3 TRANSPORTATION ELEMENT

The purpose of the Transportation Element is to define the long-term vision for citywide mobility by setting goals and policies that respond to existing conditions and future changes. This element defines the means to meet this vision by establishing standards that need to be met for transportation operations through the year 2035, and preserves right-of-way for transportation improvements that have the capacity to serve the ultimate buildout of the General Plan. This element balances the need to provide efficient and reliable ways to move people and goods by multiple transportation modes and routes with the overall vision of Vacaville as a safe, attractive community with walkable neighborhoods, vibrant retail districts, and economically strong employment areas. Looking forward, the transportation system should accommodate the planned growth of Vacaville, minimize environmental degradation, reduce vehicle miles travelled (VMT), and complement regional transportation and land use plans.

Transportation is, and will remain, a major issue for the citizens and businesses of Vacaville and will need to be balanced with the anticipated transportation impacts of new development. Regional freeway traffic will continue to affect Vacaville no matter what types of development occur within the city. The volume of traffic in Vacaville is expected to increase over the coming decades. Roadway and interchange improvements will be required to increase capacity capable of serving this increased traffic.

Land use patterns and transportation systems are directly related. Land use decisions drive the need for a transportation system, while the capacity of the transportation network may support or constrain land use options. Therefore, State law requires that the Transportation Element include "the general location and extent of existing and proposed major thoroughfares, transportation routes, (and) terminals… all correlated with the Land Use Element of the Plan" (Govt. Code, Sec. 65302[b]). The circulation network included in this Transportation Element is based on the land use map and designations contained in the Land Use Element.

The California Complete Streets Act (AB 1358), passed in 2008, requires all General Plan updates after January 1, 2011 to "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel" and defines "users of streets, roads, and highways" to include bicyclists, children, persons with disabilities, motorists, pedestrians, users of public transportation, and seniors. The policies and actions in this Transportation Element are intended to meet the requirements of Complete Streets legislation.

Senate Bill (SB) 743, passed in 2013, required the California Governor's Office of Planning and Research (OPR) to develop new guidelines that address traffic metrics under

the California Environmental Quality Act (CEQA). As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." In December 2018, OPR published *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which provided guidance for implementing SB 743. On December 28, 2018, the Resources Agency adopted CEQA Guidelines Section 15064.3. Under this guideline, Vehicle Miles of Travel (VMT) will be the primary metric used to identify transportation impacts. On July 1, 2020, the provisions of Section 15064.3 became effective statewide.

In May 2020, Caltrans published the *Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG)*, which replaced its *Guide for the Preparation of Traffic Impact Studies* (2002). The TISG endorses the policies, technical approaches, and recommendations from OPR's *Technical Advisory.* It also indicates that Caltrans intends to *"*transition away from requesting LOS or other vehicle operations analyses of land use projects", instead placing the focus on VMT and safety.

As a follow-up to the TISG, Caltrans published the *Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance* in July 2020. This document provides interim guidance for conducting safety reviews of land use projects and plans that may affect the State Highway System. Although the LDIGR *Safety Review Practitioners Guidance* stops short of including specific thresholds of significance or providing recommendations for how safety evaluations should be included in CEQA documents, it does clearly indicate that State's expectation that, when appropriate, CEQA studies of land use projects should include safety investigations of the State Highway System,. Furthermore, this document specifies that mitigation measures for identified safety impacts should avoid increasing roadway capacity, which may induce VMT or affect conditions for vulnerable users, such as bicyclists of pedestrians.

This element is divided into the following sections:

- **Existing Transportation System.** Describes the existing transportation system, including vehicular, transit, bicycle, pedestrian, freight movement, and aviation serving the mobility needs of residents and businesses in Vacaville.
- **Roadway Classifications and Standards.** Defines classifications and standards for the hierarchy of arterials, collectors, and local streets within the City's roadway network.
- **Standards for Traffic Service and Street Transportation Improvements.** Describes the performance standards for the transportation system.
- **Changes to the Transportation Network.** Describes the programmed, planned, and proposed improvements to the roadways, transit system, bicycle network, and pedestrian facilities.

- **Goals, Policies, and Actions.** Provides goals, policies, and actions to address the transportation and circulation needs of the city, including level of service standards and VMT thresholds.

The Transportation Element establishes the goals, policies, and actions related to transportation in Vacaville. Specific traffic implementation measures are established in the City's Municipal Code and as part of project-specific environmental assessment documents.

Existing Transportation System

This section describes the existing transportation and circulation systems and programs in the Vacaville area.

Roadway System

The city contains a hierarchy of roadways that serve different functions, ranging from the highway system to arterial, collector, and local streets. A subset of these roads are designated as regionally significant routes and are subject to regional policy considerations, as described in the sections below that summarize the Solano County Comprehensive Transportation Plan and Congestion Management Program. Vacaville's existing roadway system is shown in Figure TR-1.

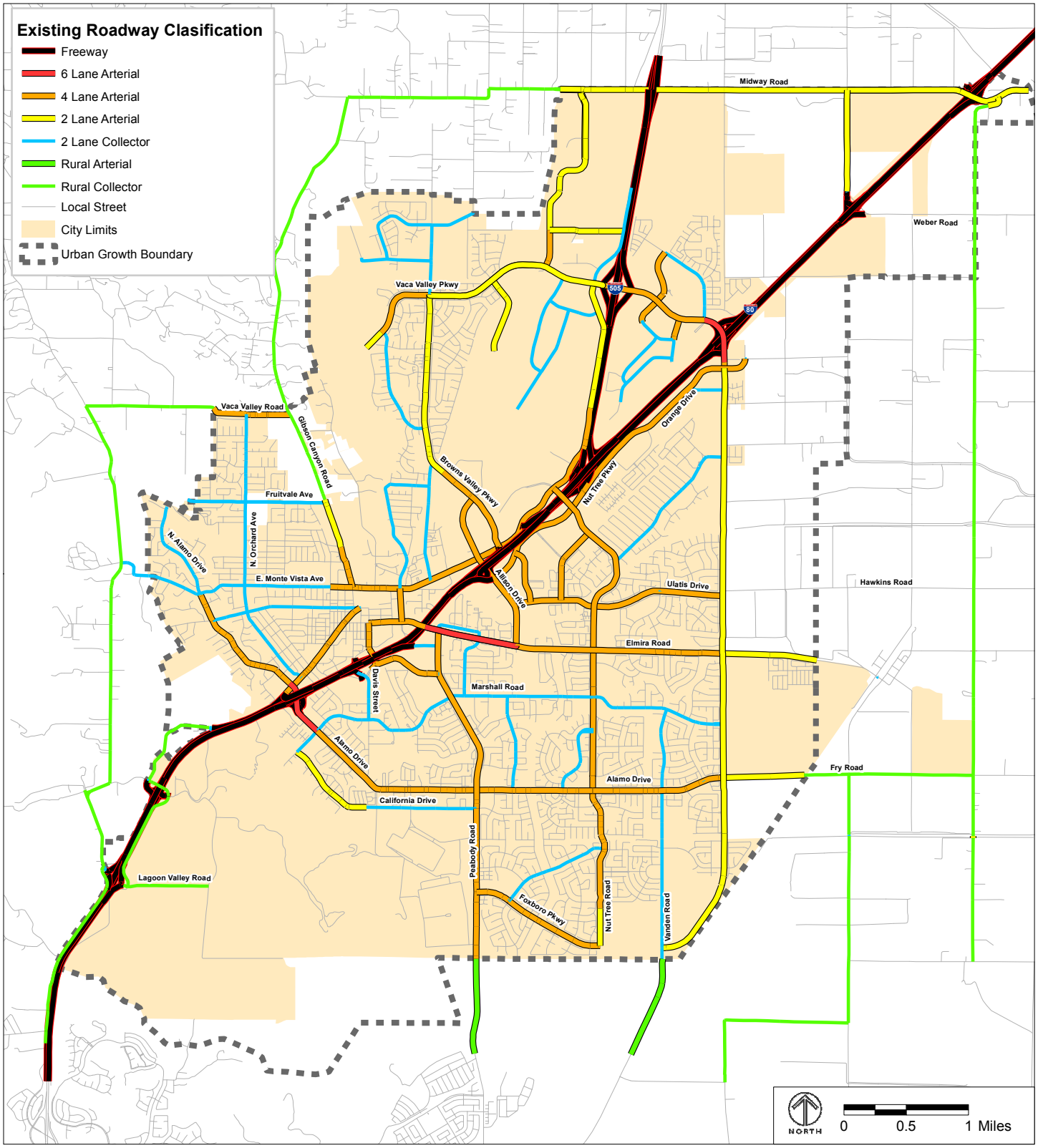
Highways

Vacaville is served by two freeways, Interstate 80 and Interstate 505, which are part of the interstate highway network.

Interstate 80 primarily has four travel lanes in each direction in the Vacaville area. It extends southwest through Fairfield and Vallejo, crosses the Carquinez and Oakland Bay Bridges, terminating at Highway 101 in San Francisco. It also extends northeast through Dixon and Davis, over the Sacramento River to Sacramento and beyond.

Interstate 505 links Interstate 80 with Interstate 5, a major north-south freeway serving the west coast of the United States. Interstate 505 has two travel lanes in each direction.

These freeways and their associated interchanges define the regional context, which affects the local access and circulation within Vacaville.



Source: City of Vacaville Existing Roadways as of 01/01/2012 and Solano Transportation Authority (STA) Comprehensive Transportation Plan 2011.

FIGURE TR-1
EXISTING ROADWAY SYSTEM

Local Street and Roadway System

The local street and roadway system is composed of a hierarchy of streets with varying functions. The classifications within this hierarchy are explained in detail in the Roadway Classifications and Standards section below. Arterial roads range from six-lane arterials, such as portions of Elmira Road, to four lane arterials, such as Peabody Road and Nut Tree Road. Two-lane roads can also be designated as arterial roads. Collectors, which have two travel lanes, include Orchard Avenue, Marshall Road, and Vanden Road. Local streets are primarily found in residential neighborhoods, carry little through traffic, and generally have the lowest traffic volumes. As shown in Figure TR-1, collector routes funnel traffic from local roadways to the arterial roadway network. In most cases, collector and local streets also serve as residential streets.

Routes of Regional Significance

The Solano County Comprehensive Transportation Plan (CTP), prepared by STA, envisions, directs, and prioritizes the transportation needs of Solano County. The CTP identifies ***Routes of Regional Significance,*** which are roadways that carry significant through traffic, connect two or more jurisdictions, serve major transportation hubs, or cross county lines. Since these routes are significant to the transportation network of the region, and serve more than local transportation needs, they are eligible for federal funding.

The Comprehensive Transportation Plan identifies long-term transportation needs for Solano County. In addition to Interstate 80 and Interstate 505, the CTP identifies local roadway segments within the Vacaville city limits and roadway segments within the county, adjacent to city limits as Routes of Regional Significance.

Congestion Management Program

The Solano County Congestion Management Program (CMP), prepared by STA identifies a CMP System for monitoring purposes, which consists of a subset of roadways identified as Routes of Regional Significance by the CTP. The CMP is a mobility monitoring and planning tool for counties that contain an urbanized area with a population of 200,000 or more. The major goals of the CMP are to maintain mobility on Solano County's streets and highways, and to ensure the County's transportation system operates effectively as part of the larger Bay Area and Northern California transportation systems. The CMP is updated every two years to reflect changes in the transportation network and travel.

State law requires that level-of-service (LOS) standards[1] be established as part of the CMP process. The purpose of setting LOS standards for the CMP system is to provide a quantitative tool to analyze the effects of land use changes to the system's performance (i.e. congestion). ~~If the actual system performance falls below the standard (i.e. congestion worsens to LOS F), actions must be taken to improve LOS.~~ Consistent with CEQA

[1] LOS is described in more detail in the Standards for Traffic Service and Transportation Improvements section below.

Guidelines Section 15064.3, congestion standards in the CMP are not used to determine the environmental impacts of a project.

Bicycle System

The relatively flat areas of the city, where most residents live and employees work, are attractive for both bicycle commuters and recreational riders. Figure TR-2, the City's Bicycle Master Plan Map, shows the existing and planned bicycle network in Vacaville. These bicycle routes are more expansive than the bikeways designated in the Solano Countywide Bicycle Plan, which was adopted by the Solano Transportation Authority (STA) in 2004. On street bike lanes and routes will be completed with the construction of new development or capital improvement projects, such as resurfacing of roadways. Off-street bike paths will be constructed with new development or as part of a capital improvement project.

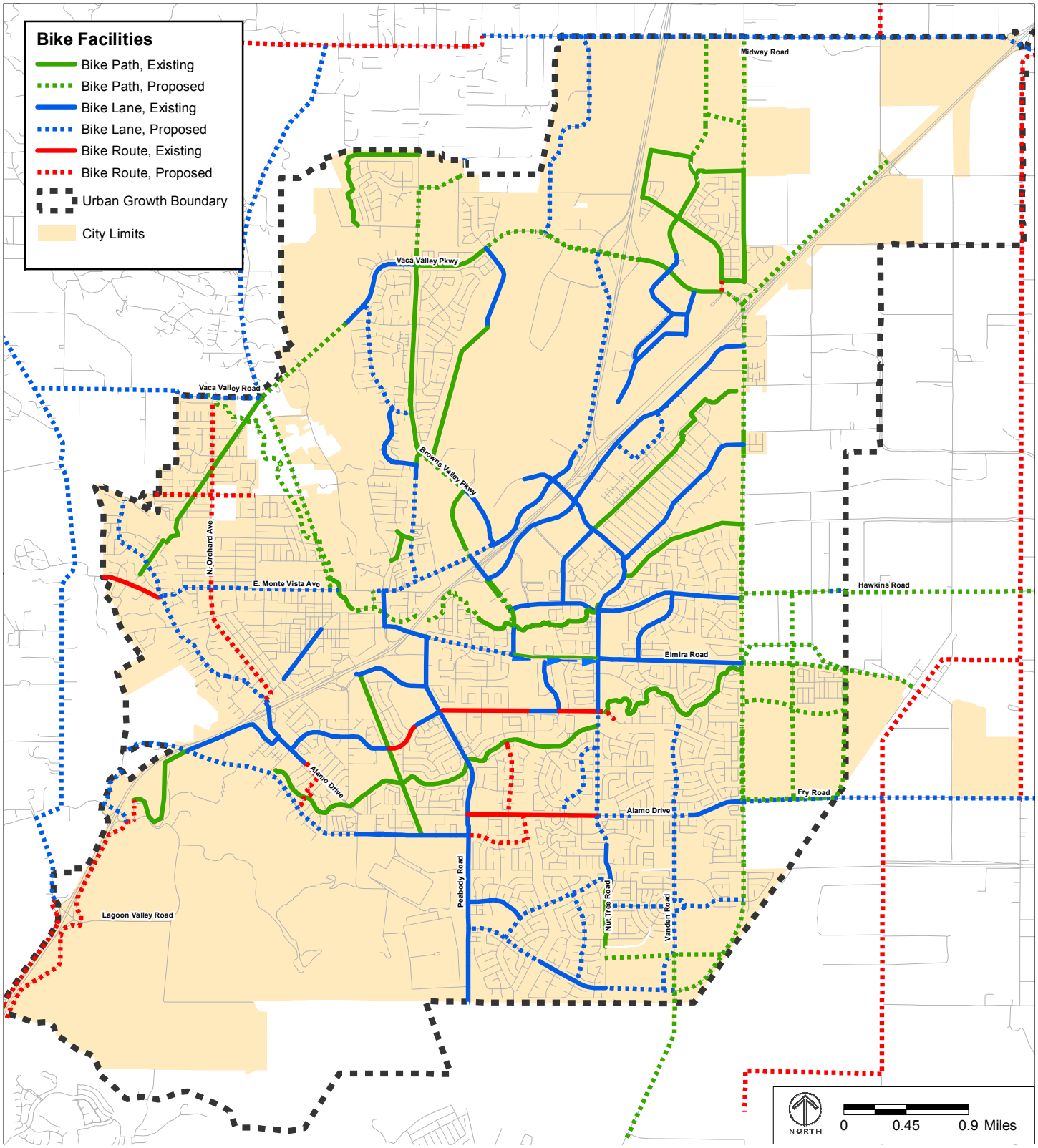
The City classifies bikeways into categories that are consistent with the City of Vacaville Standards, the California Streets and Highways Code (Section 890.4), the California Manual on Uniform Traffic Control Devices for Streets and Highways, and the Caltrans Highway Design Manual. These classifications are described below.

- ***Bike Path .*** Off-street bike paths are designated for the exclusive use of bicyclists and pedestrians, with minimal crossflows by motorists.
- ***Bike Lane.*** On-street, striped and signed bike lanes are designated for the exclusive or semi-exclusive use of bicycles alongside through travel by motor vehicles. Vehicle parking and crossflows by pedestrians and motorists are permitted adjacent to Class II bikeways.
- ***Bike Route.*** On-street, signed bike routes are designated for shared use by bicyclists with motorists. Bicycles are permitted on most roadways, but for safety purposes, signed bicycle routes are often found on streets with lower speeds and traffic volumes.

Pedestrian System

Vacaville has a well-established pedestrian network. Sidewalks with a raised curb and gutter are typically provided along arterial and collector streets, and in newer residential neighborhoods. Some older residential neighborhoods, constructed prior to sidewalks being a standard condition of approval, contain sidewalks with rolled curbs that are intermittently interrupted by landscaping and other obstructions. This is a prominent condition in the older neighborhoods located west of Downtown.

Most major intersections in the city have marked crosswalks and pedestrian crossing signals that can be activated by pedestrians. Pedestrian curb ramps are located at most intersections. High-contrast ***truncated domes*** – textured ground surface indicators to assist vision-impaired pedestrians – are provided at newer installations.



Source: City of Vacaville, Public Works Engineering Department, August 2012 (Existing) Solano Countywide Bicycle Plan, October 2004 (Proposed) STA Countywide Bicycle Transportation Plan, December 2011

FIGURE TR-2
BICYCLE ROUTES

Detectable warnings that comply with Americans with Disabilities Act (ADA) requirements have not yet been installed in Downtown, one of the areas of highest pedestrian activity. The City has an established ADA Committee to address priorities in providing ADA improvements.

Public Transit

Public transportation service in Vacaville includes local and regional bus service and taxi operations. Public transportation plays an important role in reducing traffic congestion within Vacaville, adjoining jurisdictions of Solano County, and along the Interstate 80 corridor. As residential growth continues, the City's public transit service will be a critical component in transporting individuals in a local capacity and in a broader commuter-based transportation system throughout Solano County and beyond.

The City's public transportation program does not receive funding through the City's General Fund. Instead, funding is derived from passenger fares, the State Transportation Development Act, the Federal Transit Administration, and various grants. These funding sources are finite, limited, and subject to established requirements. For example, State transit funding, provided by the State Transportation Development Act, requires a 20 percent ***farebox recovery***, meaning that for every dollar spent on operating expenses, 20 cents must be recouped from collected passenger fares. Anticipated ridership data derived from various sources, such as public transit interest surveys and short range transit plan documents, must demonstrate an adequate level of ridership to meet the 20 percent farebox recovery mandate before a bus route can be added or extended.

Bus Service

Bus service in Vacaville is provided by Vacaville City Coach, Fairfield and Suisun Transit (FAST), and YOLOBUS, as described further below.

- Vacaville City Coach, operated by the City of Vacaville, offers local service. Most of its routes either begin or end at one of the two City transportation centers: the Vacaville Transit Plaza, located at the corner of Monte Vista Avenue and Cernon Street in the Downtown, and the Vacaville Transportation Center, located at the northeasterly corner of Allison and Ulatis Drives, near access to the Interstate 80 corridor and a key commercial area.
- Fairfield and Suisun Transit (FAST), a public transportation agency, operates intercity service from the Vacaville Regional Transportation Center and the Bella Vista Park & Ride Lot.
- YOLOBUS, which is administered by the Yolo County Transportation District, offers one fixed bus route between Vacaville and Davis.

City Coach provides special services to eligible residents as an ADA paratransit service within Vacaville. Trips beyond the city limits may be specially arranged with City Coach.

Taxi Service

Vacaville is served by a number of privately-operated taxi companies, including Yellow Cab of Vacaville, Veteran's Cab, and Vacaville Checker Cab. In addition, the City of Vacaville administers the Taxi Scrip Program, which provides elderly and disabled Vacaville residents the opportunity to use Vacaville's local Taxi Cab companies at a discount to the regular fare. This program is subject to funding availability as part of the Solano Transportation Authority's mobility resources for seniors and people with disabilities.

Freight Movement

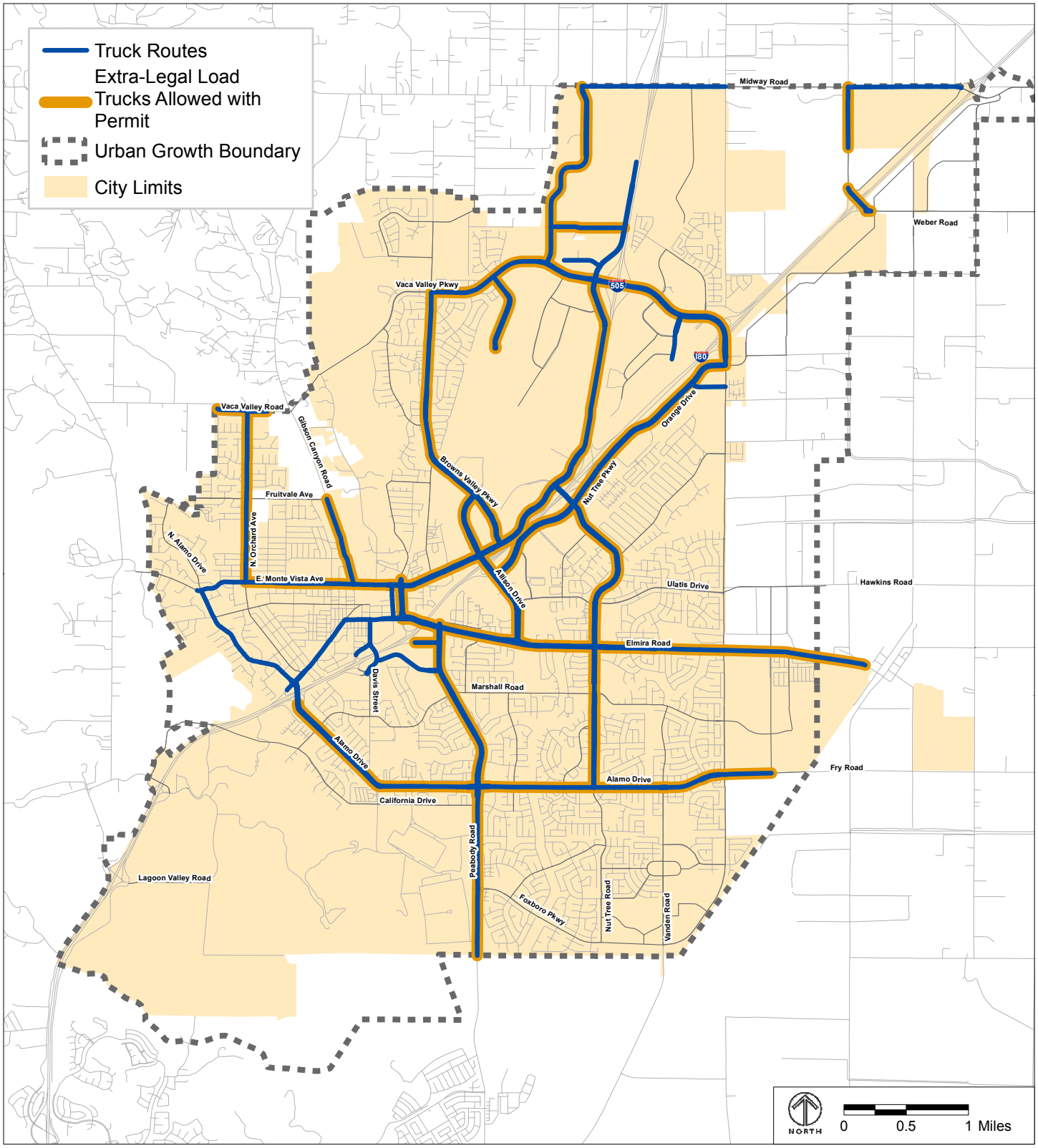
The City has established an extensive truck route network on which vehicles exceeding a gross vehicle weight rating of 5 tons (i.e. the City's definition of "trucks") must travel unless they are destined for, or originated from, points within the city. The shortest and most direct routes must be used to and from the truck routes, and/or between locations within the city. The City has also established an extra-legal permit process, patterned after a State process, for trucks with loads exceeding legal limits. Applications must specify truck dimensions and weights. Appropriate truck routes are approved and conditioned based on established City truck routes, and permits establish limitations for specific extra-legal truck dimensions and weight. Designated truck routes are shown in Figure TR-3 and are determined and identified by the Trucks and Truck Routes Within The City Limits Ordinance.

Aviation System

The Nut Tree Airport is a valuable resource for business and recreational air travel, while Travis Air Force Base is the home of the world's largest military cargo airlift. The Solano County Airport Land Use Commission (ALUC) has adopted plans for airport land use compatibility that will facilitate orderly development and avoid land use conflicts in the airport environs. Policies addressing land use compatibility around the Nut Tree Airport are located in the Land Use Element and in the Land Use and Development Code. Policies addressing Travis Air Force Base are located in the Conservation and Open Space Element.

Transportation Systems & Demand Management

The term Transportation Systems Management (TSM) refers to measures designed to more efficiently serve peak automobile traffic through the efficient use of existing transportation resources. Examples of TSM measures include optimizing signal timing, providing transit preemption, conducting improvements to reduce bottlenecks, and collecting traffic data to monitor and adjust operations. Strategies to reduce traffic demand, specifically that of single-occupancy private vehicles, and/or shift the demand to other modes and to non-peak travel periods are referred to as Transportation Demand Management (TDM). These strategies focus on public transit, flexible working hours, carpooling and vanpooling, and incentives to increase the use of these alternatives.



Source: City of Vacaville Municipal Code Chapter 10.32
Only Designates Truck Routes Within City Limits

FIGURE TR-3
TRUCK ROUTES

TDM has become increasingly important in the effort to reduce air quality impacts and greenhouse gas emissions in Solano County and elsewhere in the Bay Area. TDM strategies are also often applied to address project-related VMT impacts, as most of these strategies are intended to reduce the amount of miles driven in a private vehicle. ~~Consistent with State law, any TSM and TDM program must be achieved on a voluntary, rather than mandatory, basis.~~

Roadway Classifications and Standards

The road hierarchy in Vacaville is composed of three different functional classifications: arterial, collector, and local. Each road type performs a different function in moving people around the city. The design and construction standards for these roadway classifications are described in the City's Standard Specification for Public Improvements. Figure TR-4 depicts the recommended future roadways by type.

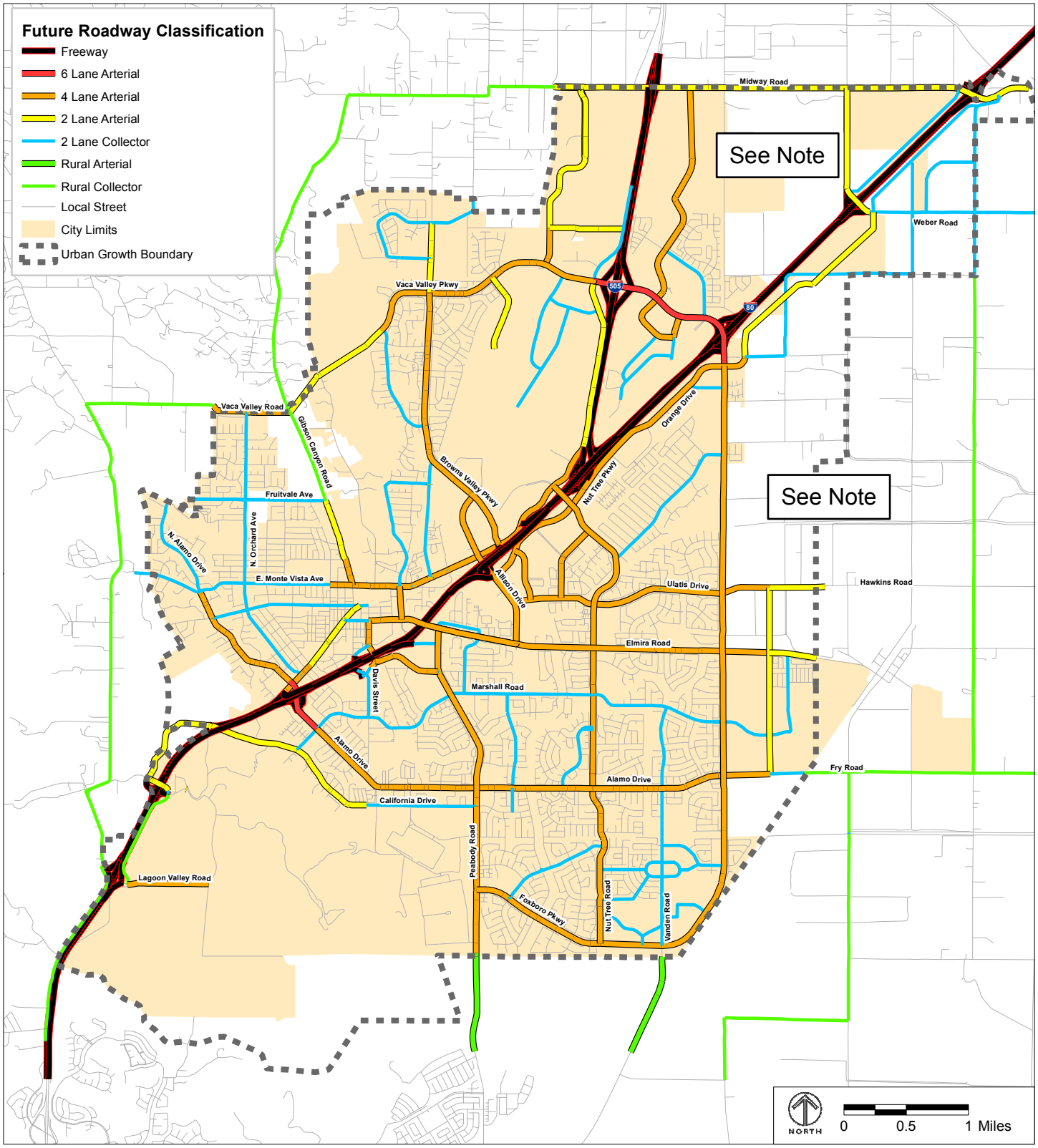
Arterials

Arterials link residential and commercial districts with the freeway network and provide intercity connections. These roadways can be either divided or undivided, and generally carry the heaviest amount of traffic among the three classifications. While the majority of arterials in Vacaville consist of four travel lanes, there are also two-lane arterials, such as Midway Road and Gibson Canyon Road, and six-lane arterials, such as portions of Elmira Road. Access and intersections along arterials are limited to facilitate efficient travel along the arterial.

Rural Arterials serve the same functions as arterials in urban areas, but are outside the boundaries of the urban area. Rural arterials may have different design standards than urban arterials. Design standards are defined in the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* ("Green Book"). Parking lanes, medians, curbs, and sidewalks are typically not constructed on rural arterials. Where curbs and sidewalks are not provided, a minimum 2 feet of shoulder width should be paved. Where bicycles are to be accommodated on the shoulder, a minimum paved width of 4 feet should be used.

Collectors

Collectors are designed to connect residential neighborhoods with arterials. All collector streets in Vacaville have two travel lanes. Some examples of collectors are Orchard Avenue, Marshall Road, portions of California Drive and Youngsdale Drive. Collectors typically provide direct access to adjacent land uses and are wider than most local streets so as to provide improved motor vehicle and bicycle circulation. Access may be limited along collectors to facilitate travel along the roadway, maintain capacity, and limit conflicts between through traffic and local access.



Source: Kittelson & Associates, Inc. and Solano Transportation Authority (STA) Comprehensive Transportation Plan 2011
Note: Final roadway alignments in the Growth Areas will be determined by Specific Plan policies and adjacent development.

FIGURE TR-4
FUTURE (2035) ROADWAY SYSTEM

Rural Collectors serve the same functions as collectors in urban areas, but are outside the boundaries of the urban area. Rural collectors may have different design standards than urban collectors, and are defined in the Green Book mentioned above. Typically, two travel lanes are appropriate for rural collectors. Parking lanes, medians, curbs, and sidewalks are typically not constructed on rural collectors.

Local Streets

Local streets are intended to serve adjacent and nearby residential and commercial neighborhoods or business areas only. They generally carry little through traffic and have low traffic volumes.

Standards for Traffic Service and Transportation Improvements

~~In Vacaville's developed areas, the primary circulation issue is the flow of traffic on city streets. The standard used for measuring the quality of this flow is called Level of Service.~~

Vehicle Miles Traveled

Vehicle miles traveled (VMT)) generally refers to the amount and distance of vehicular travel attributable to a project. Pursuant to SB 743, VMT is now the standard metric under CEQA for evaluating the environmental effects of a project on the transportation system. It is typically expressed as the number of miles traveled on an average weekday. VMT may be expressed as an efficiency ratio (e.g., VMT per dwelling unit) to characterize the transportation efficiency of placing a given land use in one location versus another. VMT is also used to quantify how a proposed transportation system change would alter vehicular travel. In such instances, the net change in VMT within the affected area is calculated without and with the improvement to understand how VMT would affected.

Level of Service

Level of Service (LOS) describes the operating conditions experienced by roadway users, and applies quantifiable traffic measures such as average speed, intersection delays, and volume-to-capacity ratios to approximate driver satisfaction. Levels of service are designated LOS A through F, from best to worst, and are evaluated differently for different road facility types. This element addresses LOS standards for signalized and unsignalized intersections, and for roadway segments.

Signalized intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. Specifically, LOS criteria are stated in terms of average control delay per vehicle during a specified time period (for example, the afternoon peak commute hour). Vehicle delay is a complex measure based on many variables, including signal phasing (i.e. progression of

movements through the intersection), signal cycle length, and traffic volumes with respect to intersection capacity.

Unsignalized intersection LOS for all-way stop-controlled and two way stop controlled overall is based on a weighted average of the delays on individual movements. The current methodology estimates the average delay for each movement based upon (1) the critical time gap required to complete the maneuver, (2) the movement's traffic volume and (3) the volume of traffic opposing the movement.

Roadway segment LOS is based on a comparison of hourly traffic volumes to hourly segment capacities by roadway type as established by the City.

The LOS standard provides a means to measure whether the performance of the transportation system meets the goals and vision for the city. The level of service standard is one of the methods used to identify the needed capital improvements to accommodate growth.

Chapter 14.13 of the Vacaville Land Use and Development Code, Traffic Impact Mitigation Ordinance, describes the specific LOS standards and traffic analysis procedures that implement the policies of the Transportation Element relative to level of service. SB 743 does not preclude the City from maintaining LOS policies in its General Plan and Municipal Code. It prevents the City from using LOS or other delay-based metrics from being used as measures of transportation impact in CEQA documents.

Changes to the Transportation Network

Existing regional and local transportation plans and City staff have identified needed improvements to the transportation network in Vacaville to address existing level of service deficiencies and to permit additional development without adversely impacting LOS standards. This section describes these changes to the transportation network. The changes include previously planned roadway, transit and bicycle improvement projects, as well as recommendations for additional improvements to accommodate future growth.

Planned and recommended roadway improvements that would be implemented by the City of Vacaville are shown in Figure TR-5 and listed in Table TR-1.

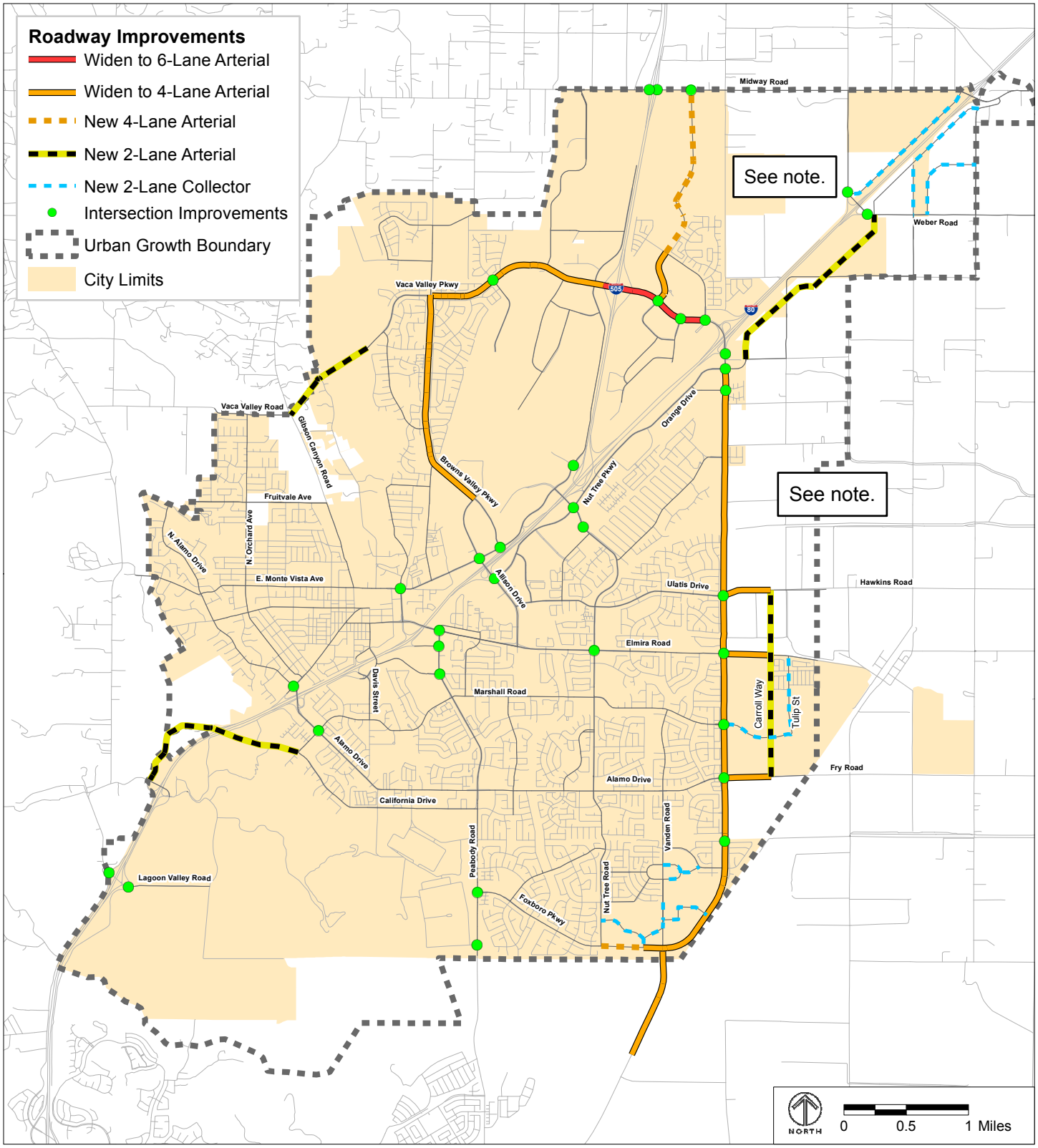
Complete Streets

The California Complete Streets Act (AB 1358), passed in 2008, requires all General Plan updates to "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel." This law also defines "users of streets, roads, and highways" to include bicyclists, children, persons with disabilities, motorists, pedestrians, users of public transportation, and seniors. Future improvements in Vacaville's transportation network will need to include these principles.

Planned Transportation Improvements

The improvements discussed in this section were identified in the following plans and programs, and as part of approved development projects:

- Metropolitan Transportation Commission's (MTC) Transportation 2035 Plan
- STA's 2009 Draft Comprehensive Transportation Plan (CTP) 2035 Project List
- Solano CTP Countywide Bicycle Plan (2004)
- I-80/I-680/I-780 Major Investment & Corridor Study Final Report (2004)
- City of Vacaville Capital Improvement Program
- City of Vacaville Development Impact Fee Program
- Jepson Parkway Concept Plan (2000)



Source: Kittelson & Associates, Inc.
Note: Final roadway alignments in the Growth Areas will be determined by Specific Plan policies and adjacent development.

FIGURE TR-5
TRANSPORTATION IMPROVEMENTS IN 2035

TABLE TR-1 **RECOMMENDED ROADWAY IMPROVEMENTS (YEAR 2035)**

Roadway	Location	2035 Improvement
Browns Valley Rd	Between Allison Dr and Vaca Valley Parkway	Widen to 4-lane Arterial
California Dr Extension and Overcrossing	Between Marshall Rd to Pena Adobe Rd and at I-80	2-lane Arterial; 2-lane overcrossing
Foxboro Parkway	Nut Tree Rd to Vanden Rd	2-lane Arterial
Southtown Roadways	(see Planned Development)	2-lane Collector & Jepson Parkway
Vaca Valley Parkway	Between Browns Valley Rd and I-505	Widen to 4-lane Arterial
Vaca Valley Parkway	Between I-505 ramps and Crescent Dr (segment between Crescent Dr and I-80 is 6 lanes)	Widen to 6-lane Arterial
Vaca Valley Parkway	Between Wrentham Dr and Gibson Canyon Rd	2-lane Arterial
Vanden Meadows Roadways	(see Specific Plan)	2-lane Collector / Need to include 2/4 lane Foxboro Extension
Village Parkway	Between Vaca Valley Pkwy and Crescent Dr	Widen to 4-lane Arterial
Village Parkway	Between Crescent Dr and Midway Rd	4-lane Arterial
Weber Rd/Meridian Rd	I-80 Interchange	Revise interchange, potentially incorporating roundabouts
East of Leisure Town Growth Area		
Elmira Rd	Between Leisure Town Rd and Carroll Way	4-lane Arterial
Fry Rd	Between Leisure Town Rd and Carroll Way	4-lane Arterial
Hawkins Rd	Between Leisure Town Rd and Carroll Way	4-lane Arterial
Marshall Rd Extension	Between Leisure Town Rd and Carroll Way	2-lane Collector
Carroll Way	Between Fry Rd and Hawkins Rd	2-lane Arterial
Tulip Street	Between Marshall Rd Extension and Elmira Rd	2-lane Collector
Northeast Growth Area		
Byrnes Rd Extension	Between Weber Rd and Lewis Rd (East of Interstate 80, Frontage Road)	2-lane Collector
Midway Rd	Between I-80 and Lewis Rd	4-lane Arterial
New Collector (L-shape)	Between Weber Rd and Lewis Rd	2-lane Collector
New Collector	West of I-80, between N. Meridian Rd and Midway Rd (Frontage Road)	2-lane Collector
Orange Dr Extension	Between Orange Dr and Weber Rd	2-lane Arterial
Vanden Rd (Jepson Parkway)	Between Foxboro Pkwy south approximately 1400'	4 lanes

Planned Roadway Improvements

The following planned roadway improvements include those at the regional and local levels for both vehicular and alternative modes of transportation.

Regional Roadway Improvements

The California Department of Transportation (Caltrans) has jurisdiction over all State highway facilities, including the freeway ramps and ramp intersections. The projects identified below include projects on regional routes being planned by Caltrans and the City, and projects being planned in coordination with other jurisdictions. The project status is described as of fall 2013.

Caltrans projects:

- *Interstate 80/Alamo Drive/Merchant Street Westbound On-Ramp.* Widen bridge over Alamo Creek and extend westbound on-ramp to provide an acceleration/merge lane. This project is under construction.
- *Interstate 80/Cliffside Drive Eastbound On-Ramp.* Widen bridge over Mason Street and extend eastbound on-ramp to provide an acceleration/merge lane. This project is in its planning phase.
- *Interstate 80/Davis Street/Hickory Street Westbound On-Ramp.* Extend westbound on-ramp to provide an acceleration/merge lane. This project is in its planning phase.
- *Interstate 80/Davis Street Eastbound On-Ramp.* Widen bridge over Davis Street and extend eastbound on-ramp to provide an acceleration/merge lane. This project is in its planning phase.
- *Interstate 80 High Occupancy Vehicle (HOV) Lanes.* Construct new HOV lanes between the Interstate 80 interchange with Interstate 505 and the Yolo County line. This project is in its planning phase.
- *Interstate 80/Mason Street Westbound On-Ramp.* Extend westbound on-ramp to provide an acceleration/merge lane. This project is in its planning phase.
- *Interstate 80 Ramp Metering.* Provide ramp metering improvements to control access to the freeway. The project has been initiated in Fairfield and a planning phase has been initiated for Vacaville.
- *Interstate 505 Weave Correction.* Construct weave corrections for westbound traffic at the interchange ramp and eliminate lane drop. This project is in its planning phase.[2]

[2] The ***weaving area*** is a segment of the freeway between two interchange ramps, where vehicles merge onto or out of the basic travel lanes. This segment is generally shorter than 2,500 feet in length. ***Lane drop*** means elimination of a lane, for instance transitioning from four travel lanes to three travel lanes. The location of the lane drop is usually a point of conflict as vehicles merge onto the available lanes.

City of Vacaville projects on regional roads:

- *Interstate 505/Vaca Valley Parkway Interchange.* Widen existing overcrossing to provide two lanes in each direction, provide protected turn pockets on off-ramps, accommodate pedestrians and a Class II bike lane, and modify interchange. The current Vacaville Development Impact Fee Program includes funding for a four-lane overcrossing with interchange improvements. The final configuration and schedule for construction will be included in an update to the current Development Impact Fee. This is a City of Vacaville project with Caltrans oversight.
- *Jepson Parkway (County Portion).* Jepson Parkway improvements along the portion of Vanden Road between Fairfield and the Vacaville city limits will be designed and constructed by the City of Vacaville under a funding agreement administered by STA.
- *Lagoon Valley Road Ramp Modifications and Signal.* Widen interchange ramps and bridge to accommodate left-turn storage for both eastbound and westbound on- and off-ramps and provide pedestrian access on the bridge; install traffic signals. The design of this project is on hold pending funding from the Lower Lagoon Valley developer. This is a City of Vacaville project with Caltrans oversight.
- *Vaca Valley Parkway/Interstate 505 Southbound Interim Improvements.* Widen Vaca Valley Parkway to provide additional capacity and ramp improvements. Funding is included in the current Vacaville Development Impact Fee Program. This is a City of Vacaville project with Caltrans oversight.

Projects planned in coordination with other jurisdictions:

- *Jepson Parkway.* Construct a new four-lane expressway between State Route 12 and Interstate 80 along Walters Road, Cement Hill Road, Vanden Road, and Leisure Town Road, and include a Class I bike/pedestrian path. This project is subject to design criteria identified in STA's *2000 Jepson Parkway Concept Plan*. In Vacaville, Jepson Parkway follows the Vanden Road and Leisure Town Road alignments. A concept plan and environmental assessment has been completed. This project is partly funded by the Development Impact Fee Program and partly as conditions of approval for adjacent development. Jepson Parkway is being planned and constructed in partnership with STA, Solano County, and the cities of Fairfield, Suisun City, and Vacaville.
- *Peabody Road between Fairfield and Vacaville City Limits.* Widen the two-lane arterial to a four-lane arterial. This is a City of Fairfield project associated with the Fairfield Train Station Specific Plan.

Local Street and Road Improvements

The following local street and road improvements are planned or proposed by the City. Existing or proposed funding sources have been identified for each of the projects.

- *Orange Drive Extension.* Extend Orange Drive as a four-lane divided arterial to the Weber/Meridian Road interchange. This project will be funded by future area development.[3]
- *Vaca Valley Parkway Widening.* Widen Vaca Valley Parkway to a four-lane divided road with protected turn pockets from Interstate 505 to Browns Valley Parkway, and to a six-lane divided road with protected turn pockets from Interstate 505 to Crescent Drive. The four-lane roadway segment will be funded by area development as conditions of approval. The fifth and sixth lanes will be funded by the Development Impact Fee Program.
- *Vaca Valley Parkway Extension.* Extend Vaca Valley Parkway from Gibson Canyon Road to Wrentham Drive and accommodate a Class I bicycle facility. This project will be funded by the Development Impact Fee Program.
- *California Drive Extension and Interstate 80 Overcrossing.* Extend California Drive as a two-lane arterial from Marshall Road to Pena Adobe Road and construct a new two-lane overcrossing at Interstate 80. Funding for this project is included in the current Development Impact Fee Program, but allocations may be revised during updates to the fee program.
- *Midway Road Widening.* Widen Midway Road to provide two lanes in each direction between Putah South Canal and Interstate 80. This project will be funded by adjacent development as a condition of approval.[4]
- *Browns Valley Road Widening.* Widen Browns Valley Road between Allison Drive and Vaca Valley Parkway . Funding for this project is included in the current Development Impact Fee Program.
- *Interstate 505/Midway Road Interchange Improvements.* Improve the intersections of Midway Road with the Interstate 505 northbound and southbound freeway ramps to accommodate projected demand. This project will be funded by future development impact fees.

Local Streets Within New Development Areas

The following new roadway network is anticipated as part of approved and proposed development areas. These new roadways and roadway improvements will be funded by development as a condition of approval.

- *North Village Parkway*. Complete the connection of North Village Parkway between Vaca Valley Parkway and Midway Road consistent with the approved Specific Plan.
- *East of Leisure Town Internal Roadway Network.* Improve and construct roadways to serve development east of Leisure Town Road, including but not limited to Hawkins Road, Elmira Road, Fry Road, and the new 2 lane Arterial, Carroll Way.

[3] Note that only a two-lane extension is required to accommodate anticipated development in 2035.

[4] Note that this improvement is not required to accommodate anticipated development in 2035.

- *Midway Road Interstate 80 Interchange and Overcrossing Improvements.* Improve the Interstate 80 freeway ramp intersections at Midway Road to accommodate area development, including development in the Northeast Growth Area. These improvements will be funded by adjacent development as a condition of approval, as well as the Development Impact Fee program if included in future updates.
- *Northeast Growth Area Internal Roadway Network.* Improve Midway Road, Weber Road, Kilkenny Road, Walnut Road, Willow Road, Byrnes Road, and Lewis Road to serve area development, provide connections to Orange Drive, and provide new internal roadways as required for local development access. These improvements will be funded by adjacent development as a condition of approval.

Planned Transit Improvements

As development occurs, public transit will play a larger role in the area, particularly for commute trips within Vacaville and to and from adjoining cities. Regional and local transit is necessary to maintain acceptable travel alternatives and achieve a balanced level of service. Based on anticipated growth in the region, projections indicate the potential for serious traffic congestion in the Interstate 80 corridor in the future. To effectively reduce the rate of growth in automobile trips, and thus the need for road widening, the Metropolitan Transportation Commission (MTC) and other agencies encourage efforts to enhance and better coordinate public transit.

The following transit service improvements are planned or proposed:

- *Vacaville/Fairfield Multi-Modal Rail Station.* Construct a new commuter rail station at the southeast corner of Peabody Road and Vanden Road in northeast Fairfield along Amtrak's Capitol Corridor, which provides regional rail service. The station will be the focal point of a transit-oriented development with up to 3,000 dwelling units within a ½-mile radius of the station. The preliminary design of the Fairfield/Vacaville Train Station includes a passenger platform, bus passenger transfer area, parking, an overpass for Peabody Road, and an underpass for pedestrians and bicycle users. It is anticipated that the public transit service will be revised to make connections to the new train station based upon ridership demand and available funding. The City of Fairfield is the lead agency.
- *Vacaville Intermodal Station.* The City of Vacaville completed the construction of a bus transfer facility at the corner of Ulatis Drive and Allison Drive with ten bus bays and a 220-vehicle parking lot in March 2011. Phase 2 of the project includes construction of a 400-vehicle parking garage structure adjacent to the intermodal station. Phase 2 is in its planning phase.
- *Other Transit Improvements.* The City will incorporate transit related facilities, such as better pedestrian access to transit stations or stops, or land use patterns that support transit into development projects on an on-going basis.

Planned Non-Motorized Transportation Improvements

The following improvements for bicycle and pedestrian transportation in Vacaville are planned or proposed, with project status described as of fall 2013.

- *Ulatis Creek Bike Path.* Construct a Class I bike path along Ulatis Creek between Allison Drive and Interstate 80. The preliminary design and environmental assessment phase has been initiated.
- *Elmira Road Bike Path.* Construct a Class I bike path along the old Southern Pacific Railroad right-of-way on the north side of Elmira Road between Leisure Town Road and Edwin Drive. This project is in its planning and design phase, and is a priority project identified in the STA Countywide Bicycle Plan.
- *Other Bikeways.* Construct the future bikeway improvements shown in Figure TR-2 through conditions of approval for area development, grant funding as available, and/or the Development Impact Fee Program.
- *Video Detection Installation.* Install video detection at all City traffic signals to enhance bicycle and motorcycle detection, including remote viewing and fine-tuning of signal operations. These improvements have begun and will be on-going.
- *Pedestrian Signal Improvements.* Install audible pedestrian push buttons for signals in the vicinity of transit facilities and countdown pedestrian signals at all City-controlled traffic signals. The installation of countdown pedestrian signals has begun.

Additional Recommended Improvements

In addition to the improvements planned or programmed in regional and local plans, additional capacity enhancements will be necessary to maintain established level of service policies on City roadways to accommodate expected future growth under this General Plan. These recommended roadway improvements are based on conditions in 2035 and are listed in Table TR-1 and shown in Figure TR-5.

Specific improvements should be identified and implemented on the basis of detailed traffic studies. Intersection improvements may include intersection approach lane expansions, related channelization[5] improvements, traffic signal installations, and roundabouts. Roundabouts are a relatively new intersection concept in California that relies upon a circular traffic flow pattern and the use of yield control on each approach to the intersection. Other intersections not identified in Table TR-1 and Figure TR-5 may also need future improvements.

[5] Channelization improvements include geometric changes at an intersection, such as raised islands that separate the right-turn lane from the through traffic lane, thereby "channelizing" traffic.

Recommended Right-of-Way Reservation

The Year 2035 transportation improvements discussed above and illustrated on Figure TR-5 are based on the amount of increased levels of traffic expected to occur within the 2035 horizon year of this General Plan. Additional roadway capacity will be necessary to accommodate growth expected to occur after the horizon year, and to maintain the City's established level of service policies. The full potential development of all land uses allowed under the General Plan beyond the 2035 horizon year (i.e. buildout) is anticipated to occur ~~many~~ decades into the future. Therefore, it would be premature to identify and design specific improvements to serve this development.

However, the City must prepare for future roadway improvements (i.e. new roads, roadway widenings, signalized intersections) necessary to support buildout of the General Plan. One way to do this is to preserve right-of-way (ROW). Using projected traffic generated from the development of all land uses allowed under the General Plan, the City can plan to preserve the additional ROW necessary to accommodate future development.

Recommendations for reservation of ROW for transportation improvements needed to support buildout of the General Plan are shown in Figure TR-6 and listed in Table TR-2. These recommendations would provide the roadway capacity and associated ROW that would be needed to maintain consistency with General Plan policies. These improvements would be needed in addition to the improvements listed in Table TR-1 and shown in Figure TR-5.

Goals, Policies, and Actions

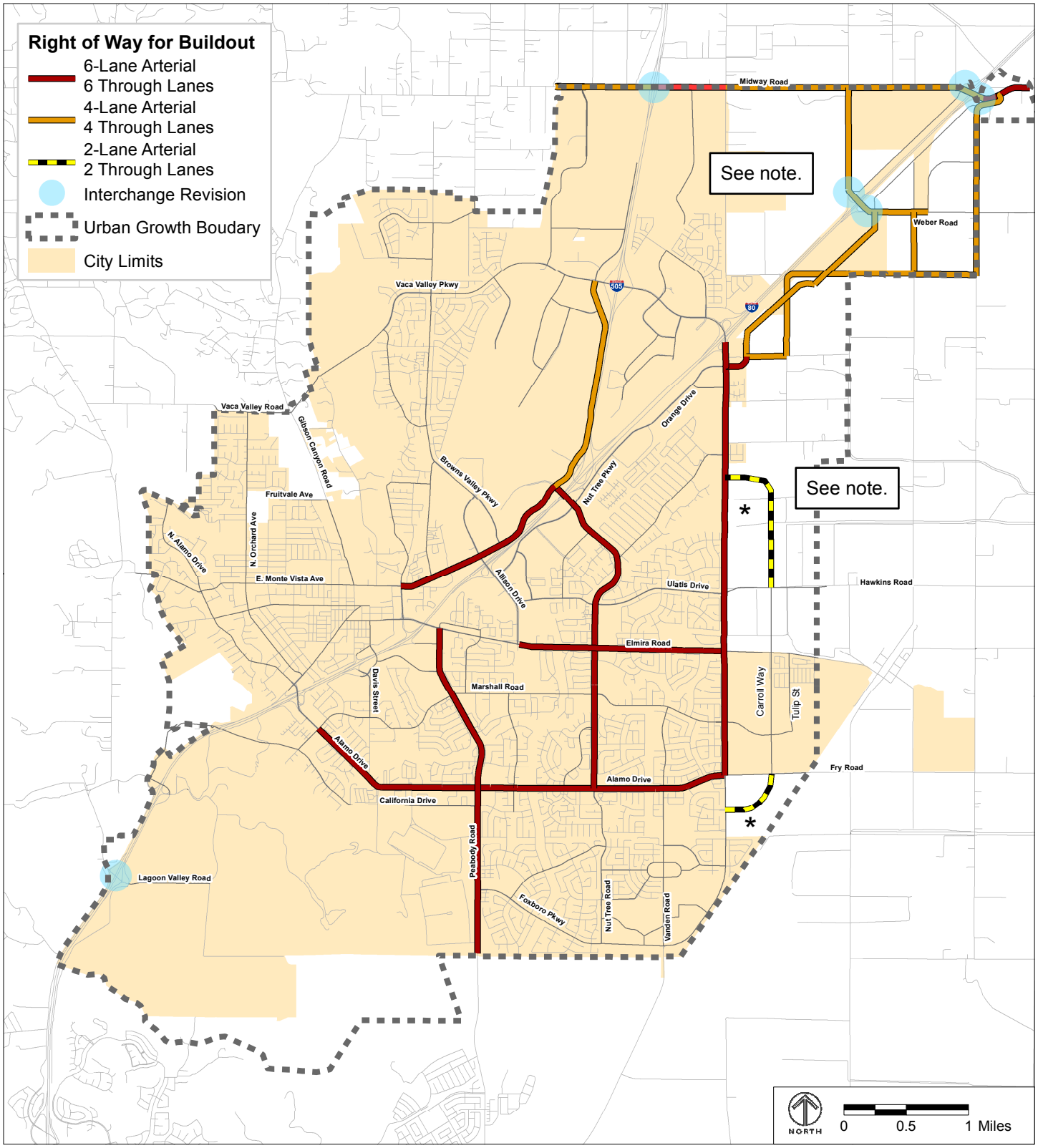
Well-Planned and Integrated Transportation Network

Goal TR-1	**Work with other agencies to plan for an integrated transportation network that responds to regional and local transportation needs while maintaining Vacaville as a safe and pleasant place to live and work.**

Policies

Policy TR-P1.1 Coordinate, to the extent feasible, regional transportation system improvements, specifically those on the Congestion Management Program (CMP) network and Routes of Regional Significance, with neighboring jurisdictions.

Policy TR-P1.2 Provide frontage roads, or parallel roadway facilities adjoining the freeway, wherever possible in order to allow local traffic to avoid congested freeways.



Source: Kittelson & Associates, Inc.
Note: Final roadway alignments in the Growth Areas will be determined by Specific Plan policies and adjacent development.
Note: This map shows the ultimate right-of-way that would be needed to accomodate future improvements that would likely be necessary to serve the complete buildout of all growth allowed under the General Plan, including growth that would be expected to take place beyond the 2035 horizon year. The map only shows requirements beyond the 2035 improvements that were identified in Figure TR-4 and TR-5.

* The aligment is conceptual in nature.

FIGURE TR-6

STREET RIGHT OF WAY FOR BUILDOUT OF GENERAL PLAN

TABLE TR-2 **RECOMMENDED RIGHT-OF-WAY RESERVATION FOR GENERAL PLAN BUILDOUT**

Roadway	Location	ROW Reservation
Alamo Drive	Between Marshall Rd and Leisure Town Rd	6 lanes
Byrnes Road	Between Kilkenny Rd and Weber Rd	4 lanes
Elmira Road	Between Allison Dr and Leisure Town Rd	6 lanes
East Monte Vista Avenue	Between Depot St and Airport County Rd	6 lanes
East Monte Vista Avenue	Airport County Rd to Vaca Valley Parkway	4 lanes
Kilkenny Road	Between Willow Rd and Lewis Rd	4 lanes
Leisure Town Road (Jepson Parkway)	Between Alamo Dr and I-80	6 lanes
Lewis Road	Between Kilkenny Rd and Midway Rd	4 lanes
Meridian Road	Between I-80 and Midway Rd	4 lanes
Midway Road	Between South Putah Canal and I-505	4 lanes
Midway Road	Between I-505 and Leisure Town Rd	6 lanes
Midway Road	Between Leisure Town Rd and I-80	4 lanes
Midway Road	Between I-80 and Lewis Rd	6 lanes
Carroll Way	Between Leisure Town Rd and Hawkins Rd	2 lanes
Nut Tree Road	Between Alamo Dr and E. Monte Vista Ave	6 lanes
Orange Drive	Between Leisure Town Rd and Walnut Rd	6 lanes
Orange Drive	Between Walnut Rd and Weber Rd	4 lanes
Peabody Road	Between city limits and Elmira Rd	6 lanes
Walnut Road	Between Orange Dr and Willow Rd	4 lanes
Weber Road	Between I-80 and Byrnes Rd	4 lanes
Willow Road	Between Walnut Rd and Kilkenny Rd	4 lanes

Policy TR-P1.3 Continue to coordinate and support regional efforts to construct Jepson Parkway in accordance with the *Jepson Parkway Concept Plan (2000),* or subsequent updates to the Plan for Jepson Parkway.

Actions

Action TR-A1.1 Consider the impacts of regional development on the Vacaville Transportation Network by reviewing public notices for development in the vicinity of Vacaville and require development within Vacaville to establish its impact on the regional (CMP) transportation network. Create a loop street system around the city to avoid over-reliance on Interstate 80 for internal city travel. Construction of the Vaca Valley Parkway Extension, Foxboro Extension, California Drive Extension, and Interstate 80 Overcrossing projects would create the proposed loop street system.

Action TR-A1.2 Continue with the design and construction of Jepson Parkway in south Vacaville and within the county between Fairfield and Vacaville under the funding agreement administered by the Solano Transportation Authority (STA). To the extent possible, facilitate the design and construction of future segments of Jepson Parkway in Vacaville.

Action TR-A1.3 Continue to support STA updates of the Congestion Management Program (CMP) and other regional transportation planning efforts.

Goal TR-2 **Work with Caltrans and other agencies to plan for freeway facilities that ~~operate~~ meet their stated operating objectives ~~at the highest level possible~~.**

Policies

Policy TR-P2.1 Work with the California Department of Transportation (Caltrans) and Solano Transportation Authority (STA) to achieve timely construction of programmed freeway and interchange improvements.

Policy TR-P2.2 Work with Caltrans to consider how ramp metering is implemented to regulate access to State facilities, while also considering the impacts to local roadways and balancing the desire for ~~a high level of~~ efficient operations on Interstate 80.

Policy TR-P2.3 ~~Encourage~~ Coordinate with Caltrans to widen and upgrade Interstate 80 through Vacaville. In new development areas adjoining Interstate 80 and Interstate 505, require major building setbacks and offers-of-dedication to permit the long-term planning and widening of the freeways.

Greenhouse Gas Emissions Reduction Strategies

Goal TR-3	**Take proactive steps to reduce Greenhouse Gas Emissions caused by Vehicle Miles Travelled in Vacaville.**

Policies

Policy TR-P3.1 Pursue land use strategies that better balance jobs and housing, leading to a reduced proportion of Vacaville resident commute trips that leave the City.

Policy TR-P3.2 Pursue an overall land use / transportation relationship that becomes more efficient over time, as measured by improved VMT efficiency (i.e., VMT per dwelling unit or per thousand square feet of floor space).

Policy TR-P3.3 Evaluate development proposals using VMT measurement techniques and significance thresholds from the *Senate Bill (SB) 743 Implementation Guidelines for the City of Vacaville.*

Policy TR-P3.4 Consistent with State guidance, the *Implementation Guidelines* will identify categories of development projects that are assumed to have a less-than-significant transportation impact. These categories include small projects, projects with high quality transit service, and affordable housing projects.

Policy TR-P3.5 A proposed residential development project exceeding a level of 15 percent below existing citywide VMT per capita may indicate a significant transportation impact.

Policy TR-P3.6 A proposed employment project exceeding a level of 15 percent below existing citywide VMT per employee may indicate a significant transportation impact.

Policy TR-P3.7 A proposed retail project that increases existing citywide total VMT may indicate a significant transportation impact.

Policy TR-P3.8 Consider the potential effect on VMT when evaluating proposed transportation improvements.

Policy TR-P3.9 Require feasible mitigation measures to reduce potentially significant VMT impacts and monitor whether those measures are achieving the intended outcomes.

Actions

Action TR-A3.1 Update the *Senate Bill (SB) 743 Implementation Guidelines for the City of Vacaville* as needed (i.e., due to major changes in land use, transportation system disruptions, changes in technology for estimating VMT, etc.).

Action TR-A3.2 Establish specific monitoring protocols and processes for mitigation measures aimed at reducing VMT.

Action TR-A3.3 Update land use planning policies as needed to adopt strategies for reducing VMT through land use measures.

Action TR-A3.4 Monitor the City's jobs-housing balance as part of the General Plan Annual Progress Report

Level of Service and Traffic Congestion

Goal TR-4	**Provide roadway capacity on Vacaville city streets for typical weekday peak hour (7:00 to 9:00 AM and 4:00 to 6:00 PM) traffic volumes without significant delay.**

Policies

Policy TR-P4.1 Endeavor to maintain LOS C as the LOS goal at all intersections ~~and interchanges~~ to facilitate the safe and efficient movement of people, goods, and services. Strive to design improvements to provide a LOS goal of C, based on the City's most recent 20+ year traffic forecast including signalized and unsignalized intersections.

Policy TR-P4.2 At signalized and all-way stop control intersections, endeavor to maintain LOS mid-D ~~shall be the LOS significance threshold~~. At two-way stop control intersections, attempt to maintain LOS D ~~shall be the LOS significance threshold~~.

Policy TR-P4.3 To allow for infill development and higher density development at transit centers, endeavor to maintain ~~the~~ LOS ~~significance threshold shall be LOS~~ D at signalized and all-way stop control intersections in the Downtown Urban High Density Residential Overlay District or other Priority Development Areas (PDA) designated by the City. At

two-way stop controlled intersections in these areas, ~~the~~ endeavor to maintain an overall LOS ~~significance threshold shall be LOS~~ mid E.

Policy TR-P4.4 The City may allow LOS ~~above~~ that is worse than the established LOS ~~significance thresholds~~ operating goal for a particular location as an interim level of service where improvements are programmed by the City that will improve the service to the desired ~~an acceptable~~ level.

Policy TR-P4.5 The City may allow LOS ~~above~~ that is worse than the established LOS ~~significance thresholds policies~~ policy goals for a particular location on the basis of specific findings described in adopted City policies or standards ~~Chapter 14.13 of the Vacaville Land Use and Development Code, Traffic Impact Mitigation Ordinance~~.

Policy TR-P4.6 Require all roads to comply with the City's Standard Specification for Public Improvements document for the City's roadway network.

Policy TR-P4.7 Roadway improvements implemented by the City using the Development Impact Fee Program or other funding sources shall be designed based on the level of service ~~standards~~ operating goals prescribed in Policies TR-P~~3~~4.1, TR-P~~3~~4-2 and TR-P~~3~~4.3.

Policy TR-P4.8 Require roadway improvements implemented by development projects to be designed based on the level of service operating goals ~~standards~~ prescribed in Policies TR-P~~3~~4.2 and TR-P~~3~~4.3.

Policy TR-P4.9 Implement Transportation Element improvements summarized in Table TR-1 and illustrated in Figure TR-5 prior to deterioration in levels of service below the stated standard operating goals, with the exception of situations that are described in Policies TR-P~~3~~4.4 and TR-P4.5.

Actions

Action TR-A4.1 Develop policies, procedures, and standards for roundabouts and rural roads as part of the update the City's roadway design specifications.

Action TR-A4.2 Continue to track and evaluate available traffic safety data, and establish a means to prioritize and improve circulation facilities as needed to maintain traffic safety (i.e. meet design standards) and levels of service on major arterials. Specific improvements should be identified and implemented on the basis of detailed traffic studies.

Action TR-A4.3 Update the Traffic Impact Fee program to reflect the adopted General Plan and existing land uses to ensure that the level of service ~~standards~~ operating goals stated in Policies TR-P~~3~~4.1 through TR-P~~3~~4.3 are met to the greatest extent possible.

Action TR-A4.4 Update ~~Chapter 14.13 of the Land Use and Development Code (Traffic Impact Mitigation Ordinance)~~ City development policies to be consistent with the level of service ~~policies~~ operating goals stated in Policies TR-P~~3~~4.1 through TR-P~~3~~4.5.

Goal TR-5 **~~Mitigate~~ Require necessary traffic improvements ~~traffic impacts~~ from new development.**

Policies

~~Policy TR-P5.1 Evaluate development proposals based on the level of service standards prescribed in Policies TR-3.1 through TR-3.5.~~

Policy TR-P5.1 As part of development approvals, require (through conditions of approvals) ~~reasonable demonstration~~ that necessary traffic improvements ~~necessary to mitigate development in accordance with Policies TR-3.1 through TR-3.3 will~~ be constructed ~~in place~~ in time to accommodate trips generated by the project~~, or satisfy findings identified in Policies TR-3.4 and TR-3.5~~.

Policy TR-P5.2 In order to ensure that adequate roadway capacity is provided for the buildout of the General Plan and that new development does not preclude the construction of adequate circulation facilities, require all new development to provide right-of-way dedications consistent with this Transportation Element (Figure TR-6).

Policy TR-P5.3 When reviewing development proposals, consider Year 2035 projections for fair share contributions to transportation improvements (as shown in Figure TR-5) and full buildout projections (beyond Year 2035) for dedication of right of way for future road improvements (as shown in Figure TR-6).

Policy TR-P5.4 For locations where the LOS would exceed ~~thresholds~~ operating goals described in Policies TR-P~~3~~4.2 and TR-P~~3~~4.3 without the addition of traffic from a proposed development, the City may ~~establish~~ require ~~impact and mitigation criteria based on the~~ incremental fair share traffic contributions from the proposed development ~~as described in Chapter 14.13 of the Land Use and Development Code (Traffic Impact Mitigation Ordinance)~~.

Policy TR-P5.5 Where future roadway widening to serve urban development occurs on the Urban Growth Boundary along Kilkenny Road, roadway widening shall occur on the City side of the boundary. Roadways may be realigned to place urban-serving roadways within the adjacent growth areas where appropriate (e.g. Kilkenny Road).

Goal TR-6 Design and maintain arterial roadways that meet circulation and access needs.

Policies

Policy TR-P6.1 Design intersections on arterial roadways to meet level of service ~~standards~~ operating goals and to protect residential neighborhoods (per Goal TR-7). ~~avoid traffic diversion to local roadways or the freeway~~.

Policy TR-P6.2 Locate high traffic generating uses so that they have direct access or immediate secondary access to arterial roadways, while balancing the need to control the number of driveways that enter arterial roadways.

Policy TR-P6.3 Maintain the City's funding system to enable completion of arterial roadway and interchange capacity improvements in a timely manner (Action TR-A3.3) and give appropriate priority and consideration to budgets supporting maintenance of the roadway network.

Policy TR-P6.4 Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, minimizing access, and prohibiting direct residential access whenever possible~~, and by requiring sufficient on-site parking to meet the needs of each project~~. This includes designing parking areas so that traffic turning into the parking areas does not impede through traffic on the arterial roadway, providing acceleration and deceleration lanes, combining driveways to serve several small parcels, limiting appropriate driveways to right-in and right-out movements only, and maintaining adequate distances between driveways and intersections to permit efficient traffic merges.

Policy TR-P6.5 Control access to auto-oriented commercial areas by use of median strips and frontage roads to improve safety, maximize roadway capacity, and minimize traffic conflicts.

Actions

Action TR-A6.1 As funding permits, improve traffic flows on major arterial streets and continue to implement the coordination of traffic signals at major intersections and along arterial streets during daily peak travel periods.

Action TR-A6.2 To improve emergency vehicle response times and minimize transit system delays, continue to implement the emergency vehicle traffic signal preemption (EVP) and Transit Priority System Priority controls (Opticom or an approved equivalent) along major emergency response and transit routes. Require that the system be installed as part of any upgrades or signalizations triggered by new development along these routes.

Action TR-A6.3 Establish policies and procedures for limiting full access along existing and proposed arterials based on the need to maintain roadway capacity, limit conflicts and improve traffic safety.

Action TR-A6.4 Establish policies, procedures, and standards for implementing improvements that maximize carrying capacity of arterials.

Goal TR-7 Protect residential neighborhoods from through-traffic.

Policies

Policy TR-P7.1 Discourage unnecessary through-traffic in residential areas through circulation system design and planning.

Policy TR-P7.2 Design new collector roadways and implement traffic-control measures where feasible and warranted to maintain level of service ~~standards~~ operating goals at intersections on collector roadways. Direct residential access on collectors shall be evaluated as part of subdivision design.

Policy TR-P7.3 Consider traffic calming measures consistent with the City's traffic calming policies and approved by the City as part of development proposals in an effort to lower vehicle speeds and enhance mobility for bicyclists and pedestrians.

Policy TR-P7.4 Review phased developments for the potential for contributing to, or creating routes for, cut-through traffic, and establish conditions of approval as needed to limit the potential for cut-through traffic on residential roadways.

Policy TR-P7.5 Provide support, through City actions and/or roadway improvements, to Solano County in implementing traffic calming measures that reduce through-traffic in unincorporated neighborhoods near Interstate 80, including the Locke Paddon Colony.

Actions

Action TR-A7.1 Re-evaluate the City's Traffic Calming Ordinance to slow traffic on existing local roads and redirect through traffic. Establish policies, procedures and standards for evaluating traffic calming measures with new development proposals, both on-site and off-site.

Complete Streets

Goal TR-8	**Provide a balanced, multimodal transportation network that meets the needs of all users.**

Policies

Policy TR-P8.1 Continue to implement a local Complete Streets Policy.

Policy TR-P8.2 Require that new and existing on-street bicycle lanes be striped, signed, and maintained to encourage their use.

Policy TR-P8.3 Require that new development applications include transit amenities, such as bus stops, bus bays, transit shelters, benches, and on-site drop-off locations, as appropriate, or explain why these features are infeasible or unnecessary.

Policy TR-P8.4 Require that new development applications design roadway networks to accommodate transit vehicles and facilitate efficient transit routes.

Policy TR-P8.5 Where existing street widths or traffic volumes do not support creation or maintenance of striped bicycle lanes or shoulders, but where cyclists can be safely accommodated and other conditions permit, consider use of mechanisms such as "sharrows" (i.e. markings painted on roadways indicating that auto traffic is expected to share the lane with cyclists), pavement markings, or "share the road" signage to indicate to both drivers and bicyclists that bicycle use is permitted and should be expected.

Policy TR-P8.6 Require that new development applications design roadway networks to accommodate on-street bicycle lanes, and only allow bicycle routes with sharrows when on-street bicycle lanes are impractical or infeasible.

Policy TR-P8.7 Require that new roadway networks be designed as a grid or inter-connected pattern to reduce circuitous travel patterns, decrease VMT, and improve access and circulation for all modes.

Policy TR-P8.8 Prioritize transportation improvements that support and enhance travel by transit, bicycle, and pedestrian modes to and from designated Priority Development Areas (PDA).

Actions

Action TR-A8.1 Continue to support the Solano Transportation Authority's regional Bicycle, Pedestrian, and Safe Routes to School (SR2S) program as funding and staffing permit.

Action TR-A8.2 Update the Land Use and Development Code to require new roadway networks to be designed to accommodate transit vehicles and facilitate efficient transit routes.

Action TR-A8.3 Develop policies and procedures for evaluating transit demand anticipated from new development, and establish a means for new development to provide for this demand beyond what can be expected from other established funding sources. To the extent possible, develop a means to include anticipated transit demand from development in short- and long-range transit plans.

Action TR-A8.4 Adopt roadway network standards to support a grid or interconnected network design to establish consistency with Policy TR-P87.7. These standards shall be coordinated with standards for traffic calming measures evaluated as part of Action TR-A76.1.

Action TR-A8.5 Construct off-site transit facilities to enhance citywide transit service and to offset new developments' impact on citywide congestion levels and greenhouse gas emissions.

Action TR-A8.6 Support school districts as appropriate in the provision of school bus service, and consider a process to facilitate the development of Operations and Maintenance districts that would fund school bus service as a Transportation Demand Management (TDM) measure to offset morning peak hour and overall greenhouse gas impacts of new development and existing vehicle traffic to schools.

Action TR-A8.7 Support the local school districts in efforts to reduce motor vehicle trips, reduce overall traffic congestion, improve school area safety, and promote student health as a TDM measure to offset the impact of new development on citywide congestion levels and greenhouse gas emissions.

Action TR-A8.8 ~~Consider including~~ Include transportation improvements that will support and enhance travel by transit, bicycle, and pedestrian modes in updates to the Development Impact Fee program.

Action TR-A8.9 Continue to evaluate roadways for lane reduction measures, also known as "road diets", to improve safety and to provide space for other modes of travel. Roadways placed on road diets that maintain their level of service and do not cause increased delay shall be deemed to be consistent with the General Plan.

Goal TR-9 **Increase bicycling by improving the network of bikeway and support facilities.**

Policies

Policy TR-P9.1 Construct the comprehensive network of on- and off-roadway bike routes identified in Figure TR-2 to encourage the use of bikes for commute, recreational, and other trips as part of new development and as funding allows in existing developed areas.

Policy TR-P9.2 Continue to designate bike lanes and cross-city bike paths to facilitate non-motorized trips.

Policy TR-P9.3 Give priority to the development of bike routes that provide access to schools, historic sites, governmental services, major commercial centers, parks, and regional open space.

Policy TR-P9.4 Require that new development applications include bike paths or bike lanes, when appropriate.

Policy TR-P9.5 Enhance, complete, and improve bicycle connections between neighborhoods and between neighborhoods and significant destinations, such as parks, schools, transit stops and transit centers, shopping centers, and employment centers.

Policy TR-P9.6 Use available rights-of-way and creek banks for public use as trails, bikeways, or walkways.

Policy TR-P9.7 Adopt standards for ~~Encourage~~ major employers to provide support facilities to encourage use of bikes for commute purposes.

Policy TR-P9.8 Incorporate bike storage and other support facilities into transportation system management plans at employment sites and public facilities.

Policy TR-P9.9 Require that new multi-family and non-residential developments provide adequate public and private bicycle parking and storage facilities.

Policy TR-P9.10 Develop signage for bikeway connections between transit stops and significant destinations. Provide this signage as funding allows.

Actions

Action TR-A9.1 ~~Consider preparing~~ Prepare and adopt~~ing~~ a Citywide Bicycle Transportation Plan in accordance with the California Streets and Highways Code Section 891.2 to be eligible for Caltrans Bicycle Transportation Account ~~funds as staffing and budget allow~~.

Action TR-A9.2 Establish policies and standards on bike storage and parking requirements

Action TR-A9.3 ~~As budget and staffing allow, establish~~ Establish a signing and marking plan to support the Bicycle Transportation Plan and clearly mark routes to transit stops and significant destinations. The signage plan should also establish priorities for the installation of bicycle route signage.

Action TR-A9.4 Provide online information regarding ~~Research~~ how providing bicycle storage, parking, and other amenities that encourage bicycle trips affect auto trip generation rates as staffing and budget allow.

Action TR-A9.5 Develop ~~Seek~~ funding mechanisms to construct bicycle infrastructure to enhance the citywide bike route network, including completing gaps in the existing bicycle network, and to offset existing and new development's impacts on citywide congestion levels and greenhouse gas emissions.

Goal TR-10 **Ensure safe, pleasant, and convenient pedestrian paths, sidewalks, and trails to accommodate all segments of the population.**

Policies

Policy TR-P10.1 Develop a series of continuous pedestrian walkways within the Downtown and residential neighborhoods.

Policy TR-P10.2 Design separated pedestrian paths and trails to be convenient, visible, and safe for all pedestrian transportation needs.

Policy TR-P10.3 Continue to support programs to improve the mobility of the elderly and disabled, remove existing architectural barriers, and require that new development be accessible to those with physical impairments.

Actions

Action TR-A10.1 Continue to support and facilitate the ADA Advisory Committee as a means to prioritize and address all barriers for people with disabilities on the City roadway network and at public facilities.

Action TR-A10.2 Incorporate into the City's development program or capital improvement program the ~~Seek funding to~~ construction of pedestrian infrastructure to enhance the citywide pedestrian network (including improved access to transit) and to offset existing and new development's impact on citywide congestion levels and greenhouse gas emissions.

Public Transit and Transportation Demand Management

Goal TR-11	**Reduce congestion and driving through transportation systems management (TSM) and transportation demand management (TDM).**

Policies

Policy TR-P11.1 Cooperate with public agencies and other entities to promote local and regional public transit serving Vacaville.

Policy TR-P11.2 Work cooperatively with the Solano Transportation Authority (STA) to promote transportation demand management programs to reduce peak-period trip generation.

Policy TR-P11.3 Work with the Solano Transportation Authority (STA) to encourage major employers to adopt Transportation Systems Management (TSM) programs that will reduce peak-period trip generation by 20 percent or more from the vehicle trip generation currently observed at similar sites without a TSM program.

Policy TR-P11.4 Encourage Transportation Demand Management (TDM) programs that limit vehicle use, such as ridesharing and public transit, over those that extend the commute hour, such as flex-time and staggered work hours, to provide greater benefits to regional air quality.

Actions

Action TR-A11.1 Amend Chapter 10.60, Transportation ~~System~~ Demand Management, of the Vacaville Municipal Code, to implement VMT reduction policies, ~~to be in compliance~~ consistent with State law.

Goal TR-12 Support a comprehensive, convenient, and efficient transit system.

Policies

Policy TR-P12.1 Design transit routes to serve areas with the greatest need and meet the State-required farebox recovery rates so that State funding is not jeopardized.

Policy TR-P12.2 Encourage the expansion of an inter-city public transit/bus system to link Vacaville with neighboring communities.

Policy TR-P12.3 When financially feasible, support increased frequency and operational hours of public transit service consistent with current short- and long-range transit planning.

Policy TR-P12.4 Continue to work with Caltrans and the Solano Transportation Authority (STA) to identify and evaluate sites for parking to connect with transit and support rideshare parking, and establish standards for the development of parking sites for rideshare and transit users.

Policy TR-P12.5 Support and encourage Caltrans to preserve options for future transit use when designing improvements for Interstate and State highways.

Policy TR-P12.6 Remove physical barriers to improve access to transit facilities for the elderly, disabled, and other transit-dependent groups.

Policy TR-P12.7 Require specific plans in new growth areas to include planning for future public transit service to these areas by considering the addition of future transit stops and route connections as part of the public transportation system.

Freight Movement

Goal TR-13 Maintain roads for goods movement.

Policies

Policy TR-P13.1 Maintain existing truck routes.

Actions

Action TR-A13.1 Continue to implement the Extra-Legal Permit Program to limit truck traffic on local roads.

Action TR-A13.2 Continue to enforce designated truck routes to support truck loads and operations and implement the Extra-Legal Permit Program to appropriately route trucks on the City's roadway network and prioritize roadway design that is needed to support truck loads and operations.