

3. CIRCULATION

CIRCULATION ELEMENT

INTRODUCTION

This Element of the General Plan describes the various means by which residents, businesses, and visitors in Atwater travel through the City. The most common means of transportation is the automobile (and trucks for business and industry). However, this Element deals with transportation in all its forms, including bicycles, walking, trains, and airplanes. The intent is to provide an overview of all the means of transport, and to show how these different methods can complement each other to make Atwater's circulation system work more efficiently.

The topics addressed in this Element are:

- Streets and Highways
- Goods Movement
- Parking
- Transit Service and Facilities
- Railroad Service
- Airports
- Bicycle Routes
- Pedestrian Facilities

Existing and future conditions, as well as goals and policies for each topic, are addressed individually in each section.

STREETS AND HIGHWAYS

Regional Setting



Figure 3-1, on the following page, shows the City of Atwater's relationship to the State highway system, nearby counties and major cities. Figure 3-2 shows the existing street system as of 1998; this map generally shows roads of Citywide significance. The City's highway network consists of State Route (SR) 99. Prominent City roadways include: Atwater Boulevard, Bellevue Road, Winton Way, Applegate Road, Buhach Road, Broadway, Shaffer Road, First Street, and Third Street. Outside the City limits, State Highway 140 forms the southern boundary of the Study Area, and State Highway 59 forms part of the Study Area's eastern boundary. Santa Fe Drive, a northwest-southeast route

between Merced and Winton, passes through the northeast portion of the City by the CAADC site. The roadway serves as a major access route to the former Castle Air Force Base for workers living in the Merced area.



The City is linked to Merced and Sacramento principally by SR 99. This route provides the only continuous northwesterly-southeasterly route through the City and is heavily used for regional travel. SR 99 is constructed to freeway standards. Approximately two miles of SR 99 are located within the City limits.

Functional Classification System

"Functional classification" is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently, but are instead parts of a larger network of roads which combine to serve the community's travel needs.

This section defines roadway classification systems currently used by the Federal Highway Administration (FHWA), the City, and local agencies. Since issues related to the classification of roadways range from funding to operational considerations, each agency has its own classification system. This section defines and clarifies the role of each system, and presents the classification system used for this Element of the General Plan.

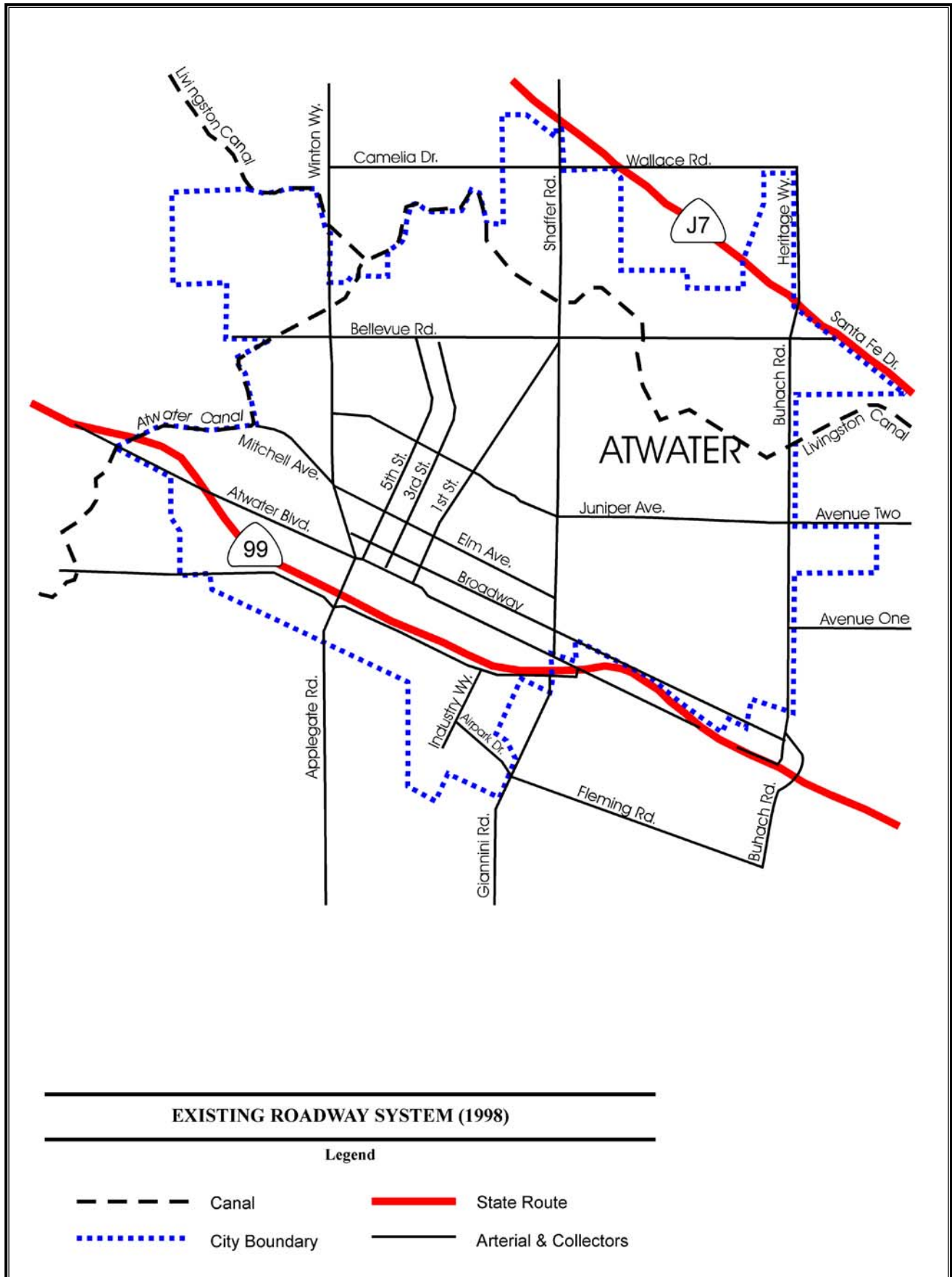
It is necessary to determine how travel can be channelized along the street and highway system in a logical and efficient manner. Functional classifications define the channelization process by defining the area



ATWATER WITHIN THE MERCED COUNTY REGION

Legend

-  State Route
-  Arterial & Collectors



Circulation Element

that a particular street or highway should service through a circulation network. Definitions of the roadway classifications used in this General Plan begin on this page.

Federal Functional Classifications

Federal functional classifications for rural and urban areas, are shown below. Classifications which are applicable to Atwater are described in the next section.

Rural

Interstate and Other
Principal Arterial
Minor Arterials
Major Collectors
Minor Collectors

Urban

Interstate and Other
Freeways and Expressways
Other Principal Arterials
Minor Arterials
Collectors

Roadway Classifications Used in This Element

To identify roadway infrastructure needs for the City to Year 2020 and beyond, several broad roadway classifications have been identified. The roadway classifications used in this document are consistent with functional classifications as defined by the Federal Highways Administration (FHWA) and California Department of Transportation (Caltrans).

- *Freeways.* A freeway is a divided, limited access highway (access is provided at grade separated interchanges and vehicular crossing of these facilities is provided at grade separations). Freeways are designed to carry large volumes of traffic traveling long distances, although localized use of freeways in urban areas is considerable.

Caltrans designs and constructs all freeways to state design standards, and to federal standards if federal monies are being used to fund or partially fund the facility. Alignments and key design details such as interchange locations are determined in consultation with local and federal authorities when involved. Nothing actually precludes local jurisdictions from building their own freeways. However, Caltrans' State

Highway System contains virtually all candidate routes for freeways. The high cost of freeways has historically made it impractical for any agency other than Caltrans to construct new freeways.

- *Expressways.* These roads carry traffic for relatively long distances (3 miles or longer) and provide direct access to the freeway system. Access from driveways and minor side streets is restricted. Major cross street intersections are signalized. Major intersection spacing is envisioned at ½ mile intervals or more.
- *Major Urban Arterials.* These are roads within the Sphere of Influence that carry large volumes of traffic relatively long distances within or through an urban area. They also serve considerable local traffic traveling short distances. Along these roadways, priority is placed on through traffic mobility rather than access to fronting property, and direct access to individual fronting parcels is discouraged. A major arterial with fully controlled frontage access is also considered an expressway. Major urban arterials should be continuous through the urban community they serve and link to arterial routes in adjacent communities or the rural areas.
- *Other Urban Arterials.* These are roads within the Sphere of Influence that carry moderately high volumes of long distance and local traffic. Although access to abutting property is permitted, priority is given to through traffic mobility.
- *Urban Collectors.* These are roads within the Sphere of Influence intended to carry local traffic between the local street system and the arterial highway system. In urban areas collectors may serve average daily volumes in excess of 10,000 although volumes are normally less.
- *Urban Local Roads.* These roads provide access to abutting property and link properties to the collector system.
- *Rural Local Roads.* These roads provide access to property and activity nodes in sparsely settled areas of the City. All City roads not shown on the Circulation Element Map are considered standard local roads.

The intent of the functional classification system used here is to describe the intensity and character of traffic using each type of facility, the character of abutting uses, the priority placed on access to abutting property versus through traffic mobility, and roadway right-of-way standards. The City maintains standards for each of these roadway types which define the width of the right of way, width of pavement, sidewalk widths and locations, etc.

The intent of the Federal Functional Classification System is to identify what types of federal Transportation Equity Act for the 21st Century (TEA-21) funding each type of facility is eligible to receive.

Existing Capacity Analysis

The first step toward development of a functional street and highway system is to thoroughly assess existing traffic conditions. To accomplish this task, existing segment level of service (LOS) analysis was conducted. LOS standards are used by City of Atwater, Caltrans, and local agencies to measure the street and highway system's performance. To determine the type and number of transportation projects that may be necessary to accommodate Atwater's expected growth, freeway, expressway, arterial, and collector facility LOS was assessed.

The General Plan Guidelines provides this definition, in part:

"According to the Transportation Research Board's 1985 Highway Capacity Manual Special Report 209, level-of-service is a qualitative measure describing the efficiency of a traffic stream. It also describes the way such conditions are perceived by persons traveling in a traffic stream. Levels-of-service measurements describe variables such as speed and travel time, freedom to maneuver, traffic interruptions, traveler comfort and convenience, and safety."

Levels of service range from the best (rated as LOS A) to the worst (rated as LOS F). LOS A represents free flow and excellent comfort for the motorist, while LOS F represents the situation in which highway capacity is exceeded. The various levels of service, as used in this General Plan, are

summarized below. (For a more technical description, please refer to the General Plan Environmental Impact Report).

LOS	Description
A	Represents "free flow," in which individual vehicles are not affected by others on the roadway and do not need to wait for other traffic to move along a roadway or through an intersection.
B	Other vehicles on the roadway begin to affect each other. Vehicles can travel at the speed they wish, but cannot always maneuver as they wish because of the presence of other vehicles.
C	The operation of individual vehicles begins to be significantly affected by other vehicles on the roadway.
D	Speed and freedom to maneuver are severely restricted; the roadway is becoming crowded.
E	The roadway is operating at near its maximum capacity; vehicles move at low speeds.
F	At this level, traffic is "stop-and-go" or "gridlock." Generally, the number of vehicles attempting to use the roadway exceeds the number that can be accommodated, and traffic flow breaks down.

According to the 1997 Highway Capacity Manual (HCM), LOS is categorized by two types of traffic flow: "uninterrupted" and "interrupted".

Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. An example of such a roadway is SR 99.

Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections. Examples of such roadways in Atwater include Winton Way and Bellevue Road, and other arterial and collector streets. Specific standards for LOS on "uninterrupted flow" and "interrupted flow" roadways are defined in the General Plan Environmental Impact Report.

An important goal is to maintain acceptable levels of service along the City's highways,

streets, and roads network. To accomplish this, the City, Caltrans, and other local agencies adopt minimum levels of service in an attempt to control congestion that may result as new development occurs. According to goals, objectives, and policies described in this Element, the City's goal is to maintain acceptable levels of service along the highways, streets, and roads network. For purposes of this analysis, a minimum LOS of D was assumed along the City of Atwater street and highway system.

To determine the existing LOS for each segment along the street and highway network, segment LOS was estimated using the Modified HCM-Based LOS Tables ("Florida Tables"). The Florida Tables consider the capacity of individual street and highway segments based on numerous roadway variables: design speed, signalized intersections per mile, number of lanes, and saturation flow. These variables were identified and applied to reflect existing traffic LOS conditions in the General Plan Study area. A complete description of the Modified Tables and the variables applied to calculate segment LOS is included in the General Plan Environmental Impact Report.

Existing Traffic Counts and Roadway Geometrics

Traffic volumes used to develop LOS calculations were obtained from MCAG and the City of Atwater, and various local agencies. Traffic volumes were available from these agencies for years 1990 through 1998. To reflect 1998 traffic along the existing street and highway system in the City, traffic counts from years other than 1998 were adjusted by three percent (3%) per year, a rate of increase consistent with historical annual growth rates for vehicle trips in the City of Atwater.

Roadway geometrics were obtained from information provided in the 1998 Regional Transportation Plan (RTP), from the Merced County Association of Governments (MCAG) and City staff, and from a field review conducted by Valley Research and Planning Technologies (VRPA). These geometrics were applied to establish existing segment LOS. Figure 3-3 shows the existing traffic counts for segments of the City's street and highway system. Figure 3-4 shows the Level of Service which currently results from these traffic levels on the Atwater roadway system.

Existing Level of Service

A street and highway segment is defined as: "a stretch of roadway often located between signalized or controlled intersections." The HCM-Based LOS analysis is based on a calculation of the Average Annual Daily Traffic (AADT) and other variables, such as the number of lanes and signalized intersections along a street segment.

Results of the segment analysis show that street and highway segments within the City of Atwater are currently operating at LOS A through F. One segment, SR 99 between Buhach and Shaffer, is operating at LOS F. Thus, this highway segment falls short of City of Atwater's, Caltrans', and other affected local agencies' minimum LOS standards. Maximum AADT volumes in the City occur along this segment with approximately 63,276 vehicle trips per day. The identification of this deficient segment provides an opportunity for City of Atwater, MCAG, Caltrans, and other affected local agencies to focus on street and highway and other improvement projects that will improve over time the LOS on that segment and in the City as a whole.

Severe prolonged congestion, LOS E, is not encountered along any other roadway segments, as indicated on Figure 3-4. Moderate traffic congestion (LOS D) occurs at one location, Atwater Boulevard between Winton and Shaffer. Based upon this assessment, it can be further assumed that intersections located along the street segments are operating at LOS D or better. In addition, freeway ramps connecting to the deficient segment along SR 99 are likely operating at deficient levels of service (LOS E or F).

Future Roadway Conditions

Figure 3-5 shows projected average daily traffic volumes for the Year 2020 on principal roadways in Atwater, based on development of the City according to the policies of this General Plan. Resulting Level of Service (LOS), assuming the development of the City's ultimate roadway system (described later in this Element) are shown in Figure 3-6. (Note: Further detail on the development of these projections can be found in the General Plan Environmental Impact Report and the detailed traffic analysis prepared for that document.)

Figure 3.3: Existing (1998) Average Daily Traffic

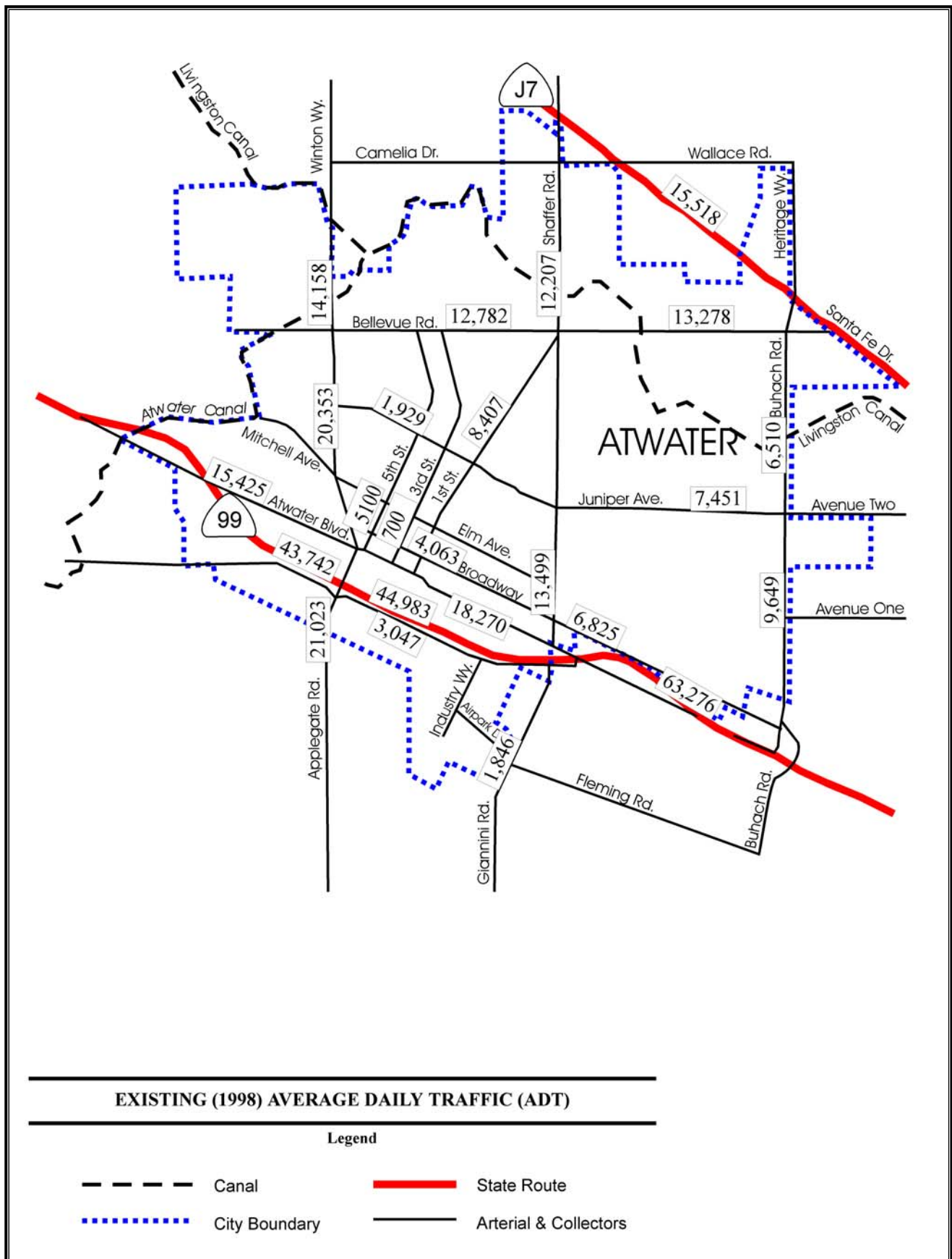
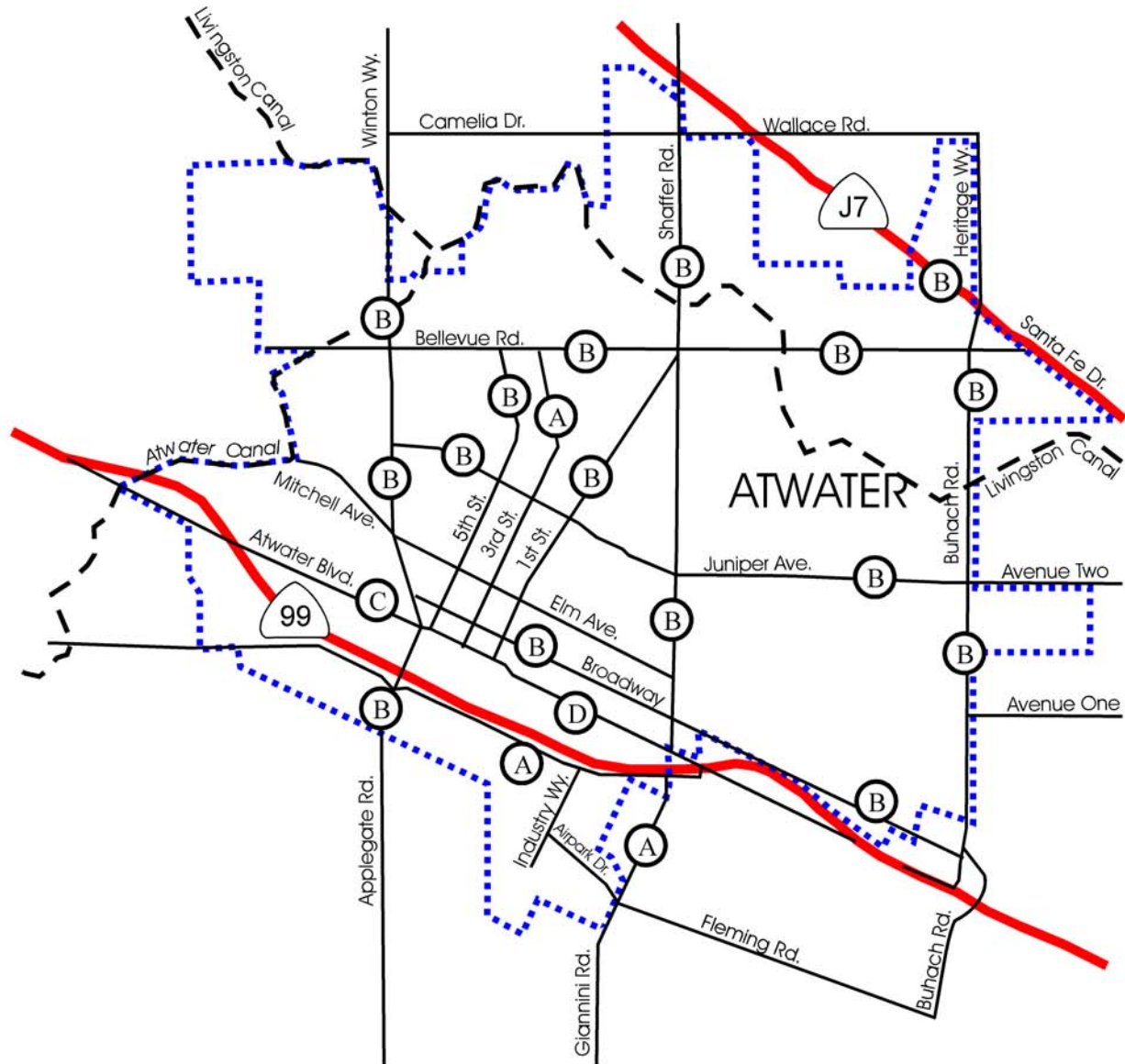


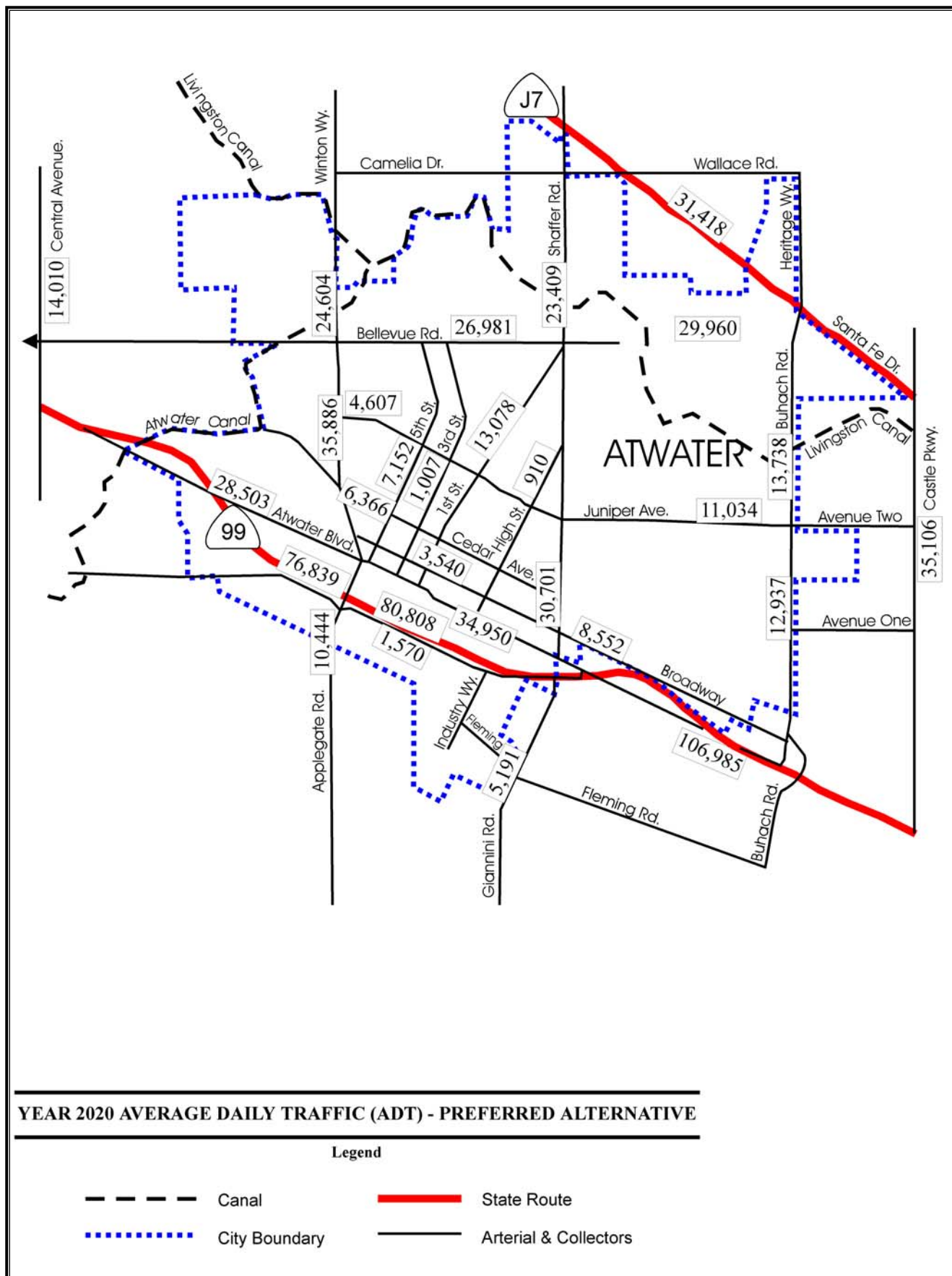
FIGURE 3-3
EXISTING (1998) AVERAGE DAILY TRAFFIC (ADT)

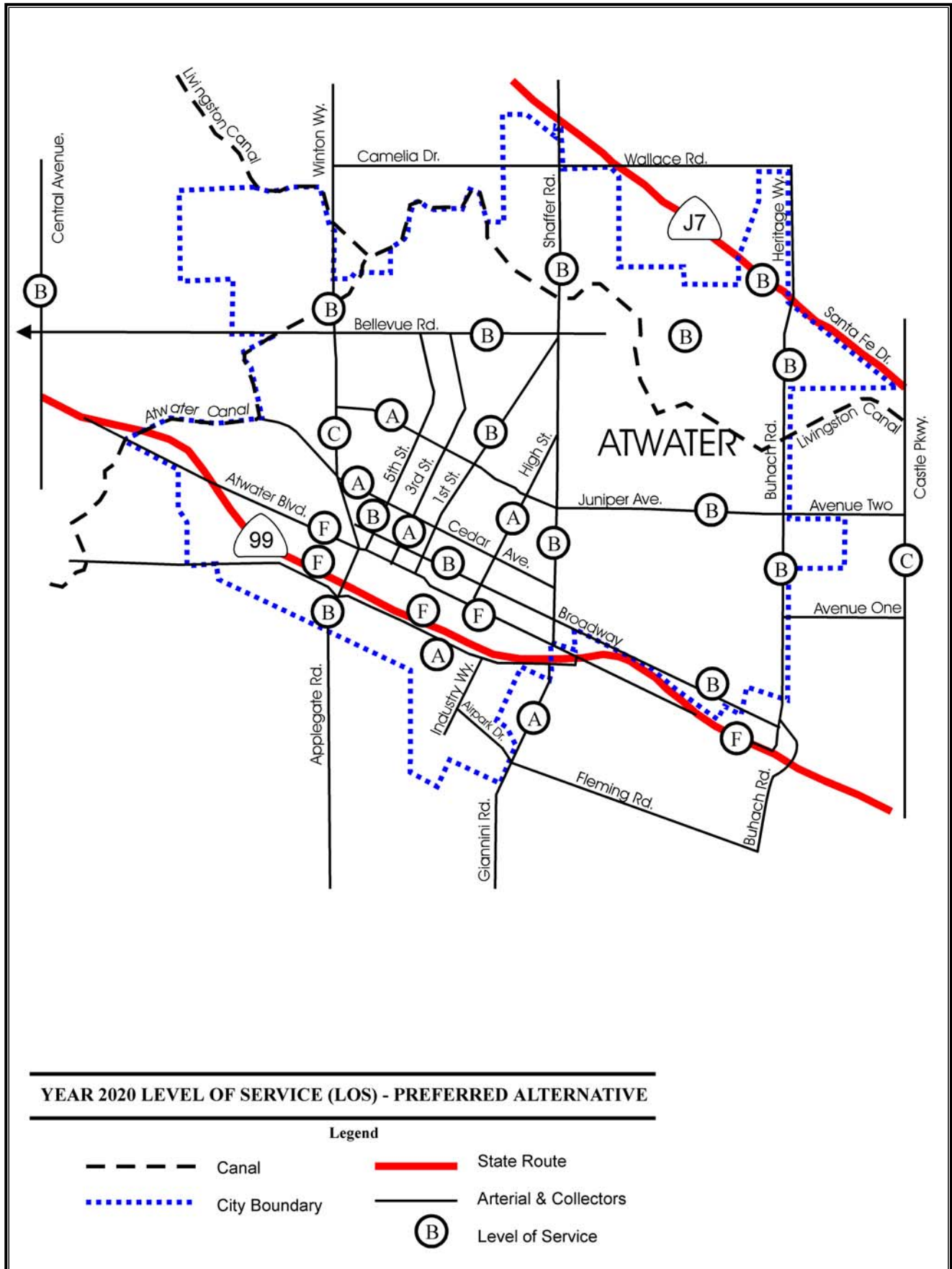


EXISTING (1998) LEVEL OF SERVICE (LOS)

Legend

- | | |
|---------------|-----------------------|
| --- Canal | State Route |
| City Boundary | Arterial & Collectors |
| | Level of Service |





Many highways in the vicinity of the City of Atwater experience the highest traffic volumes on weekends, particularly in the summer, as a result of recreational travel. This situation is likely to continue since minor recreation facilities are located within Merced County and in Fresno County to the south. Within Merced County, these generators include: Merced Falls, Lake Yosemite, San Luis Reservoir, three National Wildlife Refuges, and various public parks. Roadway segments likely to experience significant weekend activity during summer months include SR 99.

A discussion of improvements to the City's roadway network to accommodate projected increases in traffic begins after Figure 3-6.

Future Roadway Construction

Based on the assessment of current and future highway needs as discussed in this Circulation Element, and the City's transportation goals, objectives, policies, and issues of concern, a series of responsive transportation improvements have been proposed for incorporation in the Circulation Element. These projects are summarized in Table 3-1. Figure 3-7, the Circulation Plan, shows a map of the ultimate roadway system.

All segments of the designated freeways and arterials contained in the improvement program have been classified according to the level of the improvement that may be required to accommodate projected future traffic levels by the Year 2020.

Major Regional Transportation Improvement Projects

In addition to the local improvements shown in Table 3-1, a regional study (the "SR 99 Major Investment Study" or "SR 99 MIS") identified that the following major roadway improvements will be needed to accommodate increases in traffic which will result primarily from regional traffic (that is, trips on these roadways which for the most part begin and end outside Atwater).

The SR 99 MIS studied four alternatives plus a no build alternative. The alternative recommended by the study includes the following improvements within or adjacent to the City's Study area:

- Expansion of SR 99 within the Merced/Atwater area from the present four lanes to eight lanes along the existing alignment, and connection to a six-lane system outside the area.
- Upgrade of the Castle Parkway between SR 99 and Santa Fe Avenue to four lanes. Construction of a new interchange on SR 99 that connects to the Parkway, and a two-lane arterial south of the new interchange. Construction of an interchange at Castle Parkway and Santa Fe Avenue is proposed.
- Improvements to the SR 99/Applegate Road and SR 99/Shaffer Road interchanges.
- Eventual removal of the SR 99/Buhach Road interchange.
- Construction of a four-lane freeway and interchange at SR 99 and Westside Boulevard west of the City. Later addition of two lanes to freeway.
- Extension of Bellevue Road to the new interchange at SR 99 and Westside Boulevard is also anticipated to provide a new northern entrance into the City.

The costs of all the transportation system improvements recommended in the MIS are estimated to be \$403.6 million. A total of \$139.7 million, coming from federal, state, and local funding sources, has been identified as available for these improvements. The costs of these improvements were broken down by those generated by "regional" traffic and those generated by "local" traffic. This distinction is important, since projects for regional traffic are eligible for federal and state funds, while local traffic projects must be funded by local programs.

Proposed SR 99 improvements in the Atwater area would likely attract federal and state funding. However, the Castle Parkway would have to rely on mostly local funding, with only limited state help. The total estimated cost for the Castle Parkway project is \$13 million.

Among the implementation measures contained in the MIS is the placement of a half-cent transportation sales tax measure on the ballot and the development of a county-wide impact fee system. These measures are considered to provide the most equitable

**Table 3-1
Recommended Roadway Improvements**

Roadway	Limits	Improvements	LOS
SR 99	Buhach to Shaffer	Increase to 8 lanes	LOS D
SR 99	Shaffer to Winton	Increase to 6 lanes	LOS D
SR 99	Winton to NW City Limits	Increase to 6 lanes	LOS D
Atwater Boulevard	Wedel to Winton	Increase to 4 ¹ lanes	LOS B
Atwater Boulevard	Winton to Shaffer	Increase to 4 ¹ lanes	LOS B

¹ While additional right-of-way will not be feasible to accommodate the necessary widening of Atwater Boulevard, several alternatives should be explored that would provide existing right-of-way for additional travel lanes within the two segments affected by LOS deficiencies including:

- Removal of on-street parking resulting in minor restriping of the existing facility to accommodate additional lanes in both directions;
- Reconfiguration of existing intersections through the use of raised medians, etc.; and
- Traffic Systems Management (TSM) strategies (at major intersections that would enhance traffic flow without requiring additional right-of-way).

means of funding the local share of projects. In addition to the commercial and business park uses proposed west of the City, this General Plan introduces additional areas of commercial and business park land uses just east of Atwater's City limits. Castle Parkway is classified as an expressway between Santa Fe Drive and SR 99. Therefore, access will be limited in accordance with this functional classification. Trips generated by the new land uses adjacent to Castle Parkway will be serviced by Parkway frontage roads and will ultimately access the Parkway via the primary east-west corridors in the area.

The MIS Report is the most recent document that has been produced, which provides an overview of anticipated regional projects including those associated with development of the University Access System. Development of these improvements will be pursued by the City of Atwater. The City will also continue to coordinate with Caltrans and MCAG as future plans are developed or refined. The City's Circulation Element may also be augmented or modified as necessary on a periodic basis to incorporate improvements that are identified in future studies and plans that are adopted on a regional basis.

Streets and Highways Goals and Policies

The following Goal and Policies are related to the development of the City's ultimate roadway system.

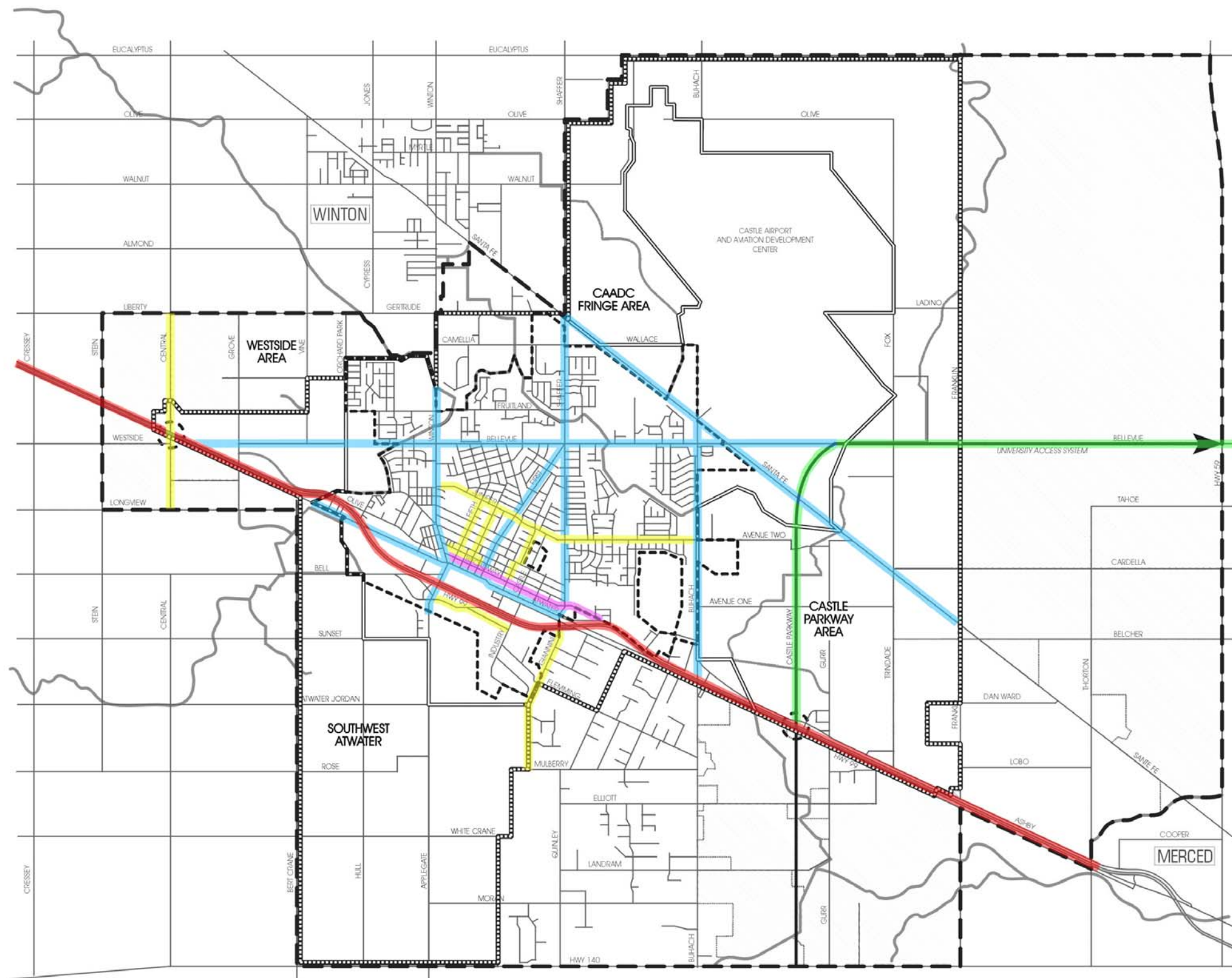
GOAL CIRC-1. Maintain adopted Level of Service (LOS) for City streets and intersections.

Policy CIRC-1.1 Establish and maintain a minimum LOS of D for all arterial and collector streets within the City.

Policy CIRC-1.2. Establish intersection LOS standards when more specific intersection traffic data becomes available.

Policy CIRC-1.3. Design roadway improvements and evaluate development projects using established LOS standards.

Policy CIRC-1.4 Develop the City's roadway system in conformance with the planned roadway system shown on the Circulation Plan (Figure 3-7) and the City's adopted cross section standards.



LEGEND

- City Limits
- Sphere of Influence (1984)
- ▭ Proposed Sphere of Influence
- General Plan Study Area Boundary
- Proposed Interchange
- 6 - 8 Lane Freeway
- 4 Lane Expressway
- 4 Lane Urban Major Arterial
- 2 Lane Urban Arterial
- 2 Lane Urban Connector

NOTE: With the exception of HWY 59 and HWY 140, roads not indicated with the specific classifications listed above are considered urban and rural local roads.

Policy CIRC-1.5 Access for land uses adjacent to Castle Parkway will be provided by frontage roads which parallel the Parkway. Direct access to the Parkway will be limited to the primary east-west corridors in the area.

Implementation Program CIRC-1.a. Monitor levels of service, along with physical condition of streets and traffic accident patterns, and program improvements as needed through the City's Capital Improvements Program.

GOAL CIRC-2 Creation of a comprehensive financing strategy for local roadway improvements.

Policy CIRC-2.1 Consider financing strategies required to implement the "local" traffic portion of the Merced/Atwater Corridor Major Investment Study (MIS).

Policy CIRC-2.2 Provide "fair share" City funding for regional transportation improvements at a level equal to the contribution of Atwater-generated traffic on the roadway or intersection. Seek regional, state, or other funding for improvements whose need is generated by traffic originating outside Atwater.

GOAL CIRC-3 Support efforts to improve vehicular connections between Atwater and the UC Merced access system.

Policy CIRC-3.1 Support efforts to obtain funding for the projects proposed in the MIS and any subsequent documents approved on a regional basis.

Policy CIRC-3.2 Explore improvements to other roadways connecting the City with UC Merced.

GOAL CIRC-4 Creation of new entrances into Atwater north of the Applegate interchange.

Policy CIRC-4.1 Support efforts to implement the projects proposed in the MIS, which includes improvements to the 99/Applegate interchange, extension of Bellevue Road to the west, and the creation of a new interchange at SR 99/Westside Boulevard.

Policy CIRC-4.2 Support the implementation of the Atwater Redevelopment Agency's Implementation Plan, which includes improvements to the Applegate interchange.

GOODS MOVEMENT



"Goods Movement" refers to the shipping by truck of raw materials and finished products for commercial and industrial uses. In Atwater, goods movement occurs primarily in connection with agricultural and industrial uses. Since agriculture is a relatively mature industry in the City, overall truck traffic generated by agricultural uses should remain stable in the future.

However, relocation and replacement of individual agricultural processing plants and other new industries can significantly alter both regional and localized patterns and concentrations of truck traffic within the City's Sphere of Influence. As healthy industrial growth is expected within the City, the scale of industrial-related truck traffic will continue to increase. According to the 1998 RTP, approximately 20-30 percent of all traffic along SR 99 is comprised of trucks.

Because the use of roadways by trucks is part of the overall roadway system's use, no specific goals or policies for this issue are included here. Implementation of Goal CIRC-1 and its related policies will address future goods movement needs.

PARKING



When vehicles are driven, they must eventually be parked, whether for storage, security, or while visiting stores, businesses, or residences.

While parking shortages can be an issue in some communities, negatively affecting businesses or making residential areas less desirable, this issue has not been identified as a concern in Atwater. In general, sufficient parking is available for most of the City's residential areas and businesses. Any

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parking issues which are identified in the Downtown area will be addressed in the Specific Plan that is being prepared for that area.

GOAL CIRC-5 Provide sufficient parking for all commercial, industrial, residential, and other uses, either off-street or on-street as appropriate.

Policy CIRC-5.1 Require that all new development provides sufficient on- or off-street parking to meet the standards of the City's Zoning Code or any other applicable planning document (such as the Downtown Specific Plan).

TRANSIT SERVICES AND FACILITIES



The City of Atwater is a part of the public transit system called Merced County Transit, also known as The Bus. The Bus is Merced County's only countywide provider of public transit service. The Bus provides basic public transportation service to 17 cities and communities in Merced County, including Atwater. Figure 3-8 illustrates the existing bus routes in Atwater. Two bus routes serve the City. One route goes from Santa Fe Drive to the downtown along Broadway Avenue before turning north on Winton Way. The other route also starts from Santa Fe Drive, then runs along Bellevue Road before reaching Winton Way. Both routes stop in Merced and Winton, and one route continues on to Livingston. Connections can be made to other Merced County communities.

The City also provides a dial-a-ride paratransit service. Greyhound Bus Lines provides bus service from Atwater to state and national destinations to the north and south. There is no terminal in the City; the nearest one is in Merced. A "flag" stop does exist in the City, which buses visit whenever passengers are present.

GOAL CIRC-6 Ensure convenient and affordable public transit for all Atwater residents to destinations within the City and to nearby communities and destinations, such as UC Merced.

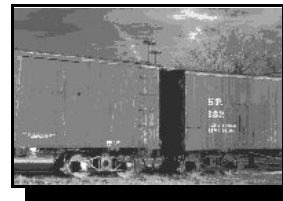
Policy CIRC-6.1 Cooperate with Merced County Transit to provide bus service in all areas of Atwater.

Policy CIRC-6.2 In urban areas, ensure that no residences are more than 1 mile from a bus stop; where feasible, provide bus stops no more than ½ mile from residences.

Policy CIRC-6.3 Require new development to provide right of way and construct shelters for bus stops as determined to be necessary by the City of Atwater and the Merced County Transit.

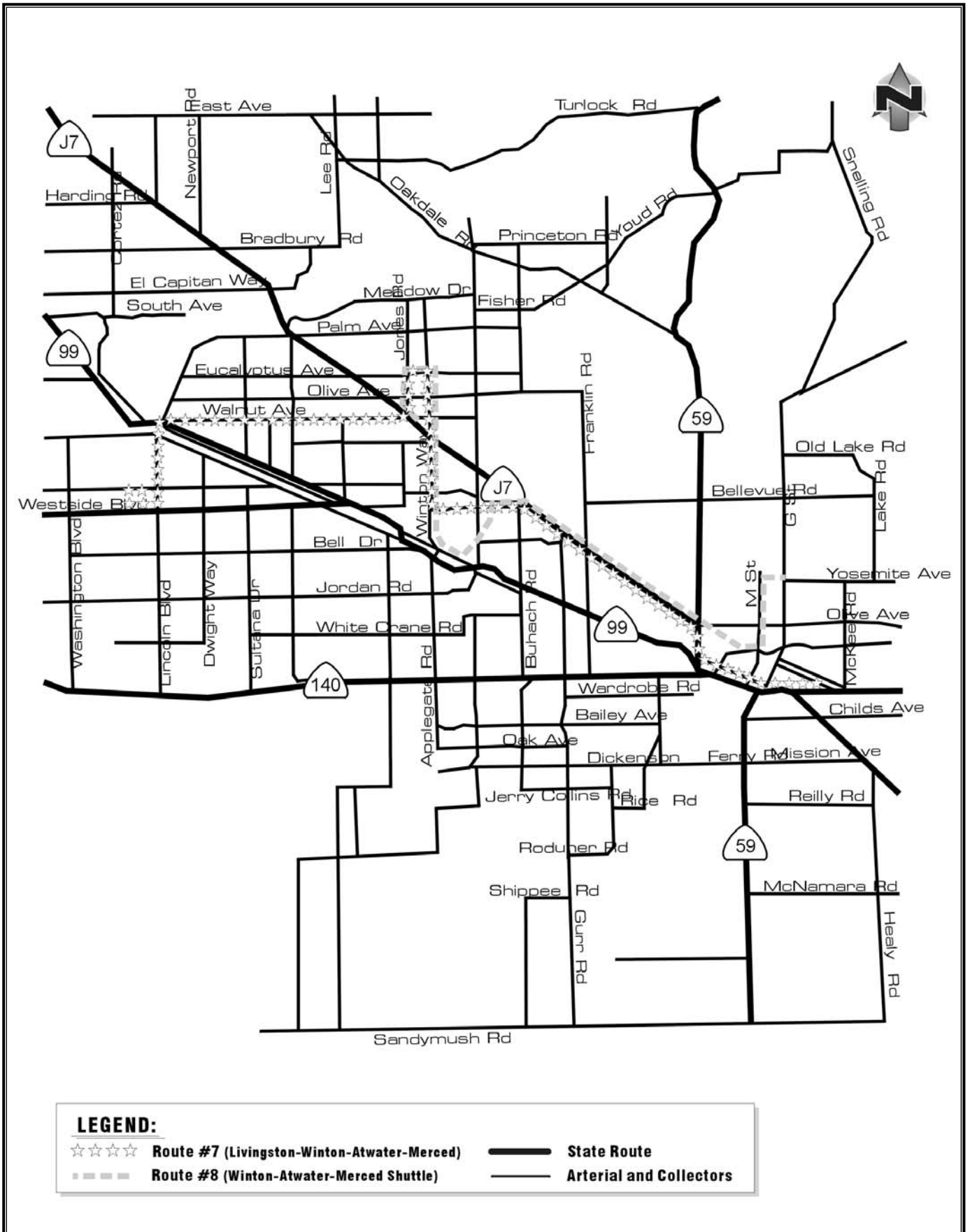
Implementation Program CIRC-6.3.a Forward all major or large-scale residential and commercial development applications to Merced County Transit for their review and recommendations regarding the location of bus stops, shelters, or related features.

RAILROAD SERVICE



The Union Pacific Railroad, the Burlington Northern & Santa Fe Railroad (BN&SF), and the San Joaquin Valley Railroad all provide freight service to the City. They connect the City to major markets within California (the San Francisco Bay Area, Sacramento, and Los Angeles) and to other destinations north and east. Freight terminals and service to specific industries are located throughout the City. Though the railroads are reluctant to provide information on the amount of freight originating in the City, it is likely that the predominant mode for freight movements in the City will continue to be by truck in the foreseeable future. This is certainly the trend expected for raw agricultural commodities moving to packing and processing facilities.

There is no direct passenger rail service to the City. AMTRAK passenger service is available in nearby Merced. The City of Merced and Merced County receive service along AMTRAK's San Joaquin route, with four trains each day connecting northern and southern California. A fifth train was recently



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approved for operation along this route. Currently, the BN&SF line is the present route for AMTRAK service. There had been efforts between the City and Southern Pacific to facilitate the use of the current Union Pacific tracks for AMTRAK trains. The Merced Council of Governments (MCAG) had made this rerouting an objective to be achieved by 1995. To date, however, no action has been taken.

AIRPORTS



Until 1995, civilian air travel needs in Atwater were served by Atwater Municipal Airport, a basic utility public airport located south of Highway 99 adjacent to the wastewater treatment plant. Flights from this airport, which had a runway 2,450 feet long, were limited to small private propeller planes flown for recreational purposes. Approximately 45 airplanes were based at the airport, a number which approached airport capacity. Because of the closure of Castle Air Force Base and its conversion to civilian use, the Atwater Municipal Airport was closed in 1995. It has since been converted to the Atwater Business Park.

The City obtained access to the former Castle Air Force Base after it was closed in September 1995. It is now called the Castle Airport and Aviation Development Center (CAADC). The CAADC site contains an 11,800-foot runway, one of the longest in California. As part of base operations, the runway once accommodated bombers and tankers. The aviation portion of the site is now being operated as a general aviation airport for civilian use. The City of Atwater, along with Merced County and the City of Merced, have formed a Joint Powers Agency (JPA) to explore the different uses for this site. Currently, the use most favored by the City of Atwater is a diversified general aviation facility and business center. A diversified facility could include private aviation, commercial passenger service, aviation maintenance, aviation educational, and agriculture/air cargo. The vast space of this airport is conducive to the reuse of the facilities.



A Feasibility Study/Master Plan has been prepared for the airport. The Master Plan proposes the reuse of the airfield as a civil airport specializing in aviation-related manufacture and repair. Should growth continue in the Atwater/Merced area, the airport may serve air passenger and commuter traffic. According to the Negative Declaration prepared for the Castle Airport in 1995, some or all of the aircraft that are based at other airports in the region are expected to relocate to Castle Airport, possibly up to 103 aircraft in the first year of operations. The federal EIS stated that the Atwater Municipal Airport would likely close with the reuse of the Castle airfield, which it subsequently did. It also mentioned that the Merced and Turlock airports may close under the Commercial Aviation Alternative, which was not the preferred alternative in the EIS. However, the Castle Airport Negative Declaration stated that the Merced Municipal Airport is expected to continue to provide air service to the region for the immediate future.

For goals and policies related to airport safety near CAADC, please refer to the Safety Element of this General Plan.

For goals and policies related to civilian reuse of CAADC, please refer to the Land Use Element of this General Plan.

For goals and policies related to noise generated at CAADC, please refer to the Noise Element of this General Plan.

BICYCLES

Bicycles are not currently considered a major mode of travel in the City. However, with the onset of air quality attainment strategies and congestion management, bicycling is considered an effective alternative mode of transportation that can help to improve air quality and reduce the number of vehicles traveling along congested facilities.

The City of Atwater is in the process of adopting a Regional Bike Plan. The bicycle network consists of three classes of bikeways, according to the following design standards established by Caltrans:

- **Class I - Bicycle Paths.** Bike paths that are separated from vehicle traffic, pedestrians, and transit, and are primarily for the use of bicyclists.
- **Class II - Bicycle Lanes.** Bike lanes that provide cyclists exclusive to semi-exclusive use of the roadway, sharing facilities with motor vehicles and pedestrians. Bike lanes have identification signage, pavement stencils, striping, and minimum width requirements.
- **Class III - Bicycle Routes.** Bike routes that are shared facilities, usually with motor vehicles, on streets where bicycle use is secondary. Bicycle Route signs are required to be placed periodically along the route and at changes of direction.

Class I bikeways are located along:

- Buhach Road (Green Sands Avenue - Bellevue Avenue).
- Broadway/Green Sands (Shaffer Road - Buhach Road).
- Bellevue Road (Winton Way - Buhach Road).
- Winton Way (Bellevue Road - Juniper Avenue).
- Juniper Avenue (Sierra Madre Drive - Buhach Road).
- Shaffer Road (Bellevue Road - Camelia Drive).

- Atwater Boulevard (SR 99 - Station Avenue).

Class II bikeways are located along:

- Railroad Avenue (North of Bert Crane Road - Station Avenue).
- Santa Fe Drive (Avenue Two - Winton Way).
- Winton Way (Fruitland Avenue - Santa Fe Drive).

Class III bikeways are located along:

- Fruitland Avenue (Winton Way - Shaffer Road).
- Juniper Avenue (Liberty Street - Sierra Madre Drive).
- Avenue Two (Buhach Road - Santa Fe Drive).
- Terri Drive (Shaffer Road - Bromwell Avenue).
- Fortuna Avenue (Shaffer Road - Bromwell Avenue).
- Elm Avenue (1st Street - Shaffer Road)
- Clinton Avenue (Shaffer Road - Almador Terrace).
- Bridgewater Street (Juniper Avenue - Bellevue Road).
- Almador Terrace (Broadway - Clinton Avenue).
- Bromwell Avenue (Terri Drive - Bellevue Road).
- Shaffer Road (Juniper Avenue - Terri Drive).
- High Street (Juniper Avenue - Menlo Street).
- 1st Street (Broadway - Elm Avenue).
- Liberty Street (Juniper Avenue - Mitchell Avenue).
- Mitchell Avenue (Liberty Street - Willow Street).
- Willow Street (Mitchell Avenue - Olive Avenue).
- Olive Avenue (Willow Street - Maple).
- Maple (Willow Street - Atwater Boulevard).

The bicycle plan provides for connections between major urban and recreational facilities within the City. This plan is expected to be satisfactory for the foreseeable future.

Circulation Element

GOAL CIRC-7 Development of an interconnected system of bikeways and trails throughout Atwater.

Policy CIRC-7.1 Consider bicycle circulation in the review of all proposed public and private development and infrastructure projects. Require that all public and private projects conform with the adopted Regional Bike Plan.

Policy CIRC-7.2 Require that all public and private projects conform with the Regional Bike Plan. Require that the cost of bicycle lanes (including on- and off-street facilities) be paid by private development for those facilities located within a proposed development project.

PEDESTRIAN FACILITIES



Pedestrian facilities within the immediate vicinity of schools and recreational facilities are also important components of the non-motorized transportation system. Pedestrian circulation facilities within and around school and recreational areas, in the form of sidewalks built to current City standards, are provided where they are appropriate and enhance the safety of those who choose to walk to and from their destination.

GOAL CIRC-8 Provide a safe and efficient pedestrian circulation system which connects residential areas, schools, and commercial areas with parking lots and public transportation.

Policy CIRC-8.1 Require new public and private development and infrastructure projects to include sidewalks or on-site pedestrian features.

Policy CIRC-8.2 Ensure that pedestrian circulation within commercial development projects is considered and that safe walkways separated from parking stalls and drive aisles are provided.

For policies related to land use patterns which encourage pedestrian use, please refer to the Land Use Element of this General Plan.