COVER PAGE

CHAPTER 4: Transportation

Chapter 4—Transportation

How will the plan accommodate regional traffic demands and the need to connect locally to UC Merced and Downtown Merced? How will all forms of mobility be provided for in the plan area? Over the life of the plan, when and what type of road improvements will occur? What is the role of Bellevue Road as a segment of the regional loop road?

4.1 Introduction ..... 4-__
4.1.1 Regional and Local Mobility Connections ..... 4-__

4.2 Setting ..... 4-__
4.2.1 Mobility Options in the Planning Area ..... 4-__
4.2.2 Community-wide Transit Planning ..... 4-__
4.2.3 Regional Circulation Systems ..... 4-__
4.2.4 Circulation links to UC Merced and the University Community ..... 4-__

4.3 Issues and Intent ..... 4-__
4.3.1 Functional Street Network ..... 4-__
4.3.2 Transit Planning ..... 4-__
4.3.3 Bicycle Transportation Planning and Facilities ..... 4-__
4.3.4 Pedestrian Facilities and Environment ..... 4-__
4.3.5 Planning for Rail ..... 4-__
4.3.6 Phased Circulation Improvements ..... 4-__
4.3.7 Plan Area Road Cross-Sections ..... 4-__

4.4 Consistency with the *Merced Vision 2030 General Plan* ..... 4-__
4.4.1 Streets and Roads ..... 4-__
4.4.2 Bikes, Pedestrians and Public Transit ..... 4-__

4.5 *Bellevue Community Plan* Goals, Policies and Actions ..... 4-__

4.6 Bibliography ..... 4-__

4.1 Introduction

INTRODUCTION

4.1.1 Regional and Local Mobility Connections

REGIONAL CONNECTIONS

CONNECTING DOWNTOWN WITH UC MERCED AND THE CAMPUS COMMUNITY

4.2 Setting

INTRODUCTION

4.2.1 Mobility Options in the Planning Area

4.2.2 Community-wide Transit Planning

4.2.3 Regional Circulation Systems

4.2.4 Circulation Links to UC Merced and the University Community

4.3 Issues and Intent

INTRODUCTION

4.3.1 Functional Street Network

FUNCTIONAL CIRCULATION PLAN

Plan Area Arterial Streets

Provide Multiple Streets to Local Destinations

Support Development of Area Expressways

Seek and Evaluate Collector Street Design Options

PLAN LINES

Protect Right-of Way for Future Users

BELLEVUE ROAD

Design Guidelines

GARDNER ROAD

CARDELLA ROAD

MANDEVILLE ROAD

4.3.2 Transit Planning

TRANSIT PRIORITY PROJECTS

CREATING TRANSIT READY DEVELOPMENTS

Avoid Designs that Require Transit Passengers to Cross Major Streets

Promote Land Use Patterns and Site Designs that Support use of Public Transit

TRANSIT CORRIDORS

M Street Transit Corridor

Connecting UC Merced to the Community

TRANSIT STATIONS

Bellevue Ranch

UC Merced

4.3.3 Bicycle Transportation Planning and Facilities

Coordinate Bike Planning and Construction with UCM and Merced County

Develop Bikeways and Trails along Open Space Corridors

Site Bikeways along Canal Easements

Connect Bikeways within Greenways Connecting Parks and Schools

Link the City Bikeway System to the Lake Road bike path

Explore Provision of Unpaved Trails in Rural Residential Areas

Design Bike Paths using Crime Prevention through Design

4.3.4 Pedestrian Facilities and Environment

INNOVATION HUB

4.3.5 Planning for Rail

HIGH SPEED RAIL STATION

4.3.6 Phased Circulation Improvements

SHORT AND LONG-TERM ROAD IMPROVEMENTS

Lake Road

Bellevue Road

4.3.7 Unique Road Cross-Sections in the Planning Area

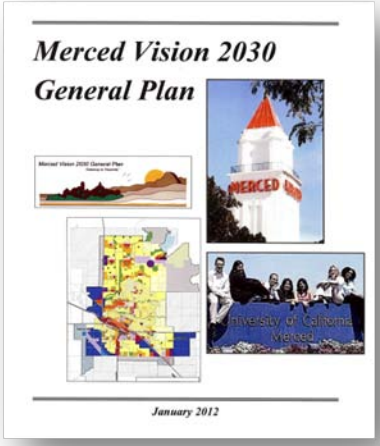
Bellevue Road and Lake Road

Bellevue Road

Mandeville Road

4.4 Consistency with the *Merced Vision 2030 General Plan*

INTRODUCTION



To assure that the Bellevue Community Plan was crafted in a manner consistent with the *Merced Vision 2030 General Plan*, this section describes how General Plan policies and implementing actions were utilized to develop and implement the "Transportation" Chapter of the BCP.

For ease of reference, many BCP applicable Transportation-related General Plan policies and implementing actions are listed here. These may be applicable for various reasons:

- guided the crafting of the Bellevue Community Plan (BCP);
- guide design of future development projects; and
- formed the foundation upon which new policies were written to apply specifically to the BCP. Where used to develop policies for the BCP, a brief discussion is added to explain the relevance of the BCP planning area to the policy.

Use of the *Merced Vision 2030 General Plan* goals and policies in this manner assures that the Community Plan is consistent with the City's General Plan.

Subject areas include:

- Streets and Road
- Bikes, Pedestrians and Public Transit

4.4.1 Streets and Roads

Transportation Policy T- 1.1

It is extremely important to coordinate circulation and land use planning. Street systems are intended to move motor vehicles but streets also are expected to provide access to nearby land uses. Smaller streets called upon to carry heavy traffic to major activity centers can create large circulation problems. Large streets carrying heavy traffic through residential or other sensitive land use areas can create significant conflicts. For these reasons, **Transportation Policy T- 1.1** of the *Merced Vision 2030 General Plan* spotlights the need to ***Design Streets Consistent with Circulation Function, Affected Land Uses, and All Modes of Transportation.*** Implementing actions include:

Implement the City's Street Functional Circulation Plan

Implementing Action T-1.1.b of the *Merced Vision 2030 General Plan* states, **"Whenever feasible, implement a system of arterials and higher order streets in new growth areas based upon the adopted concept of arterials/expressways and ensuring the development of "complete streets" which address all modes of transportation."** The adopted concept of arterials/expressways is designed to carefully separate streets by circulation function, and locate land uses consistent with these functions. All streets should be designed as "Complete Streets" which address all modes of motorized and non-motorized transportation, including vehicles, transit, pedestrians, and bicycles.

Seek and Evaluate Collector Street Design Options

Implementing Action T-1.1.d of the *Merced Vision 2030 General Plan* states, **"Design and build residential collector streets that balance as effectively as possible competing needs to be safe and efficient."** The community needs to continue to seek and evaluate design options and other ways that might help to reconcile the competing functions of residential collector streets (to be safe for local neighborhood residents while being reasonably efficient traffic carriers). The City also needs to distinguish collector streets ("Major Collectors") that, because of certain characteristics, are likely as time passes to experience increasing traffic pressures and impacts on adjacent residential settings.

Transportation Policy T-1.2

Traffic-related problems including significant concerns over air quality in the Great Central Valley have helped to forge requirements for more and more inter-governmental cooperation and planning, often tied to prospective State and Federal funding. The City needs to remain active in these efforts, while also periodically reviewing its position within these procedures. For these reasons, **Transportation Policy T-1.2** of the *Merced Vision 2030 General Plan* spotlights the need to ***Coordinate Circulation and Transportation Planning with Pertinent Regional, State and Federal Agencies.*** Implementing actions include:

Protect Right-of Way for Future Users

Implementing Action T-1.2.c of the *Merced Vision 2030 General Plan* states, **"Identify a hierarchy pattern of major streets within the City's General Plan and Sphere of Influence areas, and work with the County of Merced and Caltrans to retain unimpeded future rights-of-way to accommodate the current general plan period and projected future growth."** It is extremely important that prospective right-of-ways (ROW's) be

protected from permanent development whenever feasible, not only within the City and in its immediate growth areas but also in areas projected for longer term growth. This will benefit both City and County, in terms of reduced costs as well as potential efficiencies to be gained from sufficient roadways.

Support Development of Area Expressways

Implementing Action T-1.2.d of the *Merced Vision 2030 General Plan* states, **"Continue to work with the County and Caltrans to implement the Campus Parkway and the Merced-Atwater Expressway projects as high priorities to serve the northern growth area."**

Bellevue Road will become an important link with the expressways planned to the west and east. Planning for the Campus Parkway corridor began in the late 1990's when the concept of an "Eastern Beltway" to serve the City's northern growth area was conceived. With the location of the UC Merced campus in the Lake Yosemite area, the concept evolved into the Campus Parkway. The Atwater-Merced Expressway will provide a more cost-effective access to SR-99 and provide additional north-south roadway capacity within the Atwater and Merced, Castle Airport Development Center and the United States Penitentiary located in unincorporated portions of northern Merced County. Via its connection with Bellevue Road, the AME will connect east to the University of California at Merced.

Transportation Policy T-1.3

Every intersecting street, as well as every curb cut, that allows vehicles to interrupt the traffic flow, either by slowing down to exit or by entering the road, affects both the speed and number of peak-hour vehicles the roadway can accommodate. For these reasons, **Transportation Policy T-1.3** of the *Merced Vision 2030 General Plan* spotlights the need to ***Design Major Roads to Maximize Efficiency and Accessibility.*** Implementing actions include:

Adhere to Street Spacing Standards to Provide Smooth Traffic Flow

Implementing Action T-1.3.a of the *Merced Vision 2030 General Plan* states, "**Adhere, to the greatest possible extent, to the standards adopted for spacing streets that intersect arterials and higher order roadways as outlined in Table 4.2."** The locations at which streets intersect a major roadway, and the spacing or distance between such intersecting streets, are important factors affecting how well the major road fulfills its traffic carrying responsibility. The growth of traffic over time, along with accompanying disruptions such as increasing numbers of vehicle accidents, can significantly affect the efficiency of intersections.

Transportation Policy T- 1.5

Traditional circulation patterns often tend to make it inconvenient for a driver to make a neighborhood or other local trip without getting onto a major street. It is important to have a circulation system that provides the flexibility to allow neighborhood and other trips on local roads, while encouraging non-local trips to use the major road system. For these reasons, **Transportation Policy T- 1.5** of the *Merced Vision 2030 General Plan* spotlights the need to ***Minimize Unnecessary Travel Demand on Major Streets and Promote Energy Conservation.*** Implementing actions include:

Provide Multiple Streets to Local Destinations

Implementing Action T-1.5.a of the *Merced Vision 2030 General Plan* states, **"Encourage design of local and collector streets within Villages/Neighborhoods to provide multiple, reasonably direct routes to local neighborhood destinations."** It is important to build flexibility into neighborhood circulation for reaching local destinations. At the same time, it is important to provide the opportunity for a local driver to reach the nearest major (arterial) road directly and quickly, if the destination is more distant.

Promote Transportation System Management Strategies

Implementing Action T-1.8.d of the *Merced Vision 2030 General Plan* states, **"Promote Transportation System Management (TSM) strategies in areas where LOS standards fall below the minimum."** Traffic signal timing or coordination, additional lanes at intersections, transit service enhancements, parking management and traffic management are all examples of transportation system management strategies which can be expected to be used in the future. Ridesharing programs, preferential treatment for High Occupancy Vehicles (HOV's), Park-and-Ride lots, one-way streets, the provision of bicycle facilities, and the promotion of variable work hours and telecommuting are also strategies which will be promoted by the City of Merced.

4.4.2 Bikes, Pedestrians and Public Transit

Transportation Policy T-2.1

The City is fortunate to have a central corridor, containing many of the major land use destinations within the urban area, aligned in general proximity to the length of "M" Street. These destinations would be convenient to a primary transit route on this roadway, and additional urban area destinations would be convenient to secondary or connecting routes on roads perpendicular to "M." In addition, Bellevue Road/the Merced-Atwater Expressway and the Campus Parkway could provide connections to the "M" Street transitway, as well as a potential for future connections to regional facilities. For these reasons, **Transportation Policy T-2.1** of the *Merced Vision 2030 General Plan* spotlights the need to ***Provide for and Maintain a Major Transitway Along "M" Street and Possibly Along the Bellevue Road/Merced-Atwater Expressway and Campus Parkway corridors.*** Implementing actions include:

Avoid Negative Impacts to Function of Transit Corridors

Implementing Action T-2.1.c of the *Merced Vision 2030 General Plan* states, "**Continue to review land use decisions in the vicinity of "M" Street and Bellevue Road to avoid creating or increasing conflicts with the proposed future major commercial and office park sites at the major transfer point between designated transitway corridors."** The prospective intersection of Bellevue Road and the future "M" Street (extended) is also the intersection of two transitway corridors designated on the Circulation Plan. The "M" Street Transitway is projected to run the entire north-south length of the City, while the prospective Bellevue Road/Merced-Atwater Expressway Transitway would tie the "M" Street Transitway eastward towards the University of California (UC) campus (and possibly westward to the potential regional job center at Castle Airport).

Implementing Action T-2.1.f of the *Merced Vision 2030 General Plan* states, "**Work cooperatively with Merced County and other interested agencies to review and evaluate development proposals in the vicinity of Bellevue Road that might conflict with the prospective Bellevue Transitway."** Bellevue Road is designated as both an "Arterial" and a "Transitway" on this General Plan's Circulation Map. It will be important to obtain full

regional cooperation to protect the future right-of-way (ROW) for this corridor, and to mitigate prospective impacts from any development projects upon these potential functions of this major roadway.

Plan for a Transit Corridor to UC Merced

Implementing Action T-2.1.d of the *Merced Vision 2030 General Plan* states, **"Cooperate with Merced County and other interested agencies outside the City to maintain a viable option for a Bellevue Road Transitway to provide regional public transit access to the University of California (UC) campus."** The Bellevue Road Transitway Corridor concept needs to be considered as part of any cooperative planning process for the future University of California (UC) campus and its environs. The Bellevue Corridor and other important corridors should be designed using the "Complete Streets" concept, which emphasizes use of all forms of transportation on streets, including automobiles, pedestrians, bicycles, and public transit.

Transportation Policy T-2.2

Continue to cooperate with MCAG and other interested administrations and agencies to develop ways and seek methods for making public transit more successful in the Merced area. For these reasons, **Transportation Policy T-2.2** of the *Merced Vision 2030 General Plan* spotlights the need to ***Support and Enhance the Use of Public Transit.*** Implementing actions include:

Promote Land Use Patterns and Site Designs that Support use of Public Transit

Implementing Action T-2.2a of the *Merced Vision 2030 General Plan* states, "**Promote land development patterns and site design criteria that support and enhance the use of public transit."** As Merced grows and as other factors change, it is more than likely that the use of public transit will increase. It is important for the City, with Merced County Transit, to carefully evaluate how it can most effectively plan for this expanded demand before it happens.

Provide Convenient Access to Transit

Implementing Action T-2.2c of the *Merced Vision 2030 General Plan* states, "**Whenever feasible, avoid creating barriers that prevent convenient access to current or prospective public transit routes."** It is important for residents to be able to reach the closest public transit route as directly and easily as possible. The more difficult it is for riders to reach a transit route, because of unnecessary or ill-conceived barriers, the more difficult it will be for public transit to serve the population effectively.

Transportation Policy T-2.3

Cost effective, efficient public transportation is important in any effort to provide a level of service necessary to attract increasing public ridership. For these reasons, **Transportation Policy T-2.3** of the *Merced Vision 2030 General Plan* spotlights the need to ***Support a Safe and Effective Public Transit System.*** Implementing actions include:

Planning for Transit Use near UC Merced

Implementing Action T-2.3a of the *Merced Vision 2030 General Plan* states, "**Include public transportation access in the review process for major public and private development projects, as well as all significant land use design proposals considered by the City."** In view of the urban area's growth potential, including future additions to the University of California (UC) which will no doubt add to the demand for public transit, it is important for public transportation management to take a long range view of how land and site planning can possibly affect future public transit options. The City will work with Merced County Transit on this endeavor.

Avoid Designs that Require Transit Passengers to Cross Major Streets

Implementing Action T-2.3c of the *Merced Vision 2030 General Plan* states, "**Avoid whenever possible public transportation transfer points that force passengers to cross major vehicle routes on foot."**

Transportation Policy T-2.6

The City of Merced and Merced County have cooperated to develop an impressive regional bicycle system in the Merced/Lake Yosemite area. This has helped to place this area in a position to attract major cycling events. The bicycle system is also an important community and regional recreational asset. In addition, location of the University of California (UC) in proximity to Lake Yosemite will make an attractive and usable regional system much more useful and valuable. For these reasons, **Transportation Policy T-2.6** of the *Merced Vision 2030 General Plan* spotlights the need to ***Maintain and Expand the Community's Existing Bicycle Circulation System.*** Implementing actions include:

Coordinate Bike Planning and Construction with UCM and Merced County

Implementing Action T-2.6a of the *Merced Vision 2030 General Plan* states, "**Continue to coordinate implementation and planning of the Merced Bicycle Master Plan with the County of Merced and the University of California."** The City and County have a tradition of working together on off-road bicycle/pedestrian trails, as evidenced by the existing regional trail system tying together Merced and a significant portion of the greater urban area, including Lake Yosemite. A UC study suggested that bicycle usage is significant at all UC campuses for student commutes up to 5 miles, about the distance from Merced to the campus. Coordinating bicycle planning with the University is, therefore, critical, and should be incorporated into the development of the University's Long Range Development Plan, the University Community Plan, the Regional Bike Plan, and Merced Bicycle Plan.

4.5 Bellevue Community Plan Goals, Policies and Actions

INTRODUCTION

Consistent with the *Merced Vision 2030 General Plan*, the goals of this BCP chapter are grouped into two areas as follows. This approach fosters consistency and builds on the City's broader General Plan guidance; these subjects include:

- ***Goal Area T 1:*** Streets and Roads; and
- ***Goal Area T-2:*** Bicycles, Pedestrians, and Public Transit

Policies and Implementing Actions specific to the BCP planning area are set forth in the Tables below:

Goal Area T-1: Streets and Roads

GOAL

- C_____

POLICIES

UE-1.1 E_____

UE-1.2 P_____

Policy UE-1.1
E_____

Implementing Actions:

1.1.a P-----

1.1.b T------

1.1.c A--------

1.1.d W-------

Goal Area T-2: Bicycles, Pedestrians, and Public Transit

GOAL

- C_____

POLICIES

UE-1.1 E_____

UE-1.2 P_____

Policy UE-1.1
E_____

Implementing Actions:

1.1.a

1.1.b

1.1.c .

1.1.d W-------

4.6 Bibliography

1. *Merced Vision 2030 General Plan*
2.
3.
4.
5.