

5

Transportation

The Transportation Element is intended to provide guidance and specific actions to ensure the continued safe and efficient operation of Yuba City's circulation system. The Element is based on a fundamental philosophy that traffic conditions in the City can be managed through a comprehensive program of transportation planning, land use planning, and growth management strategies. This Element includes provisions for roadway, transit, airport, pedestrian, and bicycle transportation modes, as well as parking.

The Transportation Element responds directly to the Government Code, which requires "a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

State Law recognizes that circulation and land use are closely related and requires that policies in this Element and the Land Use Element be tied together. Careful integration of the City's traffic and circulation policies with its land use policies will ensure that there is sufficient roadway capacity to accommodate traffic generated by planned future development. The City is committed to designing a system of regional routes, local roads, public transit, and bicycle and pedestrian pathways that will enhance the community and protect the environment.

The Land Use Element includes policies related to the physical framework for development that the circulation system is designed to serve, and includes policies for the Airport environs. The Community Design Element addresses landscaping along major streets and planning for new neighborhoods to ensure street connectivity. It also addresses how to create pedestrian-friendly environments and design for alternate modes. The Noise Element includes policies to alleviate noise generated by traffic

5.1 GUIDING PRINCIPLES

Yuba City's Transportation Element incorporates three strategies. First, transportation programs are based on circulation system planning and land use planning. Second, the City's traffic circulation planning efforts are integrated with those of the County and Caltrans in a cooperative, regional planning effort. Third, state of the art traffic engineering is used to bring planned improvements to reality. Only through the development and implementation of all these strategies can the City's commitment to a balanced, efficient circulation system be achieved.

Another objective of this Plan Element is to create a balanced transportation system that serves bicyclists and pedestrians as well as motor vehicles. The original street layout provided street connections linking neighborhoods with work places. As the community has grown, connections between neighborhoods, shopping areas, and business locations have not always served residents' transportation needs, so the General Plan provides for new routes in partially developed portions of the Planning Area, and expansion of capacity and efficiency of the existing system; the Plan also provides ways to reduce auto-dependence by facilitating use of alternate modes of travel.

5.2 ROADWAY SYSTEM

At the core of Yuba City's circulation network is the roadway system. All modes of transportation depend to some degree upon the roadway system. In Yuba City, this system is based on a traditional grid pattern. Although this pattern has been modified in recent years to include some suburban curvilinear streets in the southern and western portions of the City, the predominant pattern is grid-based and defined by major roadways such as Highway 99, State Route 20, Bridge Street, Live Oak Boulevard and Franklin Road. The roadway system is further defined by the Feather River due to the constraints it poses.



Several Yuba City roadways are planned for upgrades and improvements.

STREET SYSTEM

Yuba City's roadway system is set up around a hierarchy of street types, which are commonly referred to as functional classifications. The functional classifications for most major streets are as follows:

Freeways. Freeways serve regional and inter-city travel and should not become the optimum route for intra-city trips. Access is controlled, grade crossings are separated, and medians separate lanes moving in opposite directions. Typical free flow speeds exceed 55 miles per hour.

Highways. Highways are designed to carry heavy traffic volumes at speeds of 40-55 miles per hour. Highways should serve longer distance intra-city travel as well as linking the City with other nearby urban areas. Access is limited, crossings are generally signalized at grade, parking is not allowed, and a continuous median separates lanes moving in opposite directions.

Arterials. Arterials are designed to move large volumes of traffic between freeways/highways and other arterials in Yuba City and to adjacent jurisdictions. Major arterials are access controlled roadways emphasizing mobility between major portions of the city and to regional freeways and highways. Minor arterials provide mobility through the city and access to major residential, employment, and activity centers. On-street parking should not be provided on major arterials but may be appropriate for minor arterials that emphasize accessibility over mobility. Minor arterials should provide two travel lanes. Driveway access should be minimized, consistent with the primary function of arterials to move through traffic. Bike lanes, landscaped parkstrips, sidewalks, and transit facilities may also be accommodated within the right-of-way of minor arterials, depending on the right-of-way width.

Parkways. Parkways provide an attractive, limited access link between residential communities and commercial centers. Parkways should be tree-lined with landscaped medians. Curbs should be provided but curb cuts should be limited. On-street parking should not be provided. Parkways should provide four travel lanes and accommodate higher-speed travel.

Collectors. Collector streets provide a link between neighborhood streets and arterials. Collectors provide two travel lanes, in addition to any bike lanes where called for in the bikeway plan. In fact, all collectors should be designed to include bicycle lanes. On-street parking may be provided if sufficient width is available. Collectors also provide access to adjacent properties, so driveway access should be discouraged but need not be restricted (subject to accepted engineering practice). Collector streets are shown on the General Plan Diagram. Bike lanes, landscaped parkstrips, sidewalks, and transit facilities may also be accommodated depending on the right-of-way available.

Neighborhood Streets. The primary function of neighborhood streets is to provide direct access to adjacent properties. Neighborhood streets should provide two travel lanes, landscaped parkstrips, and sidewalks. On-street parking may be restricted. Bike lanes are usually not needed because neighborhood streets carry low traffic volumes and all neighborhood streets are considered to be bicycle friendly. Neighborhood streets are not shown on the General Plan Diagram or Figure 5.1: Roadway System and Functional Classifications.

LEVEL OF SERVICE

To determine the operating conditions of a roadway segment or intersection, the concept of level of service (LOS) is commonly used. The LOS grading system is a ratings scale ranging from LOS A to LOS F, with LOS A representing free-flow conditions and LOS F representing congested conditions (see Table 5-1). This element establishes LOS policies for use in the development review process. In addition, the *Route Concept Report (RCR) – State Route 20*, Caltrans District 3, published in July 1989, identifies LOS E as the concept criteria for study intersections and roadways on State Route (SR) 20 segments located within the Yuba City limits.

Table 5-1: Traffic LOS Definitions.

LOS	Traffic Flow Conditions
A	Free-flowing; speed is controlled by drivers' desires, stipulated speed limits, or physical roadway conditions.
B	Stable flow; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.
C	Stable flow; speeds and maneuverability more closely restricted; occasional backups behind left-turning vehicles at intersections.
D	Conditions approach unstable flow; tolerable speeds can be maintained but temporary restrictions may cause extensive delays; little freedom to maneuver; comfort and convenience low; at intersections, some motorists, especially those making left turns, may wait through one or more signal changes.
E	Conditions approach capacity; unstable flow with stoppages of momentary duration; maneuverability severely limited.
F	Forced flow conditions; stoppages for long periods; low operating speeds. Delays at intersections average 60 seconds or more.

Also, based on the *Route Concept Report (RCR) – State Route 99*, Caltrans District 3, published in July 1989, SR 99 has a concept LOS of E from Bogue Road north to the junction with SR 20. North of SR 20, SR 99 has a concept LOS of D.

2001 TRAFFIC CONDITIONS

Roadway Segments

Traffic conditions, based on traffic counts conducted in October 2001, for forty road segments in Yuba City are shown in Table 5-2. Based on the roadway LOS thresholds, all the study roadway segments included in Table 5-2 operate at acceptable LOS except for the following locations:

- SR 20, east of Sutter, the Feather River Bridge, is operating at LOS F. The existing four lanes on the bridge cannot accommodate the high traffic volume of approximately 42,000 vehicles per day. The bridge becomes a “bottleneck” and reduces the transportation mobility between Yuba City and the City of Marysville.
- The Twin Cities Bridge is operating at LOS F. The existing two-lane bridge cannot adequately accommodate the high traffic volume of approximately 22,000 vehicles per day.
- Gray Avenue between Washington Avenue and State Route 20 carries approximately 18,600 daily trips and operates at LOS D.

Both of the existing bridges are exempted from the City’s roadway LOS requirements, as noted in policy 5.2-I-12.

Intersections

Traffic conditions, based on peak hour traffic counts conducted in October 2001, for fourteen intersections in Yuba City are shown in Table 5-3. Based on the intersection LOS thresholds, all the study intersections included in Table 5-3 operate at acceptable LOS or better, with the exception of the following locations:

- Queens Avenue/Stabler lane operates at LOS E in the a.m. peak hour.
- Queens Avenue/West Onstott Frontage Road operates at LOS E in both a.m. and p.m. peak hours. However, the methodology used to determine LOS for two-way stop-controlled intersections refers to the movement with the worst delay. The overall operation of the intersection is LOS C or better during both peak hours.

Table 5-2: Daily Roadway Segment Operations Summary – October 2001

Roadway	Segment	Functional Class	Daily Volumes	LOS
SR 99	Queens Ave. to Pease Rd.	Freeway	16,000	B
SR 99	Butte House Rd. to Queens Ave.	Freeway	18,000	B
SR 99	SR 20 to Butte House Rd.	Freeway	19,600	C
SR 99	Louise Ave. to SR 20	Highway	30,000	D
SR 99	Bridge St. to Louise Ave.	Highway	28,000	D
SR 99	Franklin Ave. to Whyler Rd.	Highway	30,500	D
SR 99	Hunn Rd. to Franklin Ave.	Highway	27,500	D
SR 99	Lincoln Rd. to Richland Rd.	Highway	20,200	C
SR 99	Smith Rd. to Lincoln Rd.	Highway	19,600	C
SR 99	Bogue Rd. to Smith Rd.	Highway	19,600	E
SR 99	Stewart Rd. to Bogue Rd.	Highway	16,100	E
SR 20	Township Rd. to George Washington Blvd.	Highway	12,400	B
SR 20	George Washington Blvd to El Margarita Rd.	Highway	16,000	B
SR 20	Walton Ave./Stabler Ln. to Civic Center	Highway	29,500	D
SR 20	Civic Center to SR 99	Highway	30,000	D
SR 20	SR 99 to Gray Ave.	Highway	36,000	C
SR 20	Orange St. to Live Oak Blvd.	Highway	47,000	D
SR 20	Live Oak Blvd. to Chestnut St.	Highway	44,000	D
SR 20	East of Sutter St. (Feather River Bridge)	Highway	42,000	F
Bogue Rd.	Walton Ave. to Highway 99	Minor Arterial	5,790	B
Bogue Rd.	SR 99 to Railroad Ave.	Minor Arterial	5,860	B
Bridge St.	Clark Ave to Plumas St.	Major Arterial	18,130	C
Bridge St.	East of Second St. (Twin Cities Bridge)	Minor Arterial	22,000	F
Butte House Rd.	Township Rd. to Royo Ranchero Dr.	Minor Arterial	3,770	B
Butte House Rd.	Tierra Buena Rd. to Harter Rd.	Minor Arterial	10,530	B
Butte House Rd.	Highway 99 to Gray Ave.	Minor Arterial	10,610	C
Franklin Rd.	Walton Ave. to Little John Rd.	Minor Arterial	11,560	C
Franklin Rd.	Gray Ave. to Clark Ave.	Minor Arterial	12,920	C
Franklin Rd.	Park Ave. to Percy Ave.	Minor Arterial	8,320	B
Garden Highway	Lincoln Rd. to Teesdale Rd.	Major Arterial	13,490	C
Gray Ave.	Washington Ave. to SR 20	Minor Arterial	18,400	D
Lincoln Rd.	Walton Ave. to Highway 99	Minor Arterial	10,590	B
Live Oak Blvd.	Pease Rd. to Northgate Dr.	Minor Arterial	7,910	C
Percy Ave.	Main St. to Garden Highway	Major Arterial	6,810	C
Market St.	Lynn Way to Ainsley Ave.	Minor Arterial	7,580	B
Queens Ave.	Clark Ave. to Live Oak Blvd.	Minor Arterial	8,420	B
Second St.	B St. to Franklin Rd.	Minor Arterial	13,240	C
Stabler Lane	Queens Ave. to Butte House Rd.	Minor Arterial	10,640	B
Stabler Lane	Butte House Rd. to Poole Blvd.	Major Arterial	11,100	C
Walton Ave.	Cherry Street to McCune Ave.	Minor Arterial	10,460	B

Source: Fehr & Peers Associates, 2001

Table 5-3: Peak Hour Intersection Operations Summary – 2002 Conditions

Intersection	Traffic Control	LOS (Delay in seconds per vehicle)	
		AM Peak Hour	PM Peak Hour
Queens Ave./Stabler Ln.	All-Way Stop	E (45.4)	B (11.6)
Queens Ave./W. Onslott Rd. Frontage	Side Street Stop	E (38.0)	E (38.9)
SR 20/Township Road	Signal	B (10.5)	B (10.3)
SR 20/George Washington Blvd.	Signal	B (12.8)	B (14.6)
SR 20/Harter Rd.	Signal	A (10.0)	B (10.6)
SR 20/Tharp Rd.	Signal	C (23.1)	B (14.7)
SR 20/SR 99	Signal	D (52.1)	C (30.5)
SR 20/Gray Ave.	Signal	C (34.5)	C (22.4)
SR 20/Plumas St.	Signal	C (30.3)	C (20.3)
Bridge St./Walton Ave.	Signal	D (38.8)	B (17.4)
Bridge St./Plumas St.	Signal	C (26.5)	C (22.2)
Franklin Rd./Walton Ave.	Signal	C (31.3)	C (26.5)
Franklin Rd./SR 99	Signal	C (34.5)	C (31.8)
Lincoln Rd./SR 99	Signal	D (47.5)	D (46.8)

Source: Fehr & Peers Associates, 2001

PLANNED IMPROVEMENTS TO ACCOMMODATE BUILDOUT

To achieve a balance between existing and future land use and traffic carrying capacity, improvements to the roadway network are planned. Major street improvements planned or programmed for Yuba City are listed in Table 5-4 and shown in Figure 5-1. These improvements include enhancements to Highway 99 and State Route 20. Highway 99 will be widened between Bogue Road and Lincoln Road to 6 lanes. State Route 20 from Highway 99 to Civic Center Drive is proposed to be widened from 4 to 6 lanes. Other key improvements include two new north-south parkways to provide better connections; a new bridge as an extension of Lincoln Road; and numerous new collector and local streets, as shown in Figure 5-1, to provide a well-connected circulation system.

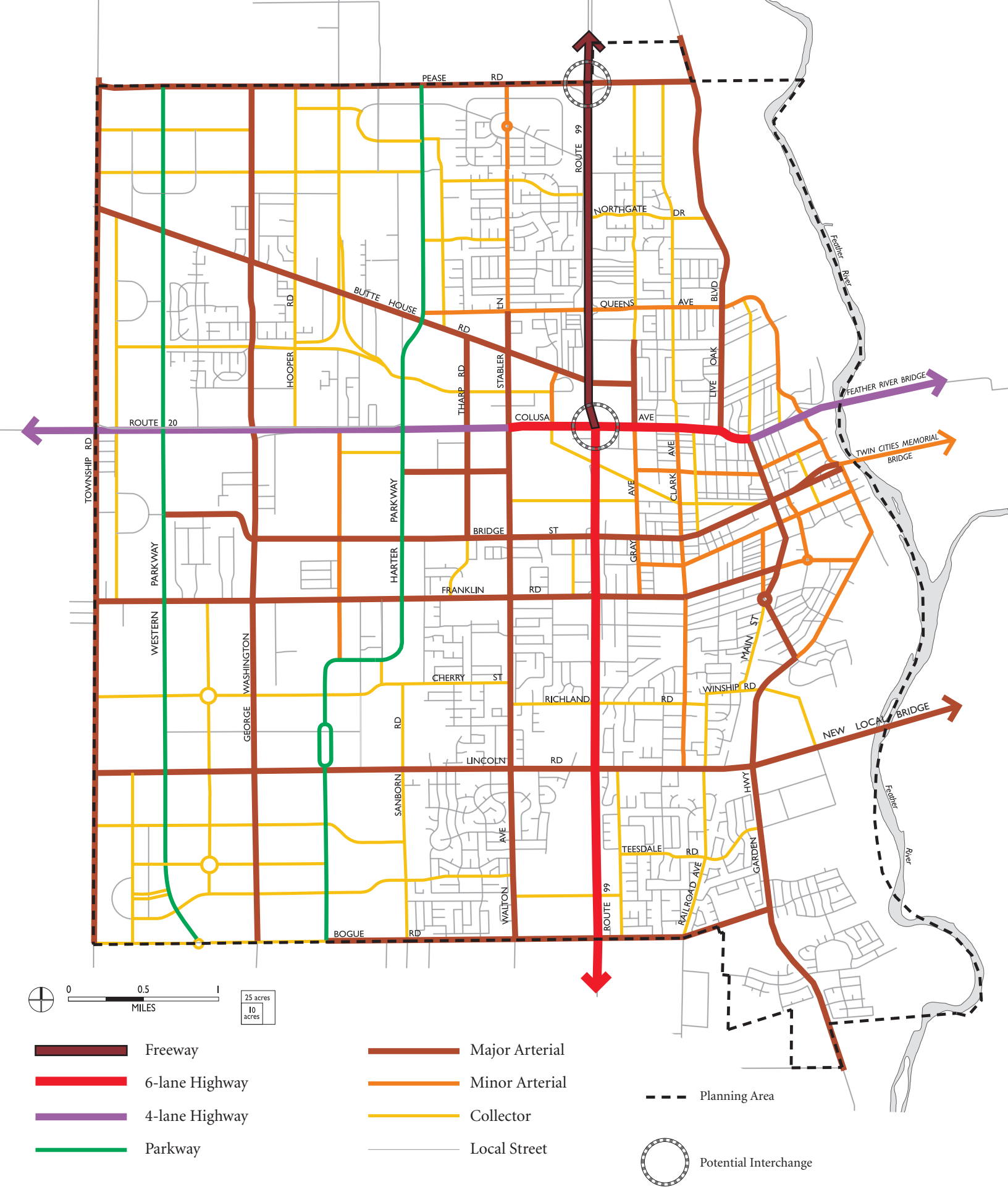


Figure 5-1
Roadway Network

Table 5-4: Major Planned Street Improvements

<i>Roadway</i>	<i>Improvement Description</i>
New Highway Interchanges	
Pease Road/SR-99	
SR-20/SR-99	
Highway Widening/Upgrading	
SR-20, SR-99 to Stabler Ln./Walton Ave.	Widen to 6 lanes
SR-20, Stabler Ln. to Township Rd.	Upgrade to urban arterial standard
SR-99, SR-20 to Bogue Rd.	Widen to 6 lanes and upgrade to urban arterial standard
SR-99, Bogue Rd. to Lincoln Rd.	Widen to 4 lanes with a continuous left-turn lane
Upgrade Existing Roads and Develop New Connections	
Pease Rd., Township Rd. to SR 99	Upgrade to 4-lane arterial
Butte House Rd., Township Rd. to SR 99	Upgrade to 4-lane arterial
Bridge St., Western Parkway to SR 99	Extend and upgrade to 4-lane arterial
Franklin Rd., Township Rd. to Plumas Blvd.	Upgrade to 4-lane arterial
Lincoln Rd., Township Rd. to Garden Highway	Upgrade to 4-lane arterial
Bogue Rd., George Washington Blvd. to Garden Highway	Upgrade to 4-lane arterial
Garden Hwy., Epley Dr. to Percy Ave.	Upgrade to 4-lane arterial
Plumas Blvd., Franklin Rd. to Bridge St.	Upgrade to 4-lane arterial
Walton Ave., Bogue Rd. to SR 20	Upgrade to 4-lane arterial
Stabler Ln., Butte House Rd. to Queens Ave.	Upgrade to 4-lane arterial
Tharp Rd., Butte House Rd. to Bridge St.	Upgrade to 4-lane arterial
George Washington Rd., Bogue Rd. to Pease Rd.	Extend and upgrade to 4-lane arterial
Lassen Blvd., Walton Ave. to Harter Parkway	Upgrade to 4-lane arterial
New 4-lane Bridge on Lincoln Rd.	Connects Lincoln Rd. and Erle Rd.
New Western Parkway	4-lane north-south connection through city
New Harter Parkway (extension of Harter)	4-lane north-south connection through city
El Margarita Rd., Harter Parkway to SR 20	Upgrade to 2-lane minor arterial
Wilbur Ave., Franklin Rd. to Bridge St.	Upgrade to 2-lane minor arterial
New east-west collector from Walton Ave. to Gray Ave.	North of Bridge St.
New Railroad Collector	Connects SR 20 and Bridge St.
Queens Ave, Butte House to SR 99	Extension
Clark Ave. (Bunce), Richland to Franklin Rd.	From Collector to 2-lane arterial

CONNECTIVITY

The traditional grid system in Yuba City’s older neighborhoods allows for through movement and good connections between and within neighborhoods. Short blocks offer a choice of routes and enable more direct connections. While Yuba City's traditional neighborhoods are based on an orthogonal grid, variations can also allow for diagonal and curvilinear streets as well as larger or smaller blocks for maximum flexibility and improved connectivity.

In contrast, many of the recently-completed neighborhoods are built using many cul-de-sacs. This type of design promotes circuitous travel and results in traffic being distributed along fewer streets where heavy traffic walls-in neighborhoods and requires sound walls. More desirable is a grid-based development that balances sense of proximity and ease of access with the quieter environments of the newer neighborhoods.

In order to ensure that street layout in future development incorporates the need for neighborhood connectivity and the comfort and safety of pedestrians and bicyclists consistent with the Community Design Chapter, it is essential that:

- New development be more "connected" to the surroundings with an increased number of access points and pedestrian and bicycle connections to the neighborhood network;
- Blocks be short to allow for more direct connections;
- Neighborhood streets be designed at a human-scale, without excessive cross-sections; and
- Traffic controls, including speed limits, signage and truck routes, restrict commercial traffic in neighborhoods.

GUIDING POLICIES

Circulation and Street System

- 5.2-G-1 Promote safe and efficient vehicle circulation.
- 5.2-G-2 Make efficient use of existing transportation facilities, and, through the arrangement of land uses, improved alternate transportation modes, and provision of more direct routes for pedestrians and bicyclists, strive to reduce the total vehicle-miles traveled per household.
- 5.2-G-3 Provide fair and equitable means for paying for future street improvements.
- 5.2-G-4 Coordinate local actions with state and County agencies to ensure consistency.

Traffic Level of Service

- 5.2-G-5 Maintain acceptable levels of service and ensure that future development and the circulation system are in balance.

Arterial Roadways

- 5.2-G-6 Design arterial roadways to carry high-volume, higher-speed traffic, thereby minimizing through traffic residential streets. Develop a system of arterial roadways in the form of a grid of four-lane arterials that will distribute traffic evenly and will avoid excessive concentrations of traffic in any given area.
- 5.2-G-7 Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, prohibiting residential access, and requiring sufficient off-street parking to meet the needs of each project.

- 5.2-G-8 Provide center turn lanes in areas with existing “front-on” development. Planted medians are preferred in areas without existing front-on development.

Parkways

- 5.2-G-9 Design parkways to provide attractive, higher-speed, tree-lined roadways with limited access between residential and commercial areas.

Collector and Local Roadways

- 5.2-G-10 Design and reconfigure collector and local roadways to improve circulation and to connect residential and commercial areas of the City.

IMPLEMENTING POLICIES

Circulation and Street System

- 5.2-I-1 Locate arterials and collectors according to the general alignments shown in Figure 5-1. Minor variations from the depicted alignments will not require a General Plan amendment.
- 5.2-I-2 Establish precise alignments and cross-sections based on the General Plan Diagram and Figure 5-1 in order to identify future right-of-way needs.

This can be done by adjusting an “official map” that delineates future right-of-way lines.

- 5.2-I-3 Adopt street standards that provide flexibility in design, especially in residential neighborhoods. Revise right of way and pavement standards to reflect adjacent land use and/or anticipated traffic, and permit reduced right of way dimensions where necessary to maintain neighborhood character.
- 5.2-I-4 Require all new developments to provide right-of-way and improvements consistent with street designations on Figure 5-1 and City street section standards.
- 5.2-I-5 Continue to require that new development pays a fair share of the costs of street and other traffic and transportation improvements based on traffic generated and impacts on service levels.
- 5.2-I-6 Require city-wide traffic impact fees on all new development to ensure that transportation improvements keep pace with new development.

The objective of this policy is to establish a secure funding source to enable timely construction of traffic improvements. Citywide impact fees have been an extremely successful way of accomplishing infrastructure improvements throughout California. The City intends to ensure that no additional development is approved without a concurrent commitment by the City and/or the developer to construct commensurate transportation improvements, as needed, or to pay appropriate fees in lieu of, to serve the development and maintain acceptable levels of service on roadways and intersections.

Transportation

- 5.2-I-7 When constructing or modifying roadways, plan for usage of the roadway space by all users, including motor vehicles, transit vehicles, bicyclists, and pedestrians.
- 5.2-I-8 Continue to work with Caltrans to achieve timely construction of programmed freeway and interchange improvements and state highway improvements.
- 5.2-I-9 Work with Caltrans and regional authorities to develop a minimum of four additional traffic lanes of cross-river capacity by the end of the General Plan period.

This would be accomplished by a 3rd bridge.

- 5.2-I-10 Work with SACOG to ensure that General Plan amendments are incorporated in the regional traffic model and incorporated into analysis required for Metropolitan Transportation Improvement Plan updates.
- 5.2-I-11 Maintain the street network through a regular maintenance program, repave streets on a regular basis, and require that any pavement that has been damaged or dug up be returned to its original condition, with no bumps or ruts.

Street maintenance and repaving programs should be based on current technology and accepted practices to maximize available revenues and improvements.

Traffic Level of Service

- 5.2-I-12 Develop and manage the roadway system to obtain LOS D or better for all major roadways and intersections in the City. This policy does not extend to residential streets (i.e., streets with direct driveway access to homes) or bridges across the Feather River nor does the policy apply to state highways and their intersections, where Caltrans policies apply. Exceptions to LOS D policy may be allowed by the City Council in areas, such as downtown, where allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the Council shall be added to the list of exceptions below:

- SR 20 (SR 99 to Feather River Bridge) – LOS F is acceptable;
- SR 20 (Feather River Bridge) – LOS F is acceptable;
- Bridge Street (Twin Cities Bridge) – LOS F is acceptable; and
- Lincoln Road (New Bridge across the Feather River) – LOS F is acceptable.

No new development will be approved unless it can be shown that required level of service can be maintained on the affected roadways.

- 5.2-I-13 Develop and manage residential streets (i.e., streets with direct driveway access to homes) to limit average daily vehicle traffic volumes to 2,500 or less and 85th percentile speeds to 25 miles per hour or less.
- 5.2-I-14 Require traffic impact studies for all proposed new developments that will generate significant amounts of traffic.

Specific thresholds will be based on location and project type, and exceptions may be granted where traffic studies have been completed for adjacent development.

- 5.2-I-15 Improve intersections as needed to maintain LOS standards and safety on major arterials.
- 5.2-I-16 Establish and implement additional programs to maintain adequate levels of service at intersections and along roadway segments as circumstances warrant, including the following actions:
- Collect and analyze traffic volume data on a regular basis and monitor current intersection and roadway segment levels of service on a regular basis. Use this information to update and refine the City's travel forecasting model so that estimates of future conditions are more strongly based upon local travel behavior and trends.
 - Consider, on a case by case basis, how to shift travel demand away from the peak period, especially in those situations where peak traffic problems result from a few major generators (e.g. outlying employment locations), and how major roadway capital investments can be deferred and/or reallocated to more pressing needs.
 - Perform routine, ongoing evaluation of the efficiency of the urban street traffic control system, with emphasis on traffic signal timing, phasing and coordination to optimize traffic flow along arterial corridors. Use traffic control systems to balance arterial street utilization (e.g., timing and phasing for turn movements, peak period and off-peak signal timing plans).
- 5.2-I-17 Monitor regional/arterial street LOS at regular intervals to determine if the LOS standard is being met, and provide information needed to maintain a calibrated citywide traffic model.

Parkways

- 5.2-I-18 Develop two parkways along the alignments shown in Figure 5-1.

These parkways should have four travel lanes, a planted median, turn pockets where appropriate, Class I or II bicycle lanes, detached sidewalks, and generous planting strips.



Left-turn pockets should be integrated into landscape medians.

- 5.2-I-19 Prohibit on-street parking along parkways where there is “front-on” development.
- 5.2-I-20 Require a minimum average distance of one quarter mile between parkway intersections, except in commercial areas or other high volume traffic areas.

See also Chapter 4: Community Design policies on parkways.

Collectors and Neighborhood Streets

- 5.2-I-21 Implement traffic calming measures to slow traffic on local and collector residential streets and prioritize these measures over congestion management. Include roundabouts, traffic circles, and other traffic calming devices among these measures.

5.2-I-22 Provide for greater street connectivity by:

- Incorporating in subdivision regulations requirements for a minimum number of access points to existing local or collector streets for each development (e.g. at least two access points for every 10 acres of development);
- Encouraging circles and roundabouts over signals.
- Requiring the bicycle and pedestrian connections from cul-de-sacs to nearby public areas and main streets.
- Requiring new residential communities undeveloped land planned for urban uses to provide stubs for future connections to the edge of the property line. Where stubs exist on adjacent properties, new streets within the development should connect to these stubs.

5.3 TRANSIT

Transit service and facilities in Yuba City are provided by both public and private operators. The following outlines each service and identifies major facilities.

Public Transit

Yuba-Sutter Transit is the public transit operator for Yuba City, providing many transit options for residents and visitors. Yuba-Sutter Transit currently operates four fixed routes within the City with loops connecting major activity centers, residential neighborhoods, Caltrans Park & Ride facilities, and the City of Marysville. A Dial-A-Ride service is provided for senior citizens, disabled persons, or residents that live beyond one-quarter mile from a fixed-route. The Yuba-Sutter Transit fixed-routes are shown on Figure 5-2, as are major transit stops and transfer stations.

Service outside Yuba City includes a weekday commuter express service to and from Sacramento and Lincoln. A weekday regional service is also provided which includes round trips to and from Live Oak, Wheatland, and the foothills.

Private Service

Private transit service in Yuba City is provided by taxi and limousine services.

GUIDING POLICIES

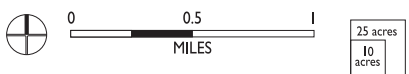
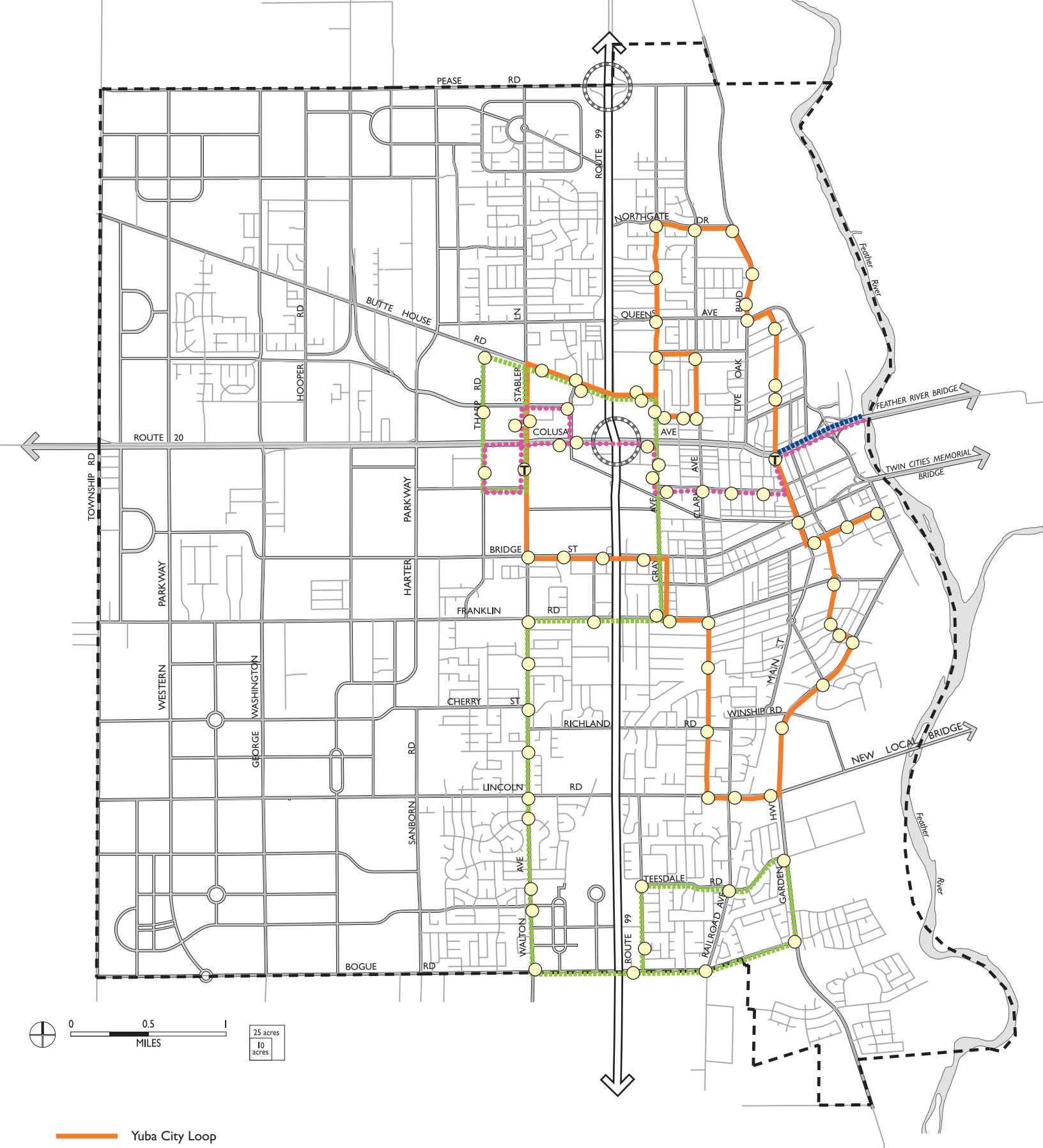
5.3-G-1 Continue to expand and improve the existing transit network to provide convenient and efficient public transportation to workplaces, shopping, and other destinations.

5.3-G-2 Preserve options for future transit use when designing improvements for roadways.

IMPLEMENTING POLICIES

5.3-I-1 Cooperate with public agencies and other jurisdictions to promote local and regional public transit service in Yuba City.

- 5.3-I-2 Work with Yuba-Sutter Transit to situate transit stops and hubs at locations that are convenient for transit users, and promote increased transit ridership through the provision of shelters, benches, and other amenities.
- 5.3-I-3 Coordinate with Caltrans and Yuba-Sutter Transit to identify and implement Park & Ride sites with convenient access to public transit.



- Yuba City Loop
- - - Southwest Yuba City
- - - Yuba City to Yuba City College
- - - Marysville Lop
- Ⓣ Transfer Station
- Bus Stop

Figure 5-2
Existing Transit Service

Require new development to provide transit improvements, where needed. This includes:

- Direct pedestrian access to transit stops;
- Bus turnouts and shelters; and
- Lane width to accommodate buses.

5.3-I-5 Ensure that new development is designed to make transit a viable choice for residents. Design options include:

- Have Neighborhood focal points with sheltered bus stops;
- Locate medium-high density development whenever feasible near streets served by transit; and
- Link neighborhoods to bus stops by continuous sidewalks or pedestrian paths.

5.3-I-6 Require community care facilities and senior housing projects with more than 25 units to provide accessible transportation services for the convenience of residents.

Provision of transportation services at large facilities will reduce demand on the Dial-A-Ride and fixed-route transit systems.

5.4 BICYCLE AND PEDESTRIAN CIRCULATION

Bicycling and walking are important modes of transportation and are inexpensive, energy conserving, and non-polluting. Yuba City's flat topography and warm climate, make choosing to walk or bicycle a attractive transportation option.

Although bicycle and pedestrian facilities are provided in Yuba City, some gaps still exist in the transportation networks for these modes. Some bicycle paths and bicycle lanes exist, but they are not continuous. As pedestrian and bicycle travel is directly related to perceived safety and convenience, providing a safe and complete network of pedestrian and bicycle facilities should continue to increase the use of these modes of travel, especially when crossing heavily traveled roads such as State Route 20 and Highway 99.

BIKEWAYS

There are three types of bikeway classifications, as shown in Table 5-5. A "Class I" bikeway, also referred to as a bike path, is a right-of-way that is completely separated from any street. A "Class II" bikeway, or bike lane, is a one-way, striped, and signed lane on a street. A "Class III" bike route shares the road with pedestrians and motor vehicle traffic and is marked only by signs.

In Yuba City, existing and planned bicycle facilities are identified in the Yuba-Sutter Bikeway Master Plan. This document also contains the goals and policies for providing bicycle facilities in Yuba City. Existing bicycle facilities in Yuba City primarily consist of Class II bike lanes on arterials and collectors.

Table 5-5 Bikeway Classifications

<i>Classification</i>	<i>Function</i>	<i>Access Control</i>	<i>Right-of-Way</i>
Class I - Bike Paths	Provide exclusive right-of-way for bicyclists with cross flows by motorists minimized.	Where crossing or access from the bicycle path is required, the crossing should be grade-separated or occur at pedestrian crossings. Mid-block crossings should assign right-of-way through signing or signalization.	Minimum of 8 feet for a two-way facility. The minimum paved width for a one-way bike path is 5 feet. A minimum 2-foot wide graded area shall be provided adjacent to the pavement, but a 3-foot graded area is recommended. Where pedestrian activity is expected, a minimum of 12 feet for a two-way facility should be provided.
Class II - Bike Lanes	To provide preferential use of the paved area of roadway for bicyclists by establishing specific lines of demarcation between areas reserved for bicycles and motorists.	Access should be controlled to minimize intersection and driveway crossings. At intersections where there is a bike lane and an actuated signal, it is desirable to install bicycle-sensitive detectors. Push button detectors force the bicyclists to stop and actuate the push button.	Class II bike lanes are one-way facilities. On roadways with parking, the bike lane is located between the parking area and the traffic lane with 5-foot minimums for the bike lane. Where parking is permitted and not marked, minimum width is 12 feet. On roadways where parking is prohibited, a minimum of 5 feet is required, including a 2-foot gutter.
Class III - Bike Routes	Provides a right of way designated by signs or permanent markings and shared with pedestrians and motorists.	Access should be controlled to minimize driveway crossings.	The width of a Class III bike route varies. It is desirable to have a minimum bicycle travel way, however, due to various constraints/conditions, a minimum width has not been established.

Source: Fehr & Peers 2003

PEDESTRIAN CIRCULATION

Pedestrian flow patterns show similarities to vehicular traffic stream characteristics. Speed, flow rate, and density are interrelated. Capacity and density for pedestrians are dependent on width of the walking facility and the type of walking facility (e.g., walkways, crosswalks, and street corners). For crosswalks, pedestrian capacity and waiting time is affected by turning vehicles, signal timing, pedestrian/vehicle right-of-way laws, and pedestrian platoons meeting in the middle of the street. Street corners at signalized intersections are holding areas as well, and can be a critical location in the sidewalk network.

While sidewalk capacity is not an issue, in general, all areas should be designed to a scale that accommodates pedestrians and bicyclists. Improvements in areas within the City that currently have undersized or no pedestrian facilities should be made a priority so that the pedestrian system will be better connected. The new neighborhood centers should also be designed to be "pedestrian friendly." In these areas, wider sidewalks should be considered to accommodate increased flows and to give

preferential treatment to pedestrians. Pedestrian-friendly facilities should also be provided near transit stops and adjacent to medium and higher density residential areas.

GUIDING POLICY

5.4-G-1 Develop a system of sidewalks and bikeways that promote safe walking and bicycle riding for transportation and recreation.



Downtown streetscape improvements have provided attractive spaces for pedestrians.

IMPLEMENTING POLICIES

5.4-I-1 Establish a network of on- and off-roadway bicycle routes and encourage their use for commute, recreational, and other trips. Design bike routes with the safety of cyclists as a priority.

5.4-I-2 Develop bicycle routes that provide access to schools, parks, and the Feather River Parkway.

5.4-I-3 Require bicycle parking, storage, and other support facilities as part of new office and retail developments, and public facilities.

5.4-I-4 Provide bicycle lanes with a minimum width of five feet (six feet along all parkways) on new streets and existing streets whenever they are widened to more than two travel lanes.

5.4-I-5 Plan for reuse of abandoned rail rights-of-way, and seek to acquire suitable rights-of-way for separate bicycle paths, as they become available.

State and Federal funding for “rails-to-trails” programs can help the City implement this policy. An example of how a bikeway and road can be developed along the abandoned railroad is shown in Figure 5-3.

5.4-I-6 Work with Sutter County and other agencies to update the Yuba-Sutter Bikeway Master Plan, implement a regional bikeway system and, maintain a regularly updated map of local and regional bikeways.

5.4-I-7 Increase bicycle safety by:

- Sweeping and repairing bicycle lanes and paths on a regular basis;
- Ensuring that bikeways are delineated and signed in accordance with Caltrans' standards, and lighting is provided, where needed;
- Providing bicycle paths or lanes on bridges and overpasses;
- Ensuring that all new and improved streets have bicycle-safe drainage grates and are free of hazards such as uneven pavement and gravel;

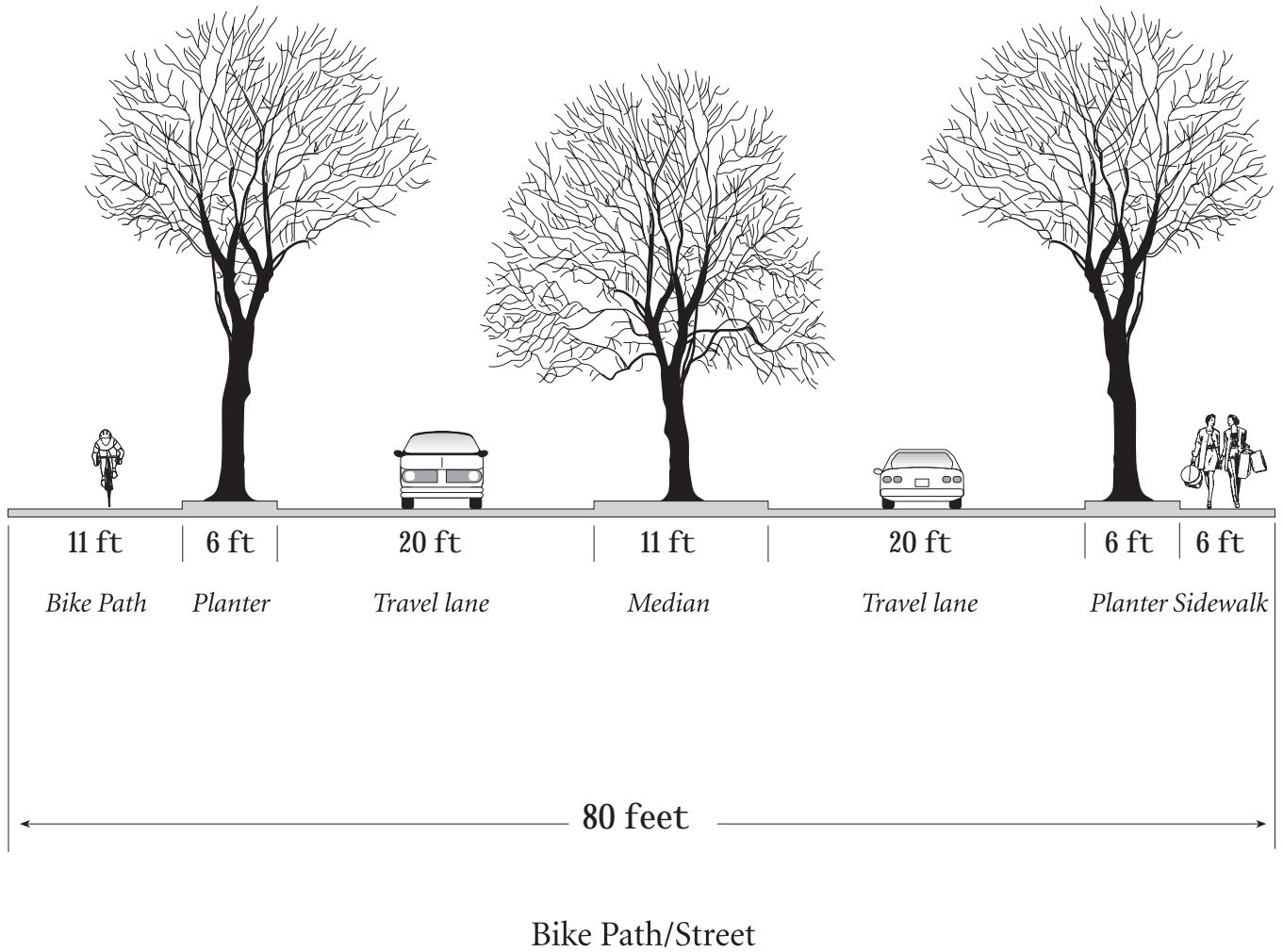


Figure 5-3
Bike Path/Street along UPRR Right-of-Way

- Provide adequate signage and markings warning vehicular traffic of the existence of merging or crossing bicycle traffic where bike routes and paths make transitions into or across roadways; and
 - Work with the Yuba City Unified School District to promote classes on bicycle safety in the schools.
- 5.4-I-8 Give bikes equal treatment in terms of provisions for safety and comfort on arterials and collectors as motor vehicles.
- 5.4-I-9 Develop a series of continuous walkways within new office parks, commercial districts, and residential neighborhoods so they connect to one another.
- 5.4-I-10 Provide for pedestrian-friendly zones in conjunction with the development, redevelopment, and design of mixed-use neighborhood core areas, the Downtown area, schools, parks, and other high use areas by:
- Providing intersection "bump outs" to reduce walking distances across streets in the Downtown and other high use areas;
 - Providing pedestrian facilities at all signalized intersections;
 - Providing landscaping that encourages pedestrian use; and
 - Constructing adequately lit and safe access through subdivision sites.
- 5.4-I-11 Establish specific standards for pedestrian facilities to be accessible to physically disabled persons, and ensure that roadway improvement projects address mobility or accessibility for bicyclists or pedestrians.

5.5 PARKING

It is important to balance the need for enough parking to sustain existing activity and attract new development with the need to reserve curb space for bus stops and with the City's financial ability to meet other public needs. Parking decisions affect land use and development patterns, as well as travel behavior. The placement and type of parking must accommodate the needs of businesses (who view parking as a marketing tool), pedestrians (who can view parking as a barrier when parking blocks walking paths), motorists (who want to park as close to their destination as possible), and residents (who desire both on-street and off-street parking).

GUIDING POLICIES

- 5.5-G-1 Provide attractive and convenient parking facilities.

IMPLEMENTING POLICIES

- 5.5-I-12 Use parking standards to support trip reduction goals by:
- Allowing parking reductions for projects that have agreed to implement trip reduction methods, such as paid parking, and for mixed-use developments; and

- Requiring projects preferential parking for carpools and vanpools in non-retail projects with more than 100 employees.

5.5-I-13 Expand public parking programs for the downtown area to alleviate future shortages.

5.5-I-14 Allow shared parking facilities and/or off-site parking facilities, whenever possible, to reduce the number of new parking stalls required.

5.5-I-15 Continue to limit non-residential parking in residential neighborhoods that serves adjacent commercial areas by adopting parking control strategies such as zoning restrictions, signs, or permit systems, where appropriate.

5.6 GOODS MOVEMENT

In addition to moving people, the roadway system in Yuba City carries a substantial number of trucks moving goods. Specific truck routes have been designated throughout the City and are shown on Figure 5.4. These routes are designed to allow truck traffic to pass through the City with minimal impact on residential neighborhoods as well as local vehicular and pedestrian traffic.

GUIDING POLICY

5.6-G-1 Provide adequate circulation and off-street parking and loading facilities for trucks and facilitate intermodal goods delivery.

IMPLEMENTING POLICIES

5.6-I-1 In consultation with Sutter County and Caltrans, designate and provide signed truck routes, ensure that adequate pavement depth, lane widths, bridge capacities, loading areas, and turn radii are maintained on the designated truck routes, and prohibit commercial trucks from non-truck routes except for deliveries.

Require that a truck route be provided for any approved development zoned regional commercial, community commercial, business technology and light industrial, or manufacturing, processing, and warehousing.

5.6-I-2 Maintain design standards for industrial streets that incorporate heavier loads associated with truck operations and larger turning radii to facilitate truck movements.

5.6-I-3 Continue to ensure adequate truck access to off-street loading areas in commercial areas.

5.6-I-4 Encourage regional freight movement on freeways and other appropriate routes; evaluate and implement vehicle weight limits as appropriate on arterial, collector, and local roadways to mitigate truck traffic impacts in the community.



Truck routes keep trucks out of neighborhoods.

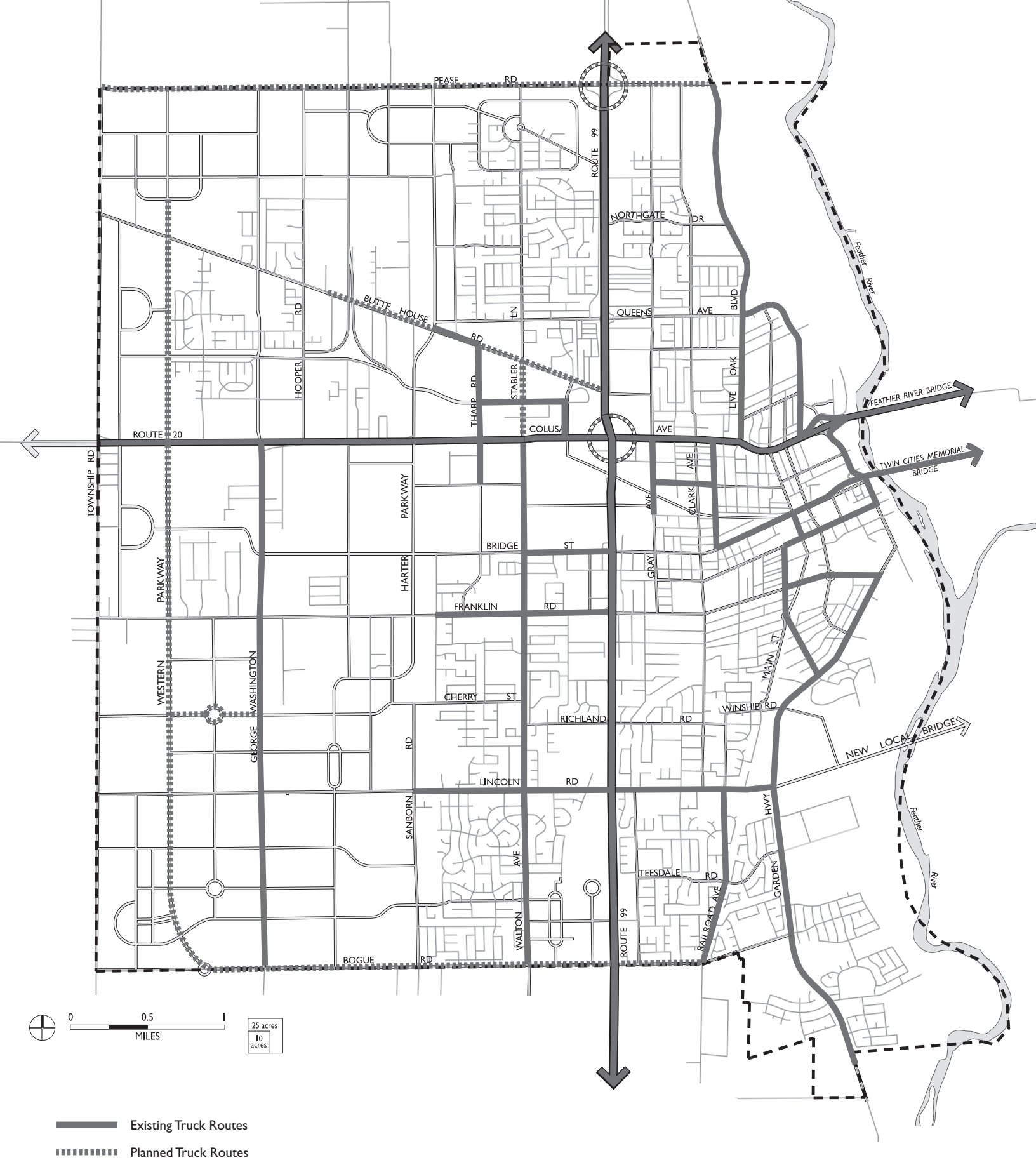


Figure 5-4
Truck Routes

5.7 AVIATION

Aviation facilities are provided by the Sutter County Airport, which is located between the Garden Highway and the Feather River. The airport is owned and operated by Sutter County and currently includes one runway, Runway 17/35, which is 3,040 feet long and 75 feet wide.

The airport is currently used primarily for agricultural aerial-spraying purposes and private use. Other uses include flight instruction, aircraft rentals, and aircraft sales. Approximately 110 flights a day occur at this airport.

5.8 REGIONAL COORDINATION

The Transportation Element identifies future circulation needs for a long-range planning horizon. These projects will be studied later in greater detail, and funding and implementation sources will be identified. Many of the projects, in order to be funded, must be part of local and regional programs, including the City's Capital Improvement Program, the Sutter and Yuba Counties Congestion Management Program (CMP), and the Regional Transportation Improvement Program (RTIP). Once a project is in the RTIP, it is available for consideration in the State Transportation Improvement Program (STIP).

The CMP ensures that an integrated approach to transportation programming decision making is followed. The CMP is intended to maintain transportation mobility in Sutter and Yuba Counties by establishing standards that encourage a balance of transportation modes, and by incorporating the transportation implications of land-use decisions in planning efforts. Cities within the County are responsible for conformance with the adopted service level standards on the principal arterial system defined by the CMP, and for transit standards. They are also responsible for the adoption and implementation of a trip-reduction and travel-demand ordinance and for developing a program to analyze the impacts of land use decisions. Where deficiencies in the system exist, deficiency plans must be adopted and methods of correcting the deficiencies identified. If deficiencies go unmitigated, the City could lose a portion of its gas tax revenues. Projects on the CMP are eligible for the RTIP and STIP.

Additional funding sources are available through the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, which revamped the nation's surface transportation programs (e.g., highway, transit, pedestrian, and bicycle facilities) to give state and local agencies increased funding, greater flexibility, and greater responsibility to select the mix of projects best suited to meet local needs. The ISTEA legislation allows Yuba City greater flexibility in determining federal funding for various surface transportation modes. This flexibility will help provide a more balanced transportation system and could impact the current funding structure if funds are shifted from street projects to transit projects or vice versa. No additional funds are available initially to the City, but this could change in the future.

GUIDING POLICY

5.8-G-1 Actively participate in local and regional transportation planning.

IMPLEMENTING POLICIES

5.8-I-1 Develop and implement action plans for routes of regional significance, in cooperation with Sutter County, SACOG, and the State of California.

5.8-I-2 Explore alternative circulation network improvements to accommodate regional through-traffic, focusing on regional/arterial street circulation and regional transportation routes.

5.8-I-3 Identify the impacts of land use decisions on regional as well as local transportation facilities.

5.8-I-4 Support regional air quality objectives through effective management of the City's transportation system.



The Sutter County airport is a key component of the regional transportation system.