CHAPTER

3

CIRCULATION ELEMENT

INTRODUCTION

Greenfield's history and past development patterns have been closely tied to the City's location on Highway 101. Greenfield's future development will similarly depend on and be affected by its circulation system. The Circulation Element provides an overview of the existing and planned transportation network along with the City's policies and implementation program within Greenfield for all major transportation modes. These include motor vehicles, pedestrians, public transit, and bicycles. An introductory section provides a context for the Circulation Element, followed by a section on Goals, Policies and Implementation Programs. The circulation plan section documents planned circulation improvements at build-out of this General Plan, and the setting section provides current conditions.

OVERVIEW

The Circulation Element outlines Greenfield's plan for the provision of convenient and efficient travel within the community and between Greenfield and the region. Key circulation issues for Greenfield include:

- Prioritization and construction of roadway improvements necessary to improve circulation and levels of service;
- Establishment of a minimum Level of Service (LOS) standard for the community;
- Agreement on street design standards that will foster optimal living environments;
- Standardization of streetscape elements on major public streets;
- Identification of measures necessary to enhance pedestrian and bicycle safety;
- Development of minimum emergency access standards;
- Support for increased public transit use;
- Encourage increased bicycle usage;
- Enforcement of traffic laws; and
- Assurance of adequate funding for necessary circulation improvements

These issues are addressed in the Circulation Element sections that follow.

Organization of the Element

The Circulation Element is organized into four main sections; 1) an Introduction section that includes an overview of the

Element and its consistency with State law; 2) a Goals, Policies, and Implementation Programs section addressing all modes of travel and the relationship between transportation and land use; 3) a Circulation Plan; and 4) a setting section that describes current conditions.

CONSISTENCY WITH STATE LAW

Minimum Requirements

The Circulation Element is one of the seven mandated general plan elements identified in State planning and zoning law. Section 65302(b) of the California Government Code specifies that each general plan must include "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." The Greenfield Circulation Element meets these requirements.

California Government Code Section 65401 specifies that public works projects must be in conformity with the General Plan. In practice, this will require that the City, during adoption of the Capital Improvement Program (CIP), make findings that the proposed City of Greenfield CIP is in conformance with the General Plan, including the Circulation Element.

Relationship to Other General Plan Elements

According to state planning law, the Circulation Element must be consistent with the other General Plan Elements, which are all interrelated to a degree. Certain goals and policies of one Element may address issues that are primary subjects of other Elements. This integration of issues throughout the General Plan creates a strong basis for the implementation of plans and programs and achievement of community goals. The Circulation Element is most directly related to the Land Use, Growth Management, and Economic Development Element.

CONSISTENCY WITH COUNTYWIDE PROGRAMS

Since the intent of a circulation system is to link not only different parts of a community, but also the community with the surrounding region, consistency of the Circulation Element with County and State transportation plans and programs is important.

GOALS, POLICIES AND PROGRAMS

I. GENERAL

Goal 3.1
Provide a safe, efficient, and balanced transportation system that accommodates the circulation of vehicles, bicycles, and pedestrians.

Policy 3.1.1
New development shall be consistent with the scale, appearance, and rural community character of Greenfield's neighborhoods.

Policy 3.1.2
Develop and maintain convenient linkages for both vehicular and non-vehicular transportation modes between Greenfield and the surrounding region.

Policy 3.1.3
During project planning and design, developments shall recognize streets as multi-modal transportation corridors and as an interactive community space.

Policy 3.1.4
During the planning and development review process, encourage the incorporation of bicycle, pedestrian, and public transit modes where appropriate.

Program 3.1.A
Prepare and adopt engineering and design standards for circulation facilities, including streets; pedestrian, transit, and bicycle facilities; and multi-modal linkages.

Program 3.1.B
Prepare and adopt design standards for residential streets that balance vehicular movement and safety with slower speeds and avoid the creation of hazards for bicyclists and pedestrians.

Program 3.1.C
Develop and maintain a multi-model circulation and transportation system through regular updates of the Capital Improvement Program.

II. ROADWAYS

Goal 3.2
Ensure that future road development and maintenance of existing roads provides safe pedestrian and vehicle access and movement along City streets.

Policy 3.2.1
Ensure that the City's roadway facilities are maintained with a focus on aesthetics and functionality.

Policy 3.2.2
New development shall include construction or in-lieu fees of new roadways or roadway improvements prior to or concurrent with new development and as deemed appropriate by the City.

Policy 3.2.3
Strive to maintain Level of Service C as the minimum acceptable service standard for intersections and roadways during peak periods and accept an LOS D only when unavoidable and at identified locations.

Policy 3.2.4
Address future roadway needs through both new road construction and management of existing and planned roadway capacity.

Policy 3.2.5
Provide truck routes for large capacity trucking as required for industry and commerce and direct trucks to said routes.

Policy 3.2.6
Encourage and promote vehicle pools, use of public transportation, and incentives to reduce single-occupant vehicle trips.

Program 3.2.A
Establish and adopt a street classification system that identifies the functions of different types of streets for future planning.

Program 3.2.B
Restrict driveway access on streets where the City has 82-foot rights of way or greater.

Program 3.2.C
Regularly revise the Capital Improvement Program budget to include planned transportation maintenance and upgrades.

Program 3.2.D
Update and implement traffic impact fee programs and other programs as necessary to assure sufficient financing and right of way to maintain and achieve prescribed Levels of Service.

Program 3.2.E
Monitor intersection Levels of Service on a biannual basis at key reporting intersections identified by the Public Works Department.

Program 3.2.F
Prepare and adopt City standards for prioritizing roadway improvement projects using the following criteria: traffic volume, traffic safety, pedestrian and bicyclist safety, availability of funding, and other measures of need as appropriate.

Program 3.2.G
Install and maintain truck route signing and marking to direct truck traffic onto designated truck routes that bypass residential neighborhoods and higher density areas.

III. BICYCLES AND PEDESTRIANS

Goal 3.3
Promote walking and bicycling for recreation and transportation by residents and visitors to Greenfield.

Policy 3.3.1
Provide maximum opportunities for bicycle and pedestrian circulation on existing and new roadway facilities.

Policy 3.3.2
Incorporate convenient bicycle and pedestrian access and facilities in new public and private development projects where appropriate.

Policy 3.3.3
Create a bicycle and pedestrian system that provides connections throughout Greenfield and within the region designed to serve both recreational and commuter users.

Policy 3.3.4
Design new roadway facilities to accommodate bicycle and pedestrian traffic.

Program 3.4.A
Develop and implement a Bicycle and Pedestrian Master Plan, which includes design standards for bicycle and pedestrian facilities, evaluation of current bicycle promotion programs, analysis of bicycle and pedestrian accidents, and a capital improvement program to ensure adequate maintenance of bicycle and pedestrian facilities.

Program 3.4.B
Prepare and adopt guidelines for new development to incorporate design features that support bicycling and walking, including bicycle racks, lockers, and other support facilities; continuous sidewalks; an internal pedestrian circulation plan; walkways for pedestrians and bicyclist between cul-de-sacs; and at least one major entrance adjacent to a sidewalk, particularly in those areas that could provide access to and between major destinations.

Program 3.4.C
Develop a strategic approach to pursuing funding opportunities for bicycle and pedestrian improvement projects, working closely with other agencies and neighboring jurisdictions.

Program 3.4.D
Coordinate with the local school districts to create well-designed safe routes to schools, maps for bicyclists and pedestrians, and to provide adequate facilities for bicycle parking.

Program 3.4.E
Prepare and adopt development standards that require the inclusion of Class I, II, or III bicycle facilities on new roadways as appropriate.

Program 3.4.F
Prepare and adopt development standards that require sidewalks on all roads, except in cases where very low pedestrian volumes and/or safety considerations warrant elimination or reduction of sidewalks.

IV. PUBLIC TRANSPORTATION

Goal 3.4
Work with transportation agencies to provide adequate, convenient, and affordable public transportation.

Policy 3.4.1
Design new roadways to physically accommodate public transit.

Policy 3.4.2
Encourage transit providers to improve transit routes, frequency, and level of service to serve the mobility needs of Greenfield residents.

Policy 3.4.3
Support County programs that provide transportation services to the elderly and handicapped.

Policy 3.4.4
Support the use of transit facilities by promoting public transit, ride sharing, and Dial-a-Ride systems.

Program 3.4.A
Coordinate with the local school districts to promote access and roadway designs that support future school bus requirements.

Program 3.4.B
Prepare and adopt development standards that require convenient access to public transit including but not limited to public transit vehicle stops and associated turning maneuvers.

Program 3.4.C
Develop a strategic approach to pursue funding opportunities for public transit service within Greenfield and linking with the surrounding region, while working closely with other agencies and neighboring jurisdictions.

Program 3.4.D
Coordinate with Monterey Salinas Transit to ensure that adequate fixed route transit service is provided within Greenfield, and linking with the surrounding region, including convenient transfers between transit services and other modes of travel.

V. NEIGHBORHOOD TRAFFIC MANAGEMENT AND SAFETY

Goal 3.5
Monitor, improve, and enhance traffic and pedestrian safety by reducing the risk of vehicle conflicts with pedestrians and other vehicles.

Policy 3.5.1
Provide consistent, comprehensive traffic safety law enforcement throughout Greenfield.

Policy 3.5.2
Develop and maintain a roadway system that maximizes safety for all users.

Policy 3.5.3
Provide safe and efficient emergency response routes throughout the City.

Program 3.5.A
Allocate adequate funding and other resources for traffic enforcement activities during the development of the City's annual budget.

Program 3.5.B
Allocate adequate funding to maintain roadway marking, signs, and striping during the development of the City's annual budget.

Program 3.5.C
Coordinate with local fire protection and law enforcement agencies regarding emergency response routes and plans.

Program 3.5.D
Support and pursue funding for *Safe Routes to Schools* projects to enhance pedestrian safety within Greenfield.

VI. REGIONAL COORDINATION

Goal 3.6
Participate in regional transportation and land use planning to promote and protect the interests and objectives of the community.

Policy 3.6.1
Ensure that Greenfield is represented in all Monterey County regional and sub-regional forums.

Policy 3.6.2
Work with other agencies to address multi-jurisdictional issues affecting Greenfield.

Policy 3.6.3
Coordinate with Monterey County in planning and design of roadway facilities that link Greenfield with the region.

Policy 3.6.4
Ensure that Greenfield obtains its fair share of regional improvements funded from impact fees collected within Greenfield.

Program 3.6.A
Provide written comments on environmental documents prepared by other agencies that affect Greenfield.

Program 3.6.B
Coordinate with TAMC, Monterey-Salinas Transit, Caltrans, and other transportation agencies to ensure that Greenfield's transportation planning objectives are included in the roadway planning and design process.

VII. LAND USE COORDINATION

Goal 3.7
Coordinate land use and transportation planning with other public and private agencies to ensure the most efficient and usable circulation program possible.

Policy 3.7.1
Minimize the noise, visual, and other impacts of major roadway projects on surrounding land uses.

Policy 3.7.2
Integrate land use development and transportation planning in project design.

Policy 3.7.3
Ensure that the density and pattern of future land uses (both public and private) encourage transit usage, walking, and bicycling.

Policy 3.7.4
New development shall provide sufficient parking, while considering the effect of parking supply on the use of alternate modes of transportation.

Policy 3.7.5
Minimize potential circulation conflicts between new and existing roadways.

Policy 3.7.6
Minimize vehicular trips between different land uses and encourage multi-modal access.

Policy 3.7.7
Ensure safe pedestrian, bicycle, and vehicle access to existing Greenfield schools and through the proactive planning and design of future school facilities.

Policy 3.7.8
Encourage mixed-use development that decreases the number of vehicle trips required between uses, maximizes trip-linking opportunities, and encourages walking and bicycling.

Policy 3.7.9
Implement the Thorne Road interchange upgrade prior to installing the Pine Street Bridge over Highway 101.

Program 3.7.A
Develop and maintain a close working relationship with public and private agencies to minimize the effect of major roadway construction projects on nearby land uses.

Program 3.7.B
Review off-street parking standards for various land uses, and prepare and adopt revised parking requirements that are consistent with the goals for increased use of alternative transportation modes, and encourage shared parking where appropriate.

Program 3.7.C
Analyze the feasibility of public parking lots in the downtown area if on-street supply becomes insufficient to serve the parking demand.

Program 3.7.D
Analyze potential physical barriers to walking and bicycling in the City and develop a program for elimination of identified barriers.

Program 3.7.E
Continue to implement Greenfield's Downtown Streetscape design standards and develop and adopt streetscape standards for other City locations, as appropriate.

CIRCULATION PLAN

Build-out of the Greenfield General Plan will result in an estimated population of over 36,000. Other communities in the Salinas Valley are also anticipating substantial growth in the future. This growth in population and employment will cause significant increases in travel in and around the City. Additional transportation facilities will be needed to accommodate the increased demand. The following sections describe how the components of the City's circulation system are expected to change over time to meet transportation needs.

ROADWAYS AND INTERSECTIONS

The future circulation system in Greenfield is designed to accommodate forecasts of traffic demand based on the land use projections contained in the Land Use Element, while continuing to achieve the Level of Service standard presented in this Element. The land uses in **Figure 2-3** would generate approximately 163,400 trips on the road network. **Figures 3-1A** *Circulation Diagram and Roadway Classification* and **3-1B** *Future Right-of-Way*, present the proposed circulation system for Greenfield, showing the street classification and size needed to accommodate the growth in travel demand. **Table 3-1** shows the City's LOS standard, the mitigated LOS at General Plan Buildout, and the roadway type. (The concept of level of service is described in greater detail in the Setting section of this chapter.) Information on the future daily traffic volumes and trip distribution can be found in the Higgins & Associates Traffic Report in the Technical Appendices.

Key features of the Greenfield roadway system include:

- Improvement of Highway 101 interchanges.
- Widening of Walnut Avenue between Highway 101 and El Camino Real.
- Construction of a new north-south arterial along Third Street from the Thorne Road interchange to the Espinosa Road/El Camino Real (South) interchange. This arterial would follow the existing alignment between Pine Avenue and Elm Avenue.
- Construction of a bridge on Pine Avenue across Highway 101.
- Widening of El Camino Real north of Cherry Avenue to include four lanes and a median.

These improvements are discussed in more detail in the Higgins & Associates Traffic Report in the Technical Appendices.

It must be noted that the alignment of future roadways as presented on the Circulation Diagram is schematic. Precise alignments will be subject to further study prior to development. Further details about the methodologies used to determine circulation needs and the results of the analysis can be found in the Higgins & Associates Traffic Report in the Technical Appendices.

Table 3-1
Future Roadway Levels of Service with Recommended Road Type

Roadway Segment	City LOS Standard	Mitigated LOS	Required Roadway Type
Walnut Avenue - between -10th Street and El Camino Real	C	B	4 lane undivided Arterial (no left turn lane)
Walnut Avenue - east of - El Camino Real	C	B	4 lane undivided Arterial (no left turn lane)
Walnut Avenue - west of - Hwy 101	D	D	4 lane undivided Arterial (no left turn lane)
Walnut Avenue - east of - Hwy 101	D	D	6 lane divided Arterial (w/ left turn lane)
Walnut Avenue - west of - 3rd Street	D	D	4 lane divided Arterial (w/ left turn lane)
Walnut Avenue - east of - 3rd Street	C	A	2 lane Arterial (w/ left turn lane)
Oak Avenue - between - El Camino Real and 7th Street	C	B	2 lane Arterial (w/ left turn lane)
Oak Avenue - between - 7th Street and Hwy 101	C	B	2 lane Arterial (w/ left turn lane)
Oak Avenue - between - Hwy 101 and 3rd Street	C	B	2 lane Arterial (w/ left turn lane)
Elm Avenue - between - 12th Street and 11th Street	C	A	2 lane Arterial (w/ left turn lane)
Elm Avenue - between - 11th Street and El Camino Real	C	A	2 lane Arterial (w/ left turn lane)
Elm Avenue - between - El Camino Real and 7th Street	C	A	2 lane Arterial (w/ left turn lane)
Elm Avenue - between - 7th Street and Hwy 101	C	A	2 lane Arterial (w/ left turn lane)
El Camino Real - between - Walnut Avenue and Reed Way	C	B	4 lane undivided Arterial (no left turn lane)
El Camino Real - north of - Cherry Avenue	C	C	2 lane Arterial (w/ left turn lane)
El Camino Real - south of - Pine Avenue	C	C	2 lane Arterial (w/ left turn lane)
El Camino Real - north of - Pine Avenue	C	B	4 lane undivided Arterial (no left turn lane)
El Camino Real - south of - Cypress Avenue	C	C	4 lane undivided Arterial (no left turn lane)
El Camino Real - between - Cypress Avenue and Thorne Road	C	C	4 lane undivided Arterial (no left turn lane)
3rd Street - between - Oak Avenue and Palm Avenue	C	C	2 lane Arterial (w/ left turn lane)
3rd Street - between - Palm Avenue and Apple Avenue	C	A	4 lane undivided Arterial (no left turn lane)
3rd Street - north of - Apple Avenue	C	D	2 lane Arterial (w/ left turn lane)
3rd Street - south of - Walnut Avenue	C	A	2 lane Arterial (w/ left turn lane)
3rd Street - north of - Walnut Avenue	C	C	4 lane undivided Arterial (no left turn lane)
3rd Street - south of - Cherry Avenue	C	A	4 lane undivided Arterial (no left turn lane)
3rd Street - north of - Cherry Avenue	D	D	2 lane Arterial (w/ left turn lane)

Source: *Higgins & Associates, January 2005*

Road Classifications

Local Streets

Local streets are two-lane undivided streets designed for trips within neighborhoods, and to connect to collectors and arterial streets. Local streets provide low-speed access to neighborhood land uses, and usually carry less than 2,000 vehicles per day.

Collector Streets

Collector streets are two-lane divided streets used to travel between neighborhoods, usually for relatively short trips within neighborhoods or between local streets and the arterial street system. Collector streets have relatively low speed limits, and sometimes may have restricted access to neighboring land uses.

Arterial Streets

Arterial streets accommodate relatively high traffic volumes and provide the major circulation between activity centers, freeways, and other arterials. Access to local land uses is restricted along arterial streets, to preserve their capacity to serve higher volumes and longer-distance travel. Minor arterials can have two or four lanes, and typically do not have a median or other divider. Major arterials are typically divided streets with four or more lanes.

A single road section within Greenfield, Walnut Avenue east of the Highway 101, will require an upgrade to six lane arterial to serve the City at build-out. Typically, once traffic exceeds 35,000 average daily vehicle trips an upgrade from four to six lanes is required.

Illustrative Road Sections

Typical road sections are shown on **Figures 3-2** through **3-5** depicting appropriate design of the major categories of streets described above. In all cases, the ultimate design of each individual street should be sensitive to the surrounding land uses and the needs of the neighborhoods through which it passes.

The road sections illustrated in **Figures 3-2** through **3-5** represent varied design strategies that the City may determine appropriate based upon the circulation requirements within the vicinity of roads that are to be either expanded or newly constructed.

Truck Routes

The industrial and agricultural uses in and around the City generate truck traffic on the local road network. As the City develops, 2nd Street will provide the primary route for regional goods movement through the area. El Camino Real will continue to serve as the primary route for goods movement within Greenfield, and will be connected to 2nd Street by most east-west streets in the City (Walnut Avenue, Oak Avenue, Apple Avenue, etc.)

The following routes are recommended as truck routes in the City. The selection of these routes is based on citywide land use designations and the regional significance of Elm Avenue and Thorne Road.

- Elm Avenue
- Thorne Road
- 13th Street
- 2nd Street
- Walnut Avenue between El Camino Real and 2nd Street

- El Camino Real north of Walnut Avenue and south of Elm Avenue.
- Third Street south of Elm Avenue and north of Apple Avenue.

These routes would be signed as truck routes and enforced as such.

BICYCLE AND PEDESTRIAN CIRCULATION

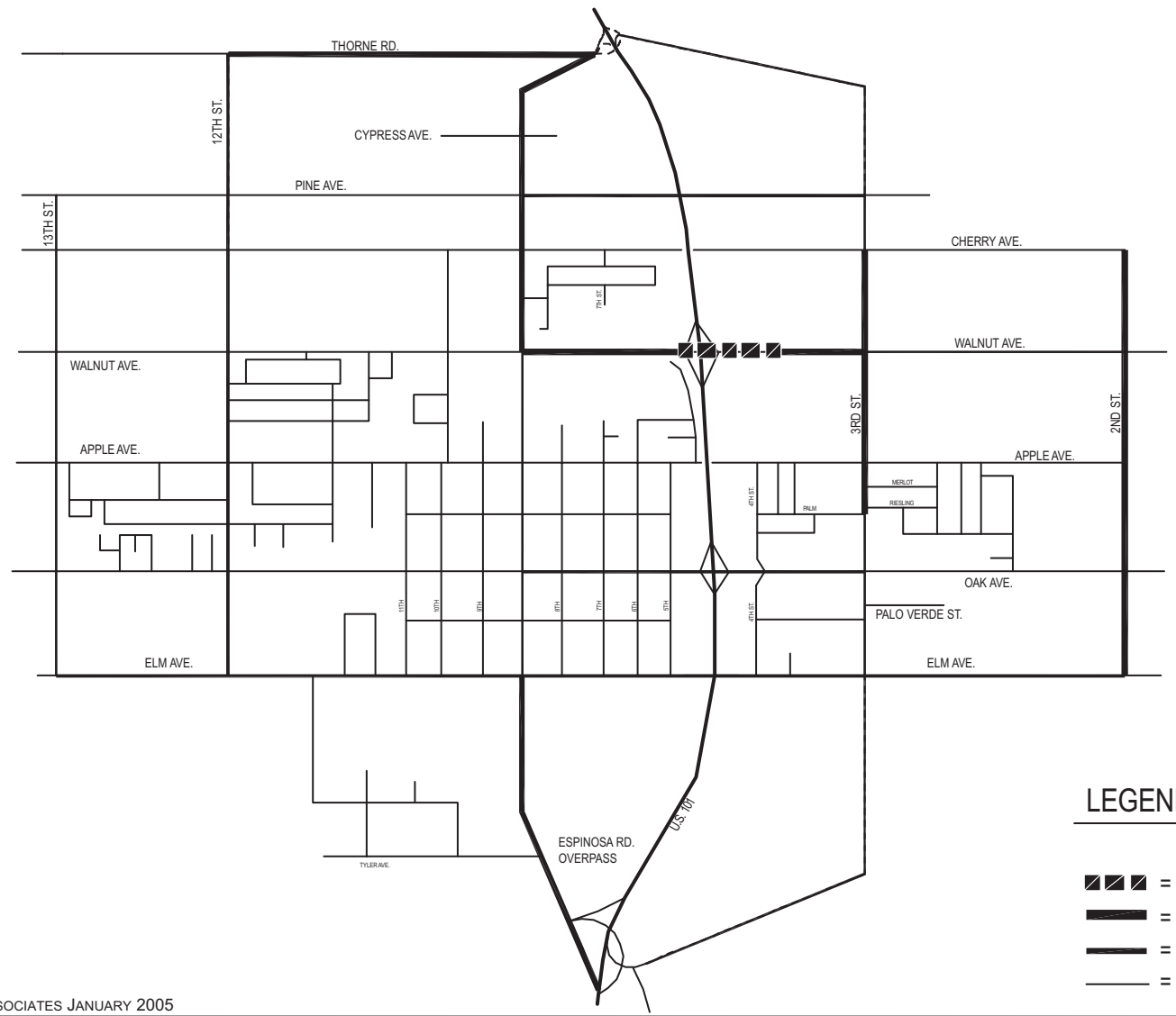
Bicycles are a promising mode of transportation in Greenfield because of the relatively flat terrain and generally favorable climate. Development of a comprehensive bikeway system within Greenfield would encourage the use of bicycles as a regular mode of transportation, which is a goal of this General Plan. Another goal of the General Plan is to support pedestrian activity by providing pedestrian facilities within existing and new development areas, and to eliminate both physical and perceived barriers that prevent or discourage pedestrians from walking between destinations.

To further the objective of providing a well-designed and convenient bicycle and pedestrian circulation system, a Bicycle and Pedestrian Master Plan will be developed, including design standards for bicycle and pedestrian facilities, evaluation of current bicycle promotion programs, analysis of bicycle and pedestrian accidents, and a capital improvement program to ensure adequate maintenance of bicycle and pedestrian facilities. The City will also maintain an inventory of bicycle and pedestrian facilities, which will allow identification of gaps in the bicycle/pedestrian system and will contribute to the development of the Bicycle and Pedestrian Master Plan. A map of proposed bicycle lanes is included as **Figure 7-5** in the Conservation, Recreation and Open Space Element.

TRANSIT

Future transit needs in Greenfield include both internal circulation and commute services. The City should continue to coordinate with Monterey-Salinas Transit to improve service within Greenfield, and between Greenfield and other Monterey County destinations. Improvements to longer-distance commute routes could include service between Greenfield and major employment centers on the Monterey Peninsula. The City should work with regional transit agencies to coordinate this type of service, and should identify locations for additional park-and-ride facilities that could contribute to the success of commute-oriented transit services.

The policies in the General Plan support the use and expansion of transit services in Greenfield. Some policies call for the City to work with Monterey Salinas Transit and major developers to ensure that new roads and development projects include appropriate facilities for transit service, such as bus stops and shelters. Others encourage land use patterns that minimize vehicle trips and support transit usage.



CIRCULATION DIAGRAM.CDR 228/05

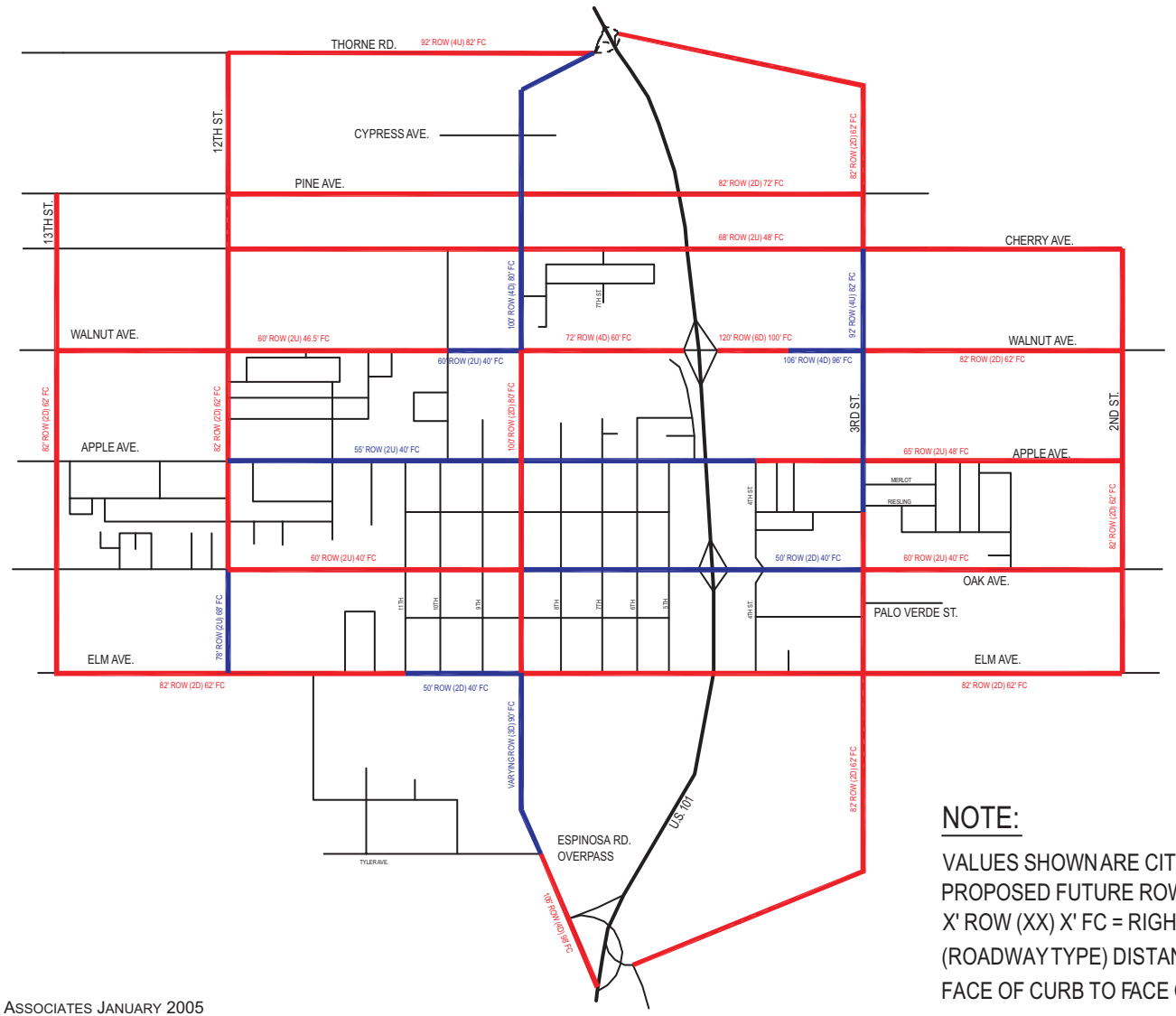
SOURCE: HIGGINS ASSOCIATES JANUARY 2005

NO SCALE

FIGURE 3-1A
CIRCULATION DIAGRAM (ROADWAY CLASSIFICATIONS)

PMC
PACIFIC MUNICIPAL CONSULTANTS

GREENFIELD GENERAL PLAN BUILDOUT FUTURE RIGHT-OF-WAY (ROW)



NOTE:

VALUES SHOWN ARE CITY OF GREENFIELD'S PROPOSED FUTURE ROW
X' ROW (XX) X' FC = RIGHT OF WAY
(ROADWAY TYPE) DISTANCE FROM
FACE OF CURB TO FACE OF CURB

SOURCE: HIGGINS ASSOCIATES JANUARY 2005

NO SCALE

CIRCULATION DIAGRAM.CDR 2/28/05

FIGURE 3-1B
GREENFIELD GENERAL PLAN BUILDOUT FUTURE RIGHT-OF-WAY (ROW)

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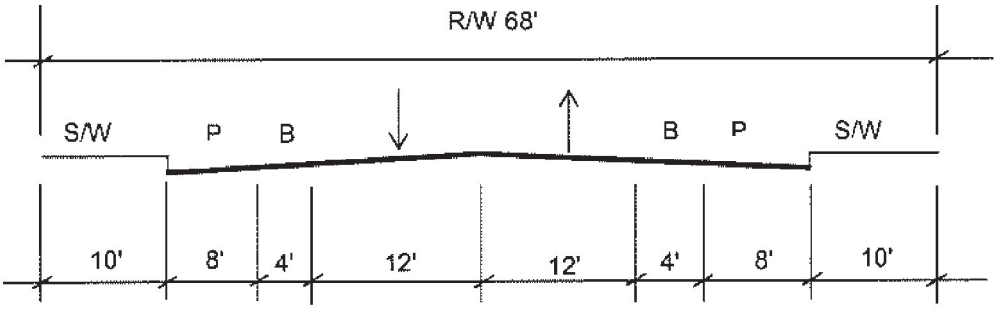
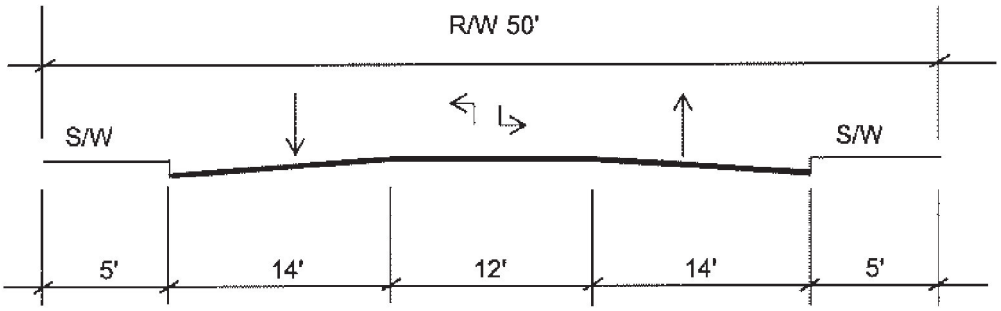
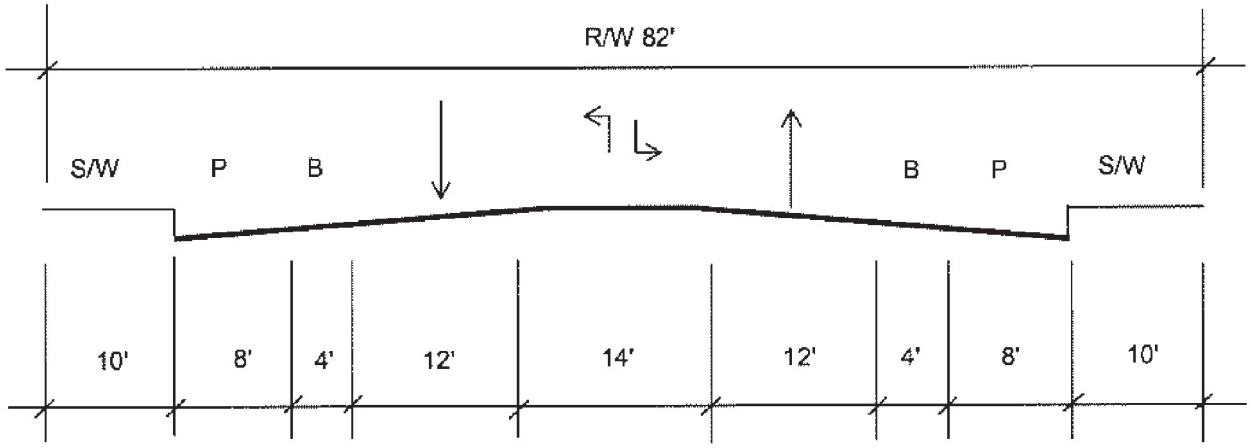
PACIFIC MUNICIPAL CONSULTANTS



2- Lane Local street with Parking and Bike Lane



2- Lane Divided Collector, no Parking or Bike Lane



2-Lane Divided Collector with Parking and Bike Lane

Source: Higgins Associates January 2005

CROSS SECTION 1.CDR 09/3/04

NO SCALE

FIGURE 3-2
STREET CROSS SECTION 1

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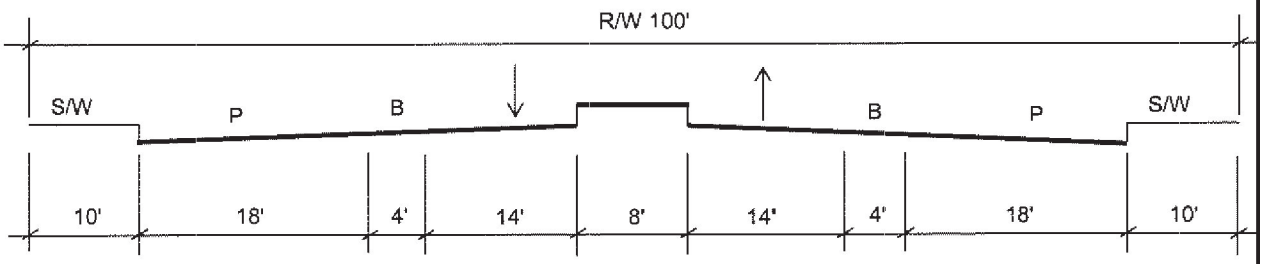
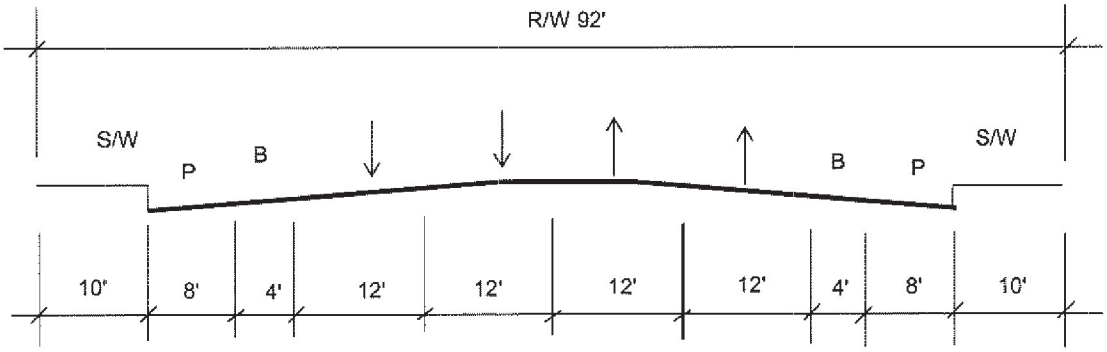
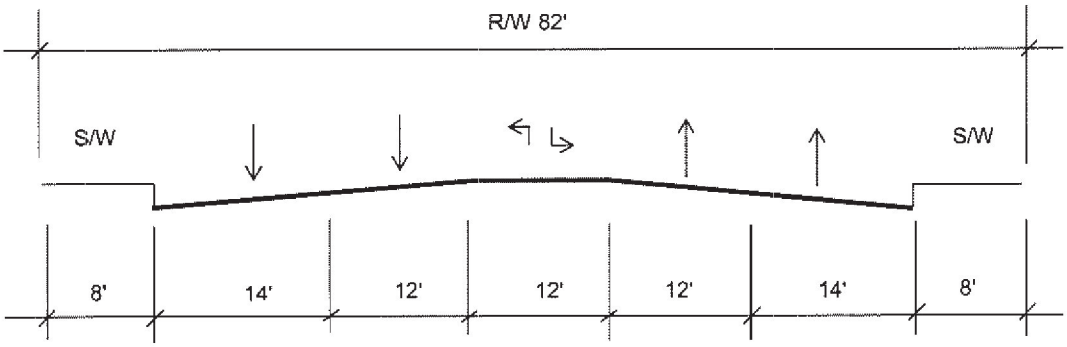
PACIFIC MUNICIPAL CONSULTANTS



2-Lane Divided Collector with Diagonal Parking and Bike Lane (Downtown)



4-Lane Undivided Arterial with Parking and Bike Lane



4-Lane Divided Arterial

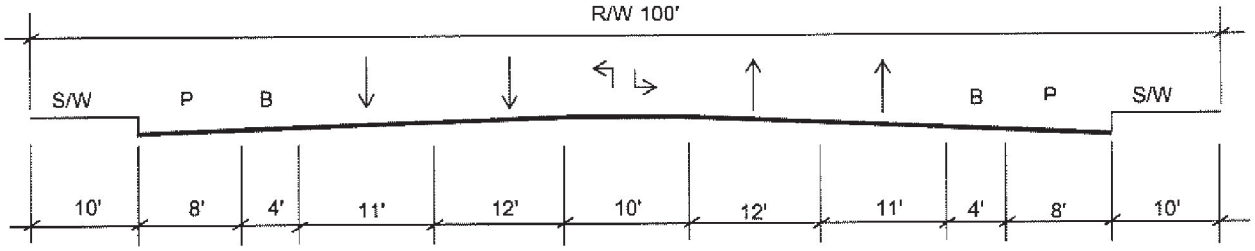
CROSS SECTION 2.CDR 09/3/04

Source: Higgins Associates January 2005

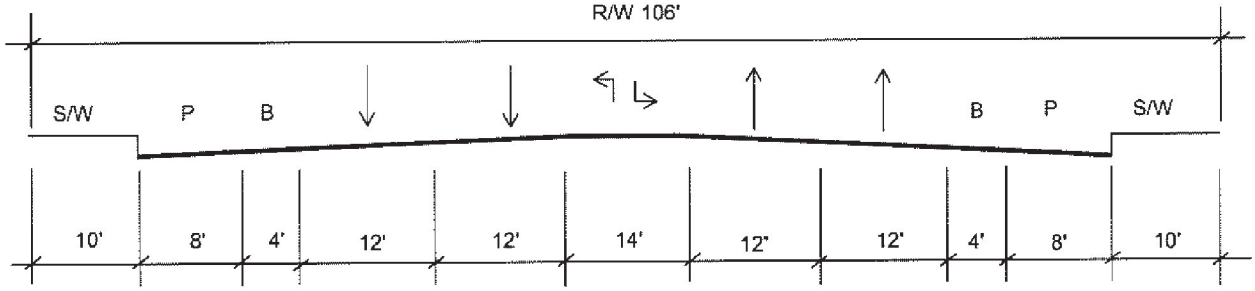
NO SCALE

FIGURE 3-3
STREET CROSS SECTION 2

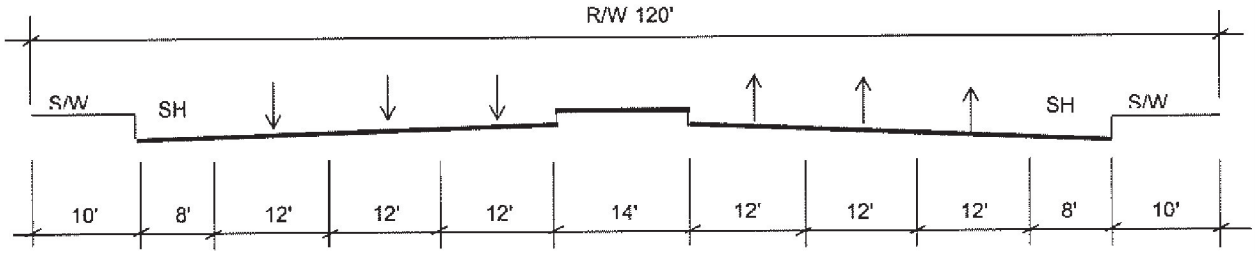
PMC
PACIFIC MUNICIPAL CONSULTANTS



4-Lane Divided Arterial with Parking and Bike Lane
EXISTING TYPICAL CROSS SECTION



4-Lane Divided Arterial with Parking and Bike Lane
(Future Development)



6-Lane Divided Arterial with Shoulders

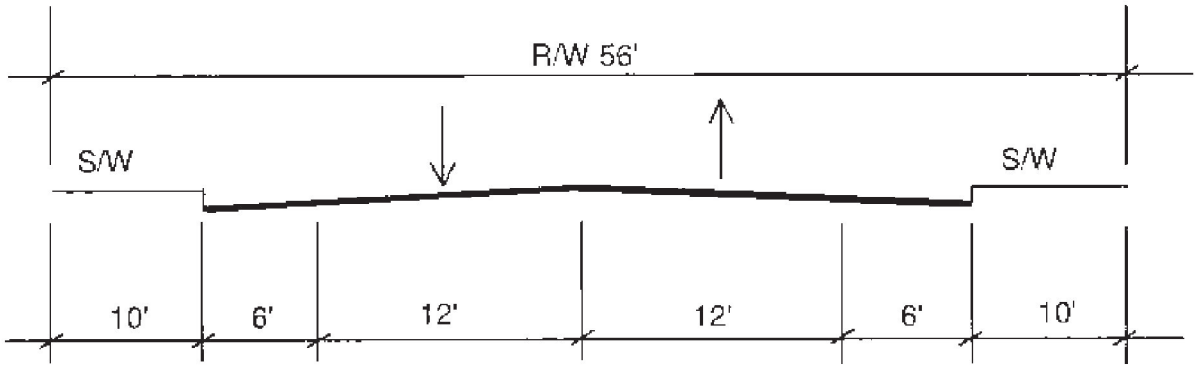
CROSS SECTION 3.CDR 09/3/04

Source: Higgins Associates January 2005

NO SCALE

FIGURE 3-4
STREET CROSS SECTION 3

PMC
PACIFIC MUNICIPAL CONSULTANTS



2- Lane Undivided Local Street for Subdivision

CROSS SECTION 3.CDR 09/14/04

Source: Higgins Associates January 2005

NO SCALE

FIGURE 3-5
STREET CROSS SECTION 3

PMC
PACIFIC MUNICIPAL CONSULTANTS

SETTING

The Setting section of the Circulation Element describes existing conditions of the City's transportation system, including the legislative and policy environment that affects circulation plans and programs. This information provides the background for the goals, policies, and implementation programs that reflect the community's vision for the future of Greenfield.

Project Description

The City of Greenfield is located in an agricultural area within the Salinas Valley in Monterey County. Although it has many land uses, Greenfield is primarily a residential community. The downtown area along El Camino Real provides most of the commercial/service employment within the City. There is additional commercial land between Highway 101 and El Camino Real along Walnut Avenue. The industrial areas are located primarily on Elm Avenue between Third Street and Fourth Street and between Walnut Avenue and Cherry Avenue. Employment for many Greenfield residents is provided by the vast amount of agriculture activities throughout Salinas Valley. Greenfield also serves as a bedroom community for Salinas and other larger cities in northern Monterey County. The existing major streets in the City of Greenfield are shown on **Figure 3-5.**

The Transportation and Traffic Study by Higgins & Associates describes the existing and future traffic conditions within Greenfield and identifies the required roadway improvements and associated costs. It also includes the development of a Revised Traffic Impact Fee to fund the required improvements.

General Plan Development of the City of Greenfield

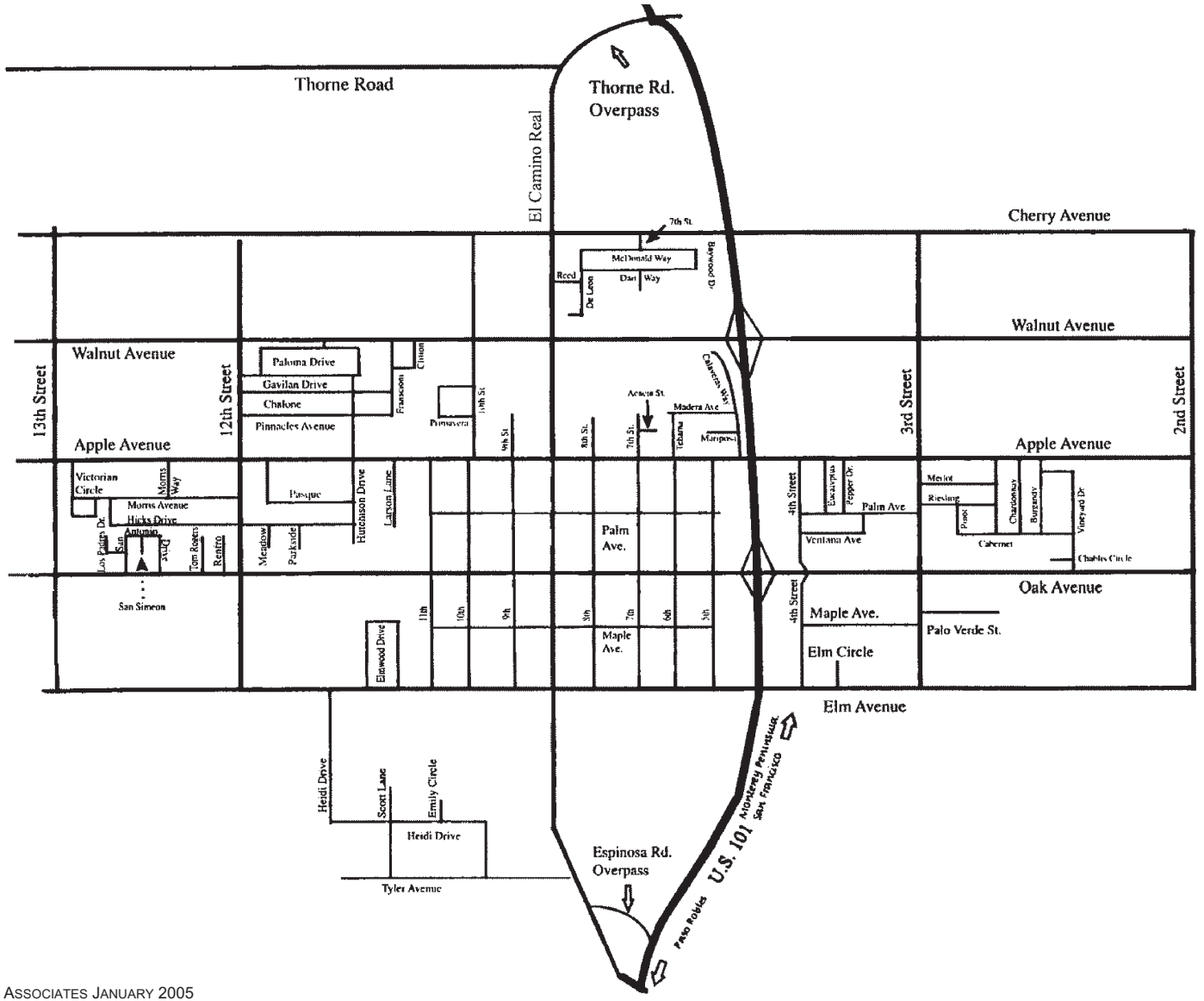
The Transportation Master Plan for the City of Greenfield was last updated in 1998. It includes existing and future traffic conditions analysis and established a Capital Improvement Plan, which provides means to finance roadway improvements within the City for future development.

A grid of major arterials, collectors and local streets is indicated in **Figure 3-6.** The fringe areas around the City are expected to develop first and a similar expanding grid is expected to develop within the next 20 years. The road portion of the network is fundable within the General Plan timeframe.

The previous General Plan was compiled in 1981 with various updates performed since. A brief update of the Circulation Element was provided in 1996 to take into account new annexation areas to the north and the east, as well as the future Yanks Air Museum, northeast of the present City boundary. A further update was completed in 1998 that revised forecast volumes to reflect changes in the City's General Plan Land Use Map, in particular the change of 30 acres of commercial to light industrial north of Apple Avenue and West of Third Street. (Refer to the City of Greenfield's Land Use Map, **Figure 2-3**). It also focused on several specific portions of the City's street network to ensure that the road system is adequately designed to accommodate General Plan Buildout traffic conditions. The update included anticipated traffic conditions associated with the City's modified Sphere of Influence (SOI). Since the last Circulation Element update, several new annexations and development projects have been proposed in the City. These include the following:

- Yanks Air Museum
- Cherry Avenue Subdivision

- Gianolini Residential Annexation
- Rava Residential Annexation
- Thorp Annexation
- Walnut Place Subdivision
- St. Charles Place Mixed Use Development



STREET NETWORK.CDR 9/3/04

SOURCE: HIGGINS ASSOCIATES JANUARY 2005

NO SCALE

FIGURE 3-6
EXISTING STREET NETWORK

PMC
PACIFIC MUNICIPAL CONSULTANTS

Existing Road Network

Greenfield has a grid system of roadways with Highway 101 traversing through the City in a north-south direction. The major roads in the existing roadway network are described below.

Highway 101 is a four lane freeway running in a north-south direction, owned and maintained by the State of California. Highway 101 provides regional access to Greenfield, connecting the City with Soledad, Gonzales, and Salinas to the north and King City to the south. There are four full access interchanges on Highway 101 that provide access to the City, including the northern end of El Camino Real, Walnut Avenue, Oak Avenue, and the southern end of El Camino Real.

El Camino Real is classified as an arterial and has a north-south alignment terminating at Highway 101 at both ends. El Camino Real is approximately 80 feet wide with one travel lane in each direction between Cherry Avenue and Apple Avenue. South of Apple Avenue, El Camino Real provides one lane in each direction, a raised island in the median and diagonal parking on both sides of the street within downtown.

Walnut Avenue has an east-west alignment traversing the central portion of the City. Walnut Avenue provides for one lane of travel in each direction and gives direct access to the main shopping center as well as the Highway 101 interchange.

Elm Avenue has an east-west alignment traversing the southerly portion of the City. Elm Avenue provides for one lane of travel in each direction. To the west of town, Elm Avenue becomes Arroyo Seco Road. To the east it links to Metz Road.

Collector streets, which include Apple Avenue, Oak Avenue, Third Street, Fifth Street, Eleventh Street, and Twelfth Street provide access between residential areas and arterial streets. Most of the collector streets are 40 to 44 feet wide and have one lane in each direction, except Apple Avenue where portions are only 30 feet wide. Oak Avenue also provides access to Highway 101.

Segments and Intersections Analyzed for Existing Conditions

The following segments and intersections were selected for analysis. The street segment included in the analysis takes into account future development of the City and the roadway network requirements to support the expected growth.

Table 3-2
Segments Studied for Existing Conditions

STATE HIGHWAYS		
Highway 101	- north of -	Thorne Road
Highway 101	- between -	Thorne Road and Walnut Avenue
Highway 101	- between -	Walnut Avenue and Oak Avenue
Highway 101	- between -	Oak Avenue and Espinosa Road Overpass
Highway 101	- south of -	Espinosa Road Overpass
COUNTY ROADS		
Thorne Road	- west of -	El Camino Real
Elm Avenue	- west of -	12th Street
Elm Avenue	- east of -	3rd Street

CITY STREETS		
Pine Avenue	- between -	3rd Street and 12th Street
Cherry Avenue	- between -	2nd Street and 12th Street
Walnut Avenue	- between -	2nd Street and 12th Street
Apple Avenue	- between -	2nd Street and 12th Street
Oak Avenue	- between -	2nd Street and 12th Street
Elm Avenue	- between -	2nd Street and 13th Street
13th Street	- between -	Elm Street and Cherry Avenue
12th Street	- between -	Elm Street and Cherry Avenue
10th Street	- between -	Elm Street and Cherry Avenue
El Camino Real	- between -	Highway 101 south and Highway 101 north
5th Street	- between -	Elm Avenue and Apple Avenue
4th Street	- between -	Elm Avenue and Apple Avenue
3rd Street	- between -	Elm Avenue and Cherry Avenue
2nd Street	- between -	Elm Avenue and Cherry Avenue

Table 3-3
Intersections Studied for Existing Conditions

STATE
Hwy 101 NB On-Ramp and Livingston Road
El Camino Real and Hwy 101 SB Off-Ramp – Thorne Road
El Camino Real and Hwy 101 SB On-Ramp
Hwy 101 NB On-Ramp and Hwy 101 SB On-Ramp (El Camino north)
Hwy 101 SB Ramps and Walnut Avenue
Hwy 101 NB Ramps and Walnut Avenue
Hwy 101 SB Ramps and Oak Avenue
Hwy 101 NB Ramps and Oak Avenue
El Camino Real (S) and Hwy 101 NB – Espinosa Road Overpass
Hwy 101 NB Off-Ramp and Hwy 101 NB On-Ramp (S) – Patricia Lane
CITY
El Camino Real and Pine Avenue
El Camino Real and Cherry Avenue
El Camino Real and Walnut Avenue
El Camino Real and Apple Avenue
El Camino Real and Oak Avenue
El Camino Real and Elm Avenue
El Camino Real and Tyler Avenue
12th Street and Oak Avenue
12th Street and Elm Avenue
2nd Street and Elm Avenue
4th Street and Elm Avenue
5th Street and Elm Avenue
3rd Street and Oak Avenue
4th Street and Oak Avenue
7th Street and Oak Avenue
12th Street and Walnut Avenue
3rd Street and Apple Avenue
El Camino Real and Cypress Avenue

Existing Traffic Conditions

Level of service (LOS) is a qualitative assessment of motorist and passenger perceptions of traffic conditions. LOS generally reflects traveling conditions such as travel time and speed, freedom to maneuver, and traffic interruptions, using quantifiable traffic measures such as average speed, intersection delays, and volume to capacity ratios to approximate driver satisfaction. The LOS measures differ by roadway type because the user's perceptions and expectations vary by roadway type. Individual levels of service are designated from LOS A for most favorable to LOS F for the least favorable conditions, which each represent a range of conditions. LOS A represents free-flow conditions, while LOS F indicates excessive delays and jammed conditions. Intersection and roadway segment traffic operations are evaluated using the Level of Service (LOS) concept. Descriptions for each LOS are shown in **Table 3-4**. LOS definitions for Two-Way-Stop Control (TWSC), All-Way-Stop Control (AWSC), and signalized intersection control are shown in **Table 3-5** and **Table 3-6.**

Factors that may affect traffic flow conditions on roadway segments include intersection channelization design, type of traffic control devices, bicycle and pedestrian volumes, driveway activities, and on-street parking activities. Furthermore, urban street levels of service are based on through-vehicle travel speed for the segment or for the entire street under consideration. Travel speed is the basic service measure for urban streets. **Table 3-7** and **Table 3-8** list the current and proposed LOS standard for the study segments and study intersections, respectively. To accommodate future land use development in an efficient and effective manner, certain roadways and intersections have been assigned an LOS D standard threshold. These roadways include El Camino Real, Third Street and sections of Walnut Avenue.

Table 3-4
Corridor Traffic Level of Service (LOS) Descriptions

LOS	Descriptions
A	Description includes free-flow conditions; vehicles are unimpeded and free to set their own speed. Maneuverability (ability to change lanes and merge) is very easy, and there are many gaps in the arterial traffic for vehicles to turn out of side-streets or driveways into the arterial. Most vehicles pass through signalized intersections without stopping. For freeways, the average speed is 65 mph or greater.
B	Some restriction in the ability of drivers to set their own speed occurs, but overall conditions are very good. The average actual speed of travel (including stops) varies by type of facility and speed limit, but typically is 19-34 mph (including stops). Most freeway traffic flows at 65mph or greater, but slower vehicles may occasionally reduce speeds for some vehicles.
C	Restrictions in maneuverability begin to occur; vehicle speeds are generally limited by the other vehicles in the traffic stream, but conditions are still generally acceptable to good. Depending on the type of street, the average speed is between 13 and 28 mph, including stops. Freeway traffic continues to flow smoothly, but the density of traffic impedes easy lane changes, and slower vehicles (trucks, RV's, etc.) begin to have a noticeable impact on the speed of other vehicles. Average freeway speeds are generally close to 65 mph.
D	Considerable restriction in the ability to maneuver or change lanes; number of vehicles waiting at signals ("queues") may be quite long at some intersections. Arterials average 9 to 22 mph, depending on the street. Freeway traffic moves well (55-60 mph) but is very "tight".
E	Great restriction on maneuverability; vehicles on city streets may have to wait through more than repetition of lights (a "cycle") to get through a signalized intersection. Arterial speeds are typically in the 7 to 17 mph range including stops. Freeway traffic is very dense with little ability to maneuver. Speeds can be erratic and vary greatly during the peak hour. As a freeway gets near its physical capacity, speeds will generally drop to 25 to 35 mph.
F	Although LOS "F" does not automatically imply "gridlock", speeds are low overall and delay is very high. At intersections, the stopped delay of all vehicles passing through the intersection averages more than a minute. Arterial speeds overall may be less than 7 mph on business district streets, and less than 13 mph on other streets. Freeway speeds will be erratic with stop-and-go operation, but generally average at least 9 mph. Vehicles may wait at ramps to get on the freeway.

Source: Transportation Research Board, Highway Capacity Manual 2000

Table 3-5
Level of Service Definitions for TWSC and AWSC Intersections

Level of Service	Expected Delay	Average Total Delay (Seconds/Vehicle)
A	Little or no delay	≤ 10
B	Short traffic delays	> 10-15
C	Average traffic delays	> 15-25
D	Long traffic delays	> 25-35
E	Very long traffic delays	> 35-50
F	Extreme delays potentially affecting other traffic movements in the intersection	> 50

Source: Transportation Research Board, Highway Capacity Manual 2000

Table 3-6
Level of Service Definitions for Signalized Intersections

Level of Service	Expected Delay	Average Total Delay (Seconds/Vehicle)
A	Little or no delay	≤ 10
B	Short traffic delays	> 10-20
C	Average traffic delays	> 20-35
D	Long traffic delays	> 35-55
E	Very long traffic delays	> 55-80
F	Extreme delays potentially affecting other traffic movements in the intersection	> 80

Source: Transportation Research Board, Highway Capacity Manual 2000

Table 3-7
LOS Standard for Segments Studied

Road Segment			LOS Criteria (Existing) GPBO
STATE HIGHWAYS			
Highway 101	- north of -	Thorne Road	C/D
Highway 101	- between -	Thorne Road and Walnut Avenue	C/D
Highway 101	- between -	Walnut Avenue and Oak Avenue	C/D
Highway 101	- between -	Oak Avenue and Espinosa Road Overpass	C/D
Highway 101	- south of -	Espinosa Road Overpass	C/D
COUNTY ROADS			
Thorne Road	- west of -	El Camino Real	C/D
Elm Avenue	- west of -	13th Street	C/D
Elm Avenue	- east of -	2nd Street	C/D
CITY STREETS			
Cherry Avenue	- between -	2nd Street and 12th Street	(C)C
Walnut Avenue	- between -	2nd Street and 12th Street	(C)C
Apple Avenue	- between -	2nd Street and 12th Street	(C)C
Oak Avenue	- between -	11th Street and 12th Street	(C)C
Oak Avenue	- between -	2nd Street and 11th Street	(C)D
Elm Avenue	- between -	11th Street and 13th Street	(C)C
Elm Avenue	- between -	2nd Street and 11th Street	(C)D
13th Street	- between -	Elm Street and Cherry Avenue	(C)C
12th Street	- between -	Elm Street and Cherry Avenue	(C)C
10th Street	- between -	Elm Street and Cherry Avenue	(C)C
5th Street	- between -	Elm Avenue and Apple Avenue	(C)C
4th Street	- between -	Elm Avenue and Apple Avenue	(C)C
3rd Street	- between -	Elm Avenue and Pine Avenue	(C)D
2nd Street	- between -	Elm Avenue and Cherry Avenue	(C)C
El Camino Real	- between -	Walnut Avenue and Thorne Road	(C)C
El Camino Real	- between -	Elm Avenue and Walnut Avenue	(C)D
El Camino Real	- between -	Hwy 101 NB Overpass to Elm Avenue	(C)C

Table 3-8
LOS Standard for Intersections Studied

#	Intersection	LOS Criteria (Existing) GPBO
	STATE	
1	Hwy 101 NB On-Ramp and Livingston Road	C/D
2	El Camino Real and Hwy 101 SB Off-Ramp – Thorne Road	C/D
3	El Camino Real and Hwy 101 SB On-Ramp	C/D
4	Hwy 101 NB On-Ramp and Hwy 101 SB On-Ramp (El Camino north)	C/D
5	Hwy 101 SB Ramps and Walnut Avenue	C/D
6	Hwy 101 NB Ramps and Walnut Avenue	C/D
7	Hwy 101 SB Ramps and Oak Avenue	C/D
8	Hwy 101 NB Ramps and Oak Avenue	C/D
9	El Camino Real (S) and Hwy 101 NB – Espinosa Road Overpass	C/D
10	Hwy 101 NB Off-Ramp and Hwy 101 NB On-Ramp (S) – Patricia Lane	C/D
	CITY	
11	El Camino Real and Pine Avenue	(C)C
12	El Camino Real and Cherry Avenue	(C)C
13	El Camino Real and Walnut Avenue	(C)/D
14	El Camino Real and Apple Avenue	(C)/D
15	El Camino Real and Oak Avenue	(C)/D
16	El Camino Real and Elm Avenue	(C)/D
17	El Camino Real and Tyler Avenue	(C)C
18	12th Street and Oak Avenue	(C)C
19	12th Street and Elm Avenue	(C)C
20	2nd Street and Elm Avenue	(C)/D
21	4th Street and Elm Avenue	(C)/D
22	5th Street and Elm Avenue	(C)/D
23	3rd Street and Oak Avenue	(C)/D
24	4th Street and Oak Avenue	(C)/D
25	7th Street and Oak Avenue	(C)/D
27	12th Street and Walnut Avenue	(C)C
28	3rd Street and Apple Avenue	(C)/D
29	El Camino Real and Cypress Avenue	(C)C
30	3rd Street and Walnut Avenue	(C)/D
31	3rd Street and Elm Avenue	(C)/D
32	3rd Street and Cherry Avenue	(C)/D
33	3rd Street and Pine Avenue	(C)/D
34	12th Street and Pine Avenue	(C)C
35	12th Street and Thorne Avenue	(C)C
36	3rd Street and Palm Avenue	(C)/D

Note: For two-way stop controlled intersections, the LOS standard for the worst approach is E for existing and General Plan Buildout conditions.

Existing Traffic Conditions – Segment Analysis Results

The LOS for the study segments is determined by performing planning level analysis. This level of analysis uses the 2000 Highway Capacity Manual volume thresholds to determine the levels of service on segments. Appendix A of the Traffic Study in the Technical Appendix indicates the average daily traffic (ADT) volume thresholds for the LOS analysis. The results are summarized in **Table 3.9** and illustrated graphically on Exhibit 4 of the Traffic Study in the Technical Appendix. Appendix C in the Traffic Study in the Technical Appendix indicates the existing Right-of-Way (ROW) information. Traffic counts were conducted over the last few years for the various development projects within the City. The City has not experienced significant growth since the counts were conducted. The count data was used in the existing analysis.

Table 3-9
Existing Roadway Operations

Road Segment			Roadway Class Code	ADT Volume	LOS
STATE HIGHWAYS					
Highway 101	- north of -	Thorne Road	4F	27,000	B
Highway 101	- between -	Thorne Road and Walnut Avenue	4F	21,000	A
Highway 101	- between -	Walnut Avenue and Oak Avenue	4F	21,000	A
Highway 101	- between -	Oak Avenue and Espinosa Road Overpass	4F	20,200	A
Highway 101	- south of -	Espinosa Road Overpass	4F	22,000	A
COUNTY ROADS					
Thorne Road	- west of -	El Camino Real	2	970	A
CITY STREETS					
Pine Avenue	- between -	12th Street and El Camino Real	2	330	A
Pine Avenue	- between -	El Camino Real and Livingston Road	3	220	A
Walnut Avenue	- between -	10th Street and El Camino Real	2	3440	A
Walnut Avenue	- east of -	El Camino Real	3	5700	A
Walnut Avenue	- west of -	Hwy 101	3	4760	A
Walnut Avenue	- between -	Hwy 101 and 3rd Street	2	3800	A
Apple Avenue	- between -	3rd Street and 2nd Street	2	520	A
Oak Avenue	- between -	12th Street and El Camino Real	2	2610	A
Oak Avenue	- between -	El Camino Real and 7th Street	2	5190	A
Oak Avenue	- between -	7th Street and Hwy 101	2	5310	A
Oak Avenue	- between -	Hwy 101 and 3rd Street	2	1360	A
Elm Avenue	- between -	13th Street and 12th Street	2	1180	A
Elm Avenue	- between -	12th Street and 11th Street	2	2260	A
Elm Avenue	- between -	11th Street and El Camino Real	2	3880	A
Elm Avenue	- between -	El Camino Real and 7th Street	2	3880	A
Elm Avenue	- between -	7th Street and Hwy 101	2	2790	A
Elm Avenue	- between -	Hwy 101 and 3rd Street	2	2780	A
Elm Avenue	- between -	3rd Street and 2nd Street	2	560	A
12th Street	- north of -	Elm Avenue	2	1840	A

Road Segment			Roadway Class Code	ADT Volume	LOS
12th Street	- south of -	Oak Avenue	2	1940	A
12th Street	- between -	Oak Avenue and Walnut Avenue	2	2210	A
El Camino Real	- between -	Tyler Avenue and Elm Avenue	3	3740	A
El Camino Real	- between -	Elm Avenue and Maple Avenue	3	4260	A
El Camino Real	- between -	Maple Avenue and Oak Avenue	3	5070	A
El Camino Real	- between -	Oak Avenue and Palm Avenue	3	5870	A
El Camino Real	- between -	Palm Avenue and Apple Avenue	3	5900	A
El Camino Real	- north of -	Apple Avenue	3	6770	A
El Camino Real	- south of -	Walnut Avenue	3	6770	A
El Camino Real	- between -	Walnut Avenue and Reed Way	3	6070	A
El Camino Real	- between -	Reed Way and Cherry Avenue	3	5910	A
El Camino Real	- north of -	Cherry Avenue	2	5360	A
El Camino Real	- south of -	Pine Avenue	2	5230	A
El Camino Real	- north of -	Pine Avenue	2	4860	A
El Camino Real	- south of -	Cypress Avenue	2	4720	A
El Camino Real	- between -	Cypress Avenue and Thorne Road	2	5690	A
3rd Street	- south of -	Oak Avenue	2	1730	A
3rd Street	- between -	Oak Avenue and Palm Avenue	2	1040	A
3rd Street	- between -	Palm Avenue and Apple Avenue	2	1890	A
3rd Street	- north of -	Apple Avenue	2	1940	A

Notes: The indicated volume represents the maximum PM peak hourly two-way volume counted.
The Roadway Class is as per Appendix A.

The analysis indicates that all of the street segments operate at Levels of Service A which is better than the City's standard of C and thus no improvements are required.

Existing Traffic Conditions – Intersection Analysis Results

Traffix Version 7.6 software was utilized in evaluating the existing operational levels of service at the study intersections. Existing traffic volumes are indicated on Exhibit 4.2 of the Traffic Study in the Technical Appendix.

Intersections have been evaluated based on count data that is available for the time period from 2001 to 2003. HCM 2000 methodology was utilized to evaluate operations at these intersections and the results are indicated below. Only the PM peak hour was evaluated for the Circulation Element Update because the highest travel demand occurs during this period. Refer to Exhibit 5.1 Traffic Study in the Technical Appendix for a summary of the intersection analysis results and Appendix B in the Traffic Study in the Technical Appendix for Existing Conditions LOS calculation sheets. Exhibit 5.2 in the Traffic Study in the Technical Appendix indicates the Existing Conditions LOS graphically. The results of the analysis are as follows.

The two-way stop intersection of Hwy 101 NB On-Ramp / Livingston Road operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of El Camino Real / Hwy 101 SB Off-Ramp – Thorne Road operates at LOS A during the PM peak

hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of El Camino Real / Hwy 101 SB On-Ramp operates at LOS B during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of Hwy 101 NB On-Ramp / Hwy 101 SB On-Ramp (at El Camino) operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of Hwy 101 SB Ramps / Walnut Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of Hwy 101 NB Ramps / Walnut Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of Hwy 101 SB Ramps / Oak Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of Hwy 101 NB Ramps / Oak Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of El Camino Real / Hwy 101 NB Overpass operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of Hwy 101 NB Off-Ramp / Hwy 101 NB On-Ramp – Patricia operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of El Camino Real / Pine Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of El Camino Real / Cherry Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of El Camino Real / Walnut Avenue operates at LOS B during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of El Camino Real / Apple Avenue operates at LOS B during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of El Camino Real / Oak Avenue operates at LOS B during the PM peak hour, thus with an LOS standard of D no mitigation is required.

The all-way stop intersection of El Camino Real / Elm Avenue operates at LOS B during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of El Camino Real / Tyler Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of 12th Street / Oak Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of 12th Street / Elm Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of 2nd Street / Elm Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The one-way stop intersection of 4th Street / Elm Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of 5th Street / Elm Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of 3rd Street / Oak Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of 4th Street / Oak Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of 7th Street / Oak Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The all-way stop intersection of 12th Street / Walnut Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of 3rd Street / Apple Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

The two-way stop intersection of El Camino Real / Cypress Avenue operates at LOS A during the PM peak hour, thus with an LOS standard of C no mitigation is required.

Existing Traffic Conditions – Mitigation for Segments

The analysis results indicate that none of the roadway segments analyzed operates at unacceptable levels of service and no deficiencies exist. Thus no mitigation is required for the segments for the Existing Conditions.

Existing Traffic Conditions – Mitigation for Intersections

The analysis results indicate that none of the intersections analyzed operates at an unacceptable level of service and no deficiencies exist. Thus no mitigation is required at the intersections for the Existing Conditions.

Existing Transit and Non-motorized Transportation

Existing transit services include the public Monterey Salinas Transit District service and private services by Greenfield Autolift and Greyhound.

Public Transit Service

The Monterey-Salinas Transit (MST) District provides transit services to the greater Salinas and Monterey areas plus routes to Carmel Valley, North County, and South County. Route 23 serves King City with stopovers in Chualar, Gonzales, Soledad, and Greenfield. The service is provided on weekdays and Saturdays and the schedule is the same for all the days. The route continues along Highway 101 and exists from the freeway into each city. Within the City of Greenfield, the route exits the freeway at Walnut Avenue, proceeds west on Walnut to El Camino Real and turns left on El Camino Real where the bus stop is located. The route proceeds south on El Camino Real to Highway 101 and further south to King City and the service is provided at 3 hour intervals or five services per day. For the northbound, the route follows the reverse order. The first southbound stop in Greenfield is at 9:00 AM and the first northbound stop is at 6:29 AM on both weekdays and Saturdays. The last southbound stop is at 6:50 PM and the last northbound stop is at 7:47 PM.

Route 23 information is available on the Monterey-Salinas Transit website as follows:

http://www.mst.org/routes/23/1_new_route_23.html

Other transit services in Greenfield are provided by Greenfield Autolift, a demand responsive system for intra city trips, rural rides, and Greyhound lines for inter-city trips.

Bike Lanes

Greenfield does not have a Bikeway Master Plan. The City does however adopt the Caltrans description for bikeways (i.e., bicycle facilities) for bicycle facilities in the city. Types of bikeways are described by Caltrans in the Highway Design Manual as follows:

- Class I Bikeway - Referred to as a "bike path" or "multi-use trail". Provides for bicycle travel on a paved ROW completely separated from any street or highway.
- Class II Bikeway - Referred to as a "bike lane". Provides striped lane for one-way travel on a street or highway.
- Class III Bikeway – Referred to as a "bike route". Provides for shared use with pedestrians or motor vehicle traffic and is identified only by signing.

Bike lanes are provided on both sides of El Camino Real between Walnut and Elm Avenues. The remaining sections of El Camino Real are designated as Bike Routes in the General Plan. However, no signing or striping is provided. A new bike plan is being established as part of the General Plan update as a separate document. Cognizance was taken of the provision of bike lanes in the street classification in this report.

Pedestrian Facilities

Pedestrian Facilities in Greenfield include sidewalks and crosswalks. Sidewalks are constructed along El Camino Real and the majority of collector streets. Crosswalks are provided at all intersections along El Camino Real south of Cherry. Additionally, four mid-block crosswalks are provided at various locations on El Camino Real between Apple and Elm Avenues as well as on Oak Avenue between El Camino Real and Ninth Street.

Parking

Parking is permitted on most streets in the City. Additional off-street parking facilities are provided by the private developments based on the off-street parking requirements set forth in the Zoning Ordinance. No public off-street facility is currently available in the City.

Certain sections of El Camino Real and Oak Avenue allow diagonal parking. The advantages of this type of configuration are the proximity of the parked vehicles to their destination of choice and the increased on street capacity. The disadvantages of diagonal parking are the space required (width of the street) and safety concerns as outgoing parking maneuvers may conflict with through traffic. Given the low volumes forecasted on El Camino Real, the only argument for replacing the diagonal parking is a safety versus capacity issue. As the speed limit is very low (25 MPH) and no significant off street parking lots exist, it is not recommended to remove the diagonal parking.