

FCMA Public Transportation Strategic Service Evaluation Project

Draft Policy Review

Task No. 1.1

Prepared for:



Fresno Council
of Governments

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1.0 INTRODUCTION

The objective of the Fresno-Clovis Metropolitan Area (FCMA) Public Transportation Strategic Service Evaluation is to make transit a more viable alternative and improve local transit service. The goals are to reduce transit travel times, improve linkages to major trip generators and improve overall productivity, cost effectiveness and sustainability of transit. This policy review documents and evaluates the existing policies that dictate the design and operation of the current fixed-route transit system in the FCMA. The purpose of this policy review is to determine whether any current policies conflict with one another or unintentionally result in less productive transit service.

The Study Area for this evaluation is defined as the City of Fresno and City of Clovis city boundaries. Fresno Area Express (FAX) operates a modified grid system with intersecting east-west and north-south routes. The system serves the FCMA including the City of Fresno, portions of unincorporated Fresno County and supplements the City of Clovis system. The City of Clovis is served by both FAX and Stageline Transit. The City of Fresno and the City of Clovis are also served by a demand-responsive program – HandyRide – which is not included in this policy evaluation.

FAX is a department of the City of Fresno and is governed by the Fresno City Council. Likewise, Stageline is a department of the City of Clovis and is governed by the Clovis City Council. FAX and Stageline are also subject to the laws, regulations and policy decisions of several external agencies, including: the **Federal Transit Administration (FTA)**, the State of California Department of Transportation (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. This policy review focuses on the FAX and City of Clovis transit systems and local policies, with references to state and federal policies as appropriate.

The following transit service categories were considered for each policy document reviewed:

- **Coverage** - Where is service provided? Is service location determined by geography, population density or another metric? Where is service being expanded or reduced?
- **Frequency** - What are headway requirements? What are the criteria for determining headways along different routes?
- **Stop Spacing/Location** – What is the minimum and maximum distance between transit stops? How is spacing determined?
- **Shelter/Amenities** - What are the transit station amenities required?
- **Span of Service** – What are the required hours of operation? What are service requirements on weekends and holidays?
- **On-Time Performance** – Are there requirements for on-time performance of the transit network?
- **Route Deviations** – How are route deviations identified and corrected?
- **Load Standards** – What are maximum loads for transit vehicles?
- **Customer Complaints/Customer Service** – How are customer complaints addressed? What customer service policies are in place?
- **Accidents/Security** - What policies are in place to provide a safe and secure transit system?
- **Number of Transfers** - Are there policies limiting the number of transfers necessary?

- **Productivity** – How is service productivity measured and what are the productivity requirements? Metrics could include passengers per hour and cost per passenger.

The findings of this policy review will be incorporated into the *Performance Evaluation Final Report*.

2.0 OVERVIEW OF POLICIES

This policy review includes both adopted policies as well as recommended policies, which have not necessarily been formally adopted but have been recommended based on other recent studies. The following sections provide a high level overview of each of the policy documents reviewed, including major goals and objectives. Policies that will be developed as part of the 2014 Regional Transportation Plan and City of Fresno General Plan update are not included in this policy review document.

2.1 Local Policies and Recent Studies

2.1.1 Regional Transportation Plan

The Fresno Council of Governments (COG) is in the process of updating the 2014 Regional Transportation Plan (RTP). The Adopted 2011 RTP Policy Element sets the following goals for Mass Transportation:

- Provide public transportation mobility opportunities to the maximum number of people in the region.
- Provide quality, convenient and reliable public transportation service.
- Provide an efficient and effective public transportation system.
- Promote public transit's service and image in the community.
- Provide for an integrated multimodal transportation system which facilitates the movement of people and goods.
- Coordinate public transportation policies with land use and air quality policies.

These goals are the basis for the FAX and City of Clovis Short Range Transportation Plans.

2.1.2 Fresno Area Express (FAX) 2014-2018 Short Range Transportation Plan

The *Fresno Area Express (FAX) 2014-2018 Short Range Transportation Plan (SRTP)* was adopted on June 27, 2013 by the Fresno City Council. The SRTP is the bi-annual update to the operating plan and capital program for FAX. The purpose of the SRTP is to promote a comprehensive, coordinated and continuous planning process for transit service in the FCMA over a five-year planning horizon. The SRTP proposes specific policy recommendations for implementing the long-range objectives of Fresno COG's RTP and will guide the provision of transit services in the FCMA over the next five years. This document also includes the *City of Clovis SRTP*.

In order to implement the policy goals listed in the RTP, the SRTP sets forth the following objectives and standards. The objectives to respond to each RTP goal are listed here and the standards are listed by appropriate topic area in Section 3.

- **Goal 1:** Provide public transportation mobility opportunities to the maximum number of people in the region.
 - **Objective A:** To provide a transit system that meets the public transportation needs of the service area.
 - **Objective B:** To provide a transit service (both fixed-route and demand-responsive) that adequately serves the elderly and disabled population.

- **Objective C:** To secure a stable and sufficient local funding mechanism.
- **Goal 2:** Provide quality, convenient and reliable public transportation service.
 - **Objective A:** To provide reliable and convenient public transit service.
 - **Objective B:** To provide clean, attractive and comfortable vehicles and facilities.
 - **Objective C:** To provide a safe system.
 - **Objective D:** To record and respond to all public comments.
- **Goal 3:** Provide an efficient and effective public transportation system.
 - **Objective A:** To establish and maintain system-wide productivity indicators.
- **Goal 4:** Promote public transit's service and image in the community.
 - **Objective A:** To maintain an active marketing program.
 - **Objective B:** To provide complete and accurate public transit information.
- **Goal 5:** 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.
- **Goal 6:** Provide for an integrated multimodal transportation system which facilitates the movement of people and goods.
 - **Objective A:** Develop a multi-modal transportation network.
- **Goal 7:** Coordinate public 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.

2.1.3 City of Clovis Short Range Transportation Plan

The *City of Clovis SRTP* is included as Chapter 5 of the *2014-2018 FAX SRTP*. The *City of Clovis SRTP* includes the following goals and objectives. Standards are listed in the appropriate topic area in Section 3. The objectives and standards in the *City of Clovis SRTP* are very similar to the objectives and standards in the *2014-2018 FAX SRTP*.

- **Goal 1:** Clovis Transit will provide public transportation mobility opportunities to the maximum number of people in the Fresno-Clovis Metropolitan Area.
 - **Objective A:** To provide a transit system that meets the public transportation needs of the service area.
 - **Objective B:** To provide a transit service that adequately serves the elderly and disabled population.
 - **Objective C:** To secure a stable and sufficient local funding mechanism.
- **Goal 2:** Provide quality, convenient and reliable public transportation service.
 - **Objective A:** To provide reliable and convenient public transit service.

- **Objective B:** To provide clean, attractive and comfortable vehicles and facilities.
- **Objective C:** To provide a safe system.
- **Objective D:** To record and respond to all public comments.
- **Goal 3:** Clovis Transit will operate an efficient and effective public transportation system.
 - **Objective A:** To establish and maintain system-wide productivity indicators.
- **Goal 4:** Clovis Transit will strive to promote its service and image in the community.
 - **Objective A:** To develop and implement a Clovis Transit Marketing Program.
 - **Objective B:** To provide complete and accurate public transit information.
 - **Objective C:** To provide for community involvement in transit system affairs.

2.1.4 City of Fresno General Plan

The City of Fresno is currently in the process of updating its 2035 General Plan. Because the update is in process, this policy review includes the 2025 General Plan. The General Plan is intended to serve as a guide to enable government at all levels, private enterprise, community groups and individual citizens to make decisions and utilize community resources in a manner that will realize progress toward a common vision of a measurably enhanced physical, economic and social environment. This policy review focused on the Public Facilities Element, which includes the following objectives related to Transportation/Transit Systems:

- Serve future population concentrations with feasible alternative transportation modes which are efficient, safe and minimize adverse environmental impacts.
- Provide public transportation opportunities to the maximum number of people in the service area.
- Provide quality, convenient, and reliable public transportation service through an efficient and effective public transportation system.

2.1.5 City of Clovis General Plan

The City of Clovis is also in the process of updating its General Plan, which is expected to be completed in 2013. This policy review is based on the 1993 General Plan and focuses on the Circulation Element. The Circulation Element presents goals and policies that: coordinate the transportation and circulation system with planned land uses; promote the efficient movement of people, goods and services within the Project Area; utilize the existing system to its fullest extent; and plan for practices that will improve the quality of the environment of Clovis. The following goals are included in the Circulation Element:

- Provide for the development of a street system to adequately address the mobility needs of the community.
- Provide adequate, safe, well maintained and efficient access to employment, educational, commercial, recreational, and recreational uses throughout the community, including downtown core area.
- Promote all modes of transportation, including transit, bicycle, and walking for development of alternatives to the private automobile.
- Provide for the development and maintenance of the community's transportation infrastructure.

2.1.6 Fresno Area Express Transit Facilities and Development Standards

The purpose of the Facilities and Development Standards (2005) is to establish uniform guidelines for the location, design, maintenance and operation of transit related facilities. Uniform guidelines assist transit staff as well as developers, planners, and engineers integrating mass transit facility requirements into urban development and roadway improvement projects. Additionally, uniform guidelines eliminate the need for each bus stop evaluation to be on a prototype or custom engineered basis.

The following policy objectives are listed in the *Standards*:

- Minimize impedance to traffic flow
- Maximize accessibility for disabled people
- Participate in the City's development review process
- Maintain bus stop facilities database
- Bus stop spacing

2.1.7 2006 Measure "C" Extension Expenditure Plan

In 2006, the voters of Fresno County extended the Measure "C" half-cent transportation sales tax for another 20 years. The 2006 Expenditure Plan, developed by a Steering Committee, will address major regional transportation needs in Fresno County through the Year 2027. The Implementing Guidelines for the Regional Public Transit Program states the following:

It will be the goal of all transit agencies within Fresno County, which derive funding allocations from this program, to improve the level of public transit services within the County and to continue to seek ways to coordinate and/or consolidate services in order to achieve a seamless passenger travel system for the public. Priority service improvements planned for each of the existing transit agencies are described below. Primary Programs are those that are anticipated to reasonably be funded by the new Measure "C" program. Secondary Programs are improvements that will be funded after Primary Programs are fulfilled and provided that funding is available.

City of Fresno

Primary Program

- Improve frequencies to every 15 minutes on the busiest routes on the public transportation system in Fresno
- Enhance the delivery of paratransit to the disabled community consistent with federal and state law
- Install and integrate a regional automated farebox system 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

- 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

City of Clovis

Primary Program

- Improve frequencies to every 15 minutes on the busiest routes on the public transportation system in Clovis
- Enhance the delivery of paratransit to the disabled community consistent with federal and state law
- Install and integrate a regional automated farebox system to enhance transit coordination and seamless passenger travel between transit systems
- Complete fleet conversion to low emission buses
- Expand service areas to all riders, as Clovis’s Sphere of Influence changes

Secondary Program

- 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 services to transit users

2.1.8 Public Transportation Infrastructure Study

The purpose of the Public Transportation Infrastructure Study (PTIS) is to identify strategies for land use and transportation investments that will result in measurable reductions in vehicle miles traveled and provide increased mobility for Fresno County residents. The PTIS presents policy recommendations under six broad categories:

- Increase the number of people and businesses in Downtown Fresno and in close proximity to designated high-capacity Transit Corridors, with a priority on making downtown more attractive to pedestrians.
- Plan for and build TOD housing developments for a mix of middle and lower incomes and families.
- Grow the transit, bicycle and pedestrian mode shares by making it more attractive to use alternate modes.
- Decrease the drive alone mode share and reduce vehicle miles traveled (VMT) with Travel Demand Management (TDM) programs and policies.
- Attract residents to Fresno who would be willing to live in market priced TOD-style development, including young urban professionals, seniors and future high speed rail commuters.
- Cross jurisdictional and departmental boundaries with processes to link local and regional transportation and land use planning decisions.

- Restrict the growth of new development on the urban fringes and into farmlands with incentives, disincentives and growth boundaries.

The specific recommended policies that pertain to transit service are detailed below. Many of the policy recommendations focus on land use and infrastructure investments. While these policies are indirectly related to transit service, they are not direct transit service policies and therefore are not included below. The PTIS policy recommendations are being incorporated into the RTP update.

2.1.9 Transit Productivity Evaluation FY2011-12

The productivity evaluation is conducted annually to assess the progress of transit operators that receive State Transportation Development Act funds and to recommend potential productivity improvements. The Transit Productivity Evaluation includes the following language regarding policy trade-offs:

The ADA, air quality, congestion management, land-use and population growth, system productivity, on-time performance, and passenger requests are all major concerns that directly impact public transit service in the Fresno-Clovis Metropolitan Area (FCMA). Each of these elements must be evaluated thoroughly when planning service adjustments and modifications. Customer Satisfaction Surveys are one method which is used to evaluate service. The last survey identified that passengers were most concerned about bus hours of operation on weekends. In addition to these self evaluations, FAX has participated in a triennial audit and annual audits conducted by the FTA and the City of Fresno to verify that all of our transit programs are being operated in an effective and efficient manner.

The Planning Division at FAX continues to participate in the City of Fresno Development Review Process and has a staff person dedicated to that process. This enables FAX to comment on potential impacts of proposed public or private developments. Staff also provides assistance to developers in designing transit friendly facilities. The Transit Long Range Master Plan identified two transit scenarios for the future; Productivity and Coverage. The Productivity scenario would be a transit strategy of maximizing ridership per unit of cost. This system would encourage high quality service where demand is high and little or no service where demand is low.

Obviously, since transit is a public service paid for by all taxpayers, the Productivity goal must be balanced against its opposite, the need to provide some benefit to everyone. The opposite of the Productivity goal is the Coverage goal which would be designed to provide some coverage to everyone. This system penetrates parts of the community where transit cannot expect to operate with high productivity, either due to low densities or a built environment that is unsafe or unpleasant for pedestrians. In the future, FAX will continue to focus on the Coverage scenario by ensuring that service is provided to as many new areas as is feasible, and will not stress providing service solely for productivity purposes. However, future funding sources will play an integral part in the determination of the Coverage strategy since any shortfall in funding may inhibit FAX from providing any service beyond what is currently being provided.

2.1.10 Fresno FAX Route Restructure Study

In 2010, Nelson Nygaard prepared a Memorandum which recommended FAX Route Restructuring with a goal of reducing annual revenue hours by 18 percent. 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
- Reduce route duplication
- Reduce out-of-direction travel
- Improve service to major generators
- Improve route structure and operations in Southwest Fresno

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 percent of the system total revenue hours, for a total annual savings of about 53,700 hours or 16.5 percent.

2.2 Federal Policies

2.2.1 Title VI Report

Fresno Area Express (FAX) prepared a Title VI Report in 2011 to document FAX's compliance with Title VI of the Civil Rights Act of 1964, which states:

"No person 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 discriminations under any program or activity receiving Federal financial assistance."

The report is divided into two sections. The first section, General Reporting Requirements, contains information concerning active lawsuits and complaints, a description of any pending applications for federal financial assistance, a summary of civil rights compliance review activities, FTA civil rights assurances and fixed-facility impact analysis. The second section, Program Specific Requirements, contains information regarding the Title VI internal review process for service delivery, the internal monitoring process, the service standard policies and a description of service changes specific to the FAX fixed-route transit system and its impacts on the minority population.

The report concluded that as a result of the Title VI compliance assessment requirements as stated in FTA Circular 4702.1, FAX, as a recipient of federal financial assistance, is operating an accessible, efficient, and affordable transit service to all minority groups within the Fresno-Clovis Metropolitan Area (FCMA). One hundred twenty-six census tracts comprise the FCMA. Of these tracts, more than half (68 or 54 percent) are termed minority. The FCMA minority population makes up 70 percent (346,153 residents) of the total population. Currently, all FAX routes operate to or within one or more of the minority census tracts. No minority group is excluded from, or denied the benefits of, this federally subsidized transit system.

Title VI analysis must occur whenever there is a service adjustment of 25 percent or more in daily route miles or hours.

2.2.2 Americans with Disabilities Act (ADA)

The ADA prohibits discrimination on the basis of disability in employment, state and local government, public accommodations, commercial facilities, transportation, and telecommunications. The transportation provisions of Title II cover public transportation services, such as city buses and public rail transit (e.g. subways, commuter rails, Amtrak). Public transportation authorities may not discriminate against people with disabilities in the provision of their services. They must comply with requirements

for accessibility in newly purchased vehicles, make good faith efforts to purchase or lease accessible used buses, remanufacture buses in an accessible manner, and, unless it would result in an undue burden, provide paratransit where they operate fixed-route bus or rail systems. Paratransit is a door-to-door pick-up and drop-off service for individuals who are unable to use the regular transit system independently (because of a physical or mental impairment).

3.0 SUMMARY OF POLICIES BY TOPIC AREA

This discussion focuses on the relevant policies from the documents identified above. For each topic area, existing policies are identified followed by a discussion of currently recommended policy changes from completed studies. The purpose of this discussion is to identify areas where policies could be improved or clarified to result in more efficient transit service within the FCMA.

3.1 Coverage

3.1.1 Existing Policies

The *2014-2018 SRTT* includes the following policies related to service coverage:

- 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.
- FAX will provide transit service to all airport and passenger rail facilities in the FCMA.

The *City of Fresno General Plan* includes the following policies related to service coverage:

- Plan and develop the major street network to facilitate efficient direct transit routing that provides one-half mile coverage throughout the metropolitan area. Circuitous streets are more difficult for public transit to efficiently serve than consistently spaced linear or semi-grid patterns for arterial and collector streets. (Policy E-8-b)
- Promote the development of the Central Area as the region's principal employment center and public transportation hub. (Policy E-9-s).

The *Measure "C" Extension Expenditure Plan* states:

- Expansion of service areas to all riders, as Fresno's Sphere of Influence changes.
- Expand service areas to all riders, as Clovis's Sphere of Influence changes.

3.1.2 Currently Recommended Policies

The PTIS recommends shifting from a geographic based coverage policy to a density based coverage policy. The PTIS recommends policy changes that link transit service and land use, including the following policies:

- FAX should adopt a transit service expansion policy that FAX will not subsidize or expand transit service to new areas without minimum transit supportive densities (8 du/ac for local bus, up to 12 to 18 du/ac for BRT/LRT).
- Only locate low density residential in areas not already served by transit with no expectation that transit services will be extended to these areas in the future. Require that developers communicate this fact to the potential property buyers.
- Do not allow location of new employment centers outside of the Downtown  high capacity Transit Corridors.
- Require development to fully fund the cost of expanding infrastructure to serve development in the outer ring of the sphere of influence of any incorporated city. This can either be achieved by requiring new development to fund construction and operations of the infrastructure and services necessary (e.g. streets and transportation, water, sewer, sewer treatment, schools, fire stations, police, etc.) or through implementing a multi-faceted infrastructure impact fee to be imposed on

any new development. A benefit assessment district could be used to fully assign costs to fringe developments.

The PTIS also recommends expanding service coverage to better serve the CSU Fresno Campus with the following policies:

- Expand routes to serve the CSU Fresno Campus.
- Add a campus circulator shuttle to connect the large number of students who reside within 3 miles of CSU Fresno campus.

3.2 Frequency

3.2.1 Existing Policies

The *2014-2018 SRTP* includes the following policies related to service frequency:

- FAX scheduled service should provide for maximum headways of 60 minutes on every route whenever service is operated.

The *Measure "C" Extension Expenditure Plan* includes as part of the Primary Program:

- Improve frequencies to every 15 minutes on the busiest routes on the public transportation system in Fresno.
- Improve frequencies to every 15 minutes on the busiest routes on the public transportation system in Clovis

3.2.2 Currently Recommended Policies

The PTIS recommends improving bus frequencies for Fresno's public transportation system to every 15 minutes on the busiest routes. These routes include:

- Tier A - The first "tier" of priority investment in high capacity Transit Corridors is the Blackstone and Ventura/Kings Canyon corridors for which FAX is anticipating federal funds.
- Tier B -The second tier corridors include Shaw Avenue and the extension of the Shaw Avenue corridor along Highway 168 to Clovis.
- Tier C - The third tier of corridors with potential for 15 minute bus service to downtown should also be considered for medium density development (i.e. Cedar, Palm, First and Fresno Streets)

3.3 Stop Spacing/Location

3.3.1 Existing Policies

The *FAX Transit Facilities and Development Standards* includes the following policies related to bus stop spacing:

- Maintain minimum spacing of every one-half mile
- Maintain optimum spacing of every two-tenths mile
- Maintain specialized spacing of every block in Central Business Districts

The *Transit Facilities and Development Standards* also includes the following policies related to bus stop locations:

- Bus stops are generally located at the near or far-side of intersections, or in the mid-block between intersections. It should be noted that far-side stops are the most common and the most preferable due to a variety of factors as listed below. Mid-block stops are less common and typically occur in dense commercial areas such as Central Business Districts. Near-side stops are the least common and generally occur when the previous two types are not feasible.

3.4 Shelter/Amenities

3.4.1 Existing Policies

FAX places and maintains 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 Facilities and Development 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.

All newly constructed transit facilities such as bus stops and transit centers must meet ADA accessibility design guidelines. In addition, the *Transit Facilities and Development Standards* includes the following guidelines for bus stop amenities:

- Place street furniture in a manner conducive to mobility on the sidewalk and for bus boarding and alighting.
- Daily boarding volume at a bus stop is the major criterion in determining how that bus stop is to be improved. FAX has examined boarding volumes by bus stop and has created the following chart to demonstrate typical facility allocation. Facilities may be allocated outside specific thresholds represented by this exhibit.

Limitations on financial resources and site specific considerations may restrict development with the full range of possible improvements.

- Limiting Improvements: Bus stops may not receive some improvements despite the boarding threshold due to site-specific constraints. Examples are as follows:
 - Stops adjacent to unimproved property
 - Stops without curb, gutter and sidewalk
 - Property owner protest
 - Stop improvements obscure traffic visibility
 - Narrow sidewalk
 - Steep property slope
- Adding Improvements: Bus stops exhibiting minimal boarding thresholds with special circumstances may receive additional improvements. Examples are as follows:
 - Stops adjacent to senior centers
 - Stops adjacent to hospitals
 - Stops adjacent to public facilities

Table 1: Facility Improvements by Boardings

Type of Service	# of Daily Boarding Required for Provision of Service
Sign	All Bus Stops
Bench	25-50
2 Benches	35-175
Shelter	60-275
Shelter + Bench	100-300
Shelter + 2 Benches	125-400
2 Shelters + 2 Benches	150-500
Major Center	300>

Placement of bus stop signs, benches, concrete pads, and shelters are not explicitly regulated by any agency. Placement is, therefore, done on a best case basis per site. However, review of the *California State Accessibility Standards Interpretive Manual* and *City of Fresno Standard Public Works Drawings* does reveal information that is useful in designing site improvements. Design objectives are as follows:

- Signs shall be placed near the traffic lane so as to be visible from both the sidewalk and traffic lanes
- On wide sidewalks, benches shall be placed against the back of the sidewalk from the traffic lane
- On narrow sidewalks, benches shall be placed against the back of the sidewalk away from the traffic lane if no concrete bench/shelter pad has been created
- On narrow sidewalks, concrete bench/shelter pads will be built where feasible
- Benches, refuse containers and signs will be juxtaposed in a manner that will allow a wheelchair to pass between the two improvements without obstruction
- Benches will be juxtaposed with any other sidewalk obstruction in such a manner that will allow a wheelchair to pass without obstruction
- Benches and signs will be placed in such a manner that will not obstruct wheelchair boardings/alightings at curb-side stops

ADA requires that in general, the minimum continuous width of an accessible path is 36 inches (49 CFR 37: section 4.2.1 of Appendix A).

The *City of Fresno General Plan* includes the following policy:

- Bus bay turnouts and site improvements (including improvements associated with bus stop accessibility for the physically impaired such as curb cuts for wheelchair access) should be required where development occurs along established or proposed transit routes. The costs associated with these improvements should be paid by the site developer. Bus bay development standards and stop accessibility standards are contained in the *Fresno Area Express Facilities Development Standards* document. (Policy E-9-cc)

The *Measure "C" Extension Expenditure Plan* includes as part of the Secondary Program:

- Deploy other operational and infrastructure improvements such as “real time” bus arrival and departure information in Fresno and Clovis.

3.5 Span of Service

3.5.1 Existing Policies

The *2014-2018 SRTP* includes the following policies related to span of service hours:

- Regular FAX service stops at 10:00 p.m. on weekdays and 7:00 p.m. on weekends.
- 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 3:30 p.m.

The *Measure "C" Extension Expenditure Plan* includes as part of the Secondary Program:

- Extend weekend service hours in Fresno and Clovis.

3.5.2 Currently Recommended Policies

Although unfunded, the *2014-2018 SRTP*, recommends the following service hour enhancements:

- Extend weekend service hours (unfunded)
- Owl service on all routes until midnight (unfunded)

The *PTIS* also recommends:

- Expand transit service hours, days and the number of routes to serve the CSU Fresno campus.

3.6 On-Time Performance

3.6.1 Existing Policies

The *2014-2018 SRTP* includes the following policies related to 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 FY2012 was 81.3 percent. Routes that consistently fall below the system standard are examined and evaluated by the Service Evaluation Committee.
- FAX should complete 99.5 percent of all scheduled trips.

The *Title VI Report* includes the following policies related to on-time performance, which vary slightly from the language in the SRTP:

- FAX should operate its fixed-route buses so that on-time performance is achieved 93 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 FY2011 was 79.9 percent. Routes that consistently fall below the system standard are examined and evaluated by the Service Evaluation Committee.

3.7 Route Deviations

There are no existing or recommended policies related to route deviations.

3.8 Load Standards

3.8.1 Existing Policies

The *2014-2018 SRTP* includes the following policies related to load standards:

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

The *Title VI Report* states that although this is the desired load factor, due to financial constraints, this standard is frequently exceeded.

3.9 Customer Complaints/Customer Service

3.9.1 Existing Policies

The *2014-2018 SRTP* includes the following policies related to customer complaints/customer service:

- FAX will continue to track, evaluate, and follow up to all compliments, complaints and inquiries from the public.

The *FAX Transit Facilities and Development Standards* also includes the following policies related to customer complaints/customer service:

- Monitor citizen comments about bus operations
- Monitor driver comments about service
- FAX staff reviews all complaints and suggestions whether they are made to drivers, directly mailed in, phoned in or referred from City Hall. All requests for follow-up information are acted upon promptly. Certain requests are brought before the Service Evaluation Committee to determine if the complaint or suggestion warrants an immediate service change.

3.9.2 Currently Recommended Policies

The PTIS recommends launching a Title VI and Limited English Proficiency (LEP) outreach plan to understand the transit community's needs for communication and information translation.

3.10 Accident Prevention/Security

3.10.1 Existing Policies

The *2014-2018 FAX SRTP* includes the following policies related to accident prevention:

- 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.
- 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.

The *Clovis SRTP* includes the following policies related to accident prevention:

- 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.
- 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.

The 2014-2018 FAX SRTA presents following maintenance policies:

- 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: FAX Maintenance Schedule

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

The *Transit Facilities and Development Standards* includes the following policies related to accident prevention:

- FAX has established an Accident Review Committee, who reviews accidents and monitors accident patterns. Specific recommendations are made regarding bus operations.

The 2014-2018 SRTA includes the following policies related to system security:

- 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. FAX customers see uniformed patrol officers on buses and at transit facilities.
- As part of FAX's American Recovery and Reinvestment Act (ARRA) capital project grant funding, FAX enhanced the look and safety of its passenger amenities, including increased security cameras, lighting and electrical work at shelters and bus stops.

The *Title VI Report* summarizes FAX's security:

- In FY 2011, a Safety and Security Grant funded the purchase and installation of bus video systems on all FAX buses. This system is 100% digital and utilizes eight cameras per bus. All future bus procurements will require video surveillance as a standard feature.
- FAX contracts annually with the City of Fresno Police Department for officers assigned to the Department of Transportation. In fiscal year 2008 FAX added two police officers dedicated to transit, bringing the total to four.

3.11 Number of Transfers

3.11.1 Existing Policies

The *Measure "C" Extension Expenditure Plan* includes the following policies related to transfers as part of the Primary Program:

- Install and integrate a regional Automated Fare Collection System (AFC) to enhance transit coordination and seamless passenger travel between transit systems in Fresno and Clovis.

3.12 Productivity

3.12.1 Existing Policies

The *2014-2018 SRTP* includes the following policies related to system productivity:

- FAX should achieve a 24 percent farebox recovery ratio. The State Transportation Development Act (TDA) only requires FAX to meet a 20 percent farebox return, and in FY12, FAX exceeded this requirement with a 24.6 percent farebox return.
- FAX should achieve a system wide standard of 40 boardings per revenue hour system wide.
- 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 Mile
 - Passenger per Revenue Hour
 - Average Weekday Ridership
 - Average Saturday Ridership
 - Average Sunday Ridership
 - Percentage of Trips on Time
 - Percentage of Scheduled Trips Completed
 - Total Road Calls

The *Clovis SRTP* includes the following policies related to system productivity:

- Clovis Transit should achieve a 20 percent farebox recovery rate for fixed route services (Stageline).
- Through effective marketing, Clovis Transit should increase overall system ridership by at least 5 percent during the fiscal year.
- 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
 - 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 Mile
 - Passenger per Revenue Hour
 - Average Weekday Ridership
 - Average Saturday Ridership
 - Average Sunday Ridership
 - Percentage of Trips on Time
 - Percentage of Scheduled Trips Completed
 - Total Road Calls

The *Title VI Report* includes the following policies related to system productivity:

- 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.

3.13 Other

3.13.1 Currently Recommended Policies

The *PTIS* includes the following policy recommendations that could influence future transit service:

- Work with CSU Fresno campus administrators to implement a Travel Demand Management (TDM) program to incentivize student and faculty bus use by discounting bus passes and increasing parking charges to subsidize the bus pass program.
- Continue to pursue consolidation of transit services, particularly between the Fresno and Clovis urban areas to create a seamless and time efficient transit travel experience between the two cities.

4.0 CONCLUSION

With the completion of the *San Joaquin Valley Blueprint Integration Project* and the *Public Transportation Infrastructure Study*, policies in the FCMA are shifting towards better integrating land use and transportation planning. The findings of these studies recommend the introduction of policies that will promote higher density, mixed-use development projects clustered around high capacity transit corridors.

Table 3 summarizes the existing and proposed policies for each category. Many of the transit policies currently in place aim to deliver a transit system that serves as many people as possible while still operating an efficient system. Some of the transit policies currently in place in the FCMA make it challenging to support a highly efficient transit system that would draw new riders to transit and target transit service in high capacity corridors:

- Coverage: The policy requiring a minimum of 90 percent of the service area population to reside within one-half mile of a bus route could make it particularly challenging to deliver an efficient transit network. Service could be better targeted to areas with high transit ridership rather than spreading it across a large geographic area. The recommended policy in the PTIS to limit transit service to only those areas with minimum transit supportive densities may provide a more efficient system that in turn would attract more new riders.
- Frequency: Improving headways to every 15 minutes on the busiest bus routes could attract new riders because the service will be more reliable. However, providing maximum 60 minute headways on every route could be hindering the productivity of the system. In addition to improving headways on popular routes, FAX could consider increasing headways on commuter routes during off-peak periods and increase headways during peak periods to provide more efficient service.
- Stop Spacing: In addition, maintaining a minimum spacing of every one-half mile might impede the further development of bus-rapid transit (BRT) networks that can efficiently move transit riders over long distances without making frequent, unnecessary stops. Also, requiring a stop every block in the CBDs may be slowing down service unnecessarily. A system that allows for a combination of BRT and local service might better serve the various transportation needs of FCMA residents. Bus service that makes fewer stops and therefore provides shorter travel times may also attract more new riders to the system.

Because the Fresno COG, the City of Fresno and the City of Clovis are in the process of updating several important policy documents that will guide transit service in the FCMA for years to come, it is important to carefully consider the implications of each policy on the quality and efficiency of the transit network.

Table 3. Policy Summary Matrix

	Existing Policies	Currently Recommended Policies
Coverage	<ul style="list-style-type: none"> ▪ Minimum of 90 percent of the service area population resides within one-half mile of a bus route.¹ ▪ Plan and develop the major street network to facilitate efficient direct transit routing that provides one-half mile coverage throughout the metropolitan area.² 	<ul style="list-style-type: none"> ▪ FAX should adopt a transit service expansion policy that FAX will not subsidize or expand transit service to new areas without minimum transit supportive densities (8 du/ac for local bus, up to 12 to 18 du/ac for BRT/LRT).³
Frequency	<ul style="list-style-type: none"> ▪ FAX scheduled service should provide for maximum headways of 60 minutes on every route whenever service is operated.¹ 	<ul style="list-style-type: none"> • Improve bus frequencies to every 15 minutes on the busiest routes.⁴
Stop Spacing	<ul style="list-style-type: none"> ▪ Maintain minimum spacing of every one-half mile.⁵ ▪ Maintain optimum spacing of every two-tenths mile.⁵ ▪ Maintain specialized spacing of every block in Central Business Districts.⁵ 	N/A
Shelter/Amenities	<ul style="list-style-type: none"> • Daily boarding volume at a bus stop is the major criterion in determining how that bus stop is to be improved.⁵ 	<ul style="list-style-type: none"> • Deploy other operational and infrastructure improvements such as “real time” bus arrival and departure information.⁴
Span of Service	<ul style="list-style-type: none"> ▪ Regular FAX service stops at 10:00 p.m. on weekdays and 7:00 p.m. on weekends.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 3:30 p.m.¹ 	<ul style="list-style-type: none"> ▪ Extend weekend service hours.⁴ ▪ Owl service on all routes until midnight.¹
On-Time Performance	<ul style="list-style-type: none"> ▪ FAX should operate its fixed-route buses so that on-time performance is achieved 90 percent of the time.¹ 	N/A
Route Deviations	N/A	N/A
Load Standards	<ul style="list-style-type: none"> ▪ Maximum seat to passenger load ratio of 1:1.1, or 110 percent of vehicle capacity.¹ 	N/A
Customer Complaints/Customer Service	<ul style="list-style-type: none"> ▪ Track, evaluate, and follow up with all compliments, complaints and inquiries from the public.¹ 	<ul style="list-style-type: none"> ▪ Title VI and Limited English Proficiency (LEP) outreach plan to understand the transit community’s needs for communication and information translation.³

	Existing Policies	Currently Recommended Policies
Accidents/Security	<ul style="list-style-type: none"> ▪ Regular maintenance is performed at prescheduled cycles to ensure optimal performance, efficiency, safety and reliability of assigned equipment.¹ ▪ FAX security plan provides a highly visible security presence for our transit customers and employees.¹ 	N/A
Number of Transfers	<ul style="list-style-type: none"> ▪ Install and integrate a regional Automated Fare Collection System (AFC) to enhance transit coordination and seamless passenger travel between transit systems.⁴ 	N/A
Productivity	<ul style="list-style-type: none"> ▪ 24 percent farebox recovery ratio.¹ ▪ 40 boardings per revenue hour system wide.¹ ▪ Each individual route should exceed 60 percent of the system wide average for a number of key indicators.⁶ 	N/A

¹ 2014-2018 FAX SRTP

² City of Fresno General Plan

³ Public Transportation Infrastructure Study

⁴ Measure "C" Extension Expenditure Plan

⁵ Transit Facilities and Development Standards

⁶ Title VI Report