As the urbanized area continues to spread, more and more development is occurring where public transportation does not currently exist. These newly developed areas, as a rule, do not have the density to justify fixed-route service on 30 minute headways. Additionally, adjusting trunk line service is a difficult and often very costly solution. FAX has evaluated circulator service as an option for providing service in currently un-served and newly developing areas. The FANS service, as discussed earlier, is an example of how this type of service could potentially serve these areas. The concern is the low productivity of this type of service and its ability to meet productivity standards.

FAX continues to promote increased densities in order to create a transit system that functions more effectively and efficiently. We encourage businesses that serve the transit dependent to consider transit developed corridors whenever relocation is needed.

### **3.4.0 Customer Services and Public Information Program**

FAX desires to increase ridership while enhancing customer satisfaction with transit services. To accomplish this, new initiatives have been implemented and described below.

Public Information and Outreach - During FY16, FAX continued the implementation of various Marketing and Service Development strategies. Efforts have been made to provide a program of public information and outreach activities with the intent to increase public awareness and ridership as well as improve public perception of public transportation in the FCMA.

FAX Planning Staff continues to work with major employers at work sites throughout the FAX service area. Work site visits were conducted to promote transit services and gather suggestions to improve existing services. Transit user guides such as transit schedules, bike rack user guides, system maps, transit commuter benefit information, FAX newsletters, and service change announcements were made available. Additionally, transit trip planning was provided to assist new passengers.

FAX has recently implemented a Trip Planning Software system that also utilizes an Interactive Voice Response (IVR) system. Passengers are now able to retrieve FAX scheduled service and information 24 hours a day, seven days a week. In addition, new bus stops at each stop are uniquely numbered and passengers can call in, identify the stop they are at, and get the time of the next scheduled bus. The web based trip planner allows customers to pre plan any trip in the Fresno-Clovis Metropolitan Area.

### **3.5.0 Recent Planning Activities**

Recent Planning Studies that have a relationship to this SRTP are detailed below.

#### **Fresno County Public Transportation GAP Analysis and Service Coordination Plan**

This planning and research project will meet the goals of the Fresno County Human Services Coordinated Transportation program by identifying specific needs of the transportation disadvantaged people in Fresno County and preparing an implementable plan to meet those needs. Identifying the barriers and gaps experienced by these groups as they seek to gain employment or simply travel to and from work, and determining the best methods to overcome those barriers will be of the highest priority. This study was completed in January 2015.

#### **FAX Routes Restructure Analysis (Draft) by Nelson Nygaard, April 21, 2010**

The objective of this planning effort was to build a new route structure for FAX that focuses on the many strengths of the current system while trimming the system to operate at a more sustainable level given the current economic realities. At the outset, the goal was to reduce annual revenue hours by 18%. The analysis was structured around a number of core service principles:

- Retain as much of the grid system as possible.
- Retain as much of the high frequency service as possible.
- Prepare the system for the first phase of implementation of BRT<sup>6</sup>

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<sup>6</sup> As generally outlined in the Kimley Horn and Associates, Inc. Bus Rapid Transit Report

- Reduce route duplication

A restructured system was designed that cut 208 daily hours of service, eliminated the need for 17 buses and reduced daily revenue hours by 6.5 hours or 1.1% of the system total revenue hours for a total annual savings of about 53,700 hours or 16.5%. Beginning in FY 2013, Fax will follow up this study with a in depth study that will provide multiple alternative transit solutions for the future. This will be completed by Parsons-Brinckerhoff.

### **FCMA Public Transportation Strategic Service Evaluation**

In 2013, the Fresno Council of Governments (COG) embarked on a Strategic Service Evaluation of the Fresno-Clovis Metropolitan Area (FCMA). The study's goal: Define changes that would make transit a better option than the auto. The study revealed that this could be accomplished by reducing travel times, improving linkages to major trip generators and boosting overall productivity, including cost effectiveness and sustainability of transit.

The Strategic Service Evaluation focused on three main transit considerations:

- Long-term policy goals – review of the current federal, state and local policies that influence transit service.
- Cost-effectiveness – evaluation of current transit system performance, including revenue hour/vehicle hour, max load factors and boardings per hour.
- Customer service and safety – review of existing travel patterns on both transit and auto modes and consider public opinion of the current transit

The Fresno COG circulated the Public Transportation System Assessment publicly and solicited feedback from transit users and key stakeholders. This outreach effort culminated in the identification of a Preferred Network Plan for possible implementation. The Preferred Network solidifies the FAX bus service as a productivity based network through a series of operational and capital improvements that work together to improve efficiencies, customer service, and address perceptions of safety.

A key component of the Preferred Network is the establishment of a Frequent Service Network. With the Frequent Service Network, popular routes operate 15-minute or better frequencies throughout peak and midday periods. It will serve a large share of Fresno's population (though not its land area) with a level of service that will improve transit for existing riders and make transit more appealing to potential riders.

In addition to the recommended service and capital improvements, a series of policy changes are proposed to facilitate the potential implementation of the Preferred Network.

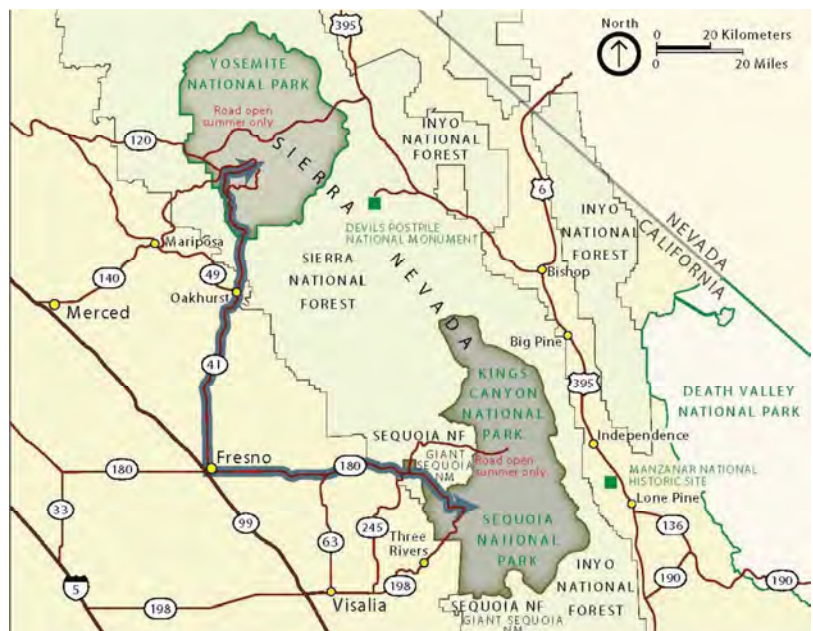


## Yosemite, Sequoia and Kings Canyon National Park Transit Market Assessment and Feasibility Study, Fehr and Peers, February 2011

The purpose of this feasibility study is to determine the viability of implementing one or more transit routes between the City of Fresno and Yosemite, Sequoia and Kings Canyon National Parks. Feasibility is assessed based on a number of factors, including local support, ridership potential and financial sustainability.

The feasibility assessment examines two transit routes: one between the City of Fresno and Yosemite National Park and another between the City of Fresno and Sequoia and Kings Canyon National Parks.

The route to Yosemite would begin at the Fresno Greyhound Station (downtown), stop at the Amtrak station, Fresno Yosemite International Airport, Fresno State, north Fresno/State Route (SR) 41 hotels, Chukchansi Gold Resort-Casino and Oakhurst before entering Yosemite National Park (South Entrance) and stopping at Yosemite Village Center, Curry Village, Ahwahnee Hotel and Yosemite Lodge. The route (one-way) is approximately 100 miles, and one-way travel time from the Fresno Greyhound Station to Yosemite Lodge would be about three hours.



The route to Sequoia would begin at the Fresno Greyhound Station (downtown), stop at the Amtrak station, Fresno State and Fresno Yosemite International Airport before entering Kings Canyon (Big Stump entrance) and stopping at Grant Grove (Kings Canyon), Montecito-Sequoia Lodge (Sequoia National Forest), Stony Creek Village (Sequoia National Forest) and Wuksachi Village (Sequoia National Park). The route (one-way) is approximately 85 miles, and one-way travel time from the Fresno Greyhound Station to Wuksachi Village would be about two hours and twenty minutes.

The results of the feasibility assessment indicate that substantial amounts of demand exist for both the Fresno-Yosemite route and the Fresno-Sequoia/Kings Canyon route. This is due to a combination of factors including growing attendance levels at the parks, the large population base of the Fresno region, the major transportation hubs (i.e., Fresno Yosemite International Airport, Greyhound and Amtrak Station) in Fresno, the number of hotel rooms both in Fresno and along the SR 41 corridor (Oakhurst, Wawona, etc.) and major generators such as Fresno State. The

success of peer service provided by YARTS (to Yosemite National Park) and Sequoia Shuttle (to Sequoia National Park), from much smaller markets, reinforces the potential for success.

**The Public Transportation Infrastructure Study (PTIS), Kimley-Horn and Associates, 2008-2011**

The PTIS study was funded by Measure “C” monies and is being finalized now for presentation to elected officials in May of this year. The Final Draft PTIS Study makes detailed recommendations to enhance walking, bicycling and transit use by intensifying development densities in close proximity to the planned high capacity transit corridors. The PTIS policy recommendations illustrate how current FAX policy can be integrated into an action plan for implementation. The summary recommendations only are presented here. For the full list of proposed Smart Growth policies and strategies see the full PTIS Study Report online at [www.FastTrackFresnoCounty.com](http://www.FastTrackFresnoCounty.com).



**Summary of PTIS Policy Recommendations:**

Policy recommendations were made by the consulting team on the PTIS Study for implementation by the City of Fresno, Fresno County, and the cities and towns of greater Fresno County to meet the study objectives. These land use recommendations, endorsed by City of Fresno staff fall under seven broad categories:

1. Locate a major portion of all new households, office and retail/commercial employment within planned and proposed high capacity transit corridors.
2. Approve general plan and zoning authorization to support high capacity transportation corridors: 15 to 18 du/ac average residential infill density within ½ mile proximity and 8 to 12 du/ac within ½ to 1 mile proximity of planned and proposed transit corridors and downtown of Fresno.
3. Implement general plan and zoning authorization, together with other incentives and creative public-private partnerships to facilitate establishment of transit oriented developments that provide a variety of housing types to serve broad range of household sizes and incomes within BRT and other identified transit corridors and downtowns of Fresno, Clovis and other Fresno County cities.
4. Reduce the parking requirements for new development within planned BRT and other designated transit corridors and downtown Fresno and Clovis to promote a higher return on investment for TOD projects.
5. Reduce the existing over-supply of surface parking within the planned BRT corridors and downtown Fresno, utilizing shared parking agreements, reciprocal access agreements, public parking facilities and the conversion of surface parking to other uses.

6. Limit the extent of fringe development and expansion of the sphere of influence within the County of Fresno and the incorporated cities in conjunction with the other identified strategies to promote infill development and achieve the smart growth objectives.

7. Require that proposed new development located within the fringe areas of the Fresno-Clovis Metropolitan Area and the surrounding Fresno County area bear the full costs of providing public infrastructure improvements together with the long-term maintenance of these public facilities.

### 4.1.0 Introduction

The Financial Plan presents FAX's financial forecasts associated with projected transit services including capital projects to maintain, enhance, and expand FAX services. The Baseline Plan demonstrates that FAX has the financial capacity to operate and maintain all planned services without assuming any significant new local sources of operating revenue. The Fresno COG recently conducted a survey on the Measure C funds, and determined that over the next twenty year period there will be an increased demand for transit, therefore, public policies in the future should favor support of transit.

### 4.2.0 Capital Program

FAX presently operates 111 buses, 48 Handy Ride paratransit vans, 9 sedans, a maintenance facility, and a transit center. Table 4.1 summarizes costs and funding sources for operations from FY18 through FY22. Costs and revenue are shown in FY17 dollars. FAX is proposing some significant capital improvements over the next five years.

The total five year Capital Improvement Program (CIP) for FY18 through FY22 is projected to cost \$53.5 million as identified in Table 4.2 Capital expenditures are targeted in seven primary project areas including:

- Heavy duty 30'/40' buses
- Manchester Center Remodel
- Fixed Route Facility Remodel
- Transit Signal Prioritization
- Bus Wash/Vault Facility
- Bus Rapid Transit
- CAD/AVL System Replacement
- Passenger amenities and facility upgrades
- Handy Ride vehicle purchases, and equipment
- Non revenue vehicle replacements
- Planning

Additionally, planning expenditures for projects and services performed by Fresno COG staff assigned to FAX are included in the CIP. Preventative maintenance programs and vehicle tire leases are capitalized for reimbursement through FTA. Capital leases for paratransit vehicle tires and the paratransit facility are capitalized, as well as the paratransit maintenance program provided through a contractual agreement with Keolis Transit America.

**Table 4.1: Operating Revenue and Expenditure Projections**  
**Department of Transportation - Fresno Area Express**  
**FY2017-FY2021 Operating Revenue and Expenditure Projections**

	FY2017	FY2018	FY2019	FY2020	FY2021
<b>Resources</b>					
<b>One-Time Resources</b>					
Carryover	1,742,300	4,552,700	4,726,980	4,058,809	3,308,106
Prior Year Adjustment					
Prior Year Grant Revenues	12,435,300	6,523,600	6,884,000	7,257,100	7,329,671
Transfer to Operating Match	(4,000,000)	0	0	2,000,000	8,900,000
	10,177,600	11,076,300	11,610,980	13,315,909	19,537,777
<b>Operating Revenue</b>					
State TDA/LTF Funds	26,152,400	26,936,972	27,745,081	28,577,434	29,434,757
Passenger Fares	7,810,900	7,810,900	7,967,118	8,126,460	8,370,254
Measure C	9,979,800	10,279,294	10,587,670	10,905,297	11,232,453
Federal 5307 Grant Funds	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Federal CMAQ Grant Funds	1,170,100	2,923,473	2,923,473	1,753,403	0
Advertising and Other Govt Rev	560,000	560,000	560,000	560,000	560,000
State LCTOP	430,800	803,333	803,333	372,500	0
CNG Tax Rebate	450,000	402,505	0	0	0
Transfers	(4,000,000)	(2,500,000)	(2,500,000)	(2,500,000)	(1,500,000)
Misc Revenue/Interest	124,600	161,370	201,540	165,165	(224,410)
	46,678,600	51,438,842	52,288,215	51,960,259	51,873,054
	<b>56,856,200</b>	<b>62,515,142</b>	<b>63,899,196</b>	<b>65,276,168</b>	<b>71,410,831</b>
<b>Expenditures</b>					
<b>Operating Expenditures</b>					
Employee Services	32,874,300	37,106,888	38,591,164	40,134,810	41,740,202
Purchased Prof and Tech	7,089,100	7,301,773	7,520,826	7,746,451	7,978,845
Purchased Property Services	1,849,800	1,905,294	1,962,453	2,021,326	2,081,966
Other Purchased Services	170,600	175,718	180,990	186,419	192,012
Supplies	4,695,200	5,551,803	5,718,357	5,889,908	6,066,605
Property	152,500	152,530	152,561	152,593	152,626
Other Objects	771,600	794,748	818,590	843,148	868,443
Interdepartmental Charges	4,700,400	4,799,408	4,895,446	4,993,407	5,093,328
<b>Total Operating Expenditures</b>	<b>52,303,500</b>	<b>57,788,162</b>	<b>59,840,387</b>	<b>61,968,062</b>	<b>64,174,026</b>
<b>TOTAL OPERATING SURPLUS/(DEFICIT)</b>	<b>4,552,700</b>	<b>4,726,980</b>	<b>4,058,809</b>	<b>3,308,106</b>	<b>7,236,805</b>

Note: All Revenue and Operating Cost data are projected. Includes FTA reimbursements for planning, and preventative maintenance expenses.

#### **4.2.1 Revenue Vehicles and Vehicle Equipment**

FAX's revenue service vehicles include buses and paratransit vans. Replacement of existing revenue vehicles is one of FAX's highest capital priorities. The SRTP projects an annual operating budget of \$46.7 million in FY17 increasing 10.1 percent to \$51.9 million in FY21 (see Table 4.1). Projected operating revenues are anticipated to offset total costs over the five year period and will result in an estimated surplus of \$7,23,805 by FY21. The projected operating budgets assume fares will be flat over the 5 year period and a 2.0% increase in State LTF funds.

##### **Bus Replacement**

Cost estimates for replacement buses programmed in FY16 and beyond are based primarily on APTA survey data for 30-foot, 35-foot, 40-foot and 60-foot (articulated) buses. Primary funding for replacement buses is assumed to be from the Federal Transit Administration (FTA) in the form of Section 5307 (Urbanized Area Capital) and Section 5309/5339 (Bus and Bus Facilities). Each of these programs requires approximately 20% FAX local match. Additional funding can come from Congestion Mitigation and Air Quality (CMAQ) grants and from the San Joaquin Valley Air Pollution Control District (SJVAPCD).

**Full-size buses** - FAX has purchased Compressed Natural Gas vehicles which comprise the best available technology for reducing harmful vehicle emissions. With their purchase, FAX and the Fresno COG are implementing their commitment to cleaner air. The total five-year fleet replacement program cost is over \$4.5 million.

**Paratransit buses** - As part of the CIP, FAX will be ordering paratransit buses in FY18 through FY22. A total of 19 replacement vehicles are programmed for a five-year program cost of \$3.7. This figure includes any vehicle funded through the Caltrans 5310 program which includes funding for the replacement and expansion of paratransit vehicles. FAX will continue to apply for these competitive grants in the future to help offset the costs of vehicle replacements.

## Bus Expansion

System efficiencies based on productivity will continue to be the basis for shifting system resources in the future. Route cost analysis based on fully allocated costs will be an integral part in determining feasible tradeoffs and future service improvements. Within the proposed service level, service adjustments will be made during the planning period on individual routes and schedules to reflect existing and changing ridership characteristics and needs. The SRTP recommends that any future required service adjustments continue to be made on the basis of the goals, standards and objectives listed in Chapter 1. This type of service will provide relief for some of FAX's highest volume bus routes. Service changes will be made on the busiest routes as required to address on time performance.

## Paratransit Facility

Fresno Area Express (FAX) is required by law to provide transit service to ADA certified eligible citizens in an overlay of its fixed-route transit service in time and geography. This service, known as Handy Ride, is demand-response and therefore requires extensive reservation and dispatch functions, including computer and radio technology applications and the staff to operate the system. Additionally, Handy Ride includes the paratransit staff and equipment involved in the certification of ADA eligible customers, as well as a fleet of 57 vehicles that require secure parking and maintenance facilities. In February 2012, FAX opened its newly purchased Handy Ride facility on north Blackstone, just south of Gettysburg. This new facility allowed staff from the contract provider as well as FAX to be located in the same building. This has improved relations and provides FAX with direct access for contract monitoring.

### 4.2.2 Support Vehicles

FAX has determined that the optimal point to replace non-revenue vehicles to minimize capital outlays, maximize reliability and minimize repair costs, ranges between six and 20 years and a minimum of 85,000 miles, depending on vehicle type and usage. Vehicles are generally scheduled for replacement according to age, mileage, vehicle condition, and reliability requirements for each vehicle type as follows:

Field supervisor accessible handivans	6 years or 100,000 miles
Sedans & passenger vans .....	8 years or 85,000 miles
Mini pickups, station wagons, Road call trucks, utility vehicles ...	10 years or 100,000-120,000 miles
Cargo vans, medium trucks .....	12 years or 100,000 -120,000 miles
Heavy trucks, utility equipment ....	15-20 years

FAX's fleet of non-revenue vehicles assists in the operation of the fixed route service. This fleet is composed of stock vans which are used to make driver shift changes, provide for road supervisor

inspection and assistance and response to road calls. Also included are large trucks, pickup trucks, forklifts and trailers which are used in maintenance and operations.

#### **4.2.3 Passenger Facilities Expansion and Rehabilitation**

FAX's passenger facility capital improvement program includes bus stop improvements, and replacement of transit passenger amenities such as information signs, benches and bike lockers.

**Bus Stop Accessibility Improvements** - To meet ADA requirements for bus stop accessibility, FAX has developed a program to upgrade all deficient bus stops. To date, improvements to over 550 of the over 1,200 stops have been completed. The new and reconstruction of bus stop areas for convenient, comfortable, and safe passenger waiting areas will also include upgrading of benches and bus shelters in the project area. FAX has installed or replaced over 500 benches and 190 bus shelters over the last few years, and will continue to upgrade these facilities throughout the system. Manchester Transit Center, located at 3590 North Blackstone Avenue is a major transit hub for FAX and allows customers to transfer between six separate bus lines. Staff recognizes the facility has suffered from deferred maintenance due to economic constraints. The remodel and revitalization of Manchester Transit Center will address the following elements:

- New transit shelters and associated amenities.
- Redesigned and improved path of travel between transit shelters and customer service building.
- Improved ADA access to transit shelters and customer service building.
- Redesigned landscaping and security lighting.
- Modernized exterior façade of the customer service building.
- Infrastructure for future transit technology and security devices.
- Right of way improvements include revised grades, curbs cuts, and reinforced bus pads.
- New color message display boards will added to each shelter by exercising the add/alternate included in the bid proposal.

The planned site improvements will also address several accessibility barriers identified in the City's ADA Facilities Transition Plan.

Another passenger facility with planned improvements is FAX's bus shelters A, B and L at Courthouse Park. These stations were constructed in two phases in the late 1970s and 1980s. Minimal changes to the facility have been made since completed resulting in repairs deferred over the years due to economic constraints. The condition and aesthetics of the three shelters and the surrounding area do not provide a safe, clean and convenient atmosphere that would attract



ridership. The remodel and revitalization of the Courthouse Park Transit Center will address the following elements:

- New modern transit shelters and associated amenities.
- Improved ADA access to transit shelters.
- Improved transit shelter lighting.
- Concrete sidewalk improvements.
- Redesigned landscaping.
- Infrastructure for future transit technology and security devices.

With the implementation of increased frequencies on sections of two of the busiest corridors in the FAX system, FAX seeks to add modernized passenger amenities at 64 locations servicing and intersecting bus routes 9 and 38 along Cedar and Shaw Avenues. Planned passenger amenities may include new bus shelters, security lighting, benches and trash cans.

**Planning Projects** - Planning projects provide support of planning functions. An ongoing planning function is necessary to provide FAX with information to adjust the system for long range and short range transit needs, and to meet the various complex Federal and State Transportation planning requirements. Fresno COG planning staff performs all service planning functions for FAX, through a contractual agreement with the City of Fresno, Department of Transportation. A Transit Scheduler is included in the FAX planning section to perform scheduling duties. Consultant studies are also coordinated by Fresno COG staff. Planning Projects are programmed for a total of \$1.5 million over the life of the SRTP.

**Bus Rapid Transit** - Planning for BRT in Fresno has been ongoing since 2007. The project was selected following the June 2008 Bus Rapid Transit Master Plan<sup>7</sup> and an alternatives analysis process culminating in the selection of the Blackstone/King Canyon BRT Project. The project is included in the constrained portion of the Regional Transportation Plan (RTP). The complete Locally Preferred Alternative (LPA) selected by the Fresno City Council on August 27, 2009, which included the Blackstone segment, was amended to the RTP in November, 2014. The Blackstone/Kings Canyon BRT project includes transit signal priority, real-time bus arrival displays and proof-of-payment fare collection; service will be operated using low-floor, low emission compressed natural gas (CNG) buses.

**Project:** Bus Rapid Transit - 15.7 Miles, 51 Stations

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<sup>7</sup> Council of Fresno County Governments (COFCG). June 17, 2008. *Bus Rapid Transit Master Plan*. <http://www.fresno.gov/NR/rdonlyres/46E037A5-7C80-4A5A-935D-DCE67B77A230/0/FresnoBRTMasterPlan20080617.pdf>. Accessed May 9, 2012.

**Total Capital Cost (\$YOE):** \$48.19 Million

**Section 5309 Small Starts Share (\$YOE):** \$38.55 Million (80.0%)

**Annual Forecast Year Operating Cost:** \$3.79 Million

**Opening Year Ridership Forecast (2017):** 7,200 Average Weekday Boardings

**Project Purpose:** The Blackstone/Kings Canyon BRT project will improve the speed and reliability of service in a commercial corridor with existing high transit demand. Much of FAX's ridership in the corridor is low-income or transit-dependent. BRT service will provide faster connections between Southeast Fresno; downtown Fresno, a regional hub for civic and governmental institutions; and North Fresno, which houses significant education campuses, medical centers, and commercial centers.

**Bus Stop Spacing Evaluation:** FAX has and will be implementing a significant number of service improvements. However, we have not had a major stop evaluation in a long time. This planning effort will look at stop locations, distance between stops, assigned geocode location and routes utilizing the stops. With Automatic Passenger Counters on 100% of the fleet, it is critical to reporting accuracy to have these stops properly identified within the Trapeze scheduling system.

#### **4.2.4 Total Capital Program**

The total capital program to be undertaken by FAX includes both the Capital Program and the Measure C Program.

**FTA - Operating and Maintenance expense reimbursement** - This project provides FTA reimbursements for expenses in programs directly related to preventative maintenance on fixed-route and paratransit vehicles, capital lease of vehicle tires, and allowable contracted paratransit expenses. Fixed-route vehicle preventative maintenance programs are eligible for 80% FTA reimbursement. Handy Ride contracted vehicle maintenance expenses are eligible for 25% reimbursement, while contracted vehicle operations are eligible for 20% FTA funding.

**Service to Newly Developing Areas** - Many of the new moderate income areas within FAX's service area are developing beyond existing transit routes. The SRTP provides for limited extension of some existing routes into these new areas with proposed circulator service. However, FAX cannot assure additional expansion of service over the next five years in order to meet this tremendous growth. Additional service to new areas will be evaluated and implemented when warranted, and as funding allows.

#### **Key Findings and Recommendations**

1. The existing transit providers and carpool/vanpool programs are operating fairly efficiently considering the sprawling geographic area they are serving. The Vanpool program appears to be particularly successful in the region, serving low income farm and agricultural workers and should be expanded to serve more people.

Recommendations to improve carpooling and vanpooling in the Fresno area from the San Joaquin Valley Express Transit Study include:

- a. Prioritize vanpooling to Fresno.
- b. Provide a single Valley-wide ride-matching and vanpool website.
- c. Invest in more vanpool marketing to choice riders.
- d. Expand park-and-ride opportunities.
- e. Offer Guaranteed Ride Home throughout the Valley.
- f. Seek to influence the development of the new Air District trip reduction rule, so that it can fund and promote ridesharing to large employers.

Project Descriptions	Funding Source	Fiscal Year				
		2018	2019	2020	2021	2022
Misc Facility Improvements/Repairs/Deferred Maintenance	LOCAL - FAX Capital - SJVAPCD	2,208,200				
Main Facility Parking Lot Reconfiguration/Security	STATE - Prop 1B CTSGP	7,791,200				
Transit Asset Management	Federal 5307	300,000				
Vault Room/Bus Wash w/ Water Reclamation	STATE - Prop 1B CTSGP-Federal 5307	2,466,000				
Downtown Courthouse Park	FEDERAL - 5309 - 5307 - CMAQ	315,000				
Passenger Amenities	FEDERAL 5307 - STATE - Prop 1B PTMISEA - LOCAL	2,413,700	500,000	500,000	500,000	500,000
MTC Transfer Station - Design and Construction	FEDERAL - 5307/CMAQ	425,400				
High Frequency Network Bus Stop Improvements	STATE - Prop PTMISEA/TIRCP - Federal 5307	5,061,700				
Mariposa & Van Ness Improvements	FEDERAL - 5309	500,000				
Fixed Route Bus Purchase (40ft)	FEDERAL - 5309/CMAQ/5339	5,462,300	4,165,000	4,277,000	4,389,000	5,152,000
Non-Revenue Vehicles	LOCAL - STATE PTMISEA/TIRCP/1B	1,505,500				
Paratransit Vehicles & Equipment	FEDERAL - 5310/5307/5339	1,645,900		625,000		625,000
Planning	FEDERAL 5307 - LOCAL	2,228,300	450,000	450,000	450,000	450,000
Systemwide TSP	FEDERAL - CMAQ	1,565,700				
LCTOP Projects	STATE LCTOP	1,292,300				
CAD/IVL System Replacement	STATE - Prop 1B CTSGP - PTMISEA	3,022,800				
Bus Rapid Transit (BRT)	FEDERAL - FTA VSS- State TIRCP	5,588,500				
<b>Total Capital Projects (All Sources)</b>		<b>\$42,742,300</b>	<b>\$5,115,000</b>	<b>\$5,852,000</b>	<b>\$5,339,000</b>	<b>\$6,727,000</b>

Table 4.3 Funding By Source	2017	2018	2019	2020	2021
<b>Congestion Mitigation Air Quality (CMAQ) Funds</b>	\$1,170,100	\$2,923,473	\$2,923,473	\$1,753,403	\$0
<b>Federal Projects (5307, 5308, 5309, 5310, 5316, 5317)</b>	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
<b>Proposition 1B</b>	\$9,272,200	\$1,003,800	\$743,500	\$96,700	\$0
<b>Measure C</b>	\$9,979,800	\$10,279,194	\$10,587,570	\$10,905,197	\$11,232,353
<b>Total Match Requirement</b>	\$11,620,817	\$804,694	\$1,582,680	\$393,240	\$451,688
<b>Total Capital Funding Available</b>	\$88,133,400	\$5,337,800	\$5,197,100	\$4,021,900	\$4,578,800

### 4.3.0 Transit Revenues

The outlook for funding new transit infrastructure in Fresno exists within a larger economic and transit environment. This section of the Financing Plan places the identified infrastructure expansions within this larger context, and identifies opportunities and challenges for paying to build, operate, and maintain them. The Financing Plan includes:

- Current and future environment for transit infrastructure investment
- Potential funding sources for capital and operating needs
- Key elements of a successful financial plan
- Funding plans for specific projects
- Summary

## CURRENT AND FUTURE ENVIRONMENT FOR INFRASTRUCTURE INVESTMENT

### Current Environment

The situation for capital and operating transit funding in Fresno County is very challenging. Sources that traditionally fund transit capital and operating costs include sales taxes and gas taxes. The state of California has diverted some transportation revenues to be used for other purposes. In an effort to stabilize the State funding sources, the California Legislature passed Senate Bill 1, which was signed by Governor Brown on April 26, 2017, raising gas taxes and vehicle fees in hopes of generating tens of billions of dollars to fix the state's roads.

The tax increases will take effect November 1 and new vehicle registration fees will begin Jan. 1, 2018. Fees on zero-emission vehicles will take effect July 1, 2020, according to the text of the bill.

To raise a projected \$52.4 billion over 10 years, changes to taxes and fees include:

- A 12-cent increase in the gasoline excise tax
- A 20-cent increase in the diesel excise tax
- A 5.75 percent increase in the diesel sales tax
- A new vehicle fee, which will annually charge drivers between \$25 and \$175, depending on the value of the vehicle
- A \$100 annual fee on zero-emission vehicles

The vote brings California's gas excise tax to 30 cents per gallon and will provide a stable and predictable funding source to transit agencies throughout the state.

Regional transit funds have also been affected in Fresno. In 2006 voters reauthorized the local sales tax for transportation (Measure C). Measure C was anticipated to generate \$1.7 billion over the life of the Measure. However, it is unlikely that those revenue targets will be achieved. Federal funding sources have been and are projected to be more stable over the near and mid-term. The consequences of these revenue cutbacks can be seen by looking at the largest transit provider in the region, Fresno Area Express (FAX). When Measure C was approved, it was assumed that by FY2015, FAX would receive more than \$11 million annually in funds. The FY2018 budget shows that FAX is estimated to receive \$9.5 million or approximately 15 percent less.

	FY2016 Actuals	FY2017 Approved Budget	Percentage Change: FY2016 to FY2017
<b>FAX Operating Expenditures</b>	\$42,555,996	\$53,552,900	10.6%
<b>Authorized Positions</b>	405.0	515.0	27.0%

Source: FY2016-2017 Fresno City Adopted Budget

Challenges in Fresno extend to employment as well. In March 2017, the unemployment rate in Fresno County was 10.3 percent, down from 11.0 percent in March 2015 but continues to hold in the double digits. By comparison, in March 2017, the unadjusted unemployment rate for California was 4.9 percent, and for the nation as a whole was 4.4 percent.<sup>8</sup>

<sup>8</sup> Data are from [www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov), Unemployment Rates and Labor Force data for the Fresno County Local Area Profile.

The situation faced by FAX is mirrored by transit agencies across the country. From 2015 to 2016, the American Public Transportation Association (APTA) reported a decrease of 4% nationwide. surveyed 98 transit agency members. Key reasons include:

- More than 80 percent report flat or decreased local and/or regional funding and flat or decreased state funding.
- For those with decreased state, regional, and/or local funding, 89 percent have had to raise fares or cut service and 47 percent have had to do both.
- Half of the systems have had to eliminate staff positions.
- Of those facing decreases in either local/regional or state funds, 55 percent have transferred capital funds to support operating costs.

## **Future Environment**

Some of the infrastructure scenarios presented in this report are based upon aggressive assumptions about population growth. In order for this growth to occur, the economic situation must change to permit the creation of new jobs. In addition, housing and job growth would need to occur along existing transit corridors, rather than being permitted to occur in outlying low density areas.

High Speed Rail (HSR) is expected to increase the demand for transit in the region; it is not clear that this would translate into additional funding for transit service in Fresno. Final plans for HSR are not yet complete. The goal is to intensify development around HSR station sites; however, locations have not been finalized and the financial impact of increased densities is not yet known. Revenue generation opportunities may be available from impact fees and other development based revenue sources.

## **FUNDING CAPITAL AND OPERATING NEEDS**

### **Overview**

Support for public transportation is derived from a broad range of sources, many of which have been established to avoid competing with other public services. Sales taxes are the most widely used source of dedicated local and regional funding for transit.<sup>9</sup> In Fresno, approximately 20 percent of the operating budget is supported with local sales tax revenue.

Transit revenue sources are generally grouped into two categories based on eligible uses: capital and operating. Capital funds may only be used on physical items that have a lifespan of more than a year, and meet certain cost thresholds. Examples of capital expenditures are new track, new transit stations, and the acquisition of rolling stock (such as buses and rail cars). With very limited exceptions (such as federal Congestion Mitigation and Air Quality Improvement funds), capital funds cannot be used to pay for operating costs, or for maintaining assets already built or owned. Rather, only operating funds may be used to pay for the ongoing, daily cost of operating and maintaining a transit system. Many sources of operating funds are eligible for use on either operating or capital purposes.

New or expanded transit service may consist of operations expenses and/or capital expenses. For example, a service expansion that uses existing vehicles but increases hours of service would not be eligible for capital revenues. By contrast, an expansion that requires construction (i.e., creation of a dedicated bus lane as part of Bus Rapid Transit project), would be eligible for capital revenues for those elements and the increased operating costs would require operating sources of funds.

### **Sources and Uses of Capital and Operating Funds**

The proposed Bus Rapid Transit and Light Rail Transit investment over the next 20 years will require more than \$828 million in capital, and incremental operating costs are estimated to be

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<sup>9</sup> *Local and Regional Funding Mechanisms for Public Transportation*, TCRP Report 129, Transportation Research Board, 2009.

more than \$17 million annually (in 2015 dollars). A phased approach to developing these services is proposed where two of the three corridors are designed for BRT service in the near term and will be converted to LRT service when demand grows to require the added capacity.

Major capital investments such as new rail lines or extensions are costly and almost always require a variety of funding sources from all levels of government. Rarely is a new fixed guideway project funded from one or two sources. Given the state of the economy, California's traditional capital funding sources have decreased or have been deferred or eliminated. Federal sources, in particular New Starts funding, remain critical for significant capital investment. The Federal Transit Administration's New Starts program is a competitive funding program for expansions to "fixed guideway" transit systems including dedicated Bus Rapid Transit. FAX received Very Small Starts funding as a part of the New Starts program in 2012.

Funding transit operations is relatively more difficult than funding capital projects. The number and variety of sources is not as varied or plentiful, and most sources are not within the control of the transit agency. The possibility of fare increases is always considered as a potential revenue source because transit agencies directly control fares. There are limits to fare increases as riders will choose other modes of transportation if they cannot afford it or if they perceive that the fare is too high. Thus, fare increases alone cannot address significant funding gaps. In its Short Range Transit Plan, FAX projected that fare revenues would cover 16.7 percent of its operating costs in FY2017 dropping to 16.1 percent by FY2021.

Revenues are only one half of the financial picture. The other side of the budget equation is costs. As with transit agencies across the country, FAX has dealt with revenue shortfalls through cost cutting measures including cuts in service and layoffs.

Transit agencies are finding that service cuts and layoffs are not sufficient to address significant shortfalls. The underlying structural problem of costs increasing at a pace greater than revenues is getting serious attention. Some agencies have begun to implement efficiencies through better scheduling and routing, new work rules within labor contracts, revising benefits and pensions structures, and contracting for services. In the San Francisco Bay Area, the Metropolitan Transportation Commission has embarked on a Transit Sustainability Project to study the cost structure of the largest transit operators and how costs can be controlled through revisions to labor contracts, more efficient service provision, contracting out, and increasing revenues. AC Transit has recently implemented a contract with its operators that addresses many of these issues.

Transit capital and operations and maintenance have been funded from variety of federal, state, and regional/local sources in Fresno. Existing capital funds, most of which have been used in the past or are presently in use in Fresno, are summarized in Table BB. Operating and maintenance funds are summarized in Table CC. These revenues are currently fully used to operate the transit system and are unlikely to increase in the near future. More detailed descriptions of these sources, eligible uses, and potential for use on Fresno transit projects are provided in Appendices 1 and 2.



**Table 4.6: Revenues Available for Transit Capital**

Level	Source
Federal	<ul style="list-style-type: none"> <li>▪ FAST Act -- Congestion Mitigation and Air Quality Improvement Program (CMAQ)</li> <li>▪ FAST Act-- Surface Transportation Program (STP)</li> <li>▪ FAST Act-- Transportation Alternatives (Safe Routes to School)</li> <li>▪ FTA Section 5307 - Urbanized Area Formula Program</li> <li>▪ FTA Section 5309 - Bus and Bus Facilities</li> <li>▪ FTA Section 5309 - Fixed Guideway Modernization</li> <li>▪ FTA Section 5309 - New and Small Starts Program<sup>3</sup></li> <li>▪ FTA Section 5311 - Formula Grants for Other than Urbanized Areas</li> <li>▪ Highway Safety Improvement Program (HSIP)</li> </ul>
State	<ul style="list-style-type: none"> <li>▪ Transportation Development Act/Local Transportation Fund (LTF) - Art. 4</li> <li>▪ Transportation Development Act/State Transit Assistance Funds (STA)</li> <li>▪ Caltrans Community Based</li> <li>▪ Transportation Program (CBTP)</li> <li>▪ Bicycle Transportation Account (BTA)</li> <li>▪ Safe Routes to School (SR2S)</li> <li>▪ STIP - RTIP</li> <li>▪ STIP - TE</li> <li>▪ Proposition 1B/Traffic PTMISEA</li> <li>▪ Proposition 1B/Public Transit and Intercity Rail Capital Program Enhancement Account (PTMISEA)</li> <li>▪ Proposition 1B/TSSDRA</li> <li>▪ AB 2766 Air District Funds</li> <li>▪ Gas Tax Apportionments</li> <li>▪ AB 118 - Alternative &amp; Renewable Fuel and Vehicle Technology Program</li> </ul>
Regional/Local	<ul style="list-style-type: none"> <li>▪ Measure C</li> <li>▪ Property-Based Business Improvement District (PBID)</li> <li>▪ Developer Fees</li> <li>▪ City Sources</li> <li>▪ Fare</li> </ul>

**Table 4.7: Revenues Available for Transit Operations and Maintenance**

Level	Source
Federal	<ul style="list-style-type: none"> <li>▪ FAST Act-- Congestion Mitigation and Air Quality Improvement Program (CMAQ)</li> <li>▪ FTA Section 5307 Urbanized Area Formula Program</li> <li>▪ FTA Section 5311 - Formula Grants for Other than Urbanized Areas</li> <li>▪ FTA Section 5317 New Freedom Program</li> </ul>
State	<ul style="list-style-type: none"> <li>▪ Transportation Development Act/Local Transportation Fund (LTF) - Art. 4</li> <li>▪ Transportation Development Act/State Transit Assistance Funds (STA)</li> </ul>
Regional/Local	<ul style="list-style-type: none"> <li>▪ Measure C</li> <li>▪ Property-Based Business Improvement District (PBID)</li> <li>▪ City Sources</li> <li>▪ Fares</li> </ul>

Given the imbalance of cost and revenue growth in transit, most agencies continue to seek new sources of revenue in addition to implementing cost control measures. Opportunities exist for new revenue sources at all levels. In California, the new administration has pledged to align state and local funding with responsibility for service provision. The details of how this will impact transit are not known. Additionally, SB 375 provides a structure for transit to be part of planning for a sustainable future, and future revenues may be available to support those plans. Fresno will need to be a strong advocate for federal and state initiatives benefitting the maintenance and expansion of the system.

Numerous potential new funding opportunities are available at the regional and local level. Selected sources that might be applicable to new and existing transit service in Fresno are listed in Table 4.6.

In addition to these new revenue sources, there are sometimes existing sources that have not yet been funneled into specific grant opportunities. For example, the San Joaquin Valley Air Pollution Control District has increased the vehicle registration fee to collect funds to pay penalty fees mandated under Section 185 of the Federal Clean Air Act. They may collect more funds than necessary to pay the penalty, and in that case, these additional funds may be available to invest in projects that reduce emissions. It is possible for a public agency to work with the San Joaquin Valley Air Pollution Control District to create a funding opportunity for specific programs or projects. These opportunities need to be sought out and monitored by FAX and Fresno Council of Governments in order to best position transit projects to take advantage of this funding.

Implementing new revenue sources is time consuming and can be costly. Many sources require technical studies and long lead times for ballot initiatives. Certain sources do not require voter approval, but they do require approval by governing boards and some require approval of property owners or business owners. Potential sources should be evaluated for revenue yield, administrative and compliance costs, equity, political and public acceptance, and technical feasibility.

Table 4.8: New Revenues Sources	
Type	<b>Potential Sources</b>
Voter Approval Required	<ul style="list-style-type: none"> <li>▪ Local Sales Tax</li> <li>▪ Utility Users Tax</li> <li>▪ Business Taxes (Payroll)</li> <li>▪ Parcel Tax</li> <li>▪ Local Gas Tax</li> <li>▪ Regional Gas Tax</li> <li>▪ Vehicle Miles Travelled Tax (VMT)</li> </ul>
Voter Approval Not Required	<ul style="list-style-type: none"> <li>▪ Parking Fees and Surcharges</li> <li>▪ Transient Occupancy (Hotel) Tax</li> <li>▪ Employer Sponsored Transit</li> <li>▪ Development Impact Fee</li> <li>▪ Benefit Assessment Districts</li> <li>▪ Mello-Roos Community Facilities District</li> <li>▪ Business Improvement Districts (BID)</li> </ul>

### KEY ELEMENTS OF A SUCCESSFUL FINANCIAL PLAN

It is not sufficient to identify potential capital and operating sources to build and operate expansion projects. A successful funding strategy will be based on sound project planning, and will require a good deal of political will. The efforts undertaken through the PTIS to identify strategies for transportation investments and land use policies provides an excellent foundation for the financial plan. Specifically, the following achievements will facilitate implementation of the financial plan:

- Transit needs have been identified and public consensus reached on transit investments
- Specific improvements, the rationale, and benefits have been identified
- Roles and responsibilities have been established. The Fresno Council of Governments and FAX are responsible for executing the planned improvements, partnering with the community and other local entities
- Policies to focus development on transit corridors create the potential for land based or development based revenues dedicated to transit

Building on these achievements, several important elements are needed to be successful in funding the program:

- Conduct a thorough evaluation of all existing and potential funding sources needed to support capital and operating requirements.
- Target likely sources of funds.
  - ✦ *Building on the success of Fresno's Very Small Starts application, future Small Starts and New Starts are very likely sources.*
  - ✦ *A preliminary assessment of locally controlled sources indicates that an expansion of the existing Development Impact Fee program could address a*

*variety of transit needs. A nexus study is required to make transit costs eligible for Development Impact Fees.*

✦ *Consider a parcel tax or utility tax dedicated to transit.*

- Monitor existing traditional transit sources and non-traditional sources for funding availability. Position the projects and services to take advantage of funding opportunities as they become available.
- Design and execute an advocacy strategy including:
  - ✦ *Identification of champions and community leaders for the plan*
  - ✦ *Support from elected officials at all levels*
  - ✦ *Creation of coalitions of opinion leaders, stakeholders, and citizens*
  - ✦ *Financial support for technical studies, polling, and campaigns*
  - ✦ *Preparation of public education materials*
  - ✦ *Presentations to the media and the public*
- Establish a timetable for achieving milestones on the path to full funding.
- Persist in the effort to raise new revenues. It may take longer than expected.
- Ensure that technical requirements are met. The projects must be included in regional planning documents.
- Advance project development, including both federal and California (NEPA/CEQA) environmental clearance. Project readiness is essential to take advantage of funding that becomes available unexpectedly. Project readiness is a competitive advantage.
- Stabilize and maintain existing transit service. Controlling costs and seeking new revenues to maintain the core system is essential to any expansion strategy. Financial sustainability of the system is evaluated in the New Starts rating process and it is important to the public. It is difficult to have successful ballot measures while service is being cut.

## **PROJECT SPECIFIC FUNDING PLANS**

The previous sections presented an overview of the universe of opportunities to address operating and capital needs for projects and defined the elements of a successful financial plan for Fresno. This section focuses on the specific infrastructure investments under consideration in Fresno and how those projects might be funded.

The timing of the projects varies, depending on estimates regarding population growth, demand for transit, and funding. The Blackstone and Ventura/Kings Canyon Bus Rapid Transit (BRT) project is well underway in terms of planning and design, with revenue ready date of 2018. The second BRT project is planned to be revenue ready in 2027. Finally, the Light Rail Transit (LRT) projects are planned to replace the Blackstone and Ventura/Kings Canyon BRT projects when demand grows in those corridors. They are expected to be in service in 2030. Their implementation is dependent on significant population growth, focused on the BRT corridors.

For significant capital investments in transit, the federal New Starts Program continues to be the likely source from which to seek funding.

BRT project and the funding plan is shown in Table 4.9.

Table 4.9: Proposed Bus Rapid Transit (BRT)	
Shaw Ave BRT	
<b>Description</b>	BRT Service along Shaw Ave and SR 168 from SR 99 east to SR 168 at Temperance Ave
<b>Length</b>	13.25 miles
<b>Begin Revenue Operations</b>	2027
<b>Capital Cost (2015 \$)</b>	\$49,800,000
<b>Capital Revenues</b>	\$39,800,000 – Small Starts Funding (New Starts) \$10,000,000 -- Local, regional, or state funds
<b>Incremental O&amp;M Cost (2015 \$)</b>	\$2,641,612

Projects that exceed the thresholds for Small Starts can participate in the New Starts program. One of the features of this larger program is the need to match the New Starts funding dollar for dollar.

The next BRT project is planned for Shaw Avenue, planned to begin revenue service in 2027. Because this project is ten years in the future, the financing plan is more general. It is assumed that the New Starts program will still be in existence with a similar structure, or that it will have been replaced by a program that is very similar. The Shaw BRT project fits within the Small Starts Program, as the total cost is less than \$250 million and the federal funding requested is less than \$75 million. Even when costs are inflated to Year of Expenditure, it should still qualify for Small Starts. For preliminary planning purposes, 80 percent federal New Starts funding is assumed. FAX would need to identify match funds, which are almost \$10.0 million in 2017 dollars.

Because the funding plans for the BRT projects include New Starts funding, it will be important for Fresno to plan for continued participation in the Small Starts portion of the program for BRT projects and to prepare for the more rigorous evaluation and analysis required under the full New Starts process for LRT projects. FAX’s experience in the Very Small Starts program provides a good background for pursuing future New Starts funding.

The New Starts planning and development process is a very detailed, proscribed series of analyses and milestones undertaken by the project sponsor and the FTA together, and can take several years to complete, depending on the complexity of the project and its finances.

The New Starts project development process follows Federal statutory requirements, including coordination with local and regional planning efforts, technical evaluations using standardized methodologies in an effort to “level the playing field” for all New Starts projects, and regular coordination and review by FTA. Based on the results of the technical analyses – including an extensive review of the financial condition of the project and the project sponsor – FTA must approve the project to enter into Preliminary Engineering and Final Design. Upon approved entry into Final Design, FTA may enter into a multi-year commitment to fund a portion of the project’s construction, referred to as a full funding grant agreement.

The ongoing technical analyses and updates provide FTA with data for evaluating the project readiness against several mandated criteria including project cost-effectiveness, transit supportiveness of existing and future land uses, and the local financial commitment. Additional requirements include assurance that the cost and benefit analyses are reliable, and that the project sponsor has the financial and technical capacity to design, build, operate and maintain the project both within budget and schedule. Projects in the New Starts pipeline are required to conduct more extensive technical analyses than those not funded by New Starts.

FAX will need to demonstrate the financial capacity to operate and maintain the service, once it is built. Given the current fiscal realities, new funding sources and innovative service delivery options are needed in the next few years to help achieve financial stability and to demonstrate future financial capacity as required by FTA.

## **SUMMARY**

Transit in Fresno County faces the challenge faced by transit agencies across the nation, namely operating and maintaining current service levels. A financial strategy is needed in the very near term to ensure that current transit service levels can be maintained and that future expansions are affordable. A variety of funding sources will be required to accomplish the vision set out in the PTIS. Initiating the development of a strategy now will help realize the funding needed over the next 20 years.

Projected revenues and expenditures for operation of the transit system are summarized in dollars.

**FAX State TDA and STA** – Transportation Development Act (TDA) revenue is received through the State of California based on gas tax revenue and population allocation. In recent years Proposition 42 revenues were added to this revenue source. State TDA funds have rebounded in the last couple of years and are back at the historic levels.

**Measure C funds** - Local funding for public transit historically has been limited to general revenue sharing funds. FAX, however, currently receives no general revenue funds. In November 2006, a local proposal to continue a one half cent sales tax county wide for the next twenty years was approved by a majority of voters in Fresno County. The reauthorized Measure C local sales tax dedicates a percentage directly to FAX as the local public transit operator. Revenues from this recently reauthorized local transportation sales tax have declined as a result of reduced consumer spending.

- When the measure was reauthorized in 2006 it was anticipated that by FY17 FAX would receive over \$11 million annually in Measure C funds.

**Farebox and Other Revenues from Operations** - FAX Strategic Plan envisions an increase in transit service with major gains in ridership and farebox revenues. Fare revenues are projected based on ridership forecasts and assume an increase in ridership based on the increases over the last few years. In FY16, FAX provided over 10 million passenger rides. FAX is budgeting for \$7.8 million from fare revenue in FY18.

In 2014, FAX contracted with Lamar Transit Advertising to provide exterior and interior advertising on all FAX buses. To date, over 90% of the buses have some form of advertising and over the five year contract this program will provide FAX with over \$2 million in revenue.

**Table 4.10: Potential New Revenue Sources for Fresno Transit Projects**

Source	Description	Capital or Operating Expenditure Eligibility	Legal/ Legislative Requirements	Voter Approvals Required	Revenue Stability	Ease of Administration and Collection	Implementation Experience
Local Sales Tax	An incremental addition to County/local sales for transportation	Both	Requires governing Board to approve a ballot measure to be submitted for voter approval	Approval by two thirds of the electorate	Medium	High	Half Cent Sales tax measure (Measure C) in place in Fresno since 2006; most counties in California
Utility Users Tax	Tax imposed on utility services to be used for a specific or general purpose	Both	Requires governing Board to approve a ballot measure to be submitted for voter approval	Approval by two thirds of the electorate if dedicated to specific use, such as transit	High	High	Pullman, Washington
Business Taxes (Payroll)	A local payroll tax imposed through employer withholding	Both	Requires the Board of Supervisors to approve a ballot measure to be submitted for voter approval	Majority vote of the electorate if general tax. Two thirds approval required if dedicated (special tax).	Medium	Medium	San Francisco
Parcel Tax	Flat tax on each parcel of real property.	Both	Requires governing Board to approve a ballot measure to be submitted for voter approval	Approval by two thirds vote of the electorate	High	High	Cities and counties throughout California; AC Transit in Alameda and Contra Costa Counties
Employer Sponsored Transit	Employers participate financially in the transit service serving their business.	Both	None	None	Low	Low	San Mateo, San Francisco, and Alameda Counties
Local Gas Tax	Tax imposed on each	Both	Governing Board must	Two thirds vote of	Low	Medium	None known



Source	Description	Capital or Operating Expenditure Eligibility	Legal/ Legislative Requirements	Voter Approvals Required	Revenue Stability	Ease of Administration and Collection	Implementation Experience
<b>Regional Gas Tax</b>	gallon of gas sold in local community		approve ballot initiative.	the electorate.			
	Tax imposed on each gallon of gas sold in the region	Both	Governing Boards of any communities in the region affected must approve ballot initiative	Approval by two thirds of the region's electorate	Medium	Medium	None known
<b>Parking Fees and Surcharges</b>	Local government imposed fee or surcharge on on-street and garage parking, usually metered	Both	Governing Board approval	None	Medium	High	Most California cities, including Fresno; revenue dedicated to transit in San Francisco
<b>Transient Occupancy (Hotel) Tax</b>	Tax imposed on hotel users by local government	Both	Governing Board approval	None	Low	High	Most California cities, including Fresno
<b>Vehicle Miles Travelled Tax (VMT)</b>	Tax on automobile miles travelled	Both	Likely to require state enabling legislation and Governing Board approval of ballot initiative.	Two thirds vote of the electorate.	Medium	Low	Oregon pilot project
<b>Development Impact Fee</b>	One- time fee charged on new development.	Capital	State law requires demonstration of a direct nexus between the fee charges and the impact improvements funded. Approval by governing Board required.	None	Low	Low	Cities and counties throughout California. Only San Francisco specific to transit.
<b>Benefit</b>	An assessment on	Both	Local government to	Property owners	Low	Medium	Cities and counties

Source	Description	Capital or Operating Expenditure Eligibility	Legal/ Legislative Requirements	Voter Approvals Required	Revenue Stability	Ease of Administration and Collection	Implementation Experience
<b>Assessment Districts</b>	properties within a defined area; the assessment is related to the amount of benefit that the property receives.		determine funding needs and establish boundaries.	within the district must approve. A majority of the weighted ballots exceed the weighted ballots opposing the creation of the district.			throughout California. Los Angeles specific to transit.
<b>Mello-Roos Community Facilities District</b>	Tax on properties within a defined area to fund public improvements within that district.	Capital	Local government establishes boundaries and sets rate.	Two-thirds majority vote of property owners within the proposed boundaries of the district.	Low	Medium	Cities and counties throughout California
<b>Business Improvement Districts (BID)</b>	Assessment district in which business owners choose to be assessed a fee, which is collected on their behalf by the City, for use in improving the business in the area	Both	Governing Board approves creation of the district	A majority of business owners may protest the formation of the BID.	Low	Medium	Cities and counties throughout California. Emeryville specific to transit.

**Table 4.11 - FAX Operating Budget - FY08 through FY16**

FY	(\$ thousands)				
	Transit Department	% Costs	Paratransit	% Costs	Total Operating Costs
2008	\$36,944	90.1%	\$5,192	9.9%	\$34,602
2009	\$43,657	90.1%	\$4,818	9.9%	\$48,475
2010	\$41,847	89.5%	\$4,891	10.5%	\$46,738
2011	\$36,938	87.8%	\$5,125	12.2%	\$42,063
2012	\$36,900	87.8%	\$5,116	12.2%	\$42,016
2013	\$39,755	87.7%	\$5,567	12.3%	\$45,322
2014	\$36,195	86.4%	\$5,706	13.6%	\$41,901
2015	\$39,535	85.8%	\$6,530	14.2%	\$46,065
2016	\$36,115	79.3%	\$6,437	20.7%	\$45,552

Table 4.11 reflects FAX's overall operating budget for both fixed route and demand responsive service for the past 10 fiscal years. The cost of providing paratransit services has increased to over 20% of the total operating budget, decreasing the amount of funding available for fixed route services.

Table 4.12: FAX Operating Budget by Major Cost Category					
FY13 through FY17					
(\$ thousands)					
FY	2013	2014	2015	2016	2017
Employee Services	\$27,058	\$25,364	\$26,950	\$28,403	\$34,124
Purchased Prof Services	\$6,728	\$5,434	\$6,689	\$6,162	\$7,089
Interdepartmental	\$5,372	\$4,800	\$5,299	\$5,443	\$4,794
Paratransit	\$5,567	\$5,706	\$6,530	\$6,833	\$7,851
<b>Total Operating Costs</b>	<b>\$45,322</b>	<b>\$41,901</b>	<b>\$46,065</b>	<b>\$48,775</b>	<b>\$53,553</b>
Percentage of Total Annual Operating Budget					
FY	2012	2013	2014	2015	2016
Employee Services	63.2%	59.7%	60.5%	58.5%	20.1%
Purchased Prof Services	14.5%	14.8%	13.0%	14.5%	15.0%
Interdepartmental	9.4%	11.9%	11.5%	11.5%	-11.9%
Paratransit	12.2%	12.3%	13.6%	14.2%	14.9%
<b>Total Operating Costs</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>9.8%</b>

Table 4.12 shows the Transit Division's operating budget broken out by major cost categories for the same period and includes the following categories: "Employee Service"; wages, salaries, and fringe benefit costs, "Purchased Professional Services", "Interdepartmental Charges"; self insurance, fleet rental, data processing, and fixed reimbursements to the General Fund, and "Paratransit"; the cost of providing Handy Ride services. The Transit Division's operating budget has increased from \$45.3 million in FY131 to \$53.5 million in FY17.

**Handy Ride** - In August 1980, the State Attorney General's Office ruled that Handy Ride and Transit's divisional budgets could be combined for purposes of using Transit Division's farebox recovery revenues in excess of 20% to offset Handy Ride's farebox recovery requirements. Thus, in September 1980, Handy Ride became part of the general use system and part of the Transit Division's 20% farebox recovery requirements. The operating budget for Handy Ride as part of the overall budget has increased over the last two years to over 20%.

**Federal Government (FTA)** - The FAST Act authorizes \$61.1 billion over the five fiscal years (FY) 2016 through 2020 for programs administered by the Federal Transit Administration (FTA). The law authorizes \$11.8 billion for public transit programs in FY 2016, and increases the total authorization to \$12.6 billion in FY 2020, an increase of 17.7 percent over the FY 2015 level. Under the new law, much of the federal transit program structure remains in place. It retains the urban and rural formula programs that distribute mostly capital assistance based on need and a program for new fixed guideway starts and extensions. It preserves the state of good repair formula program, a formula program for seniors and individuals with disabilities, and the formula programs for growing states and high-density states. The measure maintains the existing bus and

bus facilities formula program, and it creates a new bus and bus facilities competitive grant program that grows federal investment levels in buses and bus facilities. The new law retains authority for small transit systems in large urban areas to use a portion of their formula funds for operating costs, and includes demand response-only fleets in determining which systems may use a portion of those funds for operating. The FAST Act maintains the small transit intensive cities (STIC) formula program and increases its Urban Formula set-aside in 2019. The law creates a Pilot Program for Innovative Coordinated Access and Mobility, and it consolidates transit research programs under the Public Transportation Innovation program. Funding for a portion of this program, including the Transit Cooperative Research program (TCRP), will now come from the Mass Transit Account rather than general funds. The bill creates a pilot program under the Capital Investment Grant program, which streamlines the regulatory process for project sponsors willing to

**Table 4.13 TDA Fund History 2006-2015**  
(thousands)

FY	LTF Article 6	STA	Total	% Change
2006	\$16,288,683	\$1,093,151	\$17,381,834	
2007	\$16,352,656	\$4,154,934	\$20,507,590	17.98%
2008	\$18,796,541	\$1,673,182	\$20,469,723	-0.18%
2009	\$16,937,537	\$1,087,180	\$18,024,717	-11.94%
2010	\$14,025,142	\$0	\$14,025,142	-22.19%
2011	\$12,226,128	\$4,340,534	\$16,566,662	18.12%
2012	\$13,761,751	\$4,486,277	\$18,248,028	10.15%
2013	\$17,566,021	\$2,790,613	\$20,356,634	11.56%
2014	\$17,636,637	\$4,402,096	\$22,038,733	8.26%
2015	\$18,604,773	\$3,043,012	\$21,647,785	-1.77%

receive a smaller federal share, and it reduces the maximum federal match for projects with fullfunding grant agreements from 80 percent to 60 percent. The law increases procurement flexibility for rolling stock, and it reduces current regulatory impediments related to vehicle leasing. The measure places the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the Railroad Rehabilitation and Improvement Financing programs under a single agency in the U.S.

DOT and conforms some standards under the two programs. It continues the transit safety program established under MAP-21 that gave FTA greater authority over state safety oversight agencies. Funding for programs under the Mass Transit Account (MTA) of the Highway Trust Fund (HTF) are fully funded for the five years authorized under the bill. Revenues deposited into the MTA over the life of the bill, from both existing federal motor fuel excise taxes and general fund deposits into the MTA with one-time offsets provided under the bill will fully fund MTA authorized transit programs through FY 2020. However, those one-time offsets deposited into the MTA will not provide a sustainable source of funding for current service spending after the bill expires. Maintaining even a current services level after the bill's expiration will require additional revenues into the MTA and the HTF. Finally, the Act includes a rail title that restructures the Amtrak program, and authorizes separate funding under three separate rail investment programs, with total funding rising from \$200 million in FY 2016 to \$650 million in FY 2020.

**State of California** - The State's Transportation Development Act (TDA) provides two sources of transit revenue, the Local Transportation Fund (LTF) and the State Transit Assistance Fund (STA). The LTF is generated by a quarter cent statewide sales tax and then apportioned back to counties by population. The Fresno COG apportions these funds within Fresno County on the basis of population. In FY17, the City of Fresno is budgeted to receive approximately \$26.1 million from these funding sources. All of these funds are allocated to FAX.

The LTF resources are legislated to continue indefinitely, and the Plan's projected LTF revenues are based upon projections provided by the Fresno COG, but the actual revenue will fluctuate based on the economy and inflation. To qualify for LTF, FAX must recover a minimum of 20% from farebox revenues.

Transit operators cannot rely on the availability of STA funds from year to year. Further, as a condition for receiving STA funds, Senate Bill 3 (Katz) also requires operators to meet an efficiency standard based on operating cost per hour beginning in FY92.

### **City of Fresno**

1. General Fund: FAX receives no revenue from the City of Fresno General Fund.
2. Local Option Sales Tax - Measure C: In FY07 a continuing source of local funding support remained available to FAX as a result of the reauthorization of Measure C in November 2006. The passage of a dedicated one half cent local option sales tax represents unprecedented voter approval to improve the State highway network and provide funding for local transportation projects within Fresno County. The local option sales dollars will lead to completion of portions of the urban and rural highway system, as well as support transit needs over the next 20 years.

Unlike the previous Measure C, the reauthorization dedicates nearly 20% to Regional Public Transit Agencies, without the discretion of the City Council as to how the funds are allocated. This ensures that FAX gets a larger share of the revenue that will be consistent over the next 20 years.

**Consolidated Transportation Service Agency (CTSA)** - In 1980, the state mandated through Assembly Bill 120 that an inventory of social service agencies be conducted to determine the degree of transportation services provided by these agencies and to identify additional transportation needs. The objective of the legislation was to improve the efficiency of providing transportation within the community through the formation of Consolidated Transportation Service Agencies and to promote increased coordination and consolidation of transportation services. The Fresno COG developed an action plan that designates the City of Fresno/FAX and the Fresno Economic Opportunities Commission (FEOC) as the CTSA co-designates for the Fresno Urbanized area. The City of Clovis is the CTSA designate for its area.

The sources of funding for the CTSA are, 45% from Transportation Development Act, (Article 4.5 funds allocated by Fresno COG), a 45% match from participating social service agencies and 10% from farebox recovery.

As the primary CTSA transportation provider in the Fresno metropolitan area, FEOC provides transportation brokerage service to all eligible social service agencies assuring efficient, low cost transportation service within the Fresno urbanized area.

#### **4.4.0 Financial Summary and Reserve Projections**

For FY18, FAX system revenues from FTA grants represent 9.0% of the total, while LTF revenue equals 52.4% of the total revenue. Measure C makes up an additional 20.0% of FAX's total budget revenues. The remaining revenue comes from passenger fares, other revenue and fund transfers.

Under a contract with the City of Fresno, the County pays for a portion of the public transit and paratransit services provided for County residents who live within the fixed-route service area as described by the Transportation Development Act (TDA). County residents within the service area receive the same level of transit and paratransit service as Fresno City residents who live within the service area.

## Chapter 5: City of Clovis SRTP

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### 5.1.0 Purpose of SRTP

The City of Clovis Short-Range Transit Plan (SRTP), FY 2018-2022, is the bi-annual update to the operating plan and the capital program. The purpose of this Plan is to promote a comprehensive, coordinated and continuous planning process for transit service in the Fresno-Clovis Metropolitan Area (FCMA) over a five-year planning horizon. This plan proposes specific recommendations for implementing the long-range objectives of Fresno County's Regional Transportation Plan, and will guide the provision of transit services in the FCMA over the next five years.

### 5.1.1 Summary of Existing Transit System

This document will address the City of Clovis Transportation systems which are described as follows;



The City of Clovis provides the general public fixed-route service through Clovis Stageline. This service consists of two fixed-routes and two routes for specialized school transportation within the City of Clovis. The City of Clovis offers demand-responsive service to disabled persons through Clovis Roundup. The City of Clovis also offers service to residents of the Tarpey Village county island through a reimbursement agreement with the County of Fresno.

FAX operates some service within the City of Clovis and the unincorporated urban areas and receives funding from Clovis and Fresno County for this service. It is appropriate that both agencies have a role in the policy making process impacting FAX. The Plan includes a mechanism for such a role.

### 5.1.2 Public Transportation Policy Directions

The policies contained in the Regional Transportation Plan for Fresno County, (adopted by the Fresno Council of Governments, June 2014) provide general guidance to transit operations within the metropolitan area. The following Goals, Objectives, and Policies provide the framework for



developing a sound public transportation system throughout Fresno County. They are specifically targeted toward the public and social service transportation systems.

In 1985, the Clovis City Council adopted the following policies for Clovis Transit as part of the transit planning process. The Council reviews and amends these standards as needed. Chapter 1120 of the 1979 California Statutes and Assembly Bill 120; Action Plan declare policies and goals which apply to CTSA services.

### **Policy Direction for Clovis**

- Centralized administration for the elimination of duplicated administrative requirements.
- Identification and consolidation of all sources of funding for the provision of more effective and cost efficient services
- Centralized dispatching for more efficient vehicle use.
- Centralized maintenance for adequate, regular and more cost effective vehicle maintenance.
- Adequate driver training programs for safer vehicle operation, and lower insurance costs.
- Combined purchasing for more effective cost savings.

### **5.1.3 Strategic Plan**

At the core of the City of Clovis' strategic plan are four goals, each with specific performance measures. The performance measures encompass the full range of Clovis' responsibilities. The transit specific performance measures reflecting Clovis' current targets for achievement are discussed below;

## Goals for Clovis

### GOAL 1: SERVICE LEVELS

Clovis Transit will provide public transportation service to a maximum number of people in the Fresno-Clovis Metropolitan Area (FCMA).

**Objective A:** To provide a transit system that meets the public transportation needs of the service area.

**Standard 1:** Clovis Transit fixed-route service (Stageline) should operate weekdays (Monday-Friday) from 6:15 a.m. to 6:15 p.m. and Saturday from 7:30 to 3:30pm; demand response service (Roundup) will operate during the same hours as fixed-route service.

**Standard 2:** Clovis Transit shall implement real time dispatching for demand responsive service to improve overall operations and increase ridership.

**Objective B:** To provide a transit service that adequately serves the elderly and disabled population.

**Standard 1:** Clovis Transit should maintain base fare level for elderly and disabled riders, those qualifying for ADA/curb to curb.

**Standard 2:** As per ADA, all new vehicles purchased must have ADA lifts.

**Objective C:** To secure a stable and sufficient local funding mechanism.

**Standard 1:** Clovis Transit should identify and coordinate funding mechanisms that will address all transportation funding needs in the Clovis Area.

**Standard 2:** Clovis Transit should identify short and long-range funding needs and maximize revenue resources, utilizing all funding mechanisms including federal grants, State enabling legislation and fare box revenue.

## **GOAL 2: SERVICE QUALITY**

Clovis Transit will provide a quality, convenient and reliable service.

**Objective A:** To provide reliable and convenient public transit service.

**Standard 1:** Clovis Transit should operate its demand responsive service within five (5) minutes before the scheduled pick-up time and no more than fifteen (15) minutes after the scheduled pick-up time. Drivers shall not wait for patrons for more than five (5) minutes after arrival at the designated pick-up time. Passengers going to Fresno must be ready an hour before their appointment time and may wait 45 minutes to one hour for a ride back to Clovis.

**Objective B:** To provide clean, attractive and comfortable vehicles and facilities.

**Standard 1:** All vehicles returning to the yard after revenue service should be swept and dusted before being assigned for service the following day.

**Standard 2:** The exteriors of Clovis Transit buses should be cleaned at least once a week.

**Standard 3:** In the winter, the heaters on Clovis Transit buses should work 100% of the time.

**Standard 4:** In the summer, at least 95% of all vehicles on the street should have operable air conditioners.

**Objective C:** To provide a safe system.

**Standard 1:** Clovis Transit buses should operate in excess of 150,000 miles between preventable accidents, and bus operators should be formally recognized for their safe driving.

**Standard 2:** Buses should be checked daily for proper operation and condition of lights, mirrors, radios and fluid; detailed mechanical inspections should be done every 3,000 miles/45 days. Operations, maintenance and other employees will be provided safety training at the beginning of their employment and such training will be updated on a regularly scheduled basis.

**Objective D:** To record and respond to all public comments.

**Standard 1:** Clovis Transit will continue to track and evaluate all compliments, complaints and inquiries from the public.

**GOAL 3: SERVICE PRODUCTIVITY**

Clovis Transit will operate an efficient and effective bus system.

**Objective A:** To establish and maintain system-wide productivity indicators.

**Standard 1:** Clovis Transit should achieve a 10% fare box recovery ratio for demand responsive (Roundup service) and 20% for fixed route (Stageline Services).

**Standard 2:** Clovis Transit should record and report, at least monthly, the following performance indicators.

Total Monthly Ridership	Total Monthly Revenue
Total Monthly Expenses	Total Revenue Hours
Total Revenue Miles	Fare box Ratio
Total Operating Expense Per Passenger	Total Op Expense Revenue Hour
Total Revenue Per Revenue Hour	Total Op Expense Revenue Mile
Total Revenue Per Revenue Mile	Passengers Per Revenue Hour
Passengers Per Revenue Mile	Average Weekday Ridership
Average Saturday Ridership	Average Sunday Ridership
Percentage of Trips on Time	Percentage of Scheduled Trips Completed
Total Road Calls	

#### **GOAL 4: SYSTEM IMAGE**

Clovis Transit will strive to promote its service and image in the community.

**Objective A:** To develop and implement a Clovis Transit Marketing Program.

**Standard 1:** Clovis Transit will continue to review and update its marketing efforts.

**Standard 2:** Clovis Transit should stress the positive impact of Clovis Transit in the community through press releases, speeches, and involvement in community activities at least once a month.

**Standard 3:** Through effective marketing, Clovis Transit should increase overall system ridership by at least 5% during the fiscal year.

**Objective B:** To provide complete and accurate public transit information.

**Standard 1:** Current bus schedules and system information should be available to the public at all major public facilities and via the internet.

**Standard 2:** Telephone service information should be available to the public at all times.

**Objective C:** To provide for community involvement in transit system affairs.

**Standard 1:** Clovis Transit should become involved in and work with citizens groups, the Chamber of Commerce, the Old Town Association and other area merchant associations, to communicate the services and benefits of Clovis Transit.

**Standard 2:** Clovis Transit should develop a public relations program with area schools to educate children about the bus system.

#### **5.1.4 Organization of City of Clovis**

In 1988, The Clovis City Council designated its Roundup service solely as a Consolidated Transportation Service Agency (CTSA). Local Measure C dollars are used to provide the necessary match of TDA/LTF Article 4.5 funds. The most significant social service provider in Clovis is the Clovis Senior Activity Center. Most social services in the area are provided by or through the Senior Center.

## **Clovis City Council**

The City of Clovis consists of five at-large members one of which is selected to be mayor for a two year term.

## **Committees**

The City of Clovis has two standing committees which provide input into the decision making process. The ADA Advisory Committee is a standing committee which consists of City staff and members of the public and makes recommendations regarding transit ADA issues. The Social Services Transportation Advisory Committee (SSTAC) also consists of members from the public with varied interests, and makes recommendations on policy and technical issues to the City of Clovis and to the COG.

## **Clovis Staff**

The Transit Section is under the City of Clovis Community Services Division and is part of the General Services Department. The Transit Section is overseen by a Transit Supervisor who manages the day to day operations of Clovis Transit and the General Services Manager who oversees projects and planning for transit. The division includes a staff of 55 +/- full and part-time employees.

### **5.2.0 Introduction to Clovis Transit System**

The City of Clovis operates two types of public transit service. Clovis Stageline provides general public, fixed-route service within the City limits and into Fresno near Fresno State University. Clovis Roundup operates specialized demand-responsive service for disabled residents with scheduled trips within Clovis and into Fresno. The City of Clovis has designated Roundup services as the Consolidated Transportation Service Agency (CTSA) for the Clovis transit service area.



## 5.2.1 Bus Service

**Fixed Route-** This service was originally offered in July 1980 as demand responsive, replacing fixed-route service formerly provided by FAX. On August 13, 1990, Stageline's fixed route service was initiated. Originally operated by contractors, the City of Clovis personnel brought the Stageline system in-house to be operated by City employees in September 1999. Clovis Stageline operates 2 routes on 30 minute headways, and two special routes in early morning and late afternoon to accommodate school transportation. Stageline buses connect within minutes to and from four of FAX's routes. The service operates Monday through Friday from 6:15 a.m. to 6:15 p.m. and Saturdays from 7:30 a.m. to 3:30 p.m. Clovis Stageline generally operates within the Clovis city limits (See Exhibit 5.1). FAX and Clovis Stageline accept inter-system transfers, and Clovis Stageline vehicles are lift equipped. Clovis presently reimburses FAX, through a formal contract, to offset operating costs for fixed-route service to Clovis. FAX Lines 9 and 45 currently provide service to Clovis residents.

**Demand Response** - The second service provided by Clovis Transit is Clovis Roundup, which is a demand-responsive system providing service to persons with a disability. It is the backbone of disabled transportation in the Clovis area. Service is available to qualified riders requesting transportation within the service area and provides essential service to many ambulatory and non-ambulatory passengers. Service is provided by tablet and radio dispatched; lift equipped mini buses and passenger vans. The City of Clovis has designated Roundup services as the Consolidated Transportation Service Agency (CTSA) for the Clovis transit service area.

The City of Clovis' demand-responsive service, Clovis Roundup, (See Exhibit 5.2) transports ADA certified disabled residents within its sphere of influence, primarily along Shepherd Avenue to the north, Dakota Avenue to the south, DeWolf Avenue to the east and Winery Avenue to the west. Zonal service is provided within the City of Fresno as far north as Shepherd Avenue, south to Kings Canyon, west to West Avenue and south to Kings Canyon Avenue including downtown Fresno. The system operates on weekdays from 6:15 a.m. to 7:15 p.m., and on weekends 7:30 a.m. until 3:30 p.m. Fresno is served Monday to Friday from 7:00 a.m. until 5:00 p.m. Service is provided on both an advance reservation and a real time space available basis. Passengers may make reservations up to 14 days in advance or the required 24 hours in advance. Roundup policy requires passengers to be ready at least one hour before a scheduled Fresno ride and 45-minutes for a Clovis ride with pick-



up within five minutes of the designated pick-up time and no longer than 15 minutes after the designated pick-up time.

Service is available to those persons over the age of six who are certified that because of a disability, are unable to use the Clovis Transit's fixed route system. To become certified, the applicant must complete an ADA application including a doctor's certification, which is evaluated by Clovis Transit staff or an outside agency if questionable. Roundup does not restrict trips based on purpose. Dispatchers schedule as many trips as can be accommodated beyond pre-scheduled subscription trips. The service does not restrict the number of trips provided to an individual nor is a waiting list maintained. Roundup's operational practices do not allow for substantial numbers of untimely pick-ups, trip denials, missed trips or excessively long trips which would limit availability of service.

### **5.2.2 Bus Transit**

The service area is consistent with the Planned Urbanized Area (PUA) of the City of Clovis General Plan and represents the area planned for urban growth during the 20 year planning period. Within the PUA are the Cities of Fresno (2010 census population of 494,665) and Clovis (2010 census population of 95,631). The 2010 census population of the PUA, is 654,628 (Fresno COFCG). The FCMA contains 299 square miles; and a population of 664,000 (2010 Census) and the overall average population density is 3 persons/acre. In the more populated areas of the FCMA, the average density ranges from four to fifteen persons per acre.

### **5.2.3 Bus Fleet**

**City of Clovis** - The City of Clovis has a fleet of thirty (30) transit buses, four (4) wheelchair accessible vans, three (3) regular mini-vans which are used to move both passengers and staff, and a trolley which is serviced by the City of Clovis fleet department. Roundup operates with 17 lift equipped passenger buses and three passenger vans including the two wheelchair accessible vans. Stageline uses 13 lift equipped buses and three vans for driver switch-out, and the trolley is used as a rental for special events.





#### **5.2.4 Accessible Bus Service**

**City of Clovis** - All City of Clovis Stageline buses used to provide fixed route service are wheelchair accessible. Roundup service also meets the ADA compliance requirements. For additional reference to the ADA requirements, see Section 2.3.0.

#### **5.2.5 Transit Maintenance Program**

City of Clovis - The City of Clovis has a City-wide maintenance facility which is used to maintain and service Clovis Transit's 37 vehicles.

#### **5.2.6 Fare Structure**

The fare for the Clovis Stageline service is \$1.25 with a convenience pass sold for \$23.00 for 20-rides and the Clovis Roundup fare varies from \$1.25 to \$2.75 depending on the end location. A monthly Metro Pass is available for use on both Stageline and FAX and costs \$48.00 per calendar month. See Table 5.1 for current Fare Structure.

**Table 5.1: Clovis Fare Structure**

<b>Fare Category</b>	<b>STAGELINE</b>
Single Rider (Adult)	\$1.25
Persons with a Disability or Seniors Age 65+	Free
Monthly Pass	\$23 for 20 rides or \$48 Monthly Metro Pass
Children Under Age 6	Free with fare paying adult

<b>Fare Category</b>	<b>ROUNDUP</b>
Within Clovis (Zone 1)	\$1.25
To/From Fresno south to McKinley & west to Palm (Zone 2)	\$2.00
To/From Fresno south to Kings Canyon and west to West Ave. (Zone 3)	\$2.75
Passes	\$23.00 for 20 Zone 1 rides \$36.00 for 20 Zone 2 rides \$50.00 for 20 Zone 3 rides

Figure 5.1: Clovis Stageline Service Area

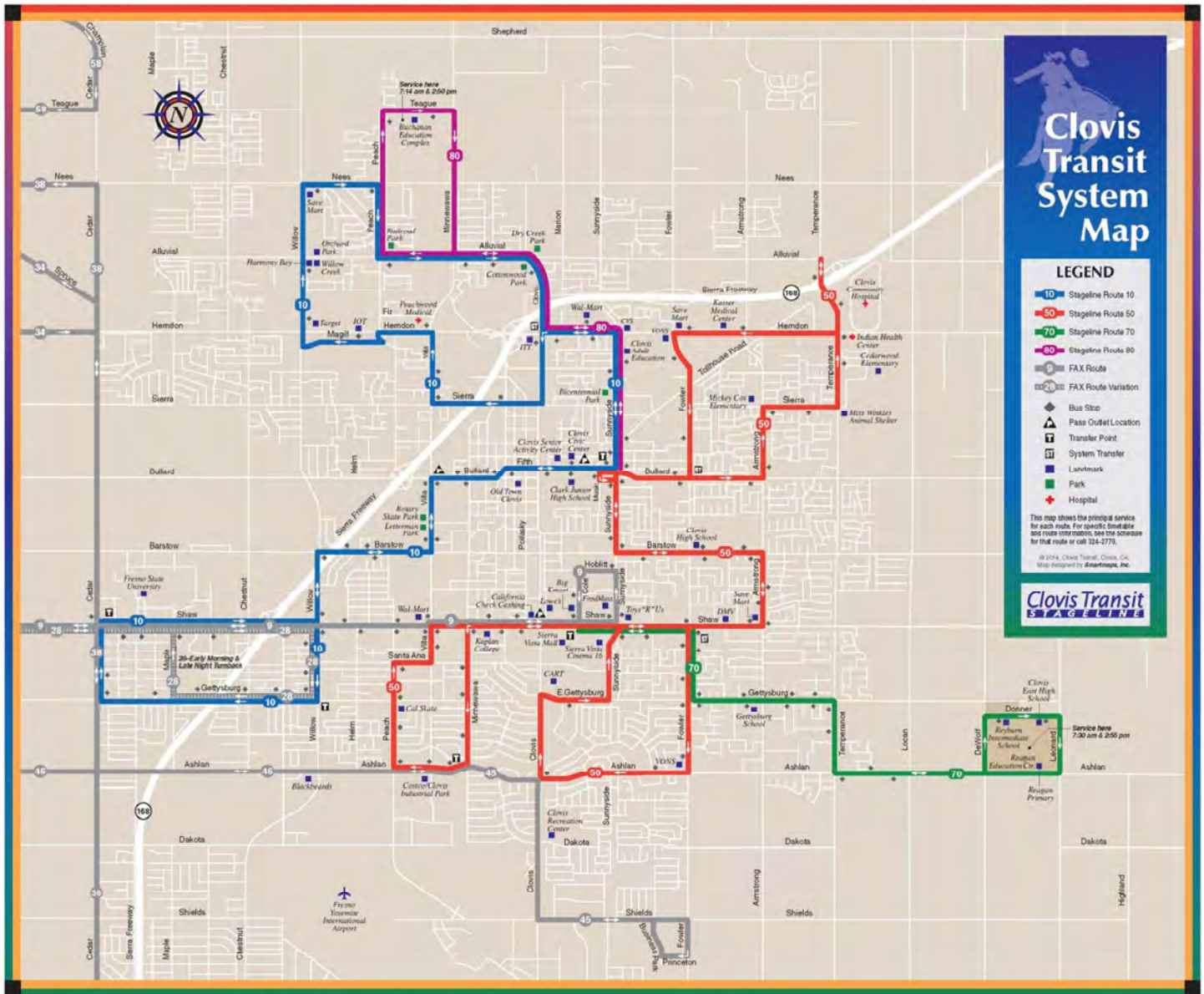
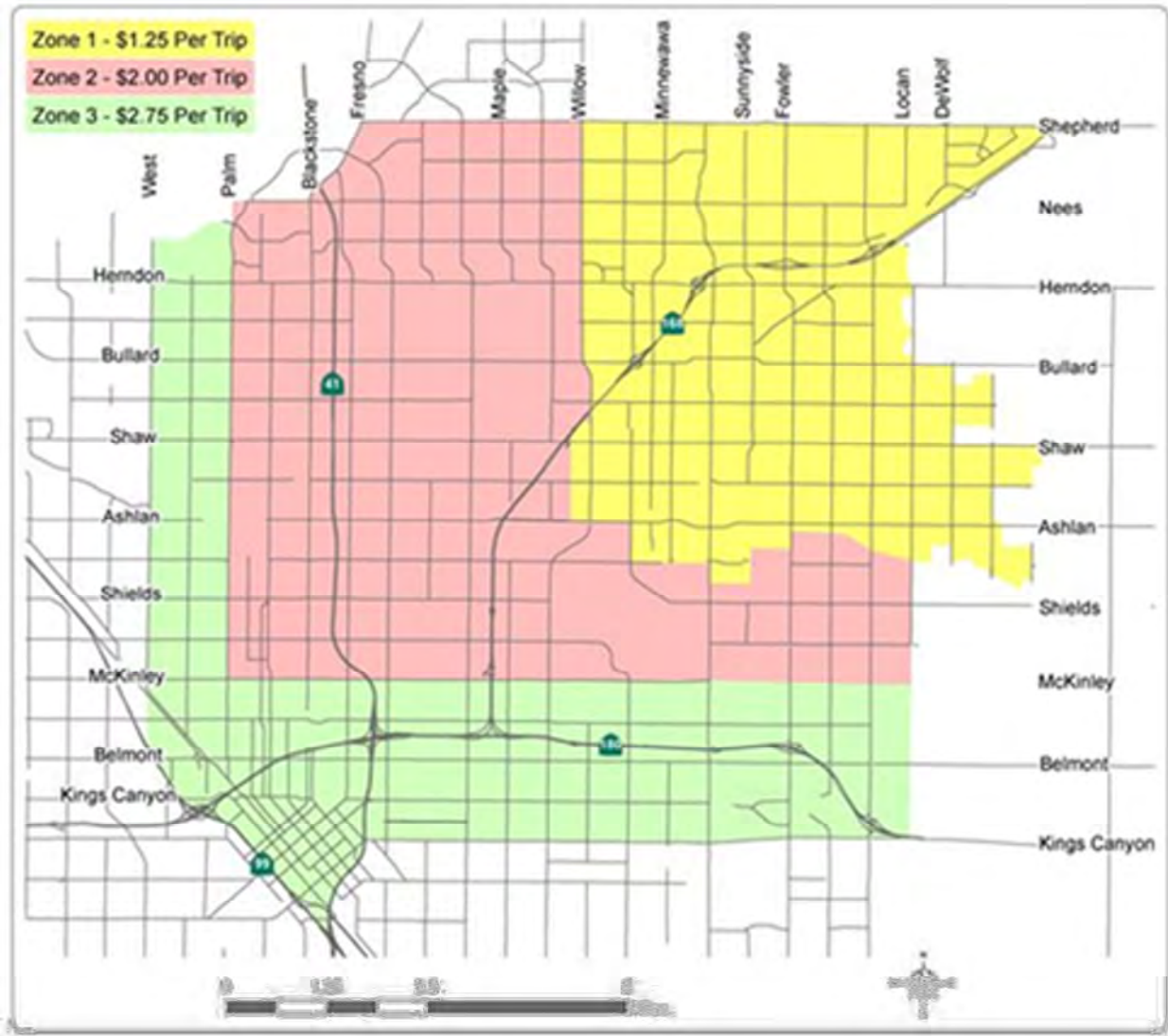


Figure 5.2 Clovis Roundup Service Area



### **5.2.7 Integration of Transportation and Land Use**

The Clovis Air Quality Element establishes a policy foundation for implementation of local government control measures. The Element also provides the framework for coordination of air quality planning efforts with surrounding jurisdictions. The amount, location and type of land uses in the Clovis Project Area have long term air quality implications. A pattern of land uses that facilitates an efficient urban form is essential to improving and maintaining air quality. The integration of land uses can eliminate the length and number of vehicle trips. An effective strategy for improving air quality involves making fewer automobile trips and when such trips are necessary, making them shorter. The provision and availability of alternative modes of transportation are essential to the success of this strategy. Alternative transportation demand strategies can increase the efficiency of the transportation system, reduce congestion and improve regional air quality.

Clovis Transit obtained full fleet compliance for the December 31, 2010 California Air Resources Board fleet emission requirements by reducing NOx and PM10 to the required levels. Many transit agencies had difficulty in meeting the required reductions but Clovis Transit attained the goal.

### **5.2.8 Development Review Program**

The strategy which will be undertaken by the City of Clovis involves the appropriate management of the transportation system. With the ever increasing traffic volumes and limited resources to expand the capacity of some of the existing streets, transportation system management will play an important role in the future. The goal of the Clovis Transportation Management system is to expand the carrying capacity of streets and transit systems through the implementation of low cost strategies. The strategies are to be used to prolong or avoid costly expansion of the facility or service. Traffic signal timing or coordination, additional lanes at intersections, transit service enhancements, parking management and traffic management are all examples of transportation system management strategies which can be expected to be used by Clovis throughout the development review process. Coupled with air quality and congestion management, these strategies will result in significant improvement of the operating characteristics of the existing facilities and services.

### **5.3.0 Key Transit System Performance Indicators**

**Clovis Transit** – The past few years for Clovis Transit have been marked by decreasing ridership and increasing operational costs. Many other transit agencies are experiencing a similar trend. The economic picture is improving slower than anticipated from the 2008-2009 recession. Funding stability is expected to improve with the recent passage of SB1, a state-wide transportation bill. The amount of additional revenue is unknown at this time, but any funds received will be used to enhance service. Round Up ridership has decreased, but trip times and mileages have increased due to more trips into Fresno. Round Up dispatching software has been fully implemented and is used to better track passenger information and trip data.

Utilizing Proposition 1B Homeland Security grant funds and Public Transit Modernization, Improvement, and Service Enhancement Account (PTMISEA) funding, many capital projects have been completed between 2011 and 2016. They include:

- **American's with Disabilities Act bus stop improvements.** This included concrete work for ADA compliance and the purchase of benches and shelters.
- **Vehicle purchase.** Clovis Transit purchased 6 low-floor paratransit vehicles and 2 cutaway buses for fixed-route.
- **Solar bus stop lighting at bus stops.** The units are either stand-alone pole mounted devices or shelter mounted.
- **Panic switch installation.** A panic button was installed at the city yard in close proximity to the area where the buses are parked. This panic button is linked directly with local law enforcement and can be used by employees to summon the authorities in case of emergency.
- **Dispatch software.** Software, phone system upgrades, tablets for the drivers' manifests, computer hardware, monitors and installation were included in this project. The system allows for all electronic dispatching, routing and scheduling of trips. It also allows for citizens to register in a database of people who would require evacuation in the event of an emergency.
- **Bus stop improvements.** Bus stops located in and near areas of the city designated as Disadvantaged Communities were identified for installation of bus stop shelters with trash cans, benches, and solar lighting.

Utilizing the same funding sources and also Low Carbon Transit Operations Program Grants, the following projects are expected to be completed before the end of calendar year 2018.

- **Farebox system.** The farebox system is the same that was recently installed in Fresno. Passengers would be able to easily use passes and fare media between the systems. The farebox system will also improve passenger counting which is currently done by hand.
- **New Transit Station and offices.** A new transit station centrally located in town will allow for easier transfers, a location for passengers to buy passes, get information, use the restroom between buses, and complete ADA assessments. The building will also provide for much needed office space, meeting rooms, break rooms, and training facilities.
- **Bus Shelters with bench and lighting.** Using the Low Carbon Transit Operations Program Grant, six new shelters with bench, solar lighting and a trash can, are expected to be placed in disadvantaged areas.
- **Replacement on-board video camera system.** The current video system has aged and degraded, requiring replacement. The new system offers greatly improved resolution and memory capacity. Additionally, live bus video will be accessible, increasing the security on the buses for operators and passengers. Local law enforcement will have access to the live video stream.

The following is a list of additional planned improvements between FY 2018 and 2022 (depending upon funding):

- The purchase of replacement vehicles as the current vehicles age out, including the possible introduction of electric buses.
- Additional ADA bus stop improvements.
- Additional vehicles for fleet expansion to keep up with new service or ADA “no denial” requirements for paratransit.
- A ‘real-time’ bus locator system and end user application for next bus data accessible by passengers.
- Evaluation and strategic redesign of Stageline bus routes to coincide with the opening of the new Transit Station.

As we look forward to the next five years, there are some potential areas that will continue to be evaluated. Some of those include:

- Expand service into new build areas, particularly in the north and east of Clovis.
- Service to the Willow/International College campus and the adjacent Clovis North High School Campus.
- Analysis of possible bus rapid transit on Shaw Avenue.
- Analysis of the results of a gap analysis study and a strategic service evaluation study conducted by the Fresno Council of Governments.
- Increased service hours later in the day and on weekends.
- Potential partnership with Fresno State University working on electrification of the bus fleet.

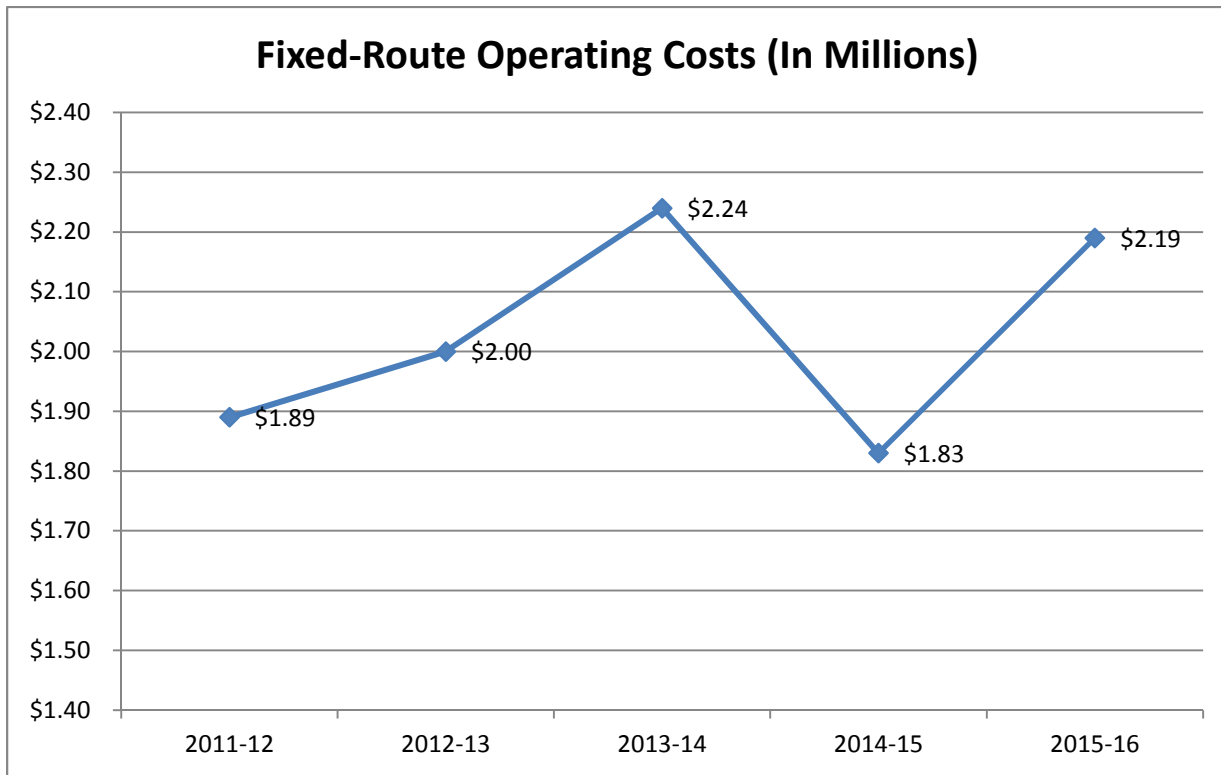


Table 5.2: Clovis Stageline Operating and Productivity Trends FY12- FY16

Indicator	FY /					% Change			
	FY12	FY13	FY14	FY15	FY16	FY13	FY14	FY15	FY16
Total Passengers	175,170	171,925	169,559	166,150	154,451	-1.9%	-1.4%	-2.0%	-7.0%
Vehicle Hours	21,592	21,152	21,126	21,079	21,193	-2.0%	-0.1%	-0.2%	0.5%
Vehicle Miles	251,136	255,173	261,001	260,594	258,156	1.6%	2.3%	-0.2%	-1.0%
Operating Costs	\$1,898,409	\$1,863,692	\$2,030,722	\$1,833,520	\$1,950,040	-1.8%	8.9%	-9.7%	6.3%
Fares	\$379,682	\$372,738	\$406,144	\$366,704	\$390,008	-1.8%	8.9%	-9.7%	6.3%
Employees	15	16	16	16	16	0.0%	0.0%	0.0%	0.0%
Passenger/Hour	8.11	8.13	8.03	7.88	7.29	0.2%	-1.2%	-1.8%	-7.5%
Passenger/Mile	0.70	0.67	0.65	0.64	0.60	-4.2%	-3.0%	-1.5%	-6.3%
Cost/Vehicle Hour	\$87.92	\$88.12	\$96.13	\$86.98	\$92.01	0.2%	9.0%	-9.5%	5.7%
Cost/Vehicle Mile	\$7.56	\$7.30	\$7.78	\$7.04	\$7.55	-3.4%	6.5%	-9.5%	7.2%
Veh Hours/Employee	1,439	1,322	1,320	1,317	1,325	-8.1%	0.0%	-0.2%	0.6%
Op Subsidy/Passenger	\$9.97	\$10.11	\$11.16	\$10.18	\$11.36	1.4%	10.3%	-8.7%	11.6%
Farebox Ratio	20%	20%	20%	20%	20%	0.0%	0.0%	0.0%	0.0%
Fbox ratio w/out Measure C	8.0%	7.0%	7.0%	7.0%	6.9%	-12%	0.0%	0.0%	-1.4%

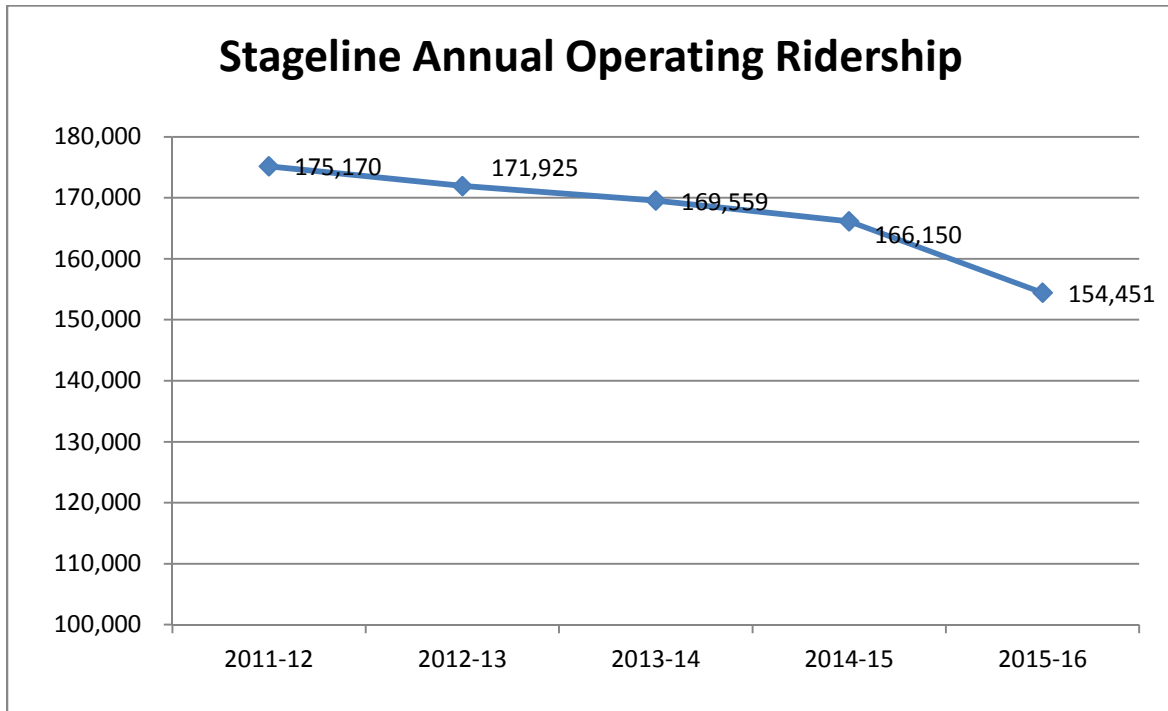


**Figure 5.3: Clovis Stageline Fixed Route Operating Costs FY2012-2016**



Operating costs for Clovis' fixed route system have grown steadily from \$1.9 million per year in FY2011/12 to \$2.19 million per year in FY2015/16, keeping pace with inflation and increased fuel costs.

**Figure 5.6: Clovis Stageline Fixed Route Annual Ridership FY2012 – 2016**



In 2009-10, an overhaul of the entire Stageline fixed-route system incorporated multiple smaller routes into two longer routes with three buses on each route. This reduced the number of transfers and therefore reduced the number of passengers counted (passengers are counted as they board each bus.) Since passengers now had to take one bus with no transfer to their destination they were counted only once instead of twice. Therefore ridership appears to have dropped significantly when in reality it remained the same for 2010-11 and increased in 11-12. Slight deviations continued in 2012-13 and 2013-14. In 2014-15 and 2015-16, ridership continued to decrease, consistent with a regional and national trend of falling transit ridership.

**NOT UPDATED**

**Figure 5.7: Clovis Stageline Fixed Route Annual Ridership and Operating Costs Comparison FY2010 – 2014**

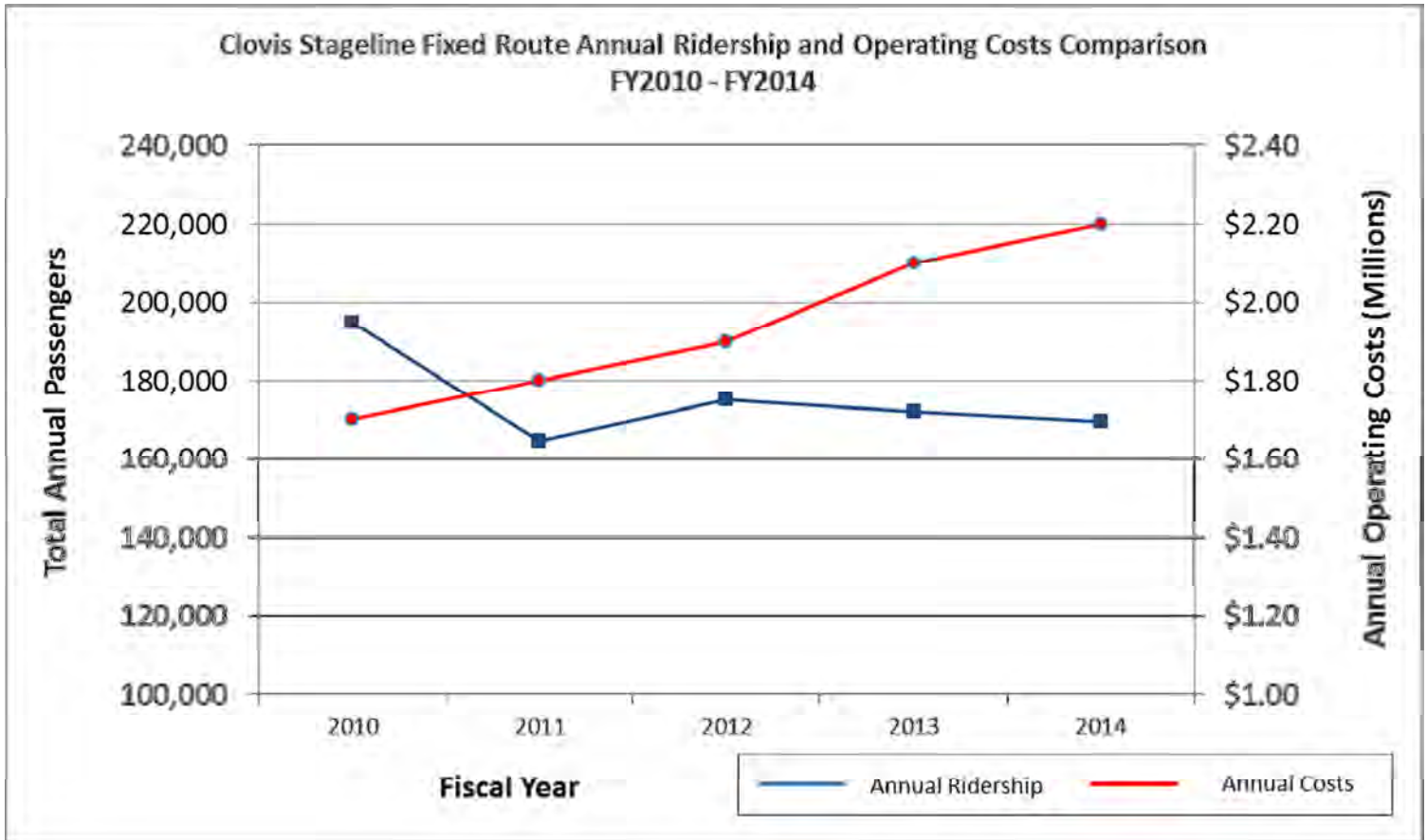
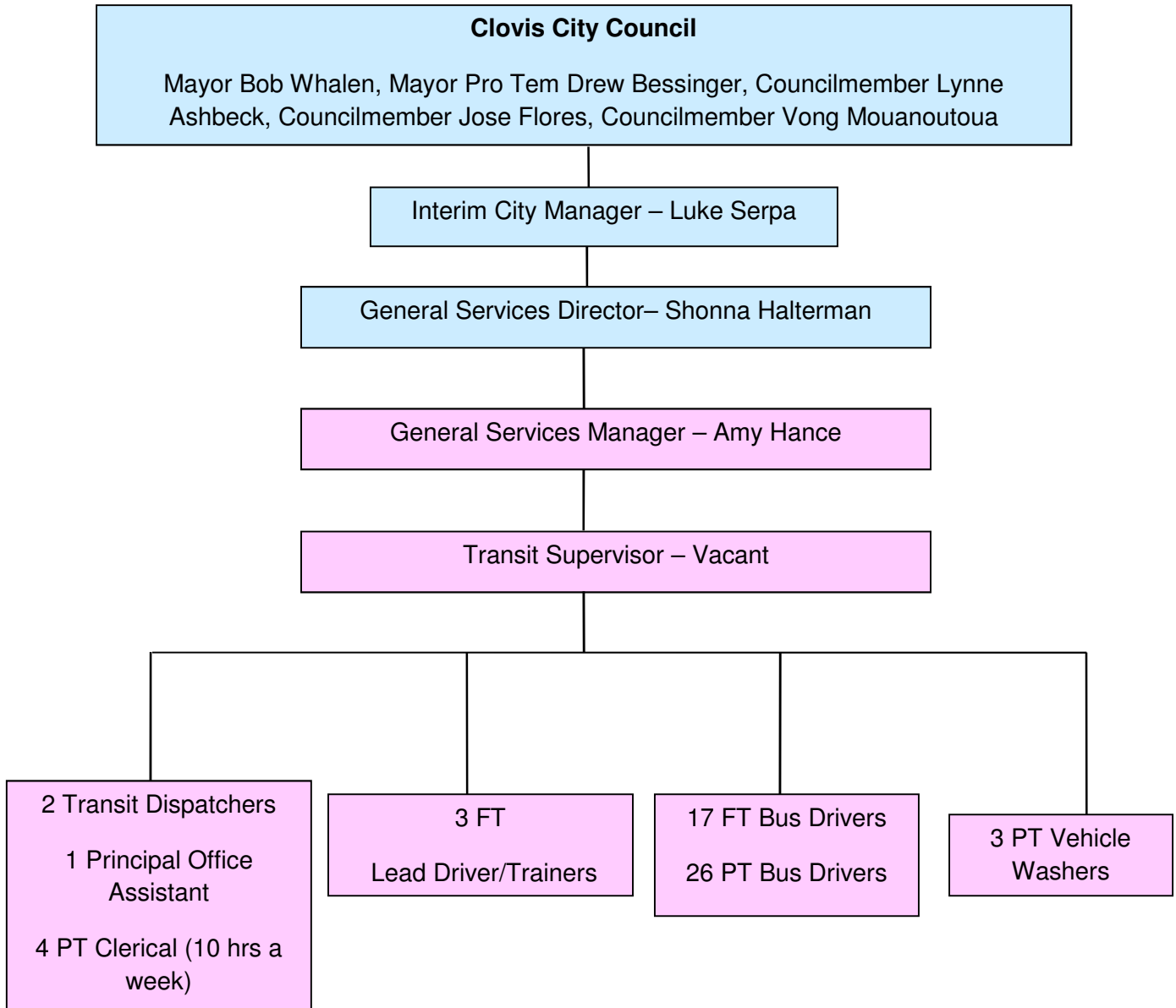




Table 5.3: Roundup Operating and Productivity Trends FY12 – FY16

	FY					% Change			
	FY12	FY13	FY14	FY15	FY16	FY13	FY14	FY15	FY16
Total Passengers	59,006	62,919	65,211	61,025	60,692	6.6%	3.6%	-6.4%	-0.5%
Vehicle Hours	26,883	27,412	29,682	29,090	31,586	2.0%	8.3%	-1.9%	8.5%
Vehicle Miles	359,839	364,778	392,061	361,963	398,735	1.4%	7.5%	-7.6%	10.1%
Operating Costs	\$1,970,908	\$2,167,893	\$2,147,801	\$2,426,662	\$2,517,231	10.0%	-0.9%	12.9%	3.7%
Fares*	\$197,098	\$216,789	\$214,780	\$242,666	\$251,723	10.0%	-0.9%	12.9%	3.7%
Employees	17	18	18	19	19	5.9%	0.0%	5.5%	0.0%
Passenger/Hour	2.19	2.30	2.20	2.10	1.92	5.0%	-4.4%	-4.5%	-8.5%
Passenger/Mile	.16	.17	.17	.17	.15	6.3%	0.0%	0.0%	-11.7%
Cost/Vehicle Hour	\$73.31	\$79.09	\$72.36	\$83.42	\$79.69	7.9%	-8.5%	15.2%	-4.5%
Cost/Vehicle Mile	\$5.48	\$5.94	\$5.48	\$6.70	\$6.31	8.40%	-7.8%	22.3%	-5.8%
Veh Hours/Employee	1,581	1,523	1,649	1,531	1,662	-3.7%	8.3%	-7.1%	8.6%
Op Subsidy/Passenger	\$31.73	\$32.78	\$31.42	\$38.25	\$40.05	3.3%	-4.2%	21.4%	4.7%
Farebox Ratio	10%	10%	10%	10%	10%	0.0%	0.0%	0.0%	0.0%
Fbox ratio w/out Measure C	5.0%	4.9%	4.6%	4.0%	3.0%	-2.0%	-6.1%	-13.0%	-25.0%

**Figure 5.8: Clovis Transit Organization Chart**



#### 5.4.0 Capital Financial Plan

Clovis - Clovis Transit's five year Capital Plan projects a balanced budget. Clovis Transit took delivery of 2 new Champion buses vans in 2015 and are preparing to order 2 more and a replacement paratransit bus. State Proposition 1B funds for PTMISEA grants and the Proposition 1B homeland security grant funds have provided for capital purchases. Sales tax revenue from Measure C is starting to rebound as the economy improves. Recently, SB1 was passed which will provide additional revenue for the operation. The amount of funds is unknown at this time. Any funds will be evaluated and used to enhance current operations.

**Table 5.4 - Stageline Operating and Revenue Budget FY12 - 16**

Operating Revenue	2011/12	2012/13	2013/14	2014/15	2015/16
<b>Grants/Other</b>	\$30,350	\$16,384	\$122,396	\$118,468	\$238,954
<b>Passenger Fares</b>	\$121,083	\$110,024	\$114,843	\$118,318	\$110,765
<b>Measure C</b>	\$630,064	\$689,273	\$853,766	\$900,733	\$985,442
<b>LTF</b>	\$977,800	\$1,086,600	\$1,111,000	\$1,250,000	\$1,349,000
<b>STA</b>	\$26,861	\$100,000	\$83,581	\$405,941	\$42,891
<b>Total Operating Revenues</b>	\$1,786,158	\$2,002,281	\$2,285,586	\$2,793,460	\$2,727,052
Operating Costs	2011/12	2012/13	2013/14	2014/15	2015/16
<b>Employee Services</b>	\$1,052,168	\$1,092,054	\$1,184,562	\$1,053,882	\$1,123,539
<b>Operations, Maint. &amp; Training</b>	\$394,958	\$450,747	\$478,825	\$416,829	\$427,118
<b>Direct Operating Expenses</b>	\$237,327	\$321,160	\$363,501	\$359,519	\$399,383
<b>Transit Contracts</b>	\$213,955	\$226,017	\$218,875	\$225,381	\$242,239
<b>Capital</b>	\$101,532	\$2,599	\$108,922	\$353,463	\$314,458
<b>Total Operating Costs</b>	\$1,999,940	\$2,092,577	\$2,354,685	\$2,409,074	\$2,506,737

**Table 5.5 - Roundup Operating and Revenue Budget FY12 - 16**

<b>Operating Revenue</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>Passenger Fares</b>	\$98,722	\$105,591	\$98,884	\$92,450	\$86,804
<b>Grants/Other</b>	\$0	\$720,458	\$47,540	\$428,938	\$178,004
<b>Measure C</b>	\$490,000	\$490,000	\$400,000	\$400,000	\$400,000
<b>LTF</b>	\$1,059,576	\$1,268,657	\$1,005,344	\$2,210,798	\$2,404,812
<b>STA</b>	\$515,300	\$494,560	\$500,000	\$159,000	\$172,000
<b>Total Operating Revenues</b>	\$2,163,598	\$3,079,266	\$2,051,768	\$3,291,186	\$3,241,620
<b>Operating Costs</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>Employee Services</b>	\$1,237,868	\$1,364,318	\$1,229,760	\$1,545,719	\$1,555,892
<b>Operations, Maint. &amp; Training</b>	\$466,138	\$442,373	\$514,772	\$473,971	\$505,708
<b>Direct Operating Expenses</b>	\$266,902	\$361,202	\$398,573	\$404,262	\$455,631
<b>Capital</b>	\$0	\$963,228	\$69,705	\$168,449	\$258,106
<b>Total Operating Costs</b>	\$1,970,908	\$3,131,121	\$2,212,810	\$2,592,401	\$2,775,337



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## **Appendix A: Caltrans Public Transportation, Ridesharing, Park-and-Ride and Bicycle Policies**

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Caltrans will support the provisions of public transportation services, as appropriate, within urban areas, within rural areas, and between regions. In both urban and rural areas, adequate public transportation services are required to meet the mobility needs of the poor, the elderly, and the disabled (in general, those person who are financially unable or physically incapable of owning and operating an automobile). In urban areas, public transportation is also needed to serve additional objectives (particularly as they relate to home to work or commuter trips); namely, relief of congestion, savings in energy consumption, and improvement in air quality. Interregional intercity or longer distance public transportation is needed, both to serve the transit dependent population and to serve long-term environmental and social objectives such as reduction in energy consumption.

The Department's authorities and responsibilities in the transit area were clarified and broadened in 1979 with the passage of SB 620, which enables the Department to engage in the design and construction of transit facilities. The statute also indicates the Legislature's intent that there be a state commitment to investments in rail and guide way systems, transit stations, park and ride lots, and local transit services. It is departmental policy to aggressively make such investments as expeditiously as possible.

In a more general sense, Caltrans will concentrate its transit activities in the following five areas (not listed in order or priority):

- 1) Assure adequate transportation facilities and services for low mobility people in all regions of the State.
- 2) Foster development of interregional public transportation. The Department will promote a continuing program of intercity and commuter rail service and intercity bus services.
- 3) Support measures to better integrate transit facilities and services with other parts of the transportation system in a given area. Specifically, along these lines, the Department will:
  - a) Support measures to increase bus ridership on State highways in urban areas, thus making more efficient use of these highway facilities;
  - b) Aid in the securing and protection of corridors for fixed guide way transit service, either on a shared basis with existing highway or rail routes or along abandoned rail lines or vacant highway rights of way;
  - c) Develop a program of Intermodal transfer facilities to provide connections between different modes and to connect interregional transit services with local transit systems;
  - d) Support measures to coordinate social service transportation and increase services provided by the private sector.

- 4) Sponsor and evaluate transit demonstration projects where the results of the project may have applicability in several jurisdictions.
- 5) Provide technical, financial, and other assistance and services to transit operators to ensure equitable, efficient, and effective use of available resources.

### **Ridesharing and Park and Ride Policies**

A goal of the State is to reduce the automobile's contribution to air pollution, energy use, and traffic congestion. Two of the primary means of achieving this goal are to reduce the number of vehicles entering urbanized areas and increasing the number of passengers per vehicle entering these areas. These are emphasized through departmental programs which:

- \* Provide for the development of fringe area park and ride lots rather than the development of new single occupant vehicle parking facilities in core areas.
- \* Give priority on freeways to high occupancy vehicles (HOV's) by providing special lanes for these vehicles which results in reduced commute time.
- \* Provide centralized offices in several areas of the District that coordinate and encourage the use of carpools, van pools, and bus pools by all employers in the area.
- \* Set an example for the private sector by providing preferential parking facilities for HOV's.
- \* Encourage RTPA's to plan and coordinate local governments and private industry to implement urban parking strategies which are measures taken to alter the supply or cost of parking to either reduce automobile travel in a selected area or to make the operation of the urban street system more efficient.

### **Bicycle Policies**

It is departmental policy to develop programs and projects which encourage the use of bicycles as an alternative to use of the automobile. Particular emphasis is toward bicycle facilities in urban areas to increase use of the bicycle for commute and other short utilitarian trips. In order to encourage bicycle use, it is Department policy to:

- 1) Provide for continuous and convenient bicycle routes to places of employment, shopping centers, universities, and other high activity areas with potential for increased bicycle use.
- 2) Encourage the development of safe bicycle storage facilities, and other support facilities, i.e., those which would encourage increased bicycle usage.
- 3) Provide coordination and assistance to Federal, State, regional, local, and private agencies in developing plans and facilities to encourage bicycle usage.
- 4) Give consideration to bicyclists' needs through TSM and Air Quality Maintenance Plan (AQMP) strategies.

- 5) Encourage the integration of bicycles with other modes of transportation such as promoting the carrying of bicycles on mass transit vehicles or the provision of safe bicycle storage at transit terminals.
- 6) Make improvements on or adjacent to State Highway corridors to increase safety and convenience of bicyclists.
- 7) Provide route information and education materials to bicyclists.

## **Appendix B: Elderly and Disabled Service Considerations**

### **Fixed Route Service**

Fresno Area Express' (FAX) fixed route service presently serves areas of significant concentrations of elderly population. In evaluating new service requests special consideration is given to areas of significant senior citizen and disabled population.

The entire FAX bus fleet is wheelchair lift equipped making all FAX buses accessible to persons with disabilities. All FAX fixed routes were accessible to persons in wheelchairs starting in October of 1991, and starting in 1993, all base period buses were wheelchair accessible.

The fare structure for the fixed route service provides for a senior citizen (65+) disabled base fare (\$.60) or approximately 50% of the general fare (\$1.25). Monthly passes on FAX regular buses for disabled persons are \$24.00, representing a \$24.00 discount compared to the Handy Ride system and the monthly Metro Pass. FAX had a fare increase in 2011, the first in eight years. FAX accepts red, white and blue Medicare Cards, DMV Disabled Parking Placards, ADA Paratransit Certification, and FAX Special Rider I.D. cards for reduced fares. FAX also accepts all appropriate identification showing ages 65 and older for reduced fares.

Fare Category	Adult Fare FAX	Adult Fare HANDY RIDE
Single Ride	\$1.25	\$1.50
20 Tokens/50 Tokens	\$ 22.50/\$55.00	N/A
#Metro Pass (unlimited rides)	\$48.00	\$48.00
Children under 6 and Trolley Rides	Free	N/A
	Senior/Disabled Fare FAX	Senior/Disabled Fare HANDY RIDE
Single Ride	\$ .60	\$1.50
Monthly pass	\$24.00	\$48.00

### **Demand Responsive Service**

Service for the elderly and disabled population also is provided by Handy Ride which covers the same service area as the fixed route system. The system is demand responsive, and trip requests are accepted 24 hours in advance for certified users. No priority is given to trip type, and there are no trip number limits. Senior and disabled persons pay a \$1.50 cash fare or \$48.00 for a monthly convenience pass. An attendant may ride free with the passenger.

As discussed in Chapter 2, The Americans with Disabilities Act of 1990 has had a significant impact on FAX fixed route and demand responsive service. A more detailed analysis of the impact of transit services to the elderly and disabled population in the metropolitan area is contained in the FAX ADA "Paratransit Service Plan".

## Appendix C: Title VI Compliance

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As a condition of receiving assistance from the Federal Transit Administration (FTA), FAX complies with the requirements of Title VI of the Civil Rights Act of 1965, which requires reporting to FTA every three years, and FAX prepared a triennial report in 2016. Relevant excerpts from FAX's Title VI Update are provided below:

### **I. GENERAL TITLE VI REPORTING REQUIREMENTS**

All applicants, recipients and sub-recipients shall maintain and submit:

#### **A. Requirement to Prepare and Submit a Title VI Program**

In compliance with 49 CFR Section 21.9(b), Fresno Area Express hereby submits its triennial Title VI Report. This report is being submitted to the Federal Transit Administration, Region VIII Civil Rights Officer. All requirements for the General Reporting as well as the Program Specific Requirements have been achieved.

#### **B. Requirement to Set System-wide Service Standards**

Fresno Area Express established the following minimum standard policies in order to provide the best possible service to all people within the service area. Considerations include cost effectiveness, vehicle load, vehicle headway, access, bus stop frequency, on-time performance, and the distribution of transit amenities.

#### **C. Requirement to Set System-wide Service Policies**

##### Distribution of Transit Amenities

FAX does not operate any rail stations, park and ride lots, escalators, or similar amenities. As such, FAX does not have a policy for the distribution of such amenities. FAX does, however, place and maintain bus stop signs at all bus stop locations. Other amenities revolve around bus stop improvements such as benches, shelters, bus bays, and major transfer centers. The determination of how bus stops are improved is limited by financial resources and site specific considerations, accessibility to persons with disabilities, vehicle operating safety, and passenger volume. These standards are published in the FAX Transit and Facilities Standards document dated December 2005 and are made available to planning agencies and developers upon request. Construction of bus stop amenities such as curb cuts, sidewalks, and bus bays are the direct responsibility of city and county public works and traffic engineering departments. FAX is required to coordinate with those departments when planning for and constructing such improvements.



**D. Requirement to Collect Demographic Data**

Demographic and Service Profile Maps and Charts

Fresno Area Express is utilizing the data collected in the decennial census of 2010. FAX has not experienced any significant service reductions during this triennial period and therefore no additional information or analysis was required per 49 CFR 21.9(b).

**E. Requirement to Monitor Transit Service**

**F. Quality of Service Methodology**

The procedure for examining the quality of service involved selecting a random sampling of ten minority and ten non-minority census tracts, and comparing the level and quality of service between the two sets of tracts. All minority and non-minority tracts within the Fresno Clovis Metropolitan Area (FCMA) are listed beginning on page 6. The maps in Appendix C, D and E represent the low income, minority populations, and Limited English Proficiency by census tract. For this report, the randomly selected census tracts were each evaluated for various indicators including, on-time performance, established headway, vehicle load, and the average time needed to travel to selected destinations.

**G. Requirement to Evaluate Service and Fare Changes**

Locally Developed Evaluation Procedure

FAX, like most other public transit systems, has limited resources and must weigh proposed service changes carefully based on demand and available resources. The Transit Rates and Services Committee is the primary vehicle for reviewing service changes. The Transit Rates and Services Committee is comprised of seven individuals representing each of the Council districts and one person representing the Mayor's office. This committee is responsible for evaluating current fixed-route service, recommending service changes, and assessing Title VI compliance, as well as other related activities.

## **II. PROGRAM SPECIFIC REQUIREMENTS FOR GRANTEES IN URBANIZED AREAS OF POPULATIONS 200,000 AND OVER**

- A. Submit a copy of the agency's Title VI internal review process for service delivery and capital programs decisions, along with the name and position titles of the persons responsible for administration of the process and who have ultimate responsibility for approving these decisions.**

The Locally Developed Evaluation Procedure was formalized by FAX in their 2008 Title VI Report to the FTA.

FAX, like most other public transit systems, has limited resources and must weigh proposed service changes carefully based on demand and available resources. The City Council, FAX's governing board established a Transportation Subcommittee to replace the Transit Rates and Services Committee. The new committee is comprised of 3 Council Members. The Transportation Sub-Committee is the primary vehicle for reviewing service changes. This committee is responsible for evaluating current fixed-route service, recommending service changes, and assessing Title VI compliance, as well as other related activities.

Committee meetings are held with varying frequency throughout the year, but on average quarterly. The Committee considers proposed changes as needed, based on data collection findings. Ridership data, schedule adherence, and running time statistics collected throughout the year are the primary basis from which recommendations are developed. Comments and requests from the public are also reviewed at these meetings. A list of proposed service changes is developed for consideration by the Director of Transportation. If the recommended changes are significant, they are also considered by the City Council in a public hearing forum, as required by the Federal Transit Administration. In accordance with FTA regulation, FAX attempts to notify all concerned citizen organizations that may be affected by proposed service changes of their opportunity to comment on the proposals. Notice is placed in area newspapers, in both English and Spanish, at key bus stops, transfer locations, and on board buses.

The internal review process for capital program decisions is carried out in the monthly executive staff meetings. The members of the executive staff include the division managers of each of the six divisions, the Director of Transportation and the two Assistant Directors of Transportation. The Fresno City Council has ultimate responsibility in approving these decisions.

### **Planning and Development Responsibilities for BRT**

The project sponsor for the Blackstone/Kings Canyon Rd BRT project is the Fresno Area Express (FAX), the agency that operates public transit services provided to the City of Fresno and adjacent unincorporated areas. FAX carries approximately 10.5 million passengers (unlinked trips) annually, all on fixed-route services.

Primary FAX responsibilities related to the project include:

- Manage the planning, scope, design and engineering, construction administration, and

- construction inspection;
- Provide oversight for project technical issues;
- Develop recommendations for resolutions for unique problems arising unforeseen conditions brought to light during project planning, development, and implementation; and
- Develop responses to Project Management Oversight (PMO) contractor requests to prevent the deterioration of budget and schedule.

FAX divisions involved in the development phase of the Blackstone/Kings Canyon BRT project include, Planning, Operations, Maintenance, and executive staff. FAX is a department of the City of Fresno under the direction and management of the City Manager and oversight by the City Council. Funding and major project recommendations made by the FAX staff are subject to the approval of the City Council. FAX submitted a formal Project Management Plan for the BRT project with the Very Small Starts application to FTA detailing roles and responsibilities on the project.

Fresno Council of Governments (Fresno COG) - Fresno COG is the regional planning agency for the Fresno County area. Fresno COG functions as both the regional transportation planning agency and as the region's metropolitan planning organization (MPO). As such, it is responsible for regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, railroad, bicycle, and pedestrian facilities.

Federal Transit Administration - FTA will review and approve the before and after study work plan. FTA also will review any before and after data developed during the project planning and development phase, as well as draft and final reports.

PMO Contractors - The PMO contractors designated by FTA will assist in reviewing project data.

**B. Provide a narrative documenting implementation of the Title VI internal review process for at least one service delivery or capital program decision that was implemented during the past three years.**

The proposed BRT route would replace existing local bus service currently provided by FAX Routes 28 and 30 along the Ventura Avenue/Kings Canyon Road corridor and Blackstone Avenue corridor, respectively. The proposed BRT service would also feature fewer stops to improve the speed and reliability of the transit service. With the local service provided by FAX Routes 28 and 30 being discontinued along the BRT corridor, and new BRT stations spaced further apart than existing local bus stops, the proposed project would potentially reduce accessibility to transit services in some areas by increasing the distance transit users would have to walk.

To evaluate the potential effect of the project on transit accessibility, this study conducted a walkshed analysis using geographic information systems (GIS) data. This analysis took into account the location of existing local bus stops, planned BRT stations, sidewalk coverage, and an average pedestrian walk speed of 3.5 feet per second to determine the time it would take someone to walk to the nearest bus stop. The resulting maps show the areas that are within a five, ten, and 15 minute walk to a transit stop on the proposed BRT corridor.

Figure 13 shows the current local bus stops along the proposed BRT route, and the corresponding transit accessibility. Figure 14 shows the proposed BRT stations as well as local bus stops that would remain in service along the BRT route, and the corresponding transit accessibility. The local bus stops along the BRT corridor that would remain serve existing FAX routes not being discontinued with the project, such as FAX Routes 20, 22, 26, 34, 39, and 45 which operate on shorter segments of the BRT corridor.

As these figures show, implementing the proposed BRT project would have a minor effect on overall transit accessibility. In general, transit accessibility remains unchanged near Downtown where overlapping local service provided by Routes 20 and 34 would continue to operate.

However, transit users may have to walk further to get to the nearest transit stop on both the Blackstone Avenue corridor north of Ashlan Avenue and Ventura Avenue/Kings Canyon Road corridor east of First Street. As Figure 13 shows, these corridors currently have fairly frequent local bus stops that put much of the immediate corridor within a five-minute walk of a bus stop. With implementation of the proposed project, less of the corridor area would be within a five-minute walk of a bus stop since the more numerous local bus stops would be replaced with less frequent BRT stations. However, most of the immediate corridor would remain within a ten-minute walk of a BRT station.

Due to the less frequent stops, some of the neighborhoods adjacent to these corridors that are currently within a ten or 15 minute walk to a bus stop may also have less access to transit service. This would be more noticeable for the neighborhoods west of the Blackstone Avenue corridor between Ashlan Avenue and Herndon Avenue. Along the Ventura Avenue/Kings Canyon Road corridor, FAX Route 22 operates ½-mile north on Tulare Street and would continue to serve the neighborhoods north of the corridor, while FAX Route 26 operates ½-mile south on Butler Avenue and would continue to serve the neighborhoods south of the corridor. In North Fresno near Woodward Park, the current northern end of the Route 30 loop on Audubon Drive and Cole Avenue would also be eliminated with the project, reducing transit accessibility in that area.

## IMPACTS AND MITIGATIONS

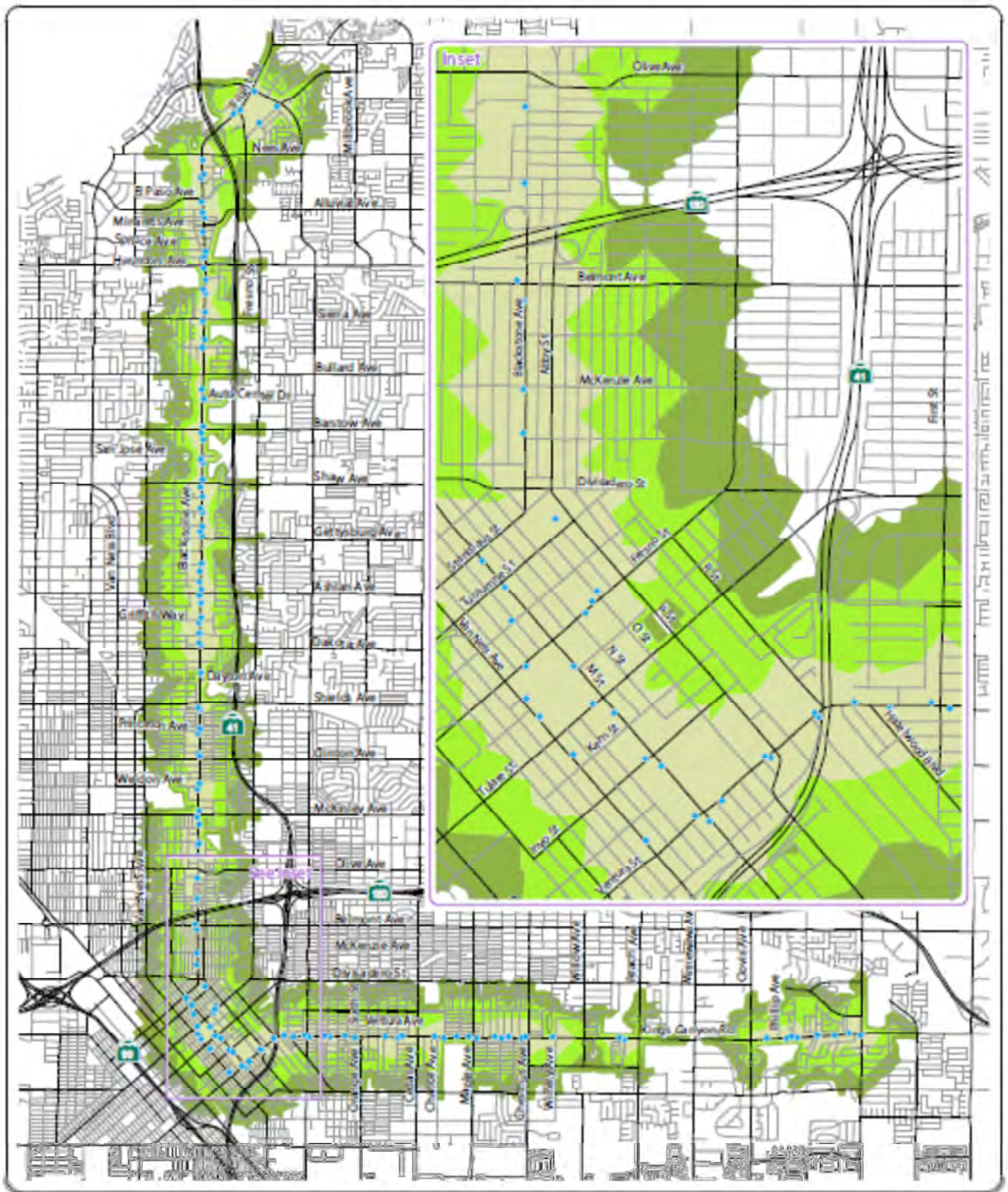
This section summarizes the potentially significant impacts caused by proposed project on the transportation system. Each impact is followed by a recommended mitigation measure to reduce the significance of identified impacts.

**Impact :** Implementation of the proposed project would potentially reduce access to transit service.

As noted in the project description, the proposed project would replace existing local bus service in the BRT corridors currently provided by FAX Routes 28 and 30. Since the proposed BRT stations are Fresno BRT Environmental Analysis Transportation Impact Study spaced further apart than the current local bus stops along Routes 28 and 30, the proposed project may reduce the convenience of accessing transit service along the BRT corridor.

However, those areas experiencing the greatest increase in walking time to a transit stop or a reduction in transit accessibility would be those areas that have the lowest minority populations. Further, the proposed BRT will provide for improved passenger facilities, including larger shelters, benches and leaning rails, real-time passenger information, and bicycle parking at the station. The BRT will also use standard 40-foot buses used currently by FAX.

Therefore, although some areas would experience increased walk times, the overall effects of increased frequency and reduced overcrowding would result in an increase in overall performance and safety of bus service along the proposed route. In addition, no disproportionate adverse impact related to transit accessibility for minority populations would occur. Therefore, this impact is considered **less than significant**.



**LEGEND**

Walking Distance from Transit (Minutes)

5 10 15 • Transit Stop

(N)  
Not to Scale

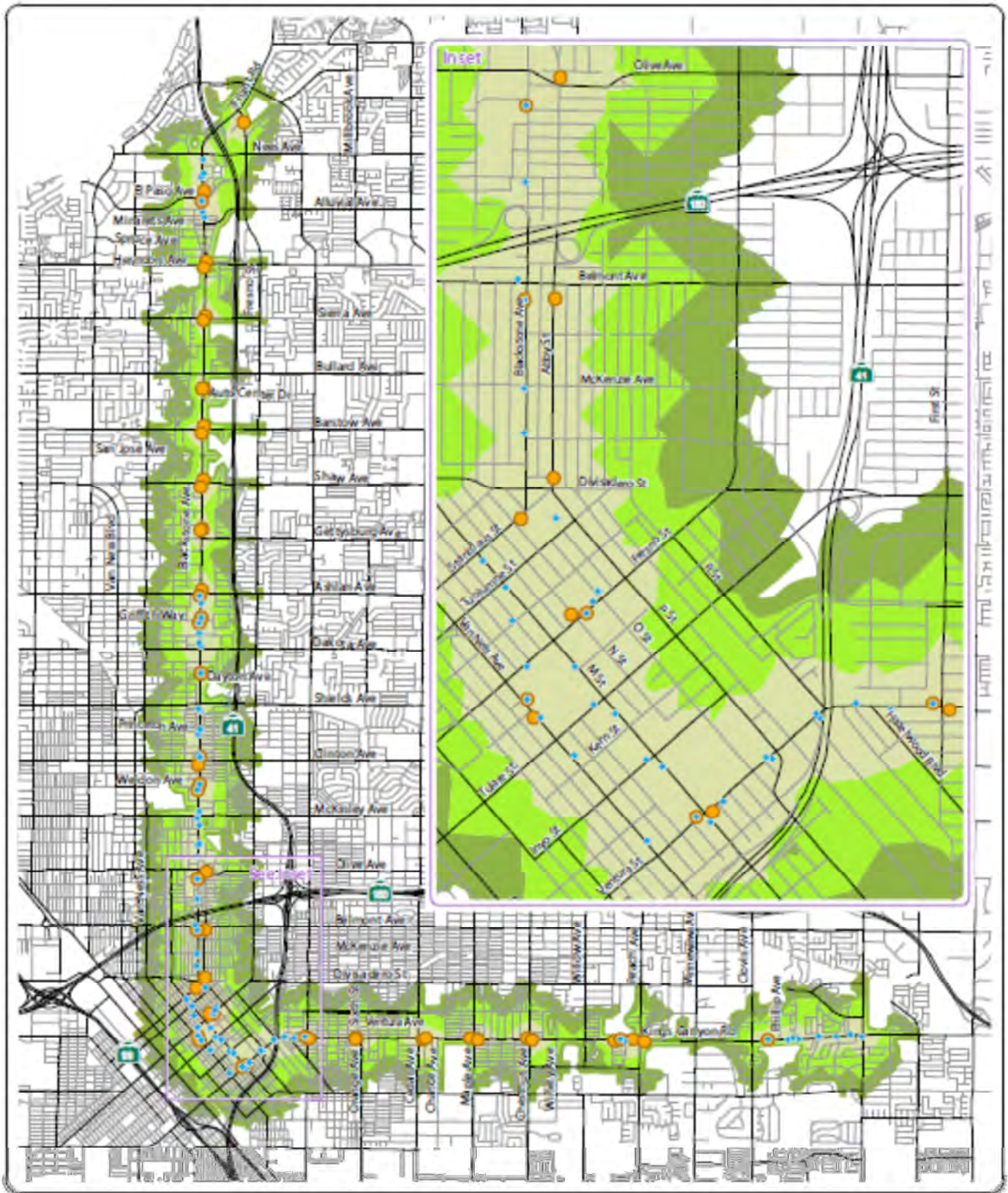
**FEHR PEERS**

**Transit Accessibility -  
Baseline Conditions**

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**Figure 13**





**LEGEND**

Walking Distance from Transit (Minutes)

- 
 5
 - 
 10
 - 
 15
- 
 Transit Stop
- 
 Proposed BRT Station

(N)  
Not to Scale

**FEHR PEERS**

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**Transit Accessibility -  
Baseline Plus Project Conditions**

**Figure 14**

- C. Grantees are required to establish internal monitoring processes relative to levels of quality of service. If any disparity has been found during the last three years as a result of these analyses, provide a narrative describing the disparity and the action the agency has taken to remedy the situation.**

FAX has not collected data in the past to allow system administrators to determine the fare payment method of Title VI populations who ride the bus. It has not been possible to determine if disparities exist in the impacts to protected populations. FAX will be adding fare payment method to its next passenger survey so that future disparities can be measured and specific mitigation strategies can be developed to address these particular Title VI subgroups.

- D. Submit a copy of any service standards and policies that have changed over the past three years. Describe the impact of the service standard or policy changes on the minority community. Changes resulting in an adverse impact on the minority community must be identified, including the action the agency has taken or plans to take to eliminate, minimize or mitigate the adverse impact.**

FAX has not changed any service standard or policy in the past 3 years.

- E. Submit a list of projects included in the Transportation Improvement Program (TIP) of each transit construction and/or major mobility improvement project along with a discussion of the impact on the minority community. If this information has been provided in an environmental assessment or planning study to the regional office, please reference the documents and pages where the discussion can be found.**

Fresno Council of Governments 2011FTIP – Formal Amendment No. 3 adds the Very Small Starts Application – FRE1111356 – Section 5309 Small Starts Share (\$YOE): \$38.55 Million (80.0%). Bus Rapid Transit (BRT) Blackstone/Kings Canyon corridors. 15.7 mile corridor on Kings Canyon Road from Fowler Avenue on the east to Downtown Fresno; and on Blackstone Avenue from Friant Road on the north to Downtown Fresno. There will be 26 stations along the route, each with two stops, one in each direction (except at the northern and eastern terminus). All signalized intersections will have traffic signal coordination and transit signal priority. Real-time bus arrival information will be displayed at stations and on the internet and major stops will have ticket vending machines.

### **Preliminary Environmental Assessment**

The proposed BRT project improves local bus service on corridors with existing bus service. No impacts on the minority community are anticipated, except for bus service improvements. The project is not anticipated to displace existing structures or disrupt existing land uses. Limited right-of-way may be acquired to provide end-of-line terminals with bus turnarounds and limited areas for kiss-and-ride and possibly park-and-ride. Easements or small right-of-way takes could be required to provide adequate areas for station improvements but only where space is available and not currently in use other than as open space/landscaping.



Based on the proposed features and operation of the project, a preliminary (non-formal) assessment of potential environment issues indicates the following impacts could occur:

- Traffic operations impacts along the arterial segments where dedicated bus lanes are Proposed
- Intersection level of service impacts at locations where lane reductions are proposed and/or queue jump and TSP improvements are targeted.
- Parking displacements in station areas and in the segment of Ventura Avenue/Kings Canyon Road where BRT vehicles are proposed to operate in the curbside parking lane.

FAX has conducted initial evaluations of traffic conditions in the corridor and level of service at signalized intersections. The preliminary findings were traffic volumes are low to at most 110 moderate in the segment of Ventura Avenue/Kings Canyon where a traffic lane in each direction will be dedicated to buses only; intersection level of service will not be adversely affected by BRT operations or impacts can be eliminated by incorporating relatively low cost improvements into the project; and parking supply is more than adequate along the on-alignment BRT arterials and in adjacent lots so that displacements resulting from BRT improvements do not adversely affect overall supply or restrict access to local businesses and residences.

Furthermore, sidewalk station improvements do not appear to be located near significant cultural resources, such as historic structures or public parks or public institutions. Or the improvements can be located to avoid such resources should they become evident.

The BRT project complies with the criteria set forth under 23 CFR 771.117(c)(2), (c)(8), (c)(13), (d),(2), and (d),(10). A review of the project indicated that it: does not induce significant environmental impacts to planned growth, or land use of the area; does not involve the relocation of significant numbers of people; does not have a significant impact on natural, cultural, recreational, historical or other resources; does not involve significant air, noise, or water quality impacts; does not have significant impacts on travel or travel patterns; will not significantly affect minority or low income populations; and does not otherwise, either individually or cumulatively, have any other significant environmental impacts.

FAX considers this project, as described above, to be a Categorical Exclusion under NEPA 23 CFR 771.117(c)(2), (c)(8), (c)(13), (d)(2), and (d)(10). It does not find any potential significant impacts and meets the criteria for the issuance of a Categorical Exclusion. The full documentation can be found at <http://www.fresno.gov/NR/rdonlyres/55A1EA96-AE08-4BB6-97E1-5C1BDFA6E084/0/FresnoBRTISMND120712.pdf>

- F. Provide a description of the type of service changes (e.g., route extensions, deletions, changes in hours or days of operation, fare increases, etc., including any changes as a result of contracting out service) proposed by the transit property over the next three years, and a statement of the anticipated effect of these changes on the minority communities and the minority transit user, provide the justification for each change.**

Local bus service on Blackstone Avenue and Ventura/Kings Canyon Avenues will likely be reduced or eliminated as a result of BRT implementation which replaces local bus service. There may be impacts in terms of spacing of bus stops from the current ¼ mile spacing to the proposed ½ mile spacing for BRT. Some regular bus routes are being realigned now or will be realigned soon to support the BRT route and to feed into BRT stations for facilitated transfers.

Most of the impacts to minority populations will be positive: BRT brings improved service frequencies, attractive rail-like stations and improved pedestrian crossings, lighting and signage. Depending on the point of origin for specific transit riders, particular riders may experience shorter or longer walk distances to the nearest BRT station compared with their current bus stop location.

### **III. INTERNAL REVIEW PROCESS**

This element of the Title VI Report documents FAX's internal processes with respect to the delivery of transit services and improvements. Fresno Area Express established the following minimum standard policies in order to provide the best possible service to all people within the service area. Considerations include cost-effectiveness, vehicle load, vehicle headway, access, bus stop frequency, on-time performance, and the distribution of transit amenities.

#### **Maximum Vehicle Load:**

Maximum seat to passenger load ratio of 1:1.1, or 110 percent of vehicle capacity.

#### **Vehicle Headway:**

Vehicle headway is determined primarily by ridership on the route, and is limited by available resources. As a policy, FAX will not establish vehicle headways greater than 60 minutes on any route whenever service is operated.

#### **On-Time Performance:**

FAX should operate its fixed-route buses so that on-time performance is achieved 90 percent of the time. A bus is considered "on-time" if it arrives no more than five minutes after the scheduled arriving time. The system average for FY2016 was 79.8 percent. Routes that consistently fall below the system standard are examined and evaluated by the Service Evaluation Committee.

#### **Distribution of Transit Amenities (Transit Access):**

FAX does not operate any rail stations, park and ride lots, escalators, or similar amenities. As such, FAX does not have a policy for the distribution of such amenities. FAX does, however, place and maintain bus stop signs at all bus stop locations. Other amenities revolve around bus stop

improvements such as benches, shelters, bus bays, and major transfer centers. The determination of how bus stops are improved is limited by financial resources and site specific considerations, accessibility to persons with disabilities, vehicle operating safety, and passenger volume. These standards are published in the FAX Transit and Facilities Standards document dated December 2005 and are made available to planning agencies and developers upon request. Construction of bus stop amenities such as curb cuts, sidewalks, and bus bays are the direct responsibility of city and county public works and traffic engineering departments. FAX is required to coordinate with those departments when planning for and constructing such improvements.

**Service Availability:**

FAX's fixed-route bus system should be designed so that a minimum of 90 percent of the service area population resides within one-half mile of a bus route.

A policy recommendation from the Fresno COG's PTIS Study is to locate half of new households in close proximity to the planned BRT corridors and downtown Fresno. Implementation of this policy by local governments will increase significantly the number of people who live within the ½ mile walk shed from a high capacity transit corridor in the future.

**IV. Title VI Populations in the FAX Service Area**

FAX analyzes the impacts of service and fare changes on the specific protected populations of minority, low income, and Limited English Proficiency (LEP). The FAX service area is comprised of 63% minority population groups. About 17% of families in the FAX service area live below the Federal poverty limit, and as many as 22,000 families may not be able to afford a car and are considered transit dependent. And 39% or nearly 204,000 people need language assistance to understand and communicate their basic travel needs.

The tables and maps below provide details on the Title VI populations and their geographic concentrations within the FAX service area. Many of the neighborhoods identified as low income are also minority households who do not speak English well. Service changes and fare increases to these specific geographic areas will be given considerable analysis to minimize and mitigate the impacts to these protected populations.

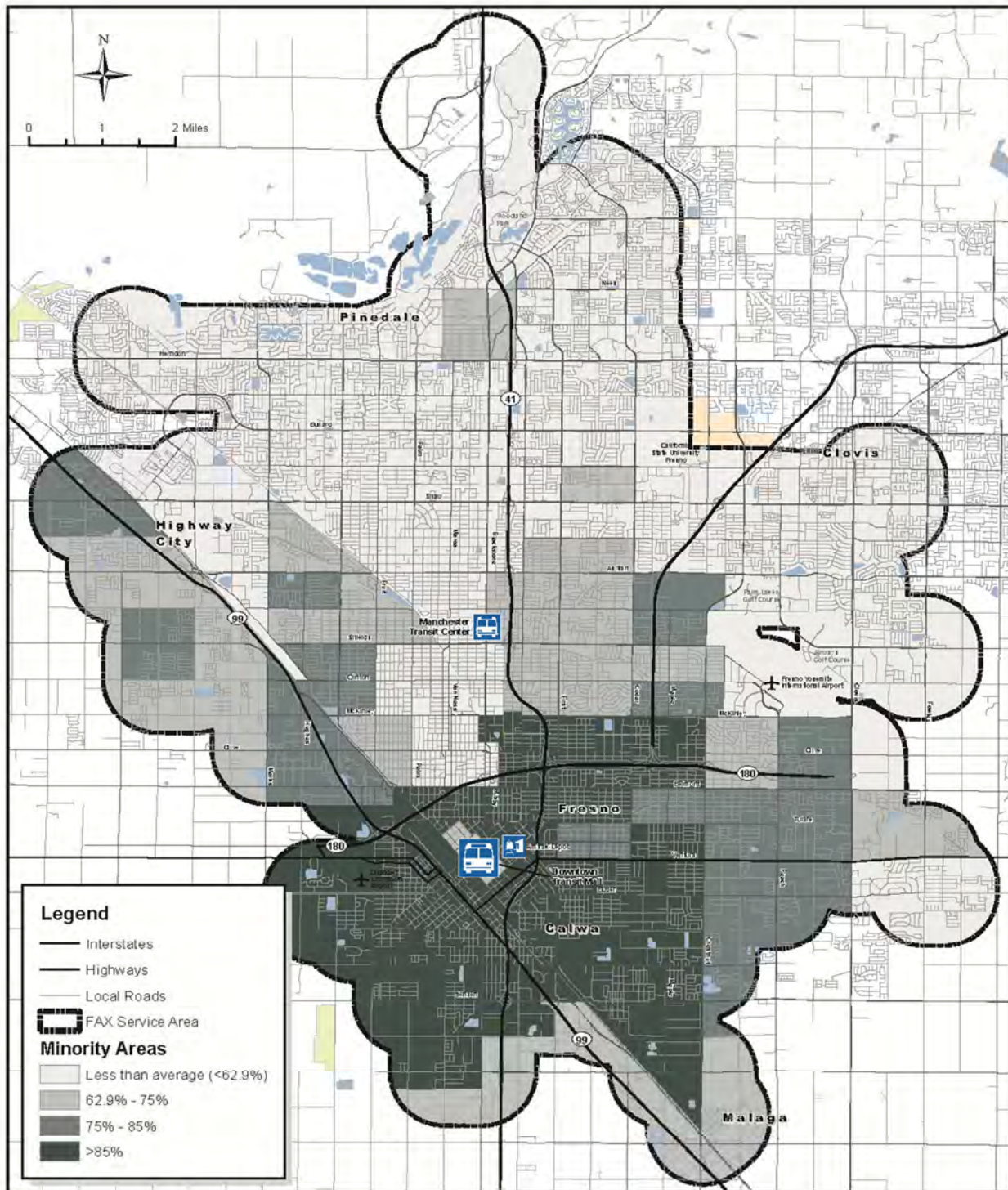
**Table C.3: Minority Populations**

<b>Number of Persons in Minority Population within FAX Service Area</b>		
<b>Ethnicity</b>	<b>Estimate</b>	<b>Percent</b>
<b>White (Non-Hispanic or Latino)</b>	212,745	25%
<b>Hispanic or Latino</b>	246,260	42%
<b>Asian</b>	62,988	6%
<b>Black or African American</b>	38,926	18%
<b>American Indian and Alaska Native</b>	2,742	2%
<b>Native Hawaiian and Pacific Islander</b>	827	1%
<b>Other</b>	1,858	2%
<b>Two or more races</b>	11,428	1.98%
<b>Total Survey Participants</b>	577,774	100.0%
<b>[1] Source: American Community Survey (ACS) 2014</b>		
<b>[2] Minority populations defined according to the FTA Circular 4702.1A, page II-5</b>		
<b>[3] Average % Minority in FAX Service Area (areas within ¼-mile of transit route) = 63%</b>		

About 63% of FAX’s customers are minorities. Of those, Hispanics or Latinos represent the largest group (46%) followed by Blacks or African Americans (about 18%) and Asians (6%) .

As can be seen in Figure C.1 below, heavy minority concentrations in the FAX service area include all of Edison, Central and Roosevelt neighborhoods, with lower concentrations following Highway 99 to the north and west of downtown.

**Figure C.1: Minority Population Concentrations within the FAX Service Area**



**Table C.4: Low Income Population**

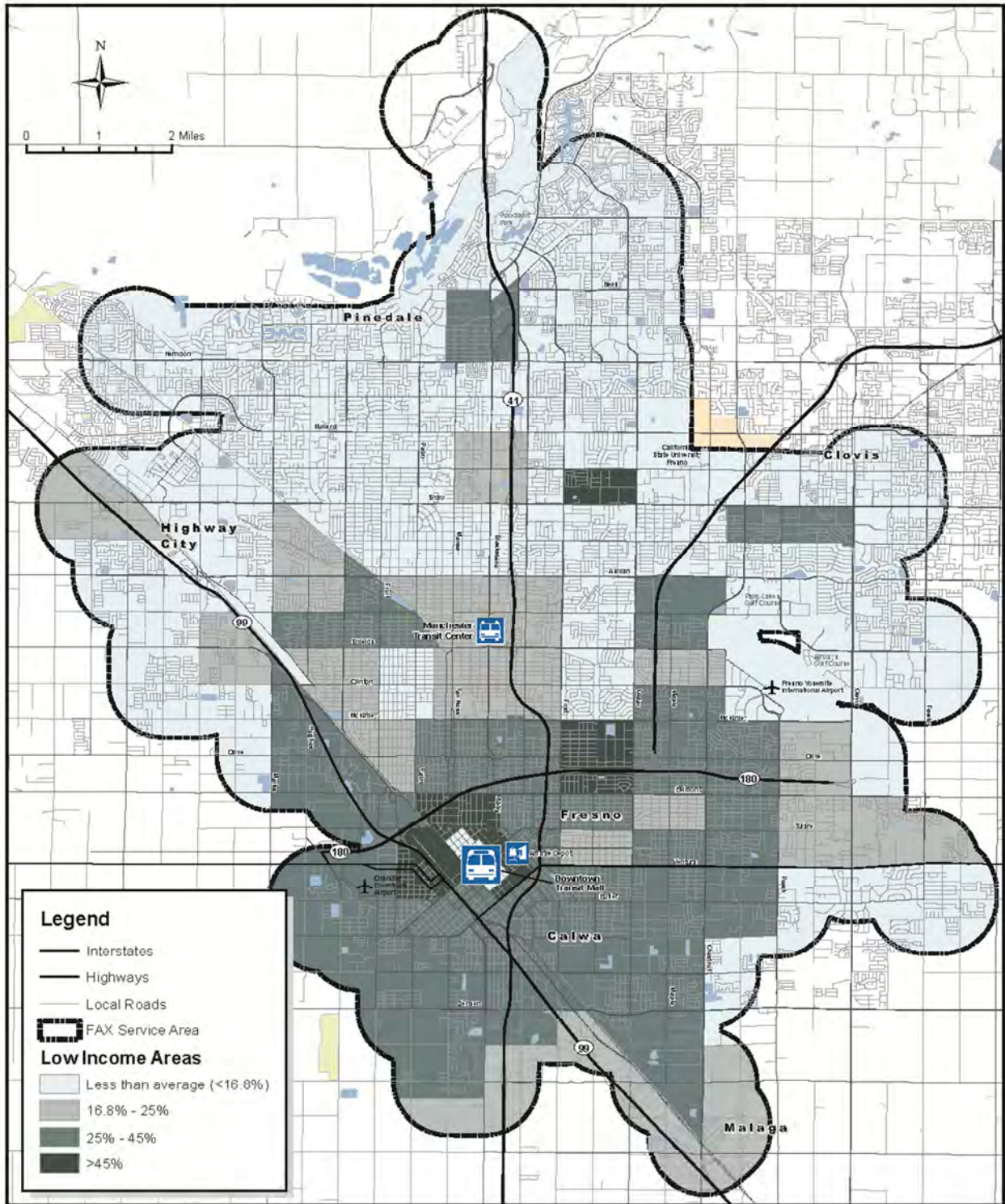
<b>Number of Families At or Below 100% of Poverty Level within FAX Service Area</b>		
<b>Number of Families</b>	<b>Estimate</b>	<b>Percent</b>
<b>At or Below Poverty Line</b>	21,931	16.79%
<i>75%-100% of Poverty Line</i>	6,893	5.28%
<i>50%-74% of Poverty Line</i>	6,345	4.86%
<i>Less than 50% of Poverty Line</i>	8,693	6.65%
<b>Above Poverty Line</b>	108,697	83.21%
<b>Total Survey Participants</b>	<b>130,628</b>	<b>100.0%</b>
<b>[1] Source: US Census Bureau - American fact Finder 2005-2009. (Income-to-Poverty Level Ratio for Families)</b>		

About 17% of families in the FAX service area live below the Federal poverty limit, and as many as 22,000 families live at or below the poverty line and may not be able to afford a car (considered to be transit dependent).

Figure C2 below shows the concentrations of low income populations in the FAX Service Area. Low income populations are clustered in the downtown area (Central neighborhood) , between the Roosevelt and McLane neighborhoods on either side of Highway 180, and the neighborhoods just east of CSU Fresno, comprised mostly of student housing. Other low income neighborhoods exist around the airport and southwest of downtown.



**Figure C.2: Low Income Population Concentrations within the FAX Service Area**



## **Outreach to Persons with Limited English Proficiency**

To be consistent with Policy Guidance from the FTA Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons (2006), FAX will be providing translation services and a proactive public outreach campaign in FY2014 to at least 9 language subgroups other than English that exist in the FAX service area that constitute 1,000 or more persons who are likely to be affected by future service and fare changes.

The FTA Policy Guidance states as follows:

*“Safe Harbor. The following actions will be considered strong evidence of compliance with the recipient's written-translation obligations:*

- (a) The DOT recipient provides written translations of vital documents for each eligible LEP language group that constitutes 5% or 1,000, whichever is less, of the population of persons eligible to be served or likely to be affected or encountered. Translation of other documents, if needed, can be provided orally; or*
- (b) If there are fewer than 50 persons in a language group that reaches the 5% trigger in (a), the recipient does not translate vital written materials but provides written notice in the primary language of the LEP language group of the right to receive competent oral interpretation of those written materials, free of cost.*

*These safe harbor provisions apply to the translation of written documents only. They do not affect the requirement to provide meaningful access to LEP individuals through competent oral interpreters where oral language services are needed and are reasonable.”*

It was found that 39% of the people living in the FAX service area either do not speak English well or not at all, representing nearly 204,000 individuals who are in need of language assistance.

A total of 9 language groups were identified that meet the FTA threshold of 1,000 persons or more speaking that language in the transit agency service area. The LEP language groups in the FAX service area include Spanish, Hmong, Laotian, Cambodian, Chinese, Armenian, Vietnamese and Tagalog. There are additional languages included in the category of “other Indic Languages” which may include Standard Hindi and Urdu, Bengali, Punjabi, Marathi, Gujarati, Oriya, Sindhi, Nepali, Sinhala, Saraiki and Assamese. The exact concentrations of the Indic language subgroups spoken in the FAX service area will be determined by the next passenger survey.

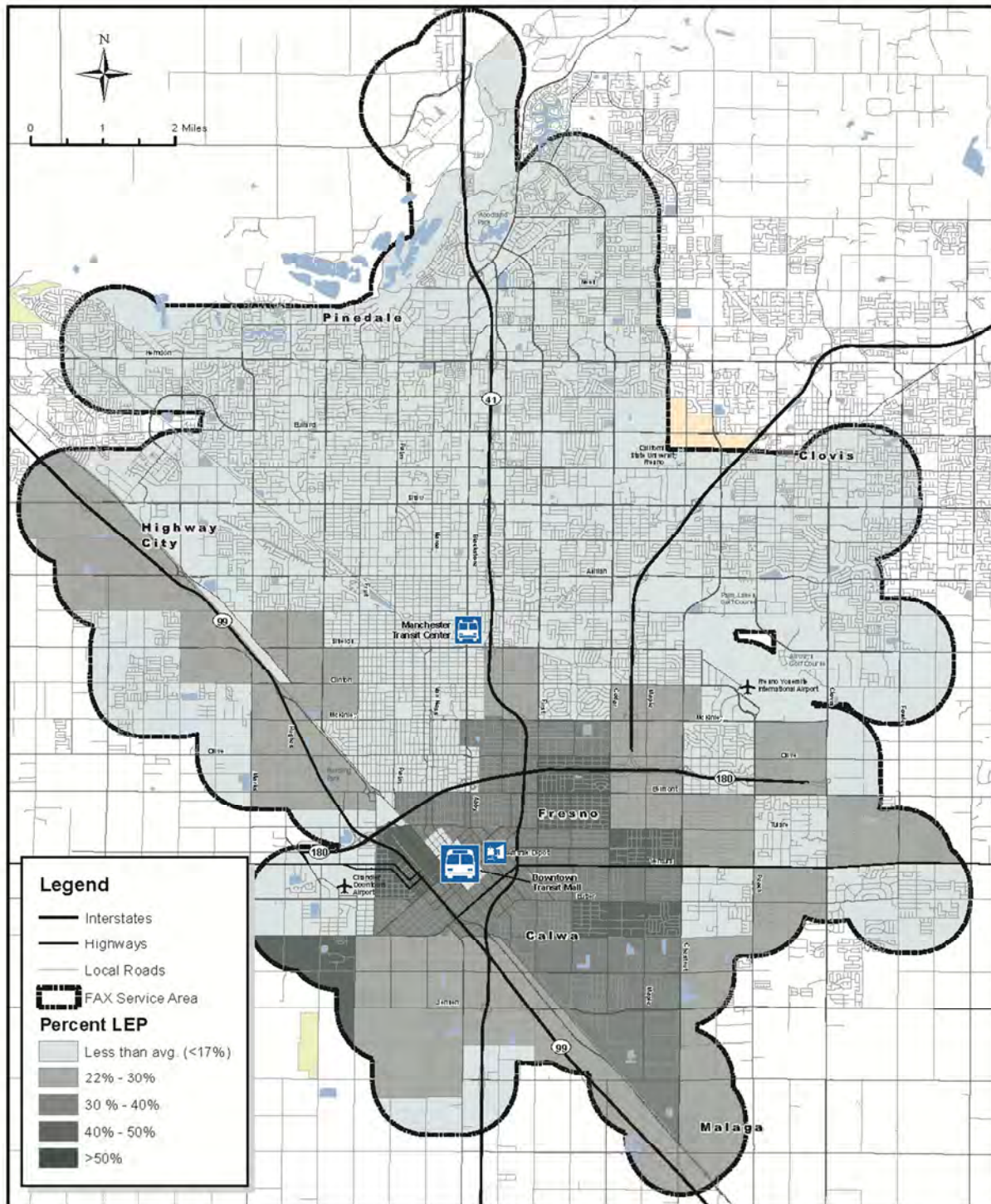


**Table C.5: Language Spoken at Home**

Number of Persons Over 5 years of age with the Ability to Speak English Less Than "Very Well" within FAX Service Area		
Language	Estimate	Percent
English Only	282,873	58.04%
Spanish (or Spanish Creole)	59,430	12.19%
Hmong	9,852	2.02%
Other Indic languages	2,857	.59%
Laotian	2,860	0.59%
Mon-Khmer, Cambodian	1,714	0.35%
Chinese	1,947	0.40%
Armenian	1,632	0.33%
Vietnamese	1,076	0.22%
Tagalog	1,191	0.24%
Arabic	286	0.06%
Korean	538	0.11%
Russian	372	0.08%
Persian	469	0.10%
Japanese	351	0.07%
Total Survey Participants	<b>487,360</b>	<b>100.0%</b>
<b>[1] Source: US Census Bureau - 2010-2014 ACS 5-Year Summary File</b>		
<b>[2] The following languages represent languages spoken at home with the ability to speak English less than "very well" by less than .05% of the population in the FAX service area: Hindi, Thai, German, French (Patois, Cajun), African languages, Portuguese, Urdu, Italian, Greek, Hebrew, Scandinavian, Polish, Hungarian, French Creole, Yiddish, Navajo.</b>		
<b>[3] Average % LEP in FAX Service Area (areas within 3/4-mile of transit route) = 17%</b>		

Figure C.1 below identified the areas with heavy concentrations of people in the FAX service area who either do not speak English well, or not at all. These areas can be described roughly as the Central and Roosevelt neighborhoods, with a stretch of LEP populations following Highway 99 to the north and west.

Figure C.3: – Limited English Proficiency Areas



## **V. QUALITY OF SERVICE ASSESSMENT COMPLIANCE**

There are many methods for evaluating the efficiency and effectiveness of public transportation service. Because each method has unique strengths and weaknesses, FAX employs several service evaluation methods. Among the methods used are peer review analysis and system minimums assessment, and geographic information systems (GIS) based impacts analysis of service and fare changes on specific low income, minority and Limited English Proficiency concentration areas.

### **Peer Review Analysis:**

Peer Review Analysis uses standard service measurement criteria to compare one system's performance against another. This kind of analysis is most valuable when standard, well controlled data sets are available, and when the systems being evaluated have similar operating environments. FAX has selected the following transit agencies as peers for comparison purposes: Tucson, Arizona, El Paso, Texas, Albuquerque, New Mexico, Bakersfield, CA (GET), and Stockton, CA RTD. All five agencies are Federal Transit Administration (FTA) Grant Recipients, and therefore, required to provide their system performance data to the National Transit Database (NTD). Furthermore, Stockton and Bakersfield are California agencies, and must operate under the same California State Transportation Development Act Guidelines.

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## Appendix D: Vehicle Fleet Replacement Schedules

**Table D.1: Fixed-route Vehicle Fleet Replacement Schedule**

	FY17	FY18	FY19	FY20	FY21
<b>Total Fleet</b>	118	101	113	113	113
<b>Active Fleet</b>	103	96	103	103	103
<b>Peak Service</b>	80	80	86	86	86
<b>Spare Fleet</b>	16	16	17	17	17
<b>Contingency Fleet</b>	15	5	5	5	5
<b>Bone Pile Fleet</b>	8	0	0	0	0
<b>Replacement Buses</b>	4	9	6	6	6
<b>Expansion Buses</b>	0	0	6	0	0
<b>Disposition</b>	8	0	0	0	0
<b>Spare Bus Ratio</b>	20%	20%	20%	20%	20%

**Table D.2: Handy Ride Vehicle Fleet Replacement Schedule**

	FY17	FY18	FY19	FY20	FY21
<b>TOTAL FLEET</b>	57	53	53	53	53
<b>ACTIVE FLEET</b>	53	49	49	49	49
<b>PEAK SERVICE</b>	44	44	44	44	44
<b>SPARE FLEET</b>	2	2	2	2	2
<b>INACTIVE FLEET</b>	4	4	4	4	4
<b>BONE PILE FLEET</b>	4	0	0	0	0
<b>REPLACEMENT BUSES</b>	9	10	8	9	8
<b>EXPANSION BUSES</b>	0	0	0	0	0
<b>SPARE BUS RATIO</b>	8%	8%	9%	7%	8%



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## Appendix E: Glossary

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ADA	<p><i>Americans with Disabilities Act</i> was signed into law on July 26, 1990. The law requires transit systems to make services fully accessible to persons with disabilities, as well as to underwrite a parallel network of paratransit service for those who are unable to use the regular transit system.</p>
AVO	<p><i>Average Vehicle Occupancy</i> is determined by the number of employees who arrive at a worksite divided by the number of vehicles those employees use to arrive at the worksite.</p>
AVL	<p><i>Automated Vehicle Location</i> is the use of electronic technologies to allow fleet managers to know where vehicles are located at a given time. In addition to its primary use by transit dispatchers and supervisors, AVL can be linked into other systems and used to provide real time arrival information for transit customers.</p>
AQMP/AQAP	<p><i>Air Quality Attainment Plan</i> is a plan prepared by an Air Pollution Control District/Air Quality Management District designated as a nonattainment area, for incorporation into the State Implementation Plan for purpose of meeting the requirements of the National and/or California Ambient Air Quality Standards.</p>
BRT	<p>Bus Rapid Transit is an advanced form of bus service that operates much like light rail trains, often in designated rights-of-way, but without the tracks or catenary wires. BRT features include shaded and elevated station platforms and ticketing machines at the stations.</p>
CALTRANS	<p><i>California State Department of Transportation</i> is responsible as the owner operator of the state highway system for its safe operation and maintenance. Caltrans is the implementing agency for most state highway projects, intercity rail, interregional roads, sound wall, toll bridge and aeronautics programs.</p>
CAA	<p><i>Clean Air Act</i> is a federal law established in 1970 that regulated air emissions. The CAA gives the U.S. Environmental Protection Agency (EPA) authority to establish National Ambient Air Quality Standards (NAAQS) for the protection of the public and the environment. The Act was amended in 1990 (FCAAA).</p>

CARB	<i>California Air Resources Board</i> is a state regulatory agency charged with regulating the air quality in California.
CEQA	<i>California Environmental Quality Act</i> is a state law intended to protect the California environment. CEQA established mandatory ways by which governmental decision makers are informed about the potential significant environmental effects of proposed projects and identifies ways to avoid or significantly reduce damage to the environment.
CIP	<i>Capital Improvement Plan</i> is a seven year program of projects developed to maintain or improve the traffic level-of-service and transit performance standards, and to mitigate regional transportation impacts identified in the CMP Land Use Analysis Program, which conforms to transportation related vehicle emissions air quality mitigation measures.
CONFORMITY	<i>Conformity</i> means that under the Federal Clean Air Act transportation plans, programs and projects are required to conform to applicable state implementation plans. The conformity determinations must be based on the most recent estimated of emissions and those emissions estimates must be based upon the most recent population, employment, travel, and congestion estimates as determined by the MPO's.
CMA	<i>Congestion Management Agency</i> is responsible for developing the Congestion Management Program and coordinating and monitoring its implementation.
CMP	<i>Congestion Management Program</i> is a state mandated multi-jurisdictional program to reduce traffic congestion. Required of every county in California with an urbanized area as defined by the Census Bureau of at least 50,000 people.
CMAQ	<i>Congestion Mitigation and Air Quality Improvement Program</i> is a new funding program established by ISTEA specifically for projects and programs that will contribute to the attainment of a national ambient air quality standard. The funds are available to non attainment areas for ozone and carbon monoxide based on population and pollution severity.
COG	<i>Council of Governments</i> is a voluntary consortium of local government representatives, from contiguous communities, meeting on a regular basis, and formed to cooperate on common planning and solve common development problems of their area. COG's can function as the Regional



Transportation Agencies and Metropolitan Planning Organizations in urbanized areas.

- CO SIP      *Carbon Monoxide State Implementation Plan* is a required by the Federal Clean Air Act to attain and maintain national ambient air quality standards for Carbon Monoxide (CO). CO is a colorless, odorless gas resulting from the incomplete combustion of fossil fuels. The plan is adopted by local air pollution control districts/air quality management district and the State Air Resources Board.
- CTC      *California Transportation Commission* is a body appointed by the Governor and confirmed by the legislature that reviews Regional Transportation Improvement Programs (RTIP) and the Proposed State Transportation Improvement Program (PSTIP) and adopts some transportation projects from these programs into the State Transportation Improvement Program (STIP).
- CTSA      *Consolidated Transportation Services Agency* is responsible for contract services to various social service agencies within the Fresno County area. The CTSA also receives funding from TDA and LTF Article 4.5 revenues.
- DBE      *Disadvantaged Business Enterprise* Program was designed to ensure maximum opportunity for disadvantaged business enterprises to compete for and perform FAX contracts. Consistent with Federal requirements, the definition of socially disadvantaged and economically disadvantaged individuals for the DBE program includes women as well as minority business enterprises.
- DOT      *Department of Transportation* is the department of the federal government that includes the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).
- EPA      *Environmental Protection Agency* is the Federal Agency charged with setting policy and guidelines, and carrying out legal mandates for the protection of national interests in environmental resources.
- FCMA      *Fresno/Clovis Metropolitan Area* includes the geographical boundaries of both the Cities of Fresno and Clovis and the unincorporated areas within the City of Fresno.

FCRTA	<i>Fresno County Rural Transit Agency</i> provides fixed route services throughout the rural unincorporated cities which link communities with each other and with the FCMA.
FHWA	<i>Federal Highway Administration</i> is a component of the US Department of Highways (US DOT), established to ensure development of an effective national road and highway transportation system. It assists states in constructing highways and roads, and provides financial aid at the local level.
FTA	<i>Federal Transit Administration</i> is the Federal Department of Transportation, which is under USDOT. The sister agency to FHWA.
FTIP	<i>Federal Transportation Improvement Program</i> is a federally required document produced by the regional transportation planning agency that states the investment priorities for transit and transit-related improvements, mass transit guide ways, general aviation and highways.
GHG	<i>Greenhouse Gas</i> emissions are now being measured and tracked under California SB375 and AB32 legislation in order to reduce vehicle emissions that cause global warming.
ISTEA	<i>Intermodal Surface Transportation Efficiency Act of 1991</i> is a piece of legislation passed by Congress in December of 1991 that provides for a major restructuring of the highway program. Key components of this Act include an increased flexibility in the programming of projects, a level playing field between highway and transit projects with consistent 80/20 matching ratio, ties to the Federal Clean Air Act and American with Disabilities Act.
LTF	<i>Local Transportation Funds</i> are derived from the ¼ cent of the statewide sales tax. LTF revenue is returned to local governments for transportation purposes with public transportation the primary focus. LTF is distributed to each city and unincorporated area based on population.
MEASURE C	A Fresno County ballot measure that raised the local sales tax by one quarter cent for a twenty year period until 2006. The measure identified a specific program of priority transportation improvement project throughout the County.

MPO	<i>Metropolitan Planning Organization</i> is the federal designation for Fresno COG. MPO works with technical advisory committees, interested citizens, and other government agencies. A coordinated effort has been made to develop a multi modal regional transportation plan for Fresno County.
PAC	<i>Policy Advisory Board</i> is composed of the Chief Administrative Officer of each member agency. With the exception of urgency matters, all items must be considered by the PAC before submission to the Policy Board.
PM-10	<i>Particulate Matter</i> is a major air pollutant consisting of solid or liquid matter such as soot, dust aerosols, fumes and mists less than 10 microns in size.
RTIP	<i>Regional Transportation Improvement Plan</i> is a State mandated document which includes a list of proposed transportation projects submitted by the CTC and by the regional transportation planning agency as a request for State funding. The RTIP has a seven year planning horizon, and is updated every two years.
RTP	<i>Regional Transportation Plan</i> is a comprehensive twenty year plan for the region, updated every two years by the regional transportation planning agency. The RTP includes a policy, an action, and a financial element.
SIP	<i>State Implementation Plan</i> is a document prepared by each State describing existing air quality conditions and measures which will be taken to attain and maintain National Ambient Air Quality Standards. It is adopted by local air pollution control districts/air quality management districts and the State Air Resources Board.
SJVAPCD	<i>San Joaquin Valley Air Pollution Control District</i> is the designated air district for the eight county nonattainment areas which includes San Joaquin, Stanislaus, Merced, Madera, Kings, Kern, Fresno and Tulare Counties.
SSTAC	<i>Social Services Transportation Advisory Council</i> is a council composed primarily of elderly, handicapped, and persons of limited means that was established in 1988 by Fresno COG. The council participates annually in identifying transit needs and working closely with Fresno COG to recommend appropriate action.
STA	<i>State Transit Assistance</i> is a fund derived from a portion of the Motor Vehicle Fuel Tax. The STA supports public transportation services, and is

apportioned through the Regional Transportation Planning Agencies to their member agencies on a population basis.

- STP      *Surface Transportation Program* is a new funding program established by ISTEA that allows for mass transit and highway projects. Ten percent of the projects funded under this program must be transportation enhancement activities and 10 percent for safety projects.
- TCM      *Transportation Control Measures* are intended to reduce pollutant emissions from motor vehicles. Examples of TCM's include programs to encourage ridesharing or public transit usage, city or county trip reduction ordinances, and the use of cleaner burning fuels in motor vehicles.
- TDA      *Transportation Development Act* is a California law which provides funding for transit through the Local Transportation Fund and the State Transit Assistance fund.
- TIP      *Transportation Improvement Program* is an expenditure program that is updated every two years. It lists the highway and transit capital improvement projects that have been prioritized in the County for state and federal gas tax funds.
- TMA      *Transportation Management Area* is defined by ISTEA, and is designated by the Secretary of Transportation for all urbanized areas over 200,000. TMA's must include a congestion management system in their planning process. In TMA areas, MPO's are responsible for project selection.
- TSM      *Transportation Systems Management* is designed to identify short term, low cost capital improvements that improve the operational efficiency of the existing transportation infrastructure.
- TTC      *Transportation Technical Committee* is a part of the Area wide Transportation Policy Committee, composed of technical staff from member agencies, other interested agencies, public members and Caltrans. TTC evaluates specific regionally-significant issues and projects.
- VMT      *Vehicles Miles Traveled* is the sum of the linear distance covered by all vehicles in a given time period.

VSS

*Very Small Starts* is the FTA grant funding source applied for to plan, design and build the Bus Rapid Transit system in Fresno.

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